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MARINA DE GUERRA DEL PERU
Sistema de Bibliotecas

NOTICIAS PERIODISTICAS SOBRE LA GUERRA DEL PACIFICO

2 1.- **PUBLICACIONES HECHAS EN EL DIARIO DE LA NACION DE GUAYAQUIL 1883 - 1884**
en español
Recopilación publicada en 1884 en Guayaquil
[Imprenta de la nación]

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1 2.- **ARTICULOS PERIODISTICOS APARECIDOS EN VARIOS PERIODICOS ALREDEDOR DEL MUNDO Y DEL PERU**
Desde 1877
en inglés y algunas en español
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la noche de Grau

EL

NEW YORK "HERALD"

La Guerra del Pacífico

PUBLICACIONES HECHAS

En el Diario La Nación de Guayaquil

AÑOS 1883 Y 84

GUAYAQUIL

Imp de "La Nación," Calle de la Municipalidad, Número 11

1884

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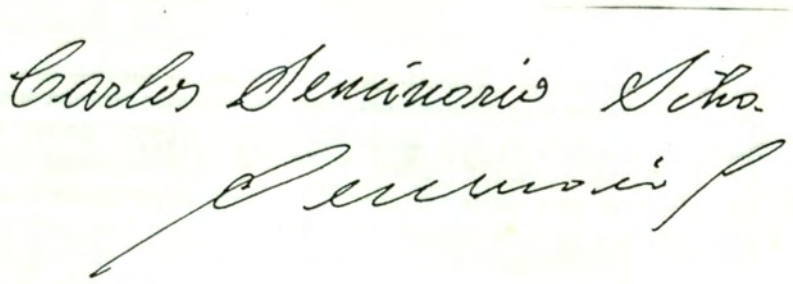

El « NEW-YORK HERALD », que es, como se sabe, uno de los más importantes diarios de la prensa de los Estados Unidos, ha publicado una serie de cartas, fechadas en Lima y escritas por un corresponsal especial, que envió al Perú y Chile.

Las correspondencias han llamado vivamente la atencion de los lectores, no sólo de los países beligerantes en la Guerra del Pacífico, sinó tambien, del resto de América y Europa.

El corresponsal ha manifestado en sus cartas, una habilidad e ilustracion que le honran.

Es de admirar que le haya bastado tan corto tiempo, para posesionarse de los sucesos de que trata.

Se ha formado un juicio casi completo de los diversos hechos de la guerra, de sus antecedentes, de los hombres que figuraron en ella; de la situacion y elementos de todos y cada uno de los beligerantes, y, en fin, hasta de los propósitos del vencedor.

Todo lo ha sabido apreciar y prever: — es un político, con toda la perspicacia y vivacidad propias del *reporter*.

« *La Nacion* », que así lo comprende, ha creido de su deber traducir, publicar y compilar las cartas del citado corresponsal, en este folleto.

Pero así como hemos manifestado nuestra franca y sincera opinion acerca de las cualidades del corresponsal del *Herald*, bajo el punto de vista que dejamos expuesto, preciso es confesar, tambien, que ha sido poco o nada acertado, en algunos de sus juicios sobre el señor García Calderon.

Es, desde luego, disculpable, pôrque no ha tenido ocasion ni tiempo para obtener aquellos datos en fuentes autorizadas y, sobre todo, imparciales.

Su mentor parece haber sido Mr. Logan, y bien se comprende que dicho caballero, no podia proporcionárselos desapasionadamente.

El punible confinamiento en que tiene el Gobierno de Chile al señor García Calderon, ha sido, y es, la causa por la que hasta hoy no haya podido defenderse de tales acusaciones, pero esperamos que no esté léjos ese dia.

Miéntras tanto, ofrecemos aquí, la traduccion de las correspondencias del *New-York Herald*, a las que hemos añadido las notas que aparecen en las páginas 65, 92, 93 y 94, y una ligera refutacion que se publicó en las columnas de nuestro diario.

LOS EDITORES.

PRENSA AMERICANA.

"NEW-YORK HERALD" DEL 7 DE SETIEMBRE DE 1883.

La Guerra Sud-Americana.

ENTREVISTA CON EL VICE-ALMIRANTE LYNCH, COMANDANTE EN JEFE DEL EJERCITO CHILENO EN EL PERU.

IGLESIAS y HUAMACHUCO.

" Estamos decididos a llegar a una paz inmediata aunque sea decretada."

RUINA DEL PORVENIR DEL PERU.

EL PROTOCOLO NOVOA-LAVALLE Y LA DEUDA PERUANA.

CARTA DEL SR. MALINOWSKI.

Llamamiento a Pascal Duprat, el ministro frances en Chile, para una intervencion europea.

LA DOCTRINA DE MONROE.

La conducta de Estados Unidos, denunciada como impotente y despreciable.

De nuestro corresponsal, Lima, Agosto 13 de 1883.

Los dos principales representantes del gobierno chileno en el Perú son: don Patricio Lynch y don Jovino Novoa.

VICE-ALMIRANTE LYNCH.

Figura como el primero a la cabeza de la marina chilena, con el bien adquirido rango de Vice-almirante, en el que ha tenido cuatro antecesores, desde la época en que se independizó Chile de España.—Lord Cochrane, Blanco Encalada, Simpson y Bynon. Es el primer chileno que ha obtenido este grado; Lord Cochrane, era escocés; Blanco, nació en Buenos Ayres, y Simpson y Bynon eran ingleses de nacimiento. Fué despues de la muerte de Bynon, (que murió sólo la semana pasada, a una edad muy avanzada, habia servido bajo el mando de Cochrane) que el contra-almirante Lynch quedó promovido a la vacante y confirmado su nombramiento por el voto unánime del Senado.

Además de este título, es tambien General en Jefe del ejército chileno, que ocupa todas las provincias de la costa del Perú, al norte de la de Moquegua y del que opera en el interior. Estos militares anfibios, no son raros en la historia militar de Sud-América.—Entre muchos ejemplos tenemos el del mismo Blanco, que dirigió la artillería del ejército revolucionario, bajo las órdenes de San Martin, en la famosa batatalla de Maypo, en 1818—el Yorcktown, de la independencia chilena; y en 1837 mandaba como jefe, la expedicion naval y militar que envió Chile durante la segunda presidencia de don Joaquin Prieto, contra Santa Cruz, presidente de la confederacion Perú-Bolivians; el contra-almirante Lizardo Montero, que fué nombrado al'man-

do de la armada peruana en 1874, por el Presidente Pardo (!) y es actualmente el Vice-presidente, y encabeza el Gobierno peruano en Arequipa, mandaba el ala derecha del ejército peruano-boliviano, en la sangrienta batalla de Tacna, que fué ganada por los chilenos, bajo el mando del General Baquedano, el 26 de Mayo de 1880.

En la batalla de Chorrillos, en frente de Lima, el 13 de Enero de 1881, el almirante Montero servía en calidad de ayudante del Dictador Piérola, y el almirante Lynch, dirigia el ala izquierda del ejército chileno, que asaltó el Morro-Solar que defendia don Miguel Iglesias, el actual Jefe del Gobierno rival de Cajamarca. Iglesias fué llevado a presencia de Lynch, en calidad de prisionero, cubierto de polvo y de sangre, y creo que ésta fué la única vez en que los dos se vieron.

Ministro Novoa.

Mientras que Lynch ha sido toda su vida militar y marino, don Jovino Novoa fué siempre miembro de esa corporacion de abogados, que ha tenido en sus manos el supremo gobierno de Chile, durante medio siglo, con excepcion de unos pocos años. Juez del crímen al principio en Valparaiso, entró despues en el servicio administrativo y llegó hace 20 años, a ser Ministro de Hacienda, puesto que desempeñó con buen crédito.

Ahora está colocado por su Gobierno al lado de Lynch, a la manera que acostumbraban poner los gobernantes franceses, agentes civiles al lado de los generales del ejército republicano, en el siglo pasado. Esto llevaria alguna semejanza con la de Gauvain y Cimourdain, en la *Année Terrible* de Victor Hugo, si el señor Novoa tuviera toda la autoridad que ambiciona.

Su título es el de Ministro Plenipotenciario Especial, cerca del Beligerante. Los peruanos, lo mismo que los extranjeros residentes en el Perú, lo acusan, y creo que con razon, de agravar y aun de provocar los rigores de la Administracion Chilena en la Capital y en la costa, miéntras que su colega militar ha tratado al contrario de mitigarlos.

El Palacio de los Vireyes.

Durante los 2 últimos años, esos dos administradores, el militar y el civil, han ocupado como Cuartel General comun, el antiguo Palacio de los Vireyes españoles, situado en el lado norte de la Plaza de Armas de Lima. Es un edificio extenso, irregular, sin carácter, de varias clases de arquitectura y diversas épocas; siendo una parte del tiempo de Francisco Pizarro —Allí fué él asesinado y su esqueleto (apócrifo) (!) se enseñaba libremente en los sótanos de la vecina Catedral, hasta que el anciano y obstinado Arzobispo de Lima, impuso algunas trabas, por temor de que los chilenos se llevaran los huesos, como trofeo de guerra, lo mismo que se llevaron otros muchos objetos de curiosidad; no obstante que los antropologistas que examinaron el cráneo, declaran que éles de un indio Inca y que la pérdida no sería tan importante para el Perú, como la de otros muchos objetos que fueron llevados a Santiago y los ostentan allí sin sentir vergüenza.

Astuta observacion del Ministro Aldunate.

Hace pocos meses, no mas, que se atribuyó al señor don Luis Aldunate, el jóven y hábil Ministro de R. E. en el gabinete del Presidente Santa María, una observacion cáustica respecto a las probabilidades de un pronto arreglo de paz, entre Chile y el Perú, que hizo en una conversacion en Santiago. Dijo que no conocia, entre los chilenos que toman parte en la administracion del país conquistado, sinó a dos que estaban sinceramente ansiosos por la paz: "el uno era Lynch y el otro Novoa". Puede ser que respecto a la horda de empleados civiles chilenos que están percibiendo los derechos municipales o de Aduana, haya tenido presente el señor Aldunate, que pocos de ellos son de mucha capacidad y que difícilmente podrian ganar en su país, lo que obtienen en el Perú, que consiguen cincuenta o setenta y cinco por ciento más de lo que se paga en Chile por iguales colocaciones y que estarán apurados para conseguir empleos cuando cesen sus actuales ocupaciones.

Y puede ser, que respecto a los quince mil hombres que Chile mantiene al norte de Arica, haya tenido presente el señor Aldunate, el hecho, de que se les dá "gratificaciones" votadas con liberalidad, en adicion a la paga ordinaria; que el servicio en guarniciones, es agradable; que las expediciones al interior, tan duras (como la última contra Cáceres) a las que el almirante Lynch les obliga a veces, no son de frecuente ocurrencia; que se les ha tolerado, si no se les ha animado, a formar relaciones sociales con las clases bajas, con las que se contententan y que segun estadísticas que quieren dar por semi-oficiales, (que un oficial chileno de alta graduacion me ha citado) más de nueve mil niños de padres chilenos y de madre peruanas (!), han nacido des-

de que el General Baquedano entró a Lima el 17 de Enero de 1881.

Sea lo que sea, lo cierto es que el señor Aldunate hizo esa observacion, que tiene un fondo de seriedad bajo una forma jocosa.

Esta observacion es muy sagaz y hoy es tan exacta como cuando fué hecha. Pero en el intervalo trascurrido desde que la hizo, las probalidades de paz han aumentado, ciertamente, y ella vá acercándose con más rapidez que nunca, desde el tiempo en que el General Hurlbut galvanizó el Gobierno de García Calderon, con una activa vitalidad. Admitiendo que el almirante Lynch y el ministro Novoa son solidarios en sus deseos, el rápido progreso para acercarse a la paz, apesar de tantos obstáculos, les acredita su talento. Cualquier honor en el modo de ver chileno, que resulte de las negociaciones del protocolo con el señor Lavalle (representante diplomático del General Iglesias) con el señor Novoa, en términos que en muchos puntos son más ventajosos para Chile, de lo que cualquier hombre público del Perú hubiese consentido ántes, este honor pertenece a este último, y el almirante Lynch en caso que no tenga mucha fé en el resultado, ha apoyado el proyecto de acuerdo con raro talento militar. A él y exclusivamente a él, es debido el plan de la brillante campaña que terminó con la derrota de Cáceres el 2 de Vice Presidente y General en Jefe del ejército del gobierno de Calderon-Montero, el 10 de Julio, en Huamachuco.

Miéntras que la mayoría de los jefes chilenos opinaba, que Cáceres se esforzaría en abrirse camino para el Sur, despues de haber sido rechazado en la línea del ferro carril de la Oroya, el Almirante Lynch sostuvo lo contrario, y reforzando la columna del Coronel Gorostiaga en el Norte, hizo posible el triunfo que indujo el asentimiento de los pierolistas a la presidencia de Iglesias y que desorganizó el partido de Calderon-Montero

Los partidos políticos del Perú.

Para mejor comprender el efecto político de la batalla de Huamachuco, es preciso dar algunas esplicaciones sobre los partidos políticos del Perú. Sin entrar en detalles, que serian tan incomprensibles para un lector americano, como lo seria esplicar los partidos de los Estados Unidos a un chileno o a un peruano, hay en el Perú dos grandes partidos políticos: los *civilistas* o constitucionales, predominantes en Lima y que comprenden la mayoría de las clases altas de la sociedad y el partido *nacional* o pierolistas, que predomina en las clases inferiores y tambien en el clero.

En la revolucion que tuvo lugar despues de la huida del Presidente Prado, en Diciembre de 1879, despues que los chilenos habian capturado el "Huáscar", conseguido la supremacía en el mar y concluido su feliz campaña de Tarapacá; este último partido tomó la supremacia; la Constitucion fué desconocida y Piérola hecho Dictador. En la reaccion que siguió a la pérdida de las batallas de Chorrillos y de Miraflores y a la ocupacion de Lima por los chilenos en 1881, el partido constitucional tomó nuevamente su ascendiente y la convocacion de los *notables* en casa del señor Derteano, que creó un nuevo Gobierno y puso a su cabeza al señor García Calderon, fué compuesto casi exclusivamente de miembros de ese partido. Despues se realizó una verdadera unificacion de los partidos, debida a los activos esfuerzos del General Hurlbut, Ministro de Estados Unidos, al reconocimiento hecho por ellos del Gobierno de García Calderon y a la consecuente renuncia y final abdicacion de Piérola y su salida del país.

En el curso de esta unificacion, el señor Iglesias, que habia sido Ministro de Guerra de Piérola, aceptó un mando de García Calderon. Despues que fué éste arrestado por los chilenos y llevado a Chile en Noviembre de 1881 como prisionero, principió un nuevo período de desmoronamiento, que concluyó con la defeccion de Iglesias, que separándose del Gobierno de García Calderon, convocó una Asamblea en Cajamarca, en el Norte del Perú, donde reside y dispone de grandes propiedades. En Diciembre 27 de 1882, esta Asamblea votó una acta declarándole Presidente y despues de haber aparentado no aceptar el nombramiento, prestó su juramento el 2 de Enero de 1883. Entre tanto, el Almirante Montero, que como Vice-Presidente del Gobierno de Calderon le habia sucedido en el ejercicio del Poder Ejecutivo durante su prision, habia trasferido su asiento de Cajamarca (donde se encontraba en la época en que Calderon fué arrestado) a Huaráz, y finalmente a Arequipa, en el Sur del Perú, en el centro mismo de la línea del ferro-carril que une al Perú con Bolivia, y en Arequipa fué que en Marzo de 1883 convocó un Congreso, el que confirmó a García Calderon en la Presidencia y a él mismo en la Vice-Pre-

si[illegible]ncia y eligió a Cáceres como 2º Vice-Presidente.

Así, por más de siete meses, ha habido en el Perú dos Gobiernos independientes el uno del otro y ámbos en recíproca oposicion, uno en el Norte y otro en el Sur, y ámbos pretendiendo el Poder Supremo.

Chile ocurre a Iglesias.

Hasta que fracasaron las negociaciones de paz emprendidas por Mr. Logan, Ministro de los Estados Unidos en Chile, en virtud de instrucciones de Washington, con el Gobierno chileno, por un lado, y con Garcia Calderon, por el otro, el Gobierno de Iglesias era impotente, pues su autoridad era apénas percibida en el país, fuera del recinto de Cajamarca.

Apesar de ésto, Chile entónces, si no inventó el Gobierno de Iglesias, a lo ménos adoptó la política de levantarlo; puso en libertad, para realizar sus proyectos, a los señores don José Antonio Lavalle y don Avelino Aramburú, y los mandó en Marzo a Lima, donde Iglesias nombró a Lavalle como su representante diplomático, quien el 12 de Mayo arregló secretamente con el señor Novoa el Protocolo de las condiciones de paz.

Siendo esos términos de la completa satisfaccion de Chile, se principió a sostener vigorosamente a Iglesias, con dinero chileno; con armas y con accion diplomática; el coronamiento de esos esfuerzos fueron lo derrota de Cáceres en Husmachuco, y con ella, el efectivo aniquilamiento de la fuerza militar del Gobierno de Arequipa. Los chilenos no permitieron en Lima ninguna libre discusion de los términos del Protocolo.

Excepto "El Diario Oficial", los únicos cuya publicacion queda autorizada son: "El Diario", fundado en Febrero para la defensa de Iglesias, y "La Tribuna", fundada en Junio con el mismo objeto. No obstante, los partidarios del Gobierno de Garcia Calderon, han ocurrido al expediente de hacer circular copias en prensa, de documentos que han pasado de mano en mano, de un modo confidencial. Así fué, que el famoso "Memorandum" del General Hurlbut "Declaracion al Almirante Lynch de las miras de Estados Unidos," fué dado a la circulacion, desde el verano de 1881.

Consecuencias de la batalla de Huamachuco.

Al recibir la noticia de la batalla de Huamachuco, Piérola telegrafió de Paris a sus agentes en el Perú, para emplear su partido en el sostenimiento de Iglesias, y en consecuencia, el 22 de Julio, reunidos sus jefes en casa del Coronel Gómez Silva en Lima, encabezados por el venerable doctor don Antonio Arenas [que fué Ministro de Relaciones Exteriores de Piérola] firmaron y promulgaron una resolucion por la que declararon: que "reconocen la autoridad del señor General "Iglesias y que, bajo sus auspicios, contri-"buirán, en cuanto les sea posible, a la reu-"nion de una Asamblea Constituyente que "ponga término a la guerra y restablezca el "órden en todo el territorio del Perú."—En Arequipa, la derrota de Cáceres ha producido efectos de desorganizacion; ha conmovido la autoridad de Montero hasta sus cimientos, y ha hecho nacer esperanzas de una revolucion que puede hacerlo fugar a Cuzco o Ayacucho.

La region, en todo el largo del ferro-carril de Mollendo a Puno, sobre el Titicaca, está llena de productos acumulados, de los que la lana es el principal, y cuyos dueños están ansiosos de poder exportarlos a cualquier precio, y el levantamiento del bloqueo de Mollendo, que se supone sería la consecuencia de una declaracion de Arequipa a favor de Iglesias les permitiría ejecutarlo.

El Congreso del Gobierno de Calderon que se reunió en Arequipa en Marzo, fué prorogado el 21 de Julio, en cuya época no se tenia todavía allá noticias auténticas de la batalla de Huamachuco.

Los motivos que animaban a los dos pacificadores chilenos.

Usando la frase de Hamlet: "podría ser demasiado indiscreto (*considering too curiously*) examinar la posibilidad de que los dos pacificadores chilenos del señor Aldunate, han sido impulsados por motivos muy distintos, e investigar si el Ministro Novoa, que tiene aspiraciones a la Presidencia, quedaría satisfecho con una paz, cualquiera que sea, en la que no podría llevarse la gloria de haber negociado condiciones irracionalmente ventajosas para Chile, miéntras que al contrario, el Almirante Lynch está a favor de la paz, teniendo en mira la paz misma, en la creencia que es necesaria para el bienestar de todos los beligerantes y para el buen nombre de Chile, en la estimacion del mundo.

Por consiguiente debo protestar contra toda interpretacion de esta clase que se pueda dar a la conversacion que voy a relatar y que

he tenido esta mañana con el Almirante, aunque no como una intencion de poner sus opiniones en oposicion con las de su colega civil, pues en nuestra entrevista no se hizo ninguna mencion del señor Novoa.

EL CUARTO PARTICULAR DE RECIBO DEL ALMIRANTE.

Encontré al Almirante en su cuarto particular de recibo: es un cuarto con tapicería de color oscuro, situado en la parte Oeste del Palacio y tomando vista sobre la calle del Palacio, que conduce de la Plaza al antiguo Puente de Piedra construido sobre el Rimac, por los virreyes. Hay una sola entrada al Palacio, por este lado, que no sirve para coches. Un soldado chileno del regimiento "*Esmeralda*" con su uniforme de infantería: chaqueta y gorra azul y pantalon rojo, estaba de guardia en la calle, en frente de la ancha puerta de entrada. Al penetrar, el visitante se encuentra en una sala espaciosa, pavimentada con mármol blanco, y torciendo por la izquierda, se sube algunas gradas de mármol que lo conducen al piso principal que se halla sobre una serie de tiendecillas que se extienden a lo largo de la vereda.

Atravesando varias salas, cuyas puertas del lado Este, dan percibir los patios interiores del edificio, y de las que una está provista de armeros y otras animadas con la presencia de ayudantes designados para el servicio del dia; se encuentra al fin un pasadizo con pavimento de marqueteria, que separa los cuartos de despacho del Almirante y de su Secretario, Don Diego Armstrong, de una sala de recibo ostentosamente adornada para las recepciones oficiales y que confina con un patio plantado de árboles tropicales y arbustos. Esto era parte de los departamentos que ocupaban los Presidentes del Perú y de donde el Dictador Piérola huyó con tanta prisa despues de la batalla de Miraflores, que dejó abiertas en su mesa, cartas que hubieran podido causar molestias domésticas, si hubieran caido en manos de la señora de Piérola, en lugar de caer en manos de los chilenos.

NI CASCOS NI CUERNOS.

La mayor parte de los lectores del romántico libro de Mr. Clements Markham's titulado "*Guerra entre Chile y Perú* 1879-1882" (que creo ha tenido una gran circulacion en Estados Unidos) contarán probablemente con una descripcion de los cascos y de los cuernos del Almirante Lynch y si tienen su fé pegada a la narracion de Mr. Markham's, no quedarán contentos al saber que esos apéndices no pertenecen a quien Mr. Markham's adornó con ellos. Entre los yerros con que ese entusiasta abogado del Perú contra Chile, daña la causa que defiende, pocos son tan manifiestos, como la falta de criterio de sus acusaciones contra el Almirante Lynch a quien ha aplicado los epítetos caracteristicos de piratería por haber cometido la ofensa de ejecutar como militar obediente, las órdenes severas que le daba el Supremo Gobierno de Chile, cuando fué mandando una mision naval y militar contra los puertos del Norte del Perú, en el intervalo de las batallas de Tacna y de Lima.

Cuando se haya escrito una historia completa de esta guerra, creo que se verá, que el peso de la responsabilidad de lo que ha sido salvaje en la conducta de Chile, recaerá principalmente sobre las autoridades civiles de ese país; y que tanto en su expedicion al Norte y su marcha de Pisco a Lima y durante su administracion militar de la Capital, el Almirante Lynch, ha moderado las órdenes que tenia con más lenidad que cualquier otro Jefe chileno. La guerra no es juego de niños, y los "*Hijos del Sol*" no están exentos de la suerte de todos los mortales que se encuentran derrotados en una guerra. Es verdad que han sufrido terriblemente y entre las órdenes que sirvieron a infligir esos sufrimientos, muchas llevan las firmas del Almirante Lynch; pero no conozco a ninguno otro Jefe chileno de alta graduacion que no hubiera agravado la severidad de sus instrucciones.

UNA CONVERSACION FAMILIAR CON EL ALMIRANTE LYNCH.

Apesar de tener más de sesenta años el Almirante, tiene un semblante tan elástico, una cara tan poco arrugada y gastada (*careera*) y maneras tan poco afectadas, que es imposible atribuirle su edad, ni con quince años de diferencia. Su cabello corto y negro no está todavia mezclado con canas, ni tampoco su tupido y recortado bigote, y sus negros ojos son tan vivos como en la juventud. La elegancia de su figura produce una impresion, que hace creérsele más alto de lo que en realidad es. Lo encontré esa mañana lle-

vando el uniforme de la marina chilena (que se asemeja al nuestro) y sentado delante de su escritorio.

Preparando un cigarrillo y moviendo un monton de documentos que cubria la mesa, dirigió su atencion hácia el borrador de una carta que en el vapor pasado habia dirigido al señor don Joaquin Godoy, Ministro de Chile en Washington, relativamente á la batalla de Huamachuco y sus probables consecuencias políticas.

Habiendo preguntado al Almirante cuál era su opinion sobre el poder de recuperacion del Perú, me contestó:—

ADMINISTRACION CHILENA EN EL PERU.

La condicion actual del país, no es ciertamente de prosperidad; pero considerando el grado y la duracion de su desorganizacion política interna; que su Capital y sus puertos han sido ocupados militarmente por más de dos años y medio, su comercio y su industria se han sostenido admirablemente. Esto es debido sin duda y en gran parte, al fuerte e inteligente elemento, extranjero en el Perú y me atrevo a decir tambien que a la lenidad y a lo correcto de la administracion chilena, porque por más que se diga que mucho ha comprimido al Perú Chile, su conducta no ha sido la de un conquistador despiadado e inhumano. El Perú [usando el nombre del país como símbolo de Gobierno] habiendo desertado en todo el sentido de la palabra "desertar" ["abscond"] Chile hubiera podido negar a los peruanos si lo hubiese querido el ejercicio de cualquier funcion oficial dejando sobre los peruanos todo el peso de la reconstruccion y abandonar la Capital y el país para que sufrieran todas las consiguientes miserias de la desorganizacion. Se adoptó una conducta intermediaria, que fué dictada por la necesidad y por razones de humanidad, organizando luego la justicia; atendiendo a los objetos de caridad y a la salud pública.

Todo esto necesitaba ser atendido de un modo rápido y eficaz, y así se hizo en efecto. Hemos propuesto á sus Córtes de Justicia el continuar en el desempeño de sus funciones con toda independencia de nosotros, pero rehusaron de un modo perentorio, y Chile se encontró obligado á proveer un cuerpo de judicatura para administrar justicia; pero aun entónces tuvo cuidado de dejar en cuanto era posible la administracion en mano de los peruanos, porque autorizó á los litigantes, para elegir sus árbitros cuando les conviniera.

La Sociedad de Beneficencia continuó en sus funciones y bajo mi administracion se le ha proporcionado toda clase de facilidades, eximiéndola de toda contribucion y derechos de Aduana y aun auxiliándola con fondos y varias provisiones. Jamás fueron ántes los hospitales, tan bien cuidados y atendidos. La fuerza de policía que hemos organizado, ha conservado en la Capital la paz, el órden y la seguridad

En el desempeño de sus obligaciones no se ha hecho diferencia entre chilenos y peruanos. Todos los Jueces de Paz son peruanos y tambien todos los alcaides.»

CONTRIBUCIONES Y CUPOS.

—"Pero señor Almirante» interrumpiéndolo "hay evidentemente muchas contribuciones introducidas por las autoridades chilenas, de que se quejan los peruanos."

—"Á primera vista contestó el Almirante," "las fuertes contribuciones que han sido colectadas, así como los cupos que han sido exigidos, en ciertos círculos, pueden ser considerados, lo confieso como crueles e injustos; pero hay que tener presente que, tuvieron un doble objeto: primero, obligar a los peruanos a que vuelvan en sí y que traten sobre la paz de un modo serio; y segundo, para ayudar a nuestros fuertes gastos y evitarnos la necesidad de aumentar despues nuestros reclamos en los futuros arreglos con el Perú. Nuestro objeto es y ha sido siempre, una pronta paz y en las condiciones más suaves de las que corresponden a nuestras victorias y sacrificios.

LOS OBSTACULOS A LA PAZ.

—"Pero» observé yo, "Lima cayó en poder de Chile el 17 de Enero de 1881, y hoy dia estamos a 13 de Agosto de 1883."

—«Inmediatamente despues de la toma de Arica, en Junio de 1880» contestó el Almirante, "Chile buscó la paz e hizo ofertas al Perú y a Bolivia. Las conferencias a bordo del buque de guerra americano "*Lackawanna*," en el mes de Octubre del mismo año, lo prueban. Tres meses despues, y al dia siguiente de la batalla de Chorrillos, se convino un armisticio entre los ejércitos chileno y peruano, para dar lugar a negociaciones de paz y fué a consecuencia de un aleve rompi-

m'ento del armisticio por parte de los peruanos, que se empeñó precipitadamente la batalla de Miraflores, que dió por resultado la entrada a Lima."

GARCIA CALDERON Y EL MINISTRO HURLBUT.

Todavia Chile, deseando siempre la paz, ántes de organizar ningun servicio público en el Perú, permitió que un Gobierno y un Congreso peruano, se establecieran en el distrito de Lima y que funcionaran sin ser molestados; que mitieran papel moneda y ejercieran otros actos gubernativos, siendo entendido, que esto era con el objeto de aceptar la paz bajo condiciones bien conocidas.

Pero el resultado fué que este gobierno del señor Garcia Calderon—miéntras que aparentaba asentir á dichas condiciones, estaba negociando clandestinamente, y bajo las inspiraciones de un Ministro extranjero, conspiraba para conseguir una intervencion en oposicion a esas condiciones de parte del poderoso país de U. Tambien forjó papel moneda, emitiéndolo en mayor escala y más allá de lo que estaba autorizado á hacer. ¿Cómo podía tolerar Chile semejante conducta en los límites de su autoridad militar? Además de esta conducta observada por el Gobierno de Calderon aquí, la guerra civil estaba reinando en el interior del Perú, y al mismo tiempo se elevaba el grito de "guerra a *outrance*" contra Chile. "La divisa, la palabra de órden era.—"Chile no tendrá como indemnizacion, ni una pulgada de territoro y todo peruano que se atreva a tratar de paz con cesion de territorio, será declarado traidor."

—"¡U, naturalmente se refiere al difunto general Hurlbut enviado de EE. UU., observé yó, en su alucion a un Ministro extranjero."?

EL DESCRÉDITO FINANCIERO DEL PERÚ EXIGE UNA CESION DE TERRITORIO.

El Almirante asintió y continuó: "La triste condicion financiera del Perú, su no cumplimiento de contratos con sus acreedores mucho ántes de la guerra, y su consiguiente descrédito, hacian que todo proyecto de indemnizacion a Chile que no fuera basado sobre una cesion de territorio, no fuera sino palabras vánas. Por consiguiente, miéntras el Perú declaraba que no estipularia una cesion de territorio, tal declaracion cerraba practicamente la única salida posible para un arreglo: incluia el abandono de toda idea de paz."

Aquí hice mencion del "Credit Industriel" y de la "Compañía del Pacífico," pero el Almirante no entró en ningun debate sobre este punto, y añadió simplemente: "Chile, en las condiciones que exigia, no hacia más que seguir los antecedentes de los Estados Unidos en sus arreglos con Méjico hace 35 años, y como el antecedente más reciente, el de Alemania, respecto a Francia." Despues continuó.

CHILE QUIERE LA PAZ.

" Es simplemente prepóstoro sostener que está en los intereses de Chile continuar con la ocupacion de esta Capital y del país. La escasa poblacion de Chile, la tremenda sustraccion que impone a esa poblacion el mantenimiento de nuestro actual ejército, la insalubridad del clima del país, la abundancia de trabajo que invita allí a los jornaleros, la baratura de las comodidades para la vida, que allí están al alcance de todos; todas estas consideraciones, son razones decisivas para combatir ese argumento fantástico-burlesco y hasta podría añadir, ridículo."

—" Pero, señor Almirante," preguntó yo, " ¿el importe de lo que se saca del Perú, no excede a los gastos que exigo la ocupacion militar?"

—" Nó, no excede" contestó él. " Sé que se dice que el Tesoro Chileno reporta ventajas pecuniarias de la ocupacion; pero puedo asegurar que esto es un error, y que si se toman en consideracion todos los gastos que la ocupacion impone, se verá que dicho Tesoro cuenta una pérdida, con cada dia de ocupacion.

IGLESIAS.

Entónces el Almirante continuó con mucho énfasis:—" Al fin un valiente militar y un patriota bien intencionado, el General Iglesias, se ha presentado para redimir su país. Le damos toda clase de auxilios; le damos dinero y armas; derrotamos a sus enemigos y le damos prestigio ¿con qué objeto?—Para

que pueda venir la paz." "Y aquí el Almirante repitió con particular vehemencia: para que pueda venir la paz, *"porque estamos decididos a llegar a la paz, inmediatamente aunque para alcanzarla tuviéramos que decretarla."*

Despues añadió:—" Acabamos de abolir nuestras Córtes de justicia, porque los peruanos pretendian que su existencia envolvia la idea de una ocupacion permanente. Hemos evacuado el Norte del Perú; hemos dado al Gobierno de Iglesias la valiosa Aduana de Salaverry [puerto de Trujillo] y sólo por razon de humanidad no sacamos nuestras tropas de otros muchos lugares, porque las poblaciones quedarian saqueadas sin piedad por merodeadores peruanos, si las evacuáramos."

La futura prosperidad del Perú esta en manos de los peruanos.

Aquí el Almirante encendió otro cigarrillo y continuó:—" Es natural que las cosas no anden en el Perú lo mismo que si el país estuviera en estado normal, pero creo que jamás en la historia de las guerras del mundo, se ha cometido ménos excesos, bajo el imperio de fuertes provocaciones, que las que cometió el ejército chileno. Se pueden citar naturalmente casos aislados de violencias, pero lo que ha prevalecido, en general, es un sistema de justicia y de humanidad.

La mejor prueba de ello es, que este país, despues de cerca de tres años de ocupacion, continúa lleno de recursos y recuperará su prosperidad comercial e industrial, tan luego como consiga establecer un Gobierno moderado y honrado.

Su capacidad o incapacidad para conseguir semejante fin, será la piedra de toque que servirá para formar la opinion del mundo.

Ahora o nunca, tiene que establecer el Perú un Gobierno moderado y honrado, y es de esperar que lo que le ha sobrevenido [la severa experiencia de la presente guerra] podrá ser una leccion útil a los peruanos para saber disciplinarse.

En cuanto a mí" continuó el Almirante "si U. me permite hacer una observacion personal, relativa a mi administracion en este país, le diré; que nunca he traspasado los límites de lo que me obligaba [un deber doloroso, pero ineludible; y nunca he olvidado, que no soy unicamente soldado chileno, *sino que yo, como el enemigo, somos del mismo barro* [*a fellow creature.*]

El hombre de la disciplina.

El Almirante Lynch habla el inglés con elegancia y con un conocimiento perfecto de los idiotismos de la lengua, pero con un ligero acento extranjero, que con frecuencia me hacia recordar al profesor Luis Agassiz. Su habilidad en el manejo del inglés fué probablemente adquirida, durante los ocho años que sirvió como Teniente en la marina inglesa, entre 1840 a 1850. Tomó una parte activa en las operaciones navales de Inglaterra, en las aguas de la China en 1840-1842, y entre los trofeos de su juventud conserva dos medallas que le fueron conferidas por su gallante conducta en esa época. Tanto en sus modales como en su lenguaje se nota una calma que implica un poder concentrado y revela tambien a un hombre de disciplina.

En esta última calidad, la calidad de la disciplina, que es en cuanto comprendo esa carrera, me explica la lentitud con que ascendió en los primeros tiempos de la guerra; así como los altos cargos de confianza con que fué despues investido y que eran acompañados con rangos correspondientes.

La política de la explotacion.

En las tres campañas de Tarapacá, Tácna y Lima, ha habido un salvajismo de parte de la soldadezca chilena, que por cierto no reprimió la oficialidad, que era quizás incapaz para reprimir. Algunos de los oficiales la excitaban.

La prodigiosa desproporcion entre los peruanos y bolivianos muertos y heridos, comparándolos con los resultados de las últimas guerras, es una prueba evidente y concluisiva de ello. Lo mismo en cuanto al saqueo de Chorrillos. Nadie que no sea un partidario de Chile, puede ver sin indignacion las ruinas de ese delicioso lugar de baños; en su tiempo uno de los más encantadores del mundo;—y pocos de los que son partidarios de Chile, pueden mirar esto sin vergüenza.

Despues de la ocupacion de Lima, el sistema de explotaciones fué prosiguio de un modo tan deliberado, que legítimamente se puede estigmatizar, con el nombre de sistema político."

La desgracia de Chile.

La desgracia de Chile es que no puede desmentir ese testimonio. Los hechos son demasiado evidentes para cualquier observador. Lo están afrontando (*they stare him in the face*) en los recuerdos militares; los muertos en cada campo de batalla; las ennegrecidas y desmoronadas murallas de Chorrillos y Miraflores; las salas vaciadas y jardines expoliados de Lima tambien estan afrontando en el rostro de todo Chile. En las poblaciones de aquel país se ostentan trofeos del Perú, de una naturaleza bastante comun, en tiempo del primer Napoleon; pero que nuestra civilizacion moderna no sanciona; trofeos que las autoridades despliegan sin rubor.—La Plaza de la Victoria y el bonito jardin atrás de la Bolsa en Valparaiso, son plantados con los árboles y arbustos saqueados de los terrenos de la Exposicion y del Jardin Botánico de Lima. La Plaza de Armas de Santiago está adornada con bancos de mármol y con estatuas sacadas de estos mismos lugares. Durante una visita que hice a esta poblacion, el primer objeto que llamó mi atencion al abrir mi ventana, fué un pedestal manejado por una cuadrilla de trabajadores empleados en levantar a una estatua sobre su pedestal.

Enfrente del Museo, en los terrenos de la Quinta Normal, en esa misma Ciudad, está el cañon de bronce de Ayacucho, uno de los recuerdos históricos más preciosos e interesantes del Perú; y el Jardin Zoológico que está al lado se encuentra poblado con animales sacados de un jardin público de Lima y llevados en trasportes chilenos. Aun el mismo Congreso Chileno tiene sus sesiones en salas contiguas a una galeria en que se exhibe el celebrado cuadro de Montero, de los *Funerales de Atahualpa*, a más de otros cuadros de ménos importancia que fueron sacados de la Capital del Perú y confiscados. Podrian citarse otros muchos ejemplos de expoliacion que confirman las aseveraciones del Capitan de Navío García y García, pero los que he citado son suficientes para dar a conocer una faz de esa larga guerra que no honra a los vencedores.

una excepcion a la regla.

Hay una excepcion notable a la regla general de expoliacion y de ruina—y es el caso del ferrocarril de la Oroya. Este monumento extraordinario, la más sorprendente hazaña en la ingeniatura de los ferro-carriles y de las construcciones en el mundo, proyectado por el señor don Ernesto Molinowski (que fué su ingeniero en jefe) y construido por nuestro conciudadano, Enrique Meiggs, ha estado ocupado militarmente por los chilenos o por los peruanos, y la mayor parte del tiempo, parcialmente por ámbos, por el espacio de dos años y medio. Ha habido ocasiones en que los unos o los otros hubieran sacado ventajas en destruir parte de la línea; pero ámbos la respetaron. Lo único que se acercó a una amenaza de destruccion, tuvo lugar cuando Cáceres fué rechazado en el mes de Mayo último pasado. Uno de sus subordinados dió órdenes para minar y hacer saltar los estribos de algunos puentes, pero por fortuna fué desobedecido. Hoy se levanta como un testimonio admirable de la magnitud de los proyectos con que se inspiraba el Perú en el tiempo en que las riquezas ganadas sin trabajo inspiraban al Gobierno magníficas ideas, a la vez que lo degradaban con hábitos de corrupcion.

Su fin culminante era unir el Pacífico con las aguas navegables del Amazonas y, en el trayecto, a través de la Cordillera, dar salida a los ricos minerales del Cerro de Pasco. Sin duda ninguna que ese vasto plan se realizará; mas con el actual sombrío aspecto que tiene por delante el Perú, esto es poco probable, durante la actual generacion. Entre tanto queda como un ferro-carril construido en el aire. Saliendo de la bahía del Callao y llegando a Lima, en una distancia de ocho y media millas, se eleva a 448 piés encima del nivel del mar; en las veinticinco millas siguientes se eleva en la Chosica a 2,833 piés, y en las siguientes cincuenta y tres millas, alcanza en Chicla que es el último punto donde llegan los rieles, una altura de 12.220 piés. Los terraplenes están construidos ya hasta la Oroya, más de cincuenta millas adelante, en cuyo trayecto el ferro-carril se eleva a 15.723 piés en el túnel de la cumbre. La poblacion de la Oroya, se halla más o ménos con la misma elevacion que Chicla.

Un alegato mal fundado.

Abandonemos nuestra digresion!

Sé que se alega, que si los peruanos hubiesen sido los vencedores habrian tratado a los vencidos más o ménos, del mismo modo como

ese enemigo los trata, y lo creo. Muchas veces he preguntado a los peruanos, que si así hubiera sido; y cada vez que me han dado una franca contestacion, ha sido afirmativamente; mas con una reserva, en cuanto a los actos contra las personas, basándose sobre el hecho de que el indio peruano, es de una índole suave, miéntras que el *roto* chileno, es fiero y despiadado. No dudo de que si hubiese cabido a la suerte del ejército peruano entrar en Santiago, como le cupo en suerte al ejército chileno entrar en Lima, iguales y quizás mayores ofensas hubieran sido cometidas contra la propiedad, en iguales miras y con igual propósito. Pero esto no ayuda a la defensa de Chile; al contrario: con semejante alegato, Chile abandona su pretension frecuentemente proferida y bajo muchos puntos de vista bien justificada, de poseer una civilizacion más moral y más respetable, aunque sea ménos refinada y ménos lujosamente elegante que la del Perú.

La verdadera conducta que debiera adoptar Chile para contestar acusaciones como las del Capitan de Navío García y García, sería confesar francamente, que el curso de la guerra hizo brotar mucho salvajismo, que no es posible defender en frente de los elevados principios de la civilizacion moderna. Seguro es que hay mucho todavía que tiene que brotar. No es probable que el mundo, deje pasar desapercibido, que en los informes oficiales de la batalla de Huamachuco, hace cinco años, no más, se establece que el número de peruanos muertos pasa de ochocientos, y que las pérdidas chilenas se limitan a cincuenta y seis muertos; estas cifras dan a conocer que los chilenos no dieron cuartel. Salvajismo de esta clase, no es necesariamente un salvajismo que tiene en mira la ruina del Perú, que trata de comprimir y arruinar el porvenir de un país; que trata de paralizar sus facultades de desarrollo;—esto es más horrible, pero, no es tan detestable. Si Chile pudiera escapar de la censura del mundo (si es que ese par puede) por haber conspirado contra el porvenir del Perú, al Almirante Lynch se deberá más que a ningun otro ciudadano chileno u hombre público.

Muy grande significacion tiene su última sentencia, en la entrevista que acabo de referir, que nunca olvidó durante su administracion del Perú "*que no es únicamente soldado chileno, sino que es del mismo barro que el enemigo*" y que nunca "ha traspasado los límites de la severidad a que estaba obligado por deberes dolorosos e ineludibles."

LO QUE REALIZÓ EL ALMIRANTE LYNCH.

Una guerra proseguida con el objeto de arruinar al Perú—una ocupacion de la Capital hecha con este fin—dieron naturalmente lugar a la falta de disciplina de parte de los vencedores, y esto a su vez dió lugar a que el nombramiento del Almirante Lynch al mando en jefe hace dos años, fuese mirado con poca simpatía por los partidarios de la "política de la ruina" porque él más que ningun otro militar o marino de Chile, segun lo indiqué ya, se distingue como hombre de disciplina. He sabido, tanto por los chilenos como por los peruanos, que cuando estableció su Cuartel General en el Palacio de Lima, lo encontró transformado en un gigantesco burdel: tales eran los abusos establecidos o tolerados por sus predecesores.

Fué durante el período de aquellos, inclusive el General Don Cornelio Saavedra (actual Inspector General del ejército chileno) y particularmente durante el período del General Don Pedro Lagos, [uno de los militares más distinguidos de Chile, el que tomó Arica y que ahora tiene un mando en Santiago] que la Biblioteca quedó dispersada—que los edificios y los jardines de la Exposicion fueron saqueados y que fueron cometidas las principales expoliaciones que el Capitan García y García ha enumerado en Lóndres, produciendo tan notable impresion en la opinion pública.

He oido hablar de pocos saqueos cometidos en tiempo del Almirante Lynch y de ninguno como ido bajo de su sancion. No obstante, ellos no han cesado todavía por completo, como lo comprueba el embarque para Chile de un botin considerable, hecho nada ménos, que por un notable personaje, como lo es el señor Don Rafael Cruz, Jefe Político de Lima. Hay una excepcion, respecto a los *cupos*.

Poco despues que el Almirante Lynch asumió el mando, ese sistema opresivo de cúpos-contribuciones arbitrarias impuestas a los habitantes de Lima, con amenaza de embargo y de venta de los muebles y otras propiedades, en caso de no ser pagadas en metálico y de deportacion en caso de no ser suficientes los bienes embargados—fué suspendido, y se admite generalmente que esta suspension es debida a una muy honrosa protesta, dirigida por el Almirante Lynch al Supremo Gobierno de Chile. Pero en el curso de la edificacion del Gobierno de Iglesias, y con el objeto evi-

dente de castigar a los principales partidarios de Calderon, en Lima, por no haberse éste avenido a las condiciones de paz, de Chile (el tiempo y las circunstancias vinieron a comprobar el motivo) les fueron impuestos cupos, algunos de ellos, hasta en el mes de Enero último pasado. En varios casos, rigores odiosos, ordenados por el Gobierno de Chile en las prescripciones aduaneras del Callao y de otros puertos, fueron remediados o suavizados, debido a la intervencion del Almirante Lynch; y es última el testimonio de los negociantes extranjeros de Lima, y en dichos puertos, que nunca ha dejado de hacerles justicia en todo lo que estaba en los límites de su autoridad discrecionaria.

Mas como un ejemplo ilustrativo de los rigores que el Almirante parece no haber podido modificar, no hay más que considerar las nuevas prescripciones sobre patentes para importadores, que fueron puestas en práctica el 1º del presente mes de Agosto. Segun el nuevo reglamento, nadie puede importar mercaderías por el puerto del Callao, sin pagar una patente de $500 o de $2 000. Las autoridades chilenas deben determinar arbitrariamente, cuál de estas dos cantidades debe pagar cada interesado para recibir una patente valedera por un año. El resultado es de oprimir a los pequeños importadores que son muy numerosos en Lima, particularmente entre los residentes italianos y franceses o de obligarlos a las dificultades y a los gastos que resultan de la necesidad de dirigirse a las grandes casas a las que deben pagar comisiones por sus servicios. Y este reglamento se hizo sin respetar el hecho de que se inutilizan las patentes que fueron pagadas y que debian ser válidas hasta el 1º de Enero de 1884. Esas contradicciones, no se observan en la disciplina de las tropas, para lo que el Almirante no está trabado por la ingerencia del Poder Civil.

El ejército de ocupacion, desmoralizado por sus extraordinarios triunfos y por el relajamiento introducido por los anteriores comandantes, ha sido puesto en un estado de severa subordinacion que hace de él, uno de los ejércitos más eficientes, considerando su fuerza, de los que yo he tenido ocasion de ver. El proceso del Teniente Coronel don Ambrosio Letelier y de otros oficiales de nota, por peculado, fué seguido con prontitud, con vigor, y de un modo inexorable; y cuando las clases altas del ejército eran tratadas de este modo, fácil es deducir cuán severos fueron los castigos por semejantes ofensas en las clases inferiores. Los castigos por medio de los que se consiguieron esos buenos resultados, fueron terribles. El látigo fué aplicado tan inhumanamente a los chilenos, como a los peruanos. No intento preconizar al Almirante Lynch como humanitario en sus actos; ni olvido tampoco yó, que su firma se encuentra tiempo ha, desde el 1º de Enero de 1882 en cierta órden. Segun entiendo, es la misma órden, en virtud de la que no se dió cuartel a los 800 peruanos que fueron muertos en Huamachuco.

Al prescribir la conducta que se debe observar en las operaciones militares de los chilenos contra los militares del Gobierno de Calderon-Montero, bajo las órdenes de Cáceres, el Almirante Lynch ordenaba:— "*En cualquier choque que tenga con tropas enemigas armadas, considerará U. a estas como fuerzas irregulares o montoneras que deben ser exterminadas, sin que se observe con ellas las consideraciones que hasta aquí ha tenido el ejército para con las fuerzas regulares.*" Esta guerra entre Chile y el Perú se ha hecho al pié de la letra, una guerra "*hasta el cuchillo*" y no hay esperanza que cese de ser cruel y sanguinaria hasta que cesen las hostilidades. Mas miéntras declaro no tener de ningun modo la intencion de atribuir al Almirante Lynch, como militar, una benignidad (*mildness*) que no es característica en él, quiero encomendarlo al público, como el jefe chileno que más que todos y ningun otro, ha tomado en cuenta la responsabilidad de su país ante la opinion del mundo, y que en su conducta se ha mostrado el adversario de la política bárbara de "arruinar el porvenir del Perú", y para ello debo llamar la atencion sobre un punto de su conversacion de esa mañana, que merece una atencion especial.

Me refiero, al punto en que toma él en consideracion, el posible fracaso del plan de Iglesias; entónces dice: "*estamos decididos a llegar a la paz inmediatamente, aunque para alcanzarla tuviéramos que decretarla.*"

Los gérmenes de fracaso en el plan Iglesias.

No obstante las instrucciones de Piérola a sus partidarios, de recostarse al movimiento de Iglesias, y no obstante el terreno que ese movimiento ha ganado, aun entre civilistas prominentes y de influjo en Lima; como son

los SS. Denegri y Garland, encierra en sí gérmenes de un posible fracaso y aun puedo decir probable; precisamente porque en las negociaciones de los SS. Novoa y Lavallo "*el porvenir* del Perú queda comprometido, dejando a este desgraciado país con el peso de una deuda de más de $200.000,000, y al mismo tiempo, quitándole casi todos los recursos con que se podia hacer frente al servicio de los intereses y de la amortizacion de dicha deuda.

En el protocolo Lavalle-Novoa está expresamente estipulado que, fuera del contrato existente, por el que Chile se obliga a pagar a los tenedores de bonos peruanos la mitad de los netos productos de la venta de un millon de toneladas, que deben sacarse del territorio conquistado, 'Chile no reconoce, ni por motivo de guerra, ni por otro motivo, ninguna deuda del Perú, cualquiera que sea su naturaleza", y a la vez exige la cesion del territorio que en el sur contiene todos los depósitos de guano y de salitre. La deuda con que quiere Chile dejar aplastado a lo que quedaría del Perú, despues de la cesion absoluta de Tarapacá y de la real y efectiva, de Tacna y Arica, cosa que Iglesias consiente, está estimada por Mr. Markham en su Historia de la Guerra, en 53.000.000 £, habiendo tomado probablemente sus datos del "*Statesman's Year Book* de 1882. Pero esto es una exageracion. El'a alcanza apénas a £ 40.000.000, fuera de los intereses vencidos, que no fueron pagados, desde el 1.º de Enero de 1876. En adicion a su deuda externa, el Perú tiene en circulacion cerca de $ 150.000,000 en billetes depreciados por ahora, hasta el punto que se descuentan en Lima sobre el pié de $ 15 papel por $1 plata, y en los reglamentos de aduana que promulgó Iglesias para los puertos que le fueron entregados por los chilenos, el tipo es todavía más elevado: $15½ por 1.

Además de esto, el Perú es responsable por cantidades muy fuertes y no liquidadas, que resultan de numerosos contratos concernientes a sus ferro-carriles, así como a los guanos y los salitres, y que fueron hechos por su Gobierno en la extravagante y licenciosa decena de corrupcion y repudiacion que precedió al hundimiento militar. Segun el protocolo Novoa— Lavalle, Chile quiere que su postrado enemigo, lleve todo este peso aplastador, y estipula que ninguna parte de este peso puede incumbir a las Provincias de Tarapacá, Arica y Tacna, que quedan en manos del vencedor. El quebranto que sufriria a las rentas del Perú con la pérdida de dichas Provincias puede calcularse, tomando en cuenta las entradas que Chile sacó de ellas durante el año fiscal de 1882, que resulta de datos oficiales:—

Aduanas.

Arica—	$ 1.493.758,24	
Pisagua—	2.022.491.78	
Iquique—	5.511.123.62	
		$ 9.027.373.64

Salitres.

Pisagua -	$ 1.939.509.84	
Iquique—	4.791.387.44	
		$ 6.730.896.28
TOTAL.....		$ 15.758.274.92

Es decir que Chile, conforme a las condiciones del tratado de paz con Iglesias, se propone quitar al Perú provincias que, segun o demuestran las cifras, pueden dar una renta suficiente para pagar ámpliamente los interéses y la amortizacion de toda la deuda peruana y a la vez no quiere asumir un sólo centavo de dicha deuda, como consecuencia de esta cesion. La situacion actual del Perú, respecto a la deuda es "suspension de pago." La inevitable condicion del Perú, si las condiciones aceptadas por Iglesias se llevan a efecto, será la "repudiacion de de sus obligaciones," y preguntamos: ¿cuál será entónces el porvenir que se le espera a este desgraciado país? un país que necesita inmigracion y capital extranjero para desarrollarse?

¿Es posible que haya una Asamblea Constituyente y libremente elegida, tal como se unen y abogan por ella, desde la batalla de Huamachuco, los jefes de los partidos constitucional y nacional, que pueda ratificar tales condiciones? ¿Es posible que Iglesias, sobre cuya cabeza, tarde o temprano, justa o injustamente, tiene que recaer la venganza por la sangre de 800 de sus conciudadanos muertos a bayonetazos, pueda poseer bastante influencia personal para hacer aceptar tales condiciones de paz, en semejante Asamblea?

¿No se han engañado, el Gobierno de Chile y su agente el señor Novoa, al exigir condiciones tan duras? Son cuestiones éstas, que sugiere la actual condicion del Perú y que creo que el General Lynch tomaba en consideracion, cuando decia: "estamos decididos a llegar a la paz inmediatamente, aunque para alcanzarla tuviéramos que decretarla."

DECRETAR LA PAZ.

Considero esta sentencia, como debiendo significar (en tanto cuanto el Almirante Lynch se sentia autorizado para hablar en nombre del país que representa) que si el plan Iglesias fracasara, Chile evacuaria el Perú hasta el límite de la Provincia de Moquegua, al Norte de Arica y Tacna, con la intencion de quedar en posesion permanente al Sur de esta línea, dejando a los peruanos para que arreglen sus cuestiones interiores como quieran, sin intervenir más en éllas. No es un secreto en Lima, que la impotencia de Iglesias en el interior del país, donde no tenga el apoyo de la fuerza chilena, es patente y lamentable.

Hace cerca de dos meses que el Almirante Lynch entregó Trujillo a sus agentes, y todavía no se ha aventurado a trasladarse de Cajamarca a allí en direccion a Lima.

NUEVA FAZ EN LA GUERRA DEL PACIFICO.

En todo cuento—sea que el proyecto Iglesias se realice o que Chile se retire tras de la línea de su proyectada posesion permanente, 'decretando la paz" de este modo—la intencion de Chile, revelada por el protocolo Novoa-Lavalle, es desconocer toda clase de responsabilidad respecto a cualquiera de las deudas del Perú, miéntras que al mismo tiempo se apropia dos Provincias peruanas, sobre cuyas rentas y depósitos de guano [ya descubiertas o por descubrir] una gran parte de la deuda está especialmente garantizada; esto evoca algunas cuestiones de Derecho Internacional de grande importancia y abre una nueva faz en la guerra del Pacífico, que es muy interesante. Uno de sus curiosos e inevitables efectos ha sido ya de armonizar los tenedores de bonos peruanos de Inglaterra representados en Lóndres por un Comité que hasta ahora ha prestado su influencia a Chile, con los tenedores de bonos peruanos en el Continente, y particularmente en Francia, cuyos intereses son representados por el "*Credit Industriel*" que prestaba su influencia al Perú.

El 17 de Julio, en Santiago, Mr. Procter, el agente de los tenedores de bonos en Inglaterra, en una entrevista con el señor don Pedro Lucio Cuadra, Ministro de Hacienda de Chile, fué notificado por éste, que el Gobierno chileno se niega a discutir con ellos la cuestion de saber si tienen derecho a ser indemnizados por Chile, por razon de Tarapacá y de Arica y Tacna, si estas Provincias quedan anexadas a Chile más allá de lo que resulta del contrato por un millon de toneladas de guano, actualmente en ejecucion, "porque dijo el señor Cuadra:"¿—si ustedes tienen algunos derechos, dónde está el tribunal que pueda hacerlos efectivos?"

Entre tanto, dos años y medio ántes, el señor don Augusto Matte [predecesor del señor Cuadra] habia escrito a este mismo agente de los tenedores de bonos:" "Creo de mi deber declararle que cualesquiera que sean los acontecimientos, los acreedores e hipotecarios pueden descansar sobre la equidad del Gobierno y de la Nacion Chilena.

LAS RELACIONES DE EE. UNIDOS CON LA CUESTION.

Poco o nada de la Deuda Externa del Perú, está colocada en Estados Unidos. La mayor parte de esta deuda, habiendo sido registrada conforme a instrucciones del Gobierno de Chile, hasta la suma de £25.838,270, está representada por un comité inglés, a cuyo agente el Ministro de Hacienda de Chile dió el 17 de Julio la contestacion que acabamos de citar. Pero en la opinion de los peruanos, en ausencia de intereses directos de ciudadanos de EE. Unidos, a título de tenedores de bonos, el Gobierno de EE. Unidos ha contraido obligaciones y responsabilidades, de las que no puede escapar honrosamente, en las complicaciones que nacen de las condiciones de paz del tratado con Iglesias, y para ilustrar este punto, le mando la traduccion de una interesante carta [de la que acabo de recibir una copia] dirigida por el señor don Ernesto Malinowski a Mr. Pascal Duprat, el Ministro frances recientemente acreditado cerca del Gobierno de Chile, en lugar del Baron d'Avril.

El señor Malinowski, polaco de nacimiento, pero desde más de treinta años residente en el Perú, fué (como ya lo he mencionado) el que proyectó el ferrocarril de la Oroya. El fué tambien, quien organizó la defensa del Callao en 1866 contra la escuadra de España. Por razon de su íntima amistad con el difunto asesinado Presidente Pardo, fué desterrado a Guayaquil, en el Ecuador, desde la Dictadura de Piérola, y es ahora allí el principal representante del Gobierno Constitucional Calderon-Montero, aunque no ocupa ninguna puesto oficial.

Es una carta que bien merece ser estudiada, porque es una exposicion concisa y clara del intenso modo de ver, bajo el punto de vista peruano (*intense peruvian view*) de la situacion actual. Por cierto que está escrita con todo el ardor de un partidario, pero de un partidario perfectamente penetrado de la justicia de la causa que defiende, y su fecha (14 de Mayo) es anterior a las noticias de la batalla de Huamachuco. Despues de algunas palabras personales a Mr. Duprat (y que omito) el señor Malinouski continúa:—

EL SEÑOR MALINOWSKI A MR. PASCAL DUPRAT.

"Residente desde muchos años en la América del Sur, y principalmente en el Perú, donde he tenido que tomar parte en muchas cuestiones de interés general, y muy particularmente en las que se refieren a las obras públicas, me encontré llamado a estudiarlas, y tuve en ello un interés tanto más grande, cuanto que estos países de la América Española son realmente muy mal conocidos en Europa, mal y peor juzgados. Naturalmente, la guerra que desola al Pacífico, su orígen, su causa y sus efectos, no han cesado de ser para mí un objeto de serios estudios y aun puedo decir, absorbentes.

"Hubiera deseado poder decirlo, lo que sé y lo que pienso de la situacion, tal como se encuentra en la actualidad. Lo hubiera tanto más deseado, cuanto que esta situacion se encuentra oscurecida por una infinidad de proposiciones mentirosas, bajo cuya nebulosa atmósfera tratarán de envolverlo a U. Espero que U. no tendrá a mal, me tome la libertad de escribirle algunas de las cosas que hubiera deseado decirle de viva voz.

FALSIA CHILENA.

"Ante todo, tengo que llamar su atencion sobre la falsía chilena. Jamás la mentira oficial, apoyada por la prensa, se ha elevado a tal grado de descaro. La primera impresion de U. será ciertamente la de suponer una exageracion más o ménos grande de mi parte; y si no temo arrostrar esa impresion desde el principio de mi carta, es por la conviccion de que un estudio profundo de los antecedentes, y la observacion de los hechos que U. verá desarrollarse, lo convencerán prontamente de la perfecta exactitud de mi asercion.

"Vamos a los hechos.

TRATADO DE ALIANZA DEL PERÚ Y BOLIVIA.

"En sus circulares al Cuerpo Diplomático, no ha cesado el Gobierno chileno de afirmar, que le ha sido tomado de sorpresa, y que fué sólo el conocimiento recien adquirido del tratado defensivo entre Bolivia y el Perú, lo que le obligó a declarar la guerra. No cesa de afirmarlo, aunque haya sido superabundantemente probado por las publicaciones de sus propios agentes, que tuvo conocimiento de este tratado en la época misma en que fué sometido a la aprobacion de los Congresos. Ni podia ser de otro modo. Este tratado ha sido discutido en los Congresos del Perú, de Bolivia y de las Provincias Argentinas, en los que algunos miembros votaron contra su adopcion, y más de uno de ellos tenia relaciones íntimas en Chile. En ningun país del mundo, y mucho ménos en los de la América del Sur, un hecho sometido a la discusion de más de quinientas personas podia quedar en secreto.

PREPARACION PARA LA GUERRA.

"El Gobierno chileno no ha cesado igualmente de afirmar, que ha sido sorprendido de improviso, no obstante de que se halla contradicho por sus propias declaraciones. El año pasado ordenó el Congreso chileno la publicacion de las actas de las sesiones secretas de la Cámara, que tuvieron lugar en Santiago al principio de la guerra; actas que fueron previamente revisadas por una comision nombrada *ad hoc*. Algunos diputados de la oposicion atacaron al Gobierno por haberse lanzado en esta aventura, sin estar convenientemente preparado para ello. Los Ministros se defendieron haciendo ver que los preparativos fueron organizados con mucha anticipacion: demostraban que era el Perú el que no estaba preparado; que su marina, infinitamente inferior a la marina chilena, se encontraba en un estado lastimoso, lo que era demasiado exacto. Decian, con razon, que todo dependia del que fuera dueño del mar, y que sobre esto no podria abrigarse la menor duda. En cuanto al ejército, demostraban que tenian preparadas sus armas y sus municiones, en más de lo necesario para abrir la campaña, y que el resto vendria en tiempo útil.

"El hecho es que el Perú se encontró sorprendido en un estado de desorganizacion completa, más que todo, gracias a la imperi-

cia del triste y malaventurado Prado, que era entónces el Presidente, y gracias tambien a las funestas empresas de Piérola contra el órden establecido, y para cuya defensa fué preciso distraer los fondos destinados a la compra de nuevas naves de guerra, en reemplazo de las que iban deteriorándose en la bahía del Callao, y que eran tambien de fuerza insuficiente y no correspondian a las exigencias del dia.

LOS MOTIVOS QUE TUVO CHILE PARA LA GUERRA.

" En cuanto a los motivos que impulsaron a Chile a emprender la guerra; sin hacer entrar en cuenta los sentimientos inveterados de envidia hácia el Perú, U. los encontrará escritos en el estado financiero de Chile. La prosperidad financiera de Chile no era más que una mentira.

" El descubrimiento del oro en California y más tarde en Australia, dió una impulsion extraordinaria a la agricultura chilena, que exportaba allá sus productos a precios anteriormente desconocidos. Hácia la misma época, las magníficas minas de plata de Copiapó y otras, vinieron a añadir sus riquezas a las de la agricultura, y entónces se crearon las grandes fortunas que Santiago, su bajo y sus palacios en Santiago y otras partes.

" Las entradas fiscales aumentaron considerablemente, y la máquina gubernamental fué montada en un pié correspondiente. Mas los productos agrícolas que no tenian ya los ventajosos mercados de la California y de Australia, tuvieron que buscar su colocacion en los mercados de Europa, en competencia con los de otros países más aventajados. Las minas de plata se agotaron o disminuyeron sus rendimientos, la industria del cobre, que habia prosperado considerablemente cuando los cobres se cotizaban en Inglaterra entre 80 y 100 £, tuvo que sufrir cuando los precios bajaron a 60 o 65 £. Entre tanto, los gastos continuaban, porque cuando la maquina gubernamental está montada en cierto pié, muy difícil es reducirla. Hubo entónces necesidad de ocurrir a los empréstitos; ya nó como al principio, para la ejecucion de obras de utilidad pública, sino para hacer frente a los gastos de administracion y al servicio de las deudas anteriores. En vísperas de la guerra, este recurso se encontraba agotado. Despues de haber tentado la plaza de Lóndres y reconocido la imposibilidad de hacer un nuevo empréstito; despues de haber agotado los recursos del crédito interior, el Gobierno se encontró obligado a recurrir al papel moneda. La ruina y la bancarrota eran inminentes.

" La rica Provincia de Tarapacá ofrecia ampliamente los medios de llenar el Tesoro chileno. Fuera del guano y de las aduanas, el derecho sobre el salitre puede fácilmente producir más de diez millones de pesos al año. Por lo demás, ahí están las cifras. Las aduanas y las salitreras de la Provincia de Antofagasta y de Tarapacá, han producido en 1882, segun las cuentas oficiales, la suma de $ 16 338,125 76. La codicia fué la causa de la guerra. Pero fué preciso adormecer la vigilancia de las naciones amigas que hubieran podido oponer eficazmente su mediacion, para contener en su principio una guerra ruinosa para los intereses de los neutrales, y emprendida por motivos muy fútiles en apariencia. Con este fin, el Gobierno chileno no cesó de declarar solemnemente y por todas las vías oficiales y otras, que en ningun caso trataria de apropiarse de ninguna porcion de territorio. Era preciso ser muy ciego para creerlo.

" Chile invoca hoy el pretexto, de que fueron principalmente capitales chilenos los empeñados en la industria del salitre de Tarapacá; ahí están las cifras auténticas que desmienten tal asercion. En una avaluacion de los establecimientos salitreros de esta Provincia, subiendo a más de 31 millones de pesos, los capitales chilenos figuran por menos de dos millones.

RUPTURA DEL ARMISTICIO DE MIRAFLORES.

" Un ejemplo más: hoy mismo oirá U. afirmar que la ruptura del armisticio de Miraflores fué la obra de la *perfidia* peruana, así como no cesan de publicarlo los órganos oficiales de Chile; entre tanto, el cuerpo diplomático de Lima, bajo cuya autoridad fué firmado el armisticio, declaró oficialmente que la culpa debe ser atribuida a los chilenos.

" Se podrá extender indefinidamente la lista de las aserciones descaradamente mentirosas de la cancillería chilena, sin hablar de la prensa. Lo poco que acabo de citar me parece más que suficiente para ponerlo en guardia contra todas las empresas de ese género, con que va U. a encontrarse asaltado.

Creo inútil hablarle sobre las lisonjas y sus caricias con que trataran allí de envolverlo.

EL GOBIERNO CHILENO NO QUIERE LA PAZ.

"La cuestion principal es la de la actualidad.

"Desde mucho tiempo, el Gobierno y la prensa de Chile, proclaman a gritos, que se quiere la paz, pero que desgraciadamente no hay con quién tratar. La verdad es, que el Gobierno chileno no quiere la paz y busca el modo de evitarla, o a lo ménos de postergarla lo más posible.

"Existe en Chile un partido importante, más particularmente por la calidad de las personas que lo componen, que desea que la paz se haga, porque está viendo que la paz, debiendo hacerse algun dia, lo más pronto es lo mejor.

"Así es que U. encontrará personas que le hablarán sinceramente en este sentido; pero no serán los hombres que están en el Gobierno, y que serian llamados a hacer frente a las numerosas dificultades sociales y financieras, que han de presentarse.

"Todos en Chile temen, y con razon, el regreso del ejército de ocupacion y de los numerosos empleados civiles que lo acompañan. El efecto desmoralizador de una guerra de conquista se ha hecho sentir de un modo horroroso. Al soldado se le ha enseñado a robar, a incendiar, a asesinar; los oficiales y los empleados aprendieron a robar y a no respetar ningun sentimiento, de conveniencia y de honorabilidad; con dificultad se mantiene hoy dia la disciplina, y los jefes no se atreven a emplear todo el rigor que es necesario.

"Hasta ahora Chile habia quedado libre del militarismo; los jueces y los empleados de administracion se han distinguido por una pureza, relativa a lo ménos; es una justicia que debe tributársele. Pero todo esto queda amenazado en sus raices. Los militares volverán con aspiraciones que pondrán en peligro el órden político; los empleados de los ramos judicial y administrativos volverán con pretensiones a que habrá necesidad de dar alguna satisfaccion, e introducirán la plaga de la desmoralizacion. Todos ven esto; los hombres sensatos reconocen que miéntras más se retarde, más grave se hará el mal, y por esta razon desean que se firme la paz lo más pronto posible; pero el Gobierno retrocede ante las dificultades que deben sobrevenir, y prefiere legarlas a otros.

RENTAS QUE LA OCUPACION PRODUCE A CHILE.

"Más que todo es la cuestion financiera la que domina en los consejos del Gobierno. Cuestion que afecta directamente los intereses de los neutrales, y más particularmente los de los tenedores de bonos de la deuda peruana, que en gran parte son franceses. Me parece tambien, que este es el punto de vista que debe merecer su preferente atencion.

"Adjunto a la presente un cuadro formado sobre la base de cifras oficiales, que le será fácil comprobar, y que indica las cantidades que Chile ha sacado en 1882 de los territorios ocupados, nada más que a título de aduanas y salitres; esto asciende a $22.648,082.26. A esto habria que añadir los productos del guano y los de las exacciones, cuyo pago se exige bajo de una infinita variedad de títulos y de pretextos.

(*Véase el "Diario Oficial" de Lima, del* 11 *de Abril de* 1883, *núm.* 264.)

BOLIVIA.

Aduanas:

Antofagasta		$ 1.020,863.54
Salitres:		
Antofagasta	$ 843,819.87	
Tocopilla	209,425.67	1.052.745 54

PERÚ.

Aduanas:

Callao	$ 4.816,198.26	
Arica	1.493,758 24	
Pisagua	2.022.491 78	
Iquique	5.511,128.62	13.843,576.90
Salitres:		
Pisagua	$ 1.939.508.84	
Iquique	4 791,387.44	6.730,896.28
Total		$ 22.648,082.26
Proveniente del territorio Boliviano		2.073,609.08
Proveniente del territorio Peruano		20.574,473.18

"Si de la suma total se deducen los productos de las aduanas del Callao y de Arica, queda para el producto de las Provincias de Antofagasta y de Tarapacá la suma de $16.338,125.76.

CHILE CON RESPECTO A LOS ACREEDORES PERUANOS.

"Miéntras dura la ocupacion, Chile no rinde cuenta a nadie de esas entradas, y se las apropia en su totalidad con gran detrimento de los interesados. El dia en que la paz esté firmada y el territorio desocupado, suponiendo que Chile quede en posesion de Antofagasta y de Tarapacá, no sólo pierde una gran parte de los recursos que saca actualmente del territorio ocupado, sino que tambien se encuentra obligado a tomar en cuenta los derechos primordiales de los acreedores del Perú, los que están hipotecados sobre el guano y el salitre; derechos que los gobiernos extrangeros y más particularmente los de Francia y de Inglaterra, no pueden permitir que sean hollados. Entre tanto esta es una de las pretensiones de Chile, contra la que tendra U. que luchar.

"La «Sociedad general del Crédito Industrial y comercial» habia ajustado un contrato con los señores Rosas y Goyeneche, debidamente autorizados para ello, por el cual se encargaba dicha sociedad de la administracion del guano y del salitre, y se obligaba a hacer el servicio de la deuda peruana en ciertas determinadas condiciones. Debia quedar todavia un alcance notable, suficiente para asegurar una renta al Gobierno peruano y una indemnizacion de guerra para Chile.

"El Sr. Novoa, representante de Chile en el Perú, ha declarado terminantemente al señor Lavalle, que jamás aceptará su Gobierno ninguna responsabilidad respecto al servicio de la deuda peruana, aún deteniendo Tarapacá. Todos los esfuerzos de Chile tienden a esto. Así es que en esa inexplicable e inaudita carta, que U. debe conocer, Mr. Logan notifica al General Montero que Chile no quiere contraer compromiso relativamente a la deuda peruana y que esta cuestion debe ser abandonada a su buena fé. Entre tanto, ningun Gobierno peruano puede llegar a ceder el guano y el salitre sin ocuparse de los intereses de los acreedores del Perú. No puede tampoco renunciar las fuentes de los recursos que permitan librarse al país de sus compromisos, quedando con el peso de una deuda cuyo pago le seria imposible liquidar.

"Los principios de humanidad que han sido tan brutalmente violados por Chile, así como las reglas del derecho internacional, no pesan hoy dia en las deliberaciones y en las resoluciones de los gobiernos, pero éstos están siempre en la obligacion de sostener los derechos de sus nacionales cuando ellos son atacados. Abdicar esta obligacion seria de honroso e imposible.

"Creo que este es el punto de vista que más particularmente debe dirigirlo, tomando en cuenta que todo retardo es un perjuicio indebidamente infligido a los intereses franceses, porque entre tanto ninguna parte de los recursos extraidos del Perú queda aplicada al pago de sus acreedores.

LA CONDUCTA DE LOS ESTADOS UNIDOS.

"¿Qué decir de la conducta del Gobierno de Estados Unidos?

"Es algo que pasa de todo lo que era permitido prever.

"Los Estados Unidos han contraido obligaciones hácia el Perú, para impedir que Chile abusara de su victoria. Con el aplauso de todos los partidos, en medio de la guerra del Pacífico, el Gobierno de Estados Unidos intervino para arreglar la cuestion entónces pendiente entre Chile y las provincias Argentinas, cuestion que habia llegado a un estado de extrema tension. Asegurar la tranquilidad de Chile por ese lado, era casi doblar las fuerzas de que podia disponer contra el Perú. Era contraer tambien la obligacion moral de impedir que Chile abusara de esas fuerzas. No parece que tengan la conciencia en Estados Unidos de que existe tal obligacion. No tengo tampoco conocimiento, de que los gabinetes extranjeros hayan hecho alguna amonestacion u observacion en ese sentido, no obstante de que habrian tenido el derecho y quizás aún el deber para ello.

"La actitud adoptada por el Gobierno de Estados Unidos de querer llegar a la paz por sus propios esfuerzos, con exclusion de toda otra potencia, despues de haber principiado por declarar que en ningun caso iria más allá de los buenos oficios, lo ha espuesto a todas las pruebas de desdén que ha tenido que soportar por parte de Chile.

"Hoy mismo, miéntras Mr. Frelinghuysen afirma que la paz se hará bajo los auspicios de los Estados Unidos y que está mandando telégramas e instrucciones a Mr. Logan para apurar una solucion, Chile ha inventado la innoble farsa del señor Iglesias y se propone tratar directamente con él, sobre bases enteramente distintas de las que sostienen los Estados Unidos y desconociendo por completo los derechos de los acreedores del Perú.

"Conozco el Perú bien a fondo y puedo afirmarlo que no hay potencia que sea capaz de mantener en el poder al señor Iglesias, contra la opinion y el sentimiento del país. Chile ha tratado de formar una sicion al Gobierno de García Calderon y ha empleado todos sus esfuerzos en ello; ha removido todos los malos elementos, comunistas y otros; pero no ha podido lograr su objeto, como lo confiesa la misma prensa chilena.

En conclusion.

"En resúmen: el Gobierno chileno evita la paz, quiere postergarla a lo ménos lo mas posible y como último recurso se empeña en hacer un tratado que desconozca los derechos de los acreedores del Perú, apropiándose entre tanto, como lo hace en el presente, de los productos que les servian de garantía. Se congratula de ver interponerse a los Estados Unidos entre él y las potencias europeas y espera alejar de este modo las exigencias de esas potencias, en favor de sus respectivos nacionales. Seria vergonzoso que pudiera alcanzar su objeto.

"Para dar satisfaccion a una corriente de la opinion pública, que se ha desarrollado con motivo del canal de Panamá, el Gobierno de los Estados Unidos pretende que él sólo está llamado a intervenir en las cuestiones americanas y entre otras, en la cuestion del Pacífico. Hasta ahora las potencias europeas no se han opuesto a esas pretensiones, pero no pueden entre tanto abdicar sus deberes y derechos. Para justificar sus pretensiones en la cuestion del Pacífico, los Estados Unidos tienen la obligacion de llegar a una solucion equitativa y con la menor dilacion posible. Hasta ahora se han mostrado ridículamente impotentes, como consecuencia natural de su enfática declaracion de no pasar en ningun caso del límite de los buenos oficios. Sobre la base de semejante declaracion, indigna de una grande nacion, dudo mucho que sean más felices en adelante. Entre tanto, las potencias europeas, cuyos nacionales tienen serios intereses comprometidos, no pueden permitir que esos intereses sean indefinidamente amenazados y desconocidos. Cualesquiera que sean las consideraciones, cualquiera que sea el respeto que se quiera guardar hácia el Gobierno de los Estados Unidos, hay un límite que no se puede traspasar.

Mr. Partrigo, Ministro de los Estados Unidos en Lima, habia reunido como U. lo sabe, a algunos representantes de las potencias extranjeras; les habia propuesto y hecho aceptar la idea de una representacion a sus respectivos gobiernos, para darles a conocer la necesidad de una pronta solucion y la conveniencia de una accion comun. Fué desaprobado por su Gobierno, que cedió en esto a la opinion pública dominada por esta titulada doctrina de Monroe. Debo decirle no obstante, de que Mr Frelinghuysen se defiende de haberlo revocado; pretende no haber hecho mas que apurarlo para que hiciera uso de una licencia que le fué concedida a solicitacion suya.—Se lo doy por auténtico. Tenia motivos mucho más plausibles para revocar a M. Logan, que se mostró un abogado demasiado caluroso de los intereses chilenos y que se ha puesto en abierta contradiccion con sus instrucciones y con las públicas declaraciones de su Gobierno. Pero su primo y senador Logan, ha sido una de las columnas del partido *Stalwart*, al que el Presidente Arthur debe su eleccion y no se atreven a disgustarlo. En cuanto a los motivos que han determinado la extraña conducta de M. Logan, pueden quedar ellos en el misterio, pero él no debe extrañar que la opinion pública haya sido severa para con él, no habiendo podido encontrar una honrosa explicacion para ello.

Apelacion a los poderes Europeos.

"Desde que el Gobierno de los Estados Unidos parece ser impotente para hacer llegar la cuestion a una pronta y satisfactoria solucion ¿no ha llegado el momento para que las potencias europeas, reivindiquen sus derechos y obren independientemente de él?—¿No ha llegado el momento en que por iniciativa de U., sus cólegas del cuerpo diplomático, tanto en Santiago como en Lima, se pongan de acuerdo para someter a sus respectivos gobiernos, la necesidad de poner un término al conflicto actual, cuya prolongacion es esencialmente perjudicial a los intereses en general de los neutrales y más particularmente a los de los acreedores del Perú? Un procedimiento en este sentido, facilitaria el camino, particularmente a los gobiernos de Francia y de Inglaterra, para obrar eficazmente".

Seria difícil armonizar muchas de las aserciones del señor Malinowski, con otras aserciones del Almirante Lynch, sobre los mismos hechos. Como ejemplos, podemos citar la

ruptura del armisticio de Miraflores y tambien las utilidades que saca Chile de la ocupacion militar del Perú — No emprendo tal tarea; me limito a presentar mi entrevista y la carta, como documentos para la historia de la guerra del Pacífico.

En todo caso, no necesitaba apoyarme en el testimonio enfático del señor Malinowski, para establecer el hecho de que la dominacion chilena en el territorio conquistado, apesar de haber sido mejorada por la prudencia y por la lealtad y el carácter benévolo del actual Comandante Militar, no ha logrado grangearse el afecto de los peruanos, ni tampoco ha tenido en mira tal objeto.

NUEVA FAZ EN LA GUERRA DEL PACÍFICO.

(Editorial)

Nueva York, Setiembre 7 de 1883.

Nuestra carta de Lima, que publicamos en otra página, que trata del aspecto que está tomando últimamente la cuestion del Pacífico, no dejará de llamar la atencion, tanto en Estados Unidos como en Europa, porque no sólo presenta de un modo claro el estado actual de cosas, sino tambien porque dá a conocer algunos serios motivos de quejas de los peruanos contra nuestro país. Quizá su rasgo más importante, es la entrevista con el Vice-Almirante Lynch, General en Jefe del ejército de ocupacion chileno en el Perú, en la que este recto militar habla de la política de su país y de la condicion y perspectiva de sus enemigos vencidos, con una franqueza mi itar que hace contraste con el lenguaje habitual de la diplomacia sud-americana. El Almirante Lynch afirma que Chile está ansioso de hacer la paz con el Perú, lo más pronto posible; tan ansioso de ella, que si el plan de Iglesias viene a fracasar, se llegará a la paz decretándola, por falta de un Gobierno en el Perú, autorizado para ratificar sus condiciones.

Esto no puede tener otra significacion, sino que Chile piensa poner un pronto término a su ocupacion del Perú, arriba de la línea del territorio que ha determinado anexarse. Mejor habria sido si el Supremo Gobierno de Santiago hubiera tomado anteriormente esta decision. La ocupacion durante tres años, de la Capital peruana y de sus puertos, despues de las batallas de Chorrillos y de Miraflores, ha engendrado males para todas las partes interesadas. Ha sembrado semillas de desmoralizacion en el servicio público de Chile, las que tendrán que producir sus venenosos frutos.

Ha arruinado el Perú y llevado al destierro o afligido con un abatimiento sin esperanza, a muchos hombres cuyos consejos y cuya cooperacion eran de gran importancia para la reconstruccion del país. Ha exitado en la Capital y en el interior del país un odio profundo contra el vencedor; y más que todo, ha impresionado al mundo, con la creencia de que la ruina permanente de un país desamparado, fué realmente el perverso intento de muchos de los hombres de Estado de Chile.

Este último punto está presentado con mucho vigor, y debemos añadir tambien, con mucha plausibilidad, en un escrito notable que el señor don Ernesto Malinowski dirige a Mr. Pascal Duprat, el nuevo Ministro francés en Santiago, y que cayó en manos de nuestro corresponsal, de quien él dá una traduccion. En este escrito, lo mismo que en la carta de nuestro corresponsal, la relacion de la inmensa deuda del Perú con su porvenir, en vista de la determinacion de Chile de no aceptar ninguna parte de ella, está expuesta de tal modo, que hace ver claramente que la resolucion de Chile abre una nueva faz en la guerra del Pacífico, la que envuelve probabilidades que son de alguna importancia para los Estados Unidos en conexion con los extraordinarios y recientes actos de nuestra diplomacia. Los EE. UU. han advertido a los Gobiernos europeos, sobre toda ingerencia con los beligerantes del Pacífico, y estos han respetado hasta ahora esta advertencia, apesar de nuestra patente inhabilidad de sostenerla, por razon de la impotencia de nuestra marina. Hemos estado jugando con juego bien peligroso.

El señor Malinowski se equivoca cuando lo califica, como la aplicacion de la doctrina de Monroe. Esta doctrina mal entendida no tiene que hacer nada con la cuestion. No hay nada en la doctrina de Monroe que prohiba la intervencion de un Gobierno europeo para la proteccion de los intereses de sus súbditos, cuando sus derechos son desconocidos en un país americano. Pero habiendo nosotros avanzado tanto como lo hicimos, habria sido prudente ejercer nuestra influencia so-

bre los beligerantes, si era posible, para evitar todo motivo plausible para tal ingerencia; y en cuanto a esta última faz de la guerra del Pacífico, es evidente que hemos quedado mal y de un modo lamentable. Una cuestion como la de la deuda peruana, es una cuestion en que los gobiernos europeos han intervenido con frecuencia en favor de sus súbditos, y pueden todavia intervenir frecuentemente; y si consideran ahora ser conveniente intervenir e insistir en que Chile no pueda anexarse ninguna parte del territorio peruano por derecho de conquista o como castigo, sin asumir una parte equitable de la deuda, para cuyo pago eran especialmente hipotecados los productos naturales y entradas de ese país, ¿qué es lo que haremos?

No puede haber duda en cuanto a la resolucion de Chile. Fuera de la declaracion del señor Novoa al señor Lavalle, que cita el señor Malinowski, nuestro corresponsal refiere una declaracion posterior y más enfática todavia del Ministro de Hacienda de Chile al agente de los tenedores ingleses de bonos peruanos; y se debe tener una completa fé en la autenticidad de esta informacion. Las palabras del señor Cuadra son virtualmente un desafío a la Gran Bretaña de intervenir, y el Gobierno chileno confía para ello en los antecedentes en varias partes del mundo y particularmente en Méjico, que la Gran Bretaña "abandonará a sus súbditos, que son acreedores de países extrangeros a la dura ley de *caveat emptor*. Pero suponiendo que en el caso actual, Chile se haya equivocado en sus presunciones, vuelve siempre la cuestion: ¿qué es lo que haremos?

Los últimos antecedentes relativos a la repartición de las deudas públicas en conexion con cesiones de territorio, están resumidas por Mr. Boyd, en una nota inserta en la última edicion de "Derecho Internacional" de Wheaton:

"*La mayor parte de los tratados que comprenden trasferencias de territorios, contienen una cláusula que provée al pago de la deuda del territorio cedido. Así, cuando Holanda y Bélgica quedaron reunidas, en 1814, se estipuló que el nuevo reino de los Paises Bajos, quedaria responsable de las deudas de ámbos países. Cuando la Dinamarca cedió el Scheleswig, el Holstein y el Lawenburgo al Austria y la Prusia, se convino entre las partes firmantes, que las deudas de la manarquía dinamarquesa, quedarian divididas entre Dinamarca y las Provincias cedidas, en proporcion a la poblacion respectiva. Cuando Italia adquirió en 1864 los Estados Pontificios, y en 1866 la Venecia, en ámbos casos Italia tomó a su cargo las deudas aferentes a esos territorios. En algunos casos ha habido territorios que fueron trasferidos libres de toda parte de la deuda del Estado a quien habian pertenecido.*

Este fué el caso cuando Sajonia, Coburgo cedió el Lichtemberg a Prusia en 1831, y cuando Austria, Cerdeña y algunos estados italianos rectificaron sus límites en 1844. Cuando Francia cedió la Alsacia y la Lorena en 1871, Alemania se negó a tomar a su cargo ninguna parte de la deuda francesa. Conforme al tratado de Berlin, los territorios turcos, entregados a Servia y a Montenegro, cargaron con una parte de la deuda turca. A los territorios cedidos a Rusia no se impusieron semejante cargo, porque fueron considerados como parte de la indemnizacion de guerra que Rusia reclamaba de Turquia."

El antecedente sobre el que los hombres de Estado de Chile más particularmente se apoyan es el de Alsacia y Lorena. El Almirante Lynch hizo una mencion especial de ello en su conversacion. Pero se comprende que hay diferencias materiales entre las dos cosas. Una de ellas es la hipoteca especial hecha por el Perú para la seguridad de la deuda.

No tenemos el intento, por hoy, de discutir estensamente las interesantes cuestiones que envuelve esta materia. Nos contentamos con someterlas al público americano.

Para concluir, debemos hacer una ligera referencia a los severos comentarios del señor Malinowski sobre los procedimientos del doctor Logan, Ministro de Estados Unidos en Chile. Asegura que el señor Logan ha violado sus instrucciones. Podemos aventurarnos a asegurar, que el señor Malinowski no tiene conocimiento de dichas instrucciones; y como la Secretaría de Estado ha observado un secreto absoluto para el público americano, respecto a todas las negociaciones referentes a los beligerantes del Pacífico desde que terminó la mision de Mr. Trescott, nos proponemos dar pronto a luz algunas informaciones sobre esta materia.

PRENSA AMERICANA.

"NEW-YOR HERALD" DEL 14 DE SETIEMBRE DE 1883.

La Guerra Sud-Americana.

Condiciones en que nos encontrábamos, respecto a esta cuestion al tiempo del nombramiento de Mr. Frelinghuysen como Secretario de Estado.

LOS MINISTROS LOGAN, PATRIDGE Y MANEY.

Sus instrucciones revelan una nueva política por parte de los Estados Unidos.

SE ACONSEJA AL PERU LA CESION DE TERRITORIO,

Una diplomacia de misioneros reemplaza a una diplomacia de pugilato.

NEGOCIACIONES DE LOGAN CON GARCIA CALDERON.

UNA RELACION DE DICHAS NEGOCIACIONES COMUNICADAS AL CONGRESO CHILENO EN SESION SECRETA.

EL MEMORANDUM DE GARCIA CALDERON.

Sus consecuencias induce la acusacion de especulacion (jobbery) contra García Calderon.

De nuestro corresponsal, Lima, Agosto 14 de 1883.

Mr. Frelinghuysen se hizo cargo de la Secretaría de Estado de los Estados Unidos el 1º de Enero de 1882.

La legacion de los Estados Unidos en Chile estaba vacante por haber muerto en Santiago, en Diciembre de 1881, el General Judson Kilpatrick, que habia sido nombrado para ese puesto al principio del verano del mismo año, siendo Secretario Mr. Blaine. Poco despues, la legacion del Perú, a la que el general Stephen A. Hurlbut habia sido nombrado en tiempo de Mr. Blaine, simultaneamente con el General Kilpatrick, quedó tambien vacante por la repentina muerte de Mr. Hurlbut, acaecida en Lima el 27 de Marzo de 1882. La legacion de Bolivia, que desempeñaba el General Charles Adams, de Nevada, nombrado en tiempo del Secretario de Estado Evarts, tambien vacante, y la embajada especial de Mr. William H. Trescott, de Sud-Carolina, mandada por el Secretario Blaine, cerca de las tres Repúblicas beligerantes en mision extraordinaria, cuyo nombramiento lleva la fecha de 30 de Noviembre de 1881, terminó practicamente a principios de Mayo.

CAMPO LIBRE PARA EL SECRETARIO FRELINGHUYSEN.

Las diversas empresas en que estaban em-

peñados esos diferentes empleados, en el Perú, Bolivia y Chile, habian tenido un fin desdichado. El mismo Secretario Blaine se habia vuelto contra el General Hurlbut y lo habia reconvenido por su Memorandum dirigido al Almirante Lynch y por su negociacion con Garcia Calderon, respecto al puerto de Chimbote; las esplicaciones y disculpas de la legacion chilena en Washington respecto al arresto de Garcia Calderon y su conduccion a Chile, fueron aceptadas como satisfactorias por el Gobierno del Presidente Arthur; las miras con que Mr. Trescott emprendió sus viages quedaron todas abandonadas y frustradas, y el único fruto de su mision—el protocolo de la negociacion de la paz entre Chile y el Perú, firmado en Febrero en Viña del Mar, lugar de baños cerca de Valparaiso, por él y el señor don José Manuel Balmaceda, Ministro entónces de Relaciones Exteriores—fué reprobado por la Secretaría de Estado, por razon de la "exorbitancia" de las exigencias de Chile.

Las condiciones eran, en resúmen, las siguientes: 1.ª la absoluta cesion de Tarapacá a Chile; 2.ª ocupacion de Arica y Tacna, por diez años o más, si el Perú lo deseaba, debiendo el Perú pagar $ 20.000,000 para la recuperacion de este territorio y comprometerse a no fortificar Arica; y 3.ª Los netos productos del guano de Tarapacá y de las Islas de Lobos, debia dividirse por mitad entre Chile y los acreedores del Perú haciendo sólo mencion de los depósitos de guano ya descubiertos y explotados en la fecha del protocolo, nó de los que podrian descubrirse en adelante. En cuanto a la deuda peruana, el protocolo guardaba silencio, fuera de lo que estipulaba el artículo 3º El Secretario Frelinghuysen telegrafió el 7 de Febrero a Mr. Trescott contestando acerca de dichas condiciones, que: "en ningun caso los Estados Unidos tomarian parte en negociaciones basadas sobre la cesion de Tarapacá y una indemnizacion adicional de $ 20.000,000, considerando que esas exigencias eran "exorbitantes", y el señor Trescott contestaba que era cierto que "las condiciones eran excesivas, pero que Chile es tan fuerte y el Perú tan débil, que una intervencion simplemente amistosa no tendrá efecto de ningun modo."

En cuanto a los acreedores del Perú y la condicion que es relativa a ellos, el Secretario Frelinghuysen telegrafiaba el 22 de Febrero que «si Chile persiste en su exigencia de la cesion de Tarapacá, ellos (los acreedores) podrian sostener que las rentas de dicha Provincia estaban ya hipotecadas.»

Así es que el Secretario Frelinhhuysen tenia al principio de su ministerio un campo libre para inaugurar una nueva política de los Estados Unidos, respecto a la guerra del Pacífico y con nuevos agentes.

LOS AGENTES DIPLOMÁTICOS DEL SECRETARIO FRELINGHUYSEN.

Eligió para sus agentes: 1º al doctor Cornelius A. Logan, del Illinois, para Ministro en Chile. El doctor Logan frisa como en los cincuenta años de edad, tiene la experiencia de la diplomacia en los países hispano-americanos y habla con facilidad el idioma de estos países. Habia servido en ese mismo puesto durante el segundo período del Presidente Grant, y cuando recibió su nuevo nombramiento se encontraba en Guatemala con el carácter de Ministro de los Estados Unidos en Centro América, donde habia sido acreditado por el Presidente Hayes,

2 Mr. James R. Partridge, del Maryland, para Ministro al Perú—Mr. Partridge, tiene quizás diez años más de edad que Mr. Logan, e igual a éste en experiencia diplomática y en el conocimiento del español. Habia servido en la época de los presidentes Lincoln y Johnson, como Ministro en Honduras y San Salvador, países de lengua española, y en la época del Presidente Grant en el Brasil, país de lengua portuguesa.

Al tiempo de su nombramiento para el Perú, no estaba en servicio, y ejercia su profesion de abogado en Baltimore y en Washington.

3 Mr. George Maney, del Ohio, para Ministro en Bolivia. Mr. Maney habia servido como Ministro de EE. UU. en Colombia.

SE PREPARAN PARA SUS MISIONES.

El nombramiento de los señores Logan y Partridge fué hecho desde el mes de Abril, pero no salieron para Sud América, sino algunas semanas despues.

Ambos, por medio de consultas personales con el Presidente y con el Secretario de Estado en Washington, y por medio del estudio de los archivos del Departamento de Estado, emplearon bastante tiempo en instruirse a fondo de los antecedentes de sus comisiones

y en lo que se esperaba de ellos. De parte del Dr. Logan, este deber exigió más tiempo que de parte de Mr. Partridg, por consideracion a que tuvo que emplear algunas semanas en el viaje que tenia que hacer con tal objeto de Guatemala a Washington. Por consiguiente, Mr. Patridge fué el primero que salió para ocupar su puesto. Partió de Nueva York el 20 de Mayo, y llegó a Lima el 20 de Junio.

El Dr. Logan partió de Nueva York el 25 de Julio; se detuvo en Lima para conferenciar con Mr. Partridge en Agosto, y llegó a Santiago el 2 de Setiembre.

Provecho sacado de la experiencia de Mr. Trescott.

Despues de una dura experiencia de cinco meses en su mision especial, Mr. Trescott habia escrito el 3 de Mayo al Secretario Frelinghuysen:—"Considero ser de la mayor importancia que sea autorizado para regresar, a fin de exponerle el resultado de mis observaciones, cosa que dificilmente podria hacer de un modo suficientemente completo en un despacho. Entónces espero, que estará U. en estado de dar instrucciones precisas a los excelentes, experimentados y hábiles Ministros que han sido nombrados últimamente para llenar las vacantes de las legaciones de Chile y el Perú."

Durante esos cinco meses, Mr. Trescott habia obrado en Santiago al principio, bajo la suposicion de que estaba apoyado, tanto por la fuerza material cuanto por la influencia moral de su país; más tarde sus poderes quedaron restringidos en Washington; despues tuvo que sufrir una grave humillacion en el despacho de R. E. de Chile, y al fin firmó un protocolo de paz entre Chile y el Perú, que contenia condiciones muy duras.

Este protocolo fué desaprobado por la Secretaría de Estado, despues de lo que salió para el Perú, sin hacer aún la visita de etiquota de despedida, al Ministro de R. E. de Chile.

Asistió despues en el Perú al entierro del General Hurlbut, y se alojó en casa de uno de los enemigos más ardientes de Chile, y emprendió, en fin, un viaje a lomo de mula "con grandes molestias" [*whit great discomfort*] a Huaraz, en el Norte, donde reconoció formalmente al Gobierno del Almirante Montero e inició una tentativa de negociaciones de paz con el señor Novoa, representante civil de Chile en Lima, que abortó por completo.

Habia hecho tambien un memorandum de algunas conversaciones confidenciales con el Ministro de R. E. de Chile, en que se daba a entender que las exigencias consignadas en el protocolo de Viña del Mar, podrian ser modificadas en ciertas eventualidades, caso que el Perú tomase la iniciativa de proponer un sustituto.

Como Mr. Trescott llegó a Washington ántes del 5 de Junio, y como las "instrucciones precisas" que fueron dadas por el Secretario Frelinghuysen a los señores Logan, Partridge y Maney, llevan la fecha del 26 de Junio, es de suponer que la Secretaría de Estado aprovechó la experiencia de Mr. Trescott. Así es que se debe admitir que las instrucciones del 26 de Junio fueron redactadas con el más perfeto conocimiento de los asuntos a que se referian, y tanto por su tenor, cuanto por la conducta adoptada por la Secretaría de Estado, relativamente a los procedimientos a que dieron lugar dichas instrucciones, se puede legítimamente juzgar la política sud-americana de la presente administracion, sin que ella pueda aducir en su defensa la falta de informaciones completas para disculpar sus errores.

Lo que la Secretaría de Estado debia o podia haber conocido.

En virtud de sus informaciones, la Secretaría de Estado debia, o a lo ménos, podia haber sabido perfectamente, que los EE. UU. de América, apénas tenian un amigo entre las clases dominantes, en la costa Occidental del continente Sur: que los peruanos miraban, casi unánimente y con sentimientos de odio, a este país, y con justicia, por las miserables e ilusorias promesas de intervencion con que fueron engañados por Mr. Hurlbut; promesas que el mismo secretario Blaine reprobó en el intérvalo de la muerte del Presidente Garfield y de su retiro del gabinete del Presidente Arthur; que los chilenos miraban unánimamente nuestro país, con sentimientos en que la adversion se unia al desprecio, por razon de sus altivas pretensiones de querer imponer [*boss*] el arreglo de la guerra del Pacífico, y dictar las condiciones de paz, sin tener una marina competente para dar fuerza a sus mandatos; por sus vacl-

laciones en su actitud respecto a los beligerantes; por la grosera impropiedad de la mayor parte de sus nombramientos diplomáticos, y de los escándalos que se agregaban a muchos de ellos, y por haber deliberadamente expuesto a su enviado especial a una humillacion, de las más grandes, por parte del señor Balmaceda; humillacion que jamas habrá sufrido el representante de una gran nacion, de otra pequeña.

Me refiero, naturalmente, a la noticia que dió el Ministro de R. E. de Chile a Mr Trescott, de ser cambiadas sus instrucciones, en condiciones muy mortificantes, porque su Gobierno habia omitido informarle por telégrafo, miéntras que el Ministro chileno fué prontamente avisado por su enviado en Washington, quien era el informado, como de costumbre, exacta y prontamente de las cosas que ocurrian allá.

La Secretaría de Estado debiera haber sabido tambien, que los desatinos de la diplomacia de EE UU en la costa del Pacífico durante los tres últimos años, habian consolidado en toda la América del Sur un sentimiento de resistencia contra las pretensiones de EE UU, de dominar [*boss*] la política del Continente, a título de superintendente que se habia arrogado; que en una palabra, habia creado en los estados sud-americanos una "doctrina de Monroe" en contra de los EE. UU.; y a no ser por las modificaciones en las instrucciones de Mr. Trescott, esta resistencia habria sido llevada adelante por Chile, aliándose con el Brasil, y con la esperanza del apoyo de la Gran Bretaña, hasta el punto de arriesgar a guerra con los EE. UU; y que la sola razon por la que el Gobierno de Chile se detenia en exigir sus verdaderos sentimientos en este asunto, era porque se contraria conveniencia en ese momento ha sido uso de nuestro poder, como de un instrumento para precaverse de una intervencion europea, habiendo ya servido eficazmente los EE. UU. para impedir hostilidades de la República Argentina contra Chile; hostilidades que el Gobierno de Buenos Ayres habia podido precipitar, amparando el poder en el Brasil.

Todo esto, y aún mucho más, debiera, o a lo ménos hubiera debido saber nuestra Secretaría de Estado, como "resultado de las observaciones de Mr. Trescott"; pero no obstante, trata de "*hacer un nuevo pequeño esfuerzo*" en la cuestion del Pacífico. Esta frase es suya, como se verá del siguiente extracto de sus instrucciones a los señores Logan, Patrick y Manney, y que no son proporcionadas por "Miss Chick" de "Dombey and Son" (a).

Astutas informaciones del servicio diplomático de Chile.

Despues de este preámbulo, procederé a presentar un bosquejo de las instrucciones del 26 de Junio de 1882, haciendo solamente notar, que aunque por la primera vez están puestas, en el conocimiento del público americano, si no su contenido literal, su parte sustancial, fué conocida tiempo há por el Gobierno de Chile, cuyo servicio diplomático, segun lo hice ya notar, es mucho más astuto y eficiente que el nuestro, para la averiguacion y la trasmision de las informaciones.

Las tres series de instrucciones parecen haber sido redactadas por una misma mano; exactamente como lo fueron las instrucciones delineadas por Mr. Trescott para el Secretario Blaine, a los ministros Hurlbut y Kilpatrick en Junio 15 de 1881.

Respecto a la parte tomada por Mr Trescott en el particular véase su interrogatorio y sus declaraciones ante la comision de R. E. (Cámara de los Representantes, Informe 1,790, páginas 357-367, 47° Congreso, primera sesion). No aparecerá todavía y probablemente nunca aparecerá, quién fué el redactor en ese último caso, ni será esto probablemente de importancia. La responsabilidad pertenece naturalmente al Gobierno, y más particularmente al Secretario de Estado, en uno como en otro caso.

Instrucciones a Mr Logan.

Las instrucciones a Mr. Logan, principian con un preámbulo, diciendo: que el primero y más urgente deber de los nuevos ministros era, el de cooperar a la realizacion de la paz entre Chile y el Perú, y que era una obligacion imperiosa para ellos continuar combinando sus esfuerzos hasta conseguir el objeto deseado o hasta que la falta de buen éxito sea positiva y declarada; pero la Secretaría de Estado reconoce que en 1880, la paz hubiera podido realizarse en condiciones más favorables para el Perú que ahora. Despues siguen declarando lo que Chile tiene derecho a exigir condiciones que le garantizen una indemni-

(a) Novela popular de Charles Dickens.

zacion por sus gastos de guerra, una garantía para la conservacion de la paz, y tambien garantías para la ejecucion de las estipulaciones del tratado; pero que en el arreglo de las condiciones, los Estados Unidos desean impedir la perpetracion de graves injusticias contra los beligerantes vencidos, y al mismo tiempo juzga necesario el Gobierno de Estados Unidos, que el actual estado de cosas en el Perú, llegue a un pronto término.

Se mandó a Mr. Logan comunicar este preámbulo al Gobierno de Chile y notificarle su deseo, y de ayudar en cuanto le fuese posible, en los límites de sus instrucciones, para llegar a un arreglo; pero la Secretaría de Estado reconocia que por razon del alejamiento de su campo de accion de Washington, y por razon de la dificultad de las comunicaciones, se debia dejar mucho a su discrecion. Su principal obligacion era de insistir con Chile, para que fuese moderado en sus exigencias. El Gobierno de Estados Unidos entiende que Chile está en posesion de la costa de Bolivia y de las Provincias de Tarapacá, de Arica y Tacna, y no cree que en ningun caso anexará u ocupará Chile de un modo permanente, otra porcion del Perú y por consiguiente, los esfuerzos de Mr. Logan deben tener por objeto, la devolucion al Perú de la mayor parte que se pueda de dicho territorio, y tambien de obtener para el Perú una indemnizacion tan elevada cuanto se pueda, por la parte que se la retenida por Chile.

Despues se citaba con aprobacion el estracto siguiente de las instrucciones de Mr. Blaine a Mr. Trescott en 1º de Diciembre de 1881:

"U. declarará que este Gobierno reconoce sin reserva ninguna, el derecho de Chile para una indemnizacion adecuada por los gastos de guerra, y garantias suficientes de que no se encontrará nuevamente espuesto a demostraciones hostiles por parte del Perú; en seguida declarará U. que si el Perú no tiene la posibilidad o bien la voluntad de pagar tal indemnizacion, el derecho de conquista ha proporcionado a Chile los medios de suplir a ello, y un ejercicio racional de este derecho, por más que se pueda deplorar la necesidad de ello, no dá lugar a quejas legítimas de parte de otras potencias. Pero este Gobierno considera que el uso del derecho de conquista es peligroso para los intereses de todas las Repúblicas de este continente; que de esto resultaran con seguridad otras guerras y disturbios políticos, y que esto impone aun al conquistador, gravámenes que difícilmente son compensados por el aparente incremento de poder."

Excepto esas instrucciones generales, dejábase todo al buen juicio y discrecion de Mr. Logan, pues, juzgaba el Presidente que no convenia trabársele con más restricciones.

Decian en seguida las instrucciones, que en caso de que el Gobierno chileno se inclinara a hacer uso de los buenos oficios del Ministro americano en Chile, arreglando condiciones con cualquier Gobierno peruano que existiese, y pidiera, en consecuencia, su apoyo, quedaba él expresamente autorizado para ir con dicho objeto al Perú o a Bolivia en su carácter oficial, cooperando a ello con sus colegas en esos países; que la Secretaría de Estado no creia fuese necesario recomendarle evitar toda usurpacion, y que por consiguiente, sus colegas en el Perú y en Bolivia quedarian informados de esta parte de sus instrucciones, a fin de evitar las desavenencias que pudieran resultar de ello.

Agregábase que el Presidente de los Estados Unidos no abrigaba el temor de que el Gobierno chileno se resistiera a escuchar las ofertas preliminares de Mr. Logan y que él (el Presidente) esperaba que Mr Logan tendria la buena fortuna de contribuir eficazmente a la conclusion de la paz; pero si esas esperanzas se frustraban y si Chile estaba rebacio a la moderacion, hasta el límite en que el Ministro americano juzgara conveniente comprometer a los Estados Unidos como potencia mediadora, quedaria entónces toda la responsabilidad de parte de Chile.

En este caso tenia órden de poner el hecho en conocimiento de la Secretaría de Estado, y en caso de que, a consecuencia de esto, el Presidente le mandara la órden de regresar a Washington, tenia por instruccion, ántes de dejar el puesto, advertir al Gobierno chileno que el Gobierno de Estados Unidos habia agotado sus esfuerzos en la mediacion.

Para concluir, habia una advertencia precisa para la conservacion de la armonía entre Mr. Logan y Mr. Partridge, tomando particularmente en consideracion, las desavenencias anteriores (primero entre Mr. Christiancy en el Perú y Mr. Osborne en Chile, y despues entre los señores Hurlbut y Kilpatrick) y para mayor seguridad, de que la discordia fuese imposible, las instrucciones a Mr. Partridge de la misma fecha [26 de Junio] fue-

ron entregadas a Mr. Logan para que las pusiera en manos del destinatario a su paso por Lima.

Las instrucciones de Mr. Partridge.

En vista de que las credenciales que llevó Mr. Partridge al salir de Nueva York el 20 de Mayo, lo acreditaban simplemente acerca del Poder Ejecutivo del Perú, sin especificar nominalmente a ninguna persona; las instrucciones del 26 de Junio principiaban designando al Almirante Montero, Vice-Presidente y Jefe del Poder Ejecutivo en Arequipa (durante la prision de García Calderon en Chile) como la persona designada. Las instrucciones decian: que Mr. Trescott reconoció a Montero y debia ahora admitirse, que el Gobierno de Estados Unidos ha sancionado dicho reconocimiento. En consecuencia, Mr. Partridge tenia órden de ir a Arequipa y de presentar sus credenciales al Gobierno Calderon-Montero—"el único Gobierno reconocido por los Estados Unidos"—tomando previamente la precaucion, por medio de una conferencia personal con Mr. Logan en Lima, de evitar disputas parecidas a las que anteriormente habian dañado y desacreditado a los Estados Unidos (en los casos de Mr. Christiancy con Mr. Osborne y de los señores Muribut y Kilpatrick)

Habia llegado el momento para que los Estados Unidos "hicieran un nuevo esfuerzo" en favor de la paz, y por consiguiente se habian dado órdenes al efecto a Mr. Logan, dejándole mucho a su discrecion para las negociaciones.

Se sospechaba que la mayor dificultad para las negociaciones, provendria de la aversion del Gobierno de Chile para reconocer el Gobierno de Montero, y por consiguiente, los primeros esfuerzos de Mr. Logan debian tender a remover este obstáculo y conseguir a lo ménos un reconocimiento provisional para los fines de dicha negociacion. Las obligaciones de Mr. Partridge eran de convencer a Montero y a sus consejeros, de la necesidad de ver claro los resultados de una guerra adversa y que el interés que los Estados Unidos toman en el asunto, no debe ser interpretado como una intencion de apoyar al Perú en su resistencia a fundadas exigencias de Chile, apoyándose en tal interpretacion para resistir a ellas. Si la voz de Estados Unidos pudiera prevalecer, Chile no exigiria del Perú más que una indemnizacion pecuniaria; pero, por ahora es fútil tomar esto en consideracion.

Chile no dejará el territorio conquistado, a ménos que el Perú consienta en negociar sobre la base de una cesion de territorio, los Estados Unidos no pueden ayudarlo.

No obstante, en caso que el Perú consintiera, en negociar sobre esta base, Mr. Partridge debia informar a Montero, que Mr. Logan tenia instrucciones para conseguir de Chile los términos más favorables que pudieran obtener los EE. UU. por medio de su "influencia moral". El modo como los beligerantes debian entablar sus relaciones, dejábase a las circunstancias y al buen juicio de Mr. Logan.

Se mandaba conferenciar a Mr. Partridge, libre y fracamente sobre las opiniones del Perú con Mr. Logan, durante la permanencia de éste en Lima; y se le advertia que era tambien Mr. Logan, quien debia resolver y juzgar si podian conseguirse condiciones de Chile que pudieran someterse a la consideracion del Perú.

Se dejó a la discrecion de Mr. Logan, si las primeras proposiciones debian venir de Chile o del Perú.

Poníase en seguida [illegible] conocimiento de Mr. Partridge, que Mr. Logan estaba autorizado para ir al Perú cuando juzgara el momento oportuno de conferenciar con el Ministro de Estados Unidos en el Perú y de cuyos servicios debia valerse siempre en sus relaciones con el Gobierno peruano.

Las instrucciones de Mr. Maney.

Las instrucciones de Mr. Maney (Junio 26) eran muy sucintas. Se le informaba que los señores Logan y Partridge tenian órdenes para hacer un nuevo esfuerzo a favor de la paz entre los beligerantes del Pacífico y en caso que las negociaciones llegasen a un punto en que el concurso de Bolivia fuese necesario, se le daba órden de dar cerca del Gobierno boliviano los pasos que ellos le indicarian.

El asunto estaba confiado enteramente, por el Presidente de Estados Unidos a la discrecion de esos señores, y no se debia dar paso ninguno en Bolivia en nombre de los Estados Unidos sin el consentimiento y la aprobacion de ellos.

El principal objeto de la Secretaría de Estado en estas breves instrucciones a Mr. Maney, parece haber sido precaverse de una re-

peticion de las hazañas de *Judge* S. Newton Pettis, el enviado verdaderamente extraordinario del Secretario Ewarts en Bolivia en 1879, quien trató de arreglar, ante sí y por sí *(offhand)* toda la cuestion de la guerra Sud-americana.

Los rasgos distintivos de las tres series de instrucciones.

Cualquiera que haya estudiado la coleccion publicada, de la diplomacia de Estados Unidos en Sud-América, que termina con la mision de Mr. Trescott, observará que el rasgo distintivo de las tres series de instrucciones, considerándolas en su conjunto, es el reconocimiento por el Gobierno del Presidente Arthur, de la cesion de territorio por parte del Perú, como una condicion inevitable de un tratado de paz, y una insistencia cerca del Perú por los Estados Unidos para que se sometiera á ello.

Las instrucciones de Mr. Blaine a Mr. Trescott en 1.° de Diciembre de 1881, especificaban como siendo los dos objetos de su mision, "primero: de acordar los medios convenientes para que el Perú pueda establecer un gobierno regular e iniciar negociaciones; segundo: inducir a Chile a consentir en tales negociaciones, sin poner por condicion previa la cesion de territorio."

Las instrucciones del Secretario Frelinghuysen en 26 de Junio de 1882 a Mr. Logan redactadas en conexion con las de Mr. Partridge, determinaban como objetos de su mision, primero: inducir a "reconocer" el Gobierno Calderon-Montero, a lo ménos provisionalmente, para los fines de la negociacion, y habiendo obtenido ésto, mediar entre los beligerantes hasta que convengan en condiciones de paz, basadas sobre una cesion de territorio a Chile (incluyendo a Tarapacá, Arica y Tacna si fuese necesario, pero conservando el Perú tanto cuanto se pueda de Moquegua); y asegurando en favor del Perú una indemnizacion de parte de Chile por tal posesion de territorio que Chile retendria; se deja presumir que esta indemnizacion tenia por objeto proveer la Hacienda del Perú con fondos suficientes para que pueda poner en movimiento la máquina gubernamental despues que Chile hubiese evacuado el país hasta los linderos del territorio cedido.

Las dos diplomacias.

En resumen, la diplomacia de Blaine tenia por objeto salvar la integridad del territorio peruano y proporcionar a Chile una indemnizacion de guerra pecuniaria, por medio del Crédit Industriel, con la intimacion de que se emplearia la fuerza si fuese necesario, para apoyar esa advertencia; y la diplomacia de Frelinghuysen tenia por objeto la cesion por el Perú a Chile, de una porcion de territorio suficiente para satisfacer más que ampliamente las demandas de Chile, y obtener de éste una indemnizacion pecuniaria para que el Gobierno peruano pudiera iniciar una nueva vida, conteniendo siempre las exigencias de Chile, tanto cuanto fuese posible contenerlas por medio de la "influencia moral" de los EE. UU.

Todo el proyecto de Mr. Frelinghuysen estaba impregnado en la idea de que Chile era susceptible a «la persuacion moral» y que los Estados Unidos conservaban todavía una grande "influencia moral" en Sud-América. En verdad que tal proyecto puede merecidamente llamarse "diplomacia de misioneros" en contraste con la diplomacia de pugilato de Mr. Blaine.

La única penalidad con que se le amenazaba a Chile, en caso de fracasar la "persuacion moral" era de notificarle que los Estados Unidos habian agotado todos sus esfuerzos de mediacion, penalidad tan aterradora, que recuerda el castigo de "llamar nominalmente a un miembro"—(*calling a member by name*) adoptado en los procedimientos parlamentarios de Inglaterra y de Estados Unidos, sobre lo que existe la tradicion, de que un distinguido hombre de Estado en Inglaterra, decia: que solo Dios sabia las "terribles consecuencias" que resultarian de tal castigo."

Y tal conducta política, fué deliberadamente adoptada a los cuatro meses cumplidos, despues que la Secretaría de Estado habia sido oficialmente informada por Mr. Trescott, de que Chile es tan fuerte y el Perú tan débil, que una intervencion meramente amistosa no daria ningun efecto, "para impedir que Chile llevara a cabo si le conviniese, las condiciones de paz que Mr. Frelinghuysen habia estigmatizado como exhorbitantes" y aun con expresiones más severas y despues que hubo amplias ocasiones para consultar personalmente con Mr. Trescott.

En verdad que lanzar a los Estados Unidos

en semejante empresa, sin otras armas que la Biblia y una coleccion de himnos, es un poderoso testimonio en favor de la fé, que tiene el Secretario en el próximo advenimiento del milenario.

Los esfuerzos misionarios en Santiago.

Estando los tres ministros misionarios lanzados en los torbellinos de la guerra sud americana con estas instrucciones de "persuacion moral," y quedando la iniciativa confiada a Mr. Logan, vamos a seguir ahora su carrera y ver el éxito que obtuvo.

Segun lo hemos dicho, Mr Logan llegó á Santiago el 2 de Setiembre de 1882. Se alojó en el Hotel Inglés, en la Plaza de Armas; presentó luego sus credenciales y como estaba ya familiarizado con el terreno y con los personajes chilenos que vivian en él y como estaban tambien en buen pié sus relaciones amistosas con el Presidente Santa María, emprendió sus trabajos mucho antes del tiempo que habria necesitado cualquiera otro ministro para desempaquetar sus baules.

Su primer paso fué obtener el consentimiento del gobierno chileno para comunicar libremente con el señor García Calderon, el Presidente prisionero del Perú. Durante la permaneccia de Mr. Trescott en Chile, se tomaron las más grandes precauciones para evitar que se encontrara con Calderon, a quien con ese objeto trasladaron de Santiago a Quillota. Despues de la salida de Mr. Trescott, trasladaron a Calderon a Chillan, capital de de la provincia de Nuble, con una poblacion de diez mil almas y situada como a 200 millas al sur de Santiago. Bajo la condicion explícitamente arreglada con Mr. Logan, de que el permiso no se interpretaría como una aceptacion de la mediacion exclusiva de los Estados Unidos, sinó que Chile quedaría libre de negociar con el prisionero, sea simultáneamente, o sea sucesivamente, por medio de otros agentes que le convinieran, se concedió lo pedido y Calderon fué devuelto a Santiago y alojado en el mismo hotel, pero con guardia. Entónces principió una serie de entrevistas y de negociaciones entre Mr. Logan y García Calderon y entre Mr. Logan y el Presidente Santa María y el señor don Luis Aldunate, Ministro de Relaciones Exteriores, con el episodio de un viaje de Mr. Logan y de Calderon a Angol, muy al Sur, más allá de Chillan, bajo la vigilancia de un edecan del Presidente Santa María, para dar lugar a que Calderon pudiera consultarse con los prisioneros políticos peruanos, que allí estaban detenidos.

Relacion de Mr. Logan.

La sustancia de todas esas negociaciones tal como la entendieron Mr Logan y el Ministr Aldunate, está condensada en la siguiente relacion que lleva la fecha del 18 de Octubre de 1882. El mes pasado (Julio de 1883) esta relacion junto con muchos otros documentos interesantes y confidenciales, relativos al mismo asunto y sacados de los legajos del Ministerio de Relaciones Exteriores de Chile, fueron comunicados al Senado chileno por el señor Aldunate en una sesion secreta sobre "interpelaciones" hóstiles del Senador don Benjamin Vicuña Mackena, quien procuraba obligar al ministerio a poner en conocimiento del Congreso, de todos los tratos habidos con el gobierno peruano de García Calderon por un lado y con el gobierno de Iglesias por el otro.

Legacion de Ee. Uu., en Santiago de Chile.

Octubre 18 *de* 1882.

Señor don Luis Aldunate, Ministro de Relaciones Exteriores de la República de Chile.

"Señor:

Tengo el honor de acusar recibo a la estimable nota de VE. fecha de ayer, por la que me pide le dé un resúmen de las varias tentativas que se hicieron para llegar a convenir sobre las bases de un tratado de paz entre Chile y el Perú. En contestacion le diré que me es muy grato esponerle una breve historia de las negociaciones en cuestion.

"En la entrevista que tuve con VE. despues del cambio de las notas que llevan la fecha de 9 de Setiembre último pasado, puse en su conocimiento que las condiciones del protocolo de Viña del Mar no siendo tales que mi Gobierno pudiera aconsejar al Perú que las aceptara, deseaba que se hicieran algunas modificaciones sustanciales en dichas condiciones, a fin de que mi Gobierno pudiera emplear sus buenos oficios para arreglar una paz entre sus amigos. Despues de haberlo consultado, VE. dijo que las exigencias de Chile quedarian reducidas practicamente a tres condiciones:—1.ª cesion de Tarapacá;

2.ª el derecho de comprar el distrito de Arica y Tacna por suma determinada, y 3.ª el derecho de llevar a cabo [*control*] la venta de guano anunciada por avisos para el 18 de Octubre. U. añadió que estas condiciones eran absolutas y definitivas.

"Tuve una conferencia con el señor Calderon, para saber cuáles eran sus opiniones sobre estas condiciones. Este señor me dijo que mientras sus conciudadanos no le expresen si está autorizado para ellos, no crée que pueda arreglar una paz basada sobre una cesion de territorio. Pedía una tregua de tres años; durante ese tiempo las opiniones de los peruanos podrian unificarse y podría adpotarse una linea de conducta bien determinada. Presenté a V. E. esta proposicion de Tregua, pero V. E. la rechazó inmediatamente. Despues pedí que se autorizara al señor Calderon para ir al Perú por un corto tiempo, para que pudiera consultar con sus conciudadanos acerca de una paz basada sobre las condiciones propuestas por V. E. No se consideró conveniente acceder a este pedido. Pedí a seguida que se le permitiera ir a Arica, donde se encuentran vários notables peruanos y me ofrecí para acompañarlo personalmente. Este permiso fué concedido y V. E. nos facilitó el viaje. En Arica tuvimos largas consultas con los amigos del señor Calderon, y llegamos a una conclusion que me inspiró la conviccion de que el señor Calderon podría convenir con las exigencias del gobierno de V. E.

Entiendo que poco despues de nuestro regreso a Santiago el señor Calderon recibió noticias directas de sus compatriotas del Perú, que parecian prohibirle de un modo positivo, hacer ningun arreglo para la venta de Arica y de Tacna, no obstante que se consideraba como plenamente autorizado para consentir en la cesion de Tarapacá. A consecuencia de dichos avisos, el señor Calderon se ha rehusado firmemente desde entónces, a la venta directa de los territorios mencionados.

"Esta resuelta oposicion entre ámbas partes, dió lugar a varios esfuerzos para llegar a un compromiso.

"Estos esfuerzos se hicieron sobre la base de diversas proposiciones, la mayor parte emanadas de mí y que pueden brevemente enumerarse como sigue:

"1ª—Para ~~solucionar~~ las dificultades provenientes de la venta de Arica y Tacna, propuse un tratado sobre la base de la cesion de Tarapacá, con un artículo separado dejando la cuestion de Arica y Tacna a la decision de un congreso peruano sin recomendacion de parte del señor García Calderon. Esta proposicion fué rechazada tanto por V. E. como por el señor Calderon.

"2ª—Propuse tomar por límite el rio Azufre cediendo Arica a Chile y dejando Tacna al Perú. Ninguna de las partes quiso aceptar esta proposicion.

"3ª—Lo siguiente fué instigado por el gobierno de V. E. y trasformado por mí en una proposicion formal. Debido a un equívoco mio, en cuanto a una de las condiciones, la proposicion fué presentada al señor Calderon como sigue: Chile ocupará militarmente Arica y Tacna durante cinco años y a la espiracion de este término se tomará el voto de los pobladores para decidir si quieren pertenecer a Chile o al Perú. En el caso en que el territorio debiera pertenecer a Chile, éste pagaria al Perú $10.000.000 como compensacion. Chile debía hacer al Perú un préstamo de $3.000,000 al ratificarse el tratado y en caso de que Chile obtuviera despues el territorio por un voto del pueblo, esta cantidad quedaría deducida, debiendo quedar Chile de deber por $7.000,000. En caso de que el territorio quedara al Perú, éste debía devolver los $3.000,000 con los intereses al 6% y Chile quedaría en posesion del territorio hasta el pago total.

"La equivocacion que cometí y a que hice alusion, consistió en que el Gobierno de V. E. estando dispuesto a pagar $10,000,000 por el territorio, en caso de que fuese adjudicado a Chile, esperaba recibir igual suma en el caso de que fuese adjudicado al Perú. En todo caso habiendo el señor Calderon rechazado la proposicion en su forma más favorable, era inútil volver a presentársela en su otra forma aun suponiendo que me hubiese considerado como autorizado para comprometer a mi Gobierno en esta última forma.

"4ª—Propuse al señor Calderon, que Chile ocupara militarmente Arica y Tacna por diez años y los evacuara a la espiracion de este término. Lo rechazó y no hubo que presentarlo a V. E.

"5ª—Propuse someter al Presidente de Estados Unidos como amigable árbitro la cuestion siguiente: «¿Tendrá el Gobierno chileno el derecho, como resultado de las necesidades que nacieron de la guerra y del modo de terminarla, de comprar el territorio peruano comprendido entre los rios Camarones

y Sama, por la suma de $ 9.000,000, estipulando que Bolivia tendrá el derecho perpetuo para el libre e inocente tráfico a través de ese territorio, con perpetua exencion de derechos de exportacion o importacion, despues de firmado un tratado de paz satisfactorio entre dicha República y la de Chile?»

"El señor Calderon aceptó dicha proposicion, pero V. E. la rechazó particularmente por dos razones: primera, porque someter ahora esta cuestion a un gobernante extranjero, daba por resultado práctico, poner en manos de una potencia extranjera los resultados de la guerra, lo que seria una violacion de la soberanía de Chile; y segunda, porque admitir la posibilidad de una decision en contra de Chile, seria abandonar toda pretension sobre el distrito en cuestion, pretension que Chile ha hecho constantemente valer, desde las conferencias de Arica.

"6ª—En seguida propuso al señor Calderon la cesion a Bolivia de Arica y de Tacna. Desechó esta proposicion y por consiguiente no la presentó a V. E.

"7ª—Propuse entónces que las siguientes cuestiones fuesen sometidas, no al jefe de un Gobierno extranjero, sino a un miembro del cuerpo diplomático, amigo de ambos que seria considerado simplemente como un árbitro amigable:—¿tendrá Chile el derecho de comprar el territorio que comprende Arica y Tacna por $ 9.000,000, o bien tendrá el derecho de ocuparlo militarmente durante un período de quince años, con la obligacion de evacuarlo al terminar dicho período?

Considerando que esta proposicion removía la objecion de V. E. relativa a un gobernante extranjero, y que tambien garantizaba, sea la compra del territorio o su ocupacion durante quince años, V. E. consintió en aceptarla en sustancia, como base de negociacion. El señor Calderon asintió tambien y me alegraba con la esperanza de que al fin llegaríamos a la paz.

"Cuando vinimos al arreglo de los detalles del procedimiento, el señor Calderon hizo algunas estipulaciones con el fin, primero: de insertar una cláusula en el tratado, que Chile pagaría todas las deudas legítimas de Tarapacá y que "haría arreglos conducentes al cumplimiento de las obligaciones del Perú para con sus acreedores"; segundo: propuso hacer un protocolo con el ministro americano en Santiago para formular las cláusulas del arreglo, debiendo ser puesto despues en libertad y dirigirse a Arequipa; entónces asumiría la direccion del gobierno y nombraria un plenipotenciario en Lima para firmar con el representante chileno una tregua de seis meses; tercero: despues de firmada la tregua se harían en el Perú elecciones para miembros de un nuevo congreso, para que deliberara sobre las condiciones de paz, las que una vez ratificadas por el congreso quedarian incorporadas en un tratado formal, firmado en Lima por plenipotenciarios debidamente autorizados por ámbas partes; cuarto: en caso de no ratificacion, por el Congreso, se notificaria el hecho a Chile, que podria renovar las hostilidades a los treinta dias de haber recibido la notificacion.

"En defensa de dichas estipulaciones el señor Calderon decia que Arequipa era la Capital del Perú, y que tendria él que conformarse con la prescripcion de volver a encargarse del Gobierno; que reunir el Congreso en Lima, seria someterlo al predominio (*control*) de un poder extrangero, y que él mismo quedaria tan prisionero en Lima como lo es por ahora en Santiago. Para poder obrar libremente, era preciso que tanto el Congreso como el, se encontrasen fuera de las líneas chilenas. Añadia tambien que seis meses era un término muy corto para hacer elecciones &c.

"VE. rechazó todas estas estipulaciones, primero: porque no habia ninguna necesidad de estipular algo relativamente a la deuda peruana, desde que la responsabilidad de su Gobierno estaba determinada por la ley y por el decreto del 11 de Febrero último pasado, sobre guano, en virtud del cual $ 240 000,000 de dicha deuda estaban arreglados con los tenedores de bonos; segundo: que en lugar de ir a Arequipa el señor Calderon tenia que ir a Lima, a firmar un tratado preliminar, convocar el Congreso de la Magdalena y en el término de cuarenta y cinco dias confirmar o rechazar el tratado y VE. propuso el retirar las tropas chilenas al Callao, para dejar Lima libre para el Congreso; tercero: VE. rechazó la tregua de seis meses, porque haria perder a Chile las ventajas de su situacion actual y espondria sus tropas a los ataques de las montoneras, que no respetarian ninguna tregua.

"En la discusion que siguió ni VE. ni el señor García Calderon quisieron ceder en sus bases, y la paz que se esperaba, fracasó.

"Creo haber relatado los hechos sustanciales de la materia en la relacion que he tocado, y si he cometido algun error celebraré que VE. lo designe.

"Aprovecho la oportunidad para asegurar nuevamente a VE. los sentimientos de mi más alta y distinguida consideracion, con que tengo la honra de quedar de VE. su obediente servidor.

C. A. Logan."

Las alusiones que se hacen en esa relacion al decreto sobre el guano, del 11 de Febrero de 1882, y a "la venta de guano anunciada por avisos el 18 de Octubre de 1882," se refieren al "contrato sobre el millon de toneladas de guano" de cuyos productos netos, Chile convino pagar la mitad a los tenedores de bonos peruanos. Si llegase el caso en el curso de la presente correspondencia, de que fuese necesario hacer una historia detallada de la deuda peruana, esta materia daria lugar a una larga exposicion; pero entrar por ahora en ella, seria unicamente complicar y oscurecer la narracion del curso seguido por la diplomacia de EE. UU.

Aparece con suficiente claridad por lo expuesto, que la "paz anhelada" fracasó por razon del desacuerdo de García Calderon y del Gobierno chileno sobre dos puntos:

1º La condicion de que Chile se hiciera cargo de un modo expreso de ciertas obligaciones de naturaleza hipotecaria [illegible], que el señor García Calderon consideraba ser inherentes a los guanos y salitres de Tarapacá, en favor de los acreedores del Perú, tanto extrangeros como nacionales y 2º los detalles de los procedimientos relativos a la ratificacion de las cláusulas del tratado por el Perú.

EL MEMORANDUM DE GARCIA CALDERON.

El señor Calderon redactó en español y presentó al doctor Logan un memorandum de las cláusulas precisas que estaba dispuesto a aprobar y que no queria modificar en ninguna de sus partes sobre los puntos en cuestion, y una copia de dicho memorandum fué comunicada al Senado chileno en sesion secreta el mes pasado y se encuentra archivado en los legajos de ese cuerpo, y es el siguiente:

(*Octubre* 11 *de* 1882)

"Memorandum para el doctor C. A. Logan:

Se firmará en Santiago un protocolo entre el Hon. C. A. Logan & & y el doctor Francisco García Calderon, en su carácter de Presidente provisional del Perú, sobre las bases generales que siguen:

"Primera: El Perú cederá a Chile la Provincia de Tarapacá con los salitres, el guano y todas las riquezas que encierra y tambien el guano de las Islas de Lobos en el Norte del Perú, y esta cesion Chile la acepta como pago por todos los gastos, daños y perjuicios que reclama por razon de la guerra, obligándose el nuevo poseedor a hacer con los acreedores, que puedan tener legítimos títulos sobre los guanos y salitres, los arreglos necesarios para el cumplimiento de los contratos celebrados con ellos.

"Segunda: En cuanto a la exigencia de Chile, de que el Perú le venda las provincias de Arica y Tacna por la suma de $ 10.000,000 plata, como garantía de la futura seguridad de ámbos países, se estipulan las condiciones siguientes:

"[a] El Cuerpo Legislativo del Perú decidirá si acepta o no la proposicion de compra. En caso de que acepte, la venta se hará por el precio señalado y que será pagado en la forma que el tratado de paz estipulará.

"[b] En el caso de que el Cuerpo Legislativo del Perú resolviera que no se acepta la proposicion de venta, se someterá a la decision de un árbitro, la cuestion de saber si el Perú debe o no vender las provincias pedidas, quedando convenido que si el árbitro decide que la venta debe efectuarse, ella tendrá lugar por el precio antedicho. En caso de que el árbitro decida lo contrario, la ocupacion de dichas provincias por Chile cesará a los quince años, contados desde la fecha del tratado de paz.

"(c) En ámbos casos de que la ocupacion sea temporal o definitiva, el Perú y Bolivia tendrán libre tránsito comercial por Arica y Tacna.

"Tercera: Con el objeto de facilitar las negociaciones de paz en conformidad con las bases anteriores, el Gobierno de Chile declarará, tan luego como esté firmado el protocolo, que el Presidente provisorio del Perú, señor Francisco García Calderon, está en libertad para regresar a su país.

"Cuarta: El señor Francisco García Calderon se compromete por su palabra ante el Hon. Ministro & &, doctor C. A. Logan, a constituirse en Arequipa, la Capital provisional del Perú, y reasumir el Supremo Mando de la República.

"Quinta: Despues de haber tomado posesion de su puesto, nombrará plenipotenciarios

para celebrar en Lima con los representantes de Chile un armisticio por un período de seis meses, con la intervencion y bajo la garantía de los representantes de Estados Unidos en las tres repúblicas beligerantes. Se invitará a Bolivia a la celebracion de ese acuerdo.

"Sesta: Tan luego como esté arreglado el armisticio, el Gobierno del Perú convocará una Convencion elegida por los pueblos para deliberar sobre las bases consignadas en dicho protocolo. Si éstas quedan aprobadas por ese cuerpo, se nombrarán luego plenipotenciarios para la celebracion de la paz. En el caso contrario se notificará a la República de Chile que el protocolo queda desaprobado, y las beligerantes podrán renovar las hostilidades a los treinta dias de dicha notificacion.

"Sétima: El tratado de paz será celebrado bajo la garantía de los Estados Unidos y con la asistencia de los tres Ministros cerca de las repúblicas beligerantes, en calidad de mediadores.

F. García Calderon"

Consecuencias de la negativa de García Calderon.

Entre los incidentes que siguieron a la negativa del señor Calderon y del Gobierno chileno, de llegar a un arreglo se pueden citar nuevas negociaciones que resultaron en el envío del documento conocido como "Carta de Mr. Logan a Montero," en Noviembre de 1882; el consiguiente viaje de Montero a la Paz y su negociacion a nombre del Gobierno de Arequipa, de un convenio con el Presidente de Bolivia, Campero, relativo a Arica y Tacna; la indignada intervencion del Ministro Partridge, que se sintió ofendido por la comunicacion directa de su colega a Montero en el Perú; la represalia de Mr, Partridge entrando en comunicaciones secretas con Calderon en Chile; la desaprobacion parcial de la carta a Montero, por el Secretario Frelinghuysen; la completa destruccion de la armonía entre los misionarios diplomáticos del Secretario Frelinghuysen; el incitamiento de Mr. Partridge para la intervencion de las potencias europeas; la condenacion de su conducta por su Gobierno; su regreso a EE. UU. y dimision de su cargo—el viaje de Piérola a Washington y su entrevista con el Secretario Frelinghuysen; el levantamiento y desarrollo del Gobierno de Iglesias en el Norte del Perú y la conclusion del protocolo Novoa-Lavalle con condiciones de paz mucho peores para el Perú que cualesquiera que fueran propuestas ántes, y esto sin ninguna ingerencia de los EE. UU.; y finalmente, una acusacion contra Garcia Calderon, que el principal motivo de su negativa a cualquier modificacion de su memorandum de 11 de Octubre de 1882, provenia de que la redaccion de dicho memorandum encubria un negocio [*agob*] que hubiera hecho entrar $1,000,000 en la caja de una sociedad peruana de la que era Director, aprovechando él personalmente, $200,000 a lo ménos.

Pero los límites de un diario permiten no extender la presente carta lo suficiente para abrazar toda esta historia; y la narracion y la discusion de los hechos de que hemos formado un sumario debe reservarse para otro dia.

PRENSA AMERICANA.

"NEW-YORK HERALD" DEL 19 DE SETIEMBRE DE 1883.

La Guerra Sud-Americana.

Los puntos de discordia entre Chile y Calderon en las negociaciones de paz.

TACNA y ARICA.

Proyectos de Chile, Perú, Brasil y República Argentina contra Bolivia.

LA POLONIA SUD-AMERICANA.

Negociaciones de Chile con Bolivia.
Su objetivo y sus errores.

LA CARTA LOGAN-MONTERO.

LA PUBLICACION ILICITA Y PROTESTA DE CALDERON.

DESAPROBACION EN WASHINGTON.

INSTRUCCION DEL MINISTRO PARTRIDGE Y RUPTURA ENTRE LOGAN Y CALDERON.

SE ACUSA A CALDERON DE ESPECULAR (JOBBERY).

La compañía salitrera del Perú, de que Calderon era Presidente.

Historia de sus operaciones.

De nuestro corresponsal, Lima, Agosto 15 de 1883.

En mi carta del 14 de Agosto, he dado un resúmen de las instrucciones del Secretario Frelinghuysen a los nuevos Ministros de EE. UU., señores Logan, Partridge y Maney, nombrados para Chile, Perú y Bolivia, en lugar de los señores Kilpatrick, Hurlbút y Adams, y he narrado las negociaciones de Mr. Logan con Garcia Calderon el Presidente del Perú—reconocido como tal, por los EE. UU., pero retenido como prisionero en Chile hasta ese momento, es decir, hasta fines de Octubre en que se frustraron los esfuerzos para obligar a Chile a hacer los arreglos. Le he dado una copia del memorandum de Calderon, fecha 11 de Octubre de 1882, sobre las condiciones de paz entre el Perú y Chile, que él estaba dispuesto a firmar, y tambien una copia de la relacion de Mr. Logan, fecha 18 de Octubre, dirigida al señor Aldunate, Ministro de R. E. de Chile. Ambos docu-

mentos fueron comunicados por el Ministerio al Senado chileno en sesiones secretas, el mes pasado, a consecuencia de las interpelaciones del senador Vicuña Mackenna, acerca del asunto Iglesias, y existen en los legajos reservados de este cuerpo.

Indiqué tambien, que el desacuerdo entre Calderon y el gobierno chileno, existía sobre dos puntos: primero, sobre la cláusula del memorandum de 11 de Octubre, en la que proponía Calderon, que al aceptar Chile la cesion de Tarapacá, como indemnizacion de guerra, se hiciera cargo de un modo expreso, de todas las deudas, extranjeras e internas, que tenian su orígen en contratos relativos al guano y salitres de dicha Provincia, hechos por el Perú—y segundo, sobre los detalles de los procedimientos concernientes a la ratificacion de la paz por parte del Perú, particularmente en lo relativo a la cesion de Arica y Tac...

EL CARÁCTER SERIO DE ESOS DOS PUNTOS.

En la entrevista de Mr. Logan con el Presidente Santa Maria y el Ministro Aldunate, se dió la principal importancia al segundo punto de desacuerdo y no dudo que en éste se encontraba la dificultad principal, aunque a veces se soltaban algunas observaciones que daban a conocer, que aún en el caso en que llegase a salvarse con mútua satisfaccion, el desacuerdo sobre el primer punto, quedaría siempre como un obstáculo insuperable.

En vista de la luz arrojada por el tratado que se negoció más tarde con el General Iglesias y en el que Chile se niega a asumir cualquier parte de la deuda peruana, a título de estar ligada al territorio que el tratado le cede, parece ciertamente posible, que aun en la época de esas negociaciones con Calderon, el Gobierno chileno abrigaba ya el proyecto de aplastar al Perú con todo el peso de la deuda, a la vez que le quitaba todos los medios para hacer su servicio. Pero esta posibilidad envuelve la desagradable necesidad de imputar a los hombres de Estado de Chile un largo y estudiado curso de falsedad (*disingenousness.*) Es cierto que se rehusó terminantemente que se insertara por escrito, ninguna expresion de responsabilidad por deuda, de parte de Chile, en el protocolo con Calderon, pero empeñaron su honor en conversacion, al Ministro Americano, de que estaban dispuestos a asumir tal porcion de la deuda peruana extranjera, que pudiera justamente (*fairly*) pertenecer al territorio cedido, conforme a los principios de la ley internacional.

Una de las razones que dieron de su repugnancia para insertar en el protocolo una promesa, fué que ella era supérflua, desde que en el caso de no mencionar el punto, los principios de derecho internacional serían los que rigieran el tratado de cesion. Otra razon [pero esta parece muy fútil] era que se necesitaría hacer un cálculo de reparticion de la deuda y que no había tiempo para ello, durante las negociaciones.

Si Mr. Logan ha informado a su Gobierno de todas las conversaciones que tuvo sobre el punto de la deuda, la relacion debe ser muy interesante y bajo el punto de vista de su conexion con el tratado Iglesias, debe ser de mucha importancia. En esas conversaciones no se hizo ninguna alusion al interés personal de Calderon en la cláusula que había redactado, como siendo motivo de tacha y Mr. Logan ignoraba, y por mucho tiempo despues siguió ignorando, que se acusaba o sospechaba a Calderon de tener motivos preponderantes de esta naturaleza para su obstinacion.—Puede ser que el Gobierno chileno lo ignorase tambien, pero esto es poco admisible, considerando las completas informaciones, que suele tener, sobre todos los asuntos que le interesan.

Pero volviendo al segundo punto, en cuanto a los procedimientos para la ratificacion del tratado, particularmente en lo relativo a Arica y Tacna, era claro que el Gobierno chileno estaba decidido a no admitir ningunas condiciones que no le dieran la inmediata cesion de esos territorios, o una seguridad perfecta de retenerlos por un largo tiempo y de poder adquirirlos, despues, con título permanente. Antes de concluir la presente carta, explicaré cuáles eran los motivos secretos, poderosos y de trascendencia que tiene Chile para su obstinacion sobre este punto. Tienen por objeto su preponderancia comercial en Bolivia para el presente, y por último, la anexion de este país a Chile.

PROYECTO FRUSTRADO DE LA IDA DE CALDERON A AREQUIPA.

Cuando las negociaciones con Calderon se encontraban en este estado, se suscitó un nue-

vo obstáculo, pero no obstante, no quedaron rotas dichas negociaciones. El Almirante Montero, Vice-Presidente de Calderon, publicó un decreto fechado en Arequipa el 14 de Octubre, convocando un Congreso peruano, para que se reuniera en Marzo de 1883, y el Gobierno chileno—basándose sobre motivos que es inútil discutir por ahora—alegó que esto era virtualmente un desconocimiento de la autoridad de Calderon, para tratar de paz miéntras quedaba cautivo y una afirmacion de parte de Montero, de que tal autoridad no pertenecia sino al Congreso.

Con el objeto ostensible de destruir esas dudas, pidió permiso Calderon para ir a Arequipa, y en consecuencia se redactó un memorandum para estipular la libertad condicional de Calderon; él y Logan debian ir juntos a Arequipa (estando Logan autorizado para ello por sus instrucciones) y Logan empeñaria su palabra de que el prisionero volveria a Chile en caso de que en los 12 dias de su permanencia en Arequipa no se arreglasen las condiciones de paz, de acuerdo con Montero. Habiendo sido consultado el Gobierno chileno, éste se mostró mal dispuesto para permitir la salida de Calderon, sin la garantía ofrecida por el Ministro americano; y tambien se declaraba poco dispuesto a imponer a dicho Ministro la responsabilidad de semejante garantía, apesar de que Mr. Logan manifestó su buena voluntad para ello; habiendo en seguida insistido Calderon para que Chile lo pusiera en libertad incondicionalmente, todo el arreglo quedó en nada. Previamente a esta tentativa de arreglo, Mr. Logan habia escrito una carta a Montero con fecha 13 de Noviembre, pero habiendo intervenido el proyecto de viage de Calderon a Arequipa, demoró el envio de ella hasta el 25 de Noviembre.

LA CARTA DE LOGAN A MONTERO.

En esta carta "reclamaba el privilegio de prescindir de las formalidades diplomáticas y de dirigirme directamente a VE. sobre el asunto que hoy debe preocupar el ánimo de todos los peruanos, que es el de la paz."

En seguida describia la presente situacion como sigue:—"Chile, a consecuencia de mi mediacion, abandonó las exigencias del protocolo Trescott, y consintió en hacer la paz sobre las bases siguientes: 1.ª Cesion absoluta de Tarapacá, a título de indemnizacion de guerra, debiendo pagar Chile todas las deudas de la Provincia, siguiendo en esto legitimamente, las prescripciones de la ley internacional, no obstante que Chile se niega a insertar ninguna estipulacion especial a este respecto en el tratado, porque no lo considera necesario, desde que se ha comprometido a ello en varias declaraciones públicas; 2.ª La adquisicion de Tacna y Arica, a título de compra, por la suma de 10 millones de pesos fuertes, que debe ser pagada en tres anualidades iguales."

"Chile estaba dispuesto a tratar sobre estas bases con S. E. el señor Calderon, y a reconocer su Gobierno como el Gobierno legal del Perú. Pero el señor Calderon ha rechazado constantemente las exigencias relativas a Tacna y Arica, porque no tenia la conviccion de que la Nacion las aceptase.

"Propuse varias combinaciones para conciliar las diferencias de las dos partes, y hubo un momento en que tuve la esperanza de ver coronados mis esfuerzos. Por razones que no hay que relatar ahora, esos esfuerzos fracasaron, hasta el punto de que actualmente las dos partes parecen estar más léjos que nunca de un avenimiento.

"No necesito hacer presente a VE. el estado calamitoso en que se encuentran los peruanos, desde que él es a VE. tan conocido como a mí mismo. Mi objeto al escribir a VE., es el de hacer un último esfuerzo para llegar a la paz por medio del reconocimiento del Gobierno que VE. representa."

Aquí sigue una exposicion de las objeciones chilenas a la autoridad de Calderon, basadas sobre el decreto de Montero, del 14 de Octubre, para la eleccion de los miembros del Congreso y una discusion de la Constitucion sobre este punto, con la siguiente conclusion:—"No puedo haber duda sobre el derecho legal que tiene el Ejecutivo para hacer tratados de paz y para hacer cesion de territorio, si ésta es necesaria para llevar a cabo el tratado: Queda reservada al Congreso la facultad de ratificar o de desechar.

"No obstante, considerando los términos de la convocatoria mencionada, Chile declara que el señor Calderon no está en habilidad de tratar, aun cuando se hubiese llegado a convenir en las bases. La situacion me parece en estremo crítica.

"La conducta de Iglesias y la anunciada llegada de Piérola hacen inminente en el Perú el desórden interior, que amenaza destruir todo lo que el ejército vencedor ha dejado o pudiese dejar. Asegúrase que un Gobierno erigido por uno u otro de esos caudillos esta-

ria comprometido a hacer una paz mucho más perjudicial al Perú que la ofrecida por medio de mi negociacion."

Para fortificar esa opinion, la carta sigue discutiendo las relaciones de Bolivia con el Perú y con Chile, y expone que hay peligro de ruptura de la alianza Perú-Boliviana, a consecuencia de las maquinaciones de la diplomacia chilena en la Paz:—"VE. sabe tambien que el Congreso boliviano ha votado una resolucion para que se arregle una tregua, a la que probablemente seguirá muy pronto la paz. Por razones de su política propia, Chile está dispuesto, segun consta, a firmar una tregua con Bolivia, pero nó con el Perú. La ley internacional obliga a los aliados a que se protejan mutuamente, hasta cierto punto, al negociar la paz; pero si se puede convencer a Bolivia, en vista de la ninguna esperanza de poder continuar la lucha, de que el Perú hace resistencia a lo inevitable y que de este modo va probablemente a producir la destruccion de ámbos países, Bolivia quedaria muy justificada si rompiera la alianza."

Este raciocinio relativo a Bolivia terminaba con la asercion por parte del autor de la carta, de que "en el caso de retirarse Bolivia rompiendo la alianza, el Perú quedaria por fuerza obligado a someterse a condiciones muy duras."

Despues continúa:—"En lo que voy a decir no pretendo hablar fundándome en datos oficiales, y quiero simplemente dar mi opinion acerca de las consecuencias que traeria para el Perú la no aceptacion, en un término muy corto, de las condiciones de paz exigidas por Chile. He conseguido del Gobierno chileno, como lo dije ántes, la promesa, *bona fide*, de pagar al Perú diez millones de fuertes por Arica y Tacna.

"Esta promesa fué conseguida bajo la condicion de una aceptacion inmediata de parte del señor García Calderon. Pero esta condicion de paz no es inmutable. Al contrario, tengo motivos para creer que si no se llega a un arreglo ántes de que se reuna el Congreso peruano en el mes de Marzo, el Perú quedará obligado a ceder Tarapacá, y además Arica y Tacna, sin el pago de ninguna indemnizacion monetaria.

"Si el señor Calderon pudiera quedar legal y plenamente autorizado para aceptar estas condiciones de paz, creo que el Gobierno chileno se consideraria ligado moralmente para conmigo a pagar esa cantidad al Perú. Pero si la guerra se prolongara por cuatro o cinco meses más, no hay duda de que Chile reclamaria el justo derecho de aumentar sus exigencias."

Finalmente, la carta concluia declarando con mucha gravedad: "Como la prolongacion de la resistencia por parte de los aliados parece ser enteramente inútil, por razon de la falta absoluta de recursos para continuar la guerra con buen éxito, y como parece cierto tambien, que no tendrá lugar ninguna intervencion armada de naciones extranjeras, creo que todas las razones militan en favor de la aceptacion inmediata de condiciones que, sinceramente, creo que son más favorables al Perú que las que pueden serle propuestas más tarde, cuando quede demostrado que los aliados tienen por fuerza que someterse a cualesquiera género de exigencias.

"Dígnese VE. excusar la franqueza con que le hablo. Trabajo por los intereses de su pueblo; y, aun cuando sólo se tratase de ahorrar diez millones de fuertes al Tesoro peruano, seria ese un poderoso motivo para intervenir en tan terrible crísis. Pero cuando considero los sufrimientos personales del pueblo y la atroz ruina que seriamente le amenaza, parécem que no se debe vacilar un momento en dar fin al término a la lucha.

"Mi Gobierno ha sostenido siempre que seria más conveniente para los intereses definitivos de Chile y de los aliados, que la cuestion en debate fuese arreglada sobre la base de una indemnizacion pecuniaria, sin cesion de territorio. El Gobierno de Chile no es de esta opinion, y, en tal caso, se hace inútil toda discusion sobre este punto. La cuestion práctica es la siguiente: ¿Pueden los aliados resistir a la exigencia de cesion de territorio? Estando ya fuera de toda duda que nó, lo más prudente es aceptar lo que se presenta como inevitable, obteniendo las mayores ventajas posibles.—Con la inmediata aceptacion de las exigencias chilenas, los sufrimientos de los peruanos, provenientes de la ocupacion de un ejército enemigo, cesarian en el acto, y la suma de diez millones entraria al tesoro del Perú; y temo que esta suma no se obtenga si el arreglo de paz se posterga hasta despues de la reunion del Congreso." Hace cerca de dos meses que habria podido yo arreglar la paz, si el señor Calderon hubiese aceptado esas condiciones. VE. puede apreciar, tan bien como yo, cuantos han sido los sufrimientos personales y cuántas las pérdidas de riquezas durante esos dos meses.

"A la negativa del señor Calderon, en consentir en la venta de Tacna y Arica, agrégase ahora una nueva dificultad, a que ya he aludido, a saber: la opinion del gobierno chileno de que, en vista del decreto de VE. no se lograría nada tratando con él. Un sólo camino queda abierto para salir de esta dificultad, y es que VE. mande inmediatamente poderes en forma al señor Calderon, para aceptar las condiciones que Chile propone."

Montero delega plenos poderes a Calderon.

Esta carta fué recibida por Montero en Arequipa en el mes de Diciembre y sometida luego al Consejo de Ministros con cuyo acuerdo se dió un decreto confiriendo a Garcia Calderon, no obstante ser él prisionero, plenos poderes para tratar con Chile sobre la paz en nombre del gobierno de Arequipa, y esta delegacion de poderes fué puesta en conocimiento de Calderon, de Mr. Logan y del gobierno chileno. Sin embargo de esta plena delegacion de poderes, Montero dió el paso importante de ir personalmente a La Paz y negociar con Campero, Presidente de Bolivia, un tratado, que debia ser sometido a la aprobacion del Congreso que debia reunirse en Arequipa, para la absoluta cesion por el Perú a Bolivia, de Tacna y Arica.

Cesion hecha por Montero de Tacna y Arica a Bolivia.

Por sus consecuencias, este paso fué una de las más importantes transacciones en todo el curso de la guerra. Por dos veces estorbó los esfuerzos de Chile para romper la alianza del Perú con Bolivia, cuando estaban a punto de alcanzar su fin—primero, cuando Montero firmó el protocolo con Campero en Diciembre, y segundo, cuando el Congreso ratificó el tratado ántes de separarse en Julio.—Naturalmente ese tratado quedó prácticamente sin efecto, miéntras Chile continúa ocupando Tacna y Arica, con la mano fuerte de la ocupacion militar. En cuanto a las probabilidades para Bolivia, de poder valerse de sus derechos nominales sobre este territorio, en virtud de dicho tratado Montero-Campero, el obstáculo que viene de la actual posesion por Chile, reside en la falta de poder intervenir con un poder militar mas fuerte *nueve puntos de la ley* [*nine points of the law*] en favor de Chile y ahora conviene exponer por qué está Chile tan empeñado en su deseo de poseer Tacna y Arica, lugares de tan poco valor propio, en apariencia.

Con este objeto le doy la clara y siguiente exposicion de los actuales peligros, que amenazan la existencia misma de Bolivia, como nacion independiente; exposicion que a peticion mia fué redactada por un corresponsal muy bien informado en Santiago de Chile, que lleva fecha 26 de Julio y que recibí de él, por la última mala del Sur.—Escribe:

La politica de Chile por el lado de Bolivia.

"La cuestion de un armisticio, o de una paz por separado entre Chile y Bolivia, que surgió de tiempo en tiempo en diferentes formas, tiene una historia que dá lugar a explicar la larga prolongacion de las hostilidades en la costa occidental y explana la política de Chile, dando a conocer uno de los principales móviles que la dominaban. La diplomacia de Chile en las negociaciones de paz fué a veces calificada de vacilante y de irresoluta, debido a que se valió de diversos instrumentos, en diversas ocasiones—por ejemplo, alternativamente, de Calderon, de Piérola y de Iglesias. Pero no hay en realidad ni tal vacilacion, ni tal irresolucion.

"Para formarse un juicio exacto de la política chilena es preciso indagar qué es lo que aspiraba Chile, con tanto anhelo, que cada vez que no lo podia lograr por medio de uno de los jefes peruanos, los apartaba siempre para dirigirse a otro, persiguiendo sus proyectos con una tenacidad incesante.

"Haciendo esta indagacion, aparece claramente, que entre las numerosas y variadas proposiciones que Chile presentó a los diversos ministros y otras personas que ofrecieron sus buenos oficios para el arreglo de un tratado de paz que ponga fin a la guerra, hay un punto que reaparece invariablemente. Al principio pareció ser incidental y sin importancia; pero su reaparicion persistente es significativa y con un poco de meditacion se ve que sugiere y aclara mucho; que la posesion de Tacna y Arica es una necesidad. Venta o cesion, no importa con tal que se consiga el último la posesion; y cuando no pudo conseguirla en esos términos, Chile ha convenido al fin en una ocupacion militar, como preliminar de una adquisicion definitiva.

"Esta cuestion tiene algo más que un interés casual y ordinario. Los acontecimientos se suceden unos a otros rápidamente; se ven cambios de accion inesperados, incautos los unos, hábiles los otros; pero el resultado va tomando forma, y desde ahora el fin no queda enteramente oscuro.

Particion de Bolivia.

"Hay muchos indicios significativos, de que en un tiempo no lejano, se efectuará una particion de Bolivia, entre el Brasil, Chile y la República Argentina. Los esfuerzos reunidos de esas tres potencias resolverian esa cuestion tranquila y satisfactoriamente en ménos de un año; pero la solucion no vendrá de ese modo. Por ahora, Chile se propone absorber todo el país y el Perú tiene el mismo deseo; el Brasil y la República Argentina abrigan el mismo proyecto. Examinemos sus designios y las probabilidades que tienen para realizarlos.

Una descripcion de Bolivia.

"Bolivia se extiende entre los grados 10 y 23 de Latitud Sur y entre los grados 60 y 72 de Longitud Occidental, quedando casi en su totalidad en el lado Este de los Andes.

Mide como 1.300,000 kilógramos cuadrados, y pudiendo por consiguiente compararse en superficie, con las de Francia, España e Italia reunidas.—Sus departamentos del Norte y del Este, desaguan en los tributarios del Amazonas, miéntras que los departamentos del Sur desaguan en los rios de la República Argentina.—Sus distritos del Norte y del Este—el Beni, Santa Cruz y Chuquisaca, están poblados casi exclusivamente por animales indígenas de esas regiones y por indios y abundan en lagunas y en inmensas y enmarañadas selvas. No obstante, en la parte Oeste, los departamentos de La Paz, Oruro, Potosí y Cochabamba son más densamente poblados y sumamente ricos en minas de plata y de cobre. La poblacion de Bolivia es de 2.350,000; su historia es un embrollo de revoluciones malogradas, sucediéndose rápidamente una a otra; cada una encabezada, pero no dominada, por algun tirano débil que se escapa a la primera hostilidad y deja el sitio a otro. A pesar de que el término presidencial fué fijado por Bolivar, en cuatro años, el único caso en que ese período se cumplió, fué en el del Gran Mariscal Santa Cruz, que gobernó desde Mayo de 1828 hasta el 20 de Enero de 1897. En esas revoluciones incesantes—de las que una que otra podria ser honrada con el nombre de guerra civil—el ejército permanente consume las tres cuartas partes de las entradas anuales.

Comprende en el pié de paz, 2.000 soldados, 8 generales y 1,013 oficiales, lo que da algo ménos que dos hombres por oficial. En cuanto a las rentas públicas, la mitad proviene de la capitacion sobre los indios y casi todo el resto, de los derechos de importacion y exportacion.

"Sus relaciones exteriores—naturalmente no tiene ninguna política exterior determinada, ni tiempo para ocuparse de los asuntos de otros—Son muy engañosas. Precisamente cuando uno ha llegado a la conviccion, que una serie monótona de imbecilidades pasivas caracteriza su aspecto exterior, se encuentra uno sorprendido por algun golpe de genio. Ya se sabe que la presente guerra, era originalmente entre Chile y Bolivia, teniendo en su fondo una cuestion de límites. En la zona neutral establecida por el tratado de 1874 entre esos países, el Presidente Hilarion Daza, impuso un derecho de exportacion de diez centavos por quintal de salitre, y de este modo, con un error de los más ingénuos o infantiles, rompió el tratado y suscitó una guerra que Bolivia no podia nunca apaciguar, ni aún hacerle frente.

Entónces, en sus apuros, recordó el tratado de 6 de Febrero de 1873 con el Perú, y súbitamente echó todo el peso de la guerra sobre las espaldas de su aliado. Pero esto no es todo. Salió de la guerra completamente lisa; el mismo crédito que ántes y con pocas pérdidas de vidas, de fondos y de propiedades; actualmente sus exportaciones han aumentado en cantidad y en valor. Su única pérdida es la de la provincia de Atacama, un desierto de arenas, estéril, cuyos mojones de límites son los esqueletos de los animales que trataron de atravesarlo. Ciertamente que las grandes minas de plata de Caracoles se encuentran en el Sur de ese distrito, pero lo mismo que para los depósitos de salitres a lo largo de la costa, son brazos chilenos los que los han trabajado y son capitales chilenos los que sacaron los provechos.

"El Perú al contrario, resistió a los ataques, a los sitios y a los bloqueos de las fuerzas chilenas hasta que le faltaron por completo las fuerzas. Hoy está manteniendo un

ejército chileno de 20,000 hombres y esta soportando contribuciones de guerra, impuestos extraordinarios y cupos, sus aduanas son administradas por empleados chilenos; aun sus cartas son conducidas con estampillas chilenas; el sol peruano, de papel moneda, vale hoy en Lima, tres cuartos de peniques.

"Tal es por consiguiente la condicion de Bolivia; llena de riquezas inexploradas, con sus inmensos recursos absolutamente sin explotar, gobernada por una sucesion de agitadores turbulentos. Es imposible que pueda haber una vigorosa vitalidad nacional, ni que pueden organizarse los esfuerzos para repeler a un invasor extranjero, en un país donde cada coronel ávido descontento, es el centro de nuevos proyectos y el núcleo de nuevas sediciones.

"Bolivia se encuentra en este estado preciso de debilidad y de vanidad, que la haria caer de un golpe en el poder de los vecinos ambiciosos y los deseos de codicia que les rodean, si pudieran unir sus esfuerzos contra ella.

SUS AFINIDADES CON EL PERU.

"La tentativa del Perú es muy evidente.

"El empeño de incorporar tranquilamente los dos países en uno solo está en el fondo del tratado secreto del 6 de Febrero de 1873. En 1879 hubo aquí mucha exitacion motivada por las entrevistas de los Presidentes, enviados y ministros de R. E. de esas dos repúblicas, que segun se vió despues, tenian el mismo fin en vista y es bien sabido que en Diciembre de 1882, durante su visita a La Paz, Montero lo discutió de nuevo, con el Presidente Campero, y como prueba de buena fé, cedió los territorios de Tacna y Arica.

Ciertamente que Bolivia escogeria al Perú si esto fuera una cuestion que ella pudiera decidir, y Chile que sabe todo esto, se aprovecha de la impotencia en que se halla el Perú para dirigir los acontecimientos a su favor.

DESIGNIOS DE LA REPUBLICA ARGENTINA.

"Solo en los últimos tiempos, la República Argentina se despertó a la importancia de esa solucion, habiendo dado su primer paso poco ántes de la visita de Montero a La Paz, en Diciembre de 1882.

"Hácia esa época apareció un editorial en *La Nacion* el periódico de Buenos Aires mejor dirigido, en que bajo el título *El Comercio de Bolivia*, el escritor discutía la misma cuestion de que estamos tratando. Despues de haber pasado una revista de las reglas generales que presiden al trasporte de las cargas y lo determinan, dice en efecto: En una palabra, el comercio sigue siempre con más preferencia a otras, las vías más cortas, más fáciles y más baratas.

«Antes de la presente guerra, la vía comercial de Bolivia por la Argentina era más larga, ménos fácil y más costosa que la vía en direccion de Chile y del Perú. Entre tanto la mayor parte de Bolivia está situada al Este de los Andes y la parte Sur de su territorio se desagua en el rio argentino el Plata. Pero Potosí, el centro geográfico y mineral de Bolivia, está a 573 leguas de Buenos Ayres y sólo a 156 leguas de Cobija, el antiguo puerto del Sur de Bolivia.

«Aquí tenemos, por consiguiente, una desventaja manifiesta para principiar. No obstante, Cobija está situado en el Pacífico, y para llegar a los mercados del mundo, tienen que pasar los productos al Atlántico, ya por el Estrecho, que es peligroso, o por Panamá, que es costoso, y ámbas rutas son más pesadas que la de Buenos Ayres.

«Si Potosí se encontrara a igual distancia de los dos puertos, no habria duda alguna sobre la preferencia. Pero hay un medio para salvar esta dificultad, y es el siguiente:— La costa de Bolivia está actualmente ocupada por Chile, nacion enemiga, y el camino para llegar a ella atraviesa la parte más alta de los Andes. Ciertamente que hay un ferrocarril entre Puno y Mollendo, pero los gastos y la dificultad de los trasportes por esta vía no son favorables para el tráfico y el comercio. Es preferible llevar las cargas de ida y vuelta por la vía de Tacna y Arica, a lomo de mula o en carros tirados por bueyes.

«Ya el problema queda de más fácil solucion de lo que parecia, y hay dos cosas que pueden poner a Bolivia en nuestras manos: primera, una alianza sólida y duradera, que deberia anular desde el principio todo sentimiento amistoso de Bolivia con Chile; y segunda, un ferrocarril de Buenos Ayres. Por fortuna, para iniciar lo primero, hemos expresado desde el principio de la guerra, y de un modo inequívoco, los sentimientos de amistad que nos animaban; y para iniciar lo segundo, el ferrocarril está ya proyectado

desde Buenos Ayres, pasando por Salta a Jujuy, hasta 60 millas de la frontera boliviana, y el comercio de los tres departamentos del Sur de Bolivia ya está buscando una salida por nuestro territorio. Hay otros periódicos que discuten ese asunto sin ocultar sus designios acerca de su vecino; ha sido el tema de vivos comentarios, ha sido discutido en el Congreso argentino y últimamente el doctor Aurecochea y el señor Rosello presentaron al Gobierno boliviano, por el conducto diplomático correspondiente, una peticion para obtener la concesion de continuar el Ferro-carril Central Argentino del Norte a Tarija, Potosí, Sucre, Oruro y la Paz, que son cinco distritos, poblados, fértiles y de incalculables riquezas minerales.

Entónces evadió Bolivia dar una contestacion definitiva estando ya comprometida con el Brasil, pero en estas últimas semanas ha manifestado un violento deseo de verlo realizarse. Este cambio no es debido a una nueva actitud adoptada hácia el Brasil, sino a los nuevos aranceles que Chile adoptó en el Pacífico.

Un tratado secreto con Bolivia.

El compromiso de Bolivia con el Brasil era nada ménos que un tratado secreto de navegacion y de comercio, que su Ministro en Rio Janeiro, firmó en dicha capital. Por este tratado, concede el Brasil a Bolivia, el uso y las ventajas de todos los ferro-carriles actuales o en perspectiva, construidos, sea por el Gobierno o sea por compañías particulares y con capitales propios, que pueden existir entre San Antonio, sobre el rio Madeira, y la frontera del Brasil en el rio Mamoré. El Gobierno brasilero prometo tambien hacer navegable el rio Madeira y conservarlo en buen estado de navegacion hasta San Antonio, que se halla a 400 millas arriba del punto donde el Madeira desemboca en el Amazonas, y abrir ese rio y sus tributarios a los buques mercantes de todas las nacionalidades.

Los derechos y las contribuciones provinciales o municipales, deben ser abolidos respecto a todos los productos bolivianos, que de este modo no estarán obligados a pagar sino los gastos de trasporte.

"No he tenido en mis manos una copia de dicho tratado y no conozco su fecha exacta; pero ésta debe ser de principios de 1882. Difícil es comprender el valor real de ese tratado, desde que no hay ferrocarriles en esa parte del Brasil, y sí poca necesidad de ellos, a lo ménos en lo que toca al Brasil. El rio Mamoré desagua los distritos de Beni y Santa Cruz, del Norte de Bolivia, y ser a fácil hacerlo navegable para embarcaciones menores; pero el comercio de los distritos del Sur y del Oeste, no podrian nunca buscar esta via y aprovecharse de las concesiones del Brasil. Beni y Santa Cruz no se diferencian en nada de los Departamentos limítrofes del Oeste del Brasil, que nunca han sido explotados y apénas explorados; y apesar de que recientemente se ha descubierto mucho oro en Santa Cruz, no parece probable que, una vez en posesion del Brasil, los recursos de esos distritos sean mejor explorados y explotados en mayor escala, que los distritos adyacentes del Brasil, que se le parecen en sus riquezas y que hasta ahora han quedado descuidados.

La salida por Arica en el Pacífico.

"Pero ni esta última vía, ni la de Jujuy y Córdova pueden pretender por un momento a las manifiestas ventajas de la vía por Tacna y Arica. Estas poblaciones son la verdadera llave del comercio y de la posesion de Bolivia, y esto es el fundamento de los proyectos chilenos, que han tomado últimamente tanta preminencia, y que han sido proseguidos con tanta energía. En este momento Chile tiene en sus manos la solucion de esta cuestion. Tarapacá, Provincia litoral, limítrofe de Bolivia, cuando Bolivia llegaba todavía al Pacífico, es la Provincia costeña, más rica de Sud América. Cobre, plata, oro, guano, plomo, yodo, boratos y nitratos de soda, todo esto cuenta entre sus producciones. Iquique, que despues del Callao y de Valparaiso, es la poblacion más importante en esta costa occidental, y que es la capital y principal puerto de dicha Provincia, cuenta en su seno con negociantes de todas las nacionalidades y posée una rada en que los buques alemanes, ingléses, americanos y franceses están incesantemente cargando los productos naturales de esa Provincia, enriqueciendo a sus dueños sin por esto empobrecer el territorio.

"Peritos imparciales estiman el valor de esa zona en una suma fabulosa. Un hombre público de Bolivia me decia últimamente que fuera del salitre (cuyo valor es difícil estimar y que con la plata y el guano forma lo principal de las exportaciones), esa zona contiene riquezas que, estimadas con moderacion,

pueden avaluarse, en un billon de *dollars*. El mismo García Calderon, basando su cálculo sobre los informes de ingenieros inglésos y americanos, avalúa su riqueza sólo en salitre, en $600,000,000. Por consiguiente, a título de indemnizacion de guerra, Chile no puede posiblemente pretender a más, ni tampoco pretende más, a título de indemnizacion. Tacna y Arica, son al contrario de poca utilidad aparente y no tienen ningun valor intrínseco. La riqueza de Tarapacá no se extiende al territorio que ocupan esas poblaciones; no se encuentran en esos desiertos monstruosos, ni minas de plata ni depósitos de salitre o guano.

La situacion predominante de Tacna.

"Tacna está situado en el rio de su mismo nombre, como a 1,800 piés sobre el nivel del mar, y está unido en su puerto (Arica) por medio de un ferrocarril de 35 millas de largo. De Tacna, los caminos se ramifican en todas direcciones; hácia el Norte, para Sama, Tarata y Pachía; hácia la costa, para Ilo; y hácia el Este, para Bolivia.

La importancia de la situacion de Tacna ha sido reconocida desde mucho tiempo y apreciada por el Perú; y Bolivia, a consecuencia de las dificultades del camino para exportar por su propia costa, llevaba su comercio, ya muchos años ántes de la guerra, por Arica.

Encontraba entónces más conveniente, pagar los derechos de las aduanas del Perú y sus fletes desde Arica, que hacer uso de sus propios puertos. En el último informe del Ministro de Hacienda de Chile se encuentra la siguiente exposicion, bajo el lema de:

El papel de Arica en el comercio de Bolivia.

"La ocupacion de Arica, que hoy dia debe considerarse simplemente como una medida de seguridad, o como una base para arreglar nuestras condiciones con nuestros vecinos, nos obliga a preveer lo que suceda en el caso en que una tregua o un tratado de paz defina nuestras relaciones con nuestros actuales adversarios. Arica es el solo y único camino para las importaciones y exportaciones del Norte de Bolivia, porque la vía de Puno y de Arequipa a Mollendo presenta demasiadas desventajas para nunca ser utilizada, sino como un camino accidental y poco frecuentado.

Aparte de esto, Mollendo no es un puerto; es apénas una rada abierta, y cualesquiera mejoras que se quieran introducir, no tendrian otro efecto, que hacer los accidentes más fáciles y más frecuentes; y las demoras de dias y frecuentemente de semanas, desanimarian al comercio.

El valor de los trasportes por caminos largos, quebrados y en mal estado, haria que los fletes fueran demasiado costosos. El camino por Tacna y la Paz, será siempre preferido, abriendo los importantes centros mineros de Corocoro, Oruro, Chuquisaca y otros ricos en minerales y de sorprendente fertilidad".

Por qué Chile quiere los dos.

"Desde hace un año Chile está dispuesto a pagar al Perú, por los dos distritos de Arica y Tacna $10.000,000. Su único valor consiste en que abren la entrada a Bolivia; que de hecho, son la Aduana de Bolivia; pero al mismo tiempo, Chile promete a Bolivia que los derechos serán completamente abolidos sobre las mercancías bolivianas. Por consiguiente no tienen valor intrínseco; como medio de defensa para la frontera chilena, la cosa es más que cuestionable; como aduana, desde que no cobrarian derechos, no tienen valor; pero como un principio de levadura chilena que debe penetrar y hacer fermentar toda la masa, son de inestimable valor.

La tregua Lillo-Baptista frustrada.

"Esto se ve claro cuando se considera la condicion de Bolivia, sin un pedazo de costa y con todas sus comunicaciones con el exterior en manos de una nacion tan recientemente en guerra con ella, y cuyos proyectos de absorcion fueron abiertamente discutidos en el Senado y apoyados por la prensa.

Si hubiera habido alguna esperanza de que en sus cuantas campañas contra Bolivia hubieran tenido por resultado el ponerla en la misma condicion que el Perú, hace tiempo que Chile las hubiera emprendido.

La codicia de Chile ha sido tan sobrexitada con las promesas de poseer Bolivia y con la perspectiva que el resultado de la guerra ha demostrado ser posible, que hoy dia Chile aventuraría cualquier cosa para conseguir su objeto. Pero no es por medio de marchas forzadas y de cañones rayados que se pueda

atacar a Bolivia, y en Enero de 1882, Chile, estando convencido de que habia que emplear otros medios, dió poderes al señor D. Eusebio Lillo para firmar una tregua con Bolivia, con exclusion del Perú. El señor Lillo se reunió en Tacna con el comisionado boliviano, señor Baptista, y el 20 de dicho mes celebraron una tregua separada, cuyas condiciones fueron las siguientes:

1.ª—La República de Chile y la República de Bolivia celebran un arreglo de tregua indefinida en la guerra existente entre los dos paises;

2.ª—Dicha tregua no puede ser rota por ninguna de las Repúblicas contratantes, sino a la espiracion del término de un año de notificarse la intencion de renovar las hostilidades;

3.ª—La República de Chile continuará ocupando y administrando bajo su suprema autoridad los territorios que ocupan actualmente sus fuerzas;

4.ª—Las relaciones comerciales entre las repúblicas contratantes, quedan restablecidas;

5.ª—En las aduanas de la costa, que están actualmente ocupadas y administradas por Chile, los derechos sobre las mercaderías con destino a Bolivia quedarán reducidos al 50 por ciento;

6.ª—Los productos bolivianos exportados por dichas aduanas quedaran libres de todo derecho, y los productos chilenos introducidos en Bolivia por las aduanas de dicha República, gozarán de la misma franquicia.

"Este convenio quedó desechado por influjo del Ministro de Estados Unidos en Bolivia, Mr. Adams, que solicitó que ántes de ratificarlo los gobiernos, esperarán el resultado de la negociacion de paz entablada en Santiago por Mr. Trescott; y gradualmente las dos partes se fueron apartando, y el protocolo no fué ratificado.

"El primer resultado de esta tregua habria sido la separacion de Bolivia de la alianza peruana; sus tropas habrian dejado Arequipa, y sus recursos habrian cesado de proporcionar a Montero los medios para continuar la resistencia; Arequipa caeria expontáneamente, y con la desaparicion de la única fuerza armada que le hace frente ahora, Chile habria cosechado inmediatamente todos los frutos de su victoria y habria exigido las concesiones que está pretendiendo. El Perú, perdiendo por la accion diplomática de su enemigo, lo poco que todavía conserva despues de las victorias de aquel, habria humildemente ofrecido como un dón lo que ahora se resiste a vender, comprendiendo que se encuentra completamente a la merced de un adversario que ha probado ya estar dispuesto a agarrar con la mano de fierro de la autoridad militar, todo lo que puede guardar para sí, sin atraer sobre ella la ira de otras naciones, por el hecho de derrotar a su enemigo.

Durante su permanencia allí, discutió y arregló con el Presidente Campero, la union de las dos Repúblicas, conforme lo hemos ya indicado en la presente carta. El señor Lillo tuvo por instruccion, el ofrecer la abolicion completa de derechos sobre las mercaderias bolivianas que entraran o salieran por las aduanas chilenas; pero el proyecto fracasó desde el principio.

La cuestion de la paz entre Chile y Bolivia es una cuestion de fletes.

"Fué en este tiempo que Chile, habiendo agotado sus medios diplomáticos y otros, en ese esfuerzo, se retiró desanimado; fué tambien en ese tiempo que el señor Ignacio Alvarez se levantó en el Senado chileno para proponer una nueva tentativa, en diferente forma, para llegar al mismo fin. El discurso es brillante y convincente y produjo un efecto marcado en el Congreso; pero es demasiado largo para nuestro objeto. Dijo en sustancia, que: «Bolivia no puede ser atacada por medio de un gran ejército y de cañones de 14 pulgadas, pero puede serlo por medio de túneles y de puentes.»

"La paz con Bolivia es simplemente una cuestion de fletes. ¿Qué es lo que adjudicó a Chile la conquista de los araucanos, raza igualmente difícil de sojuzgar por las armas, como por la cruz y la civilizacion?—Fué el ferrocarril a Angol. No son escuadrones de caballeria, ni regimientos de infantería los que han sojuzgado estas poblaciones hostiles e indomables, sino los rieles y los carros de carga. ¿Qué es, por otro lado, lo que mantiene y ha mantenido a la traidora Bolivia firme en su alianza con el Perú?—El ferrocarril a Mollendo. Lo único que mantiene la alianza es este ferrocarril de 267 millas que une el lago de Titicaca con el Pacífico. Sin esta cinta de fierro, la alianza quedaria rota mañana. Sobre semejante base, vemos ahora que hay un medio para sojuzgar a Bolivia mejor que el de las armas. Principiemos un ferrocarril de Mejillones a Calama y de allá por

Lipez, Huanchaca y Potosí a Sucre, al corazon de Bolivia. Así conseguiremos la paz, la reconciliacion, la alianza, *la misma Bolivia*.

"En otras palabras, lo que Chile se propone respecto a Bolivia, es lo mismo que efectuó en Tarapacá y Atacama,—colonizar con sus ciudadanos y conquistar con sus capitales."

Durante cuatro meses, conforme al consejo del señor Vicuña Mackena, un cuerpo de ingenieros ha ido reconociendo esas partes e informando de tiempo en tiempo sobre sus trabajos y sobre las expectativas. El costo total de la obra está estimado en $14 000,000 a $16 000,000, y Chile comprende que el problema está resuelto y que tiene la llave.

Error inoportuno de Chile.

Pero palpando ya el fin anhelado, sintiéndose seguro y envalentonado Chile en ese momento, cometió un error que le puede ser fatal. El 18 de Marzo último pasado, el Gobierno chileno dió un decreto subiendo los derechos sobre todas las mercaderías introducidas por Tacna para Bolivia, posiblemente con la esperanza de desviar la corriente del comercio boliviano hácia el Sur, y poniéndolo así más completamente bajo de su dependencia, particularmente en el caso que fuese necesario más tarde, dejar Tacna al Perú o tenerlo definitivamente a Bolivia.

Es probable tambien que se esperaba que Bolivia principiara a sentir toda la fuerza del poder que tenia Chile sobre ella, y que a consecuencia de ello cediera más pronto; pero el resultado fué irritar a Bolivia en el extremo; y en fecha de 5 de Abril, el Presidente Campero publico una circular declarando:

"Desde que el jefe de las fuerzas enemigas en Tacna ha establecido una tarifa prohibitoria sobre las importaciones bolivianas [de las que la mayor parte eran de orígen chileno] con la intencion de crear en nuestro país una carestía de que por fortuna no estamos en peligro, nos conviene tomar las medidas adecuadas, para probarle que nuestro bienestar y nuestra miseria no dependen de su voluntad. Por consiguiente, que sepan Chile y sus jefes que aun en el caso de que aboliera por completo el derecho, de $2 por quintal de salitre que ha decretado nuestro Gobierno impondria el mismo derecho sobre dicho artículo."

Inclinándose a la Argentina.

"Muchas casas extranjeras se han quejado de este procedimiento de Chile, y han telegrafiado a sus agentes en el extranjero el suspender los embarques hasta nuevo aviso.

Algunas aun han cerrado sus sucursales en Tacna, con la intencion, no de buscar Cobija sino Buenos Ayres. Campero ha reducido a la mitad los derechos de aduana sobre las mercaderías introducidas por la República Argentina. En Bolivia se toma en consideracion el proyecto de Aurrecoechea y Rosello, y por mera coincidencia, la cosecha de trigo en las altiplanicies de Bolivia ha sido excepcionalmente buena. Ciertamente que esto aparece como un grave error que se cometió en Santiago. Perdiendo el mercado de Bolivia, Chile perderá tambien la buena voluntad de ese país y la lisonjera esperanza de su fácil incorporacion. Inútil es discutir si Chile retirará el mal entendido decreto para redimir su posicion, o bien si hay que esperar algun nuevo hecho, que no se puede prever.

Las partes proporcionales en la repartición.

"Para formar un juicio sobre todos esos diferentes proyectos, y como indicacion que pueda servir para el resultado definitivo, una exposicion comparativa de las ventajas que ofrecen a Bolivia las tres entradas a Bolivia, puede ser de algun valor.

En el año de 1881, apesar de que toda la costa del Pacífico está en manos del enemigo, las importaciones totales de Bolivia dan las cifras siguientes:

Arica, Cobija & (toda esta costa perteneciendo hoy a Chile)....	$ 6 700,000
Rio Madeira, Brasil.....	250,000
Rio Paraguay, República Argentina.....	200,000

"Por consiguiente, se puede deducir de las situaciones geográficas, de las estadísticas comerciales y de la historia anterior, que en una particion de Bolivia [suponiendo siempre al Perú fuera de la cuestion] el Brasil recibiria probablemente Beni y Santa Cruz; la República Argentina, los dos distritos del Sur, y Chile toda la parte central y occidental, incluyendo lo que en siglos pasados fué el Alto Perú de los Incas, y que, aunque poco conocido y ménos explotado, produce en sólo plata, más de 80 % del valor de las exportaciones."

Ilícita publicacion de la carta de Montero.

Volvamos ahora a la carta de Mr. Logan a

Montero En el mismo dia, ó con poca diferencia, en que llegaba á manos de Montero en Arequipa, fué publicada en un periódico de Panamá. Cuando esta publicacion llegó á Lima, puso á Mr. Partridge en un estado de grande excitacion. Me reservo el relatar en otro período de esta correspondencia los pasos á que acudió en el acto Esto necesita unirse á una relacion de lo que hizo y dejó de hacer en el Perú, miéntras su colega en Chile perseguia las negociaciones que dieron por fruto la carta á Montero Unos diez ó doce dias más tarde, cuando esa publicacion llegó á Chile—hácia mediados de Enero—la excitacion que produjo ella entre las varias personas interesadas, fué igualmente intensa. Todos convinieron en que la carta á Montero era escrita en el interés de Chile; aparte de que leyéndola ahora, despues de un intervalo de algunos meses y examinándola á la luz de las instrucciones á Mr. Logan, del 26 de Junio, se ve que no hay nada en las condiciones de paz que no estuvo dentro de los límites establecidos por el Secretario Frelinghuysen.

Pero hay que observar que dichas instrucciones no eran generalmente conocidas. No hay duda de que el Ministerio de Relaciones Exteriores de Chile las conocia, pero nadie fuera de él. Lo último que el público de Sud América sabia sobre la conducta diplomática de Estados Unidos respecto á las condiciones de paz, provenia de la publicacion de las instrucciones de Mr. Trescott. Estas sostenian de un modo esplícito el plan de salvar la integridad territorial del Perú, dando solamente á Chile una indemnizacion pecuniaria. Entre tanto, aquí se presenta el último nombrado de los representantes de Estados Unidos aconsejando al Perú, no sólo ceder Tarapacá, sino tambien vender Arica y Tacna, y advirtiéndole que este era el mejor arreglo que pudiera hacer, y en caso que no lo aceptase para concluir le saldria peor. ¿Qué significa todo esto?—Todos en la costa del Pacífico se encontraban atolondrados, sorprendidos.—¿Si se habrá vendido el Ministro americano á Chile?—era la pregunta que se hacian los peruanos. Entre tanto, el mismo Mr. Logan se encontraba condenado al silencio, por las obligaciones que le imponia, su situacion, sin poder rebatir esa cuestion insultante, y su Gobierno no venia en su auxilio.

EL SECRETARIO FRELINGHUYSEN REPRUEBA LA CARTA.

Al contrario, el Secretario Frelinghuysen reprobó la carta á Montero. De qué modo lo hizo y en qué términos, lo contaré cuando llegue á la conducta del Ministro Partridge.

LAS INSINUACIONES Y LAS QUEJAS DE CALDERON.

El misterio de esta publicacion ilícita no fué nunca bien aclarado. Calderon, en una nota dirigida á Mr. Logan, en 9 de Enero, insinuaba que esto se hizo con la connivencia del mismo Ministro americano con el Gobierno chileno; y no hay duda de que así lo creia. Trascribo los siguientes párrafos de lo que escribió:

"—¿No ha comunicado U. nunca esta carta á nadie?

Reflexione U. sobre esto, y creo que ello le conducirá á descubrir la verdad acerca de la publicacion.....

Esta es una carta que favorece á Chile, cuyas exigencias está defendiendo con ardor, y á Bolivia, á quien indica el camino que debe seguir para romper su alianza con el Perú. En ámbos sentidos, es perjudicial para el Perú.....

Por cierto que ella no contiene nada que U. no me haya dicho en nuestras diversas conferencias, y aun mucho ménos de lo que U. dijo; pero U. sabe naturalmente, que hay muchas cosas que pueden decirse en una discusion, y que no deben consignarse en un escrito. Así es que si U. me hubiera consultado acerca de los términos de su carta al señor Montero, le habria suplicado el modificarlos, y particularmente manifestar que U. me trasmitió á principios de Octubre el ultimatum del Gobierno chileno, y que yo lo acepté, y que si la paz no se arregló en seguida fué, porque ese Gobierno modificó su propio ultimatum, agravando las condiciones. U. pasó por encima de esto en su carta, con la simple observacion que por razones que no hay que relatar ahora "U. propuso arreglos; pero que esos esfuerzos para conciliar las partes fracasaron." Si en lugar de decir esto hubiera U. hablado del ultimatum, la carta de U. en esta parte habria sido desfavorable para Chile, miéntras que en vez de esto, no contiene una palabra para condenar la conducta del Gobierno chileno, quien le ha dado amplios y justos motivos de queja."

LA CLAVE PROBABLE DEL MISTERIO.

Pero Calderon se equivocaba en cuanto a la complicidad del Ministro americano en la publicacion. El no dió ninguna copia de su carta al Gobierno chileno, y la primera noticia que tuvo de ella el Ministro chileno de Relaciones Exteriores, fué cuando se publicó en Panamá. Ni puede racionalmente haber ninguna duda de q' la copia que sirvió para la publicacion en Panamá, fué sacada de otra copia que Mr. Logan envió confidencialmente al mismo Calderon, en la misma fecha o próxima a la en que mandó el original a Montero. Esto echaria la culpa sobre Calderon, suponiendo que haya recibido dicha copia, pero casi no hay duda de que no la recibió. Cuando se espuraron las indagaciones que se hacian, el mensagero que la recibió para entregarla a Calderon desapareció, y el que quiera sospechar que éste no cumplió fielmente su comision, estará probablemente en el camino de la verdad. Las malicias de la diplomacia sud-americana son "peculiares".

LAS RELACIONES TIRANTES ENTRE LOGAN Y CALDERON.

La carta misma y su publicacion, así como la polémica sobre la responsabilidad de su publicacion, hicieron tirantes las amistosas relaciones que habia hasta entónces entre Mr. Logan y el doctor Calderon. Así mismo, el modo astuto con que en los extractos arriba citados de la carta de Calderon del 9 de Enero, y en otros párrafos que es inútil citar, la responsabilidad por no haber podido arreglarse está atribuida por Calderon, exclusivamente a Chile; miéntras que en la opinion del Ministro americano, segun aparece suficientemente de su relacion dirigida al señor Aldunate en 18 de Octubre (y que le dí en extenso en mi última carta, habiéndola sacado de los archivos del Congreso chileno) recae en gran parte sobre el mismo Calderon, si no es que enteramente a él debe ser atribuida. El verdadero ultimatum del Gobierno chileno, tal como lo comprendió el Ministro americano, está redactado como sigue:

"U. Sr. Aldunate, dijo en nombre de Chile, que las exigencias quedarian reducidas prácticamente a tres condiciones: 1ª, cesion de Tarapacá; 2ª, el derecho de comprar el distrito de Arica y Tacna por suma determinada, y 3ª, el derecho de llevar a cabo (*control*) la venta de guano anunciada por avisos para el 18 de Octubre. U. añadió que estas condiciones eran absolutas y definitivas. Propuse que las siguientes cuestiones fuesen sometidas a un miembro del cuerpo diplomático, amigo de ámbos, que seria considerado simplemente como un arbitro amigable: ¿tendrá Chile el derecho de comprar el territorio que comprende Arica y Tacna por $9 000.000, o bien tendrá el derecho de ocuparlo militarmente durante un período de quince años, con la obligacion de evacuarlo al terminar dicho período? Considerando que esta proposicion garantizaba, sea la compra del territorio o su ocupacion durante quince años, U. consintió en aceptarla en sustancia, como base de negociacion".

Pero Calderon insistió para que se expresara el arreglo sobre la cesion de Tarapacá en los términos que van en seguida, y se rehusó a no diferirlas en manera alguna; y apesar de que el Gobierno chileno estaba dispuesto a empeñar su palabra de honor de aceptar cualquier parte de la deuda extranjera que en virtud del decreto internacional incumbiese a Tarapacá, no queria convenir en una estipulacion escrita, y más que todo, se oponia a la cláusula propuesta por Calderon, porque juzgaba que ella envolvia otras muchas deudas, tanto interiores como extranjeras.—"El Perú cederá a Chile la Provincia de Tarapacá, con los salitres, el guano y todas las riquezas que encierra, y tambien el guano de las islas de Lobos en el Norte del Perú, y esta cesion la acepta Chile como pago por todos los gastos, daños y perjuicios que reclama por razon de la guerra, obligándose el nuevo poseedor a hacer con los acreedores, que puedan tener legítimos títulos sobre los guanos y salitres, los arreglos necesarios para el cumplimiento de los contratos celebrados con ellos."

Habia tambien diferencias radicales entre Calderon y el Gobierno chileno en las cláusulas relativas a Arica y Tacna; pero esto no es importante con relacion a lo que estamos tratando; esto es para explicar de qué modo se hicieron tirantes las relaciones entre el Ministro americano y Calderon.

EL INTERÉS QUE TENIA CALDERON EN LA CLÁUSULA QUE REDACTÓ

Precisamente en esta época se dieron pruebas al Ministro americano de que la cláusula arriba citada, tal como era redactada y sostenida por Calderon, tendria por consecuencia, entre otras, la de asegurar la garantía de

Chile al pago de una deuda del Perú, en favor de una Compañía peruana, por una suma de £ 700,000 (la cifra exacta es £ 677,741 19 s. 4 ps. con los intereses atrasados desde el 31 de Diciembre de 1880) y que además del interés que tenia en el asunto como Presidente de la Compañía, tenia tambien un considerable interés personal. Conforme al testimonio, en Santiago, Julio 20, del señor don José Rey y Basadre, cuñado del señor Calderon, el interés personal de éste era de £ 40,000.

Si esta informacion llegó a la legacion americana por conducto del Gobierno chileno o por otro, no lo sé. Poco tiempo despues vino tambien otra informacion: "que Calderon, durante todo el período de su presidencia provisoria, incluso el tiempo de su residencia en Chile, se hizo cargo de asegurar a sus colegas de la Compañía en el Perú, que no formaría ningun tratado que no obligue a Chile a la compra de sus intereses.

La Compañía en cuestion se llama "Compañía Salitrera del Perú" y es la representante de un contrato hecho por el banco limeño "La Providencia" en Enero de 1874 [un año ántes de principiar la guerra] para la administracion de los salitres de Tarapacá, la venta de sus productos y la emision y servicio de un préstamo al Gobierno peruano, garantizado por dichos salitres.

RUPTURA ENTRE CALDERON Y LOGAN.

Fácil es comprender cómo es que informaciones de esa clase, sobre un asunto personal al señor Calderon, y de bastante grande interés para hacerlo insistir sobre la cláusula que habia redactado, así como el misterio que guardó con el Ministro americano en Chile sobre este asunto, durante todo el curso de las negociaciones, viniendo en este momento llevaron las relaciones, ya tirantes, hasta el límite de una ruptura; y la ruptura vino efectivamente poco tiempo despues, cuando el Ministro americano en el Perú, Mr. Partridge, inició una correspondencia secreta con Calderon, haciéndole saber que la conducta del Ministro Logan era desaprobada en Washington y aconsejándolo no continuara sus relaciones con este Ministro. En otra carta emprenderé la narracion de todo esto.

SE SOLICITA UN TESTIMONIO DE CALDERON.

En cuanto tengo que espresar mi sentimiento de no poder presentar al público americano, las esplicaciones que el señor Calderon pudiera alegar respecto a las alegaciones anteriores.

En el mes de Junio y despues en el de Julio [esta segunda vez personalmente] me he comunicado con él en Rancagua, en Chile, (lugar de su confinamiento) y le supliqué hiciera una pública exposicion de toda esta parte de las negociaciones, particularmente (en la segunda ocasion) respecto al cargo del interés personal que tenia en la cláusula de su memorandum, relativamente a Tarapacá. En la primera ocasion se rehusó a ello por razones relacionadas con las interpelaciones de Vicuña Mackenna en el Senado, entónces pendientes. En la segunda ocasion me prometió hacerlo, pero no he recibido la comunicacion prometida.

LA COMPAÑIA SALITRERA DEL PERÚ.

A falta de esta comunicacion presentó el memorandum siguiente, redactado por uno de los principales socios de la "Compañía Salitrera del Perú," como siendo la exposicion más completa que se puede tener respecto de dicha Compañía:

"El Congreso peruano votó el 18 de Enero y 23 de Abril de 1873, dos leyes, creando el "estanco del salitre" que estaban en vigor en 10 de Setiembre de 1875, cuando el Gobierno del Presidente don Manuel Pardo hizo un contrato con los bancos asociados de Lima [Banco «Nacional del Perú»—«Perú» «La Providencia» y «Lima»] con el objeto de comprar y administrar las oficinas salitreras, y consignándolos [dígase a Anthony Gibbs & Sons, Lóndres] toda la produccion de los nitratos de la Provincia de Tarapacá. Además de ésto, los bancos quedaban encargados de percibir los derechos, esto es, $ 1.25 por quintal, a razon de 40 peniques por peso, sobre los nitratos de soda y 60 centavos por quintal de nitrato de potasa, sobre los nitratos exportados por los salitreros que no hubiesen vendido sus salitreras al Gobierno: todo el producto debia ser puesto al crédito del Gobierno peruano [ménos la comision estipulada de 2 ½ % sobre las consignaciones y 5 % sobre el producto de los derechos,] para hacer frente a un empréstito de $ 18.500 000 que dichos bancos hicieron al Gobierno en 1870.

"Por decreto del Presidente Pardo, del 13 de Julio de 1876, los bancos asociados eran

limitados a la compra de 2.000,000 de quintales anualmente, por cuenta del Gobierno; dicha cantidad se distribuia como sigue: 1.150,000 quintales de Guillermo Gibbs y Cª y de J. Gibbs Meister y Cª a razon de $ 1.60 por el salitre de 95 % y a razon de $ 1.70 por el salitre de 96 %, contando el peso a 44 peniques; y 300,000 quintales de las "*Oficinas de paradas*" a diferentes precios y al juicio de los bancos. El resto para completar los 2.000,000, debia ser comprado por los bancos en los precios corrientes y con propuestas cerradas.

"La autorizacion relativa a los 300,000 quintales de "*las paradas*" fué suprimida por el Gobierno en 30 de Abril de 1877, limitando la exportacion de los nitratos elaborados por cuenta del Gobierno a la cantidad contratada con los productores que habian ofrecido vender sus oficinas al Gobierno.

"Miéntras estaban los bancos en posesion de su contrato, el Gobierno (entónces del Presidente don Mariano Ignacio Prado) hizo un nuevo contrato con Oliphant y Cª, en 5 de Noviembre de 1877, para la consignacion de 500.000 quintales de salitre refinado para los Estados Unidos y el Canadá, bajo una multa de $ 24,50 oro americano por tonelada. La cifra fué despues elevada a 600,000 quintales, y los bancos recibian una comision de 2 % sobre los productos, los que debian ponerse al crédito de una subvencion otorgada por el Gobierno a Oliphant y Cª para la traida de chinos al Perú; contrata que despues no pudieron llevar a efecto.

"El contrato con los bancos asociados duró hasta el 10 de Julio de 1878, época en que el "Banco de la Providencia" [dígase García Calderon] presentó una nueva propuesta al Gobierno para la consignacion y la administracion de los nitratos, propuesta que fué aceptada el 19 de Julio de 1878, con algunas modificaciones introducidas por el Gobierno.

"El objeto de dicho contrato era: 1º la consignacion y la venta de los nitratos elaborados por cuenta del Gobierno: 2º la emision del empréstito que debia hacerse con la garantía de las salitreras y el servicio de ella; 3º la administracion de las salitreras. Las particularidades de dicha contrata eran las siguientes: Consignacion de todos los nitratos elaborados por cuenta del Gobierno, que no debian ser ménos de 5 000,000 ni más de 6.0000,000 por año, pudiendo aumentarse la cifra por mutuo convenio. El banco debia recibir la totalidad de los nitratos y pagar su precio a los elaboradores en buenas letras sobre Lóndres a 90 dias, pero el precio no podia exceder de 16 chelines por quintal de a 95 % puesto a bordo, con una multa de £ 4 por tonelada; y en caso que los fletes viniesen a subir de £ 2 13 chelines, el exceso quedaba por cuenta del Gobierno. En las cuentas de venta, la tonelada inglesa debia contarse en 2 350 libras españolas. La pérdida de peso (*barredera*) quedaba por cuenta del banco.

"A cuenta de los netos productos, el banco debia adelantar al Gobierno, desde el 1º de Octubre de 1878 £ 60,000 durante seis meses, y £ 20,000 mensualmente en buenas letras sobre Lóndres a 90 dias, o su equivalente en moneda corriente, al cambio del dia. El banco debia pagar a los otros tres bancos el balance de lo que se les debia por el Gobierno hasta el 30 de Junio de 1876, esto es, el balance de lo que se les debia por el empréstito de $ 18.500,000 y los derechos sobre nitratos. El banco debia hacer el servicio de los certificados salitreros y administrar las salitreras por cuenta del Gobierno.

"Este contrato quedó trasferido a la "Compañía Salitrera del Perú;" Compañía creada por don Francisco García Calderon, y de la que fué el Presidente hasta que los chilenos lo mandaron prisionero a Chile con el título de Presidente Provisorio de la República del Perú.

"El Gobierno del Perú hipotecó las salitreras y reconoció que quedaban responsables a la "Compañía Salitrera" por el pago del empréstito. El balance que se debe a la "Compañía Salitrera" es de £ 677,244 19 chelines 4 peniques, con los intereses liquidados en 31 de Diciembre de 1883."

PRENSA AMERICANA.

"NEW-YORK HERALD" DEL 6 DE OCTUBRE DE 1883.

La Guerra Sud-Americana.

Carrera del señor Partridge en el PERU.—Siempre "en viaje" para Arequipa.

MONTERO PIDE EXPLICACIONES.

Carta del Ministro Logan á Montero desaprobada por el Secretario Frelinghuysen.

MENSAJE DEL PRESIDENTE ARTHUR.

Contestacion de Montero.

CORRESPONDENCIA SECRETA DE PARTRIDGE CON CALDERON, Y NEGOCIACIONES PARA INTERVENCION EUROPEA.

PARTRIDGE TAMBIEN ES CENSURADO EN WASHINGTON.

Conclusion del plan de "persuacion normal" (*moral suacion*) del Secretario Frelinghuysen para llegar a la paz.

PARTRIDGE REGRESA Y RENUNCIA.

De nuestro corresponsal, Lima, Agosto 16 de 1883.

En mi carta fecha Agosto 15, referí los procedimientos de Mr. Logan, el Ministro de los Estados Unidos en Chile, despues de su fracaso para llevar al Gobierno chileno, y señor García Calderon Presidente prisionero del Perú, a un arreglo para las condiciones de paz en Setiembre y Octubre de 1882, en Santiago, particularmente el envio por Mr. Logan de la llamada carta a Montero, fecha Noviembre 13 de 1882 aconsejando al Vice-Presidente de Calderon en Arequipa, que a no ser luego aceptado el ultimatum especificado en dicha carta, seria probable que le iria poor al Perú faltándole una intervencion extranjera. He narrado tambien la frialdad entre Mr. Logan y Calderon que siguió a la publicacion ilícita de la carta, y que aumentó por haber descubierto el Ministro americano un motivo personal pecunario en la insistencia de García Calderon para que Chile aceptara una clausula, referente a sus responsabilidad por contratos y deudas peruanas ligadas a la Provincia de Tuparacá, precisamente del modo como el (Calderon) la redactó. En la misma oportunidad expliqué las razones de Chile para insistir en la adquisicion de Tacna y Arica junto con Tarapacá, y discurrí sobre la relacion de estos territorios respecto a Bolivia, narrando cómo Montero negoció con el Presidente Campero para la cesion a Bolivia por el Perú, Arica y Tacna, miéntras que al mismo tiempo ostensiblemente delegaba, a García Calderon, en contestacion a la «carta de Montero», plenos poderes para tratar con Chile, sabiendo bien (pues la carta lo indicaba) que el ultimatum de Chile era el siguiente, y que su

negociaciones con Campero, eran incompatibles con él; a saber:

1.° Cesion absoluta de Tarapacá, a título de indemnizacion de guerra, debiendo pagar Chile todas las deudas de la Provincia, siguiendo en esto legítimamente, las prescripciones de la ley internacional, no obstante que Chile se niega a insertar ninguna estipulacion especial a este respecto en el tratado, porque no lo considera necesario, desde que se ha comprometido a ello en varias declaraciones públicas.

2.° Adquisicion de Tacna y Arica a título de compra, por la suma de 10 millones de pesos fuertes, que debe ser pagada en tres anualidades iguales. Tambien mencionó que el Secretario Frelinghuysen reprobó la carta a Montero, no obstante los poderes discrecionales conferidos por el departamento de Estado en sus instrucciones de Junio 26 de 1882 al Ministro Logan (que referí a usted en la mia de Agosto 14.) y que el Ministro Partridge se ofendió tanto de su colega, que entró en comunicaciones secretas con Calderon, aconsejándole que rompiera toda relacion con Logan; consejo que fué naturalmente seguido por Calderon. Esto me lleva a narrar la carrera de Mr. Partridge en el Perú, donde [como he referido en carta de Agosto 14) llegó en Junio 20 de 1882, y a principios de Agosto recibió las instrucciones del Secretario Frelinghuysen (de la misma fecha que las de su colega) encargándole que fuera inmediatamente a Arequipa y presentara sus credenciales a Montero, y que allí, y en seguida, trabajara despues, como primer accesorio, en el nuevo esfuerzo para llegar a la paz, obra que su colega iba a iniciar en Santiago como jefe principal.

Hipocondría del Ministro Partridge.

A su llegada a Lima, en Junio 20, Mr. Partridge se alojó en el Hotel de Francia, y poco despues tomó una casa. Pero aun ántes de aislarse en su casa, dió muestras evidentes a las personas con quienes tuvo algo más que leve contacto, de que se encontraba en un estado de ánimo tal, que el Gobierno de los Estados Unidos debia no haberlo encargado de una mision tal, ni él debia haber aceptado cargo semejante. Para hablar con claridad, Mr. Partridge, aunque es normalmente un cumplido y amable caballero, y diplomático excelentemente educado para este puesto, llegó al Perú huyendo del contacto de la humanidad, el que era tan necesario a sus trabajos; mórbidamente sensible a las variaciones de temperatura e incomodidades de los viajes; exagerando mucho las dificultades de la vida humana, aun en las cosas más sencillas, y contemplando un viaje a Arequipa con el mismo terror que si fuera un salto de una de las torres de la Catedral a la plaza. Apénas habia estado una quincena en Lima, cuando pidió al departamento de Estado licencia, y una gran parte de su correspondencia oficial, desde entónces hasta su regreso, en Mayo 24 de 1883, consistió en una renovacion de lastimeras súplicas para conseguir su licencia, dando a la vez disculpas por la desobediencia de las instrucciones del Secretario Frelinghuysen de Junio 26, para que partiera inmediatamente a Arequipa a presentar sus credenciales al "único Gobierno del Perú reconocido por los Estados Unidos."

Descuida los deberes impuestos por sus instrucciones.

Recibió sus instrucciones, como he referido, de manos de Mr. Logan, quien llegó a Lima en Agosto 12, siguiendo el 18 en su viaje a Santiago. Durante esa semana, por consultas con Logan, y leyendo las instrucciones de éste, en relacion con las suyas, estuvo enteramente informado con el plan concertado por el departamento de Estado para un "nuevo esfuerzo" en favor de la paz, y con la importante aunque secundaria, participacion que le fué asignada. Miéntras que a Logan, como principal, le fué delegado el asegurar de parte de Chile un casi reconocimiento del Gobierno Calderon-Montero, para iniciar negociaciones, y limitar las pretensiones de Chile sobre el territorio del Perú, tan eficazmente como fuera posible por medio de argumentos, e "influencias morales", y asegurar de Chile, a favor del Perú, una indemnizacion en dinero, la mayor posible, por el territorio que tomara aquel; a Mr. Patridge, como principal accesorio [la participacion del Ministro Maney en Bolivia, era inconsiderable] fué delegado el trabajo de granjearse la voluntad de Montero, presentándole personalmente sus credenciales en Arequipa, e imponer a Montero, y a sus consejeros, de la necesidad de apercibirse de los severos resultados de una guerra desastrosa, y de someterse a una cesion de territorio, sin lo cual, como base de negocia-

cion (así decían las instrucciones) los Estados Unidos no podrían ayudar al Perú. El deber de Partridge es evidente segun este sumario (que copio casi á la letra de las instrucciones): era esencial, aunque era suplementario en el plan del Secretario Frelinghuysen. Sin el estricto cumplimiento de esto, todo el plan probablemente se derrumbaría.

Para su fiel ejecucion era necesario que dejara su casa de Lima; tomara pasaje para el puerto de Mollendo en un buque de guerra americano, o bien en los vapores de la Compañía del Pacífico, o Sud Américana, que tienen línea semi-semanal del Callao al Sur, arreglándose primero con las autoridades de Chile para permitírsele desembarcar en Mollendo); viajara a Arequipa por ferrocarril (a lo ménos cien millas), y asegurara alojamiento para una residencia transitoria, como el único representante de las grandes potencias que habían reconocido al Gobierno Calderon-Montero como el Gobierno legítimo del Perú. Era una empresa no muy difícil para un americano de buena salud y que hablara el español; escasamente mas difícil que un viaje de Nueva York a Norfolk, en Virginia, y de allí por ferrocarril a Richmond, para un peruano que hablara el inglés. Si Mr. Trescott, quien es tan avanzado en edad como Mr. Partridge, y mucho mas corpulento, y que no habla el español, pudo montar en mula, desde el puerto de Casma, e internarse en la cordillera de los Andes, hasta el pobre pueblo de Huaráz [distancia mayor que de Mollendo a Arequipa] para reconocer al Gobierno de Montero, careciendo de instrucciones de Washington, era muy razonable esperar que Mr. Partridge lo hiciera en Agosto en presentar sus credenciales a Montero, cuando explícitamente se le ordenaba hacerlo así desde Washington, y cuando para este caballero era accesible por mar y ferrocarril, una de las principales ciudades de la República. Pero para Mr. Partridge despues de estar domiciliado en Lima, la empresa le parecia tan tremenda como si fuera un viaje a la luna. Pareciéndole así, postergaba su viaje de semana en semana, y de mes en mes. Cuando el Congreso vea sus notas creo [por lo que he oido decir aquí] que se verá que dió aviso al departamento de Estado, a lo ménos media docena de veces, de su intencion de partir a los pocos días. Siempre estaba en vísperas de salir, y no salia nunca.

MONTERO LO INVITA A AREQUIPA.

Despues de esperarlo en vano por algunos meses, Montero, que tenia aviso por su representante en Washington, señor Elmore, que él (Partridge) tenia instrucciones de presentar sus credenciales en Arequipa, le mandó aún en Noviembre una invitacion especial para ir a esa ciudad, en forma de una nota oficial que el señor Valcárcel, Ministro de Relaciones Exteriores, le dirigió a Lima. (El señor Valcárcel es el mismo que fué Secretario de los Plenipotenciarios del Perú en las conferencias de Arica; su colega señor don Domingo Gana, Secretario de los Plenipotenciarios de Chile en esa ocasion, e iá ahora de Ministro de Chile en México.)

Pero aun a esa invitacion, Mr. Partridge se mostró terco. No solamente no fué a Arequipa, pero ni aun se tomó el cuidado de hacer llegar al conocimiento de Montero y de sus consejeros, el consejo que estaba autorizado por el Secretario Frelinghuysen a dar a dicho señor, valiéndose para ello de cualquier otro conducto; de modo que cuando la carta del Ministro Logan a Montero llegó a Arequipa, en Diciembre 20, tomó completamente de sorpresa al Gobierno de Calderon-Montero.

LA SORPRESA DEL GOBIERNO DE AREQUIPA.

No estaban preparados en Arequipa para el contenido de la carta de Logan a Montero, Mr. Partridge dejó a éste jugar el juego del Secretario Frelinghuysen con sus cartas [*lone hand.*] No avisó al "único Gobierno del Perú, reconocido por Estados Unidos" del cambio de política acaecido en Washington, respecto a las condiciones de paz. Lo había dejado a sabiendas en la ilusion de que los Estados Unidos quedaban comprometidos al plan de Evarts y Blaine de una indemnizacion pecuniaria a Chile, por medio del "Credit Industriel", sin cesion de territorio por parte del Perú.

De modo que el paso dado por el Gobierno Montero no debe de sorprender. Dió órdenes a su Ministro en Washington de pedir al Secretario Frelinghuysen una explicacion de la carta de Logan a Montero.

MONTERO PIDE EXPLICACIONES EN WASHINGTON.

Con fecha Enero 15 de 1883 el señor Valcárcel mandó una nota al señor Elmore desde Arequipa, expresando sorpresa a la alegada irregularidad de la comunicacion directa de Mr. Logan al "señor Montero, Vice-Presi-

dente del Perú, en el ejercicio del Poder Ejecutivo", en lugar de comunicarse por medio de Mr. Partridge; sosteniendo *(avening)* que el Perú era el campeon de las repúblicas americanas, al sostener su derecho de no ser desmembrado su territorio; declarando que el ultimatum chileno respecto a cesion territorial, era meramente una forma suavizada del vencedor, para conseguir una anexion forzosa; declarando que una transferencia de territorio por conquista era una amenaza para la tranquilidad de todas las repúblicas de este hemisferio; "que por este motivo aun las condiciones contenidas en el protocolo de Viña del Mar de Mr. Trescott, hizo una impresion ménos desagradable a nuestro Gobierno (de Arequipa) que las condiciones de paz, que Mr. Logan tomó a su cargo trasmitir: y que el Perú preferiria, en todo caso, perder sus territorios francamente por cesion, que bajo la forma de una venta simulada; llamando tambien la atencion sobre las repetidas veces en que el Gobierno de los Estados Unidos habia declarado [*semilled*] proteger la integridad territorial del Perú; y, finalmente, ordenando al señor Elmore presentar al Secretario Frelinghuysen copia de esta nota, junto con una copia legalizada de la carta de Logan a Montero; y obtener de él una respuesta categórica de si el Gobierno de los Estados Unidos estaba de acuerdo con la opinion de Mr. Logan, que lo mismo que el Gobierno de Chile insistia en la cesion de territorio, y en que era inútil la discusion de la posibilidad de llegar a la paz, en términos de indemnizacion pecuniaria solamente.

Concluia la nota con la expresion del que la firmaba, que tenia la completa seguridad de que era imposible que el ilustre Gobierno de los Estados Unidos fuera a tener la misma opinion que Mr. Logan en este punto, en atencion a los antecedentes que tenia de su política internacional, y de sus recientes procedimientos en relacion con la guerra sudamericana.

CIRCULAR DE VALCARCEL AL CUERPO DIPLOMÁTICO.

Nueve dias despues (Enero 24) el Gobierno de Montero, por conducto del señor Valcárcel, dirigió una circular al cuerpo diplomático acreditado cerca de los beligerantes, conteniendo una breve revista de la guerra con referencia a las varias tentativas para llegar a la paz: la conferencia de Arica, en Octubre de 1880; las conferencias delante de Lima en el intervalo de las batallas de Chorrillos y Miraflores, en Enero de 1881; las negociaciones entre el Gobierno provisional de Calderon y los representantes chilenos Altamirano y Vergara, despues Godoy [ahora Ministro chileno en Washington] ántes de la prision de Calderon y su destierro a Chile, en Octubre de 1881; los esfuerzos subsiguientes de Chile para entrar en negociaciones aisladas con Bolivia, separándola de su aliado, que decia la nota habian sido frustrados por la lealtad del Gobierno de La Paz, y finalmente, los recientes trabajos de Calderon por conducto de Mr. Logan, en Santiago, con el Gobierno chileno, en Setiembre y Octubre de 1882. El resultado de la circular del señor Valcárcel es: "el doloroso convencimiento de que el Gobierno de Chile, que exigia ayer una Provincia peruana, formula hoy la exigencia de otras dos, "a la propaganda que hacen los agentes chilenos, para presentarnos como remitentes a la idea de la paz y para exhibir a nuestros enemigos; no resisten a la idea de la paz ni se niegan a indemnizar a Chile de los gastos de la guerra; resisten a las condiciones indecorosas, depresivas de su autonomía y ruinosas para el porvenir."

PROPUESTA DE MONTERO PARA CANJEARSE CON CALDERON.

Al mismo tiempo Montero sometió una propuesta al Gobierno de Chile, en la cual ofrecia sustituirse él como prisionero, si se ponia en libertad al señor Calderon; permitiéndole pasar a Arequipa, y ejercer las funciones de Presidente del Perú. Pero a ésto no se dignó el Gobierno de Chile contestar de una manera formal (al ménos que yo sepa). Conocian muy bien las respectivas cualidades de inteligencias entre ámbas personas, y que Garcia Calderon, cualquiera que sean sus tachas, es uno de los más hábiles políticos y sabios publicistas de nuestros dias—un hombre mucho más capaz que su Vice-Presidente, de ejercer con habilidad las altas funciones del Gobierno, con daño de su enemigo en un enredo diplomático.

DESAPROBACION DE LA CARTA DE LOGAN A MONTERO POR EL SECRETARIO FRELINGHUYSEN.

¿Qué contestó Mr. Frelinghuysen al señor

Elmore, cuando este último cumplió con el deber que le ordenaba la nota del señor Valcárcel de fecha Enero 15?—Ustedes en Estados Unidos están en más favorable posicion de saberlo que yo aquí. Puede presumirse que parte de la respuesta consistió en la entrega al señor Elmore de una copia del siguiente telegrama, que con fecha Enero 5 de 1883 fué trasmitido en cifra al Ministro Logan, por el departamento de Estado:

"Washington, Enero 5 de 1883.

A Logan, Ministro—Santiago.

Su energía para llegar á alguna conclusion es apreciada, pero para que este Gobierno le instruya para decir al Perú que debe entregar Tarapacá, Tacna y Arica recibiendo $ 10 millones, sería resumir una decision en una cuestion entre dos naciones que no nos han llamado á arbitrar, y sería decirle á Chile que podia alegar justo derecho al territorio.

La situacion del Perú puede ser tan deplorable, que sea prudente aceptar estas condiciones; pero debe de ser el Perú y no Estados Unidos quien decida. Usted y Mr. Partridge recibieron sus instrucciones, y se esperaba que obrando de acuerdo, arribarian á una conclusion razonablemente satisfactoria tanto para el Perú como para Chile, y fallando este medio, se esperaba que se llegaria á un arbitrajo. Se espera que perseveren ustedes en sus esfuerzos para llegar á uno de estos resultados.

Si estos esfuerzos salen fallidos, este Gobierno no habrá omitido su deber. Mande usted por la Mala una copia de esto á Mr. Partridge.

FRELINGHUYSEN."

MENSAJE DEL PRESIDENTE ARTHUR AL CONGRESO.

Pero antes de la respuesta del señor Elmore, cualquiera que ésta haya sido, hubiera llegado al señor Valcárcel toda duda de parte del Gobierno de Calderon-Montero, respecto al abandono de la política del "Credit Industriel" de Evarts-Blaine, fué desvanecida al recibir el texto del Mensaje del Presidente Arthur al Congreso en Washington, en Diciembre 4 de 1882, y que contenia el acápite siguiente:

"La guerra entre Perú y Bolivia por un lado, y Chile por el otro, principió hace más de tres años. A la ocupacion por Chile en 1880 de todo el litoral de Bolivia, se iniciaron negociaciones para llegar á la paz bajo la direccion de los Estados Unidos.

Los aliados rehusaron conceder territorios; pero desde entónces Chile se ha adueñado de toda la costa de ámbos países y de la Capital del Perú.

Hace un año, como han sido autorizados por las correspondencias que les fueron enviadas en Enero pasado, este Gobierno mandó una mision especial cerca de las potencias beligerantes, expresando el deseo de que Chile estaria dispuesto á aceptar una compensacion en dinero por los gastos de guerra y á abandonar sus exigencias de territorio del vencido.

El Gobierno no trató de imponer esta recomendacion que Chile rehusó seguir, *ni podia ser impuesta, sin ocurrir á medidas que no estarian acordes con el temperamento de nuestro pueblo, ni con el espíritu de nuestras instituciones.*

El poder del Perú no se extiende yá más sobre todo el territorio, y en el caso de nuestra intervencion para dictar la paz, sería preciso apoyarla con los ejércitos y armada de los Estados Unidos. Semejante intervencion, con fuerza casi indudablemente al establecimiento de nuestro protectorado; resultado enteramente en oposicion con nuestra política pasada; perjudicial para nuestros intereses presentes, y llena de embarazos para el futuro."

Ni tan poco fué mitigado á los peruanos de Arequipa el completo abandono de la política Evarts-Blaine que encerraban estos párrafos, por las frases que siguieron; pues bien se sabe cuán poca importancia dan en Chile á palabras sin fuerzas para sostenerlas. La capa de azúcar no ocultaba lo amargo de la píldora:

"Para alcanzar la conclusion de las hostilidades bajo condiciones, á la vez que justas para el país victorioso, generosas para sus adversarios, este Gobierno no ha omitido esfuerzos, salvo aquellos que puedan envolver las complicaciones que he indicado. Es de deplorarse mucho, que Chile parece resuelto á exigir condiciones de paz tan rigurosas, negándose á someter á arbitrajo los términos de un amigable arreglo. Ninguna paz tiene probabilidades de duracion cuando no es suficientemente equitativa y justa para obtener la aprobacion de otras naciones."

CONTESTACION DE MONTERO.

Cuando el Congreso que Montero convocó en Octubre 1882, se reunió en Arequipa a principio de 1883, éste en Abril 22, envió un Mensaje, conteniendo un apéndice en contestacion al del Presidente Arthur que traduzco como sigue:

Bien conoceis, honorables representantes, que el programa del Gobierno Provisional ha sido el de la paz. Si el Gobierno de Chile hubiese presentado bases razonables, aunque onerosas e inmerecidas, en atencion a que las repúblicas aliadas no declararon la guerra, hace más de un año que ella habria concluido. Pero los constantes esfuerzos que se han hecho para llegar a la celebracion de un tratado, han sido infructuosos, porque el vencedor rehusó al principio la indemizacion pecuniaria, exigiendo como condicion indeclinable la Provincia de Tarapacá; y pidió poco despues las de Tacna y Arica

No es, pues, exacto que el Perú se haya resistido a entrar en negociaciones con el vencedor. Por el contrario: en repetidas ocasiones ha buscado la oportunidad de celebrar la paz; pero las condiciones impuestas han sido tan exageradas, que equivalian a negarnos la posibilidad de entrar en una discusion fructuosa.

Siendo difícil que los beligerantes se entiendan directamente, cuando la razon se encuentra todavia eclipsada por el humo de los combates, el Perú aceptó con entusiasmo la mediacion del Gobierno de los Estados Unidos de América. Pero despues de un año de gestiones sin eficacia, y de declaraciones tan significativas y terminantes como las del señor Hurlbut, al principio, tan medidas y cautas como las del señor Trescott despues, y tan adversas e imprudentes como las del señor Logan al fin, hemos adquirido el doloroso convencimiento de que el Gobierno americano, como lo declara el Presidente Arthur en su Mensaje al último Congreso federal, no puede hacer más de lo que ha hecho por los aliados, porque una intervencion por medios más directos "seria opuesta a la anterior política de los Estados Unidos, perjudicial a sus intereses actuales, y llena de dificultades para el porvenir."

Ante este resultado, conceptuareis lo que el Gobierno americano ha hecho en nuestro favor, para derivar de sus actos la medida de nuestra gratitud."

DIFERENCIA OCASIONADA POR UNA «R».

Hay una controversia respecto al segundo adjetivo aplicado por el señor Montero a los procedimientos de Mr. Logan: si la palabra fué *impudentes* o *imprudentes*. La primera es una palabra mucho más ofensiva en español, que su traduccion literal inglesa (*impudent*). El único ejemplar del Mensaje que tengo a la mano es el impreso en el "*Diario Oficial*" de Lima, pretendiendo estar transcrito de "*La Libertad*" de Arequipa, y la palabra usada es *imprudentes*. Pero me asegura aquí una persona de alta posicion y caracterizada, que impudente, fué la palabra realmente usada, y que esta persona ha visto el Mensaje publicado por la prensa de Arequipa. Por consiguiente, así he traducido la frase; además está en armonía con los bien conocidos sentimientos de Montero, y sus consejeros hácia Mr. Logan, miéntras que *imprudente* no tiene significacion apropiada en dicha frase. En el mismo Mensaje aludió el señor Montero de un modo sarcástico a la venida de Mr. Partridge a Arequipa. Tenia esperanzas, dice en su Mensaje, de que el cuerpo diplomático se hubiera trasladado de Lima a Arequipa despues que esta ciudad fué designada como la Capital de la República Peruana durante la ocupacion de Lima por el ejército de Chile; pero los representantes de las naciones amigas no correspondieron a la invitacion que les hizo; y el único representante diplomático que se presentó, fué el Ministro Residente de Bolivia.

MR. PARTRIDGE IRRITADO POR LA CARTA A MONTERO.

Esta alusion a Mr. Partridge nos lleva a hablar de este señor;—en nuestra narracion hemos hablado del término de su mision.

Cuando Montero le disparó este tiro desde Arequipa, ya hacia cerca de un mes que habia salido del país para no volver más. Su permanencia en Lima duró solamente desde Junio 20 de 1882 hasta Marzo 24 de 1883, y exceptuando sus repetidas solicitaciones de licencia, y reiteradas promesas de ir a Arequipa, nunca llevadas a cabo, los únicos incidentes notables en su mision, fueron los que resultaron de su enojo por la carta a Montero, que consideraba como un atropello a su jurisdiccion diplomática, y de la impresion que hizo en su ánimo la indignacion expresada por

los peruanos, respecto a esa carta. Pasando por encima del hecho de que era impedido de manifestarse ofendido por un supuesto atropello, por razon de su propia desidia en presentar sus credenciales, y que Mr. Logan tenia causa mucho más grave de queja contra él, por su voluntaria falta de dar a sus negociaciones en Santiago el apoyo que el Secretario Frelinghuysen le habia ordenado darle en Arequipa, protestó al departamento de Estado contra la conducta de Logan en numerosos despachos oficiales, y en cartas privadas al Secretario; y en las últimas comunicaba a Washington muchas de las insinuaciones calumniosas contra Logan, generalizadas entre los peruanos inmediatamente despues de la publicidad de la carta a Montero, en su ignorancia de las instrucciones dadas por el departamento de Estado en Junio 26 de 1882. En una o más de estas notas llegó al extremo de recomendar al departamento de Estado que abandonara toda nueva gestion en la diplomacia sud-americana, por motivo del supuesto descrédito que Logan habia inferido a su país. No pretendo saber cuánto influirian estas representaciones de Mr Partridge en la desaprobacion calificada de la carta a Montero, expresada por cablegrama de Washington en Enero 5 y que ya hemos citado.

Esto se revelará por la publicacion de toda la correspondencia cuando el Congreso la pida.

Partridge abre una correspondencia secreta con García Calderon.

No se limitó Partridge solamente a telegrafiar y escribir a Washington sobre el asunto. Entró en relaciones secretas con Calderon en Chile. Cuando recibió de Logan una copia del cablegrama del Secretario Frelinghuysen, de Enero 5 (remitida a él de Santiago por vapor, en obediencia a la órden incluida en el despacho) mandó una copia a Calderon, expresando su deseo de que no volviera a tratar jamás con Chile por conducto de Mr. Logan, aunque el Gobierno chileno se negara a aceptar otro mediador; aseguró a Calderon que si él pudiera conseguir su libertad, él (Partridge) iria a Arequipa para encontrarse allá con él; tambien le aseguró que él iria a Washington y se interesaria por él; finalmente, le aseguraba que las cosas entraban en una nueva face, en la que Inglaterra, Francia e Italia tomarian parte. Esta correspondencia secreta la mantuvo Partridge hasta pocos dias ántes de su partida del Perú; miéntras tanto se quejaba todo el tiempo, de Logan, como de un trasgresor. Los originales de parte de esta correspondencia cayeron muy pronto en manos del gobierno chileno, de una manera que haria sonrojar a Mr. Partridge, por la ciega confianza que tuvo en el honor de algunos de los eminentes peruanos con quienes estaba tratando, si pudiera saber los pormenores de esta iniquidad. Yo mismo he visto una copia oficial de una de estas cartas subrepticias [fecha 7 de Marzo] que cayeron en poder de los chilenos.

Invita a intervencion europea.

El anuncio de Partridge a Calderon, de la próxima intervencion de Gran Bretaña, Francia e Italia, nos lleva a narrar la más sorprendente de todas las imprudencias, que la irritacion contra su colega de Chile, le hizo cometer; imprudencia que le fué fatal a él mismo. Sabia que en algunas ocasiones, desde el principio de la guerra el Gobierno de los Estados Unidos habia manifestado su oposicion a la intervencion de los poderes europeos, y que en más de una ocasion rehusó proposiciones de dichos poderes para una intervencion colectiva.

Tenia en su poder un despacho rehusándolo en el caso de Francia, a cuya proposicion el Secretario Blaine, apesar del "Credit Industriel", contestó en Setiembre 5 de 1881 en los siguientes términos:

"En el litigio entre el Perú y Chile, los Estados Unidos han seguido el progreso de la lucha con un interés doloroso; han tratado cuando se ha ofrecido la oportunidad de arreglar condiciones de paz; y usted (el Ministro americano en Paris) dirá al Gobierno frances que, miéntras que el interés manifestado por el Presidente Grevy por la causa de la paz, y sus simpatías por las víctimas desgraciadas de esta guerra, encuentran aquí una correspondencia de parte del Gobierno como del pueblo, los Estados Unidos declinan entrar en negociaciones con las potencias europeas para intervencion colectiva en los asuntos de Chile y del Perú."

Sin embargo, sin instrucciones del Secretario Frelinghuysen, y sin consultarlo, Mr. Partridge, dos semanas despues de la publicacion de la carta de Montero en Lima, donde fué hecha por el "Diario Oficial" (Enero 2) trascrita de la "Estrella de Panamá" (Diciembre 21) en la cual apareció originalmente,

tado un movimiento precisamente para una intervencion colectiva, invitando a los representantes diplomáticos de las potencias europeas residentes en Lima, para reunirse en una casa, en Enero 16 y conferenciar sobre este asunto; probablemente con el objeto de ocultar sus planes, telegrafió al Secretario Frelinghuysen que ese mismo dia [Enero 16] saldría de Lima a Arequipa.

LA CONFERENCIA EN CASA DE MR. PARTRIDGE.

Conforme al llamamiento de Mr. Partridge, los representantes diplomáticos de Gran Bretaña, Francia e Italia se reunieron a la hora señalada. El Ministro aleman declinó la invitacion, lo mismo que el de España, señor Enrique Valles, suponiendo que este último hubiese sido tambien invitado. Creo más probable que no fué invitado, pues las íntimas relaciones amistosas del señor Valles con las autoridades chilenas en Lima, eran bien conocidas, en atencion a las negociaciones para un tratado definitivo de paz entre Chile y España, en lugar de la tregua firmada en Washington en Abril de 1881. El representante inglés que asistió, fué un jóven caballero [que por su apariencia creo que no puede tener arriba de 22 a 23 años de edad] llamado Alfredo St. John. Pertenece al servicio consular, y es sobrino de Sir Spencer St. John [el actual Ministro en Méjico] durante cuya ausencia la Legacion de Inglaterra en Lima ha quedado a cargo de Mr. Roberto Graham, y en la partida de éste los archivos pasaron a la custodia del jóven nombrado. El representante de Francia fué el Ministro Marqués de Tallenay. El Ministro de Italia era entónces G. N. Viviani; ignoro si asistió personalmente o si se hizo representar por algun encargado. La conferencia fué así limitada a tres concurrentes responsables, los Representantes de Francia, Italia y Estados Unidos, pues al jóven inglés difícilmente podia hacérsele responsable.

Los motivos astutos que tuvo su Gobierno para tener en Lima sólo una legacion nominal durante el estado revuelto de la política peruana, son notorios; al mismo tiempo y quizás por motivos análogos, el Ministro inglés en Chile, Mr. Francis Pakenham, tambien estaba ausente de Santiago, en un dilatado viaje a su patria, de donde no regresó sino el mes pasado.

En la conferencia, toda la situacion fué plenamente discutida segun los conocimientos que tenian los participadores en ella; y particularmente el proyecto de Chile, desde el fracaso de la negociacion Calderon-Logan, para dar una existencia galvánica al Gobierno que Chile, algunos meses ántes, por medio del señor don Jovino Novoa, su representante civil en Lima, habia incitado al General Miguel Iglesias a instalarse en Cajamarca, en el Norte del Perú, como un rival al Gobierno de Montero en Arequipa.

Se discutió la cuestion de si Chile realmente deseaba una pronta paz; si su política secreta no era dirigida a la prolongacion de la discordia en el Perú, hasta que el país desesperado aceptara las condiciones irracionales de arreglo que le dictaba; si Chile no buscaba un período indefinido de desorganizacion, tanto más cuanto que estaba aplastando (*crushing*) indefinidamente al Perú, y enriqueciéndose a la vez y sacando ganancias, desde que sus exacciones en las aduanas del Perú, y sus entradas por salitre y guanos, exceden a los gastos de su lista civil y militar de administracion; y se discutió despues cuál era el efecto de este horrible estado de cosas sobre los intereses de los neutrales y los capitales que tenian invertidos en Lima, y en el resto del Perú.

Finalmente, el Marqués de Tallenay fué encargado de redactar un memorandum en el sentido general de la conferencia, que fué postergada a Enero 22 para recibir su informe.

EL MEMORANDUM DEL MARQUÉS DE TALLENAY.

En la conferencia emplazada para el 22 de Enero, el Marqués de Tallenay presentó un memorandum en frances, para ser firmado por los participantes, que debian trasmitirlo a sus respectivos Gobiernos. Hace algun tiempo que conseguí la siguiente traduccion, para remitírsela desde Santiago.

"*Lima, Enero 22 de* 1883.

"Como el estado de los asuntos del Perú se hace cada dia más alarmante, los representantes de los poderes que tienen más intereses ligados en la costa del Pacífico, consideraron necesario conferenciar entre sí para cambiar opiniones respecto a los medios mejor adoptables para efectuar un cambio en el actual estado de cosas y promover una cesacion de hostilidad, deteniendo el progreso de destruccion y decaimiento en este país,

pues está en una condicion que recae sobre los neutrales, y tiende a la ruina completa de todos intereses comerciales de los neutrales en el Perú.

"Considerando los infructuosos resultados de los patrióticos esfuerzos tan celosamente hechos por los representantes de los Estados Unidos para conseguir la paz; considerando tambien las medidas que con frecuente violacion de las leyes y del Derecho Internacional emplean las autoridades chilenas, y cuya severidad vá cada dia en aumento, sin otro resultado positivo que la completa ruina del Perú, como consecuencia inevitable; considerando además el hecho de q' el Gobierno peruano demuestra una completa inhabilidad para mantener las hostilidades en una forma seria; considerando las rivalidades políticas y complicaciones que amenazan convulsionar al Perú con nuevas revoluciones, en presencia misma del enemigo; considerando más especialmente, y ante todo, los perjuicios y calamidades que los neutrales han sido obligados a sufrir por lo ya ocurrido, y la completa e irremediable ruina con que el comercio extranjero está amenazado, y la necesidad en que los comerciantes de todos los países neutrales en este país estarian de abandonarlo, si se permite q' el actual estado de cosas continúe pocos meses más; considerando lo arriba expuesto, nosotros, los representantes de Estados Unidos, Gran Bretaña, Francia e Italia, despues de madura discusion, somos de opinion unánime de que debemos cada uno representar a su respectivo Gobierno, que en nuestra opinion, el único modo práctico para hacer cesar las hostilidades, a fin de salvar al Perú de su completa ruina, y para detener la ruina de los intereses neutrales, debe buscarse en una mútua inteligencia y resolucion de nuestros respectivos Gobiernos, para dirigir tales representaciones al Gobierno de Chile, que le obliguen a comprender que la paz debe efectuarse, y, especialmente, al otorgar como base preliminar por la cesion de Tarapacá, reservando las otras condiciones para futuras negociaciones.

Y por lo tanto, nosotros, los representantes de las potencias neutrales, aquí presentes, declaramos que es nuestro deber mútuo aconsejar a nuestros respectivos Gobiernos, de llegar a algun acuerdo combinado, para hacer inmediatamente como un asunto de imperiosa necesidad, las representaciones mencionadas al Gobierno de Chile."

Mr. Partridge remite la representacion a Washington.

Este memorandum fué firmado por los representantes de Estados Unidos, Gran Bretaña, Francia e Italia, y al dia siguiente, Mr. Partridge envió una copia a Washington, con un oficio narrando los procedimientos, y muchos detalles del desastroso estado de los intereses neutrales en el Perú, por razon de las severidades chilenas sobre las que se apoyaba el memorandum. Escribió entre otros detalles interesantes:

"La determinacion declarada de Chile, para continuar y aun aumentar estas severidades, de las que por razon de su número y dureza solo he podido referir en parte a la Secretaría de Estado, las penalidades y miserias que han traido los chilenos a los habitantes de este país; los ultrajes diariamente perpetrados aquí, y en otros puntos de la ocupacion en los peruanos, dentro de las líneas, como venganzas por hechos consumados, [posiblemente practicados por peruanos], fuera de dichas líneas de ocupacion, y sobre los que los peruanos de aquí no tienen más accion que la que pudiera tener un peruano establecido en Nueva York. Todas estas consideraciones han inducido a los representantes en ésta, de Francia, Gran Bretaña, Italia y Estados Unidos (Alemania declinando tomar parte) de considerar en una reunion extraoficial, de dichos colegas en mi casa el 16 de Enero, para ver si quedaba algun medio, despues del fracaso de las tentativas de excitacion producida entre los peruanos por su carta a Montero, por el que Chile pueda ser inducido a aceptar que el Perú presente propuestas para la paz o recibirlas, o permitir una proposicion para recibir comisionados peruanos con este objeto, con alguna otra respuesta, que una rotunda negativa a reconocer ningun gobierno en el Perú, o recibir tales propociciones o tales comisionados, a ménos que ántes haya de dar vida a tales proposiciones sin reconocimiento y sumision por parte de las autoridades peruanas que propusieron tales condiciones a tales comisionados a las condiciones que exigía e imponia, el gobierno de Chile.

Contestacion del Secretario Frelinhuysen.

Aunque este párrafo del señor Partridge es tan largo e intrincado, como los del finado Rojas Choate o del ex-secretario Ewarts, hay mucho de verdad sólida, y argumentos lógi-

cos condensados en él, y las conferencias diplomáticas de 16 y 22 de Enero hubieran estado precedidas por otro curso de procedimientos de parte de Mr. Partridge si hubiera ido luego a Arequipa en Agosto y trabajado allí con lealtad conformes a sus instrucciones, y en cooperacion con su colega de Santiago, para llegar a la paz, de algun otro modo que aceptando servilmente las condiciones impuestas por Chile; si no hubiera dejado a su colega, jugar con las cartas que éste tenia en mano (*lonehave*) en medio de muchas dificultades y tropiezos; si por el olvido de su deber, no hubiera espuesto a su colega a calumniosas imputaciones y mala concepcion de sus motivos; en fin, si hubiera sido un hombre de buena salud, y no un hipocondriaco, resentido por haberle dado sólo una parte secundaria en la negociacion: y si despues de serios e infructuosos esfuerzos para llevar a cabo el plan del Secretario Frelinghuysen hubiera convocado su conferencia diplomática en Lima, con el previo conocimiento y aprobacion del Secretario Frelinghuysen; entónces quizá la sólida verdad, y argumentos lógicos condensados que aparecen en su despacho, hubiera tenido una poderosa influencia en su Gobierno. Pero no habiendo tenido lugar ninguno de estos procedentes, el Secretario Frelinghuysen al recibir su informe y el memorandum que lo acompañaba, le mandó por el cable la contestacion siguiente:

" Washington, Febrero 27 de 1883.

" A Partridge.—Lima.

" El procedimiento llevado por U. acabo el 22 de Enero, fué sin autorizacion y desaprobado; comuníquelo U respetuosamente a los colegas diplomáticos que fueron sus asociados en dicho procedimiento.

" *Frelinghuysen.*"

Mr. Partridge regresa y renuncia.

Esto puso término a la mision de Partridge: exceptuando la continuacion de su correspondencia secreta con Calderon [solamente para ser traicionado] hizo la comunicacion respetuosa a sus colegas diplomáticos como se le ordenó la explicacion final a la Secretaría de Estado de sus razones para no ir a Arequipa. No ocurrió nada que valga la pena de mencionarse.

Salió del Callao para Estados Unidos el 24 de Marzo; se presentó personalmente a la Secretaría de Estado a principios de Mayo obtuvo permiso por sesenta dias en Washington, y antes de concluir éste, renunció su comision. Ahora se dice en Lima que se ha ido a Jerusalem, viaje segun debe suponerse algo más fatigoso, que el de ir a Arequipa.

Fin de la gran exposicion moral.

Así terminó el esfuerzo bien intencionado, y mal ejercitado del Secretario Frelinghuysen, para conseguir la paz entre el Perú y Chile, por pura accion moral. Sus resultados fueron puramente:

1.°—La excitacion de los peruanos a mayor odio hácia los americanos, quienes les han traicionado bajo el disfraz de amigos.

2.°—La seguridad de los chilenos de que pueden desentrañar a su gusto a sus vencidos adversarios, sin temor a ninguna intervencion por parte de la « Gran República », salvo amonestaciones verbales.

3.°—La censura de los dos jefes de la " accion moral " por su Gobierno.

4.°—El haber espuesto a uno de ellos (Ministro Logan) debido al enojo y a la negligencia del otro, al inmerecido cargo de haberse vendido a Chile, y

5.°—El recurso de Partridge a Inglaterra, Francia e Italia, para reforzar la " accion moral " de Estados Unidos hiriendo con sus armas materiales su propio país, no teniendo lo que puede llamarse escuadra.

Aun el pobre pequeño Ministro Maney en La Paz no sobrevivió a la catástrofe general.

Se creyó en Washington que habia dejado de ejercer la conveniente " accion moral " en Bolivia, y fué depuesto del mismo modo que uno de sus predecesores, el ilustre Judge S. Newton Pettis.

PRENSA AMERICANA.

"NEW-YORK HERALD" DEL 8 DE OCTUBRE DE 1883.

La Guerra Sud-Americana.

LOS PRISIONEROS PERUANOS EN CHILE.—COMO SON TRATADOS ALLI.

VISITA AL SR. CALDERON EN RANCAGUA.

El señor Lavalle se desliga de su lealtad hácia Calderon.

PLAN DEL PRESIDENTE SANTAMARIA.

DESTRUIR EL GOBIERNO CALDERON Y EDIFICAR EL GOBIERNO DE IGLESIAS.

Los Estados Unidos dejados a un lado.

(Left out in the cold.)

EL SECRETO DEL BUEN EXITO DE CHILE EN LA DIPLOMACIA Y EN LA GUERRA.

UNA OLIGARQUIA PATRIOTICA.

De nuestro corresponsal, Lima, Agosto 17 *de* 1883.

En mi última carta, fecha de ayer, bosquejé la carrera de Mr. Partridge (el Ministro de Estados Unidos en el Perú en reemplazo del General L. Kilburt) desde su llegada a Lima en Junio de 1882, hasta su partida en Marzo de este año; su llegada en Mayo a Washington y renuncia de su cargo en Junio.

LOS PRISIONEROS POLÍTICOS PERUANOS EN CHILE.

En Marzo 10, precisamente quince dias ántes de la partida de Mr. Partridge del Callao, dos peruanos que estaban detenidos como prisioneros políticos en Chile, desde 1881, llegaron a ese puerto, de Valparaiso. El número de personas que el Gobierno de Chile ha arrestado en el Perú y trasportado a Chile, como prisioneros políticos, ha sido considerablemente exagerado en el extranjero, y creo que éste es el lugar más propio en mi narracion para poner una lista exacta de ellos. Su número es sólo de veintitres, que son los siguientes señores: Mariano Alvarez, Avelino Aramburú, Pedro Bernales, Francisco García Calderon, Manuel Candamo, Ignacio Cevállos, Pedro Correa y Santiago, Juan Ignacio Elguera, Cárlos Elías, Isidoro Elías, Zoilo Flores (boliviano), Emilio Forero, José Antonio García y García, Manuel G. de La-Cotera, José Antonio Lavalle, Ignacio García Leon, Francisco García Leon, Juan Corrales Melgar, Ismael Muro, Fernando Ophelan, José María Quimper, Gregorio N. del Real y Viviano Gómez Silva.

Los dos últimos han muerto durante su prision y ambos en Chillan; nueve de ellos, los señores Aramburú, Cevállos, Isidoro Elías, José Antonio García y García, Forero, Lavalle, Francisco García Leon, Muro y Ophelan, han sido puestos en libertad; de modo que

quedan sólo los doce siguientes: Bernales, La-Cotera e Ignacio García Leon, en Angol, en el extremo sur de las fronteras de Chile; Alvarez, Caamaño, Cárlos Elías, Flores y Melgar, en Chillan; Calderon, en Rancagua; Correa y Santiago, Elguera y Quimper, en Valparaiso.

De los veintitres, los siete señores: Cavállos, Isidoro Elías, Forero, Muro, Melgar, Ophelan y del Real, se me dice, fueron tomados y deportados, por no haber podido pagar los cupos asignados a ellos por la administracion chilena en el Perú; el resto eran pura y simplemente prisioneros políticos; es decir, fueron remitidos a Chile, para impedirles ejercer influencias políticas en su país, o para castigarlos por las que habian ejercitado ántes. Unos pocos eran piérolistas, pero la mayoría era de *civilistas*, o miembros del partido constitucional peruano, y habian tomado parte en la reunion de "notables" convocada con anuencia de la administracion chilena, en casa de don Dionisio Derteano en Febrero de 1881, y fué allí y entónces que se organizó el Gobierno de Calderon. Cualquiera que esté al corriente de la historia de los 15 últimos años del Perú, reconocerá que casi cada uno de estos nombres está asociado con algun puesto importante del Gobierno en aquel período.

Puede contarse tambien al señor Derteano entre los prisioneros, completando el número veinticuatro, pues él tambien se encuentra en Chile detenido y vigilado. Pero, segun se me dice, él mismo escogió voluntariamente a Chile, como lugar de su residencia, por resultado del fallo de la córte militar chilena en Lima, que lo condenó a destierro, por el cargo de perjurio, en conexion con la emision de papel moneda del Gobierno de García Calderon.

Los prisioneros no están bajo llave.

Por la palabra "prisionero" no debe entenderse que estos caballeros peruanos están presos en cárceles, llevando esposas o grillos y cadenas. Con la excepcion de algunos favoritos, (como por ejemplo Quimper, a quien está obligado Santamaría por vínculos de amistad anteriores a la presente guerra), se les manda residir en lugares desagradables, como son: Rancagua, Chillan y Angol, siéndoles permitido andar libres en la poblacion, aunque vigilados. Pueden proporcionarse todas las comodidades de la vida, como alimentos y muebles que se encuentran en dichos lugares, con tal que los paguen de su bolsillo.

Lo mismo es respecto a su alojamiento, con ciertas restricciones; por ejemplo, en el caso de García Calderon, que no le han prohibido tomar casa. Le prohibieron esto en Santiago, aunque se lo permitieron despues en Valparaiso. Cuando trajeron a Calderon a Chile, lo llevaron primero a Santiago, despues a Quillota, para alejarlo de Mr. Trescott; despues lo trasladaron a Chillan, y más tarde (como lo he referido ántes) fué traido a Santiago, a ruego de Mr. Logan, para las negociaciones. Despues de la suspension de éstas lo llevaron, a peticion suya, a Valparaiso, y allí permaneció hasta fines de Junio de este año, cuando el Gobierno chileno ordenó su traslacion a Rancagua, a consecuencia de la correspondencia secreta que seguia con sus amigos del Perú, y que se juzgaba ser hostil a los proyectos chilenos respecto a Iglesias. Durante estas peregrinaciones estuvo acompañado por su esposa [con quien se casó en Lima en 1881, durante el corto período en que ejerció la Presidencia], por su suegra, cuñado y un niño, que le nació durante su cautiverio.

Calderon en Rancagua.

Probablemente el modo como lo encontré en Rancagua el mes pasado, es un ejemplo, de cómo sus compañeros de prision han sido acomodados en Chile, durante los dos últimos años. La ciudad está como a sesenta millas al sur de la capital, y como a mil seiscientos piés sobre el nivel del mar, y es un lugar espuesto a fuertes vientos, cerca de la nevada cordillera, y frio en el invierno. Cuenta como 5,000 pobladores desparramados en una gran área, está en la línea del gran Ferro-carril del Sur, que corre a los piés de los Andes desde Santiago a Angol; fué el campo de un sangriento combate con los españoles en la guerra de la Independencia, hace setenta años; y en celebracion de ese episodio de su historia, cuando Chile adquirió su independencia, fué oficialmente autorizado a titularse, la "*ciudad muy leal y nacional*". Encontré al señor García Calderon allí en Julio [a mediados de invierno] alojado en lo que se llama "Club de Bomberos"; un edificio de adobe, de un solo piso, con un patio empedrado de piedra del rio, húmedo y mohoso, y con una ca-

balleriza pantanosa, llena de inmundicias de hombres y animales, y con un hedor pestífero. A un lado del patio habia una cantina, un salon de billar y un comedor para los bomberos y para el público. Al otro lado, habia tres piezas, en que él y su familia estaban alojados, dos de ellas sirviendo de dormitorios, y la tercera destinada a los demás usos domésticos. En esta tercera pieza habia una alfombra en mal estado, un sofá endeble, dos o tres sillas raquíticas y una mesa, con los restos del almuerzo que habia sido servido en una vajilla tan gruesa y ordinaria, que cada pieza de ella era un formidable proyectil. Los vidrios de las ventanas, estaban manchados, así como las paredes. El Presidente del Perú, vestido con un grueso sobretodo y con una gorra, estaba tratando de calentarse, paseándose por esta pieza, no habiendo otro modo artificial para hacerlo, que un pequeño brasero con carbon vegetal, como sucede generalmente en Chile, excepto en una que otra, de las mejores casas. Una ama paseaba a un niño en brazos, envuelto en chales, en un lado del patio a donde llegaba un triste rayo de sol. Las señoras estaban tiritando de frio, envueltas en pesados abrigos dentro del dormitorio. Pocas veces he visto acomodos domésticos exteriores e interiores más lúgubres y pobres para una familia de gustos refinados, y acostumbrada a todas las comodidades de la opulencia y del lujo. Mas todo eso no quitaba nada de las maneras corteses por las que se distinguen los sud-americanos de las clases elevadas, y en particular los peruanos. El señor Calderon no posée ninguna gracia personal, exceptuando las que se derivan de las calidades que acabamos de mencionar; pero éstas las posée en un grado perfectamente fascinador. Es como de 50 años de edad, fuertemente constituido, de 5 piés y 7 u ocho pulgadas de alto, con una cabeza grande y redonda y una frente especialmente prominente, cabello fino y castaño, con una que otra cana, poca barba y bigote poco espeso, en el cual tambien aparecen algunas canas, y ojos pequeños de color azul claro, en forma de almendra, que con la poca barba, imparten a la fisonomía un vago parecido al tipo mongólico. Pero además del encanto de sus maneras hay en él la atraccion de una inteligencia aguda, que se nota en su conversacion sobre cualquier materia que salga de los límites puramente convencionales, y nadie puede tratarlo familiarmente sin tener la conciencia de que en seguir a su jefe el partido constitucional del Perú, está bajo una hábil direccion, y sin comprender que los chilenos han cometido una gran torpeza en tenerlo tanto tiempo en una posicion en que podia justificarse ante el mundo, empleando para ello todos los recursos de artificios para burlar las restricciones a que lo tienen sometido.

LA CAIDA DEL GOBIERNO CALDERON.

No es poco testimonio a favor de Calderon de que es un hombre de talento poco comun, cuando durante su cautiverio afianzó primero y conservó despues, por más de dos años, la lealtad del Perú hácia su persona y de que el frágil Gobierno creado por los "notables," en Febrero de 1881, fué consolidándose con el tiempo tanto, que no puede acusarse al Ministro Partridge de exageracion en lo que escribe al Secretario Frelinghuysen, con fecha Diciembre 20 de 1882, más de tres meses despues de la sesecion de Iglesias:

"El Gobierno de Garcia Calderon está ahora más completamente reconocido y obedecido que en cualquiera tiempo anterior por todos los peruanos, y parece que no deberia haber ninguna razon para que el Gobierno chileno detuviera por más tiempo lo que él llama el reconocimiento de él, amenos que sea por razon de su determinacion aparente de continuar de un modo indefinido la ocupacion y explotacion del Perú.

La verdad es que Chile hace mucho tiempo ha reconocido al señor Garcia Calderon, así como el hecho de que sólo él representa a la nacion peruana, como lo comprueba por su continuada detencion y frecuentes reanudamientos y rompimientos de las negociaciones con él, por conducto de Mr. Logan."

Creo que un reconocimiento tan igualmente completo del ascendiente del Gobierno Calderon entre los peruanos, hasta últimas fechas, se encuentra en la correspondencia del Ministro Logan.

Pero se acercaba el tiempo para que Chile pusiera en ejecucion un plan bien meditado de elevar a Iglesias, despues de haberse asegurado que se encontraba dispuesto a aceptar todas sus condiciones, cualesquiera que éstas fueran. Durante uno o dos meses despues de la publicacion de la "Carta a Montero," y el rompimiento entre Logan y Calderon, el Gobierno chileno hizo un juego con el último, por conducto del señor Quimper, y al mismo tiempo entretenia a Piérola (no habia peligro en tener varias cuerdas para su arco) miéntras tanto trabajaba con teson pa-

ra dar cuer, o al proyecto Iglesias. El éxito de este plan requeria el empleo de todo el ingenio militar que le sirvió para conquistar el Perú, y de todo el ingenio civil del que hace uso en la administracion de la costa del país conquistado; toda la perspicacia del Gobierno de Santiago, y toda su influencia en el exterior, para demoler y desarraigar para siempre el Gobierno Calderon; y el haber destacado de su lealtad hácia a él, a algunos de sus compañeros de cautiverio, fué uno de los medios característicos que empleó.

LOS ESTADOS UNIDOS DEJADOS A UN LADO.

[Left out in the cold.]

Los peruanos que desembarcaron en el Callao en 10 de Marzo, precisamente una quincena ántes de la partida de Partridge, fueron dos, que se habian separado de su lealtad: don Avelino Aramburú y don José Antonio Lavalle. Fueron puestos en libertad despues de haber convenido en el papel que debian desempeñar. Como la parte de Aramburú fué insignificante, lo dejaremos a un lado. La parte de Lavalle era muy importante. Fué mandado a su país para ser el representante de Iglesias en Lima, y ajustar con el señor Jovino Novoa un protocolo de tratado de paz en las condiciones de Chile, que eran condiciones que justificaban plenamente el consejo de Mr. Logan a Montero en su célebre carta del 13 de Noviembre de 1882: que a no ser que el Perú aceptara las condiciones entónces ofrecidas, era probable que se le exigieran otras peores. Eran condiciones que, comparadas con las que el Secretario Frelinghuysen llamaba en Febrero de 1882 "exorbitantes", parecerian éstas de una suavidad tal que llegaban hasta a ser tentadoras. No solamente se cedia Tarapacá directamente, y se aseguraba la presente y perpétua posesion de Arica y Tacna a Chile, sin recurrir a arbitraje, sino que se echaba encima del desventurado Perú toda su inmensa deuda, sin que Chile tomara alguna porcion de ella, por razon de los territorios cedidos.

No debia considerarse para nada a los Estados Unidos, que debian ser dejados a un lado, tanto como árbitros, como en cualquiera otra capacidad. Desde que se conoció el texto del Mensaje del Presidente Arthur al Congreso, no hubo más excitacion en Santiago, en cuanto a dejar a los Estados Unidos a un lado, como epílogo a su torpe entretenimiento entre los beligerantes durante los últimos cuatro años. Si el Gobierno de Washington se hubiera formado su opinion sobre condiciones legítimas de paz, y si hubiera tambien manifestado su voluntad a sostenerlas en caso necesario, ha habido varias oportunidades en que hubiera podido llevarlas a efecto sin disparar ni un solo cañonazo. Pero estos tiempos habian pasado. La influencia moral de los Estados Unidos fué burlada (*played out.*) ¿Cómo no podia suceder esto cuando se recuerdan las contorsiones de la política del Gobierno de Washington y la inconsistencia de sus agentes diplomáticos durante estos cuatro años?

PLAN DEL PRESIDENTE SANTAMARIA.

Se dice que fué Santamaría mismo quien escogió al señor Lavalle para el negocio que se le encargó, y esto lleva realmente el sello del modo característico de obrar de este astuto político. El Presidente actual de Chile es un personaje tan notable y hábil, a su modo, como lo es Calderon, y es el gobernante más arbitrario que ha tenido el país desde el Presidente Montt, contra quien conspiraba Santamaría en su juventud. Pero su método difiere del de Montt, en que éste siempre va derecho al blanco, y Santamaría se goza en llegar a él por medio de rodeos.

El proyecto de formar algun Gobierno en el Perú por medio de manejos de Chile para hacerle aceptar un tratado de paz, que los habitantes de ese país seguramente reprobarán por unanimidad tan luego como cese la ocupacion chilena, era más del agrado de un carácter así constituido, que el sencillo plan de retirar las fuerzas chilenas hasta la línea de las fronteras que se queria tomar como definitiva, y esperar allí a que los peruanos se proporcionaran un Gobierno, si el de Arequipa no les era suficiente. Este último plan no solamente hubiera sido más sencillo, sino igualmente eficaz: pues el mundo no podia ménos de ver que el Gobierno de Iglesias no ha sido creado por la voluntad del Perú; que es un globo de jabon, al que sólo el soplo chileno dió forma y color, y que ese tratado, por más que fuese firmado y ratificado con las formalidades más perfectas, no podia quedar obligatorio para el Perú, como habria quedado si hubiese sido el resultado de la voluntad libre del pueblo.

Domingo siete.

Hay en Santiago, Buenos Ayres y otras ciudades de Sud-América, diarios serio-cómicos ilustrados, que por su agudeza merecen ser mejor conocidos fuera. El de Santiago se titula *El Padre Cobos*, y apellida siempre al Presidente Santamaría con el nombre de "*Domingo Siete*", en alusion, probablemente, a su inclinacion para emplear medios que salen de la línea recta. Esta denominacion toma su orígen en un cuento que es muy familiar a todo niño en Chile. "Domingo" es la palabra española para el día sétimo de la semana, y "siete" es la palabra que indica el número sétimo. El cuento dice que un buen corcovadito salió una noche de su aldea a un bosque vecino, y por casualidad vió a unas hadas que estaban bailando en un claro del bosque.

Temeroso de ser descubierto, se subió a un árbol y oculto en el follaje miraba la fiesta. Las hadas, a la vez que bailaban, cantaban unos versos recitando los tres primeros dias de la semana:

Lúnes y Mártes, Miércoles, tres;

escuchando esto, formó luego una rima con los tres dias siguientes y cantó:

Juéves y Viérnes, Sábado, seis.

Hubo luego gran agitacion entre las diminutas bailarinas, y una consulta con la Reina de las Hadas, quien mandó una partida de ellas que lo bajaran del árbol y trajeran a su presencia para ser sentenciado. Pero en lugar de castigarlo, se manifestó tan complacida con su verso, que, en recompensa de su mérito, le quitó la joroba; dió órden a su comitiva de guardarla entre las pertenencias de las hadas y lo despidió encargándole guardar silencio. Pero cuando volvió, el asombro de los lugareños al verlo derecho y simétrico fué tan grande, que lo atormentaron con preguntas hasta obligarlo a hablar, y un jorobado malo, que supo el secreto, resolvió probar fortuna con las hadas.

Yendo al bosque, una noche de luna llena, se subió al árbol y vió luego a las hadas que bailaban y cantaban:

Lúnes y Mártes, Miércoles, tres;
Juéves y Viérnes, Sábado, seis.

En el acto, ejecutando el plan que se había formado, gritó:

y Domingo, siete.

Estuvo muy contento al encontrarse en el acto arrestado y llevado a presencia de la Reina, como lo esperaba. Pero en lugar de quitarle su joroba, ella ordenó que trajeran la joroba del otro, que tenian guardada, y la agregó a la suya, diciéndole: "Esto es su castigo por tu insarmónica agregando a nuestra cancion y por tu modo clandestino de obrar." Y volvió a su aldea con dos jorobas.

El poder del Presidente de Chile.

Cuando es un hombre de fuerte voluntad, como Montt o Santamaría, el que es Presidente de Chile, este cargo, que en todo tiempo confiere un poder muy grande, se convierte en un dominio tiránico sobre la República. Debe tenerse presente que Chile no es una República federativa como México o Estados Unidos. El Presidente nombra todos los cargos del poder ejecutivo. Serian muy extraordinarias las circunstancias en que él no pudiera designar a su sucesor. Creo que es un hecho que con la actual Constitucion y el sistema político de Chile, el único modo para que el Gobierno del país pueda pasar de manos de un partido a manos de otro, es que el Presidente mismo deserte de su partido. Debido a ese gran poder que tiene el Presidente, es que Santamaría, aun en medio de la guerra, ha tenido el atrevimiento de desafiar y hostilizar la gerarquía católico-romana. El rompimiento entre Roma y Chile, que principió con la negativa del Papa para nombrar Arzobispo de Santiago al candidato propuesto por la Administracion Pinto, en la persona del señor D. Francisco de Paula Taforó, y fué creciendo con la negativa de Chile para retirar a su caudillo y a presentar una terna para escojer a otro, llegó a su punto culminante cuando Santamaría envió sus passportes al enviado papal. Monseñor del Fratte dejó Chile tomando la via de la cordillera, y cuando llegó a la cumbre volvió la cara y lanzó su maldicion a Chile ántes de pisar el territorio argentino. La contestacion a esta maldicion fué la presentacion al Congreso chileno al principiar sus sesiones en Junio, de tres proyectos de ley: una ley de reforma de los cementerios, una ley sobre matrimonio civil y una ley de registro civil. La primera, que fué votada ántes de trascurrido el mes, pone los cementerios de la República bajo el dominio del Gobierno, y autoriza el entierro de

los hereges en terreno consagrado. La segunda, que ha sido aprobada ya en una de las cámaras, estando segura su aprobacion en la otra, quita de los requisitos legales para la validez del matrimonio todas las ceremonias religiosas. La tercera, que vendrá a su turno, retira al clero la exclusiva autenticidad para el registro en materia de nacimientos, matrimonios, muertes, herencias, &c. Un Presidente que se atreve a efectuar tales cosas en un país cuya constitucion declara "La religion de la República es la Católica, Apostólica, Romana", encontrará pocas o ningunas dificultades para imponer su proceder en la cuestion "Iglesias."

Don José Antonio Lavalle.

El señor Lavalle es un caballero que puede tener sesenta años; bajo de cuerpo, de pelo y bigote cano y sin barba. Sus modales son elegantes y formales, y sugieren algo del *petit maitre*. Tiene una reputacion bien establecida en los círculos literarios de Sud-América, como un sabio crítico y autor de ensayos, habiendo ocupado varios puestos diplomáticos, entre ellos el de Ministro en Rusia, poco tiempo ántes de la guerra, cuando el Perú, gozando sus riquezas de guano, que creia inagotables, estaba dando colocacion sin apariencia de utilidad (*) a miembros de las principales familias de Lima, manteniendo onerosas legaciones en países con los que no tenia relaciones de ningun género. El Presidente Santamaría conocia bien a su hombre. Además de sus servicios diplomáticos en San-Petersburgo, el señor Lavalle habia sido Ministro del Perú en Chile. Desempeñaba este cargo cuando estalló la guerra, y fué él quien hizo a Santamaría [entónces Ministro de Relaciones Exteriores] la asombrosa negativa de la existencia del tratado secreto con Bolivia, de Febrero 6 de 1873; negativa que nunca fué bien explicada, y tanto más inexplicable cuanto que el señor Lavalle fué miembro del Congreso en que dicho tratado fué discutido y votado.

(*) El señor Lavalle fué mandado a S. Petersburgo a consecuencia de que el Emperador de Rusia habia sido nombrado árbitro en una cuestion pendiente entre el Japon y el Perú.

El objeto y los límites de la presente correspondencia.

No me propongo seguir detalladamente las negociaciones del señor Lavalle con el señor Novoa en Lima. El señor D. Mariano Castro Zaldívar se fué asociado por el General Iglesias, a nombre y en favor de quien firmaron el 12 de Mayo el protocolo de las condiciones de paz que el público conoce ya [aunque los términos precisos fueron ocultados por algunas semanas] dejando a los Estados Unidos enteramente a un lado.

Ni me propongo tampoco detallar las medidas civiles y militares que empleó Chile para llevar a cabo el plan de derrocar el Gobierno de Calderon e instalar el de Iglesias. En la franca conversacion del Almirante Lynch conmigo el 13 de Agosto, y que referí en mi carta de esa fecha, él resumió toda la historia en una sola sentencia cuando dijo: "Le damos toda clase de auxilios; le damos dinero y armas; derrotamos a sus enemigos y le damos prestigio." Es probable que la batalla de Huamachuco decidió de la suerte del programa Iglesias; batalla en que las fuerzas unidas del Gobierno de Arequipa, operando contra Iglesias, fueron derrotadas, y 800 hombres fueron muertos a bayonetazos por el ejército de Chile al mando del Coronel Gorostiaga.

No discutiré tampoco si Iglesias es un hombre recto [honest] como Calderon. Puede ser que lo sea, pero por cierto está léjos de tener tantas dotes intelectuales, ni tanta capacidad para la política.

Ni quiero aún entrar por ahora en el exámen, que podria ser interesante y seguramente seria muy curioso, de las relaciones de Calderon con el Gobierno chileno despues del rompimiento con Mr. Logan, y que continuaron por el conducto de varios intermediarios, entre ellos el señor D. Isidoro Errázuriz, editor de "La Patria," órgano del Gobierno chileno en Valparaiso, y el señor Wernech de Aguilar, Encargado de Negocios del Brasil en Santiago. Se cree en círculos bien informados, que hay fundamentos para suponer, que desde la firma del protocolo Novoa-Lavalle, Calderon ha hecho tentativas infructuosas para pujar sobre Iglesias en el mercado chileno.

Desde ahora podemos afirmar que el señor García Calderon rechazó con justa indignacion las proposiciones que le fueron hechas por medio de Mr. Logan y de otras personas para que se sustituyera a Iglesias.

Creemos no cometer una indiscrecion indebida si, anticipándonos sobre la publicacion que no dejará de hacer en tiempo oportuno el señor García Calderon, damos a luz los siguientes extractos de una correspondencia cambiada entre él y un personaje en Chile, cuyo nombre no es del escritor.

"Señor Dr. D. Francisco García Calderon.

Valparaiso.

Santiago, 21 de Mayo de 1883.

"Mi estimado amigo:—Ayer me ví con Mr Logan y me dijo que habia escrito a U. anunciándole el arreglo con Iglesias que ya estaba firmado y pidiéndole una entrevista.

"Me parece que debe U. acceder a ella. Mr. Logan, segun me dijo, irá el Lúnes [28] a esa y se alojará en el *Hotel Francia*.

"Creo él que si U. acepta las condiciones de paz aceptadas ya por Iglesias, no será éste, sino U., el Presidente del Perú que la realice y lleve a término. La paz con Iglesias necesita el reconocimiento del Gobierno de éste por los EE. UU., y ese reconocimiento no vendrá si U. está dispuesto a tratar con Chile bajo las condiciones indicadas.

"Iglesias desaparecerá por completo, de la escena.

"Esto es lo que me parece, que me ha sido significado por Logan en su contestacion

"Ahora bien:—¿le conviene al Perú, le conviene a U. optar por este procedimiento?—Yo no sabria decirlo. Mi ardiente aspiracion es que la paz venga cuanto ántes, y que sea U. el que la firme.

"Pero si nada puedo aconsejarle, puedo sí preveer, como U. tambien lo prevee, que dias muy calamitosos se esperan al Perú.

"¿Qué va a ser de aquel país con la guerra civil y la guerra exterior al mismo tiempo?

"Medite U. mucho sobre todo esto, ántes de dar contestacion ninguna a Mr. Logan, que sin duda le propondrá el arreglo que ántes le indico. Es esta la última escena del gran drama en que U. desempeña tan principal papel.

"Si la paz con Iglesias es aceptada por el Congreso: si los EE. UU. reconocen al Gobierno de aquel; si logra consolidarse siquiera por algun tiempo, qué va a suceder?

"Lo repito—piense U. en todo esto. Está ahora en manos de U el cambiar el curso de los acontecimientos.

"De todos modos, me parece que U. debe hablar con Mr. Logan, y tal vez seria oportuno que U. mismo fuese a verlo tan pronto como llegue a esa.—Su afectísimo amigo."

X. X.

Contestacion a la anterior.

Valparaiso, 25 de Mayo de 1883.

"Estimado amigo: Muy penosa impresion me ha causado su apreciada de ayer, que acabo de recibir; y sin meditar en su contenido como U. me lo aconseja, me pongo a contestarla, porque acerca de lo que U. me dice, todo lo tengo pensado de antemano.

"Me anuncia U. que vendrá Mr. Logan el Lúnes, para decirme que está firmada la paz con Iglesias. Pero que el señor Logan, que por mí se interesa puede impedir todo esto, si yo acepto las condiciones de paz que Iglesias tiene aceptadas.

"Esto, en otros términos, equivale a decir: "García Calderon quiere a todo trance ser "Presidente del Perú; y si le hacemos ver el "peligro que su autoridad corre, tendrá la "bajeza o la debilidad de humillarse hasta "el punto de pasar por las horcas caudinas."

"Si tal es el pensamiento de Mr. Logan, es inútil que se moleste en venir a verme; porque no puedo prestarme a oir que me repita siquiera lo que dice U. a nombre de él.

"Con ese juego me probó mi mortificó en Santiago. Cien veces me dió por hecha la paz con Piérola primero y con Iglesias despues; y otras ciento me aseguró que Bolivia habia traicionado al Perú, y hasta hoy, en más de seis meses, nada de eso ha sucedido.

"Entónces debió ver Mr. Logan que ni las amenazas contra mi persona, ni la de perder el puesto, me hicieron cambiar de propósito; y si a pesar de eso no ha conocido mi carácter, y quiere continuar usando conmigo la misma diplomacia; preciso es que se persuada ya de que esas armas no me hacen efecto.

"Sé a qué atenerme respecto al Gobierno de EE. UU. y creo que Mr. Logan no lo juzga bien si cree que reconocerá a Iglesias. Pero si así fuese, el mal no seria para mí, sino para el Gobierno americano, que dará pruebas de política variable.

"He dicho mil veces a Mr. Logan que estoy dispuesto a tratar de la paz en las condiciones razonables que ya conoce. Si ha de venir para hablarme de ellas, estoy pronto a recibirlo; pero si su objeto es decirme que admita la subasta del poder del Perú en concurrencia con Iglesias; y que él me ga-

rantiza l preferencia para el trato; no podré oír suavemente sus propuestas

"Persuádase U. mi amigo, de que no hay nada en el mun que me haga falt r a mis deberes, ni comp ometer mi dignidad."

Firmado. *F. García Calderon.*

Y Mr. Logan, al tomar conocimiento de esta carta no se molestó en ir a ver al señor Calderon.

Otro punto que sería curioso indagar y en que no entraré, es el saber si Calderon trataba bien seriamente en sus largas negociaciones con Mr. Logan. H y datos interesant s sobre esto. Sería también curioso conocer los pasos de Chile acerca de Piérola y el episodio de la visita de éste a Washington.

Mi objeto queda conseguido, si en la presente serie de cartas he logrado sacar a luz la línea de conducta de la diplomacia de los Estados Unidos en conexion con la guerra de Sud-América, principiando con las instrucciones d. Secretario Frelinghuysen de Junio 26 de 1882, a sus tres miembros en la costa occidental, y terminando, digamos así, con la batalla de Huamachuco, el 10 de Julio de 1883; y si he logrado también dar al público de los Estados Unidos una narracion que pueda fácilmente seguir, habiendo separado de ella una masa de comp icaciones colaterales.

El águila americana.

Por segunda vez el águila americana está separada de la *melée* sud-americana. Perdió algunas de sus plumas cada vez que voló para meterse en ella, sea que volara como ave de caza cuando el Secretario Blaine, o sea como paloma, cuando el Secretario Frelinghuysen.—¿Hará una tercera tentativa? El público de los EE. UU. no lo sabrá, sino cuando conozca las nuevas instrucciones que haya dado el Secretario Frelinghuysen a los nuevos Ministros Mr. Thelps y Mr. Gibbs que fueron nombrados para el Perú y para Bolivia en reemplazo de los señores Partridge y Maney. Se sabe que hasta el mes de Abril, Mr. Logan aconsejaba a su Gobierno trasferir su reconocimiento de Montero a Iglesias, y se hacia público en toda la costa que la corbeta *Iroquois* quedaba por algunas semanas en la bahía de Valparaiso, lista para tomarlo a su bordo y llevarlo con este objeto a Trujillo, si la contestacion fuese favorable, habiendo él quedado como único representante de los EE. UU. en la costa. Se sabe también que antes que las vacantes de las legaciones del Perú y de Bolivia fuesen provistas, Mr. Logan recomendó a su Gobierno evitar que pudiera volver un nuevo período de consejos encontrados y de discordias personales en la diplomacia de los EE. UU. en la costa del Pacífico, no acreditando más que a un solo Ministro ante los tres países beligerantes, como en el caso de Mr. Trescott, y con un sentimiento de delicadeza que merece ser elogiado, puso su renuncia absoluta a la disposicion del Presidente para que no hubiera obstáculo en la adopcion de su recomendacion. El hecho de que la *Iroquois* despues de una permanencia por algunas semanas en Valparaiso, dejó su fondadero para ir a Coquimbo y estar ahora en camino para el Callao, prueba con evidencia que el Gobierno del Presidente Arthur no aceptó la recomendacion de un reconocimiento precipitado de Iglesias, y en esto obró con prudencia. El hecho de haber enviado a los señores Thelps y Gibbs en Junio, en lugar de los señores Partridge y Maney, manifiesta que desaprueba la idea de un solo representante diplomático: y en esto su acierto es cuestionable. Despues de semejante desaprobacion, difícilmente podrá el Gobierno escapar de una crítica severa, si vuelve a haber falta de armonía en la conducta que observen los tres Ministros de la costa del Pacífico.

En conclusion.

Así principio el actual capítulo. Al concluir la narracion que antecede, tendria que allanar mis impresiones mas profundas si no pagara un tributo de admiracion a la perseverancia y a la habilidad con que la pequeña oligarquía que gobierna a Chile—oligarquía que no comprende más de ciento o doscientas familias—ha vencido todas las dificultades y conseguido sus fines en cada cuestion, tanto en la guerra como en la diplomacia. Semejante buen éxito no se puede atribuir a la suerte. Sus causas se encuentran en la inteligencia y la energía de la clase dominante, en su prudencia de no llevar sus discordias domésticas a un extremo que pudiera derrocar el Gobierno, en la honorabilidad y estabilidad de su servicio civil, en su orgullo y su patriotismo, y en la unidad de la raza a que está gobernando. Intencionalmente empleo la expresion de "unidad de raza" porque, aunque

entran en ella dos elementos muy distintos—el elemento español y el elemento indio—se encuentran estos tan perfectamente mezclados que la denominacion de "chilenos," aplicada a unos dos y medio millones de habitantes gobernados por la oligarquía, crea la impresion de un solo y distinto tipo de la humanidad, que la denominacion de "peruanos" deja de producir. Es una raza llena de vigor, atlética, dura, fuerte para soportar grandes sufrimientos, y de una insensibilidad extraordinaria al dolor físico; una raza conquistadora e inclinada a emigrar, que el viajero en sud-américa encuentra vagueando desde el Cabo de Hornos hasta Panamá; mientras que el peruano no vaguea. En cuanto a los que constituyen la clase dominante, en su mayor parte son descendientes de los españoles del norte de España, con menor mezcla de sangre india, pero aun entre ellos, ella está muy difundida. Una parte considerable de la raza inglesa, desde medio siglo o más, entra tambien en la mezcla.

Pero este elemento británico se encuentra perfectamente amalgamado, y aun se ha hecho más intensamente chileno que el mismo elemento español. En el Sur de Chile, en Valdivia y sus cercanías, hay una colonia alemana; pero hasta ahora no tiene ella casi ninguna influencia en el curso político del país. Sus miembros son cultivadores económicos, buenos fabricantes de cerveza y curtidores de excelentes cueros. Ni tiene tampoco la rica y numerosa colonia de negociantes de Valparaiso, más influencia en dicho curso de su política, que la que puede tener el gremio de comerciantes de Hamburgo sobre la Córte o el gabinete de Berlin. Para conocer a Chile como poder político, es preciso irlo a estudiar en Santiago, donde las dos terceras partes de las familias dominantes poseen palacios que ocupan durante el invierno del hemisferio Sur, y pasan el verano, despues que se separa el Congreso, sea en sus grandes haciendas del interior o sea en sus casas de Viña del Mar. Esta clase dominante posée riquezas que la independizan de la necesidad de trabajar para su sostenimiento, y se dedica a la política como una profesion. En todo sentido es una aristocracia. No entiende que el Gobierno puede ser dirigido por la opinion pública. No hay otra opinion pública que la que ella dicta, a ménos que sea en cuestiones religiosas. No comprende el sistema político de los Estados Unidos, salvo algunas excepciones notables, entre las que se pueden señalar de un modo conspicuo a Don Adolfo Ibañez y a Don Francisco Aste-Burruaga, que fueron ámbos Ministros en Washington; a Don Benjamin Vicuña-Mackenna, que fué Agente de Chile en Estados Unidos durante la guerra con España, y a Don Jorge Huneus, el rector de la Universidad y Presidente de la Cámara; este último, el más notable de todos, tanto más, cuanto que nunca salió de su país. Respecto a la sociedad de Estados Unidos, no se la conoce en Santiago sino por medio de nuestros nacionales que residen allí—algunos misioneros o preceptores de escuelas, una media docena de dentistas y de fotógrafos, todas personas muy meritorias, pero que no representan bien exactamente nuestro país. Se encuentra tambien otra variedad de gente, a consecuencia de que no tenemos tratado de extradicion con Chile; si a esta lista añadimos los oficiales de marina que ocasionalmente visitan Santiago con un permiso de ocho dias, y la presencia normal de los diplomáticos que manda nuestro Gobierno, hemos agotado todas las fuentes de informacion que las clases dominantes de Santiago tienen respecto a nuestro país, exceptuando los libros. Sus miembros no viajan en Estados Unidos ni aun en Inglaterra y Alemania, sino en los países latinos, Francia e Italia. El inglés, que se habla mucho en Valparaiso, se oye apénas en la capital. El único miembro del gabinete actual que conoce esta lengua es el señor Aldunate, pero la habla poco, aunque la entiende perfectamente.

Quizá, cualquier valor que se quiera atribuir a este tributo a las calidades de las clases dominantes en Chile y a esta descripcion imperfecta de algunos de sus puntos característicos, no será ignorado en la estimacion de los amigos con quienes tuve el gusto de relacionarme en Santiago durante mi visita a la costa occidental, cuando confiese que uno de los resultados de mi visita fué una fuerte simpatía para los peruanos vencidos, en contra del rigor sin misericordia con que sus conquistadores estan resueltos a exigir de ellos los castigos extremos de la derrota; porque he observado que Chile está muy sensible a la admiracion del mundo y no hace caso de sus simpatías. Chile es orgulloso y lleno de confianza en sí mismo, y esto no se debe admirar despues de los sucesos de los últimos cinco años. Hace cinco años que estaba en el borde de la bancarrota, y hoy tiene un sobrante mayor en proporcion a la totalidad de sus rentas que cualquier

otro país en el mundo, y estas rentas exceden a las de Méjico, que tiene una poblacion cuatro veces más grande. Ahora es el primer poder naval y militar en Sud-América, apesar de que por su poblacion es mucho más inferior a otros países marítimos de ese continente. Si su oligarquía—el ejemplo más completo que haya visto el mundo desde las repúblicas italianas de la Edad Media—poseyera una poblacion de diez millones en lugar de dos y medio, podria amoldar los destinos de todo el continente meridional. Ni dudo tampoco que miéntras no llegue a ser corrompido por exceso del poder y de riquezas, podria gobernar cualquier parte de Sud-América que pudiera caer bajo de su dominio, si quisiera aceptar la responsabilidad de gobernarla, mejor y más prudentemente de lo que está o se halla ahora.

Pero a pesar de esta convicion y aun contra todo juicio razonable, he encontrado que mis simpatías para el Perú en el estado actual de esos dos países, iban creciendo, apesar de la vida alborotada que está espiando ahora tan terriblemente, quizás por la misma razon por la que el Hijo Pródigo me atrae más que su mayor con toda su moralidad y su prosperidad.

La política práctica de Chile.

El dia ántes de dejar a Santiago, a fines de Julio, fuí a la Moneda, cumpliendo mi deber, a despedirme del Ministro de Relaciones Exteriores, y agradecerle las muchas cortesías que habia recibido en la capital de Chile. Nuestra conversacion fué larga, y en ella me preguntó el señor Aldunate qué opinion llevaria sobre Chile como nacion a los Estados Unidos. Le contesté que la más notable impresion que me dejó la política de Chile, era que se dejaba influir ménos que la de cualquier otro país que conozco, por las consideraciones y los cálculos del órden sentimental. Me pidió que ilustrara mi pensamiento, y como nuestra conversacion era muy franca, me atreví a citar como ejemplo al Perú. Le dije que, segun mis observaciones, estaba en el poder de Chile gobernar al Perú de tal modo, que cuando lo desocupara, los peruanos lo vieran con sentimiento, y de granjearse sus afecciones de modo que no quedaran graves temores de que en el porvenir hicieran tentativa alguna para arrebatar a Chile los legítimos premios de la victoria; pero que al contrario, parece que Chile se contenta con sujetar sus conquistas, empleando para ello únicamente el medio que le sirvió para adquirirlas, esto es, la fuerza, y que le importa tan poco la buena voluntad de los peruanos, que no manifiesta sorpresa ni sentimiento de que hasta el último peruano se alegre de la desocupacion de su capital, aunque sepan que cuando esto suceda entrarán en conflictos sangrientos entre sí mismos. El señor Aldunate no refutó esos argumentos, pero me contestó:—"Chile es una nacion demasiado pequeña, de una poblacion demasiado escasa y con unas vecindades demasiado peligrosas, para confiar su política en cálculos que lleven en sí elementos de incertidumbre y basados en consideraciones sentimentales. La prudencia exige no dejar nada lo incierto, realizar cualquiera ventaja razonable y no confiar nada a la suerte. Sólo una grande y poderosa nacion—grande y poderosa como lo son por ejemplo los Estados Unidos—puede correr los riesgos de una política sentimental." Tuve que admitir la fuerza de las razones del Ministro, pero ellas no me convencieron.

EDITORIAL DEL "NEW YORK HERALD OCTUBRE 8 DE 1883.

El secreto de las victorias de Chile.

Nuestro corresponsal especial en la costa occidental de Sud-América, al concluir su bosquejo del fiasco del Secretario Frelinghuysen, para conseguir la paz entre Chile y el Perú bajo los auspicios de los Estados Unidos, analiza en la carta que publicamos hoy, algunas de las causas de las invariables ventajas que en la diplomacia como en la guerra, ha conseguido Chile en los últimos cinco años. Encuentra el secreto en la inteligencia y patriotismo de la clase que gobierna, en la honradez y estabilidad del servicio público, en el contento de la masa del pueblo de seguir a sus gobernantes sin críticas ni vacilaciones, y estar libres de contiendas internas debido a su unidad de raza. Estas varias causas se combinan para centralizar el poder de la República, el que no pierde nada por diferencias de opiniones ni por lealtades vacilantes. Cualquiera golpe que da es dado con todo el rigor posible. Si la poblacion que obedece el mando de la oligarquía chilena fuera de diez millones, en lugar de dos y medio millones, nuestro corresponsal dice, con buenas razones, que Chile podria amoldar

los destinos de todo el continente de Sud-América.

El peligro para Chile es que, como consecuencia de sus asombrosas ventajas, llegue a sobrestimar sus fuerzas.

Ya se muestra violento para apropiarse sin medida de los despojos de la victoria y para tratar sin piedad al enemigo vencido. Los gérmenes de una ambicion enteramente egoista que deja ver ya en su política, son los que en otros tiempos y en otras tierras han llevado a naciones más grandes a una ruina repentina. No es ménos peligroso para una nacion que para un individuo, dejarse dirigir enteramente por su cabeza sin dar participacion alguna al corazon. En las revoluciones y torbellinos que trae el tiempo viene siempre un momento en que llega a faltar la confianza en sí mismo.

El plan de Iglesias de una paz entre Chile y el Perú, en que los Estados Unidos son dejados enteramente a un lado, sea como árbitros, sea como mediadores, está en vísperas de llevarse a efecto, segun los últimos avisos de Sud América. Es un plan que contiene las semillas de un odio más amargo entre las dos Repúblicas, que el que arde entre Francia y Alemania. No es un plan que permitirá a Chile desarmar su ejército, o dejar de conservar una escuadra desproporcionada al rango actual de la República entre las naciones. La paz que se estipula es una paz que, segun palabras del Presidente Arthur en su último Mensaje al Congreso, no es posible que "sea duradera," porque no es suficientemente equitativa y justa, para merecer la aprobacion de otros países.

El fin de la lucha de las Repúblicas Sud-americanas para la preponderancia, no lo ha conseguido Chile por su completo triunfo sobre el Perú. Al Este de los Andes, extendiéndose hácia las anchas pampas sud-atlánticas, se halla la República Argentina, que está destinada, tarde o temprano, a buscar cuestiones con su vecino chileno.

Sin el temor al Brasil, el Gobierno de Buenos Ayres, hubiera intervenido forzosamente en la guerra de la costa occidental. Este temor puede no ser perpetuo. El porvenir político de la América del Sur está tan lleno de incertidumbres como el porvenir político de Europa, aun dejando a un lado la posibilidad de la intervencion de Europa en los asuntos sud-americanos.

PRENSA AMERICANA.

"NEW-YORK HERALD" DEL 17 DE OCTUBRE DE 1883.

La Guerra Sud-Americana.

UNA OJEADA PERUANA SOBRE LA INGERENCIA DE ESTADOS UNIDOS EN ELLA.

DON EVARISTO GOMEZ SANCHEZ.

SU CRITICA DE LA CONDUCTA Y DE LA INFLUENCIA DE NUESTRO PAIS.

EL MAL QUE SE HIZO AL PERU.

Una intervencion activa como obligacion lógica del Gobierno de Washington.

La integridad territorial deberia ser conservada.

Los peligros de la doctrina de conquista para el republicanismo en América.

DISCUSION FRANCA Y LIBRE SOBRE NUESTRA DIPLOMACIA.

Nuestro corresponsal en la costa occidental de Sud-América, durante su permanencia en Lima, hizo pedir a muchos ciudadanos distinguidos que especificaran las quejas del Perú contra Estados Unidos, a fin de hacerlo imprimir para la ilustracion del público americano. En sus relaciones privadas encontró que esas quejas eran generales y comunes a los miembros de todos los partidos en el Perú, siendo los pierolistas y los civilistas unánimes en acusar a nuestro país con mucha amargura, como habiendo traicionado al suyo. Su asercion unánime era, que si no fuera por las falsas esperanzas de apoyo que excitaron los agentes diplomáticos de los Estados Unidos, y cuyos actos y seguridades debia justamente presumirse que obligaban al país en cuyo nombre obraban, el Perú habria hecho la paz con Chile desde mucho tiempo atrás y en condiciones mucho ménos desastrosas que las negociadas por el General Iglesias. Una calificacion tan vergonzosa como la de "deshonrosa", fué a veces empleada para estigmatizar la conducta de los Estados Unidos en esas conversaciones. Pero cuando se les pedia hablar con la misma franqueza dirigiéndose al público americano, garantizándoles que el *Herald* publicaria sus críticas y sus cargos sin temor ni favor, se manifestaba una aversion general para darse a la publicidad.

La razon que se aducia generalmente, era el recelo a las consecuencias personales de parte de Chile, el dia en que esas publicaciones llegaran a Sud-América cayendo en conocimiento de los chilenos; y hay que confesar que habia razones sustanciales para tales recelos. La condicion de un prisionero político en Chile [descrita por nuestro corresponsal especial en una carta que se publicó en el *Herald* del 8 de Octubre, y ejemplificado con la

relacion de nuestra visita al señor García Calderon en Rancagua] no es ciertamente tan agradable para ir en busca de ese castigo sin vacilar. Otro motivo para guardar silencio hácia el público, aunque más raras veces confesado, era la espectativa de volver a tomar parte en la vida pública del Perú, despues de la desocupacion chilena, y el deseo de evitar compromisos que podrian servir de embarazo en la futura carrera pública.

Fácil habria sido para nuestro corresponsal procurarse los datos que deseaba, si hubiera consentido en que fuesen publicados bajo el anónimo; pero él insistia con razon, para que fuesen al contrario autorizados con los nombres respetables de sus autores. En un caso esta condicion ha sido llenada, y en consecuencia publicamos una crítica de las relaciones de Estados Unidos con el Perú, hecha por el señor don Evaristo Gómez Sánchez, uno de los jurisconsultos más distinguidos de la América Española.

El señor Gómez Sánchez es natural de Lima, donde nació en 1824. Recibido de abogado en 1848 fué nombrado relator de la Corte de Arequipa en 1850. En 1851 fué elegido miembro de la Cámara de Diputados. En 1852, como enviado especial en el Brasil, negoció un tratado entre el Imperio y el Perú, relativo a la navegacion de los afluentes del Amazonas. Habiendo regresado a la Cámara en 1853, despues de concluida la sesion fué elegido rector de la Universidad (Convictorio) de San Cárlos. De 1860 a 1864 volvió a servir en la Cámara, y despues entró en el ministerio del Presidente Pezet, y durante el año siguiente tuvo a su cargo varias carteras, entre otras la de Gobierno y Obras Públicas. Cuando el General Prado subió al poder como dictador, a consecuencia de la revolucion de 1865, se fué al destierro, y quedó ausente de su país hasta la eleccion de Balta para la presidencia en 1868; entónces regresó y fué luego elegido senador por Arequipa. Ocupó su asiento por muchos años; pero poco tiempo despues de estallar la guerra, fué llamado al servicio diplomático, y durante la dictadura de Piérola se le nombró Enviado del Perú cerca del Uruguay, Paraguay y Confederacion Argentina. Durante el curso de su vida parlamentaria, ocupó una posicion distinguida como abogado, y fué miembro activo de las comisiones que redactaron los Códigos Penal y de Procedimientos Penales.

Este ligero bosquejo de la carrera pública del señor Gómez Sánchez, es suficiente para dar a conocer al público americano que una crítica de la conducta de los Estados Unidos hácia el Perú, procedente de semejante fuente, no puede ser tratada a la ligera. Lo que dice de nuestro país—y mucho más del mismo tenor—es lo que que piensan y sienten con gran unanimidad sus conciudadanos.

Sus críticas nos llegan traducidas al inglés sobre notas que él dictó en español. Por esta razon sin estractos de nuestros despachos diplomáticos no son en ciertos casos de una precision literal. Con frecuencia las expresiones han sido cambiadas, a consecuencia de las transformaciones que han sufrido al ser traducidos primero del inglés al español y despues del español al inglés, por un traductor que no tenia a la mano, segun parece, la publicacion de nuestros despachos diplomáticos para restablecer la redaccion original. Despues de esta introduccion preliminar, entregamos al púplico en su integridad el trabajo del señor Gómez Sánchez. Dice:—

La relacion de los Estados Unidos hacia los beligerantes de Sud-America.

Está manifiesta la necesidad de exponer ante el mundo civilizado cuál es la verdadera posicion del Gobierno de Washigton, en relacion con la conquista por Chile de toda la costa de Bolivia y de una considerable parte de la costa de Perú, y con su intencion, ahora declarada, de conservarlas de un modo permanente, sin otro título que el que puede derivar de la victoria, porque en realidad éste es el único título que le puede conferir el tratado con Iglesias, cuyo Gobierno es una creacion de Chile mismo. Esto debe ser explicado en el interés de los principios de la civilizacion y del porvenir de toda la América. No hay que examinar únicamente los actos de los Estados Unidos en esta cuestion, sino que tambien, y ante todo, al examinarlos, hay que tener presente esa doctrina de la que los Estados Unidos se declaran ser los principales defensores y que trata de establecer una frontera jurídica entre los dos mundos, y tambien entre los sistemas políticos del pasado y del futuro.

La mediacion de los Estados Unidos entre los beligerantes de Sud-América, aunque ineficaz, fué no obstante un noble esfuerzo de parte de la Gran República para librar el continente de las consecuencias y de los peligros con que amenaza el primer hecho de union forzosa cometido en América; o mejor

dicho, el primer acto de conquista utilitaria por la fuerza de las armas—digno fin de una guerra bárbara.

Las conferencias de Arica.

Debo, por consiguiente, al principiar esta investigacion, tratar de encontrar en los protocolos de las conferencias de Arica—primer paso en el drama de la mediacion—los motivos que impulsaron a Estados Unidos a proponer esas conferencias y las razones por las que los esfuerzos de los plenipotenciarios americanos quedaron tan infructuosos.

Mr. Thomas A. Osborn, representante del Gobierno de Estados Unidos en Chile, que presidia las conferencias de Arica, declaró, en su discurso de apertura, en 22 de Octubre de 1880, que no era necesario discutir el orígen de la mediacion de Estados Unidos o la prioridad en la parte que tomaban en ella; que se debió esperar que las deliberaciones serian llevadas con un deseo sincero por los que tomaban parte en ellas para llenar el gran objeto que se tenia en mira y que se reconoceria que los Estados Unidos estaban realmente animados del gran interés que manifiestan, desde que su independencia fué el orígen de las instituciones republicanas en América, y que de cierto modo, los Estados Unidos son responsables por la existencia de dichas instituciones; que la independencia de la América del Sur fué primeramente reconocida por los Estados Unidos y que, estando la estabilidad de las instituciones basadas en dicha independencia, atravesando ahora una prueba muy seria, todas las Repúblicas beligerantes representadas en la actual conferencia, deberian estar animadas por un mismo deseo como están los EE. UU., de poner término a la guerra por medio de una paz honrosa y duradera. Despues añadió que, aunque los Ministros de los Estados Unidos no podian tomar parte en la discusion de las cuestiones en debate entre los beligerantes, su presencia tenia por objeto ayudar a las negociaciones por medio de su cooperacion amistosa cuando pueda ser ésta considerada como necesaria, y Mr. Osborn concluyó su discurso con las palabras siguientes: "les pido, señores, les suplico, esforzarse ardientemente para conseguir la paz, y en nombre de mi Gobierno expreso la confianza de que sus esfuerzos quedarán coronados con buen éxito"

El espíritu del discurso de Mr. Osborn, hablando a nombre de su Gobierno, es demasiado claro para necesitar comentarios; pero puedo preguntar a los que están versados en las prácticas y en las leyes de la diplomacia, si sus palabras literales no indicaban de parte de los Estados Unidos, aunque envueltas en las formas más delicadas y más corteses, que en este momento preciso el Gobierno de Washington meditaba en algo más que en una simple mediacion?—¿Y no debe explicarse la omision del Ministro americano en ser más claro sobre este punto, por la diferencia de orígen entre los Estados Unidos y las Repúblicas Sud-americanas, miéntras que expone extensamente los títulos y motivos que tiene para intervenir?

Pero cualesquiera que fueran los motivos principales que tuvieron los representantes de Estados Unidos para no revelar por completo, desde el principio el plan de su Gobierno en las conferencias de Arica, es bien positivo que para no hacerlo, fueron determinados a medida que avanzaban las conferencias, por la altanera actitud de Chile, que no contento con expresar sus dudas desde el principio de dichas conferencias respecto a un resultado favorable de ellas, pidió que se llegara a una decision inmediata, sin discutir aun las bases que Chile mismo proponia y haciendo alusiones claras a las adquisiciones territoriales de los Estados Unidos en México, bajo la falsa designacion de "rectificacion de fronteras"—alusiones que eran inaceptables para Bolivia y sin aplicacion para el Perú. Esto por sí sólo era suficiente para estorbar todo arreglo en Arica; y la negativa de Chile para aceptar el arbitraje de Estados Unidos que fué propuesto por el Perú y por Bolivia, aniquiló de hecho la tentativa de mediacion.

Con estos antecedentes, no se debe extrañar que el Gobierno de los Estados Unidos haya adoptado otros métodos en sus nuevos esfuerzos para intervenir en la Guerra del Pacífico. No obstante, algunos creen todavía que la mocion de los Estados Unidos manifestada primeramente en la oferta de buenos oficios, debe al fin trasformarse en una intervencion positiva.

Primer mensaje del presidente Arthur al Congreso.

Gran parte de mi argumentacion debe apoyarse en el analisis del Mensaje del Presidente Arthur al Congreso, el 5 de Diciembre,

1882. El Presidente en este Mensaje decia:

"El Gobierno vé con (*witt great concern*) la continuacion de las relaciones hostiles entre Chile, Bolivia y el Perú. Es de desearse el pronto restablecimiento de la paz, no sólo porque se evitaría así mayor miseria y más derramamiento de sangre, sino porque la persistencia en el antagonismo puede ocasionar resultados peligrosos, a mi juicio, para los intéreses del sistema republicano en este continente, y muy adecuados para destruir los mejores elementos de nuestra civilizacion libre y tranquila. Como en medio de la excitacion actual del sentimiento popular de estos paises, ha habido graves recelos sobre la conducta de los Estados Unidos, y como los arreglos diplomáticos con cada uno por medio de Ministros independientes, están algunas veces sujetos a mala inteligencia temporal, debido a la falta de pronta y recíproca comunicacion, he considerado juicioso enviar un comisionado especial acreditado ante todos y cada uno, y les he dado instrucciones que les facilitarán la obra de lograr el restablecimiento de las relaciones amistosas."

Ante todo debe señalarse que durante el año que siguió a las conferencias de Arica, el Gobierno de Estados Unidos estuvo en manos de tres diferentes presidentes y cada uno de ellos dedicó una atencion especial a la guerra del Pacífico; sus Ministros emplearon un mismo lenguaje y conservaron la misma política, decidida y persistente, moderada y circunspecta como era natural y como la que debe observar un Gobierno que tiene la conciencia de su fuerza y de su derecho para intervenir miéntras llegue el momento de entrar en accion.

Apelemos ahora al buen sentido para buscar la solucion de algunas cuestiones.

El interés y las inquietudes de los Estados Unidos.

¿Por qué han de ver los Estados Unidos la prolongacion de la guerra del Pacífico no sólo con interés, sino tambien con inquietud? ¿Por qué ámbos modos de mirarla están comprendidos en la expresion empleada por el Presidente Arthur? (*with great concern.*)

Con interés, porque algunas naciones de diferente raza consideran conveniente ventilar sus diferencias por medio de la guerra, y en consideracion para su propia soberanía creen que están en el derecho de aniquilarse unas a otras?—Si el Gobierno de los EE. UU. miraba la guerra sólo bajo este punto de vista, seria verdaderamente muy difícil descubrir los motivos de su interés.

¿Con inquietud, porque tres Repúblicas de un rango inferior cuando se las compara con los EE. UU., se rehusan a llegar a un arreglo y a poner fin a sus diferencias?—No se podria concebir tal sentimiento cuando se tiene presente que tales conflictos se renuevan cada dia en el mundo.

Por consiguiente, cuando el Presidente de los EE. UU. emplea una expresion que envuelve interés e inquietud, es claro que se refiere a un interés que es comun a toda la América republicana; pero de un carácter tan grande y tan importante que no puede permanecer impasible miéntras sigue el conflicto que crea tanto interés y es causa de tantas inquietudes.

El interés a que alude el Presidente Arthur en su Mensaje de Diciembre de 1881, es el mismo que manifestó la Gran República, en Arica, más de un año ántes, cuando sus Plenipotenciarios declararon que ella "habia inaugurado el Gobierno republicano en América, y que por consiguiente era de cierto modo responsable por la existencia de dichas instituciones." Es el mismo que expresaba Mr. Blaine cuando escribiendo al General Kilkpatrick le decia:—"Estoy convencido de que el Gobierno de Chile sabrá apreciar el grave y natural interés que sienten los EE. UU. en que termine un estado de cosas tan calamitoso en sus consecuencias, de un modo que pueda ser conforme con los más altos intereses de las Repúblicas sud-americanas."

Por consiguiente, puede deducirse lógicamente que desde el principio de la guerra los Estados Unidos han conocido, y cada dia han ido conociendo mejor, que la "República" como institucion política en América, así como todos sus concomitantes—libertad, igualdad y fraternidad—obra alcanzada a costa de millares de sacrificios para conseguir el progreso de la civilizacion, están puestos en peligro por la guerra actual, y que el Nuevo-mundo está amenazado con deshonra desde que para emplear las expresivas palabras de Mr. Osborn—"las instituciones republicanas están ahora sometidas a prueba ante el mundo" y todos los estados americanos están interesados en la terminacion de un conflicto, que amenaza con tales peligros.

Que esta conclusion lógica no puede ser ni discutida lo prueba la razon clara y enérgica que dá el Presidente Arthur de su deseo de ver que concluya la guerra:—Porque la prolongacion de la guerra "amenaza con consecuencias que son peligrosas para los intereses del Gobierno republicano en este Continente, y que están destinadas a destruir los mejores elementos de nuestra civilizacion libre y pacífica."

Los peligros que la "conquista" hace correr a la "república."

¿A qué consecuencias se refiere el Presidente?—Para atentar que son peligrosas para los intereses del sistema republicano en América y que tienden a la destruccion de los mejores elementos de civilizacion en este Continente, las consecuencias a que se hace alusion no pueden ser otras que las que nacen de la conquista, porque sólo las que llevan ese carácter pueden poner en peligro a la vez la "República" y la civilizacion; porque, como cosa de hecho, permitir la adquisicion de territorios por la violencia en la América libre, seria admitir las siguientes tremendas consecuencias:

1.° Desconfianza:—la que obligaria naturalmente a todos los Estados americanos a adoptar "la paz armada" que seria un golpe mortal para el bienestar y el progreso.

2.° Inestabilidad;—porque seria imposible fundar instituciones duraderas para la constitucion interna de cualquier Estado y mucho ménos para la seguridad general.

3.° Absorcion de los Estados pequeños por los mas grandes;—único medio para restablecer el equilibrio.

4.° Adopcion de protectorados;—último recurso de los Estados débiles para evitarse ser absorbidos.

Ni serian éstas las únicas consecuencias peligrosas que resultarian de la aceptacion de la doctrina de conquista. Las grandes entidades políticas quedarian militarizadas, principiando con restringir las libertades y concluyendo con la extincion de la vida republicana. La jóven América puede fácilmente comprender la exactitud de esas asercciones contemplando el estado de Europa.

Interpretacion ampliada de la "doctrina de Monroe."

La Gran República, mucho más interesada que nosotros en evitar tales resultados, tiene por consiguiente justos motivos para estar inquieta viendo prolongarse esta guerra de conquista, habiendo Chile al fin declarado abiertamente que la conquista era un derecho indiscutible y una consecuencia inevitable de sus victorias; y el Gobierno de Washington, inspirándose en la "doctrina de Monroe" en todos sus procedimientos internacionales, está, ahora más que nunca, obligado a sostener el principio fundamental de dicha doctrina y aplicarla a toda la América, porque tenga el derecho de emplearla como arma defensiva contra la Europa, a fin de preservar el Nuevo Mundo contra las doctrinas contrarias profesadas en el antiguo hemisferio. Repito que el Gobierno de Washington no puede en el caso actual sino poner en práctica los principios que profesa, a ménos de renunciar a toda pretension de ser consecuente.

Porque uno de los dos debe ser cierto:—o la guerra del Pacífico no tiene la importancia que le atribuye el Presidente Arthur en su Mensaje—en qué caso los beligerantes deberian ser enteramente *dejados a sí mismo*—o bien esa guerra ha asumido realmente el muy grave carácter que se le atribuye en la comunicacion oficial y autoritativa hecha al Congreso;—y en este caso esa gran nacion, reconociendo la inminencia del peligro y considerándose como el único agente reparador, y poseyendo a la vez los medios y el poder necesario para obrar, deberia inmediatamente proceder a una intervencion enérgica y decidida en la disputa. El pueblo americano no tiene intereses más grandes que los que envuelven la civilizacion cristiana y el republicanismo democrático; y por consiguiente la declaracion del Presidente de los Estados Unidos, de que tales intereses están en peligro y amenazados de destruccion por la guerra, incluye la necesidad de alejar este peligro por todos los medios posibles.

Los actos del secretario Blaine y del general Hurlbut obligan a los Estados Unidos.

Y ahora, despues de haber establecido la verdadera importancia de las palabras oficiales del Presidente de los Estados Unidos al Congreso, tenemos que examinar los procedimientos del General Stephen A. Hurlbut, representante diplomático de los EE. UU. en

el Perú en tiempo de dicho Mensaje y deducir de ellos cuál es la verdadera posicion ocupada por su Gobierno en la cuestion del Pacífico. Esta investigacion es indispensable, porque si se puede demostrar que el Plenipotenciario americano obró sustancialmente en acuerdo a sus instrucciones, la inclinacion de los Estados Unidos hácia la intervencion aparecerá claramente. Tan claramente aun, que no podrá quedar duda alguna en cuanto a los deberes que imponen a esta República los actos de su agente independientemente de las consideraciones de supremacía en América y de la mision providencial que tiene que desempeñar en este Continente. Este punto es tanto más importante cuanto que determina y hace ver el lado práctico de lo que estoy discutiendo—la influencia de la política americana en el Perú.

El principal anhelo de los Estados Unidos fué claramente expuesto en la carta de Mr. Blaine al General Hurlbut: "Es de vital importancia para el Perú, dice, el que se le dejo reasumir las funciones de un Gobierno nacional y organizado, no sólo respecto a su administracion interna, sino tambien respecto a las negociaciones de paz." No es sin intencion que califico como "principal anhelo de los Estados Unidos" el anhelo y las instrucciones que incluye el párrafo citado.

En sus instrucciones al General Hurlbut, el Secretario de Estado se expresaba como sigue: "Parece que el principal objeto de las autoridades provisionales en el Perú deberia ser el establecimiento de un Gobierno constitucional, para proceder despues a negociaciones de paz, sin fijar condiciones preliminares a título de ultimátum por un lado o por otro." El objeto de la mision del General Hurlbut siendo el de remover los obstáculos que habia en el camino de la paz (y a juicio de Mr. Blaine, el más grande de esos obstáculos era la falta de un Poder Ejecutivo peruano autorizado para tratar) el primer deseo del Secretario de EE. UU. era naturalmente el de ayudar al establecimiento de ese agente necesario para asegurar la paz; y "juzgando por las últimas comunicaciones de los colegas de U. en Lima y Santiago" decia Mr. Blaine a Mr. Hurlbut, "U. encontrará de parte de los chilenos que ocupan el Perú, buenas disposiciones para establecer de un modo firme el Gobierno ensayado por el Sr. Calderon." La condicion de "vital importancia" ya citada, debe referirse al pueblo del Perú, de quien proceden todos los poderes públicos; el único que está calificado para establecer un Gobierno nacional; y en este momento preciso dicho pueblo no manifestaba ciertamente mucho deseo de derrocar al Jefe Supremo, Piérola, para nombrar a García Calderon. Por consiguiente, el primer objeto que tuvo en mira Mr. Hurlbut, fué el de indicar al Perú el reconocimiento del Ejecutivo provisional de la Magdalena, Señor Calderon, que hasta entónces no habia podido asumir las funciones de un gobierno nacional y organizado, apesar de las buenas disposiciones de las autoridades chilenas para prestar su apoyo al establecimiento de la autoridad de su Gobierno provisional.

No se puede ni discutir, que el agente diplomático en el Perú cumplió de un modo eficiente las instrucciones de Mr Blaine, desde que éste escribió al General Hurlbut; y sin desaprobar la importante obra que habia realizado, sólo expresó su sentimiento de que para ejecutarla se habian empleado un lenguaje y un modo que implicaban de parte de los EE. UU. una política activa de intervencion que excedia los límites indicados en las instrucciones. Pero el Secretario de Estado no desaprobó la parte sustancial de la obra realizada por el General Hurlbut. El memorandum al Almirante Lynch; la carta al señor García, Secretario del General Piérola; la transaccion de Chimbote [como inoportuna] y el telegrama al Ministro americano en Buenos Ayres, fueron severamente reprobados; pero no hay ninguna desaprobacion de la obra sustancial del Ministro. Las irregularidades en la forma y en el método empleado, por grandes que sean, no invalidan los actos que están autorizados por las instrucciones dadas a un agente diplomático.

Si revisamos estas instrucciones, encontramos que, debido a la falta de informaciones exactas y de informes fidedignos, relativamente al estado de las cosas en el Pacífico, "es imposible dar instrucciones tan ámplias y tan precisas como seria de desear." Así decia Mr. Blaine y por consiguiente, Mr. Hurlbut tenia ámplios límites de interpretacion. Hablando de la paz, Mr. Blaine empleó tales expresiones que Mr. Hurlbut se encontraba obligado a creer que estaba autorizado a declarar que el Gobierno de Washington no aprobaria o no consentiria en la conquista como fin de la guerra y como condicion *sine qua non* de paz. Los siguientes

extractos de las instrucciones, lo manifiestan de un modo claro.

Mr. Blaine habla de una "política liberal y prudente";—"condiciones razonables";—"paz duradera y honorable";—"el Gobierno ha declarado claramente que esta guerra no es de conquista";—"el Gobierno del Perú puede muy bien buscar una oportunidad para hacer proposiciones de indemnizacion con garantías, ántes de someterse a una cesion de territorio";—"toda la influencia que el Gobierno de Estados Unidos pueda tener cerca del Gobierno de Chile, debe ser empleada para inducirlo a que consienta en que la cuestion de cesion de territorio sea dejada para las negociaciones, y que no sea una cuestion prévia para abrir las conferencias";—"si U puede ayudar al Gobierno del Perú para que se consiga ese fin, le prestará U. el más grande servicio";—"si, con un conocimiento perfecto de la situacion del Perú, U. puede informar a este Gobierno que el Perú está en la posibilidad de llevar a efecto algun plan practicable; por el que se pueda dar satisfaccion a condiciones razonables de Chile, sin sacrificar la integridad del territorio peruano, el Gobierno de Estados Unidos empleará gustoso sus buenos oficios para la realizacion de ese plan."

No era posible establecer de un modo más claro de lo que lo hacen esas citaciones, que el Gobierno de Estados Unidos estaba opuesto a la anexion de territorio peruano a Chile; que estaba resuelto a oponerse a tal anexion en caso que el Perú pudiera pagar una indemnizacion razonable; que estaba tan resuelto a poner un fin a la guerra del Pacífico, que, quiera o nó el Gobierno de Chile, el Gobierno americano lo induciria a aceptar la paz sobre la base del pago de los gastos de la guerra; y en último caso, quedando asegurado de los recursos de que podia disponer el Perú, la Gran República iria hasta prestar su apoyo para que se procuren inmediatamente los requisitos necesarios para la «ejecucion» del plan de indemnizacion y de garantía.

Ahora, en cuanto al establecimiento de un "Gobierno nacional" en el Perú, que era recomendado a Mr. Hurlbut, como un punto importante, por Mr Blaine, éste decia:—"El pueblo peruano no puede desconfiar de las simpatías y del interés del pueblo y Gobierno de los Estados Unidos, y espero que las consideraciones que se deben a estas simpatías y a ese interés, serán tomadas en cuenta en las consultas y en los consejos de U." La lectura de ésta y de otras partes de la nota de Mr. Blaine, revela claramente la importancia y la naturaleza de la mision confiada al General Hurlbut. Este Ministro, armado con los más amplios poderes, fué enviado al Perú, más bien como un agente de los Estados Unidos cerca del pueblo del Perú, que como un representante del Gobierno de Washington cerca del Gobierno «ensayado» por el Señor García Calderon; y por más extraña que parezca esta asercion es no obstante exacta, si se toma en consideracion el estado anormal, tanto interior como exterior del Perú.

Pero hay una circunstancia más extraordinaria todavía. El General Hurlbut, a más de los poderes generales de un Plenipotenciario y de las atribuciones de un enviado *ad hoc*, era tambien el "Ministro en jefe" de los Estados Unidos en el Pacífico. Sus poderes eran aún más ámplios que aquellos en cuya virtud su predecesor, Mr. Christiancy, reconoció el Gobierno de Calderon.

Kilpatrick es solo un agente auxiliar.

El modo de proceder adoptado por Mr. Blaine respecto a los Generales Hurlbut y Kilpatrick [el último nombrado Plenipotenciario en Chile y recibiendo sus instrucciones al mismo tiempo que su colega en el Perú—15 de Junio de 1881] servirá grandemente para comprobar mi asercion sobre la supremacía diplomática del General Hurlbut. Miéntras que las instrucciones dadas a Hurlbut no eran comunicadas a Kilpatrick, Hurlbut quedaba informado en extenso de las que se daban a su colega en Chile como "extrictamente confidenciales"; de modo que él [Hurlbut] "pueda comprender perfectamente la posicion asumida por el Gobierno de Estados Unidos hácia ámbas partes en este deplorable conflicto." Dirigiéndose al General Hurlbut, Mr. Blaine decia:—"El deseo de los Estados Unidos es de obrar en el espíritu de la más sincera amistad hácia las tres Repúblicas, y de hacer uso de su influencia únicamente para conseguir una paz duradera y honrosa." Miéntras no se ponian ningunas trabas para la accion libre y desembarazada de Hurlbut, Kilpatrick se encontraba entrabado desde la primera advertencia de sus instrucciones, como sigue: "El estado desgraciado de los asuntos entre

Chile y el Perú imprime un carácter muy delicado y de responsabilidad a la mision de U. Si en circunstancias ordinarias nuestra ingerencia no dejaria de ofrecer dificultades, nuestra posicion se ha hecho mucho más delicada desde que fallaron las conferencias de Arica sugeridas por nosotros." Hemos visto que el General Hurlbut estaba autorizado para ejercer una influencia decidida sobre el pueblo del Perú, sobre su Gobierno "ensayado" y aun sobre las autoridades chilenas que ocupaban el país, miéntras que el General Kilpatrick tenia las manos atadas, y repetidas veces se le recomendó obrar con el mayor tacto al ofrecer los buenos oficios de los Estados Unidos. Por esto fué que Hurlbut, conforme a las órdenes recibidas de Mr. Blaine, estaba informado en extenso sobre los medios para llegar a la paz sin conquista, miéntras que el mismo Secretario de Estado decia a Kilhpatrick:—" como no se le han dado instrucciones para presentar sugestiones de un modo oficial al Gobierno chileno, . . . en casos imprevistos, debe U. en ellos ,,inarse para su conducta y para el uso de sus poderes, por las consideraciones que le trasmito ahora, sin entrar en la cuestion de las causas de la guerra entre las tres Repúblicas."

Indemnizacion o conquista.

Estas "consideraciones" deben ser citadas aquí para dar fuerza a la tésis que propongo y que estoy defendiendo. Los extractos de las instrucciones de Mr. Blaine al General Kilpatrick:—" Este Gobierno reconoce el derecho que asiste a Chile por razon de las victorias que alcanzó en la guerra, y reconociéndolo, no entra en la cuestion de saber hasta dónde se extiende ese derecho para conferir a Chile el privilegio de avaluar su compensacion, que le corresponde a título de indemnizacion de guerra, ni tampoco en la cuestion de las garantías que exige para sus intereses en lo futuro; pero si el Gobierno chileno, segun lo declaran sus representantes, no busca más que garantías de paz en lo futuro, parece natural que el Perú y Bolivia tengan la oportunidad de ofrecer tal indemnizacion y tal garantía ántes que se efectúe una anexion de territorio, lo que constituiria el derecho de conquista si Chile insiste. En caso que esas Repúblicas no ofrecieran, como deben razonablemente hacerlo, suficiente indemnizacion y suficientes garantías, entónces mereceria una alta consideracion examinar si esos territorios deben ser tomados como precio necesario de la paz. Pero a la conclusion de la guerra, que segun declaraciones formales no fué emprendida para fines de conquista, sino para arreglo de diferencias que la diplomacia no pudo arreglar, hacer de la adquisicion de territorio una condicion *sine qua non* de paz, seria crear dudas sobre las declaraciones hechas relativamente a la conquista."—"Hoy dia, cuando el derecho de los pueblos de gobernarse ellos mismos, es la base de las instituciones republicanas, está admitido generalmente que nada es más peligroso y difícil que el traspaso forzoso de un territorio que cuenta con una poblacion resentida y hostil, y nada lo puede justificar sino una necesidad claramente comprobada ante el mundo. No hay caso en que una potencia que desea un territorio pueda ser aceptada como juez imparcial en la materia. Pero miéntras el Gobierno de los Estados Unidos no emite opinion en cuanto a saber si la anexion de territorio es una consecuencia necesaria de la guerra, cree no obstante que seria más honorable para Chile, más conducente a las exigencias de una paz permanente y más en acuerdo con los principios profesados por todas las Repúblicas americanas, que no insistiera en tales cambios de territorio. No siempre resultan ellos del sólo empleo de la fuerza; pero si fueran absolutamente necesarios, deberian ser discutidos y decididos por representantes igual y ampliamente autorizados por ámbas potencias, cuyos nacionales y cuyos intereses están en cuestion. El Perú se encuentra por ahora completamente postrado; no puede ni mantener el órden en el interior, ni la paz en el exterior. Se está haciendo un esfuerzo serio en apariencia para constituir un Gobierno provisional con el objeto de revivificar el país postrado. Pero semejante Gobierno no puede llenar sus fines y establecer la confianza en el interior o ganarse la de las potencias extranjeras, si no posee su libertad de accion, y esto no puede realizarse miéntras los chilenos tengan posesion absoluta del país y lo gobiernen por medio de la fuerza militar."

Por consiguiente, este Gobierno se alegra de que Chile haya tomado la decision de secundar los esfuerzos del Sr. Calderon para el establecimiento de un Gobierno provisional en el Perú. Por consiguiente, hará U. lo posible, de un modo tranquilo (*unobtrusive manner*) para alentar esta disposicion de parte de Chi-

le, y el Departamento de Estado quedaria sumamente satisfecho si por medio de la influencia de U., Chile pudiera ser inducido a ayudar en el restablecimiento de un Gobierno constitucional en el Perú, dejando todas las cuestiones referentes a anexion de territorios a las negociaciones diplomáticas, que entónces podrian ser reanudadas con la seguridad de llegar a una solucion justa, amistosa y satisfactoria. En toda ocasion U. declarará que los Estados Unidos confían en que el asunto podrá ser arreglado sin la intervencion y sin el auxilio de las potencias europeas."—"El Gobierno de los Estados Unidos desea únicamente obrar como amigo de todos los beligerantes en esa desgraciada guerra, y con mucha pena se veria obligado a considerar hasta qué punto, dichos sentimientos amistosos podrian afectar sus actos y obligarlo a asumir una ingerencia más activa, en el caso en que se trate de introducir en la cuestion, complicaciones europeas. Puede U. dejar copia de la presente nota al Ministro de Relaciones Exteriores".

Al trascribir las anteriores citaciones, debo expresar mi admiracion por la habilidad y la inteligencia de Mr. Blaine, por el modo magistral como desempeñó las obligaciones de su cargo, para la vergüenza (*to the confusion*) de Chile y en obsequio a la justicia, en las instrucciones al General Kilpatrick.

Un resumen de lo que hicieron los Estados Unidos.

Así hemos probado que Mr. Hurlbut obró sustancialmente en conformidad con la letra y el espíritu de sus instrucciones; que Mr. Blaine, aprobando o aceptando lo sustancial de los procedimientos de Hurlbut, con sus consecuencias, sólo manifestó su desaprobacion de ciertas circunstancias incidentales que estaban en conexion con dichos procedimientos; que las instrucciones mismas, estando imperfectas, porque su autor no estaba plenamente informado del estado de las cosas, colocaron al agente que las debia cumplir y que estaba léjos de su país y rodeado de dificultades, en la alternativa de presenciar el fracaso absoluto de su mision, o de interpretar él mismo los designios y los pensamientos de su Gobierno.

Fué deliberadamente que Mr. Hurlbut creó un cambio de Gobierno en el Perú. Mr. Christiancy, su predecesor, preparó el camino para ese cambio. Mr. Trescott, como enviado con poderes especiales, completó la obra, no sólo reconociendo a dicho Gobierno, sino tambien dirigiéndose, a costa de grandes molestias personales, a la residencia del Jefe del Ejecutivo, allá en el centro de los Andes. Mr. Partridge, a pesar de ser acreditado cerca del mismo Gobierno, era de una naturaleza demasiado tímida, o bien cuidaba demasiado de sus comodidades personales para hacer siquiera el esfuerzo de ir a presentar sus credenciales.

Hurlbut y Christiancy obraron ámbos en obediencia a las instrucciones de su Gobierno, pero con diferente resultado; miéntras Mr. Christiancy no pudo, aun mediante el gran prestigio de su país y con la asistencia de la nacion victoriosa, sacar una entidad política de los elementos de un poder social, Mr. Hurlbut, pasando por encima de la nacion victoriosa, trasformó un embrion político en un verdadero Gobierno nacional.

(Aquí el Señor Gómez Sánchez hace extensas citaciones de los despachos de Mr. Christiancy a la Secretaría de Estado, que omitimos. Es bien conocido que Mr. Christiancy reconoció el Gobierno de Calderon, de un modo cualquiera, obedeciendo las órdenes del Secretario de Estado, que deseaba ver establecido en el Perú un poder autorizado y capaz de tratar sobre la paz.)

Los propósitos del gobierno de Washington.

El Señor Gómez Sánchez continúa:—"El Señor García Calderon, hasta la llegada del General Hurlbut a Lima, no era más que un candidato propuesto por unos doscientos notables, aprobado y sostenido por Chile, y que no podia contar sino con el apoyo parcial de las partes de territorio ocupadas por el ejército de invasion. A pesar de ésto y de no tener territorio en qué gobernar, su Gobierno fué reconocido por los Estados Unidos, representado por Mr. Christiancy, quien calificó el reconocimiento de inconveniente, despues de haberlo proclamado él mismo en obediencia a sus instrucciones oficiales. Ahora tenemos que preguntar:—¿qué objeto tenia la Secretaría de Estado de Washington para autorizar un acto tan singular?

En circunstancias ordinarias, el hecho de que los Estados Unidos desconocieran al Gobierno del Perú representado por Piérola—[habia sido reconocido durante año y medio no sólo por los Estados Unidos sino tambien por todas las naciones extranjeras] para proteger, despues de los desastres sufridos

por los peruanos en los campos de batalla, un simulacro de poder sostenido por el enemigo, con la esperanza de realizar sus proyectos de conquista—tal desconocimiento en tiempos normales, habria tenido todos los visos de una injuria injustificable infligida a una nacion amiga, única y manifiestamente en favor de su opresor victorioso. Pero recordando las circunstancias en que se dió este paso, y la actitud protectora que asumió el Gobierno de los Estados Unidos, respecto a los intereses del Continente Americano que estaban envueltos en la Guerra del Pacífico, hay que buscar para ello algun motivo imparcial y elevado.

—¿Podia ser por acaso este motivo, el de restablecer el régimen constitucional en lugar de la dictadura que habia sido sostenida durante la guerra por la voluntad unánime del pueblo?—Pero, aparte del hecho de q' ninguna nacion tiene el derecho de intervenir en la vida privada de otra, cuando ésta no hace nada que pueda poner en peligro los intereses públicos o privados, el momento elegido por los Estados Unidos para dar un paso semejante, cuando el Perú estaba completamente postrado y su voz estaba sofocada, milita en contra de semejante suposicion. No hay más que una solucion racional del problema suscitado por los procedimientos de los Estados Unidos, y es la suprema necesidad de poner un pronto término al peligroso conflicto del Pacífico. Chile habia desconocido ya al Jefe Supremo del Perú (Nicrola); habia aceptado el Gobierno Provisional de Calderon, y habia manifestado su disposicion de tratar sobre la paz con este Gobierno, asegurando a la vez a todos los gobiernos amigos, que esta guerra no era una guerra de conquista, y que tan luego como las autoridades peruanas estuvieran reconstituidas, Chile haria lo posible para llegar al arreglo de las dificultades que sinceramente deseaba. El Gobierno de los Estados Unidos en vista de este estado de cosas, consideró que el modo práctico de llevar a los beligerantes a un arreglo pacífico, era dar prestigio al Gobierno Provisorio de Calderon ante las naciones extranjeras y tambien ante el Perú, y que esto se conseguiría por medio del reconocimiento formal por la Gran República, que desde mucho tiempo atrás y todavía, se encontraba empeñada en la tarea de restablecer la tranquilidad. Esta determinacion fué la que motivó el reconocimiento hecho por Mr. Christiancy despues de muchas vacilaciones. A Mr. Hurlbut le fué asignada la difícil tarea de llevar a efecto la obra principiada por su predecesor, y los resultados han probado que él estaba ampliamente a la altura de esta árdua empresa. De un sólo golpe de vista comprendió la complicada situacion. Fortalecido por sus instrucciones, que le ordenaban conseguir la unificacion del Perú bajo el Gobierno de Calderon; la conservacion de la integridad del territorio peruano y la pronta terminacion de la guerra, Mr. Hurlbut venció los obstáculos que ofrecia la realizacion de la primera de esas condiciones, y cortó las mallas de la red peligrosa que Chile habia echado sobre el cuerpo de su postrado enemigo.

Criticar los métodos que empleó este agente—a pesar de que uno de sus actos [Chimbote] no se deja comprender, y aunque todos fueron inspirados por la letra y por el tono general de sus instrucciones—seria lo mismo que condenar a un cirujano resuelto, que adopta una amputacion dolorosa, como el único medio de conservar la vida de su paciente.

El Perú quedó unificado; y no obstante de estar prisionero en Chile Calderon era Presidente del Perú. Lo maravilloso de la trasformacion de un Presidente sin Gobierno y sin gobernados, a ser el único Presidente de la República, llamado por la unánime voz del pueblo, se encuentra en las palabras mágicas: "integridad territorial."

Esta integridad fué ofrecida por el plenipotenciario de los Estados Unidos, obrando con plena autoridad y en acuerdo con las ideas de la Secretaría de Estado, muy claramente expresadas en las instrucciones a las legaciones de Lima y de Santiago, firmadas por Mr. Blaine. Y por esto, los Estados Unidos están obligados a resolver las cuestiones creadas por el deseo de conquista, y a remover los obstáculos a la paz que nacen de él, tanto como si el mismo Gobierno de Washington hubiera firmado, aprobado y ratificado un contrato solemne para estos fines, bajo el sello de la Gran República.

—¿Y qué es lo que resultaria si los Estados Unidos rehusaran cumplir con el ofrecimiento hecho por su Plenipotenciario y aceptado como contrato mútuo y oneroso por el pueblo peruano?—Esta hipótesis es casi inadmisible.

Cómo! El Gobierno de la gran nacion que ayer no más ordenaba a su Ministro intimar al Gabinete de Santiago:—"Difícilmente puede admitirse, por consideracion de respeto propio, que el ofrecimiento de mediacion

amistosa sea rechazado;" —y a Mr. Hurlbut:—"El Gobierno no puede comprender la deposicion de García Calderon; particularmente desde que nosotros hemos reconocido su Gobierno en la suposicion de estar conformándonos con los deseos de Chile, y no hemos recibido noticia de alguna razon para abolirlo."—¿Puede un Gobierno como el de los Estados Untdos, olvidándose de los insultos inferidos en Arica, ir hasta el punto de desconocer los procedimientos de Chile para derrocar a Calderon despues que él mismo habia presentado a este Gobierno como la administracion nacional del Perú para ser reconocido por las potencias extranjeras?

Cómo!—La Gran República que sólo ayer decia al General Kilkpatrick:—"Sentiriamos mucha pena si nos viéramos obligados a considerar hasta qué punto nuestros sentimientos amistosos podrian extenderse, y si estuviéramos obligados a asumir una ingerencia más activa en el caso que se tratara de introducir en la cuestion, complicaciones europeas."—¿Puede este Gobierno olvidar que Chile en 1880 solicitó la accion combinada de las potencias europeas—accion que no tuvo efecto por haberse negado los Estados Unidos a ella?—¿Y puede este Gobierno dejar de ver que la ingerencia de esas potencias se hace gradualmente más inevitable, desde que sus intereses materiales sufren más que los de otras naciones?

Cómo!—El Gobierno de la República modelo que ayer no más escribia a su agente en Chile: "A la conclusion de una guerra que, segun declaraciones enfáticas, no fué emprendida para fines de conquista, hacer de la adquisicion de territorios una condicion *sine qua non* de paz, seria crear dudas respecto a las declaraciones hechas al iniciarse la guerra."—¿puede un Gobierno como éste tolerar el cambio constante de los pretextos alegados por Chile, alterando sus declaraciones originales, y ahora, en lugar de ambicionar una provincia peruana, está insistiendo sobre la cesion virtual de tres?—¿Y Chile, sin comprobar la necesidad de esta expoliacion, de su condicion de conquistador se eleva a la de juez; juzga y falla sin consultar una causa tan íntimamente ligada con todos los intereses de la América?—¿Puede el Gobierno de los Estados Unidos, despues de haber rehusado escuchar siquiera el deseo de las grandes potencias europeas de arreglar la disputa sobre consideraciones de justicia y haber comprometido su palabra de poner un fin a la guerra, negarse ahora a cumplir con su promesa?

Nó;—porque semejante negativa envuelve el peligro de una extension de la conflagracion; de nuevas complicaciones de la cuestion; de un aumento de los actuales males; de la pérdida de la fé en las intenciones más humanas; del sacrificio de todo [propiedades extranjeras y nacionales que hay que salvar de la concupiscencia del invasor]; del sacrificio de la vida nacional en cambio de las armas indispensables para la defensa, haciendo sumision a los Gobiernos extranjeros que vengan a auxiliar al desgraciado, y aun peligro del sacrificio de la independencia, inspirado por la locura y por el furor de la desesperacion y de la venganza.

La intencion manifiesta de los Estados Unidos de preservar la integridad territorial del Perú, fué tambien claramente declarada por Mr. Frelinghuysen, sucesor de Mr. Blaine en el alto puesto de Secretario de Estado, cuando escribia lo siguiente a Mr. Trescott, enviado especial cerca de las Repúblicas beligerantes con fecha de 4 de Febrero de 1882:—

"El Presidente desea que U. continúe insistiendo con Chile, tanto con las razones indicadas en las presentes instrucciones, como con otras pertinentes que no estén en con traccion con esas instrucciones que puedan ocurrirle a consecuencia del conocimiento to que U. adquiera del asunto, sobre la prudencia y la justicia que hay en hacer la paz sin la adquisicion de Tarapacá, salvo que esa Provincia tenga que ser eventualmente chilena por razon de que el Perú esté imposibilitado de pagar una indemnizacion de guerra razonable en la que se convendria."

A lo que Mr. Trescott, que habia sido completamente burlado y derrotado por el Ministerio de Relaciones Exteriores de Chile, telegrafiaba en contestacion el 5 de Marzo:—

"Me he conformado estrictamente a sus instrucciones. Chile no modificará sus condiciones de paz. Creo que seré más útil en Washington que aquí."

Hay que recordar una circunstancia esencial: que el Señor Calderon aseguró oficialmente al Gobierno chileno, ántes de ser arrestado y expatriado, que el Perú tenia los medios necesarios para pagar una justa y razonable indemnizacion de guerra sin comprometer sus territorios; y que en repetidas circunstancias ha renovado la misma declaracion oficial durante las negociaciones con Chile, pero sin resultado: porque el objeto

de Chile, en contra del influjo y de los consejos de los Estados Unidos, es despojar a su adversario y, segun las palabras de su antiguo Ministro de Guerra, D. Francisco Vergara, pronunciadas en la Asamblea nacional: "de reducir al Perú a un estado tal de impotencia, que Chile pueda gozar con tranquilidad durante un siglo, de los premios de sus victorias." Aunque el Señor Calderon no hubiera hecho tales declaraciones, la cuestion habria quedado siempre la misma: *aut Tarapaca, aut nihil* es el *dictum* del Gobierno chileno.

Saliendo de Chile, Mr. Trescott vino al Perú; ostentosamente aceptó la hospitalidad de uno de los sostenedores más influyentes de Calderon, en la misma casa en que tuvo lugar la reunion de los notables de Lima que nombraron a Calderon Presidente Provisorio; emprendió despues un largo viaje al interior para visitar al Vicepresidente Montero; animó al Perú con nuevas esperanzas del apoyo de los Estados Unidos, y finalmente desapareció de la escena, vituperado por Chile como amigo del Perú y habiendo en realidad herido profundamente este país, por su conducta débil y tímida, y por su sumision a Chile en las conferencias de Santiago y de Viña del Mar.

Respecto al Ministro Partridge nada hay que decir. Hizo saber en Lima que su propósito era "quedarse apartado," y hay que confesar que logró su propósito admirablemente bien. Lo poco que quedaba por hacer para anularse, fué pronto y hábilmente ejecutado por el Gobierno de los Estados Unidos, revocando a un Ministro que no tenia bastante valor para afrontar las penalidades de un viaje por vapor y por ferrocarril a Arequipa con el fin de presentar sus credenciales al Gobierno del Perú, ante quien habia sido enviado como agente diplomático de su país.

El mal que hicieron los Estados Unidos al Perú.

Es bien sabido en el mundo, que al no ser por las esperanzas abrigadas con tanta seguridad por el Perú respecto a una intervencion positiva de los Estados Unidos en su favor, esperanzas que fueron tan frecuentemente excitadas por las manifestaciones inequívocas del Gobierno de los Estados Unidos, el Perú habria aceptado las exigencias de Chile en las conferencias de Arica, o bien, despues de la caida de Lima, sabiendo que cada mes de resistencia y de demora aumentaba las exigencias y la avidez de su enemigo. Por algunos meses los Estados Unidos han sido representados ante las Repúblicas beligerantes por una sola persona —el Dr. Cornelius A. Logan, Plenipotenciario en Chile. Mr. Partridge fué revocado, y el General Maney, acreditado en Bolivia, regresó tambien a su país. Desde la famosa carta de Mr. Logan al Vicepresidente Montero, en Diciembre, aconsejándole que el Perú debiera ceder Tarapacá y virtualmente traspasar a Chile, Arica y Tacna por una suma pagadera en cierta época lejana, o que debia entrar en cuenta para hacer frente a los reclamos de particulares contra el Perú, el Dr. Logan ha sido mirado por todos los peruanos como un enemigo del Perú y como un agente diplomático enteramente a favor de Chile. Y sin embargo, la Secretaría de Estado de Washington, a la vez que desaprobaba la carta referida, consentia en que este caballero quedara prácticamente como el único representante diplomático de los Estados Unidos en la costa, en medio de este peligroso estado de cosas. En su último Mensaje al Congreso, el Vicepresidente Montero calificó las expresiones de Mr. Logan de "adversas e imprudentes." La única señal de vida que dió Mr. Partridge durante sus diez meses de residencia en Lima, fué su ataque violento contra su colega de Santiago, por haber invadido su terreno diplomático que el mismo Mr, Partridge por su incapacidad y su imbecilidad habia dejado vírgen.

La intervencion como un deber lógico de los Estados Unidos.

He demostrado claramente que por antecedentes notables, por manifestaciones oficiales, por doctrinas dogmáticas, por instrucciones inequívocas y por actos consecuentes, todo lo que se refiere a la actitud asumida por los Estados Unidos en la guerra del Pacífico, señala como fin la intervencion. Y no obstante, hay que confesar que los años van trascurriendo; la sangre corre a torrentes; las riquezas amontonadas durante cuatro siglos de labor quedan botadas a los vientos; el territorio ocupado por el conquistador queda apropiado a su beneficio esclusivo; y lo que es de más importancia: la libertad está violentamente atacada, la seguridad personal queda desconocida, la

propiedad personal asaltada,—sin exceptuar aun la de las Municipalidades,—los derechos y los principios son pisoteados, y todavía la intervencion esperada no detiene siquiera momentáneamente esas tremendas calamidades; pero miéntras ella se demora, Chile se aprovecha de la oportunidad para continuar su obra de destruccion, preparando el establecimiento de su predominio absoluto en el Pacífico. Hay que sacar la conclusion, de que la intervencion americana, tan necesaria y con tanta instancia invocada por todos, es bastante activa en teoría, pero puramente pasiva cuando la accion se hace necesaria.

Si la actitud de los Estados Unidos no toma otro carácter, ese país podrá ser considerado como un apóstol de la paz, como un misionero conservador;—excelentes cualidades en él cuando se crée que son suficientes para conseguir el objeto en mira, y cuando la naturaleza del asunto conviene a su empleo—pero en el presente caso y prácticamente, tales medios son inadecuados para dominar al endurecido Chile, tanto como los esfuerzos de las diversas sociedades en la belicosa Europa, para establecer una armonía perpétua.

Sin embargo, aun en presencia del aparente triunfo completo de Chile, todavía conservamos esperanzas. Habrá que ocurrir tarde o temprano, a lo que es absolutamente necesario. Los requisitos jurídicos de un continente, ligado con los más grandes vínculos con una república, y unidos por otras relaciones con otros, cuando éstos son sustanciales y perentorios, como en el presente caso no pueden ser relegados al olvido por mucho tiempo, sin perturbar profundamente la armonía, sobre la que está basada la existencia de la sociedad humana. La justicia es a veces tardía para descender del cielo hasta la humanidad, pero su advenimiento es seguro; miéntras venga, ¡oh! que los pueblos y los Gobiernos llamados a ejercer sus derechos, los ejerzan, y que los que han asumido deberes cumplan con ellos!

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EDITORIAL.

New York Herald, Octubre 17 de 1883.

LA INFLUENCIA DE LA POLITICA DE LOS ESTADOS UNIDOS EN EL PERU.

Publicamos una crítica moderada de la conducta observada por los EE. UU. en la guerra Sud-Americana, debida a la pluma de uno de los juristas más eminentes del Perú, el Señor D. Evaristo Gómez Sánchez. Servirá para hacer comprender a nuestros conciudadanos el mal que en concepto de los peruanos, han hecho a su país las vacilaciones de nuestra diplomacia. El señor Gómez Sánchez sostiene que los EE. UU. tienen ahora una obligacion de honor el impedir que Chile se anexe territorio por derecho de conquista, y que esta obligacion de honor la han contraido desde el tiempo en que el Secretario Blaine y el Ministro Hurbult establecieron el Gobierno de Calderon en el Perú y derrocaron el de Pjérola. "El Perú tiene derecho, exclama él, de exigir de los EE. UU. que cumpla honorablemente las promesas hechas por el plenipotenciario americano [Ministro Hurlbut] a nombre de su Gobierno, y considera que las negociaciones pendientes entre Chile e Iglesias ofrecen una ocasion imperiosa para una accion activa.

Pero miéntras el señor Gómez Sánchez cita enfáticamente el Mensaje del Presidente Arthur al Congreso de Diciembre de 1881, no hace mencion del Mensaje de 1882, en que declara que contener a Chile por la fuerza "no seria acorde con el genio de nuestro país." Ha trascurrido un año en que el sentimiento popular de los EE. UU. ha confirmado la exactitud de esa declaracion; pero ni en el Congreso, ni apénas fuera de él, se ha levantado alguna voz para apremiar a nuestro Gobierno, ni para que se interponga con la fuerza entre los beligerantes de Sud-américa, y desde mucho tiempo se ha hecho evidente, que sólo éste podía salvar la integridad territorial del Perú. Al contrario, el Gobierno de los EE UU. manda instrucciones al Ministro que reemplazó al General Hurlbut, hace más de un año, para que aconsejase al Perú a acceder a una cesion de territorio. Parece como si esta desaprobacion de la política del Secretario Blaine hubiera sido aceptada por el pueblo americano como compatible con nuestro honor nacional; pero es evidente que el señor Gómez Sánchez no lo considera así, aunque encubre su opinion con una estudiada moderacion. Una acusacion contra nuestro país, viniendo de semejante orígen, merece por cierto que se tome seriamente en consideracion, y el respeto con que las razones del señor Gómez Sánchez deben en todo caso ser escuchadas, se aumenta todavía en consideracion a la dignidad y a la cortesía con que discute los deberes de nuestro país como guardian de las instituciones republicanas en todo este hemisferio.

PRENSA AMERICANA.

"NEW-YORK HERALD" DEL 14 DE OCTUBRE DE 1883.

La Guerra Sud-Americana.

Mr. PARTRIDGE EN EL PERU.

Publicamos hoy una carta de Mr. J. R Partridge, que está ahora en Viena y que fué ántes Ministro de los Estados Unidos en el Perú, en la que se queja de algunas aseveraciones de la correspondencia del Perú, publicada aquí en el "Herald," y nos pide corregir esas aseveraciones por ser inexactas y tratarlo con injusticia. Junto con la carta de Mr. Partridge, publicamos tambien lo que nuestro corresponsal tiene que decir sobre los puntos en debate. Nos parece que hubiera sido mejor para Mr. Partridge que no hubiera atacado la veracidad de nuestro corresponsal. Niega absolutamente haber abierto o llevado una correspondencia secreta con Calderon; haber aconsejado a Calderon negociar con el Ministro americano en Chile, y haber tomado parte él mismo en una conferencia con los representantes de las potencias europeas que tuvo lugar con el objeto de fijar una base de intervencion. Nuestro corresponsal da pruebas de que hizo todas esas cosas.

MR. PARTRIDGE SE LEVANTA A EXPLICAR.

LO MISMO HACE NUESTRO CORRESPONSAL ESPECIAL EN CHILE Y EL PERU.

EL QUE QUIERE CORREGIR ESTA CORREGIDO.

LA PARTE QUE TUVO EL EX-MINISTRO PARTRIDGE EN EL DESCREDITO DE LA DIPLOMACIA DE LOS ESTADOS UNIDOS.

INTERVENCION CON LAS POTENCIAS EUROPEAS.

Mr. James R. Partridge, que fué últimamente Ministro de los Estados Unidos en el Perú, nos escribe de Viena (Austria) con fecha 10 de Octubre lo siguiente:

"Por primera vez he leido aquí la carta de su Corresponsal especial en Lima, fechada Agosto 15 y publicada en el *Herald* del 19 de Setiembre. Contiene inexactitudes notables respecto a mí, y por consiguiente le dirijo la comunicacion inclusa para su publicacion No puedo aceptar ni permitir, que queden sin refutacion las aseveraciones de su corresponsal, quien sobre otros puntos se manifestó bien informado y quien en sus cartas ha hecho una exposicion exacta del estado de cosas en Lima y de la guerra de Sud-América.

No puedo objetar de ningun modo a una relacion verídica de lo que he dicho o escrito durante mi permanencia en el Perú. Deseo que se diga esta y anhelo vivamente que se publique toda la verdad. Por consiguiente le pido que me haga el favor de publicar la carta adjunta [si le conviene] en caso que la carta sub siguiente u otras de su Corresponsal contengan semejantes cargos o expresiones del mismo género respecto a mi persona, declarar que las relaciones son basadas sobre informaciones suministradas a su corresponsal en el Perú. Parece como si algunas de esas informaciones hubiesen venido de Chile, y no he estado mencionar de qué fuente."

La carta que publicamos en cumplimiento del deseo de Mr. Partridge, es la siguiente:

VIENA, OCTUBRE 10 DE 1883.

Al Editor del "New York Herald".

"He leido aquí el *Herald* del 19 de Setiembre, que contiene una carta de su Corresponsal especial en Lima, fechada Agosto 15, y que contiene ciertas relaciones inexactas tocante a mi persona, que necesitan ser rectificadas.

"En la última columna de dicha carta se dice que "la ruptura entre el Sr. Calderon y

Mr. Logan vino poco tiempo despues, cuando el Ministro Americano en el Perú, Mr. Partridge, abrió una correspondencia secreta con Calderon, haciéndole saber que la conducta del Ministro Logan era desaprobada en Washington, y aconsejándole no continuara sus relaciones con este Ministro.'

"En contestacion a lo anterior, tengo que decir:

"1.°—Que nunca he abierto correspondencia (secreta o nó) con el Sr. Calderon. El fué quien primero me escribió de Chile, donde estaba (y está todavía) prisionero, dándome algunas informaciones respecto a Mr. Logan, y acusé recibo de la carta. No hubo ningun secreto sobre esto, puedo asegurarle, ni en el Perú, ni en Chile.

"2°—Nunca le avisé [al Sr. Calderon] que 'la conducta de Mr. Logan era desaprobada en Washington'. Si en contestacion a mis frecuentes preguntas, hubiera podido ser informado de que la carta de Mr. Logan a Montero y sus otros procedimientos eran o no aprobados, me habria callado allá sobre este asunto y más particularmente para con el Sr. Calderon.

"3.°—Tengo, en fin, qué decir, que nunca 'he aconsejado al Sr. Calderon que no continuara sus relaciones con Mr. Logan'.

"Si hubiera cometido cualquiera de esos actos, deberia enseñarse las cartas en que los he consignado y dar pruebas de ello:—que las enseñen

"En una carta anterior del mismo Corresponsal especial en Lima, en Julio [publicada creo en los primeros dias de Setiembre] se dice (citando en este caso una carta que se publica, del Sr. Malinowski a Mr. F. Duprat ahora Ministro de Francia en Chile) que yo (el Ministro americano en el Perú) 'convidé a una reunion en mi casa a mis colegas de Inglaterra, Francia e Italia y que les propuse un modo de intervencion [en la guerra del Perú con Chile] en union con las potencias europeas', etc.

"Esta es una equivocacion del Sr. Malinowski, pero su Corresponsal la acepta y la repite.

"Tengo por consiguiente que decir que esta aseveracion es tambien incorrecta. Nunca he propuesto tal reunion. Hubo dos reuniones de esos colegas en mi casa, la primera (hácia el 3 o 4 de Enero de 1882) enteramente casual. Se encontraron accidentalmente y como era natural conversaron sobre la guerra. La segunda [una semana despues] fué propuesta por el Ministro frances, Marqués de Tallenay, que todavía reside allá. No podia negar mi casa (que se hallaba en una situacion central) a mis colegas, para conversar sobre cualquier materia. Pero ni allá ni en ninguna otra parte propuse que se aceptara cualquier 'modo de intervencion en la guerra del Perú con Chile, en union con las potencias europeas' o de otro modo.

"Cuando se publiquen los despachos y documentos, se verá claramente lo que hice y dije y los informes que mandé a Washington y debo afirmar que lo principal que hice fué *quedarme callado*, no obstante la rabia que su Corresponsal me atribuye, cuando recibí un ejemplar (de Panamá) de la carta de Mr. Logan a Montero.

"Sin embargo, miéntras se haga la publicacion de los despachos, no quiero quedarme bajo el peso de las imputaciones que encierran las aseveraciones de su Corresponsal. Y como debo suponer que Ud no tiene deseo de dar a la publicidad cosas falsas respecto a otros, debo pedirle que publique esa rectificacion de dichas aseveraciones. Quedo su obediente servidor,

"*James R. Partridge.*"

La carta anterior habiendo sido remitida al caballero que fué el Corresponsal especial del *Herald*, fué contestada como sigue:

«Siento mucho, por Mr. Partridge, que haya desafiado a dar pruebas de mis aseveraciones relativamente a su correspondencia con el señor García Calderon, porque mi contestacion debe forzosamente serle desagradable, por cuanto ataca la veracidad de algunas partes de lo que dice:

1.—Mr Partridge niega mi asercion de que «abrió» una correspondencia con el Sr. Calderon, porque, dice Mr. Partridge, "él (Calderon) fué quien le escribió primero".—Esto es una argucia (*quibble*). "Correspondencia" significa "comunicaciones por cambio de cartas" y este "cambio" ocurrió primero cuando Mr. Partridge contestó al Sr. Calderon: Miéntras no contestó no hubo "correspondencia".

2.—Mr. Partridge niega mi aseveracion, de que su correspondencia con el Sr. Calderon era "secreta". Dice: "No hubo secreto ninguno sobre esto, puedo asegurarlo, ni en el Perú ni en Chile".

Si por esta frase entiende Mr. Partridge que el hecho de la correspondencia era conocido tanto en Chile como en el Perú, esto es

una argucia; porque es evidente que el empleo que hice del adjetivo "secreta" debia aplicarse al contenido de la correspondencia. Pero aun en el sentido limitado que le está dando, su dicho es inexacto; porque el hecho llevaba en sí tanto de secreto, que no fué conocido por el Ministro Logan, colega de Mr. Partridge en Chile, sino algunas semanas despues de haber sido iniciado, y entónces no lo supo Mr. Logan de Mr. Partridge ni por su conducto, sino porque se llamó su atencion de otras partes sobre la impropiedad cometida por el Ministro de Estados Unidos en el Perú en relacion con un prisionero político en Chile. Ni aun durante una permanencia de algunos meses, tanto en Chile como en el Perú, durante la cual hice muchas averiguaciones, pude yo averiguar que fuese general el conocimiento de existir tal correspondencia. Al contrario, este conocimiento estaba concentrado entre un pequeño número de personas y considerado por ellas como una especie de "secreto de Estado".

Sin embargo, si por su frase Mr. Partridge entiende que el contenido de su correspondencia era un secreto; tal asercion es inexacta. A esa aseveracion interpretada en ese sentido, contesto que he visto y leido los originales de dichas cartas de Mr. Partridge, fechadas respectivamente el 14 y el 24 de Febrero de 1883, escritas para ser enseñadas al señor Calderon y una de ellas, si no ámbas, llevaba una autorizacion expresa para enseñárselas; pero para los fines del secreto fueron dirigidas a tercera persona; y una de ellas, o ámbas, contenian una prohibicion expresa para que nadie sacara copias de ellas, ni aun el mismo Sr. Calderon. (En la segunda carta, con fecha del 24 de Febrero, se encontraba incluida otra, directamente de Mr. Partridge al señor Calderon).

Respetuosamente sostengo que el hecho de imponer esta condicion relativamente a las cartas, justifica mi calificacion de "secreta" al contenido de la correspondencia de Mr. Partridge con el señor Calderon.

3.—Mr. Partridge niega haber jamás "avisado al señor Calderon, que la conducta de Mr. Logan era desaprobada en Washington". A éste le contesto que la carta mencionada del 24 de Febrero contenia palabras en ese sentido y casi en los mismos términos. Mis recuerdos son, que las palabras empleadas por Mr. Partridge sobre los procedimientos de Mr. Logan fueron éstas: "no son aprobados por el Gobierno de los Estados Unidos". Puedo añadir que al tiempo que se me concedió la lectura de las cartas de Mr. Partridge del 14 y del 24 de Febrero, arriba mencionadas, el caballero a quien fueron dirigidas, me dijo que vió en manos del señor Calderon una copia del despacho telegráfico del Secretario Frelinghuysen del 5 de Enero de 1883, al Ministro Logan (desaprobando su carta a Montero) y que fué proporcionada al señor Calderon por Mr. Partridge. Puedo añadir tambien, que en Rancagua [Chile], el 18 de Julio de 1883, el señor Calderon me dijo que Mr. Partridge le proporcionó esta informacion.

4.—Mr. Partridge niega haber aconsejado al señor Calderon que no continuara sus relaciones con Mr. Logan". A esto contesto que en la carta arriba mencionada del 14 de Febrero, Mr. Partridge escribia que confiaba en que el señor Calderon no trataria con el Gobierno chileno por el intermedio del Ministro Logan, sino directamente; y en caso que él insistiera en tratar directamente y que el Gobierno chileno rehusara hacerlo, sino por el intermedio del Ministro Logan, esto crearia una nueva faz en los asuntos, en que la Gran Bretaña, Francia e Italia quedarian interesadas lo mismo que los Estados Unidos.

5.—En la carta del 24 de Febrero, arriba mencionada [en que estaba incluida una para el mismo señor Calderon] se renovaba el consejo de no tratar con el gobierno chileno por el intermedio de Mr. Logan. He leido tambien una copia oficial de una carta de Mr. Partridge al señor Calderon (que cayó en manos del gobierno chileno) fechada, Marzo 7 de 1883, ménos de tres semanas ántes de la partida del Perú de Mr. Partridge, en que se renueva el mismo consejo. Hay una copia de esa carta en los legajos de la Secretaría de Estado en Washington.

6.—Mr. Partridge hace una citacion que dá como un extracto literal de una carta afirmada [*enarted*] mia al *Herald* en Julio, que él (Mr. Partridge) "convidó a una reunion en su casa a sus colegas de Inglaterra, Francia e Italia, y que les propuso un modo de intervencion (en la guerra del Perú con Chile) en union con las potencias europeas"; y me atribuye esto como "citacion de una carta publicada del Sr. Malinowski a Mr. Pascal Duprat, actual Ministro de Francia en Chile". A esto contesto que en Julio no he escrito carta al *Herald* y que en ninguna carta jamás he empleado el lenguaje arriba relatado, ni como citacion, ni de otro modo.

7.—Lo que probablemente Mr. Partridge tiene presente de un modo confuso, es que en el *Herald* del 7 de Setiembre se imprimió una carta mia fechada en Lima, no en Julio, sino el 13 de Agosto, que da en extenso una carta de D. Ernesto Malinowski a Mr. Pascal Duprat, y en ella el señor Malinowski, dice:

«Mr. Partridge, Ministro de los Estados Unidos en Lima, habia reunido, como U. lo sabe, a algunos representantes de las potencias extranjeras; les habia propuesto y hecho aceptar la idea de una representacion a sus respectivos gobiernos, para darles a conocer la necesidad de una pronta solucion y la conveniencia de una accion comun».

Pero nunca, en ningun tiempo y en ningun lugar, he «aceptado», «repetido» o «citado» lo que dice el señor Malinowski respecto a la conferencia diplomática de Mr. Partridge. Su asercion de que lo haya hecho es incorrecta.

8.—En una carta fechada en Lima el 6 de Octubre hice una narracion de lo que ocurrió en casa de Mr Partridge entre él y algunos de sus colegas diplomáticos, la que es extrictamente exacta. Naturalmente, Mr. Partridge no puede haberla leido en la fecha en que escribió de Viena, 10 de Octubre. De otra manera creo que habria refrescado sus recuerdos, de tal modo que no habria hecho algunas otras aseveraciones, que no son exactas.

9.—Una de esas inexactitudes se refiere a las fechas que indica para las conferencias diplomáticas en su casa. Indica "más o ménos el 3 de Enero" como fecha de la primera, y "una semana despues" como fecha de la segunda. (Su cita de 1882 en lugar de 1883 es naturalmente un simple error de pluma.) Las fechas verdaderas son: 16 y 22 de Enero.

10.—Otra de sus inexactitudes está en la calificacion de la primera conferencia como "enteramente casual". En su despacho al Secretario Frelinghuysen, del 23 de Enero, fechado en Lima (y que se encuentra en los legajos de Washington), lo representa como una "reunion extraoficial [*informal meeting*] de los representantes de Francia, Gran Bretaña, Italia y Estados Unidos [Alemania declinando tomar parte.] Esta alusion a una invitacion al representante diplomático de Alemania "que declina tomar parte" es una negacion del carácter "casual" de la reunion.

11.—Todavía otra de sus inexactitudes consiste en representar la segunda reunion como independiente de la primera, y como si fuera debida únicamente a una subsecuente proposicion del Marqués de Tallenay. Al contrario, la segunda tuvo lugar por citacion (*adjournment*). El Marqués de Tallenay fué designado en la primera reunion para redactar un memorandum del sentido general del asunto; lo que hizo y presentó su redaccion en la segunda, en la que fué aprobado y firmado.

12.—Otra más de sus inexactitudes consiste en que dice que nunca propuso se aceptara cualquier modo de intervencion en la guerra del Perú con Chile en union con las potencias europeas o de otro modo». Al contrario, el memorandum redactado por el Marqués de Tallenay, aceptado y firmado por Mr. Partridge en Enero 22, y mandado por él al Departamento de Estado en Washington, y que existe en los legajos, concluye como sigue:

"Nosotros, los representantes de Estados Unidos, Gran Bretaña, Francia e Italia, despues de madura discusion, somos de opinion unánime de que debemos cada uno representar a su respectivo Gobierno, que en nuestra opinion, el único modo práctico para hacer cesar las hostilidades, a fin de salvar al Perú de su completa ruina, y para detener la ruina de los intereses neutrales, debe buscarse en una mútua inteligencia y resolucion de nuestros respectivos Gobiernos, para dirigir tales representaciones al Gobierno de Chile, que le obliguen a comprender que la paz debe efectuarse, y, especialmente, abogar como base preliminar por la cesion de Tarapacá, reservando las otras condiciones para futuras negociaciones. Y por lo tanto, nosotros, los representantes de las potencias neutrales, aquí presentes, declaramos que es nuestro mutuo deber aconsejar a nuestros respectivos gobiernos llegar a algun acuerdo combinado, para hacer inmediatamente, como un asunto de imperiosa necesidad, las representaciones mencionadas al Gobierno de Chile".

Puedo añadir que el 26 de Febrero de 1883 el Senado de los Estados Unidos requirió del Presidente, la comunicacion de "cualquier informacion que tenga acerca de un pretendido acuerdo hecho en comun, entre los Ministros de los Estados Unidos, de la Gran Bretaña, de Francia y de Italia residentes en Lima o en el Perú, para hacer un esfuerzo comun a fin de llegar a la paz entre Chile y el Perú, y de informar al Senado si el Ministro de los Estados Unidos ha tenido instrucciones para promover o para aceptar la mediacion de las

potencias europeas en el arreglo de una cuestion puramente americana;» y que en consecuencia el Presidente trasmitió al Senado el 27 de Febrero un informe del Secretario Frelinghuysen, que contenia un sumario del memorandum de la conferencia del 22 de Enero, tenida en casa de Mr. Partridge en Lima, y que fué comunicado a la Secretaría de Estado en un despacho de Mr. Partridge, y el Secretario Frelinghuysen, al concluir su informe, decía lo que sigue:—

«Al recibirse este despacho, el Secretario de Estado telegrafió a Mr. Partridge en sustancia, que se concedia la licencia que habia solicitado y que se esperaba que regresara a los Estados Unidos, por el primer vapor. Además se le hizo saber que la medida de que daba conocimiento en su despacho, habiendo sido tomada sin autorizacion, quedaba desaprobada y se le ordenaba informar de ello a los colegas que se habian unido a él. Al mismo tiempo se mandó un telegrama a los ministros de los Estados Unidos en Lóndres, Paris y Roma, informándoles que Mr. Partridge se habia unido a sus colegas de la Gran Bretaña, de Francia y de Italia para una recomendacion a sus respectivos Gobiernos, para intervenir en la cuestion de Chile con el Perú, y mandándoles que informasen a los gobiernos ante quienes eran respectivamente acreditados, que este acto de Mr. Partridge era hecho sin autorizacion y que no era aprobado."

Considerando el lenguaje empleado en ese informe y el uso de la palabra especifica "intervenir", la acusacion de "falsedad" por habérsele atribuido una participacion en un esfuerzo de "intervencion", parece ser dirigida al mismo Secretario de Estado, el superior de Mr. Partridge en el servicio diplomático.

Sinceramente concuerdo con Mr. Partridge en la esperanza de que "todos los despachos serán publicados." Tambien concuerdo con él, en que lo que principalmente hizo en el Perú fué *quedarse callado*, y esto no fué lo que le ordenaban las instrucciones del Secretario de Estado. Al contrario, las instrucciones, que le dió el Secretario Frelinghuysen, con fecha de Junio 26 de 1882, le ordenaban irse inmediatamente a Arequipa y desatar su lengua ante el Vice-Presidente Montero; y fué a no haber obedecido dichas instrucciones a lo que se debe atribuir en gran parte el completo fracaso del último esfuerzo de los Estados Unidos para mediar entre Chile y el Perú.

La Guerra del Pacífico

Y EL «NEW YORK HERALD.»

Lima 3 de Diciembre de 1883.

El suspicaz agente del "Herald" de Nueva York, ha insistido, marcadamente, en sus correspondencias, sobre el propósito de Chile de prolongar indefinidamente la guerra, y ha denunciado los "caminos tortuosos, "puestos en juego por su diplomacia, a fin de anarquizar el Perú, como el medio más cómodo de explotar sus riquezas, sin plazo fijo, ni responsabilidad definida, y hace, a la vez, la apología de la influencia del Presidente Santa María, que presenta cual hombre que no se pára en medios por llegar al fin que persigue.

Y no obstante, el corresponsal del "Herald" ha caido enredado en uno de esos hilos de la trama tendida por el astuto Presidente chileno: candorosamente ha patrocinado las calumnias forjadas en desprestigio del Gobierno de García Calderon, y en atenuacion a la abierta ingerencia de Chile en el Gobierno del Perú; gravísimo error que lo ha inducido a caer en otros secundarios.

Los cargos que contra el Presidente García Calderon ha hecho circular subrepticiamente el Gobierno de Chile, eran conocidos aquí y su inexactitud reconocida y su clandestina circulacion, los eximieron de una repulsa pública. Pero la circunstancia de haber sido acogidos condescendientemente y sin prévio *controle* por el "Herald", uno de los diarios más discretos, obliga a rectificar los equivocados y a destruir los falsos.

En descargo del señor Browne, autor de los artículos publicados en el "Herald", debemos consignar que el estado del Perú, por causa de la ocupacion chilena, no le habrá permitido comprobar, con datos de orígen peruano, los numerosos suministrados por quienes tenian especial empeño en exculpar unpreponderancia, adquirida por medios inconfesables, o por quien estaba en el caso de atenuar la parcial destinacion de un encarga

do diplomático del Gobierno de Estados Unidos.

De la relacion que hace el señor Browne en su correspondencia del 15 de Agosto próximo pasado, sobre la mediacion del señor Logan, Ministro de Estados Unidos en Chile, y del órden en que ha colocado los documentos comprobativos, aparece simplemente que el Ministro americano, despues de muchas tentativas y perseverantes esfuerzos, consiguió del Gobierno de Chile un arreglo, aceptable por García Calderon; pero que éste rechazó, porque exigia la estipulacion escrita de una cláusula que garantizase los créditos a cargo del Perú, afianzados por Tarapacá y el guano; y se leen las siguientes líneas, escritas como para contrabalancear la verdadera causa del fracaso de la mision Logan:—"Precisamente en esta "época (de las negociaciones) se dieron pruebas al Ministro americano, de que la cláusula "arriba citada, tal como era redactada y "sostenida por Calderon, tendria por consecuencia, entre otras, la de asegurar la garantía de Chile al pago de una deuda del "Perú, en favor de la "Compañía Salitrera "del Perú", en la que, a más del interés que "tenia en el asunto como Presidente de la "Compañía, tenia tambien un considerable "interés personal....."

En seguida describe el señor Browne, el orígen, organizacion y operaciones de la referida Compañía, incurriendo en errores substanciales. Esta carta es en el fondo al artificioso alegato del defensor del señor Logan, así como la siguiente, del 16 del mismo mes es la acusacion del Ministro Partridge. En la última refiere, que la correspondencia secreta entre Calderon y Partridge fué divulgada al Gobierno chileno, por *eminentes peruanos, en quienes Partridge habia depositado su confianza.*

Pasamos a rectificar estos errores.

Es un hecho comprobado, que el Ministro Logan, como mediador, presentó a García Calderon, el ultimatum de exigencias del Gobierno de Chile, para ajustar la paz, y que el 11 de Octubre de 1883 firmó García Calderon el protocolo de su aceptacion.

Dicho memorandum contiene siete bases generales: la primera dice:—"El Perú cederá "a Chile la Provincia de Tarapacá con los sa"litres, el guano y todas las riquezas que en"cierra, y tambien el guano de las Islas de "Lobos en el Norte del Perú; y esta cesion, "Chile la acepta como pago, por todos los "gastos, daños y perjuicios que reclama, por "razon de la guerra, *obligándose el nuevo po*"*seedor a hacer con los acreedores que puedan* "*tener legítimos títulos sobre los guanos y sali*"*tres, los arreglos necesarios para el cumpli*"*miento de los contratos celebrados con ellos.*"

La prueba irrecusable la ofrece el mismo doctor Logan, en la carta que recibió del señor García Calderon, fecha 9 de Enero del presente año, y que ha comunicado el "Herald".

En ella, con relacion al asunto que nos ocupa, dice García Calderon al Ministro americano:

".....Así es que si usted me hubiese con"sultado acerca de los términos de su carta a"señor Montero, le habria suplicado el modi"ficarlos, y *particularmente, manifestar que* "*U. me trasmitió, a principios de Octubre,* "*el ultimatum del Gobierno chileno, y que yo* "*lo acepté; y que si la paz no se arregló en se*"*guida, fué porque ese Gobierno modificó su* "*propio ultimatum, agravando las condicio*"*nes. U. pasó por encima de esto, en su* "*carta, con la simple observacion de que, por* "*razones que no hay que relatar ahora, U.* "*propuso arreglos; pero que esos esfuerzos* "*para conciliar las partes fracasaron.*"

La última frase de esta trascripcion, con referencia a la célebre carta que Logan escribió al Vice-presidente Montero, es un reproche severo a Logan, por la celocidad con que ha secundado las tendencias de Chile. Su parcialidad, manifestada abiertamente, en favor del Gobierno chileno, durante las negociaciones, fué la causa de la tirantez en las relaciones con García Calderon, hasta que cesaron por completo con las siguientes cartas que nos ha sorprendido no ver publicadas en el "Herald", ni tampoco las que aparecieron en una nota, en "La Nacion" número 1,219, correspondiente al 17 de Noviembre de 1883. (Véase pág. 65.)

Santiago, Mayo 23 de 1883.

H. S. Francisco García Calderon.

Valparaiso.

Querido señor:

El Gobierno chileno acaba de recibir cablegrama, anunciando que Iglesias ha formalmente firmado el protocolo de tratado con el señor Novoa, y que dicho protocolo viene en viaje para Santiago.

Las bases son: cesion absoluta de Tarapacá: ocupacion militar de Tacna y Arica por 10 años; a la conclusion de este plazo, el voto de los habitantes determinará a que país pertenecerán esas Provincias, debiendo el país que quede dueño, pagar otros diez millones de pesos. La deuda extranjera está arreglada en las bases de los decretos chilenos de Febrero y Marzo del 82. Chile pagará el 50 por ciento del precio del guano a los tenedores de bonos.—No hay más responsabilidad.

Chile entregará inmediatamente el Norte del Perú a Iglesias, y ha convenido en mantener una fuerte guarnicion en el Centro, hasta que se consolide el Gobierno de Iglesias, dejando a Montero el extremo Sur solamente.

Estaré en Valparaiso probablemente en algunos dias mas: si así fuere, tendré el placer de ver a U. precisamente.

De U muy respetuoso

(Firmado)—*C. A. Logan*

CONTESTACION A M LOGAN, DE F. GARCIA CALDERON.

Valparaiso, Mayo 25 de 1883

H. señor C. A. Logan.

Santiago.

Estimado señor:

Algunos amigos me dijeron que U. habia determinado llegar a este puerto con el objeto de reabrir las negociaciones de paz. Yo me expliqué esa determinacion de U., diciendo que el Gobierno de esta República, persuadido de que un tratado con el Sr. Iglesias no importaria la terminacion de la guerra, sinó la modificacion de ella, en una forma distinta de la que tiene hasta ahora, estaba dispuesto a continuar, con el Gobierno Provisional del Perú los arreglos iniciados bajo la mediacion de U.

Con tal idea, a las diversas personas que me comunicaron el propósito de U., les dije que no tenia inconveniente para recibirle; y esperaba que uno de estos dias me favoreciera con una de sus visitas.

En este estado, acaban de entregarme su apreciable del dia 23 del mes en curso, en que me participa U. que el Gobierno de Chile le ha recibido por el cable despachos de Lima, diciéndole que el señor Iglesias ha firmado un protocolo de tratados de paz, con el señor Novoa, y que dicho tratado está en camino para Santiago. Al mismo tiempo me indica U. las condiciones del tratado.

Si no hubiera habido entre U y yo los antecedentes de que he hecho mencion al principio de esta carta, no podria comprender el objeto de la que U. me ha dirigido. Pero habiéndome invitado U. a reabrir las negociaciones de paz, el aviso que me da de haberse formado un protocolo, me hace entender que, en concepto de U., el Gobierno Chileno, por el hecho de tratar con el señor Iglesias sin la intervencion de U., desahucia la mediacion del Gobierno americano; que, en consecuencia, ha puesto fin a su mision; y U. crée que deba reabrir negociaciones conmigo.

Agradeciendo a U. este paso de cortesía, tengo que decirle que es sensible que el Gobierno americano, y usted, en representacion de él, no hayan podido llevar adelante su noble propósito, de poner término a la guerra del Pacífico.

Nada digo a U. en cuanto a las condiciones de paz que me trasmite: tanto porque tratándose de un hecho que me presenta U. como consumado, es inútil que me diga una palabra, cuanto porque si fuera preciso decirlo, por el decoro de mi país y del Gobierno que represento, nunca tomaria por bases de negociacion las ofrecidas por un militar rebelado contra el Gobierno legítimo del Perú.

Con sentimientos de consideracion, soy &.

(Firmado)—*F. García Calderon.*

Las merecidas reconvenciones que Garcia Calderon hace a Logan, en las cartas citadas, prepararon el ánimo del diplomático americano, para difundir las imputaciones a Garcia Calderon, y con ensañar con ellas todos los actos del Gobierno de Chile. No sorprende, pues, que haya participado la absurda calumnia de que Garcia Calderon "no ha ajustado "el tratado de paz con Chile, porque el "Gobierno de este país no garantizaba el pa"go del saldo adeudado por el Perú a la "Compañía Salitrera, en el cual le corres"ponderia, personalmente, la cantidad de "£. 40,000.

El texto de la base 1ª del protocolo de 11 Octubre, inserto más arriba, nos exime de todo esfuerzo por destruir el cargo.

En cuanto a la participacion que tiene o ha tenido Garcia Calderon, en la Compañía Salitrera del Perú, es distinta de la que le atribuye el corresponsal del "Herald".

La Compañía Salitrera del Perú, está formada por los Bancos "La Providencia" y "Nacional del Perú"; su Capital es de £ 800.000 en 8.000 acciones de a £ 100, repartidas en la forma siguiente: cada uno de los citados

Bancos el 40 por %, y un grupo de accionistas fraccionarios, el 70 por %. Entre éstos figura García Calderon por 170 acciones, o sean £ 17 000.

Los referidos Bancos, hoy paralizados, tienen cada uno un capital de S. 3.200 000 en 8 000 acciones de S. 400 cu, repartidas entre 150 accionistas, o sean para los dos Bancos 300 suscritores; es decir, la fortuna privada de 300 familias extranjeras y peruanas.

García Calderon fué Presidente de la Compañía Salitrera del Perú hasta Diciembre de 1[illegible], habiéndolo sustituido en ese cargo, desde [illegible]ero de 1880 don J. Albarracin, uno de los miembros del Directorio. La Compañía Salitrera del Perú no es, pues, García Calderon, porque el capital que en ella tiene invertido, sólo representa el 2 % de su capital.

Pero sea cual fuere el interés personal que tuviese en esas instituciones y en otras el señor García Calderon ¿lo obligaria esta circunstancia, como Presidente del Perú, a silenciar en el tratado de paz, falt[illegible]o a la fé nacional, las obligaciones a que están afectos los territorios y el guano cedidos a Chile? El hecho de tener comprometidos capitales propios en las deudas del Perú, aseguradas por hipoteca del guano y salitre ¿podria nunca compelerlo, como personero del Perú, a no exigir del nuevo poseedor de las riquezas hipotecadas, el reconocimiento de los legítimos derechos que asisten a los acreedores del Perú?

Tales cuestiones, de suma importancia para los capitales extranjeros, comprometidos en este asunto, no han sido siquiera tratadas someramente por el corresponsal del "Herald;" y era la oportunidad de hacerlo al hablar de la cláusula 1ª del protocolo de 11 de Octubre. Ese vacío es tanto más notable, cuanto que los intereses que dicha cláusula resguarda, son, en casi su totalidad, extranjeros.

Creemos conveniente declarar aquí que si García Calderon hubiera tenido en cuenta únicamente sus propios intereses [hablamos de capitales] le habria convenido ajustar la paz en cualesquiera condiciones, porque su prolongado destierro le ha ocasionado pérdidas por mayor cantidad, que el monto de sus acciones en la Compañía Salitrera del Perú.

La conducta desprendida, patriótica y elevada de García Calderon, durante las negociaciones con Chile, es sin duda el fundamento que tiene el señor Browne para escribir: "García Calderon, cualesquiera que sean "*sus tachas*, es uno de los más hábiles políticos y sabios publicistas de nuestros dias, etc....."

Lo repetimos, el señor Browne, con toda su fina penetracion, ha sido el juguete del maquiavelismo chileno; no ha comprendido que la difamacion organizada contra García Calderon, era el medio adoptado por el Gobierno chileno, como más eficaz para desacreditar el Gobierno del Perú e introducir la anarquía en este país: no ha sospechado que García Calderon, personifica el Perú y que, los ataques que le asesta Chile a manera de [illegible]vó en y debilitan al Perú.

Asevera el señor Browne, en su correspondencia del 16 de Agosto, que: "los originales "de parte de la correspondencia secreta que "Partridge mantenia con García Calderon, "cayeron muy pronto en manos del Gobier-"no chileno", de una manera que haria sonrojar a Mr. Partridge, por la ciega confianza "que tuvo en el honor de algunos de los emi-"nentes peruanos con quienes estaba tratan-"do, si pudiera saber los pormenores de esta "infidencia. Yo mismo he visto una copia "oficial de una de estas cartas subrepticias "(le ha 7 de Marzo), que cayeron en poder de "los chilenos."

De nuestras indagaciones sobre el particular, se deduce: que Partridge sostenia una correspondencia con García Calderon por medio de una casa comercial americana, (a) cuyas comunicaciones fueron interceptadas por los chilenos, y que el Secretario de la Legacion americana en Lima, entregó al señor Browne, o a otro, las copias de dicha correspondencia; este es el aserto del Cónsul General americano en el Callao, General Morey. No sabemos que ningun otro peruano que García Calderon, haya conocido estas cartas; y como seria absurdo suponer que el mismo García Calderon se vendiese, seria muy oportuno, para resguardar la autenticidad de las informaciones del "Herald", que las comprobase con datos más claros y precisos.

(a) Sabemos que Mr. Partridge entregaba en persona sus cartas al jefe de esta casa en Lima, y que el jefe de la misma casa en Valparaiso las entregaba en manos propias a García Calderon. Esta casa estaba en íntimas relaciones con los jefes chilenos, y éstos se han servido de ella para auxiliar a Iglesias, dándole, por su intermedio, armas, dinero y toda especie de recursos. Lo demás se cae de su peso. En Lima son estos hechos tan conocidos, que sin decir más, todos saben pronunciar el nombre de la casa.

PRENSA AMERICANA.

"THE SUN" DE NUEVA YORK[1] DEL 4 DE ENERO DE 1884.

[*Editorial.*]

¿Estamos empeñados en abatir el programa de la paz con en el Perú?

Hay señales de una tendencia, existentente en Lima y en todo el Perú, para dar una falsa intepretacion de los motivos que indujeron a la Secretaría de Estado, para diferir el reconocimiento del Gobierno de Iglesias y la recepcion oficial del enviado que éste acreditó. El partido pierolista, que hace poco aceptó por unanimidad el programa de paz y aplaudió la instalacion del nuevo Gobierno peruano en la capital, se encontró desconcertado por la actitud fría y equívoca de los Estados Unidos; y partidas de bandidos que se proclaman representantes de la faccion calderonista, han renovado en el interior sus depredaciones y sus sanguinarias operaciones. Entre tanto, los corresponsales de ciertos diarios americanos, que están evidentemente escribiendo en el interés del círculo de especuladores que obtuvieron el pronto reconocimiento del irrisorio Gobierno de Calderon, tratan de suministrar a Mr. Frelinghuysen disculpas para sus excitaciones, exagerando las dificultades que naturalmente encontró el General Iglesias, y echando dudas sobre el éxito de sus planes patrióticos.

No dudamos que el Presidente Arthur obedecia a las mejores intenciones cuando expresaba, como lo hizo, en su Mensaje, la resolucion de evitar los errores, que con demasiada frecuencia, han señalado nuestras relaciones diplomáticas con el Perú y Bolivia, durante la última guerra. Está viendo que la intervencion desautorizada del Ministro Adams en las negociaciones de paz de Arica, la insolente carta que el Ministro Hurlbut dirigió al representante oficial del Gobierno de Piérola en Ayacucho, y el precipitado reconocimiento del simulacro de Gobierno de Calderon por el Secretario Blaine, fueron actos que infirieron grandes perjuicios a una República hermana, cuyas desgracias, de cualquier modo que le fueran atraidas, no pueden dejar de inspirarnos grandes simpatías. Creemos que el Presidente está sinceramente deseoso de que el Perú no sufra tales perjuicios de parte de los Estados Unidos, durante su período de mando, y no hay probabilidad para que el actual Secretario de Estado sea causante de nuevos males, por razon de demostraciones precipitadas y temerarias. Desgraciadamente, en diplomacia, pueden cometerse errores negativos. lo mismo que positivos; errores de omision, a los que los hombres son inducidos por motivos honorables, por una natural repugnancia de las consecuencias poco apetecibles de una política precipitada, especulativa y de ingerencias. Esto de ir zabuyendo y tropezando, es un medio de locomocion, que las personas que se respetan tratan, naturalmente, de evitar; pero la prudencia no es la inmovilidad, y un hombre puede pararse sin caerse hácia atrás.

(1) Es bien sabido que «The Sun» es órgano de los interéses chilenos en Estados Unidos.

Hay motivos para temer que nuestra Secretaría de Estado cometa una falta de omision en su conducta respecto al Gobierno *de facto*, que, por ahora, predomina en la mayor parte del Perú. Cuando el programa de la paz fué por primera vez formulado por el General Iglesias, en union del Congreso de los Departamentos del Norte, en Cajamarca, una experiencia desagradable, justificaba a M. Frelinghuysen de posponer un reconocimiento del nuevo régimen, apesar de que ésto tenia una base mucho más firme que la que sirvió de apoyo, segun M.Christiancy, al gobierno de Calderon en la época en que fué reconocido por M. Blaine. Aun despues que Trujillo, la segunda ciudad del Perú, hubiese pasado a manos de Iglesias, estábamos todavía justificados, sin duda, en demorar nuestra accion inmediata oficial, miéntras que el partido de la paz no estuviera en posesion de la Capital (Lima) y de su puerto, (el Callao); y miéntras la suerte de las fuerzas que Montero mandaba en Arequipa, quedara indecisa. Pero la situacion cambió radicalmente, y lo que se consideraba como circunspeccion oficial de nuestra parte, principió a tomar el aspecto de positiva mala voluntad, cuando el General Iglesias tomó posesion de la capital; cuando su autoridad quedó reconocida en Arequipa misma, de donde el último resto de la faccion Calderon–Montero quedó expulsada; y cuando aún el señor Elmore, representante de Montero en Washington, repudió, segun estamos informados, el pretendido Gobierno que lo habia acreditado, y manifestó su adhesion al nuevo régimen establecido en Lima.

Bien sabido es en el Perú, que nuestro Departamento de Estado ha continuado reconociendo al señor Elmore como Representante de la República del Perú, cuando realmente él no representaba más que un puñado de tropas, que Montero consiguió conservar en Arequipa. No hay que extrañar, por consiguiente que los peruanos comprendan difícilmente, sinó admitiendo el principio de una hostilidad encubierta al programa de la paz, por qué el único jefe del Ejecutivo que haya sido instalado en la capital, desde que Piérola la abandonó, tenga todavía que solicitar en vano su reconocimiento en Washington.

NEW-YORK, "El Herald" del 5 de Enero de 1884.

(Editorial).

La Guerra del Pacífico.

En los tres o cuatro últimos meses ha habido una combinacion de esfuerzos para inducir al Presidente Arthur a que añadiera un nuevo desatino al catálogo de los que cometieron los Estados Unidos, en relacion a la guerra del Pacífico, reconociendo prematuramente al General Iglesias, como Presidente del Perú. El general Iglesias es el jefe de una faccion en el Perú, a quien Chile cogió en Cajamarca, despues de haberlo sondeado sobre la cuestion del tratado de paz, y encontrado que estaba dispuesto a aceptar condiciones mucho más severas aún que las que el Secretario Frelinghuysen calificó de «*exhorbitantes*»; lo llevó de la sierra a la costa, en Octubre último pasado, bajo el amparo de su ejército, y lo instaló de Presidente en Lima, en cuyos suburbios conserva un ejército de algunos miles de hombres, para resguardarlo contra una de esas revoluciones que son perennes en la historia del Perú.

Desde que se encontró instalado de ese modo, Iglesias, cuyos móviles personales son patrióticos, apesar de que se encuentra asociado con uno de los peores hombres del Perú, ha decretado la convocacion de un Congreso nacional, a cuya eleccion se debe proceder la semana entrante y que debe reunirse en el

mes de Marzo; para tomar en consideracion el tratado, hizo un llamamiento a todos los partidos en el Perú para que tomaran parte en las elecciones. Probablemente ésto seria lo mejor que pudieran hacer los peruanos; pero ésto es cosa de ellos y no de nosotros. Segun las últimas noticias, el General Cáceres, otro jefe de partido, segundo Vice-Presidente y cabeza ejecutiva del Gobierno de Calderon, a quien los Estados Unidos cometieron el error de reconocer prematuramente en 1881, está dominando en el interior, al frente de nueva partida de indios y de blancos mal armados y puede coartar las elecciones en tal grado que queda dudoso saber si la Asamblea será una legítima representacion de los pueblos del Perú.

El temor que tienen los que están interesados en el plan de Iglesias, de que esto suceda, ha hecho concertar nuevos esfuerzos, para inducir al Presidente Arthur a lanzar a los Estados Unidos en el atolladero, reconociendo desde luego a Iglesias; el objeto es dar prestigio a Iglesias y minorar la influencia que puede quedar a Cáceres y a los restos del Gobierno de Calderon. Nuestro vecino el «Sun» se pone a la cabeza de ese movimiento, como lo hizo anteriormente, para esfuerzos análogos, y ayer afirmaba virtualmente que toda demora de parte del Presidente, de obrar conforme a sus consejos, significaria « hostilidad encubierta al programa de la paz. » Pero, despues de una série de inadecuados representantes diplomáticos, en Lima, los Estados Unidos poséen allá un Ministro en cuya inteligencia y discrecion, el Presidente tiene razon de confiar, y no es probable que Iglesias sea reconocido, miéntras Mr. Phelps no avise a la Secretaria de Estado que ha llegado el momento oportuno, cualquiera que sea el clamor que se levante movido por los chilenos o por otras influencias, para obligar a una accion prematura.

En relacion a ésto llamamos la atencion a una opinion, expresada en una carta que publicamos, que el Gobierno de Iglesias está destinado a caer, aun en caso de que consiguiera un reconocimiento temporario. Se nota que viene de una fuente fuertemente contraria a Iglesias; pero el autor, aunque partidario ardiente de Calderon, impone una confianza excepcional, por razon de su inteligencia y de su habilidad. Su reputacion científica, como ingeniero del sorprendente ferro-carril de la Oroya y como organizador de las defensas del Callao contra la armada española en 1866, lo hacen acreedor a ser escuchado con respeto por cualquier audiencia.

En el mes de Setiembre hemos publicado una entrevista con el Vice-Almirante Lynch, jefe de las fuerzas chilenas en el Perú, que llamó mucho la atencion en todos los círculos interesados en la guerra del Pacífico, por razon de la franqueza en la descripcion de la condicion del país conquistado y de la política de paz de Chile. A la vez publicamos una carta del señor don Ernesto Malinowski, el representante del Gobierno de Calderon[*]en el Perú, residente en Guayaquil, dirigida a M. Pascal Duprat, Ministro de Francia en Chile, que llamó tambien mucho la atencion, por razon de sus serios argumentos en favor de la causa peruana, de su crítica sobre la conducta vacilante de los Estados Unidos, de los cargos de responsabilidad hechos a nuestro país por la ruina del Perú y por su llamamiento a los Gobiernos europeos, para intervenir entre los beligerantes.

Como esta carta y la entrevista con el Vice-Almirante Lynch, tocaban unos mismos puntos, la una del punto de vista del vencido, y la otra del punto de vista del vencedor, era natural esperar un conflicto en las asersiones, como sucedió en efecto. En los comentarios de nuestro editorial, dijimos que no trataríamos de conciliar las aserciones divergentes. Esto dió ocasion al señor Malinowski para dirigir al «*Herald*» la carta que publicamos hoy, en la que defiende sus aserciones contra las del Almirante Lynch, en cuanto a los provechos financieros que saca Chile de la ocupacion del Perú; a la triste condicion de los establecimientos de Beneficencia en Lima, y a la ruptura del armisticio de Miraflores. En referencia a lo último, cita un despacho de M. Christiancy, que era entónces nuestro Ministro en el Perú. Pero dudamos que el señor Malinowski atribuya la misma autoridad a todos los despachos de M. Christiancy. Creemos

(*) No comprendemos de donde ha podido nacer esta errónea suposicion.
[Nota de la Redaccion.]

que los peruanos formulan graves quejas sobre algunos de ellos. Pero con todo, el señor Malinowski da razones muy fuertes (*makes out a very stron case*) y la dolorosa descripcion que hace de los hospitales de Lima, en que nuestros propios conciudadanos en tiempos pasados, encontraron abrigo y socorro, merece la atencion de los ricos y de los benévolos.

A continuacion de estos puntos se encuentra una revista de la conducta de Mr. Logan, nuestro Ministro en Chile que, por muchas razones que hemos dado y que no necesitamos repetir, hacen mucha injusticia a ese caballero. Su carta a Montero debe siempre juzgarse bajo el punto de vista de que su colega, el Ministro Partridge, que estaba acreditado cerca de Montero, dejó de ir al punto donde lo llamaba el deber y que el tratado de paz que el General Iglesias aceptó despues, es mucho mas riguroso que las condiciones que Mr. Logan obtuvo y comunicó a Montero; es evidente que mejor habria sido para el Perú, si éstas hubieran sido aceptadas ahora un año. No obstante, el hecho de que peruanos inteligentes y patriotas consideran que el honor de los Estados Unidos ha sido menoscabado por la conducta inconstantante de los cinco últimos años, respecto a los beligerantes, es cosa que merece la más seria atencion, aún despues de haber hecho toda concesion a los sentimientos de hombres que lamentan la derrota y la ruina de su país.

PRENSA AMERICANA.

(De "El Herald" de New-York.)

CHILE Y PERU.

Crítica del Sr. Malinowski sobre el Almirante Lynch.

BENEFICENCIA DE LIMA.

TRISTE SITUACION DE LOS HOSPITALES.

Ruptura del armisticio de Miraflores.

La buena fé escrupulosa, no es característica entre los beligerantes sud-americanos.

INDUDABLE CAIDA DE IGLESIAS.

Demasiadas víctimas sangrientas se levantan entre él y la nacion.

CARTA DEL MINISTRO LOGAN A MONTERO.

DEGRADACION DE LA INFLUENCIA DE ESTADOS UNIDOS EN SUD-AMÉRICA.

Guayaquil, Noviembre 18 *de* 1883.

AL EDITOR DEL "N. Y. HERALD".

Las cartas de su corresponsal especial en Lima fechas 13, 14, 15, 16, y 17 de Agosto forman una contribucion muy importante en la cuestion de la guerra Sud Americana. Debiéndose a la gran autoridad del "N. Y. HERALD" y a la brillante e interesante exposicion de los muchos puntos en ellas examinados, es de esperar que tendrán la gran influencia que merecen no solamente en los Estados Unidos y en todo el Continente Americano, sino tambien, en Europa. Por la misma razon de su importancia, creo que es necesario ilustrar algunos puntos que han sido presentados como dudosos y agregar algunas pocas reflexiones.

En su carta fecha 13 de Agosto su corresponsal dice:—"Seria difícil armonizar muchas de las aserciones del señor Malinowski, con otras aserciones del Almirante Lynch sobre los mismos hechos. Como ejemplo, podemos citar la ruptura del armisticio de Miraflores, y tambien las utilidades que saca Chile de la ocupacion militar del Perú".

Además de estos dos puntos, hay otros de igual interés, que espero aclarar contando con la hospitalidad de su diario.

EL GENERAL EN JEFE CHILENO EN EL PERU.

Por todo lo que habia oido de extranjeros y aun de peruanos respecto a las cualidades que distinguen al Almirante Lynch, estaba preparado para reconocer que bien merece las alabanzas de su corresponsal; que "si Chile,

pudiera escapar de la censura del mundo por haber conspirado contra el porvenir del Perú, al Almirante Lynch se deberá más que a ningun otro ciudadano chileno u hombre político" que él es "el jefe chileno que más que todos y ningun otro, ha tomado en cuenta la responsabilidad de su país ante la opinion del mundo";—tambien que "a los negociantes extranjeros en Lima y en los puertos de la costa peruana, nunca ha dejado de hacerles justicia en todo lo que estaba en los límites de su autoridad discrecionaria".—Creo que el Almirante Lynch posée un sentimiento moral más elevado que la mayoría de los ciudadanos u hombres públicos de Chile y que pertenece a una civilizacion más alta, considerando esta expresion en su sentido más elevado, esto es, de la civilizacion moral.

Por estas mismas razones los actos y aserciones del Almirante Lynch son de mucha importancia y no pueden pasarse sin rectificaciones cuando las necesita, particularmente cuando él—aun él—llevado por la corriente de las vías chilenas, adultera [quizas sin conciencia de ello] los hechos más auténticos.

COMPARACION CON HAYNAU.

Ha unido su nombre a muchos actos y muchas órdenes que no están con armonía con las exigencias de nuestros tiempos, aunque puede haberse visto obligado a hacerlo "por deberes dolorosos e ineludibles", pero Mr. Markham está en su derecho cuando lo hace responsable ante la opinion del mundo, por tales actos y órdenes, porque un hombre en su elevada posicion no puede ser considerado como un ciego e irresponsable ejecutor de las órdenes que recibe. El General Haynau podría estar cumpliendo órdenes superiores cuando estaba castigando a los patriotas húngaros, pero a su nombre quedará siempre unido el apodo de "azotador de mujeres" y la indignacion y reprobacion de la opinion pública lo acompañó hasta su tumba.

LAS VENTAJAS PECUNIARIAS QUE CHILE REPORTA DE LA OCUPACION DEL PERU

El Almirante Lynch dice que se pretende "que el tesoro chileno reporta ventajas pecuniarias de la ocupacion; pero que él puede asegurar que esto es un error y que si se toma en consideracion todos los gastos que la ocupacion impone, se verá que dicho tesoro cuenta una pérdida, con cada dia de ocupacion". Esta afirmacion no puede ser sostenida en vista de la última memoria presentada por el Ministro de Hacienda al Congreso chileno, en la cual se demuestra que solamente por derechos de aduana y por salitre, Chile ha obtenido la enorme suma de—$22 648, 082' 26; a lo cual debe agregarse el producto de las rentas de guano, y la suma de las numerosas contribuciones sacadas por las fuerzas chilenas de ocupacion por todo el territorio. Ya en su memoria al Congreso en 1881, el entónces Ministro de Hacienda, estableció que desde el 15 de Mayo de ese año "no solamente todos los gastos de guerra estaban cubiertos por las entradas del enemigo, pero aun que a la fecha de su memoria, Setiembre 15, existia un sobrante de $ 3 201, 421 [página C L X X I I I]. Desde esa época dicha entrada ha estado continuamente en aumento y los gastos disminuian. El único medio de explicar esta singular afirmacion de Almirante Lynch, seria suponer que en su parecer no debia contarse los ingresos de la provincia de Antofogasta, Tarapacá, Arica y Tacna; pero aun en esa suposicion creo que se probaria que las utilidades de toda clase que Chile y los chilenos están sacando de los territorios ocupados son aun superiores a los gastos ocasionados por la ocupacion.

LA BENEFICENCIA DE LIMA

Dice el Almirante Lynch:—"La sociedad de Beneficencia continúa en sus funciones y bajo mi administracion se le ha proporcionado toda clase de facilidades, eximiéndola de toda contribucion y derechos de aduana y aun auxiliándola con fondos y varias provisiones. Jamás fueron los hospitales tan bien cuidados y atendidos". Esta asercion es solo una irritante y gratitua ofensa a los habitantes de Lima. Sin apelar a las "Hermanas de Caridad que desde muchos años están al cuidado de los hospitales de Lima, pues debemos demasiado respeto a estas santas mujeres para mezclarlas en cualquiera controversia, aun en ésta, invocando su testimonio; una apelacion puede hacerse a los extranjeros residentes en Lima, que han conocido sus instituciones de caridad ántes de la guerra, y algunos de los cuales son miembros de la sociedad de Beneficencia, Era con legítimo orgullo que estos establecimientos se enseñaban a los viajeros de nota que visitaban la capital del Perú. Pocas ciudades podrian ostentar instituciones análogas, mejor dirigi-

das, manejadas y con tantos recursos; sus rentas eran principalmente derivadas de donaciones hechas por particulares, a lo cual se agregaban algunas regalías, en cuyo número debe considerarse la exencio de derechos de aduana. El Gobierno del Perú pagaba una renta anual a la Sociedad de Beneficencia, pero no era una subvencion benévola; esta renta tenia su orígen en diferentes contratos para la compra o por el uso de propiedades pertenecientes a la Sociedad y era especialmente garantizada y pagada con regularidad por la aduana del Callao.

CONDICION ACTUAL DE LOS ESTABLECIMIENTOS DE LIMA.

Veamos ahora cuál es el estado actual de los establecimientos de caridad en Lima, despues de observar que el grande y recien construido Hospital del "2 de Mayo" ha sido distraido de su objeto, destinándose solamente a las necesidades de la ocupacion chilena. Para esto es suficiente citar algunos extractos de la última memoria (de la cual envio a V. un ejemplar) bajo fecha de Diciembre 28 de 1882 presentada a la Sociedad de Beneficencia por su director señor Felipe Varela y Valle, un amigo personal del Almirante Lynch.

"Al terminar el año económico de 1881, la situacion de la Sociedad de Beneficencia era aterradora y agobiada por el peso de una enorme deuda, careciendo por completo de sus *rentas fiscales, cuya entrega ha negado y niega con tenacidad* el jefe de las fuerzas enemigas de ocupacion de esta capital..... y temiendo que si nos obligaba el jefe de las fuerzas chilenas a abonar la contribucion predial, esto pudo nos pusiera en la imposibilidad de continuar atendiendo a los gastos ordinarios de las casas de misericordia: todo hacia augurar que no podriamos llegar al fin del presente año, sin declararnos impotentes para sacrificar los fines de nuestra institucion. Felizmente..... a las justas y poderosas razones alegadas ante el jefe de las fuerzas chilenas, manifestándole los importantes servicios que la Sociedad de Beneficencia presta a la humanidad doliente, sin excepcion de nacionalidad alguna; el respeto y la consideracion, que por la civilizacion cristiana, se debe a estos benéficos institutos y la imposibilidad en que estábamos de pagar las contribuciones; cedió, suspendiendo primero y exonerando despues de este pago a las fincas de la Sociedad. Con solo esto se salvó de un peligro inminente, evitando un golpe que habria sido mortal.....

"Grande alivio hemos recibido con los auxilios de la caridad pública, ya en forma de dispensa de los derechos de aduana, otorgada para los artículos de consumo en las casas de misericordia; ya de descuento del cincuenta por ciento de los derechos del "muelle y dársena" del Callao, concedido a esos mismos artículos" (esta última concesion es debida a la benevolencia de una compañía francesa que posée el "muelle dársena") o ya tambien por medio de erogaciones con que han acudido las personas caritativas, contribuyendo así al sostenimiento de los establecimientos de Beneficencia."

Debe de tomarse nota que entre las expresiones de gratitud al Almirante Lynch, por la excepcion de derechos de aduana y contribuciones prediales, ninguna mencion se hace de auxilios con fondos de la administracion chilena, ni aparece tampoco este auxilio en las cuentas cuidadosamente detalladas en la memoria.

LOS HOSPITALES EN DETALL.

Hablando despues de los hospitales en general y de cada establecimiento en particular, el señor Varela dice:

"*Hospitales.*—Bajo esta denominacion que en tiempos muy remotos, comprendia a todos los asilos destinados al amparo de la miseria y que hoy se limita a la de casas de curacion; podemos enumerar cinco de los establecimientos que sostiene la Beneficencia de Lima a saber:—2 de Mayo—San Bartolomé—Santa Ana—Insanos y Mendigos.

"El primero fué tomado por las autoridades chilenas para la asistencia de los enfermos de su ejército, desde el dia 20 de Enero de 1881 y continúa hasta hoy bajo la dependencia de ellas.

"Los demás siguen administrados por nuestra Sociedad y se sostienen, no solo con los recursos que nos es posible proporcionarles y que son insuficientes, a pesar de las reducciones hechas en el servicio, sino con los que se proporciona el evangélico celo de las hijas de San Vicente de Paula, excitando los piadosos sentimientos de personas caritativas. De otra manera, habria sido indispensable clausurar algunos, desde que *las principales y mas saneadas entradas de los pobres*

no se encuentran por desgracia en nuestras manos.

"Es, pues, un verdadero milagro de la Providencia el hecho de que alguno no se haya cerrado todavia; y estremece dolorosamente el espíritu, la idea de que pueda llegar un dia en que el infortunio llame en vano a las puertas de la Beneficencia de Lima.

"*San Bartolomé.*—Este establecimiento, como los demás de la institucion, no habria podido subsistir con la mesada que se le señaló en la distribucion de los fondos disponibles de la Sociedad."—Este establecimiento relativamente pequeño era el antiguo hospital militar y desde que la administracion chilena tomó posesion del 2 de Mayo, fué apropiado para las necesidades civiles.)

"*Santa Ana.*- (Hospital para mujeres.)—Sujeto este antiguo hospital, como los demás establecimientos piadosos a una cuota fija mensual, *hubo forzosamente que limitar en lo posible el número de enfermas*, a fin de que los gastos no excedieran a los ingresos.

"Esta dolorosa pero ineludible medida, se ha llevado a cabo, felizmente, sin daño de la clase menesterosa, por haber esta acudido en proporcion mucho menor a la de los años anteriores.

"Estudiando este hecho, que pudiera llamar la atencion, el señor inspector de esta casa de curacion lo atribuye a las siguientes causas:—1.° a que en los últimos años, no ha grasado epidemia. (La fiebre amarilla atacó principalmente a la poblacion chilena) 2.° a que muchas familias han abandonado la capital, trasladándose a las provincias;—3.° a que por los peligros y dificultades de la comunicacion con el interior, ha disminuido la poblacion indígena que baja a la costa;—4.° a que la alza del jornal, ha aliviado muchas penurias, orígen de enfermedades, y por último 5.° a que se ha distribuido grátis en la portería, medicinas por recetas a los necesitados.

"*Mendigos inválidos.*—El personal de esta casa era en años pasados de trescientas diez a trescientas veinte personas; hoy está reducido a la mitad, y la asignacion que le dá la Beneficencia no equivale sino a once soles sesenta centavos de plata [11.60.] Fácil es comprender, que con tan escasa suma, no puede atenderse a las necesidades de un establecimiento de esta clase, en donde ademas de la manutencion, hay que practicar gastos de reparacion del edificio, cañerías, & y otros extraordinarios e imprevistos que no pueden evitarse.

"*Huérfanos de Santa Cruz.*—Este importante establecimiento, en el cual se ejercen cuádruples funciones, continúa proporcionando inmensos beneficios a la clase pobre.

"Colegio de huérfanos, sala de asilo, escuela y dispensaria, no habria podido sostenerse en el año con los escasos recursos que la Beneficencia le proporciona mensualmente, si el celo de las hermanas de la caridad, no hubiera tenido poder para sacar recursos del vacío de la situacion, precisamente en la época más difícil, cuando supremas amarguras e incalculables miserias, extendidas por todas las clases sociales, atan las manos, siempre pródigas, de la caridad pública de Lima.

"*Lactantes.*—(Informe del inspector.) En medio de tantas calamidades, la Providencia ha querido conservar a la sociedad limeña un don precioso, que seguramente servirá de fuente inagotable de bienes en el futuro; ese don es la caridad; y a él se debe que las malhadadas criaturas que han venido a este hospicio, durante el año que termina, en busca de alimento y abrigo, no hayan llegado a sentir aun los tristes efectos de la aflictiva situacion económica porque atraviesa la Sociedad de Beneficencia. Temí por un momento que la suerte me hubiera deparado el triste privilegio de cerrar las puertas de un establecimiento, que con razon puede mirarse como un monumento conmemorativo del precoz desarrollo de la civilizacion cristiana en nuestro continente, pues fundado algunos años antes que el de los *Enfants trouvés* de Paris y la mayor parte de su género que hay en el mundo, completará en breve el siglo tercero de su existencia. Pero la caridad pública velaba diligente por su conservacion y ella lo salvó!

"*Maternidad.* Esta casa de misericordia, que ántes presentaba la doble faz de colegio de obstetricia y hospicio de parturientas, fué suprimida desde el año próximo pasado, obedeciendo la Sociedad a razones de indispensable economía. Sin embargo, como no es posible abandonar las parturientas pobres a las angustias de su situacion, se estableció una sala para ellas en el Hospital de Santa Ana, donde practican su arte las alumnas de este ramo."

Los anteriores extractos prueban que los establecimientos de caridad de Lima que ántes eran tan bien "cuidados y atendidos", es-

táu ahora en el estado más precario, cuando no están cerrados por falta de recursos, debido esto al hecho de que la administracion chilena se niega pertinazmente a pagar a la Beneficencia *cualquiera parte* de la renta que se le adeuda, y que las afirmaciones del Almirante Lynch son completamente inexactas.

RUPTURA DEL ARMISTICIO DE MIRAFLORES.

Pero donde la alteracion de la verdad pasa de todo límite que pueda imaginarse, se encuentra en el dicho del Almirante Lynch, de que "fué a consecuencia de un *aleve rompimiento del armisticio por parte de los peruanos*, que se empeñó precipitadamente el combate de Miraflores."

Para refutar esa aseveracion, es necesario reproducir todo el contenido del despacho de Mr. Christian y a Mr. Blaine, insertado en los papeles relativos a la guerra de Sud América y sometidos al Senado de los Estados Unidos. (N.° 330 página 490.) Parece probable que el Almirante Lynch ignoraba la existencia de ese documento.

(N.° 292 Mr. Christiancy a Mr. Blaine.)

Legacion de los Estados Unidos.

Lima, Perú, Mayo 5 de 1881.

Señor:

"Refiriéndome a mis despachos Nos. 230, 237 y 242 respecto a la cuestion de saber si, los chilenos o peruanos fueron más responsables por el rompimiento del armisticio el 15 de Enero último, tengo ahora que decir que el hecho ha sido al fin prácticamente resuelto. La comision del cuerpo diplomático, compuesta del señor Pinto, del Salvador [su decano] y de los Ministros de Francia e Inglaterra, quienes con el decano formaron la comision diplomática que en la mañana del 15 de Enero, arregló con el General Baquedano, y el Estado Mayor chileno, el armisticio, viendo el parte mandado a su Gobierno por el General Baquedano, han creido de su deber hacer una exposicion oficial de las verdaderas condiciones del armisticio, que es enteramente diferente del informe oficiado por el General Baquedano.

El General, en su parte, dice, sustancialmente, que se reservó el derecho de hacer cualquier movimiento durante el armisticio, con la sola condicion de no romper los fuegos sobre los peruanos hasta las doce de la noche del dia 15. Esto si fuera cierto, le habria permitido avanzar sus líneas hasta el frente y aun dentro de las mismas líneas de las fuerzas peruanas; atacarlas con su caballería, salvo que ésta no hiciera uso sinó del sable, sin hacer fuego, &.....; todo esto convertiria naturalmente el armisticio en una farsa.

"Pero se verá por la declaracion unida de los tres Ministros que arreglaron las condiciones (que incluyo con su respectiva traduccion) que el derecho reservado por las autoridades chilenas—para hacer cualquier movimiento durante el plazo, o para completar cualquier movimiento ya comenzado, fué con la expresa reserva, de que dicho movimiento no pasara de los límites ocupados por las avanzadas [la gran guardia] de su ejército, lo que por supuesto debe de entenderse de la gran guardia tal como se encontraba situada en ese momento (a las 7 a. m. más o ménos). Cualquier otro sentido que se diera seria un absurdo, cuando se consideran las circunstancias del caso.

"Ahora, aparece con toda claridad del parte del jefe de la artillería chilena, confrontándolo con otros hechos bien conocidos, que su artillería en el ala izquierda (derecha de los peruanos) avanzó mucho más allá de la posicion que ocupaban sus avanzadas en la mañana, y que este movimiento tuvo lugar como a las 11 a. m., y que este jefe de artillería encontrándose tan adelante del resto del ejército chileno, pidió que avanzara la infantería a proteger sus flancos; pedido a que se accedió inmediatamente, poniendo así la línea chilena mucho más cerca de la peruana de lo que se proponia el armisticio; que aun el General Baquedano, con su Estado Mayor, haciendo reconocimiento cuando comenzó el combate, se encontraba muy adelante de la línea ocupada por sus avanzadas en la mañana; en fin, que este movimiento adelante era tal, que las fuerzas peruanas fueron natural y razonablemente inducidas a creer que los chilenos rompian deliberadamente las condiciones del armisticio e intentaban atacarlas a despecho de dicho armisticio. Bajo este punto de vista la responsabilidad del rompimiento del armisticio tiene que incumbir a los jefes chilenos, no obstante que el primer disparo fué hecho por los peruanos.

"No hago más comentarios sobre esta transaccion que decir, que en una guerra entre estos Gobiernos sud-americanos, la experien

ria ha demostrado que difícilmente puede esperarse que en la observacion de un armisticio u otros arreglos entre beligerantes, haya la misma buena fé escrupulosa que es exigida entre las naciones más adelantadas de Europa o en Estados Unidos."

J. P. Christiancy."

(Documento incluido en la traduccion.)

"Nosotros, los infrascritos, Ministros del Salvador, Francia e Inglaterra, estando autorizados para ofrecer los buenos oficios del cuerpo diplomático, a los dos beligerantes, despues de la batalla de Chorrillos;

"Considerando, que el parte del General Baquedano no refiere exactamente los hechos que acontecieron en la mañana del 15 de Enero durante nuestra entrevista con los jefes del ejército chileno;

"Considerando además que la publicacion de ese parte tiende a dar una impresion errada de nuestra accion y las condiciones que fueron convenidas,

"Declaramos:

"1.° Que nos presentamos a la conferencia, a ruego del señor Piérola, para conocer las condiciones de paz.

"2.° Que despues que éstas fueron puestas en nuestro conocimiento de una manera extra-oficial, y que otras condiciones nos fueron comunicadas oficialmente, pedimos una suspension de hostilidades a fin de dar tiempo al Jefe Supremo para deliberar.

"3.° Que convenimos en que dicha suspension de hostilidades debia durar hasta la media noche del mismo dia.

"4.° Que insistiendo los chilenos en efectuar un movimiento ya principiado convenimos en él. Pero bajo la expresa condicion aceptada por ellos, de que el movimiento no pasara adelante de las avanzadas (gran guardia) de su ejército. (Entendiéndose como estaban situadas entónces")

Lima, Abril 2 de 1881.

J. de Pinto (Ministro Plenipotenciario del Salvador.)

(*E. de Vorges* (Ministro de la República Francesa.)

Spencer St. John (Ministro residente de su Majestad.)"

No se necesita hacer comentario alguno; debo sin embargo observar que, segun mis informes, las autoridades chilenas nunca se han atrevido a contradecir los hechos establecidos en el precedente despacho, dado a la publicidad hace mucho tiempo. Si debemos juzgar por los precedentes, creo que aun la gran publicidad que el *New York Herald* pueda imprimir al anterior documento no callará la frecuente repeticion del dicho: "un nuevo rompimiento del armisticio por parte de los peruanos." Parece que se cree ser provechosa la sistemática desfiguracion de los hechos.

Prolongacion de la ocupacion chilena.

Dice el Almirante Lynch: "Es simplemente prepóstero sostener que está en los intereses de Chile continuar con la ocupacion de la capital y del país"—Nada es más cierto y muchos son los que juzgan que cada dia de la ocupacion ha sido un mal para Chile. En mi carta que su corresponsal ha reproducido he dicho: "Existe en Chile un partido importante, más particularmente por la calidad de las personas que lo componen, que desea que la paz se haga; porque está viendo que la paz debiendo hacerse algun dia, lo más pronto es lo mejor." Pero no puede negarse que el Gobierno de Chile, actuado por motivos propios, ha estado huyendo de la paz. De otra manera es imposible explicar la prolongada ocupacion de Lima y otras partes del país. La cáustica y exacta observacion del Ministro Aldunate que "no conocia entre los chilenos que toman parte en la administracion del país conquistado, sinó dos que estaban sinceramente ansiosos por la paz," indica los sentimientos que dominan a los hombres que están bajo la dependencia del Gobierno y que son de su hechura.

Indudable caida de Iglesias.

Creo haber expuesto en mi carta los verdaderos motivos que han inducido al Gobierno chileno para evitar por tan largo tiempo la terminacion de la guerra. Aún ahora, este Gobierno sabe bien que la paz firmada con Iglesias, no es paz; que un hombre a quien Chile ha procurado "toda clase de auxilios; dándole dinero y armas; derrotando a sus enemigos," matándolos a bayonetazos y con cuchillos, no puede ser aceptado por el Perú como el legítimo Presidente de un Gobierno nacional. Demasiadas víctimas sangrientas se levantan entre él y la nacion. Chile ha colocado por la fuerza a Iglesias en la silla presidencial; habria podido descender aún

más bajo en la eleccion que hizo, y habria obtenido el mismo resultado. El Gobierno chileno sabe que la consecuencia final e inevitable será la anarquía y la ruina, y parece que considera que es una consecuencia que devotamente se debe desear. Además, está gozando de la inefable satisfaccion de haber demostrado a su país y al mundo, cuán poco caso ha hecho de la intervencion americana

La doctrina de Monroe

En su editorial [de Setiembre 7] U. dice que "los Estados Unidos han advertido a los Gobiernos europeos, sobre toda ingerencia con los beligerantes del Pacífico," pero que "el señor Malinowski se equivoca cuando lo califica como la aplicacion de la doctrina de Monroe."—En su orígen y en su sentido literal, la titulada "doctrina de Monroe" no tenia la extension que se le da ahora En su despacho a Mr. Lowell, fecha Mayo 8 de 1882, (N° 369) el Secretario Frelinghuysen, despues de hacer una citacion del lenguaje usado por el Presidente Monroe dice que "a lo ménos se opone a cualquier intervencion de las potencias europeas en las cuestiones políticas de las Repúblicas americanas" y más adelante: "que la doctrina de la no intervencion por las potencias europeas en asuntos americanos, surgió de complicaciones de Sud América." Es indudable que estos principios tan claramente expuestos, deben de haber influido si no determinado la desaprobacion de la invitacion de Mr. Partridge a una intervencion europea.

Es probable que, exceptuando Chile, ninguna de las Repúblicas americanas, considerándose como "hermanas menores de la Gran República" se opondrian a los derechos que encierra la "doctrina de Monroe" interpretada en su sentido más extenso; y que se someterian fácilmente a la preponderancia que naturalmente pertenece a los Estados Unidos; pero desgraciadamente, los Estados Unidos se han desatendido, sin gran detrimento para su influencia en el mundo, de un gran principio, y es que: todo derecho incluye un deber correspondiente. Era un dicho antiguo: "*noblesse oblige*"; los Estados Unidos no debe ian olvidar que el poder [grande se] tiene tambien sus obligaciones y cuando no se cumple con ellas, la decadencia moral pueie venir en seguida.

Pudiera ser esto un largo acápite. Debo abstenerme.

Carta de Mr. Logan a Montero

En conclusion, el editorial mencionado dice: "debemos hacer una ligera referencia a los severos comentarios del señor Malinowski sobre los procedimientos de Mr. Logan, Ministro de Estados Unidos en Chile. Asegura que Mr. Logan ha violado sus instrucciones. Podemos aventurarnos a asegurar que el Sr. Malinowski no tiene conocimiento de dichas instrucciones."

No habia necesidad de conocer los terminos de las últimas instrucciones a Mr. Logan, para inferir que las habia violado. Efectivamente: estas instrucciones no eran, ni podian decentemente ser tales, que pudieran justificar su carta al Almirante Montero. No tengo que tomar en cuenta la informalidad de dirigirse al Almirante Montero, de otro modo que por intermedio de Mr. Patridge; esto es una cuestion de simple disciplina diplomática No lo condeno tampoco por haber aceptado ser el agente de trasmision al Almirante Montero de las "exhorbitantes condiciones" contenidas en el ultimatum de Chile; sin embargo de considerarse, por algunos, no ser esto muy decente para un Representante de los Estados Unidos. Pero lo que encuentro condenable, y debe de condenarse, cuando viene de un Ministro americano, o de un simple particular que pretende ser un amigo imparcial de ámbas partes, y lo que ha levantado una excitacion general en el Perú contra Mr. Logan, primero que todo, es el tenor general de su carta, en la que se muestra un defensor de las pretensiones de Chile. Seria largo hacer una crítica completa de su carta; pero debo anotar algunos párrafos.

Las condiciones de paz.

Mr. Logan dice: "Chile, a consecuencia de mi mediacion, abandonó las exigencias del protocolo Trescott, y consintió en hacer la paz sobre las bases siguientes", y entónces exponer las condiciones de Chile. En el protocolo Trescott, artículo 2º, Chile pedia "la ocupacion de la region de Arica y Tacna por diez años; el Perú, estando obligado a pagar veinte millones de pesos a la espiracion de ese tiempo"; y ahora Chile pide la inmediata y definitiva "adquisicion de Tacna y Arica por compra, por la suma de diez millones de pesos. De modo que, como resultado de la mediacion de Mr. Logan, Chile ha consentido en cambiar una adquisicion eventual de Tacna y Arica, por una adquisicion inmediata definitiva.

Chile, pidiendo la "absoluta cesion de Tarapacá, "como indemnizacion de guerra", rehusó terminantemente que se insertara por escrito ninguna expresion de responsabilidad por deuda de parte de Chile en el protocolo con Calderon; pero empeñó su honor al Ministro americano, de que estaba dispuesto a asumir tal porcion de la deuda peruana extranjera, que pudiera justamente pertenecer al territorio cedido, conforme a los principios de la ley internacional." Pero más tarde, en Julio 17, como lo hace constar su corresponsal, el Gobierno de Chile, no haciendo caso de su palabra de honor empeñada al Ministro americano, "se niega a discutir la cuestion de saber si los tenedores de bonos tienen derecho a ser indemnizados por Chile por razon de Tarapacá, de Arica y Tacna, más allá de lo que resulta del contrato por un millon de toneladas de guano actualmente en ejecucion." Esto prueba cuánta razon tenian los Representantes del Perú, para exigir un reconocimiento formal, de parte de Chile, de la deuda de que debia ser responsable.

Negociaciones de Mr. Logan con Calderon.

Hablando de los varios compromisos que él habia propuesto para conciliar las diferencias suscitadas entre el Gobierno de Chile y García Calderon, Mr. Logan dice: que, "por razones que no hay que relatar, esos esfuerzos fracasaron." Al contrario, hubiera sido esencialmente necesario enumerar esas razones y decir, por más perjudicial que hubiera sido para Chile, que fué un dia a nombre del Gobierno chileno a imponer un ultimatum al señor García Calderon, bajo la amenaza de una completa devastacion del Perú si no era aceptado por él dentro veinticuatro horas; que bajo estas amenazas, de que Mr Logan aceptó ser el órgano, el ultimatum fué aceptado por García Calderon; pero que al siguiente dia, Mr. Logan le declaró que el Gobierno de Chile habia cambiado de parecer. Tengo en mi poder bastantes documentos para ilustrar esta cuestion y algunas otras, pero no puedo entrar en un terreno que debe ser reservado para el señor García Calderon, quien, en su debido tiempo y cuando las circunstancias lo permitan, hará una completa exposicion de la conducta de Mr. Logan.

La alianza con Bolivia.

Su corresponsal ha exhibido con mucha lucidez el gran interés que Chile tenia de separar a Bolivia de la alianza con el Perú; y el Gobierno chileno tuvo empeño en enviar repetidos telegramas anunciándolo como un hecho consumado. Pero los hombres que dirigen a Bolivia, comprendian cuán injurioso seria esto para el buen nombre y para el porvenir de Bolivia. Mr. Logan, representante de los Estados Unidos, abogando de lleno las razones por qué "Bolivia quedaria muy justificada si rompiera la alianza", estaba sólo sirviendo los intereses de Chile y no podia ignorar que este golpe era el más aleve y mas tremendo que asestaba al Perú. Este punto es suficiente, por sí solo, para explicar cuánto la publicacion de la carta de Mr. Logan favoreció a Chile con detrimento del Perú.

Más adelante Mr. Logan expone que "si la guerra se prolongara por cuatro o cinco meses más, no hay duda que Chile reclamaria el *justo derecho* de aumentar sus exigencias." Esta expresion de *justo*, empleada por un Ministro americano, tiene que herir los sentimientes de cualquier hombre sensible.

Mr. Logan aboga con singular insistencia por la inmensa ventaja que el Perú derivaria de los $ 10,000,000 ofrecidos por la compra de Arica y Tacna. Esta insistencia parece una irrision, cuando esta suma se compara con el inmenso valor de la Provincia de Tarapacá; y es, realmente, ofensiva;—podria uno tambien decir: risible.

Por último, Mr. Logan, "como representante de su Gobierno", "recomienda con insistencia" la aceptacion de todas las exigencias de Chile.—Nó! Nunca un Secretario de Estado de los Estados Unidos podia, decentemente, autorizar a un Ministro americano para "recomendar con insistencia", a nombre de la Gran República, la aceptacion de tales condiciones;—y no lo hizo. Quien lea la carta de Mr. Logan, queda bajo la dolorosa impresion de que no era un "amigo imparcial de ámbas partes", sinó un celoso defensor de los intereses de Chile.

Los motivos del silencio que guarda Garcia Calderon.

No tengo la menor duda de que el Sr. García Calderon dará a la publicidad, tan luego como esté en libertad de hacerlo, no sólamente un detallo completo de sus negociaciones con Mr. Logan, sinó tambien de la última

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July 13 1866
Daily News

THE HUASCAR.

The South American mail just received brings further details of the encounter between two British war vessels and the Peruvian ironclad Huascar, but it still leaves the causes of the affray in much obscurity. Until we have Admiral DE HORSEY'S account of the reasons which induced him to take a step which unquestionably needs explanation, it would be premature to express an opinion upon his conduct. In the absence of proof to the contrary, we are bound to assume that a British admiral has not violated the spirit of his instructions, has not abused the power entrusted him for the protection of his country's interests, and has not committed his Government to a quarrel with a friendly State. The South American Republics exist in a chronic condition of insurrection. It is inevitable that this perpetual anarchy should expose the persons and properties of European residents to danger; and the certainty that this must be so imposes on those who are charged to watch over British interests in those regions an imperative duty not to mix themselves up in domestic broils, or to stretch too far our just rights. As we wish to live in amity with these turbulent Republics we must take them as we find them, and not redress by the strong hand every small injustice. We trust that Admiral DE HORSEY will be able to show that he was fully justified in demanding the surrender of the Huascar, and proceeding to compel it when she refused to lower her flag; but in the meantime his act has excited a tempest of indignation throughout Peru, and the PRESIDENT, we are told, has announced in a public proclamation that he will exact reparation from our Government. Such gasconnade is probably intended only to allay the excitement of the capital. The PRESIDENT well knows that against Great Britain he is powerless, and, unless he presumes upon the weakness of his country as his surest protection, he will not be rash enough to proceed to hostilities. Still it would be unpleasant to be dragged into a controversy, for, whether right or wrong, we can reap neither credit nor advantage from a dispute with a State like Peru.

The Huascar, an ironclad turreted ram, carrying two 300-pounders in her turret, and two 40-pounder pivot guns on her main deck, was built upon the Thames for the Peruvian Government. In May last she was lying with the rest of the Peruvian fleet in the harbour of Callao, when two partisans of Don NICOLAS DE PIEROLA, who had attempted to overturn the Government, went on board in the absence of the commander, and by the aid of the officer in charge induced the crew to declare for the insurgents. In the sight of the assembled fleet she steamed out of the harbour and got clear off. Obtained in this manner it was to be expected that the Huascar would commit depredations. So long, however, as these were confined to Peruvian citizens we had no ground of complaint. It is alleged, however, by the British merchants of Lima that the depredations were not so confined. They allege that the Huascar seized an English vessel laden with coal, and took away her cargo. They also make the much more serious charge that she stopped the Royal Mail steamer, and forcibly carried off two Peruvian officers found on board. The first allegation the Peruvians deny; asserting that the coal did not belong to an Englishman, and that the owner was paid the full price. The seizure of two officers on board the British mail steamer is admitted; but it is added that the steamer was lying in a port in the unquestioned occupation of the insurgents, and consequently was within insurgent jurisdiction. How far this plea would justify the measure on the part of rebels whose belligerency had not been recognised we need not stop to inquire, since the facts themselves are thus disputed. Thus the account brought by this mail, even though it comes from Peruvian sources, enables us to understand in part a step which, at first sight, appeared unintelligible. The British community in Lima, alarmed at the reports of piracy on British property, requested the Admiral to afford protection, and he immediately proceeded southwards with the Shah and the Amethyst to look after the ram. The Admiral's next measure was proper enough. He addressed a note to PIEROLA, in which he threatened the Huascar with capture if she interfered with British property or retained on board British subjects against their will. On the receipt of this note the rebel leader is said to have assembled the English engineers and firemen on deck and offered them their liberty. The offer was at once accepted by the engineers, who were sent on shore, paid double wages, and forwarded to Callao. This story, it will be understood, is derived from Peruvian sources. Don NICOLAS DE PIEROLA is next represented to have written to Admiral DE HORSEY assuring him that no English property had been molested, but that in any case the Huascar would defend herself. In the meantime we learn from the New York papers that a week after the receipt of this note the Huascar put into the little port of Pisagua, some seven-and-thirty miles to the north of Iquique, and, having landed fifty men, overpowered the small garrison. Before the reduction of the place was complete, however, the loyal Peruvian squadron, consisting of an ironclad frigate, a corvette, and gun-boat appeared upon the scene, and opened fire upon the Huascar. After a fight of an hour and a half the latter got away under favour of the darkness.

Returning now to the Peruvian account, we are told that the following morning the Huascar was steaming leisurely northwards close inshore, when she perceived two vessels in the offing, and supposing them to be Peruvian, put out to engage them. To her surprise she discovered them to be the Shah and Amethyst. A gun was fired from the Shah to bring her to, and an officer sent off to summon her, in the name of the QUEEN, to surrender, only two minutes being allowed for consideration. Naturally, PIEROLA rejected this very peremptory summons, and a battle began, which is said to have lasted for three hours. The Peruvians had considerable advantages. Their ship is an armoured ram, and carries very heavy guns in her turret, whereas her adversaries are unarmoured. The Peruvian officers speak in the very highest admiration of the handling of our two ships. Again and again the Huascar attempted to ram them, but they always evaded her, and their fire swept everything from her decks but the turret and the chimney. The turret itself was frequently struck, but not penetrated. In the end the Huascar escaped under cover of a fog, and next morning surrendered to the loyal Peruvian squadron.

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and transport service of the enemy. The capture of the transport Rimac, had it even stood alone, would have been a serious blow, not only to the prestige but to the actual military power of the Chilians. A small State cannot afford to lose a fine regiment of cavalry, with one of its most valued officers, such as, according to our Correspondent, Colonel BULNES seems to have been. The Chilian fleet has been unable either to maintain the blockade of Iquique, or to put a stop to the daring exploits of the Huascar. Nor, though retaining military occupation of the disputed territory, has the Chilian Government been in a position to attempt anything considerable by land. The Peruvian and Bolivian armies, on their side, have been equally unenterprising. This situation is, of course, most galling to the Chilians, who had made up their minds beforehand that they would settle accounts easily enough with the Peruvian fleet, would blockade the seaports of Peru, and destroy the trade of that State. They are, accordingly, unwilling to suspend hostilities until they have redeemed the tarnished credit of their arms, and have secured substantial results which will permit them to boast not unreasonably of their victory. The Peruvians, on the other hand, are probably inclined to think that the Huascar has done enough for glory, and that a compromise at the present moment would be highly desirable, if it could be obtained without the appearance of suing for peace.

The population of Chili, ignorant and excitable, like all the peoples of Spanish America, may not be readily persuaded to measure the dangers of a prolonged resistance. But there are, it is evident, both political and financial dangers to be encountered if peace be not speedily restored, and from these Chili has more to fear than either of her antagonists. The financial position of Peru has been for years deplorable, and it may be thought that reckless war expenditure cannot make it much worse, if money can be found by any expedients for carrying on the struggle. Bolivia has never had any credit at all, and has little or nothing to risk, even in the most desperate adventures. But Chili has been really prosperous and honest, and has depended much upon the high credit its Government has deserved and enjoyed. Already the Chilian Government has been forced to resort to extreme measures for obtaining immediate supplies of cash, and this is only the beginning of a system of borrowing on usurious terms or on forced loans, from the consequences of which it will be scarcely possible to extricate a poor and sparsely peopled State. The extraordinary vigour and daring with which the Government of the United States redeemed the national credit after the close of the Civil War is hardly to be emulated by any of the South American Republics. Moreover, if the struggle be continued, there is considerable danger that the Argentine Republic may enter the lists as an ally of Peru and Bolivia, not through any sentimental affection for those States, but through a bitter feeling arising out of a long-standing feud with the Chilians. The Patagonian boundary dispute, in which the claims of Chili conflict with those of the Argentine State, closely resembles that which arose at Antofagasta, and which brought on the present quarrel between Chili and Bolivia. It is significant that the Argentine Senate lately refused to ratify a provisional extension of the compromise by which the Patagonian difficulty has been temporarily settled. The question is thus left open to become a *casus belli*, if the Argentine Government should desire to make it so. At the same time, the army and navy of the Argentine States are being ostentatiously strengthened. These facts are not of favourable omen for Chili, and if the Chilians lay them to heart they will probably change their tone with respect to proposals of mediation, emanating from Washington or from any other quarter.

Standard

LISBON, MONDAY NIGHT.

The following particulars of the capture of the Huascar by the Chilian squadron are extracted from a telegram dated Valparaiso, Oct. 8 :—

"The ironclad Huascar and the corvette Union were returning from a cruise along the Chilian coast, when they were surprised by the whole of the Chilian squadron, under the command of Admiral Latorre. The Chilian vessels manœuvred so as to hem in their adversaries between Antofagasta and Mejillones. Finding their retreat cut off, the Huascar and her consort faced their opponents, returning shot for shot, till the Peruvian ironclad, surrounded and crushed, as it were, by the numerous and powerful artillery of her antagonists, struck her colours after a six hours' heroic combat, during which the Huascar lost her brave Commander Grau, Lieutenants Aquirre and Vargas, and the greater part of her crew. At the close of the engagement the Huascar, with her hull all shattered and riddled, was with difficulty towed to Antofagasta. The Commander of the corvette Union refused to surrender, and by a skilful and daring manœuvre broke through the enemy's line of battle and steered for the fortified port of Arica, being closely pursued by the O'Higgins and the Loa. The news of Admiral Latorre's victory has been received with transport by the Chilians, who consider that their supremacy is now firmly established in the waters of the Pacific."

Further particulars of the capture of the Huascar are contained in the following Valparaiso telegram, dated Oct. 10 :—

"The Chilian vessels O'Higgins and Loa have returned to Antofagasta, after an unsuccessful pursuit of the Union, which escaped into Arica under favour of the night. A more detailed description of the naval combat from a Chilian source states that the Huascar and Union appeared at the entrance of Antofagasta at three a.m. Being surprised by the Blanco Encalado, the two Peruvian vessels steamed northwards ; but the Lord Cochrane, O'Higgins, and the Loa were cruising in front of Mejillones, and the Huascar, unable to effect her escape, boldly advanced to the encounter. At nine a.m. the Union made good her escape, the O'Higgins and Loa following in hot pursuit. At ten minutes to eleven a.m. the Huascar, having lost her Commander and chief officers, with her hull torn and shattered, struck her flag after a most bloody and obstinate resistance. Twenty-five corpses were found on board the Huascar, the number of the slain and drowned amounting to sixty-one. The prisoners number one hundred and forty. The fourth shot fired from the Lord Cochrane carried away a leg and arm of Vice Admiral Grau, Commander of the Huascar. The boatswain and two sailors had just carried the wounded Admiral into his cabin when a grenade fell and burst in the apartment, killing the Admiral, boatswain, and sailors. The head and portions of the Admiral's body have been recognised and collected for interment. The Huascar's turret was completely destroyed. A shot from the Huascar caused serious damage on board the Lord Cochrane, wounding ten of the crew. The Admiral's remains will be interred with all the honours appertaining to his rank, by order of the Commander of the Chilian squadron."

Perhaps the strangest part of the whole affair remains still to be noticed. The crew of the Huascar were mutineers, who had turned their arms against the Government that employed them. They had been committing havoc along the coast of Peru, and had only just fought against the vessels that had remained loyal. Yet it was precisely to Iquique, where those vessels lay, that the Huascar steamed in her flight from the British ships, and when she arrived there Don NICOLAS DE PIEROLA coolly proposed that the men he had fought two days before should forget their mutual misunderstandings, and join with him to punish the British interlopers. To law-abiding people it will seem scarcely credible that the commander of the loyal squadron actually telegraphed to Lima for instructions, whether he should accept the proposal, and that it was only when he received a negative answer that he demanded the surrender of the mutinous vessel. When this was effected it would be thought the extraordinary incident would be at an end. Nothing of the kind. The populace of Lima was instantly seized with furious indignation because British ships had dared to fire upon a vessel flying the Peruvian flag, and the British residents in the city were saved from their fury only by the interposition of the troops. Baulked of satisfaction in this quarter the populace next turned their anger against the Government. Doubtless it was to allay the excitement that the PRESIDENT issued the proclamation of which we have spoken above. But it would seem that he has really no ground upon which to base a demand for satisfaction. The Huascar, though flying the Peruvian flag, had thrown off allegiance to his Government, had defied, resisted, and escaped from his fleet. If, after this, it had been guilty of piracy it was an offender against the law of nations, and a foe to all civilised communities; but even if it had not, it still was not owning allegiance to the Government of Peru.

THE SOUTH AMERICAN WAR.

The prolongation of the War in South America is gradually wearing out the patience of the civilised world, nor is there any immediate prospect that the struggle will be brought soon to an end. It is not easy to see, however, in what way civilisation can interfere to put a stop to, or even to minimise, the evils of a conflict by which neutrals suffer quite as severely as the belligerents. Indeed, there are signs that the contest between Peru and Bolivia on the one side and Chili on the other may involve other South American Powers, and, extending its scene of operations over the whole southern section of the American Continent, may be still further complicated and protracted. In this position of affairs the negotiations that have been for some time pending between the Government of the United States and the belligerents in South America, have a claim upon public interest in this country and throughout Europe. European trade is paralysed on the Pacific coast of South America by the incidents of a war which, nevertheless, is waged without purpose or system, without intelligence, energy, or skill. The Government of the United States can offer its mediation with more chance of success than any other Government in Europe or America. It is incontestably the greatest of American Powers; it is a Republic dealing with Republics; by its political and geographical situation it is freed from any imputation of having sinister interests to promote by favouring the ambition of any of the contending parties. The United States are merely interested in the restoration of peace in South America, so far as that much to be desired event may tend to bring about general tranquillity and prosperity, and a revival of commercial activity in the Southern Pacific. But, in spite of these obvious truths, the action of the State Department at Washington, and of its diplomatic agents, has not entirely escaped suspicion and odium in South America. The American Minister at Bolivia appears to have set on foot proposals of mediation, which were afterwards enforced in Peru and Chili by despatches from the Washington Government. These overtures have been not unfavourably received by the Peruvians and Bolivians, but they have met with a most unfavourable reception among the Chilians. The latter have hotly resented what they regard as pressure put upon Chili for the advantage of her enemies, and the popular clamour at Santiago and Valparaiso has been so threatening that the Envoy of the United States has thought it prudent to declare that the negotiations were no more than semi-official. This disclaimer must be supposed to put an end for the present to the mediation proposals, so far as Chili is concerned; nor is it difficult to understand the reason of the check. The Chilians are, or believe themselves to be, in something of the same position as that in which the Northern States of the American Union were placed after the early victories of the Confederacy. They began the war with overweening confidence in their military and naval strength, and in their financial resources. They have found themselves encountered with equal spirit and better fortune by enemies who seem not to be embarrassed by bankruptcy. Still they are confident that they have the greater staying power, and they look upon any attempt to terminate the war by a compromise as the United States looked on the threatened intervention of France and England before the battle of Gettysburg. Their confidence is probably misplaced, but it will not be easily abated, except by the harsh teaching of facts.

The war began, in fact, as early as the 1st March last, when the Bolivian Government expelled the Chilians from the disputed strip of littoral, an act which the Chilians construed as a practical breach of the peace. The secret Treaty between Bolivia and Peru, which the Chilians made an excuse for attacking the latter Power, had been signed some three weeks earlier. At first everything seemed to promise well for the ambitious and self-confident Government of Chili. Iquique, where the Peruvian forces had been ordered to concentrate, was blockaded early in April, and it is only quite lately that the blockade has been abandoned. But the assumed superiority of the Chilian fleet upon the high seas did not long survive the beginning of active operations. The naval engagement near the mouth of the Loa might be considered a drawn battle, since the loss of the Independencia by the Peruvians might be set off against the loss of the Esmeralda by the Chilians. But the Huascar in that engagement showed that she was a most formidable enemy, and she has since been handled with great skill, distancing the swiftest of the Chilian ironclads, threatening the coast of Chili, ... heavy blows at the mercantile navy

The naval disaster to the Peruvians which we announced a day or two since, and which, though without much detail, has been confirmed, cannot but very seriously affect their prowess on the seas for some time to come. It was bad enough to lose the Independencia, stranded on a reef, and burned to keep her out of the enemy's hands; but it is far worse to lose the Huascar, especially as in the latter instance there is a probability that the vessel thus taken from the Peruvian navy will be available for service under the Chilian flag. This is a double hit, and must tell powerfully on the issues of the war, so far as conflict on the seas is concerned. But the loss to the Peruvians is greater than the gain to the Chilians, for while the Huascar was the leading ship in the Peruvian navy, the Chilians are able to boast that two of their ships, the Almirante Cochrane and the Blanco Encalada, are each far more powerful than the Huascar. The Peruvians have doubtless obtained excellent service from their ironclad ram. The Huascar has achieved no small celebrity, and, whilst in the hands of an insurrectionary party, she became distinguished by a daring encounter with two warships carrying the British flag, the Shah and the Amethyst. Subsequently, when directed by the lawful authorities, she rammed and sank the Chilian Esmeralda. Apparently always on the wing, this active ironclad was the practical representative of the Peruvian navy, and was a perpetual scourge to the Chilians. And yet, by the European standard of ironclads, the Huascar is by no means a formidable ship. It has been stated that she was built on the Clyde, but this is not the case. She was built by Messrs. Laird Brothers, of Birkenhead, in 1865, and is about one hundred and ninety feet long by thirty-five feet in breadth, with a displacement of rather less than two thousand tons, drawing fifteen and a half feet of water. She has one turret, containing two 300-pounder Armstrong guns, protected by five and a half inches of armour, increasing to eight inches at the ports. On her sides the Huascar carries armour, covering a space between eight and nine feet deep, the plates being four and a half inches thick in the central part of the vessel, but thinning off towards the extremities, so as to be only two inches thick at the bow and stern. This cuirass rises about five feet above the water line, and extends about three feet below it. Armour of four or five inches thick is of no great value in the present day, but to the Huascar it is a shield which is better than nothing, and the eight inches of plating on the convexity of her turrets is very likely to befriend her. An armoured conning tower, protected by plates three inches thick, rises from the deck a short distance behind the turret. In respect to her guns, it cannot be said that the Huascar possesses the advantage of an end-on fire, but she nevertheless commands a tolerable sweep of the horizon, the bulwarks for about half her length being hinged so as to fall down against the outside of the hull when going into action.

The speed of the Huascar, though by no means remarkable, has been an important element in her history, and some falling off in that particular may be found to have much to do with her recent capture. She is a two-masted brig-rigged vessel, the foremast being a tripod. She is propelled by a single screw, and has capacity for three hundred tons of coal. On her trial trip, fourteen years ago, she was stated to have attained a speed of rather more than twelve knots an hour, but there can be no doubt that a considerable reduction has to be made from this original rate in order to represent her present pace. The South American coast possesses no docks capable of executing such repairs as an ironclad is certain to need in the course of a few years, and we may expect that the Huascar has been undergoing a degree of deterioration in her boilers, engines, and hull which cannot fail to have impaired her efficiency as a ship of war. The inevitable and legitimate wear and tear, consequent on her active career during the present war, must have told upon her in many ways, and we know by costly experience with our own ships how soon the boilers of an ironclad begin to wear out. Seeing what it costs to keep a British ironclad in thorough working order, we may ask ourselves what is likely to be the condition of a vessel like the Huascar, deprived of the benefits of well-appointed dockyards and naval establishments, and worked to the utmost in a war which was to be essentially influenced by her individual performance. She is an iron-built vessel, and not being wood-sheathed below the water line, she has not the advantage of copper to protect her against that fouling process which is so fatal to a ship's rate of travelling. In all probability the speed of the Huascar at the present time is at most a bare eleven knots an hour. On one occasion, during the present war, it was stated that she only went at the rate of nine knots, but it was then pleaded that the coal was bad. How the vessels of a South-American navy are likely to suffer on service was shown not long ago, when the Valparaiso—since known as the Blanco Encalada—came over to England to be repaired. Naval experts who saw the state of that vessel were simply scandalised at her condition, so utterly was it at variance with their ideas of the state in which an ironclad should be kept. When it is remembered that the South American ironclads are practically dependent on the private dockyards of British builders for their repairs, it will be seen how likely these vessels are to be kept on active service long after the time when they ought to undergo a species of renovation.

Speaking without reference to any particular vessel, it may be argued that the deterioration of ironclads, consequent on the lack of ready means for repairing them, is likely to affect all the South American navies in an equal degree. This is, doubtless, true; but when we come to the case of the Huascar, we find that she was placed at a peculiar disadvantage as compared with her two most powerful antagonists—the Almirante Cochrane and the Blanco Encalada. These are twin vessels, built by the Earle's Company at Hull, as recently as 1873, according to the design of Mr. Reed. Thus they have the advantage of being eight years younger than the Huascar, and in addition to this, there is the fact that the Blanco Encalada was brought over to England little more than two years ago, and subjected to a thorough course of repairs in the ship-building yard of Messrs. Green, at Blackwall. The process of renovation occupied many months; and the vessel left the Thames in a condition which would render her at the present time far superior to the Huascar, independently of the fact that she is altogether a more

formidable fighting ship. In common with the Almirante Cochrane, the Blanco Encalada has a displacement of three thousand five hundred tons, so that she is not far short of being double the size of the Huascar. Unlike the latter, the twin Chilian ironclads are broadside ships. Each carries an armament consisting of six 12½-ton Armstrong guns, presenting, therefore, three times the offensive power of the Peruvian turret ship. In armour they also far excel her, having plates nine inches thick. The battery is so arranged that two guns can be fired ahead, and two astern. The speed, if not diminished by foulness of the ship's bottom or other cause, would be thirteen knots an hour. Possessing such vessels as these, it is rather a matter of surprise that the Chilians have not long since made an end of the Huascar, especially as the Chilian navy is known to be well manned, and the officers emulate the nautical skill and daring of Englishmen. At the present time the scale of naval force turns immensely against Peru, and it may be hoped that this fact may hasten the conclusion of a wasteful and miserable war. Commerce would be far more profitable to these nations than fighting, and the sooner the belligerents attend to their customers, instead of trying to destroy each other, the better it will be for all parties. The world is, sufficiently for all purposes of decorum, convinced by this time that both Chili and Peru know how to fight. Honour may therefore be considered satisfied. Peru may yet hope to undo on land what Chili has gained at sea; but it would be far wiser to make terms of peace, and proceed to business of a more profitable kind.

THE DEFENCE OF THE HUASCAR.

DEPRESSION IN PERU.

We are enabled to publish the following extract from a private letter from an Englishman at Lima, dated October 30, received by the mail this morning:—

You will, of course, have heard how on the 8th of October our plucky little Huascar, returning from the coast of Chili in company with the corvette Union, fell in at Megillones de Bolivia with the two Chilian ironclads and three wooden corvettes—how the Union ran away, chased by the three smaller vessels, and how Admiral Grau in the Huascar, seeing that he could not escape the two ironclads, set his teeth like a man and turned to bay. You have also doubtless been told all this in England long ere this. But if they have told you the truth you will have heard that in all history few such plucky stands have been made as this of the Huascar against the Almirante Cocarane and the Blanco Encalada—two guns against twelve. You will, too, have doubtless heard that Grau died the death of a hero, half an hour after the fight began. He was blown to atoms by a shell, and they found but his feet and a piece of one leg to bury, and in quick succession the three officers next in rank fell dead or mortally wounded. The command then devolved upon two young lieutenants—Garregon and Palacios—the latter of whom had already had his lower jaw shot away. After fighting for an hour more, until the turret would no longer revolve, and the steering gear was entirely destroyed so that the ship was utterly unmanageable, these brave boys decided to sink the ship, and for this purpose Garregon descended and opened the valves. Upon his return to the deck, however, he found Palacios insensible and wounded in 17 places, and that the crew had lowered the flag. A few minutes more and the Chilians took possession of the monitor, she having then only two feet of water in her hold. She is now in Valparaiso being repaired. The Chilian ships, owing to their far heavier armour, suffered little or no damage. As Palacios was an intimate friend of mine, having messed with me in Chorillos all last summer, I will tell you the remainder of his story, which has grieved me more than words can tell. Being pronounced unlikely to recover, the Chilians sent him home with his servant in an English mail steamer, he promising that a Chilian prisoner of equal rank should be exchanged for him, but to our great grief he died from lockjaw on board the steamer in Iquique, and we bury him to-morrow. The tetanus was occasioned by a ball which had carried away completely the sole of his right foot. You may probably think very little of these small affairs out here, but I tell you that in a small country war is more terribly brought home to one than in a large and populous country. Do you know that since this war began I, a foreigner, have already been to the funeral services of no less than six intimate friends? But now to tell you the results of this blow. To commence with, it has utterly destroyed the confidence of the people and the nerve of the Government. In twenty days two Cabinets have resigned, and the President cannot form another. We know that Chili is preparing night and day a large force to attack Lima itself, and yet we do nothing. No transport can put to sea, and our whole army in the south, together with that of Bolivia, numbering in all something like 25,000 men, is useless, and, what is more, must very soon starve. I can scarcely believe it possible that we can have been so mad as to place all our trust in that one little monitor. Now that it is too late, from all over the country subscriptions are pouring in to provide funds for the purchase of ironclads. Every one has given his last dollar, and the women (God bless them for it) have stripped themselves of every jewel. One girl, the daughter of an old soldier who is miserably poor, cut off the very hair from her head and sold it that she might have something to give. But I cannot help the feeling that it is too late. Even if an ironclad or ironclads capable of beating the Chilian fleet, now reinforced by the Huascar, should be obtainable, which I doubt, I am certain they would not arrive in time. Here in Lima we have about 7,000 men, all more or less raw and officered by men who were nothing but civilians before the war began. How can we oppose with these 15,000 or 20,000 good troops backed up by a powerful fleet? Once here and occupying Lima, the war is at an end, for the enemy can impose whatsoever terms he may choose; but I am certain that he will find no Government with whom he can make peace unless by a miracle. There is nothing can prevent this poor country from being plunged for years to come into the most pitiable condition of anarchy and confusion. Our resources are already mortgaged for a generation, and the Chilians will, of course, insist upon a heavy indemnity being paid to them. It is a sad outlook altogether, and I fear that things can still only alter for the worse.

PERU AND CHILI.

A correspondent writes from Lima, under the date of Oct. 14: "You will have heard, viâ Chili, of the taking of the Huascar. We here are only certain of two facts—the death of Admiral Grau and the capture of the ironclad. Poor Grau, a gallant, excellent officer, whose sailor-like conduct saved the Peruvian navy from ridicule: his is a loss indeed! The Government must have details by telegraph, but if they have, they are keeping them back, and allowing wild conjecture to take their place. We must await the arrival of the English steamer from the South to get the news. The Union, the Peruvian corvette that was in company with the Huascar when they fell in with the Chilian fleet, fled without striking a blow to distract attention from her companion, although she was fully supplied with Lay torpedoes, and could steam several knots faster than any of the enemy; and their only opponents were a weaker corvette and a transport. It is pitiable to read the letters of the correspondents aboard the Union—such bold words covering fainting hearts! but their countrymen have rightly judged them. An effort is being made to collect money to buy another ironclad, to be called the Admiral Grau. Even if the money can be collected, where can they find a suitable ironclad, and when could it arrive? It is too soon to judge of the effect on the Chilians of the capture of their only formidable enemy; but it is generally supposed that they will attempt a land attack, though where the blow will be given is a matter of conjecture. As they are evidently trying to draw their enemies towards the frontiers, it will probably be at or near Arica.

"The Bolivians are now the courted of the two principal belligerents; their allies, the Peruvians, are paying their expenses, and making great sacrifices to secure their allegiance, while the Chilians are tempting them with the prospect of the cession to them of Tacna and Arica, and thus giving them their long-coveted connection with the sea. The Bolivians are not likely to be over sensitive as to the opinion that may be formed of their conduct, and may argue that, as the Peruvians can no longer aid them in recovering Autofagasta, they had better make terms with the enemy, and betray their friends.

"The news of the loss of the Huascar caused the greatest excitement and consternation throughout the country. The Ministry had its share of the blame, and immediately resigned. However, the Vice-President, carrying on the Government in the absence of General Prado, refused to accept their resignation; but the public continue to insist that the War Office should be confided to a younger man than General Mendiburu, who is very old and in ill-health. This war has not yet produced a man. Admiral Grau was a good sailor, and capable of judging impartially the work he did. When he himself said, "I have as yet done nothing," he meant he could not boast of having sunk with an ironclad, after a few hours' fight, an old wooden corvette like the Esmeralda; nor would he claim as an heroic action the capture of the transport Rimac, or the exchanging of distant shots with the batteries at Antofagasta, nor his failure to destroy the wooden gunboat Magallanes, which fought him for an hour. The material he commanded was not suitable to his daring spirit, but had time been allowed him he would have moulded them into a decent crew. By education, he was half an Englishman, and had collected a goodly contingent of our countrymen on board the Huascar to fight the guns and work the engines. On them fell the brunt of battle. No other man has come to the front—no organiser, no general, no financier; not one man in whom the people have confidence.

"The wildest ideas are afloat. Sacrifice everything—guano, nitrate, the future of the country—everything, so that elements may be obtained to destroy their enemies. All this excitement, however, will pass away, and the Peruvians must some day see that peace must be made, even at the cost of pride."

El Contra-Almirante del Perú don Miguel Grau.

"Mas que para acusarle recibo de tan valioso presente (un libro,) escribo á usted, como americano, y especialmente como peruano, para ofrecerle el tributo de mi reconocimiento."—(Carta del comandante Grau, Lima, diciembre 6 de 1878.)

I.

En medio de la intensa alegria que en este dia, que se ha hecho memorable en una hora, ha dominado el corazon de todos los chilenos, una nota melancólica vino a apagar en la segunda faz de las nuevas, muchas vibraciones jenerosas. El comandante del «Huascar» y contra-almirante del Perú don Miguel Grau, habria perecido junto con sus bravos compañeros en el campo del honor.

La tristeza visible con que esta noticia era trasmitida de boca en boca desde que á las 3 de la tarde comenzaron á circular los primeros partes oficiales del combate de Mejillones, es como una corona anticipada que los chilenos envian al noble enemigo que ha caido en el puesto del deber.

Hubiéramos querido ciertamente tener al "Huáscar", y no ha sido otra la ambicion patriótica de nuestras almas durante 6 meses. Pero habriamos querido tenerlo con su bizarro jefe. Asi como ha sido, nuestra victoria parécenos incompleta, ó mas bien, mutilada. Y el ufano monitor vencido, entrando á las aguas de Mejillones sin el alma y sin el brazo que lo condujera al asalto, remolcado precisamente por el buque á cuya tripulacion diera plazo magnánimo para salvarse hace tres meses, parécenos una sepultura encerrada dentro de glorioso trofeo.

II.

Tenemos desde tiempo antiguo íntima y mútua cuenta de afecto y de respeto con el comandante que fué de la nave peruana, cautiva hoy de nuestra insignia, y es este tal vez el momento presuroso pero bien elejido de pagarle la parte de esa deuda que á nosotros sabia. Duelenos sin embargo profundamente el alma de que sea sobre su feretro, y no en medio de feliz y reconciliado encuentro, donde hayamos de contar su breve pero honrosa vida.

III.

La existencia de Miguel Grau es vária y novelesca. Su padre fué un capitan de la famosa 3.ª division colombiana, que sublevándose en Lima en 1827, abrió el palenque de la revuelta eterna que en aquella inquieta playa todavia ruje.

Ese capitan colombiano, pero de evidente orijen catalan, no regresó sin embargo á su patria. Al retirarse la 3.ª division á Guayaquil, secretos lazos lo detuvieron en Piura, y allí á los pocos años (junio de 1834) nació en noble cuna de amor vedado el valiente hombre que hoy ha muerto.

No se habrá olvidado talvez por muchos ni el nombre ni el noble carácter de dos jóvenes piuranos apellidados S..... que se educaron en Santiago por el año de 1840. Esos jovenes fueron tios del contra-almirante peruano.

Su padre se llamaba don Juan Manuel Grau, y desempeñaba en la época de su nacimiento el puesto de vista de la aduana de Paita.

IV.

Como hijo predilecto pero amado, llevó allí el capitan Grau á su cachorro, y luego echólo al mar, en la misma época en que el bravo capitan Noel y Lizardo Montero (ambos piuranos) tomaban tambien servicio. Lo que en el Perú se llama la *Costa Abajo*, es lo que en nuestra costa de Chile se llama el archipiélago de Chiloe, un semillero de hijos del mar.

V.

Pero Grau no entró, como Montero, en nave privilejiada. Al contrario, á la edad de 10 años (1844) embarcóse en Paita en un buque mercante como simple grumete, y asi en el espacio de 7 años, labróse ardua carrera.

Fué durante ese duro ejercicio cuando Grau se hizo dueño de los verdaderos secretos del mar y de la navegacion, aprendió idiomas, las costumbres y los gustos que habian de servirle mas tarde poderosamente y que contribuirian á formar su fuerza y su prestijio de jefe. Grau no era, como Aurelio García y García, un marino de libro, ni de flor en el ojal. Fué como Salcedo, un marino marinero.

VI.

Vuelto á su patria en 1851, sirvió el jóven aventurero en escala humilde en la su-

tónces humilde escuadra del Perú, en el 'Rimac', en el 'Ucayali' y especialmente en el pailebot de vela 'Vijilanta'—'Vijilante!' era esa condicion la calidad de espíritu que prevalecia en el carácter del comandante del "Huáscar." Ha sido preciso que viniese con García y García para que se perdiese?

Al poco tiempo el guardia marina Grau fue trasbordado á la fragata "Apurimac," y estando a su servicio, vinole la primera tentación del génio maléfico que gradualmente ha ido desangrando al Perú hasta dejarlo exánime.

Sublevado en efecto el "Apurimac," por el teniente Montero en favor de Vivanco en 1858, Grau, á título de paisano, siguió rebelde y militó con él hasta la rendicion gramatical de Arequipa que, con el diccionario de la lengua bajo el brazo, hizo en aquel año el generalísimo de frac y corbata blanca llamado D. Manuel Ignacio Vivanco.

Grau había nacido para servir bajo mas honrosa bandera que la de un pesante, y en la desgracia tomó otra vez su puesto como simple piloto o capitan de aventura en la marina mercante. Visitó entónces la China.

VII.

Sus honrosas cualidades de hombre y de marino llamáronlo otra vez á la marina de guerra de su pais, y por el año de 1860 era comandante del "Lerzundi" aquel vapor de mal agüero y peores calderas, que volé en 1866 en uno de los canales de Chiloé.

VIII.

De aquel buque fué sacado el comandante Grau para conducir desde Nantes las dos corbetas que en la caida de Pezet fueron sus alas: la "Union" y la "America."

Sabia el debil magistrado del Perú, juguete de los pícaros solapados que no faltaban en Lima, entónces como ahora, que si las dos corbetas le eran fieles, el coronel Prado, sublevado en Arequipa, sucumbiria en el desierto, y para asegurar la lealtad de Grau, envió a su padre casi moribundo á aguardarle y fortalecerle en Valparaiso.

El comandante Grau amaba intensamente á su padre y lo probó mas tarde. Pero entre su patria humillada y vendida y las canas del respeto intimo, no vaciló. La "Union" izó la insignia de la guerra a España, y Prado fué dictador y noble aliado de Chile en la reparacion y en la venganza.

IX.

Su padre, entre tanto, falleció el Valparaiso, y el noble marino, pobre pero afectuoso y abnegado mas alla de la tumba y de los años, vino á Valparaiso, hace diez y ocho meses, á llevar al suelo de la patria los restos queridos. Esa sola peregrinacion revela, tanto como su heroico fin, el alma del hombre superior que ha perdido el Perú.

El desaliento de nuestros enemigos habra de ser á esta hora inmenso!

Han perdido en una hora sus dos grandes fuerzas.

Han perdido al "Huáscar."

Han perdido á Grau.

X.

Cuando el comandante Grau vino á Chile en el verano de 1877—70, trajo de la mano un niño de corta edad, á quien quería enseñar á reverenciar una tumba para comenzar desde ese augusto dintel la vida. Ese niño era su primogénito El contra almirante Grau se habia casado en Lima por el año de 1862 con la señorita Dolores Cavero, jóven de distinguida familia, de espíritu levantado y pecho ardiente, como son generalmente las mujeres de Lima. Su herencia de esta hora son nueve hijos y la gloria!

Llévele brisa amiga el pésame de Chile!

La señora viuda del contra-almirante Grau es hermana de la digna esposa del capitan de fragata don Oscar Viel, por cuyo hogar y tiernos hijos tuviera aquel dulce cariño. Asi el bravo soldado que mayor mal nos ha hecho, estaba ligado á Chile no solo por una tumba santa sino por un grupo de inocentes cunas...Por lo demas, en todas las épocas de su vida el capitan Grau manifestó especial afecto por los chilenos.

¡Y ciertamente que en ello hacia bien! Conocemos mas de un hogar en Santiago que se aprontaba gozoso para hospedarle y hacerle grata vida del cautivo entre nosotros.

Pero prosigamos:

XI.

El comandante Grau cayo en 1866 con los que protestaron contra el jeneralato de un extraniero impuesto á su bandera, hecho sobre el cual escribimos nobles y sinceras rectificaciones en diciembre del año último.—"¿Cómo queria usted, señor, nos decia que los que teniamos isada en nuestros buques la insignia del glorioso almirante Blanco Encalada, hubiéramos ido á arriarla para fijar en el mástil de la patria el pabellon de un aventurero?"

Borrado por la segunda vez del escalafon el comandante Grau en su pais, entróse llanamente de capitan de los vapores de la carrera. Sirvió en ellos mas de un año, y desde esa epoca datan algunas de las intimidades de colega á colega que tan funestas nos han sido durante la presente guerra. Algunos de los capitanes ingleses del Pacifico no han sido positivamente espias: han sido simplemente buenos camaradas.

XII.

Cuando el comandante Grau volvió al servicio en 1868, se alistó en el partido civilista que proclamó mas tarde la candidatura de Pardo, y fiel a este y á la ley le sostuvo con el *Huáscar* contra Balta y los Gutierrez. En 1875 fué nombrado diputado por Piura, y en este puesto, con digna moderacion, continuó sirviendo á su partido.

Por lo mismo, no encontró de pronto favor en la administracion mititar del general Prado, y se hallaba en calidad de *agregado al ministerio de marina* en Lima cuando estalló la guerra.

El primer acto de esta fué naturalmente devolverle su buque, y junto con éste el mando en jefe de la division de blindados que consumó en Iquique en mayo del presente año, el primero y terrible encuentro de la guerra, en que Grau vencedor fué lo que ha sido vencido y muerto: un héroe digno de batirse con héroes de su talla.

En un libro reciente hemos llamado, tal vez sin falsa visual, á Arturo Prat el *Stonewall Jackson* de esta guerra americana, porque fué la austeridad sublime y casi religiosa del deber. ¿Y por qué igual criterio no nos haria denominar á nuestro noble enemigo el *Pablo Jones* del Pacífico, bravo aventurero é infeliz como el caudillo lejendario de la emancipacion americana?

XIII.

Ignoramos en los momentos en que escribimos los detalles de su fin. Pero Miguel Grau, el vencedor de Arturo Prats, el que lloró su muerte y recojió con piadosa ternura sus prendas de amor, no puede haber sucumbido sino como mueren los bravos: al pié del cañon.

Escrito esto, leemos un telegrama de Mejillones que da razon de nuestros presentimientos. Leemos tambien y aplaudimos con efusion las nobles palabras de nuestro gobierno que son el preludio de sus funerales y su mejor oracion fúnebre.

Ciertamente esa muerte será en Chile entero un verdadero dolor. Porque si es cierto que en el fondo del alma abrigamos profundo desprecio por los hombres vanos ó perversos que han encendido á escondidas esta injusta y tenebrosa guerra en contra nuestra, forma casi una compensacion del justo repudio el encontrar nobles pechos en los que no cabe la codicia del oro ni la ambicion loca del insensato predominio.

XIV.

Entre tanto Miguel Grau ha muerto y será sepultado en tierra chilena. ¡Séale ella leve! Y cuando el huracan de fuego y de hierro haya pasado, y vuelvan á existir hogares de paz y de amistad en los territorios que hoy la sangre empapa, nosotros ofreceremos en canje sus nobles despojos por el de nuestro mártir de Iquique.

Y ese canje será aceptado sin vacilar porque los huesos no pesan en la contabilidad de las naciones como los vivos. .... Basta solo que el oxijeno subterráneo los blanquee y les prepare el perfume para el anfora.....

Y entonces, si el cielo lo permite, ceñiremos á su feretro, antes de entregarlo á su bandera, corona de duro metal vaciado de los cañones en cuyo montaje el valiente cayó con los valientes.

BENJAMIN VICUÑA MACKENNA.

Santiago, Octubre 8 de 1879.

(De *El Ferrocarril.*)



El Contra-almirante don Miguel Grau

El notable marino peruano cuyo nombre encabeza estas líneas ha tenido la envidiable suerte, por consecuencia de la presente guerra, de despertar en su favor el ardiente afecto y la gratitud mas sincera de sus compatriotas, la envidia y el asombro de nuestros enemigos, las simpatías y la admiracion de los neutrales.

El Perú, por el órgano de sus legítimos representantes, premia su valor, sus méritos y sus servicios en la presente guerra, elevandolo á la alta clase de Contralmirante; ascenso que todo el pais ha aprobado y aplaudido.

Chile, por el órgano de su prensa y de algunos de sus marinos, vencidos en combate leal y generoso, se asombra de su serena prudencia en los combates, de sus hábiles maniobras para burlar al enemigo, de su temerario arrojo para provocar á este en sus guaridas; pero al mismo tiempo lo insulta por que no compromete al «Huáscar,» es decir, casi todo el poder marítimo del Perú, en toda clase de aventuras.

La República Argentina, en representacion de los neutrales, por el intermedio de su prensa, de su inteligente y patriota juventud y de sus expertos marinos, envia tambien al comandante del «Huáscar,» los tributos de su admiracion y los aplausos de sus simpatías.

Grau es hoy, pues, una figura sobresa-

liente. El buen éxito con que todas sus empresas han sido coronadas, debido al conjunto de cualidades que ha sabido desplegar, lo mantienen sobrenadando en ese mar inmenso de patriotas que se ha levantado para vengar los ultrajes de Chile.

Hoy que, en la escala de los ascensos, llega al término de su carrera de marino, es conveniente que la América que tiene en él concentradas sus miradas, sepa quien es, cuales son sus antecedentes y méritos, cuales los servicios inestimables que tiene prestados á su patria, cuales las esperanzas que en él se cifran para llegar al término de la presente guerra.

Tal exigencia nos proponemos satisfacer, trazando á grandes rasgos la biografía del Comandante del «Huáscar,» hoy Contralmirante de la armada nacional.

Miguel Grau nació en Piura el año de 1834. Desde sus primeros años, despues de haber entrado en el uso completo de la razon, recibió una enseñanza esmerada en la escuela nautica de Payata

A los diez años de edad, su padre, el señor don Juan Manuel Grau, Vista entónces de la Aduana de Paita, lo hizo embarcar en un buque mercante, para satisfacer á la vez, los deseos, las inclinaciones y las manifiestas aptitudes del jóven Grau para la marina.

A bordo de ese buque perfeccionó Miguel Grau los primeros conocimientos náuticos que habia adquirido, tanto con las lecciones del capitan del buque, como con la experiencia adquirida en siete años de navegacion.

Entónces tuvo oportunidad de visitar casi toda la costa del viejo mundo y de estudiar en sus puertos lo que era necesario para el porvenir de su carrera. Entónces aprendió tambien los idiomas. Llegó, por fin, á alcanzar el carácter de oficial, en el buque en que habia crecido y en el que habia casi completada su educacion.

El año de 1851 desembarcó en Paita, dirijiéndose poco despues á Lima, en busca de nuevos horizontes para una carrera que se iniciaba bajo los mejores auspicios.

Acostumbrado, como lo hemos visto, desde su mas tierna edad á los rigores y contratiempos de una navegacion penosa y duradera; consagrado, con ahinco y constancia, desde sus primeros años, al estudio y al trabaja; Grau, en su carrera de marino tenia que revelarse, como efectivamente ha sucedido, como hombre de verdadera vocacion é inquebrantable en el cumplimiento de sus deberes, por dificiles que fuesen las circunstancias que tuviese que atravezar.

Esta es, en efecto, la fisonomia general de lo que podemos llamar su vida pública, segun se deduce de los sucesos que pasamos recordar.

El primer buque de guerra en que sirvió Miguel Grau, fué el vapor «Rimac.» Estuvo en él seis meses y medio. Permaneció en seguida cerca de seis meses al servicio del pailebot de guerra «Vigilante;» y posteriormente en el vapor de guerra «Ucayali,» al servicio del cual solo estuvo cuatro meses y medio.

La expedicion revelada en estos buques lo hizo acreedor á que se le diese mas tarde un puesto en la fragata «Apurímac» que entónces era la mas poderosa máquina de guerra que tenia el Perú y acaso, las naciones del Pacífico.

El año de 1858, como todos los que hasta entónces habian sucedido á la revolucion de 1854, fué un año preñado tempestades políticas.

Las condiciones del pais en esa época hacian difícil á cualquier ciudadano, sustraerse á la accion de la tormenta.

Grau, como casi todos hombres que viven en épocas de desconcierto, de falta de educacion política, de constantes incertidumbres, se vió arrastrado por el vendabal revolucionario.

Tal suceso lo obligó á permanecer separado algunos años del servicio activo. Una parte de ellos lo empleó, con la respectiva licencia del gobierno, en navegar en buques mercantes, á fin de adquirir mayor experiencia y prática en su profesion.

Vuelto nuevamente al servicio activo de la armada, se le confió el puesto de segundo comandante del vapor «Lerzundi,» en el que solo permaneció cuatro meses. Estuvo despues, en Europa, al mando de la corbeta «Union,» dos años y medio.

En la época de la guerra con España, despues del cómbate del 2 de Mayo, en 1866, nombró comandante de la escuadra, el gobierno dictatorial de esa época, al almirante Tucker.

Este nombramiento produjo en los marinos peruanos el mas profundo resentimiento, habiendo renunciado su puesto los mas caracterizados, para no pasar por la humillacion de servir bajo las órdenes de un marino extranjero.

Grau se encontró en el número de los que protestaron contra ese nombramiento.

El y sus compañeros fueron enjuiciados por ese acto que se calificó de insubordinacion; pero fueron todos absueltos por el tribunal respectivo.

El enjuiciamiento mantuvo a Grau separado del servicio, seis meses. Despues de su absolucion, estuvo cerca de un año al mando de buques mercantes de la Compañia Inglesa, la cual, haciendo justicia á las aptitudes y experiencia de nuestro compatriota, no vaciló en confiar e sus naves remunerando debidamente sus servicios.

En 1868 se encomendó á Grau el mando del monitor «Huáscar,» es decir, del mismo buque con que hoy mantiene en jaque á la escuadra chilena. Ocho años continuos conservó el mando de ese buque, con el cual desempeñó siempre, á satisfaccion de los gobiernos, todas las comisiones que le fueron encomendadas.

Al cabo de ese tiempo, en 1876, la provincia de Payta, nombró al señor Grau su representante en el Congreso. Tuvo que abandonar su buque, para asistir durante seis meses á las sesiones legislativas de esa época.

En su carácter de representante estuvo siempre al lado de la buena causa; pero sin hacer jactancia de sus propósitos ni de sus afectos, sino imponiéndose la reserva prudente que deben á su pais los hombres llamados á dirijir, por medio de leyes, los altos destinos de la República.

Cerradas las sesiones del Congreso, en Febrero de 1877, estuvo pocos dias, el señor Grau, con el carácter de agregado al Departamento de Marina. Sirvió despues dos meses y medio, como vocal de la Junta revisora de las ordenanzas navales.

Al cabo de ese tiempo se le nombró Comandante general de marina, en cuyo puesto prestó al pais los mas importantes servicios. La memoria que elevó al supremo gobierno, al dejar ese puesto, no solamente revela la laboriosidad de la primera autoridad marítima, sino que consigna observaciones profundas y proyectos de reformas verdaderamente útiles á la vez que trascendentales.

En Julio de 1878 tuvo Grau que asistir nuevamente á las sesiones del Congreso. En su puesto de diputado prestó al pais los servicios que eran necesarios, contra las pasiones que, mas violentas que de costumbre, se habian condensado amenazantes, sobre la representacion nacional.

Concluido el periodo de esa legislatura, quedó mes y medio, en calidad de agregado al Ministerio de Guerra y Marina.

En estas circunstancias sobrevinieron las amenazas de Chile á Bolivia primero y el conflicto con el Perú despues.

Grau fué designado por el gobierno, y antes por la opinion pública, para hacerse nuevamente cargo del mando del «Huáscar.»

Mientras tanto, nada hemos dicho sobre los ascensos que en su brillante carrera ha ido alcanzando sucesivamente el señor Grau.

Es menester enumerarlos siquiera, indicando las fechas en que los ha ido obteniendo, como justo premio de sus méritos y servicios.

El 14 de Mayo de 1854 se inició en la carrera de marino en calidad de Guardia Marina.

El 4 de Marzo de 1856 fué promovido á la clase de Alferez de Fragata.

En 11 de Setiembre de 1863 fué nombrado Teniente segundo.

En 4 de Diciembre del mismo año obtuvo el nombramiento de Teniente primero graduado.

En 8 de Enero de 1864 alcanzó la clase de Teniente primero efectivo.

En 31 de Marzo de 1865 fué promovido á Capitan de Corbeta.

El 22 de Julio del mismo año alcanzó el ascenso de Capitan de Fragata.

El 25 de Julio de 1868 se le nombró Capitan de Navio graduado.

El 23 de Abril de 1878 fué ascendido á Capitan de Navio efectivo.

El 27 de Agosto del corriente año se puso el cúmplase á la ley del congreso que le asciende á la alta clase de Contra-almirante de la escuadra peruana.

Para apreciar el mérito de esta elevacion gradual, debe tenerse presente que si bien es efectiva la prodigalidad con que se han repartido ascensos en nuestro pais, siempre se han observado mas miramientos y reservas cuando se ha tratado de la marina; lo cual ha contribuido en gran parte, á mantener incólume el brillo de esta institucion, y á hacerla salir triunfante de todas las pruebas á que se le ha sometido.

Pero sobre toda consideracion, para el señor Grau será en toda época un timbre de gloria el haber llegado á la alta posicion en aparece colocado por el voto uniforme de los poderes del Estado y de la opinion pública, por consecuencia de sus servicios en la guerra que sostenemos con Chile.

Grau consagrado casi exclusivamente á las tareas de su profesion, no ha tenido

hasta hoy oportunidad de manifestarse bajo aspectos distintos del que le dá su carácter de marino.

En esa condicion, ha sido siempre uno de los consultores á quien han apelado los gobiernos, cuando se ha tratado de cuestiones graves para el pais, que pudieran tener alguna relacion con la defensa de este.

Sus juicios, expresados constantemente en pocas palabras, han contribuido á decidir muchas cuestiones de ese género, y, casi siempre, el resultado ha confirmado sus previsiones.

Por lo demas, casi es innecesario decirlo, porque son muy pocos los que no han tratado á Grau, siempre ha sido modesto y afable; y en las luchas mas ardientes, promovidas por el espíritu de partido, ha sabido mantenerse en el terreno de aquella moderacion propia de los hombres que saben sobreponerse á sus pasiones.

El contra-almirante Grau es hoy, para el Perú, no solamente el héroe á quien se tributan ovaciones merecidas, por los hechos consumados de los que ha sido agente; sino una esperanza para el porvenir, en la presente guerra.

El pais, seguro de que su indomable valor, su incomparable prevision, su tacto para proceder segun sean las circunstancias que lo rodeen, no decaerán un solo instante, confia en que la bandera del Perú seguirá paseándose triunfante y gloriosa en el Pacífico, tremolada por el robusto brazo del nuevo contra-almirante.

Si tales espectativas llegan á convertirse en realidades, puede estar seguro el valiente marino peruano, que el pais tiene aun con qué recompensar tan inestimables servicios.

CAPTURE OF PISAGUA BY THE CHILIANS.

The Exchange Telegraph Company announce that they have received the following from a reliable source :—

"We have received a telegram from Valparaiso announcing the capture of Pisagua by the Chilians."

(REUTER'S TELEGRAMS.)

PARIS, Nov. 10.

A telegram received here to-day announces that the Chilians have taken Pisagua after a determined resistance, in which they lost 500 killed and wounded.

RIO DE JANEIRO, Nov. 10.

Intelligence received here from Valparaiso announces the capture of Pisagua by the Chilian troops.

A private telegram which we publish this morning asserts that the long expected battle between the Chilians and the allied Bolivians and Peruvians has been fought, and that the result has been "a crushing defeat" for the latter. It would be rash to repose absolute faith in any news from the South American seat of war, even when, as in this case, the source of the information seems unimpeachable. Telegrams, in many cases altogether false, and in other instances coloured by the political predilections of those who send them, have, during the last few months, been so plentifully despatched from Valparaiso and Lima, that even the most authoritative announcements of "great victories" and "crushing defeats" must be accepted with that prudent scepticism which a knowledge of the mendacious propensities of combatants dictates. However, a battle was expected, and military critics were at one in believing that if the Chilian Generals would follow up their recent advantage, they could hardly fail to inflict a severe blow on the Allies—discouraged by want of success, and weakened by divided councils. Three weeks ago the port of Pisagua was captured by the Chilians, who numbered twelve thousand, disembarking under the cover of the guns of their fleet. There was sharp fighting, attended by a loss numbering several hundred men on either side, but it does not appear that the Bolivian troops who garrisoned the town performed any prodigies of valour. The place itself is scarcely worthy of consideration, being, like most of the little ports on that part of the coast, a sandy, waterless, sleepy, half-dead kind of village. But its capture was important, in so far that by possessing this *point d'appui* the Chilians could interpose an effectual wedge between the allied armies of Bolivia and Peru lying at Arica and Iquique respectively, and thus be able to select the locality in which they would give battle to them singly. It would appear that the Chilians have not been blind to their advantage, though whether the Allies will allow them to reap the full harvest of their victory remains to be seen. After the capture of Pisagua the Bolivians evacuated the town, and retired towards Iquique, thirty-five miles to the north, where they effected a junction with the Peruvian forces from that place. The combined army was believed to number nine thousand men, and, if the report to which we now give currency is to be credited, met the enemy not far from Iquique, and suffered a total defeat. There was, however, a considerable force of Bolivians and Peruvians at Arica and Tacna, a town of some importance, lying a little way inland, and distant nearly one hundred miles from Iquique. This army is marching in the rear of the Chilians, and may possibly do something to retrieve the misfortunes of their comrades. Still, such an occurrence is scarcely likely, for the Chilians apparently outnumber and outgeneral them, whilst it is not easy to believe that the victorious army will permit the divided forces of the Allies again to combine. Altogether, the end seems not far off, and though it would be hopeless to expect the war suddenly to collapse, the scattered troops, unpaid, unprovisioned, without ammunition, and the Government without means to purchase any, will probably separate in knots of guerilla skirmishers, whose future conduct it will be unpleasant to contemplate. Meanwhile, Lima is in a state of siege. Martial law has been proclaimed, and though there has been no actual revolution, General LA PUERTA

has formed a Cabinet "composed entirely of personal friends." This means that the President trusts no one, and that his personal friends will oust him on the first opportunity, as is the custom in South American Republics.

In a war so wretched, so utterly unnecessary, and so immoral in its initiation, the best that can be hoped is to see it end by the exhaustion of one or other of the parties engaged. But in South America wars do not terminate as they do in Europe. They are conducted on a smaller scale, at less cost, and on a plan which does not entirely interfere with the ordinary occupations of the people. While the wild *gauchos* from the high upland Puno of Bolivia are lassoing Chilian farmers from the "Vale of Paradise," their half-Indian wives and children are tending their llamas. In like manner, the agriculture of the *valle* is kept up by the female part of the population, who in times of peace are decidedly, so far as hard work is concerned, the stronger sex. The same general truth also applies to the inland Peruvians, and to a less extent to the Chilians. The people whom the war most affects are the townsmen whose customers are killing and being killed, and the merchants at the ports whose trade is paralysed, destroyed, or, at best, disorganised by the prevailing turmoil. Nor are the rights of neutrals very strictly respected; and though they may suffer less, on the logical principle of there being a difficulty in obtaining the nether garments of one who never possessed them, the representations of diplomatists go but a little way at Sucre, Lima, and Valparaiso. Even when the ostensible authorities in the capital call a truce to battle, it does not follow that the "Candillos," or little chiefs in the interior, will listen to the recall. They have never had much to lose, but they have lost it, and the war has not lasted long enough, either for their bellicose tastes or for their views as to plunder. They are therefore of opinion that it should proceed, and they announce their decree to that effect in a pompous document known to the Castilian race as a "pronunciamiento." A good many people are of the same opinion, and as a weak Government dependent on the breath of the mob would not dare to crush such free lances who profess only to war against the so-called common enemy, the "Candillos" continue their plunder and raids with impunity, until, in the fulness of time, they have an opportunity to figure as the leaders of a revolution, and by that means vault into offices not too far removed from the Treasury. These "Candillos" are the curse of the Spanish American Republics, and they will continue to be so until railways afford easy communication between the capital and the remotest parts of the country. When this is done, and troops can be easily moved, the halcyon days of the "Candillo" will be over, and his present profitable trade of "patriot" will be neither a safe nor a paying occupation.

But the present condition of the majority of the South American Republics, and especially Bolivia and Peru, once the wealthiest of the Provinces, is not altogether due to their poverty and bad Governments. It must be traced to the state of tutelage in which they were kept when Colonies of Old Spain. His Catholic Majesty ruled the Indies "not for the Indies," but for the men of Madrid, and Barcelona, and Cadiz. Spain alone could trade with the Colonies, and no colonist who had been born in America could hold any save the meanest position in his native land. Every office—from that of Viceroy to the smallest Alcalde—was put up to auction and sold to the highest bidder. Hence, when "the Indies" fell from the nerveless grasp of Spain, the Colonists found themselves unfitted for self-government. They had served no apprenticeship to the art, and the jealousies of each other which Spain had so carefully nurtured prevented them uniting in one or two strong Governments. Yet no countries in the world are richer in all kinds of natural wealth. The Veta de Candelaria, out of which SALCEDO two hundred years ago extracted his tons of silver, is flooded and unexplored; Potosi is unexhausted and unworked, and Cerro de Pasco in the hands of any other nation would be a mine of wealth to the State. Yet the young State of Nevada now produces more of the "plata" than the whole of South America put together, while the California quicksilver is carried past the very mouth of the once famous cinnabar mines of Peru. Should the war end to-morrow, the result would not greatly affect either country. Bolivia would undoubtedly lose the Desert of Atacama, with its silver and nitre; but the proper outlet of the Andean Republic is not towards the Pacific, but towards the Atlantic, down the Mamoré and Guapore in the eastern section of their own country, and the Madura and Amazon in Northern Brazil. The Republic would then have a fresh impetus given it, and a section of Bolivia, at present almost isolated, would share in the trade of the world, and, still better, would be able to separate its interests from those of Peru and Chili to the west. The Atacama Desert was never worth a conflict; its silver and nitre will never repay the ruin of the last nine months of bloodshed. It is a plain on which there is no vestige of life, no sound save the roar of the wind whirling along clouds of blinding nitrous dust; a land where skeletons are more numerous than men; where the air is so dry that a sheet of paper folded will break in two, and where water can only be obtained by distilling the brine brought from the sea. This is the characteristic of it from Cobija to Calama, where there is a marsh—a dysentery-loved oasis in the Desert—and a place so dreary that words can scarcely convey a fitting picture of its misery. The traveller passes through it as quickly as he can, and finds his way by the long serpentine line of bones which marks the track of previous wayfarers. Yet for the possession of this Desert these nations, akin in blood and tongue, have engaged in a ruinous and exhaustive war.

VALPARAISO, Nov. 22, viâ Lisbon.—Before abandoning Iquique to the Chilians, the allied troops burned the town and blew up the fortifications. The prisoners taken by the Chilians numbered 1,500. Chili has achieved another great victory by land. A force of allies, 11,000 strong, marching northwards from Noria to effect a junction with a reinforcement of 5,000 men under the command of the President of Bolivia, attacked, on the 21st instant, a Chilian advanced corps of 6,000 men, who occupied an entrenched position at Dolores, near Agua Santa. The Chilian heavy cannon committed great ravages amongst the ranks of the enemy, whose cavalry charged three times upon the guns and attempted to carry them off, but their efforts on each occasion were unsuccessful. In the evening the rear of the Chilian force came up and decided the day. The allies were driven back and their camp taken, in which 13 cannon were found. Many wounded officers, including the Bolivian General Villegas, were taken prisoners, and another of the allied generals was killed. The losses of the Chilians were

At last we have news from South America of a more decisive character than ordinary. After an attack, described in the telegram as being "by land and sea," the Chilians have occupied the Peruvian port of Pisagua. This victory, combined with the recent capture of the ironclad Huascar, has naturally caused great rejoicings in Valparaiso, with a corresponding depression in Lima. Indeed, it is reported that there is a revolution in the Peruvian capital; but revolutions are so frequent in the Republics into whose hands fell the Empire of the Indies that the tidings of a fresh one fails to stimulate the political palate, craving for news more novel. If, however, the report that Pisagua has been captured is confirmed, the intelligence must be considered as satisfactory. The unhappy struggle between Peru and Bolivia on one side and Chili on the other has for six months been so dragging its slow length along without any prospect of closing that, where it is difficult to say any good of either side, the best a neutral can hope for is that it will speedily end either by the exhaustion of one of the combatants, or in the manner in which wars terminate in more civilised countries. And this end the capture of Pisagua promises to forward. The place itself is of no importance. It is one of those dreary, hot, waterless, sandy towns which dot the Western Coast of South America from Guayaquil to near Valparaiso, and were it not that it is one of the "*Puertos intermedios*," or Peruvian harbours, through which, owing to the arid Atacama desert intervening between the habitable parts of Bolivia and the sea, the latter Republic receives most of its supplies, it would be almost deserted; for in itself it has nothing to attract people who consider the chief end of man not to sleep in the shade and smoke cigarettes from sunrise to sunset. But its position in the present struggle renders it a point of some strategic importance, and its seizure by the Chilians enables us to credit one at least of the combatants with a brighter glimmer of intelligence than any of them have hitherto displayed. The village is situate about thirty-five miles north of Iquique and sixty-five miles south of Arica. Iquique, in the days when the export of nitrate had not become a Government monopoly, was a flourishing place. In 1875 it had between eighteen thousand and twenty thousand inhabitants. But after the Government insisted on being the sole traders in almost the only product which coast-lying Peru supplies, thousands of tons of shipping and a large population were thrown out of employment. The result was that Iquique in less than a year was deserted by half of its people, and soon after the disaster which it suffered by the inroad of the great earthquake wave of 1877 it sank to the condition of a somnolent town of little more than six thousand people. Arica in the palmy times of his Catholic Majesty's rule was a flourishing city of thirty thousand inhabitants. It has long ago fallen into decay, being not only unhealthy, but periodically shivered by earthquakes, and its sole importance now consists in the fact that it plays to Tacna in the interior the same part which Callao does to Lima, which lies behind it. But just at the present moment Arica and Iquique are of greater moment in history than they have been for some time past. At Arica the Bolivian army, believed to number upwards of twelve thousand men, are encamped, while the Peruvians occupy Iquique in about the same force. For months past these heroes have been declaring their desire to come into collision with the Chilians, though hitherto they have displayed no great alacrity in converting their warlike longings into deeds. By the capture of Pisagua the Chilians have interposed a wedge between the "allied armies," and if their future operations are conducted with ordinary skill they cannot fail, with their comparatively well-organised army, to inflict a decisive blow on one or other of them. This constitutes the chief value of the success over which Valparaiso is rejoicing and Lima mourning.

To the revolution at Lima little importance can be attached. It has been long expected, and now that it has come is perhaps of less moment than the other awakener of sleepy Peru—an earthquake. In most parts of the world a revolution is a grave political commotion. It usually alters the whole fabric of the State, and almost always changes the form of government. A revolution in England meant the Bill of Rights and the security of the Protestant religion; a revolution in France portends a Republic or an Empire. In a South American Republic it causes few other changes than the replacement of one political adventurer by another, and the depletion of the usually all but impecunious treasury by the successful patriot. Hence, with the exception of the fact that an outgoing Cabinet leaves the public purse intact, a revolution in Lima is not quite so important as a change of Ministry in England. It does not even alter the politics of the country, for South American politics are for the most part entirely personal. The various strugglers for office may call themselves "Democrats," or "Aristocrats," or "Oligarchs," or their rivals may dub them "Goths" or "Epicleptics." But the country at large only knows the "ins" and "outs" as Alcantarists, or Blancists, Vazists, Pradvists, Bustamantists, or whoever might happen to be the hero of the hour to whose fortunes his followers may have attached themselves. It is impossible for any one save a Hispano-American casuist to characterise wherein the politics of the one differ from those of the other. The truth is that in South America there is a large percentage of the population whose chief ambition is a Government office, and as the readiest way of attaining this become active enemies of whoever hold these desirable posts. They are familiarly known as "bisoñosos"—people who want some office. No sooner is a President elected than one or more gentlemen who desire the office, issue a *pronunciamiento* full of fine phrases about despotism, freedom, and the rights of man. If successful, the "bisoñoso" obtains office and the plunder of office; if his revolution fails it is rarely that the weak Central Government can afford to punish so influential a personage. It is most likely, therefore, that he will be bought up, or, at worst, retain his self-assumed rank of General; and, being a man of note, be on the highway to become a Minister. Thus a premium is offered to rebellion, and it is rarely that a revolution—and sometimes more than one—is not in progress in some of these caricatures of civilised Governments. In Mexico, with two exceptions, no President ever served his full term of office. A

recent President of Venezuela, in opening that Congress, congratulated the country on only having had six revolutions during the previous year, while, not to catalogue the monotonous list of these civil perturbations for some time past, the Presidents of Bolivia have been elected by the simple process of elevating into the Chair of the Chief Magistrate the individual who had the largest military following. The present President of Bolivia is General HILARION DAZA, a man of war, and so skilful a guider of revolution that, like ANDREW JOHNSON, he rose from the tailor's bench to the Chief Magistracy. It is needless to say that such lands must be always impecunious. "The country agonises for the means of support," were the words of one of their recent Finance Ministers. Railways there are none—roads scarcely exist—the silver coin has been depreciated, as a means of enriching different Presidents—the public buildings erected by the Spaniards have been allowed to fall into decay, and no new ones have been erected, while those foolish enough to be entrapped into the operation facetiously known as "lending" these States find to their cost the emptiness of their exchequers. Yet the country is rich, the silver and gold mines inexhaustible, the guano deposits, though wasted, still plentiful, and the nitrate, about which this dispute originated, a source of wealth for years to come. But in a country where one of the common proverbs is that "La mejor hacienda es el Gobierno mal administrado"—the best estate is the Government badly managed—no revenue can suffice. At first the sympathies of this country were entirely against Chili, but of late they have turned. The conduct of Perú is, in spite of the elaborate explanation of her publicists, indefensible. It was she undoubtedly who instigated Bolivia to repudiate the Treaty with Chili, on the plea that it "had been made with a Revolutionary Government"—as if any Government in Bolivia could deserve a better designation. Her design was entirely selfish, for she hoped that by Bolivia imposing duties on the nitrate exported from the Atacama desert Lima might command the market in that article. On the other hand, the conduct of Chili has not been faultless. Her action in making war without a formal declaration, and in seeking in the nitrate export dispute a *casus belli*, when, in reality, the recovery of the Atacama desert had been long determined on, cannot, even in the present demoralised state of European public morality, be condoned. Yet Chili pays her debts, which is more than either Bolivia or Peru has done. Such bankrupt nationalities cannot afford the luxury of war, even though, as in the case of Bolivia, the "standing army" consists of 1021 officers to 2000 privates!

El combate del "Huáscar".

(Version chilena auténtica.)

Ya conocemos las partes oficiales del memorable combate de 8 de Octubre, tanto del jefe de la escuadra chilena, como del último comandante del monitor «Huáscar»; pero la concision y laconismo con que esos documentos están redactados, los hace deficientes para la historia, porque en ellos se anuncian a grandes rasgos todos los detalles generales del combate, faltando la relacion circunstanciada de los episodios mas interesantes que deben pasar a la posteridad.

El «Mercurio» de Valparaiso del 15 ha llenado este vacío, publicando esa relacion tan auténtica como detallada, y que tiene mucho mas valor para la historia que los partes oficiales, porque es indudable que ella le fué trasmitida por uno de los jefes de la escuadra chilena, actor principal en el drama sangriento de que nos ocupamos.

La autenticidad de esa relacion de versiones chilenas, ha sido comprobada y ratificada por todos los prisioneros peruanos, segun lo asegura el corresponsal del mismo «Mercurio» de Valparaiso, en su correspondencia de 16 de Octubre, en que dice:

«Inmediatamente de recibir el número de «El Mercurio», lo llevé para dar lectura de esa relacion a los prisioneros, y confrontar así la exposicion escrita con la relacion verbal de los que fueron actores en primer término.»

«Uno de los oficiales llevó el diario al señor Capitan de fragata don Meliton Carbajal, que gravemente herido, está en una pieza de la que no ha salido sun. La lectura se hizo en *rueda*, para mejor explicar-

the turret of the «Huáscar,» and penetrating, exploded inside; the shell, and the broken pieces of iron and wood work, together with some human remains, falling between decks and filling that part of the ship with smoke. The commander, who, as was his custom when directing the gunners, had his head and bust outside of the turret, was cut in two by the hips; the legs falling inside, while the other part of the body, most probably blown to pieces by the explosion of the shell, fell in to the water or on to the deck, from whence later on they rolled in to the sea.

The men below, thrown in to confusion by the explosion, and feeling sure that their commander had been killed, searched in the darkness and found a body which they carried to the stern of the ship, and delivered to Surgeon Rotalde as the remains of Rear-Admiral Grau; but the doctors soon recognised the body to be that of Lieutenant Ferré, third commander of the monitor, who had been killed by the same shell that had killed Grau. From this incident arose the mistaken idea that the Commander of the Huascar was carried to his berth, and was their blown to pieces by the explosion of a shell. Grau died instantaneously; and of his remains the crew were only able to find the legs, which were duly buried.

At 10. 05. a. m., the «Blanco Encalada» fired its first shot, when at a distance of about 600 metres. From that moment the fight was maintained by both the iron-clads; the «Huascar» defending itself valiantly.

A shell from the «Cochrane» cut the cables of the rudder, and in order to steer the ship the Peruvians had to use tackling from the commander's cabin, which had already received a shot from that iron-clad. Soon afterwards, however, a shell from the «Blanco Encalada» entered at the stern and killed all the men who were working the helm. From that moment the ship could not be governed.

After the death of the Admiral, staff commander Carbajal (1) went to the turret to communicate the fact to Captain Aguirre. While he was telling him to take charge of the ship, a shell, that easily penetrated the 9-inch plating of the tower, struck one of the trunnions, breaking the compresser and the cap-square, and bursting, killed several men, and blinded Carbajal, who was carried to the surgeon, unconscious.

Another shell from the «Cochrane» entered the turret a little time afterwards, killing some of the gunners, decapitating Captain Aguirre, and horribly wounding Lieutenant Palacios.

At the same hour a ball from the «Huascar» struck the stern of the «Cochrane,» while that ship was veering, and destroyed the captain's cabin, the rocket tube, the medicine-room, a store-room, and came out at larboard without bursting [illegible]

(1) Meliton Carbajal. He is a prisoner, and is wounded.

The Fight with the Huascar.

The account we publish to day of the combat of the 8 th of October, is taken from the «Mercurio» of Valparaiso of the 15 th inst. Its authenticity is guaranteed, according to a statement made by the Santiago correspondent of that paper, by all the Peruvians taken prisoners in the «Huascar»; and, as we believe it to be a faithful report of the fight, requiring but few corrections, we give it to our readers intact, adding, however, a few notes that we consider necesary to the proper elucidation of some of the statements made in it.

At 9. 25. a. m. the action was commenced by two consecutive shots fired by the «Huascar» from its deck cannons at the «Lord Cochrane,» which was at that time within a distance of 8,000 metres (1). The «Blanco Encalada» was then four miles away from the turret-ship, but owing to the «Huascar» having to veer continually in order to discharge its guns, the distance was every moment rapidly becoming less, and the fight soon became general.

The «Lord Cochrane» bore down upon the «Huáscar» without answering the enemy's attack, and soon two shots from the turret cannons of the monitor seconded another discharge of the deck guns; one of the balls, striking the water at a few metres from the «Cochrane,» and rebounding on to the plating of the stern about half a metre above the water-line, destroyed the cook-room, and striking a solid part of the roof between-decks, fell harmlessly to the floor. The Chilian iron-clad opened fire a few minutes afterwards with two well directed shots, though a little too high; and from that moment the exchange of ball was mutual between the two combatants.

The fourth discharge from the «Cochrane» sent a shell under the forecastle of the monitor, and there exploding, shattered it in pieces. A little time afterwards the Chilian iron-clad had a hole made in the armour-plate of its star-board battery by a ball from the «Huascar.»

Meanwhile the distance between the two ships had been greatly diminished. The «Cochrane» cut the line of the enemy's ship, but at poop, and did not manage to close its escape to the North. Yet the «Huascar» could not take advantage of this position, for owing to the incrustation of its hull, it could not make more than ten miles an hour, while the «Cochrane» could run eleven; so it had to yaw in order to use its guns, which can not be fired to stern.

It was under these circumstances, and when we were fighting at close quarters, that Rear-admiral Grau was killed. At 9. 55. a. m., the combat having then lasted half an hour, a shell from the «Cochrane» struck

(1) The *Huascar* opened fire upon the *Cochrane* with her turret guns, when at a distance of 1000 metres.

cuando una granada del *Cochrane* chocó contra la torre blindada del *Huascar*, medio metro bajo su arista superior, penetró junto con los destrozos de la torre, hizo esplosion en su interior, y sus cascos, conjuntamente con trozos de hierro y de madera y algunos restos humanos, cayeron al entre-puente llenando de humo ese departamento. El comandante acostumbraba dirijir los combates manteniendo la cabeza y el busto fuera de la torre, y fué por consiguiente, cortado en dos a la altura de las caderas; cayeron las piernas al entrepuente, mientras toda la parte superior del cuerpo, seguramente hecha pedazos con la esplosion de la granada, voló al agua ó á cubierta, de donde mas tarde los restos rodarian fuera del buque.

«La gente de abajo, atruldida con la esplosion y comprendiendo que su comandante habia muerto, buscó en la oscuridad y encontró un cuerpo que fué llevado á popa y entregado al cirujano señor Rotaldo, como los restos del comandante; los doctores vieron despues que aquel era el cadaver del teniente 1.° don Diego Ferré, tercer comandante del buque y muerto por la misma granada que ultimó al comandante. Nace de esa equivocacion la historia de haber sido Grau trasladado á su cámara donde una bomba lo hizo pedazos; ella es errada: Grau murió instantáneamente, y de sus restos solo ha sido posible recuperar las piernas, que han sido debidamente encajonadas.

«A las 10.5 hizo el *Blanco* su primer disparo á 600 metros de distancia y desde ese instante el combate fué sostenino por ambos blindados contra el *Huáscar* que se defendia valientemente.

«Una granada del *Cochrane* cortò los guardines del timon, y para poder gobernar tuvieron los peruanos que hacerlo con aparejos, desde la cámara del comandante, que ya habia recibido un balazo del mismo *Cochrane*.

«Una granada del *Blanco* penetró tambien por la popa é hizo esplosion dentro de la cámara conduyendo de destrozarla y matando á todos los que manejaban los aparejos del timon, con lo cual quedó el buque sin gobierno alguno.

«Despues de la muerte del comandante, el capitan de fragata don Manuel Carbajal (2) mayor de órdenes de la escuadra, pasó á la torre á comunicar la noticia al segundo del buque capitan de corbeta don Elias Aguirre y á indicarle tomase el mando del buque; cuando una granada que penetró fácilmente las nueve pulgadas de blindaje de la torre, chocó contra el muñon de la derecha, rompiendo el compresor y la cobremuñonera, y estalló matando algunos hombres y cegando al capitan Carbajal, quien fué sacado sin conocimiento y llevado al cirujano.

«Otra granada que penetró á la torre poco despues y que fué disparada por el otro blindado, concluyó con la gente de ella, lle-

(2) Su nombre es Meliton Carbajal; se halla prisionero y gravemente herido.

nos, y salvo lijerísimos é insignificantes detalles, todos decian que era exacta y verídica esa relacion.»

Como este escrito esta destinado á servir de dato para la historia, nosotros hacemos esas insignificantes rectificaciones, por medio de citas que formulamos en vista de los datos oficiales y hechos auténticos.

La relacion del combate de 8 de Octubre de 1879 que ha publicado «El Mercurio» de Valparaiso del 15, es la que en seguido trascribimos, tomandola solo desde el instante en que se rompieron los fuegos por nuestro glorioso monitor «Huáscar» sobre el blindado chileno «Cochrane».

El «Mercurio» dice:

«Por fin á las 9.25 de la mañana principió la accion con dos disparos consecutivos hechos por el *Huascar* con sus cañones de cubierta, sobre el *Cochrane*, situado ya á menos de 8,000 metros de distancia (1). El *Blanco* distaba aun poco mas de cuatro millas, ó sea 8,000 metros del *Huascar*, pero gracias á las viradas que éste hacia para disparar sus cañones, esta distancia disminuia por momentos y pronto la accion se hacia general.

«El *Cochrane*, sin responder á los primeros tiros enemigos, continuó acortando distancia y pronto los dos cañones de la torre del monitor secundaron con otros dos disparos los tiros hechos por los mas pequeños de cubierta; la última de estas balas dió en el agua á pocos metros de la proa del *Cochrane*, pasó de rebote el blindaje de la roda á medio metro sobre la linea de agua, destruyó la cocina y chocando en un maciso del cielo del entrepuente, cayó al suelo fria é inofensiva. El blindado chileno rompió sus fuegos momentos despues con dos disparos bien dirijidos, pero un poco altos, y desde ese momento el cambio de balas fue mútuo entre ambos contendientes.

«El cuarto tiro del *Cochrane* introdujo una granada bajo el castillo del monitor y ahí hizo esplosion, volándolo en pedazos; poco despues una del *Huascar* chocó contra el blindaje de la bateria á estribor del blindado, removió un poco la plancha de hierro y dejó en su superficie una huella pequeña del diametro del proyectil.

«La distancia, entre tanto, habia disminuido notablemente, y pronto el *Cochrane* cortó la linea del buque enemigo, pero á popa de éste, pues no alcanzó á cerrarle el camino del norte; el *Huascar*, sin embargo, con sus fondos algo sucios, no podia hacer mas de diez millas, siendo que el *Cochrane* alcanzó cerca de once, por lo que el buque peruano no pudo sacar partido de su posicion y hubo de decidirse á guiñar para poder hacer uso de sus cañones, que no disparan á popa.

«Fué en esas condiciones y combatiendo ya á muy corta distancia, que fué muerto el contra-almirante Grau: eran las 9.55 es decir que duraba el combate media hora,

(1) El *Huascar* no rompió el fuego con los cañones chicos de cubierta; consta del parte oficial que á mil metros del *Cochrane* afianzó el pasallon disparando los dos cañones de la torre.

vo la muerte del segundo comandante, capitan Aguirre, é hirió horriblemente al teniente Palacios.

«Por este tiempo una bala del *Huáscar* que penetró por la aleta de estribor del *Cochrane*, mientras este viraba, destruyó el camarote del comandante, un tubo cohetero, la botica, un pañol y salió por babor, á popa de la batería, sin reventar; las astillas hirieron diez hombres, pero solo dos de alguna gravedad.

«En el *Huáscar* el teniente Pedro M. Rodriguez (1) sacaba la cabeza por la tronera de la torre para apuntar el cañon de la izquierda y un proyectil de uno de los blindados pasó tangente al cielo de dicha torre volando la cabeza de Rodriguez, cuyo cuerpo cayó inerte al interior.

«Es así como el *Cochrane* recibió sus tres balazos, como el *Huáscar* perdió al comandante y tres oficiales y como quedó sin gobierno, pero con su máquina intacta y un cañon todavia en uso.

«El doctor Tavara y el sarjento mayor Ugarteche fueron heridos en la cámara de oficiales por una de las granadas que penetró por la popa. El capitan Bustamante, dos aspirantes y otros oficiales lo fueron levemente, cumpliendo su deber, en diferentes localidades del buque. Muertos ya los tres jefes del buque y puestos fuera de combate otros tantos oficiales, recayó el mando en el teniente primero don Pedro Garezon, quien lo mantuvo hasta el último momento.

«A las 10 25, justamente una hora despues de empezado el combate, arrió el *Huascar* su bandera y acto continuo se tocó á nuestros buques á suspender los fuegos, suspitayendo los hurras de la tripulacion á los disparos de la artilleria. La ilusion, sin embargo, no fué duradera, pues el monitor no detuvo su marcha un momento, y antes de mucho un nuevo pabellon flameaba al tope de su palo mayor. No ha sido posible saberse á ciencia cierta si una de nuestras balas cortó la drisa de la bandera ó si esta fué arriada por la mano de algun amorado marinero: mas es lo cierto que aquello no fué una rendicion; y para probarlo; un nuevo disparo del *Huáscar* dirijido al *Blanco* vino á afianzar el pabellon retando á sus enemigos á un duelo á muerte.

«El *Blanco* y el *Cochrane* repitieron entonces sus disparos, tratanto, al mismo tiempo, de hacer uso de los espolones; (2) mas el humo de sus propios cañones impedia á los comandantes de los buques chilenos, ver el buque enemigo, precisamente en los momentos de mas necesidad, y la gran rapidez con que marchaba el *Huáscar* no permitió á los blindados ejecutar con felicidad esa maniobra, siempre dificil por otra parte.

«Pero si aquellas moles de hierro no lle-

(1) Este habia tomado el mando del buque y sostenia el combate con el único cañon que quedó disponible en la torre.

(2) Es el *Huáscar* el que se lanzaba sobre los blindados.

wounding ten men, but only two seriously.

Lieutenant Rodriguez (2) was beheaded by a ball that passed tangential to the roof of the tower, at the time when that officer put his head out of an embrasure in the turret of the «Huascar» to direct one of the guns.

Doctor Tavara and Sergeant-major Ugarteche were wounded while in the officers cabin, by one of the shells which penetrated the poop; and Captain Bustamante, two midshipmen, and other officers, were slightly wounded while fulfilling their duty in different parts of the ship.

The three commanders of the monitor being killed, and three other officers badly wounded, the command of the «Huascar» fell to Lieutenant Garezon, who held it until the end of the fight.

At 10. 25., just an hour after the combat began, the flag on board the «Huáscar» was lowered, but the ship did not stop its engines, and soon another flag was seen waving from its main-mast head. Whether the halliards were cut by a shot from one of our cannons, or the flag was lowered by a terrified sailor, is not known; but it was certainly not their intention to surrender the vessel, for another discharge from the «Huascar» guaranteed the new colors, and challenged the enemy to a *combat à outrance*.

The «Blanco Encalada» and the «Lord Cochrane» recommenced their firing, and tried to run down the «Huáscar» (3) but the smoke of their guns prevented them seeing the monitor at the moment when most necessary, and the «Huascar» escaped, But each time that the attempt was repeated, the turret ship had to come within 100 metres of one of the iron-clads, and terrible butchery was committed by the rifles and mitrailleuses of both ships.

The mitrailleuse «Lordenfeld,» lately mounted on our ships, had a good trial. They killed two of the men who were working the Gatling guns on the round-top of the "Huascar," and, wounding the third, obliged the cadet in charge to descend with the wounded man, and lend his services on deck.

Our discharges of artillery were each time more prolonged and well aimed. The forecastle, the commander's turret, the funnel, the round-house, and the weather-boards were all destroyed or perforated in three or four different parts. A boat fell into the water, being suspended by one end, and was dragged at the stern of the monitor; and a 12-pounder deck gun was broken in two parts by a shell that struck it on the swell of the muzzle.

When the "Blanco Encalada" tried the third time to run down the "Huascar," the badly damaged but still animated little

(2) When he took command of the *Huascar*, only one of the turret guns could be used.

(4) It was not the ironclads that attempted to run down the *Huascar*, but the Peruvian ship that tried to ram the Chilian.

(3) On the contrary; the monitor tried to sink the *Blanco Encalada*.

garon jamas á tocarse, la maniobra obligaba al monitor, cada vez que se repetia, á deslizarse á menos de cien metros de alguno de los blindados, y al ruido de la artilleria se unia entonces el de un nutrido fuego de fusileria y ametralladoras de ambos buques, fuego que duraba tanto tiempo como lo permitia la cercania de las naves y el cual era suspendido para empezar de nuevo en la próxima ocasion semejante.

«Las ametralladoras Nordenfelt, últimamente montadas en nuestros buques, tuvieron un serio estreno, y á poco, sus disparos y los de los rifleros de las cofas dieron muerte á dos individuos de los que manejaban las ametralladoras Gatling de la cofa del *Huáscar*; un tercero fué herido, y al aspirante que tenia ese puesto no le quedó otro recurso que bajar con el herido y prestar sus servicios en cubierta.

«Nuestros disparos de artilleria eran, entre tanto, cada vez mas continuos y tan certeros, que cada proyectil lanzado era una nueva granada que estallaba en el buque enemigo; el castillo, la torre del comandante, la chimenea de la maquina, la toldilla y los cubichetes eran otros tantos objetos destrozados y perforados en tres ó cuatro puntos diversos; un bote cayó al agua, quedando suspendido por una de sus extremidades y siendo arrastrado tras la popa del *Huáscar*, y un señor de a 12 de la cubierta fue partido en dos por una granada que chocó en su boca.

«Cuando el *Blanco* trató por tercera vez de espolonear al ya maltratado pero siempre animoso buque chileno enemigo, (3) este pasó al costado del blindado á 20 ó 25 metros de distancia; los tres cañones de la bateria cargados con carga maxima y apuntados á depresion, hicieron fuego sucesivamente; recibio el *Huáscar* tres proyectiles mas á flor de agua, y estallando las granadas dentro del buque, sembraron de cadaveres el entrepuente, y se declaró el incendio en el interior.'

«La desmoralizacion empezó entonces á cundir en la tripulacion peruana [4]; toda

(3) No fué el *Blanco* sino el *Huáscar* quien acometió á aquel con su arriete, y por errar el golpe pasó á toda fuerza á 25 metros del Blanco, el que aprovechó ese momento para disparar simultáneamente sobre el *Huáscar* sus tres cañones que tenia apuntados por depresion.

(4) Debe decir "en la tripulacion del *Huáscar*," entre la que existia un medio ciento de europeos, ingleses en su mayor parte que se habian contratado cuya relacion nominal es la siguiente:

Tripulantes.— Williams L. Leonard, Samuel Locket, José Celedin, Estephe Serces, Williams Michel, Edward Ford, James Anderson, Williams Burns, George Mathison, John Franz, Robert Rundle, Manuel Panay, Edward Price, Edward Perry, George Harrys, Michel Murphy, Alberto Avenell, James Ward, Daniel M. Carthy, Henry Otto, John Devine, John Baker, George Smith, Alfred Strand, James Dovins, Atanacio Bolosopeyos, Frederic Meiggs, Manuel Giagiades, Charles Bex, John Durmet, John Price, John Lumby, Julio Filipe, Julio Pablo, J. Hewing Heud, Samuel Narwich, Henry Smith, Henry Vergesse, Williams Norris, John Johnson, Adolph Mayer, Thomas Casthg, Manuel Caceson, Alexander Morrue, Edward Grahmhan.

Estos se habian contratado para servir el *Huáscar*, pero no para ser héroes—representaban la cuarta parte de la dotacion de nuestro monitor, y

ship of the enemy (4) passed off to the side of the iron-clad about 25 metres; but it received three sucessive shots above the water-line, which strewed the decks with bodies, and caused the ship to take fire.

Demoralisation then began to spread among the crew of the Peruvian ship (5); all hope of being saved was given up; and frequent demands were made for the colors to be struck, some of the sailors going on deck with the intention of lowering the flag. But at the foot of the halliards they found Lieutenant Garezon (1), who conducted himself bravely all through the fight, and who, revolver in hand, prevented them lowering it, telling them that he would rather sink the ship than deliver it into the hands of the enemy.

Lieutenant Garezon left the deck to open the valves of the Engine, and then the flag was immediately lowered from the mast head (2). But, whether the result of a mistake or from whatever cause, the propeller still revolved, and the ship ran away at full speed; and, after a short interval of expectation, the Chilian iron clads again opened fire upon the "Huascar." (3)

«Many sailors and marines could now be seen coming out of the openings in the turret, and throwing themselves into the water, not being able to withstand any longer our shower of shot. A few minutes afterwards the "Huascar" stopped its engines. Our cannons were then silenced and on the deck of the monitor about a score men waved their handkerchiefs in

(5) It might be well to remember that there were about fifty Europeans, the greater number of them Englishmen, on board the *Huascar*. Perhaps they were the ones whom Lieutenant Garezon had to prevent from lowering the flag.

Their names were—William L. Leonard, Samuel Lockst, José Celedin, Estephe Serces, William Mitchel, Edward Ford, James Anderson, William Burns; George Mathison, John Franz, Robert Rundle, Manuel Panay, Edward Pryce, *Edward Terry*, George Harris, Michael Murphy, *Albert Avenell*, James Dard, Daniel M. Carthy, Henry Otto, John Devine, John Baker, George Smidt, Alfred Strand, James Dobbins, *Atanacio Bolosopeyos*, Fred Meigga, Manuel Gosgriades, Charles Bax, *Jhon Dunnate*, John Pryce, John Lumby, *Julio Tellipe*, Julio Pablo, J. Hewing Haud, *Samuel Varnish*, Henry Smith, *Henry Vergueese*, Williams Norris, John Johnson, Adolph Mayer, Thomas Casting, Samuel Careson, Alexander Monroe, Edward Graham.

De mortuis nil nisi bonum. The men whose names are printed in italics, were killed; and of the remainder, 14 were wounded. (Translator's note.)

(1) He was the officer who last assumed command, and who maintained it until the end of the fight.

(2) Lieutenant Garezon did not leave the deck: he sent Enrique Herrera to order the valves to be opened; the order being immediately executed by Engineer Mc Mahon. But to open them it was necessary to stop the engines, and then the *Huascar* was boarded. The monitor was not surrendered, nor were the colors struck: a shot cut the halliards; and the fact was pointed out by Garezon to Lieutenant Toro of the *Cochrane*.

(3) After the flag had fallen, the Chilian ships fired discharges of artillery and mitrailleuse shot at the turret-ship,—the enemy being very close to the *Huascar*; one to star-board, one to bar-board, and the *Covadonga* to stern.

esperanza de salvacion se extinguió en el ánimo de sus tripulantes; las indicaciones de arriar la bandera empezaron á ser continuas, y algunos se dirijieron á cubierta con ánimo de rendir el buque. Pero al pié de la driza, el teniente Gárezon, (5) que durante todo el combate se manejo como un bravo, impedia, revolver en mano, la ejecucion de ese acto, prometiendo hundir el buque antes que entregarlo en manos enemigas.

«El teniente Gárezon abandono la cubierta para hacer abrir las valvulas de la máquina y la bandera fué inmediatamente arriada del tope. (6) Sea sin embargo efecto de un olvido ó por cualquier otro motivo, la hélice siguió jirando y el buque huyendo á toda velocidad, por lo cual, despues de un corto intervalo de espera, las naves chilenas volvieron á romper sus fuegos sobre el *Huáscar*. (1)

«Vióse entonces claramente salir por las escotillas y portas de la torre varios marineros y soldados que se arrojaron al agua no pudiendo resistir aquella lluvia de proyectiles. Instantes despues cesó el buque de huir y los nuestros de disparar, y sobre la cubierta del *Huáscar* se vió aparecer una veintena de individuos que agitaban sus pañuelos en señal de rendicion. (2)

«Cuando el monitor peruano arriaba su bandera, la *Covadonga*, que apesar de haber largado velas para aumentar su andar no pudo llegar antes a tiro de cañon, hizo un disparo que debió ser el primero y el único que lanzara en el combate. (3) El tiro final

cosas puestos habian cumplido su deber hasta donde era posible, para hombres que servian por la paga, y no quisieron pasar de ahí.

Son tal vez estos á los que el teniente Gárezon contenia con revólver en mano, para impedirles que arriasen el glorioso pabellon peruano; porque estaba resuelto que el *Huáscar* debia hundirse ó volar, pero jamás rendirse.

(5) Este fué el último oficial que abandonó el mando y lo mantuvo hasta el fin del combate.

(6) El teniente Gárezon no abandonó la cubierta: mandó al alferez don Ricardo Herrera que hiciese abrir las valvulas, cuya órden ejecutó inmediatamente el primer maquinista don Samuel Mc'Mahon; pero para ello hubo necesidad de parar la máquina, y entónces fué abordado el *Huáscar* pero no rendido.—El pabellon peruano jamás se arrió —sino el pico caido porque una bomba rompió la driza de cadena que lo sostenia; y esto hecho lo hizo notar el teniente Gárezon á todos los oficiales enemigos que llegaron á la cubierta del *Huáscar* en el primer momento, y entre ellos al teniente Toro del *Cochrane*.

(1) Despues de caido el pabellon del *Huáscar* por falta del pico, los buques chilenos hacian fuego nutrido de artillería y ametralladoras, colocados asi: un blindado á 20 metros de la aleta de estribor; el otro por la cuadra de babor, y la *Covadonga* por la popa á igual distancia.—Esto consta del parte oficial.

(2) A la lejendaria *Covadonga* estaba tambien reservado en esta vez, el triste papel de matar á los muertos.—llegó tarde al combate—llegó cuando el *Huáscar* destrozado é inerme ya no podia ofender; pero su comandante tuvo miedo á los muertos y tiró sobre el *Huáscar* vencido, asi como el asesino que avezado al crímen y sediento de sangre, hunde su puñal aleve en el pecho de un cadáver.

Que conste este hecho para la historia.

(3) El *Huáscar* fué tomado ya inerme y en escombros, con 74 muertos y 50 heridos, y con las valvulas abiertas; y el hecho de haberse consuma-

ken of surrender.

As the monitor struck its flag, the «Covadonga,» which, though it had spread it sails, had not been able to come within range sooner, fired the first and only shot that it gave dur ing the action (4). The last shot was fired by the «Blanco Encalada» at 10. 50 a. m., at the time when the "Huascar's" engines were stopped, exactly an hour and a half after the commencement of the fight, and an hour after the death of the commander, Rear-admiral Grau.»

«The monitor having surrendered, both the Chilian iron-clads lowered their boats and sent off men to take possession of the prize, and to bring the wounded from on board the enemys ship. The first boat got ready by the "Blanco Encalada" was sent to pick up all those who were seen floating on pieces of wood in the water; and the second went to the «Huascar» with the staff commander of the fleet, Captain Castillo, who, in the name of the Chilian admiral, felicitated the Peruvians on their brave conduct during the fight.

Nevertheless the first to touch the deck of the «Huascar» was Lieutenant Simpson of the «Cochrane,» and a few minutes afterwards arrived Captain Castillo and Lieutenant Bianchi, adjutant of the Commander-in-Chief. Engineer Wender arrived at the same time. He went immediately to the engine-room, and with revolver in hand demanded to be shown the valves that were ad mitting the water.

The Peruvian flag was carefully preserved, and in its place we hoisted a handsome tricolor, the first most probably that that ship ever raised, and the last that shall wave fromit. As soon as it was seen by our crews, they ran up the rigging and burst on the air three loud «hurras,» their only lawful manifestation of enthusiasm.»

«To paint the scene of desolation and butchery presented by the upper and lower decks of the "Huascar" at the end of the action, is a task more difficult even of supposition. The deck was covered with wounded men who had been brought from below out of the heavy atmosphere breathed there, and by a few sailors who, fearing that the ship would sink, or be blown into the air when the fire reached the power-magazine, were determined to be the first to leave it. What at one time had been berths, saloons, and cabins, were now but pieces of wood, torn clothes, blood, and shells, jumbled together in horrible confusion. The passages in the tower were strewn with the bodies of the gunners, and of those who had worked the cranks

(4) The *Huascar* was taken when the majority of its officers and men were in one way or another incapable of offering further resistance. The fact of Garezon having given orders for the valves to be opened, is an evident proof that the ship was not surrendered.

...é hecho por el *Blanco* á las 10.55 d... mañana en el momento mismo en que ... raba el *Huáscar* su máquina y justame... hora y media despues de su comienz... una hora despues de haber perecido neb... mente su comandante, el contra almira... Grau.

«Rendido el "Huascar", ambas naves el... lenas arriaron sus botes para tomar pos... sion de la presa y trasportar á bordo l... heridos enemigos. El primer bote que ... «Blanco» consiguió tenar á flote pactic... recojer naufragos que flotaban agarra... á trozos de madera, y el segundo mar... al "Huascar" conduciendo al mayor de... denes de la escuadra, que en nombre ... jefe chileno llevaba al peruano las felic... ciones correspondientes á su buen comp... tamiento y hermosa defénsa en el combat...

«Sin embargo, quien primero pise la c... bierta del buque enemigo fué el tenien... Simpson del «Cochrane» y momentos de... pues el capitan Castillo, mayor de orden... y el teniente Bianchi, ayudante del coma... dante en jefe. Conjuntamente con ellos l... gó al "Huascar," el injeniero señor We... der, quien marchó á la maquina y con r... volver en mano hizo se le indicase el lug... de las valvulas, por las que se procuraba l... narse el buque de agua.

«La bandera peruana que flameaba en lo... del «Huáscar,» fué recojida cuidadosamen... te y en su lugar se izó una heroica bandera... nacional, el primero sin duda que ha on... tentado ese buque y el último que se el fla... mee. A su vista la tripulacion de las na... ves chilenas sabió a las jarcias y gritó a... tres un triple plural como muestra y fiel... manifestacion de su entusiasmo.

«Pintar la escena de desolacion y carnice... ria que ofrecia la cubierta y entrepuente... del «Huascar» al finalizar su resistencia, s... tarea mas difícil que suponerla. La cubier... ta era invadida por los heridos, a quienes... se traia arriba con el objeto de sacarlos d... la atmosfera pesada y cargada de humo... que abajo se respiraba, y por algunos ma... rineros que temerosos de que la nave s... hundiese o volase por los aires una vez qu... el fuego alcanzase á la Santa Barbara, s... disputaban la primacia de abandonar e... buque; lo que una vez fué cámaras, salone... y camarotes, era ahora un hacinamien... to de madera trozada, ropa despedazada... miembros humanos, sangre y cascos d... granadas en horrible confusion; los pasillo... de la torre estaban sembrados con los res... tos de marineros muertos en ella ó mane... jando las cigueñas con que se la hace jirar... y por cualquiera parte del buque á donde... se volviera la vista no se presentaban sino... ejemplos de los efectos increibles produci... dos por la explosion de las granadas Polli... sier de los blindados.

«Habia el «Huáscar», recibido dos tiros en... el castillo, dos dentro de la torre y tres que... no lo penetraron, dos en la chimenea, dos... en la torre del comandante, varios en cu...

...do el sacrificio, por la mano del teniente Gá... es el comprobante mas auténtico de que el *Hua...* no fué jamás rendido.

by which the turret was turned; and to whatever side of the ship we directed our gaze, we saw nothing but instances of the incredible effects produced by the explosion of the Pollisier shells shot from our guns.

The "Huascar" had received two shots in the forecastle, two inside the turret, and three which had not penetrated; two in the funnel, two in the commander's tower, several on deck, one in a saunon, five above water mark on the star-board side, two on the lar-board side, and two at the stern; and several that had not penetrated the armour-plating, together with an unnumerable quantity of rifle and mitrailleuse shot which had perfectly riddled the upper-deck. We only recived the three shells that struck the «Cochrane» but there were many rifle shots found on both ships.»

The prisoners and wounded having been taken on board the iron-clads, and on the «Covadonga», the monitor was manned by about fifty Chilians and taken slowly into Mejillones, escorted by the same little ship that had been so many times on the point of being destroyed by the «Huascar» —the «Matias Cousino.»

On weighing anchor in the bay its decks were invaded by thousands of persons who had been anxiously awaiting the result of the fight they had heard in the distance. Nearly the whole of the battalion «Chacabuco», with its band of music and ambulance corps, were first on board, and did good service. Each person took away with him a piece of the ship as a remembrance of the «Huascar»; yet all the inhabitants of Mejillones were not sufficient to thus clear away the debris, for there were enough splinters to give memenfoes of this kind to all the soldiers of Antofagasta.

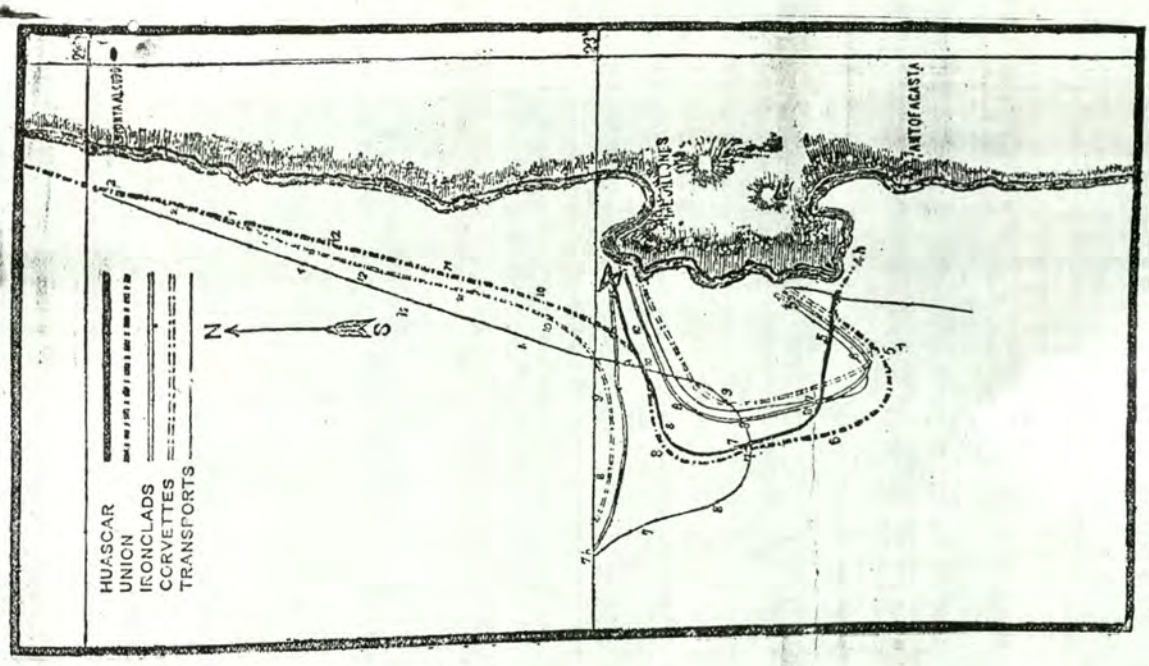
A lanch bore all the bodies, some of them horribly mutilated, that it could to and, and the following morning they were buried with all the honors due to the respective positions they had held on board, by the troops quartered in Mejillones.

...Windsor to-morrow (Sunday) to commemorate the ... versary of the death of the Prince Consort and of the Princess Alice. The annual service will be held at Frogmore before the Queen and the Royal Family. On Monday Her Majesty presides at a Council, and on Wednesday the Queen goes to Osborne for Christmas.—The Queen's New Year's gifts to the poor of the parishes surrounding

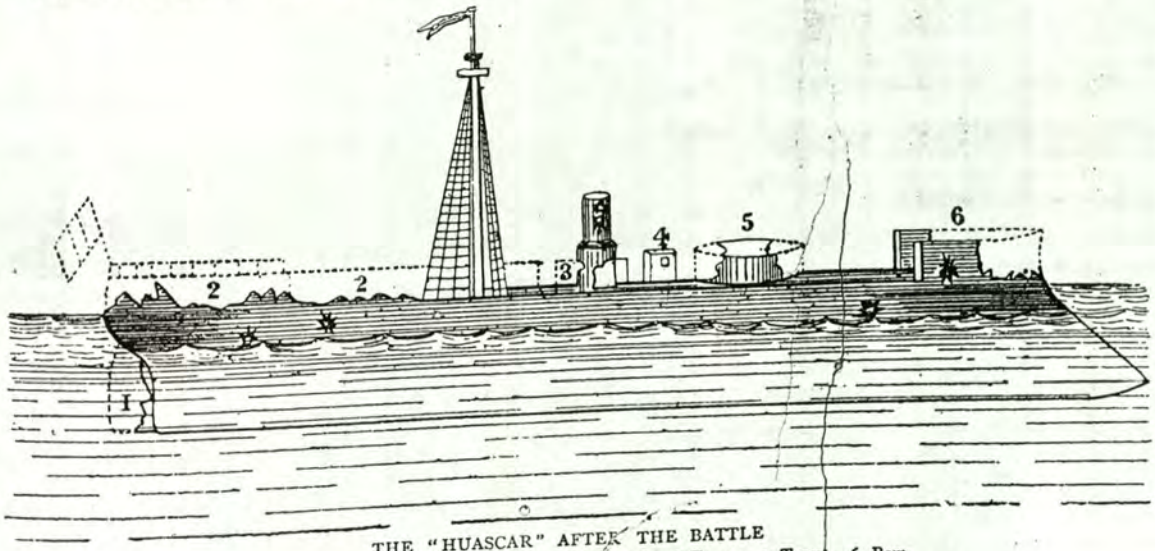
...not having been able to carry out his Abol... Trade policy, has resigned, and Señor Canovas del Castillo has ultimately succeeded in forming a Conservative Cabinet. It is feared that the failure of Marshal Campos to carry out the proposed reforms ...been rendered extremely difficult.

...ct. It is true that the numbers for the Ministry were 221 against 97 contrary votes, but there were no fewer than 200 abstentions, and of these 150 were Republicans—Republicans of an advanced hue, it is true, but still members of the Republican party. Thus

Windsor Castle will consist of 3,200 lbs. of beef and 1,200 cwt. of coal, which will be distributed to 800 persons in quantities suitable



Plan of the Combat up to the moment when the *Union* lost sight of the *Huascar*. The numbers, which indicate the successive hours, show the relative positions of the various vessels from 4 A.M. to 2 P.M.



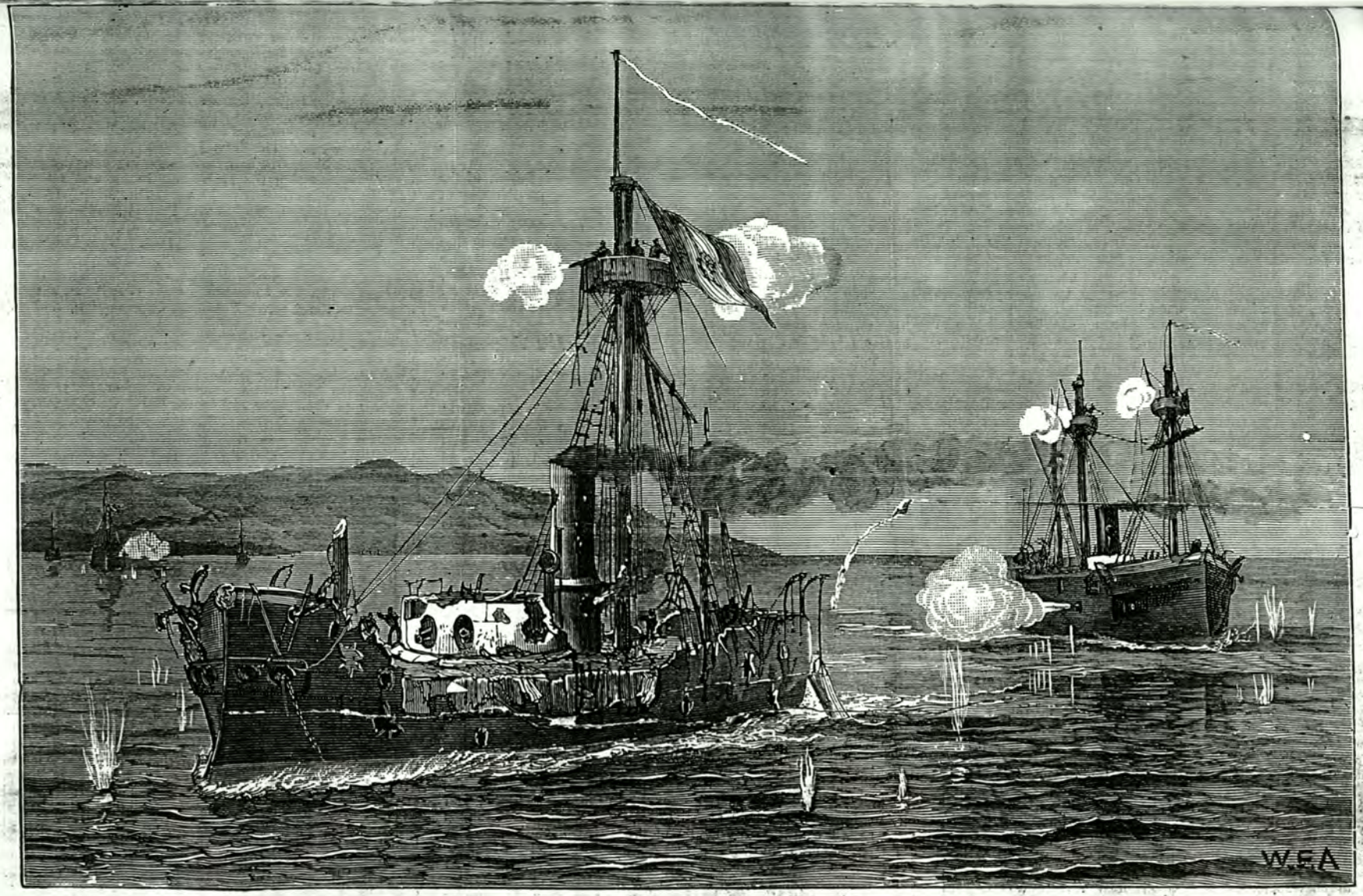
THE "HUASCAR" AFTER THE BATTLE

1. Rudder and Screw.—2 and 3. Cabins.—4. Admiral Grau's Tower.—5. Turret.—6. Bow.
(The dotted lines show the portions of the vessel carried away by the enemy's fire.)

THE NAVAL COMBAT IN THE PACIFIC

WE have already given an account of the battle between the Peruvian turret-ship *Huascar* and the Chilian ironclads *Almirante Cochrane* and *Blanco Encalada* on October 8th off Mejillones, so that we need now only give a few further details which have arrived by a later mail. In addition to the two ironclads, the Chilians had in action the corvette *O'Higgins* and the armed transport *Loa*, which served to keep the Peruvian corvette *Union*, the *Huascar's* consort, out of the field, and finally cleared her off the scene of action. Another Chilian armed transport, the *Itata*, and another corvette, the *Covadonga*, also remained witnesses of the action. The *Almirante Cochrane* was the first to come within hail of the *Huascar*, which opened fire at half-past nine A.M.

The fight, it appears, lasted for two hours, the two vessels keeping at about 300 yards' distance from each other, and at one time, the *Huascar's* flag being shot away, the Chilians thought that their adversary had surrendered, and raised a hearty cheer. The colours, however, were once more run up to the main, but, in addition to the enemy's fire, a terrible scene was taking place on board the *Huascar*. A great proportion of the crew, thinking that sufficient sacrifice of life had been made, clamoured that the signal of surrender should be made. Lieut. Garezon, however, staunchly opposed the rioters, who were ultimately driven below by the Chilian fire. Shortly after eleven, when all hope was lost, the same officer proposed to blow up the ship, but, yielding to the persuasion of one of the engineers, consented that the valves should be opened, and the crew given a chance to save themselves while the *Huascar* was sinking. Before, however, two feet of water had found their way into the hold, the Chilians had boarded the vessel, and the valves were at once closed. The *Huascar* does not appear to have been so substantially injured as at first reported, but, as may be seen in the subjoined diagram, great damage was effected, her steering apparatus was destroyed, her smoke stack traversed, the guns in her turret disabled, and the whole deck swept clear of bulwarks and deck houses, including Admiral Grau's fighting tower, nothing being found of that officer but his legs. The Gatling guns were freely used on both sides from the battery on the masts, and the scene below in the *Huascar* is stated to have been most horrible. Out of a crew of 200 no less than 78 were killed, while out of the surviving prisoners some twenty-five or thirty were wounded. Captain Aguirre was killed, and the surviving officer in command, Carbajal, was blinded by the explosion of a shell. The *Almirante Cochrane*, which is very little injured, is really entitled to the glory of the capture, as at first she engaged the *Huascar* single-handed, the *Blanco* not arriving until later in the day. It is satisfactory to hear that the Chilians make no vulgar boasts over their capture, and that two ships against one and twelve guns against two, to say nothing of the other vessels, were considered overwhelming odds. The *Huascar* is to be repaired, but while changing her nationality will retain her name. Our two diagrams are from the Peruvian paper *La Patria*. One shows the condition of the *Huascar* after her capture; the other represents the courses taken by the various vessels during the action, from the time that the *Huascar* touched at Antofagasta (4 A.M.) to 2 P.M., when the *Union*, owing to a swift pair of heels, got clear of her pursuers.



THE SOUTH AMERICAN WAR – ACTION BETWEEN THE PERUVIAN TURRET-SHIP "HUASCAR" AND THE CHILIAN IRONCLADS "ALMIRANTE COCHRANE" AND "BLANCO ENCALÁDA"

FOUGHT OFF MEJILLONES DE BOLIVIA, OCTOBER 8, 1879

bierta, uno en un cañon, cinco sobre la línea de agua á estribor, tres a babor y dos por la popa, amen de varios que no penetraron el blindaje del costado y de una infinidad de pequeños disparos de rifle y ametralladoras que dejaron al buque acribillado con sus señales. Los nuestros en cambio, solo tuvieron los tres golpes recibidos por el «Cochrane» y muchos tiros de rifle en ambos buques.

«Trasladados á los blindados y al «Covadonga» los heridos y prisioneros peruanos, el "Huáscar", tripulado por un medio ciento de chilenos, avanzò lentamente á Mejillones custodiado por el «Matias Cousiño», el mismo buquecito que tantas veces estuvo á punto de ser victima del monitor peruano.

«Al fondear en la bahia, su cubierta fué asaltada por miles de personas, que esperaban ansiosas el resultado del combate, que escucharon desde lejos; el batallon Chacabuco casi en su totalidad, su banda de músicas y la ambulancia que lo acompaña llegaron á bordo los primeros, y sus servicios no fueron perdidos, siquiera para aclarar al buque de escombros, gracias a las astillas que cada persona llevaba consigo como recuerdo del "Huascar"; pero no fué bastante la poblacion entera de Mejillones para despejar de escombros, que astillas habia en cantidad suficiente para dar recuerdos de esa especie á todos los soldados que forman el campamento de Antofagasta.

«Una lancha llevó á tierra los cadaveres horriblemente mutilados que fue posible recojer á bordo, y al siguiente dia, de mañana, se les dió la debida y honrosa sepultura, haciéndoles las tropas acantonadas en Mejillones los honores correspondientes á sus clases respectivas.»

Tal ha sido el fin del combate.

THE WAR IN SOUTH AMERICA.

IMPORTANT CHILIAN VICTORIES.

(BY TELEGRAPH.)

(FROM OUR OWN CORRESPONDENT.)

PLYMOUTH, MONDAY NIGHT.

The following details of the capture of Pisagua were received in Plymouth to-day, under date of Lima, Nov. 12:

The landing of the Chilians at Pisagua, where they met with a fierce resistance from the few allies there posted, has at length changed the character of the war. Emboldened by the capture of the monitor Huascar, which has almost entirely freed their transports from danger by liberating their ironclads from the wearying duty of convoying, the Chilians hurriedly embarked the army they had been engaged in gathering and drilling during six months past at Antofagasta, and on the 2nd inst. they made their appearance with sixteen vessels in front of Pisagua. They disembarked under a heavy fire, and after a desultory fight, lasting nearly seven hours, carried by storm the three trenches which had been dug at the back of the town, and which would probably not have fallen had they been defended by a larger body of troops. The ascent to them is steep and rocky, and they formed an admirable defence; but the two or three hundred men who had been detailed to keep them could do nothing, as their strength became reduced, and the Chilians were pushed on in greater numbers. The little town of Pisagua is built on a sloping strip of sandy ground lying at the base of a semi-circle of hills, the crest of which it was absolutely necessary the Chilians should crown if their landing was to be effected with any safety from attack from the enemy's forces which might have been stationed in the Pampa, which commences directly the top of the ascent is reached. Once there, the Chilians could see for miles around, and, with an assurance that they were free from even the slightest attack from the allies, they quietly proceeded to disembark the whole of their men, artillery, horses, &c. Including some 900 Bolivians, who only joined inthe engagement when it had been raging for some hours, 1,200 men were all the allies had present; and as only 800 of them have since rejoined the main body, it is certain that 400 either fell in battle or were subsequently killed by the victors. The members of an ambulance corps were also killed by the Chilians, while the women found in the town were treated with great inhumanity. It is to be regretted that scenes were enacted which reflect the greatest discredit on the men who had acted with bravery during the day, and which to some extent will serve as palliation for the reprisals which are now openly threatened whenever the allied arms prove victorious. The invaders are said to have lost nearly three hundred killed, and from six hundred to seven hundred wounded—certainly a heavy percentage out of an army of from 13,000 to 14,000 men, and which is only now commencing a campaign which threatens to be of some duration. The immediate effect of the loss has been the return of a number of vessels to Chili for the purpose of bringing up some of the reserves, and also the 3,000 men who had been left in garrison at Antofagasta. The Chilian army in Peruvian territory will thus amount to between 23,000 and 24,000 men.

The English and French fleets on this coast are being rapidly strengthened. Four of the English vessels, the Shannon, Thetis, Turquoise, and Pelican, and the French corvette Hugon, were present at the fight at Pisagua, and all on board those vessels speak highly of the bravery displayed by both sides. Rumours of renewed offers of foreign mediation are rife among foreign circles, but among natives little is said in reference to it. There is evidently a desire that the matter should be fought out, and that Peru through victory should obtain the control of the whole of the nitrate business on the coast, or through defeat should lose the guano and nitrate beds which Chili has expressed a desire to appropriate. Mediation, coupled with a slight display of an intention that its effects should be obvious, might have been judiciously employed by the foreign Powers prior to the outbreak of the war; but the worst of passions—revenge and avarice—have now been aroused, and it appears probable before they have had sway for awhile all attempts to promote peace will be rejected by the contending parties.

The following later information respecting the war has been received under date Lima, November 26th:—

The Peruvian army, under General Buendia, to which was confided the task of driving back the invading Chilian army which had landed at Pisagua and pushed on to the interior, has sufferpd a defeat at a place called San Francisco which has led to its complete collapse, and what has become of the army is unknown. But although General Prado communicates nothing, either by wire or mail, with respect to the disaster which has followed the first attempt of the Peruvians to assume the offensive, fugitives who have arrived in Arica are by no means so reserved, and from their communications it is to be feared that the death roll of those who have perished from hunger and thirst after the battle will be even greater than that of those who fell in the combat. Immediately after the capture of Pisagua the allied forces under Buendia retired to Agua Santa, the terminus of the railroad, fifty miles from the coast, and there remained, being gradually strengthened by the other forces which had been stationed for months past in the southern half of the Department of Tarapacá, to which,

up to the present, actual strife by land has been confined. Acting under orders issued by General Prado by telegraph from Arica, Buendia put his men in motion, and during the night of the 18th commenced to retrace his steps over the same route he had taken when driven out of Pisagua. He had with him 5,355 Peruvians and 3,425 Bolivians, giving a total of 8,780 men. Passing through two positions which had been held by the enemy but were found deserted, and one of which they had evidently at first intended to defend, by 3 p.m. on the 19th he was in front of a hill called San Francisco, which commands the valley through which the railroad runs, and on which earthworks had been thrown up. They were defended by a strong Chilian force plentifully supplied with Krupp field pieces and Gatling guns. Here Buendia committed the error which has cost the allies the best division in their army. Instead of making a detour, which he could easily have done, and thus compelling the enemy to descend to attack him in the pampa at the rear of the hill, or submit to having his communications with Pisagua cut off, Buendia gave the order to charge up the rugged hill and carry the works by storm. The attempt was gallantly made. Three times the shattered regiments which had undertaken a feat which it was impossible to perform were compelled to fall back to re-form, leaving the hill side thickly covered with their dead and dying, who had fallen before the Krupps and Gatlings long ere they could make their rifles tell. At length at nightfall Buendia determined to retreat, and then it became apparent that his authority had disappeared together with whatever prestige he had before enjoyed, and that the men whose lives he had so unwisely imperilled during the day were now determined to think and act for themselves and to disregard all general orders, even if an attempt were made to enforce them. Naturally enough, horrible disorganization ensued, and what might have easily enough have been an orderly retreat became a frightful rout. Some went one way, some went another; but all sought the same end. Some hamlet or town, some oasis in that desert of rugged hill and salty arid plain where water might be procured, if not provisions, and thus enable them to sustain life until the first fright of defeat having passed, calmer reflection might enable them to determine the wiser course to pursue under the circumstances in which they were placed. Perhaps no body of men were ever yet placed in the position in which this fleeing wreck of Buendia's army found themselves; and, perhaps, when the full truth becomes known, it will be found that no greater proportionate mortality has occurred to any force since Napoleon's retreat from Moscow.

, DECEMBER 30, 1879.

THE WAR IN SOUTH AMERICA.

New York advices received yesterday contain the following, dated Lima, Nov. 26 :—

"The Peruvian army, under General Buendia, to which was confided the task of driving back the invading Chilian army which had landed at Pisagua and pushed on to the interior, has suffered a defeat at a place called San Francisco, which has led to its complete collapse, and, to employ the words of General Prado, the 'supreme director of the war,' what 'has become of the army is unknown.' Immediately after the capture of Pisagua the allied forces under Buendia retired to Agua Santa, the terminus of the railroad 50 miles from the coast, and there remained, being gradually strengthened by the other forces which had been stationed for months past in the southern half of the Department of Tarapaca, to which, up to the present, actual strife by land has been confined. Acting under orders issued by General Prado by telegraph from Arica, Buendia put his men in motion, and during the night of the 18th commenced to retrace his steps over the same route he had taken when driven out of Pisagua. He had with him 5,355 Peruvians and 3,425 Bolivians, giving a total of 8,780 men. Passing through two positions, which had been held by the enemy but were found deserted, and one of which they had evidently at first intended to defend, by 3 p.m. on the 19th he was in front of a hill called San Francisco, which commands the valley through which the railroad runs, and on which earthworks had been thrown up.

"They were defended by a strong Chilian force plentifully supplied with Krupp field pieces and Gatling guns. Here Buendia committed the error which has cost the allies the best division in their army. Instead of making a *détour*, which he could easily have done, thus compelling the enemy to descend to attack him in the pampa at the rear of the hill, or submit to having his communications with Pisagua cut off, Buendia gave the order to charge up the rugged hill and carry the works by storm. The attempt was gallantly made. Three times the shattered regiments which had undertaken a feat which it was impossible to perform were compelled to fall back to reform, leaving the hillside thickly covered with their dead and dying, who had fallen in masses before the Krupps and Gatlings long before they could make their rifles tell. At length, at nightfall, Buendia determined to retreat, and then it became apparent that his authority had disappeared together with whatever *prestige* he had before enjoyed, and that the men whose lives he had so unwisely imperilled during the day were now determined to think and act for themselves and to disregard all general orders, even if an attempt were made to enforce them. Naturally enough, horrible disorganization ensued, and what might have easily enough have been an orderly retreat became a frightful rout.

"What has become of the greater number of the 8,700 men who left Agua Santa with Buendia is absolutely unknown. It is reported that only about 4,000 men took part in the engagement, and that of these 3,000 were either killed, wounded, or taken prisoners. A few of them—probably 100—are said to have reached Tana, a rather small mining works situated about 18 miles from San Francisco, but how or on what they proposed to exist no one can say. They had either to starve where they were, march, and probably starve on the march before they could reach any place containing provisions for so many men, or surrender to the Chilians. This latter course it is not believed they would follow unless compelled by superior forces, such is the terror evinced by the soldiers at the idea of falling into the hands of the enemy. Buendia, with about 200 officers and cavalry, has reached Tarapaca, a small town about 14 leagues from the scene of the fight, which is but scantily supplied with provisions, and perhaps 50 in all have succeeded in reaching Arica by twos and threes. But where the remainder of the men are is still a mystery. General Prado himself so confesses, and the truth must be confessed that probably the greater number of them have already died from thirst, hunger, or fatigue. So entirely has the army disappeared as an organization that, although the defeat took place on the 19th, up to the time of writing no official report of any description has been furnished, and neither has any general or officer engaged in it, the Commander-in-Chief or his staff in Arica, or the War Office in Lima, attempted to explain or describe the disaster. It is true the Acting-President, La Puerta, has issued a proclamation in which he acknowledges a reverse; but he does not attempt to explain the character it has assumed, nor the causes which have led to it. The Tarapaca Department offers every obstacle to the successful execution of military operations, and on this fact the allies appear to have placed great reliance. They have been deceived, and instead of having successfully compelled the enemy to take to the waterless pampas or retreat to his vessels, the disorganized remnant of their best division has been compelled to seek sustenance in a country which is almost entirely a desert.

"It was intended to second the movement commenced by Buendia by an attack on the Chilian rear by 4,000 Bolivians, under General Daza. To reach the point at which he was to operate he required to travel 150 miles across a desert. He started and marched for two days; but it was then discovered that provisions were already short, and that they would be exhausted long before they reached the enemy. The men commenced to grumble, and were soon in open mutiny. Daza consequently ordered them to return, while he kept on with 450 picked men for the purpose of meeting and joining a guerilla band known to be seeking a chance to operate on the enemy's flank. Learning two days subsequently of the defeat at San Francisco he determined to return to Arica, where a general state of demoralization now prevails. The Bolivian troops, having from the first demanded to be taken to Chili to fight, have now become disgusted with the management of the war. Worn out with six months' camping out, and marching and counter-marching, they now consider that their lives are uselessly sacrificed by blundering leaders, and openly express a desire and a determination to return to their homes in the interior, there quietly to await the impossible contingency of the Chilian army attempting to invade those next to inaccessible regions. This mutinous spirit among the troops is also fomented by Bolivian intriguers in higher position, who are desirous that overtures should be accepted which have been covertly tendered by Chili.

"The receipt of the news of the defeat was followed by an outburst of public feeling. General Prado was accused of being a traitor, General Buendia and his staff with exhibiting cowardice and ignorance, and all in high official position, beginning with President La Puerta and his Cabinet, were declared to be acting detrimentally to the public welfare. Mobs assembled in Lima and Callao on Sunday and Monday, but were kept in check by patrols, and no acts of violence were committed, although a disposition to proceed to extremities was certainly evinced. 'Death to Prado!' was the most frequent cry. Fortunately the excitement soon terminated. As the full

extent of the disaster became better understood the necessity of preventing any outbreak became more generally comprehended, and many who had been foremost in promoting political disorder became at once most interested in seconding the action of the authorities, among whom, however, lamentable discord appears to reign. There seems a lack of some one directing head, and perhaps it is for this reason that the more ambitious members of the Cabinet, General La Puerta and Señor Quimper, are each credited with aspiring to hold the position of Dictator. The assumption of supreme power by one or the other might be productive of good, since nothing could render matters worse than they are at present. La Puerta, the Acting-President, has been confined to his bed for weeks past, and there is little hope that he will return to the palace. The authorities at the seat of war declare that their requests for reinforcements, munitions, and provisions are almost disregarded by the Lima people, while the latter are almost entirely occupied quarrelling among themselves and working for party objects instead of combining and uniting their energies to prepare for a long struggle with an enemy who is taking every precaution and sparing no expense to insure the permanent conquest of the richest district in Spanish America."

The Lima Correspondent of the *Panama Star and Herald*, writing under date of November 5, says :—

"At last the long-heralded descent of the Chilians on the Peruvian coast has been attempted and made. On Sunday morning, the 2d inst., 16 of the enemy's vessels, transports and men-of-war, appeared off Pisagua, and without loss of time directed their course towards the shore. Pisagua was defended by a detachment of 900 Bolivian troops under the chief command of Colonel Granier, but it appears that General Buendia, in charge of the defences and army of Tarapaca, was likewise in the place at the time. Two Parrot rifles, 100-pounders, were mounted on the bluff overlooking the town, but were without adequate shelter. The disjointed despatches sent up over the cable by General Prado from Arica, which is in communication with Pisagua by a land line, announced that the fight was heavy; the shore batteries resisted, and the loss of life great, but at 5 10 p.m. the fatal intelligence was flashed up that Pisagua was captured, Buendia having retired towards San Bernardo, a short two leagues from the scene of battle. This result was, however, to have been expected. No troops with insufficient protection from heavy guns could withstand the fire from the Chilian vessels, which, probably acquainted with the weakness of the defending forces, approached within pistol shot of the beach. The Chilians we knew were covering with iron a number of their launches in Valparaiso for the proper shelter of the men while landing, and doubtless these were also employed. The force of the invading army from the *data* received from Antofagasto and Valparaiso would probably be from 8,000 to 10,000 men. Buendia afterwards fell back to Agua Santa, 50 miles from Pisagua, and at the termination of the railway leading from that point to the interior. There the General is within a few hours' march of the extensive Peruvian and Bolivian divisions stationed at Iquique and throughout the district of Tarapaca, and in a position of natural advantage, easily defended against an approaching enemy. From Iquique we received a telegram last evening to the effect that all the troops in that port and vicinity had united and were ready for immediate battle, but this leaves us in doubt as to whether the Chilians had sent a portion of their forces by sea to Iquique or the allied army at this place was *en route* to join Buendia. To effect a junction with him the allies have the railway from Iquique to the Noria, and from thence a march of 30 or 40 miles through a country where there is plenty of water and resources—through the very centre of the nitrate establishments. The Chilians, to attack him, have a heavy journey to undertake, and must depend upon their own provisions and water carried with them. A fair stand-up fight may consequently be expected soon with the Chilians far outside of the protecting fire of their ships, but up to this moment the intelligence given above is absolutely all that has been received from the director of the war in the South. General La Puerta has a new Cabinet again, formed this time of his personal friends and fellow-workers in politics: General La Cotera, Minister of War; D. Buenaventura Elguera, of Interior; D. I. M. Quimper, of Finance; D. Rafael Velarde, of Foreign Affairs; D. Adolfo Quiroga, of Justice. Lima has been declared under martial law; all citizens capable of bearing arms must enroll themselves in the line of National Guard regiments, but the attacking force of the Chilians on Tarapaca seems to secure the safety of Lima from any similar assault. It is not probable that the enemy is strong enough to attempt two such undertakings, and it is evident that the main object of Chili is the nitrate of Tarapaca, and possibly later on her attention may be turned towards the guano deposits in the same latitude. It again is on the cards that no possession will be assumed by the enemy over these treasuries. A strong allied army must first be overcome.

"Later.—Telegrams just received announce that Buendia has fallen back to Peña Grande, on the 34 mile stretch between the inland termini of the Pisagua and Iquique railroad, and had been joined by his reinforcements, making in all about 9,000 men. The Chilian advance was at Santa Catalina—30 miles or more from Pisagua on the railroad—and was still going forward towards Buendia's positions. Prado and Daza, or their columns, must also be advancing towards the province of Tarapaca from Arica and Tacna directly in the rear of the Chilians. The number of the latter is variously estimated—probably 10,000 to 11,000 soldiers. Fears are entertained of the destruction of Iquique by the united Chilian naval force. The town is only guarded by National Guards, as all the regulars have gone to Buendia's support."

We take the following from the *Panama Star and Herald* of December 4 :—

"The situation of affairs in Peru is sufficiently complicated to furnish room for all sorts of conjectures as to the occurrences of the past 15 days, and the probable result of operations in the Tarapaca district. The Peruvian official telegram published in our issue of yesterday ['The Chilians have been driven back in Santa Catalina and Dolores by General Buendia. Daza cuts off their retreat in Tana, and the fight still continues in San Antonio.'] is evidently incorrect so far as Daza's position is concerned. He had returned to Arica, according to the *Comercio* of Lima, on the 18th of November, and on the 20th, when the telegram is alleged to have been sent by Prado, it was impossible for him to have reached Tana, where he was said to be in a position to cut off a retreat which probably never occurred. That a battle has taken place between Buendia's forces and those of Escala is undoubted, and if, as is alleged by responsible persons in Lima, the Bolivian troops in Buendia's command had received orders not to fight, the situation of that officer would be most critical, and would fully justify the expectation of his defeat, which appears to be confirmed by the cablegram received by the Chilian Consul, announcing a Chilian victory at or near Iquique. The following is the cablegram referred to :—'Santiago, Nov. 26, 1879.—Great combat on land near Iquique. Complete victory of the Chilian army. The gunboat Pilcomayo captured by the Chilian squadron.—AMUNATEGUI.' The Bolivian forces with Buendia numbered 4,000 men, and if their defection was certain, there would remain but 6,000 Peruvians to give battle to the invading force, which is estimated at from 12,000 to 16,000 men. The Chilians had choice of ground, and are much superior in artillery, &c., and any attack by Buendia with only his Peruvian regiments, fatigued with their forced march from Pozo de Almonte, would be simply to invite the destruction which is said to have overwhelmed him. The complete details, which we should receive by the next steamer from the South, will be awaited with anxiety."

GREAT BATTLES AND IMMENSE LOSS OF LIFE.

DESTRUCTION OF THE PERUVIAN ARMY.

Private letters received yesterday evening in Plymouth contain most interesting details of the recent engagement in South America. Our correspondent writes:—Twenty-two Chilian ships, of which three were men-of-war, the Almirante Cochrane amongst them, conveying 15,000 troops, left Antofogasta, the armada being accompanied by the English men-of-war Thetis and Turquoise. Pisagua is a small seaport midway between Iquique and Arica. There were located in it 1,300 Bolivians, 250 Peruvians, and 50 Volunteers, the latter being principally Greeks. Two Armstrong 100-pounders constituted the artillery of the defenders, and torpedoes had been laid down by the Peruvians. The village stands at the foot of a hill about 1,800ft. in height, and its sides are nothing but loose sand, the result of the continual decomposition of the rock, and are as regular as a rampart, so that an observer at the top can see and aim at an object on the sea-shore. At early morning on Sunday, Nov. 2, the Chilian fleet was sighted. Barely time was given to enable the inhabitants to escape when the Almirante Cochrane and O'Higgins opened fire on the guns, and quickly silenced them. The seamen and marines then attempted to land, but were repulsed by the Peruvians. This attack was fiercely made and as fiercely repulsed. One cutter, containing twelve men all told, had ten killed and the cutter was scuttled. The naval landing-party then hauled off, and the ships opened fire with shell. The Peruvians retreated up the face of the hill, and, fighting stubbornly, were slaughtered by the unerring shell or were picked off by the riflemen of the army, who now landed. One house on the side of the hill,

in which a number had made a stand, had one end blown completely away by a shell. One of the invading regiments landed and mounted the hill in gallant style. All fought desperately, and few unwounded prisoners were taken—the defenders having an idea that if taken their throats would be cut. The position of the escaping inhabitants, among them the English officials and workpeople of the railway, was peculiarly trying. Exposed to the fire of the Bolivians from the top, of the invaders from the bottom, and the shell-fire against the hill slope, the wonder is that they escaped with so few casualties. The Bolivian General Buendia, on his way to Arica, happened to be in Pisagua at the time, and naturally took command. His appearance on horseback was the signal for a shower of bullets, but he is believed to have escaped unhurt. When the crest of the hill was gained, the Chilians continued their firing on the retreating enemy, and the cavalry followed them up until twos and threes scattered far away on the plain up the further hill side were all that remained of the defenders. In all, it is thought close upon a thousand were killed. The shells set fire ten large stores of coal, and these were allowed to burn, the more pressing duties concerning the landing of the army precluding their extinction. Monday was spent in burying the dead, forwarding troops, &c. By Tuesday evening about 12,000 men were encamped on the top of the hill, the expedition displayed being highly commendable. With 220 rounds of ammunition in their pouches, the army was ready to march towards Iquique. The cavalry are splendid fellows, few under six feet, and armed, in addition to their sabre, with a repeating carbine, firing 14 shots without reloading. The mountain-batteries of Krupp and bronze guns are transported by mules. Unbiassed observers of both the contending armies unanimously declare the great superiority of the Chilians, and a patriotic spirit of an intense character pervades all ranks. The destruction of property is a pitiable sight, especially as English capital is so largely interested. At Pisagua the loss of the Railway Works, with its stores, will fall entirely on Englishmen. At Iquique the inhabitants have been living in a state of dread for months past, but four large guns defend the place, and about 700 National Guards form the defenders. The rest of the troops are gone to meet the Chilians. The bombarding ships Almirante Cochrane, and Covadonga arrived before Iquique on Nov. 15, and gave notice to all ships and to the governor, requiring them to vacate within ten days.

Another letter contains details of the subsequent defeat of the Peruvian army on Nov. 19. This army, under the command of General Buendia, was entrusted with the task of driving back the invading army, which had landed at Pisagua, and was pushing into the interior. During the night of the 18th Buendia commenced to retrace his steps over the same route he had taken when driven out of Pisagua. He had with him 8,780 men, and on the afternoon of the following day he was in front of a hill called San Francisco, which commands the valley through which the railroad runs, and on which earthworks had been thrown up. They were defended by a strong Chilian force, plentifully supplied with Krupp fieldpieces and Gatling guns. Buendia gave orders to charge up the hill and carry the works by storm. The attempt was gallantly made, but it cost the Allies the best division of their army. Three times the shattered regiments, which had undertaken a feat it was impossible to perform, were compelled to fall back to reform, leaving the hillside thickly covered with their dead and dying. At nightfall Buendia determined to retreat; disorder ensued, and the retreat became a rout. What has become of the greater number of the men who left to engage the Chilians is absolutely unknown; 3,000 were either killed or taken prisoners, the rest have scattered over the country, and starved. Up to the time of the despatch being sent off from Lima, Nov. 26, only three or four hundred were accounted for, but where the remainder are is a mystery. Perhaps, when the full truth becomes known, it will be found that no greater proportionate mortality has occurred to any force since Napoleon's retreat from Moscow.

THE WAR IN SOUTH AMERIC

The English people are sadly misled here as to of the war in South America, and by authorities w be in a position to inform them correctly. A few Peruvian Legation sent round a telegram to th their countrymen had achieved a great victory This was almost immediately denied by the Chili who stated that he had received an official telegr Government, stating that at the engagemen tion the Chilians were victorious, and that of the province of Tarapacá was now in session. The Peruvian Minister, not to be o graphed for further information, and on December the following detailed telegram from Panama :— ber 27 5,000 Chilian force of the three arms su Peruvian infantry which was on march to town Peruvians reached the hill heights and destroyed Ch in the valley; repelled in squares Chilian cavalry, four Krupp guns, four great mitrailleuses, and sta Buin battalion, the first of the Chilian army, an hausted their ammunition; secured the triumph Chilians with their own guns, arms, and ammun Chilians *hors de combat* and great many prisoner vians killed and many wounded. Battle admiral preciseness, and discipline; and, in technical point most notable ever fought in South America." ber 31 the Consul for Chili informed the English p the press that the Chilian Minister had received a t Buenos Ayres to the effect that President Pardo l for Europe, and that Pierola had been appoin At the very same time the Peruvian Charge Washington telegraphed to England denying th added that his advices, dated Callao, December 2 effect that perfect order prevailed at Lima, and th had occurred in the Government. As there ar correspondents at the seat of war, the people of are entirely dependent upon the Peruvian authorities for their information, and, as our rea are obliged to draw their own conclusions from the factory intelligence published.

REPORTED REVOLUTION IN PERU.

(REUTER'S TELEGRAM.)

NEW YORK, JAN. 4.

A telegram from Panama under yesterday's date, published by the *New York Herald*, states that Pierola was proclaimed Dictator of Peru on the 22d ult., and that the reserve army at Callao and Lima and the Navy accept him. Dr. Pedro Calderon has been appointed chief of his Cabinet. President Prado, it is added, has fled the country, and arrived at Panama on Dec. 27. The same despatch states that a Peruvian torpedo boat, which sailed in November from Panama under the Hawaian flag, has been captured by the Chilians.

[The above appeared in a portion of our impression of yesterday.]

In confirmation of the above intelligence, his Excellency the Chilian Minister has received the following telegram from the Chilian Consul at Panama :—

"Dec. 21.

"Mutiny in Lima, consequent on flight of President Prado. There were — killed and wounded. Pierola, Dictator. Our ships have ...tured Peruvian torpedo boats."

PRESIDENT OF BOLIVIA.

[REUTER'S TELEGRAM.]

PARIS, JAN. 6.

An official despatch received by the Chilian Legation here announces that General Daza, the President of Bolivia, has been deposed, and is in flight.

The end of the South American War, judging by the latest telegrams from that quarter, appears to be fast approaching. The Peruvian President PRADO has fled, and Colonel PIEROLA has "pronounced" so successfully that already he is proclaimed Dictator of the Republic. This news was not unexpected, as Lima for several months past has been extremely disheartened at the manner in which the campaign against Chili was being prosecuted, and has loudly accused the PRESIDENT and his Cabinet of incompetence, and even worse. When this is the talk of the Peruvian capital a *pronunciamiento* is usually incubating, and in a State whose normal condition is rarely far removed from anarchy, an adventurer who is prepared to be "the saviour of his country"—provided it is made worth his while—is never far to seek. During the last few years those who have cared to follow the monotonous tale of South American revolutions will be familiar with the name of MANUEL DE PIEROLA. He is an arch-rebel of the true Hispano-American type. Always a candidate for some high office, invariably protesting—with the bayonet—against somebody or something, the best part of his life has been passed in exile, in futile revolution, or in prison. On land or on sea PIEROLA has headed revolts against the constituted authorities, though his success on the one element has not been greater than on the other. It may be remembered that, while in October, 1876, he issued his well-worn *pronunciamiento*, it was not until May next year that he was defeated and captured by this same MARIANO IGNACIO PRADO, whom, in the capricious course of events, he has now succeeded in ousting from the Presidential chair. A few months later he managed to seize the ill-fated Huascar, and had not his piratical proceedings brought him into collision with Admiral DE HORSEY and the Shah and Amethyst he might have succeeded in gaining something more substantial than a fictitious popularity, which has, however, in the end landed him at his original goal. That he will prove a better or even a more successful Ruler than Don MARIANO it would be rash to prophesy. Peruvian Presidents very closely resemble each other; and Don MANUEL'S antecedents are not in his favour. However, he has his following, and, appearing as the *deus ex machina* when the country is reduced to the lowest depths of humiliation, he may keep his place in the Presidential Palace until in his turn he is ousted, executed, or murdered. We are informed that the reserve army at Callao and Lima "accept him"—a phrase which in very brief space indicates the state of militaryism into which the country has fallen—and that Dr. PEDRO CALDERON has been appointed Chief of the Cabinet, a fact on which it is difficult to congratulate either the new Premier or the new PRESIDENT. To complete the tale of Peruvian misery the same despatch states that a torpedo boat, which sailed in November from Panama under the Hawaiian flag, has been captured by the Chilians. Hence, at this moment the latter Power is victorious on land and water, and may be said to have the Southern Provinces of Peru and the Western or Atacaman part of Bolivia at her mercy.

So systematically has the news from the seat of war been falsified that it is difficult to ascertain the exact truth regarding the state of affairs. No sooner is a victory announced by one combatant than the other either declares that there has been no battle, or, just as likely, that the tide turned entirely in the opposite direction. With the reservation that possibly there was no fight at all, or that the facts are entirely different, we may, however, provisionally accept as true the statement that in an engagement at Tarapaca the Chilian force of two thousand five hundred men was defeated with heavy loss by a Peruvian "army" of five thousand, under General BUENDIA, who for a time was President of the Council and Minister of the Interior. Subsequently, however, the Chilians succeeded in entering the town, and although they were driven out on the arrival of a reserve corps of Bolivians, the Allies abandoned the place, and the whole district of Tarapaca is now in the hands of the Chilians. President PRADO at first acted as Director of the War, but by the latest accounts General MONTERO has taken the field. The battle of San Francisco, on the 19th November, in which the allied Peruvians and Bolivians were worsted, was followed up by an attack by the Chilians which succeeded in cutting the allied army in two. The cavalry and several battalions of infantry made for Arica, and the rest retreating on Tarapaca succeeded in inflicting the repulse on the Chilians which for a time raised the drooping spirits of the Limenos. But practically the fighting powers of Peru and Bolivia are over, and matters have been made worse by dissensions among the statesmen of the two countries, which, though for the present banded together, have long hated each other far more than either of them hated the Chilians. In a brief space of time, the Peruvian fleet has been driven off the sea. The capture of the Huascar must be still fresh in the public mind, while two days before the disaster at San Francisco the gun vessel Pilcomayo was captured by the Chilians off Moliendo, and was immediately employed to carry troops to garrison the town of Iquique. Pisagua, which had also been taken by assault, is reported to present a most melancholy appearance, and the numerous dead bodies which strew the face of the mountain are hardly concealed by a thin layer of sand. Altogether, with the exception of two monitors, which are of little use, except for harbour defence, the once efficient fleet of Peru is reduced to one sea-going vessel. When President PRADO fled, it was given out that he had simply gone to Europe to buy new ironclads and to raise more money. Peruvian funds being at present at a low ebb, this statement must be received as one of the pleasant fictions which South American magnates employ to break their falls. As for a fresh Peruvian Loan, any addition to the forty-three million pounds which the Limeno Treasury has already extracted out of the pockets of poor people of strong faith is not likely to be obtained by those who for years past have considered the word loan to be an agreeable euphemism for gift.

But Lima is still uncaptured. The place is said to be so strongly fortified that it is doubtful whether the Chilians would attempt either to invest it, or to bombard with their comparatively powerful fleet the metropolitan port of Callao, situate at the mouth of the River Rimac, six miles to the westward. Indeed, though it is difficult to entertain much active sympathy for any of the parties to this senseless quarrel, no one who knows what memories have circled for three hundred years around the "City

of the Kings" could hear without regret that its gloomy old palaces and historical walls had suffered the indignities of a siege. In this haughty city existed, for three centuries, a luxurious and profligate Viceregal Court, from which went forth mandates obeyed not only in Peru, but in the vast provinces of Chili, La Plata, New Grenada, Bolivia, and Ecuador, though in the days of His CATHOLIC MAJESTY the two latter Sovereignties had not then obtained the names they now bear. In the "Ciudad de las Reyes" flourished the Inquisition and convents, monasteries, churches, and schools unnumbered. Hence Lima was—as it is still—at once one of the most polished, most pious, and most immoral of American cities. Here was founded the University of San Marcos, fifty-six years before the English set foot in Virginia, and here was born and died "La Patrona de todas los Americas," the only American woman who ever attained the honours of canonisation. From the turrets of San Felipe, in Callao, floated for the last time on the American Continent the sovereign flag of Castile and Leon, and here centred the wealth of Castro-Veireina, Potosi, and Puno. Through the streets of this grim old town rode, in 1681, the Viceroy LA PALATA over a pavement of ingots of silver, on a steed whose feet were shod with gold, and whose mane was strung with pearls. Hither came the galleons from the Phillipines, and from China, and not far off hovered ROGERS, and ANSON, and HAWKINS, and DRAKE, sea kings swift to reap where they never sowed, and whose maxim was that "there be no law along the Spanish Main." But for the time at least Lima is safe, and as it is hardly likely that Dictator PIEROLA will care to risk his long-sought-for office by attempting to redeem the errors and misfortunes of his predecessor by continuing the war, we may safely calculate that the victorious Chilian armies will be stayed before they reach the Peruvian capital. Yet amid all the misfortunes of the country of PIZARRO, its credit, such as it is, does not suffer. Indeed, the lower it sinks the higher rises the value of its Bonds. But this fact is the most cruel of comments on the financial good faith of the Peruvians. The only sureties for its debts—namely, its nitrate and guano deposits—are now in the hands of Chili, and the creditors of the Republic are hopeful that Chili, which stands well on the Bourses of Europe, will be more honourable in discharging its obligations than Peru itself has been. That Chili will keep the nitrate beds of Bolivia, and probably, in addition to the Chincha Islands and the other guano deposits, part of those of Peru also, is not improbable. But it is crediting Chili with the possession of rare virtue to assume that she will take upon herself the debts of Peru, for which the guano and the nitrate are the so-called "securities."

DAILY TELEGRAPH,

REVOLUTIONS in Peru and Bolivia would hardly deserve attention but that they come to crown a series of disasters which have destroyed the navies and shattered the armies of both Republics. Generals "pronounce" and Presidents disappear and reappear in these as in other South American States with an incalculable frequency that recalls the uncertain but inevitable recurrence of earthquakes and financial catastrophes. In fact, ZADKIEL and other readers of the stars may ensure being right in three guesses out of five if, in their anticipations of any year, they prophesy for almost any democratic State in South America a repudiation of debt, an earthquake, a civil war, and a revolution. The earthquakes are too numerous and too slight to attract more than local attention; and the same may be said of the civil wars and of the revolutions, which excite about as much interest in Europe as a "row" down an "Irish court" does among the Liverpool or Glasgow police. But the present, or recent, war affecting these States, interfered with the supply of guano, and made the financial recovery of Peru a matter not so much of despondency as of despair. Thus South America again emerges into the full light of European attention, and the new revolutions are distinguished from those of the past, for they will probably pave the way for peace. The new Presidents can easily repudiate the policy of their predecessors, and there is no reason why they should not accept the arbitrament of war. The superiority of Chili has been attested in substantial victories by sea and land, and the two beaten States have no prospect of recovery. In proportion to its population, and to the armaments of the neighbouring Republics, Chili has always had a small army; in fact, had it maintained a force corresponding to that of the Peruvians its military budget would have been at least trebled. Until the addition of two recent ironclads its navy was also insignificant. The Chilians spent their income in the honest discharge of the principal and interest of their comparatively small national debt; they sought no conquests, and remained strangers to the broils, intrigues, and annexations of their sister South American States. The nation was supposed to be so commercialised that it would make almost any concessions to avoid hostilities. For these reasons a quarrel was forced on, and it is gratifying to think that a peaceable and honest Republic has defeated a truculent and bankrupt State.

Peruvian bonds have, by a seeming paradox, "gone up" as Peruvian fortunes and credit sank down. The reason of this is plain. The only substantial security the creditors possessed was the deposits of guano which form so large a portion of the commercial resources of the Republic. After they had been mortgaged to the creditors the Peruvian Government refused to surrender them, and day after day the hopes of the Englishmen who had lent money on the faith of this pledge became more and more faint. Promise after promise was broken, and to make matters still more gloomy the war with Chili commenced. It was at once felt that, if while at peace Peru was guilty of repudiation, there was no chance that in time of war she would be able, even if willing, to pay her debts. Suddenly, however, there arose a gleam of financial hope. The naval successes of Chili placed under her command the guano islands and the nitre beds, and then the question arose whether Chili, with its reputation for honesty, would not recognise the mortgage that Peru was dishonest enough to repudiate. Some people feared not; for they doubted whether the guano would not be considered purely Peruvian and therefore a lawful prize of war. But the equity of the case is otherwise. The guano really belongs to the creditors, not to Peru; or at least, belongs to them until the principal of the debt is discharged. The decisions of Lord STOWELL

frequently lay down the true international view of the question. When the King's ships seized a vessel supposed to belong to France, or to any Power with which we were at war, it was released on clear proof being given that it was really the property of the subject of some State with which we were not at war. Peru has a reversionary right to the guano and the nitre, and this right Chili may lawfully appropriate and confiscate, but she is no more justified in seizing what belongs to Englishmen than a landlord is in retaining the goods of a lodger in satisfaction of rent. Thus the comparatively high price of "Peruvian securities" arises from the impending divorce between the adjective and the noun; they have suddenly become "securities" because they have ceased to be "Peruvian." The greatest recommendation they can have is that Peru has no longer the power of embezzling them. Were the fortunes of the war to change, and the guano and the nitre to come again under the control of the authorities at Lima, "Peruvian Bonds" would fall as rapidly as they have risen. The Stock Exchange shows the same appreciation of Ottoman finance; for there are some "Turkish" loans which command a fair price simply because it has been clearly provided that no Turk can have any control over the arrangements; in fact, because they are not Turkish at all. The main perplexity that may arise in the case between Chili and the creditors of Peru will spring from the difficulty which the victorious Republic will have in extracting a ransom corresponding with the expenses she has incurred. How is she to repay herself if she surrenders the valuable security she has seized? Some compromise, however, is likely to be struck out, and a State which might almost be called the financial ABDIEL of South American Republics—"among the faithless faithful only she"—may be trusted to act equitably towards Englishmen. The good opinion of England has always been valued by the Chilians, and the traditions of Lord DUNDONALD'S services to the independence of the Republic have long linked the two nations in a friendship that has known no break.

The result of the war may excite some surprise if we remember that as regards mere population the two defeated Republics more than doubly out-number Chili. But there need be no surprise, if we bear in mind the large proportion of Indians and half-breeds of all mixtures that form the great part of the population of Peru. Not ten out of a hundred Peruvians are of pure Spanish descent, while the population of Chili is more purely European and less "mixed" than that of any other South American State. Here is one very powerful source of clear superiority. The financial distinction between the victor and the vanquished we have already mentioned. There is a third probable cause of difference which it may be well to note. Chili is the least democratic of all the Republics in its part of the world. Every voter in Valparaiso and Santiago must possess at least forty pounds a year income, or two hundred pounds worth of real property, or four hundred pounds worth of personal property. In the provinces the qualification is reduced one-half; but in all parts of the country this condition excludes the residuum who control the elections in more democratic States. Then, while in Peru and other Republics the standing army has been comparatively large, in Chili it has always been kept down, and its little force of four thousand odd, all counted, was never able to saddle a usurper on two millions of people mainly of European descent. The general results of political freedom in South America, however, painfully recall the high hopes which greeted the outburst of insurrections seventy and sixty years ago against Spain. The world had suffered so long from cruel despots that every Liberal throughout the world believed in liberty as a cure for nearly all human ills. The rising of a Republic was saluted as if it were a new star. It was believed that a people who demanded independence must be worthy of it, and that those who loved liberty were capable of self-rule. The eloquence of CANNING shed a new light on this generous and natural expectation. Yet in South America we see the failure of nearly all these hopes. The people fought for independence fairly well; they love liberty even to excess; they detest foreigners; they have democratic constitutions and no kings; but they are a prey to perpetual revolutions; they have twenty petty despots in a generation; and many are best known to fame by the repudiation of their debts. The brightest spots on the whole continent are Brazil, where the "effete European system" of monarchy prevails, and Chili, the most Conservative Republic in the world. Beyond this contrast between the hopes of the past and the poor realities of the present we have now the practical question whether the time has not come for the good offices of the Great Powers. Peru owes her possession of the Lobos Islands to the mediation of England and France in 1852, which averted a possible war with the United States, and since then the friendly advice of the Great Powers has assuaged more than one quarrel between Spain and Peru. The disinterested offices of England, coming at this crisis of the national history when a revolution in Peru has followed a disastrous war, would probably be accepted by the defeated at Lima as well as by the victors at Valparaiso, and there can be no necessity for continual ill-blood between the two nations. Both suffered from Spanish despotism, both had to fight for liberty, and it was to a Chilian General, SAN MARTIN, that Peru owed her first release from the yoke. If Peru is despoiled of her guano and nitre she is also relieved of her debt, though that is a kind of deliverance which her statesmen and warriors were quite capable of achieving themselves.

SOUTH AMERICA.

(FROM OUR SPECIAL CORRESPONDENT.)

PANAMA.

The war between the Republics of Chili, Bolivia, and Peru seems to have had the effect of re-awakening some curiosity among the European reading public about a subject which had been for some time dismissed from men's thoughts as altogether destitute of interest. People naturally inquire what may be the material, social, and moral conditions of countries that thus venture upon hostilities with something like M. Ollivier's *gaîté de cœur*. It is not because either domestic or international feuds in the emancipated colonies of Spanish America can have struck any one as a startling novelty or created any very eager desire to inquire into the origin of the conflict or to speculate on its probable issue; for wars and revolutions, *coups d'État* and *pronunciamientos* are by no means uncommon occurrences in the Iberian Transatlantic world, and most of those free communities only refrain from cutting each other's throats when each of them is busy cutting its own. Hardly any more cheerful intelligence reaches us from that quarter than the violent deposition or murder of some ill-chosen President or self-appointed Dictator, generally followed by the garotting, hanging, or quartering of those who had a hand in his downfall or profited by it. The alternative lies usually between the "destroyers" and the "saviours" of society; the work of reconstruction often inflicting greater suffering than the process of demolition. With rare exceptions in these communities, it may be said that from senseless anarchy to ruthless tyranny, and *vice versâ*, there is incessant, invariable transition; and the leaders of every democratic or autocratic movement seem only agreed in this, that whichever faction upon attaining power despairs of the establishment of anything like order should endeavour to ward off home difficulties by involving the country in foreign complications. War is resorted to as the only safety against revolution.

The present Chileno-Peruvian contest is not the first instance in which manure (guano or nitrate of soda) has been the cause of nations flying to arms in South America. There may be exceptions to the rule, but for the most part these people require no particular motive or object for drawing the sword. They seem to love strife for its own sake; and although sheer exhaustion often compels them in the heat of their squabbles to hold up their hands, it is seldom to a settled peace, but only to an "indefinite truce" that they can be brought to consent. The struggle is adjourned *sine die*, the ill-blood remains, and discord becomes the normal state, the contending parties being only too readily prompted to be "on with a new quarrel" before they are "off with the old one." Such is the estimate the European world is disposed to come to with respect to the merits of this new Chileno-Peruvian dispute, and not unlikely the matter may thus in European estimation be settled *à priori* and without further inquiry to every man's satisfaction. South Americans, it may be said, go to war just as dogs bark and bite, because "'tis their nature to." But not many years have elapsed since mutual slaughter was also the nature of other people. Feudal France and England, Republican Italy and divided Germany had for centuries the same trick of running amuck against each other upon the most frivolous provocation, or no provocation, as do the Chilians or Bolivians of the present day. The curse of the first fratricide has equally weighed on Adam's family under all climates, and South Americans have at least not yet carried their wickedness so far as to proclaim a "Holy War," as the Christians and Mahomedans of the Old World have done, both in ancient and modern times. The truth is that war, like all other evil, must be, that good may come of it. Modern European civilization, such as we see it, is in a great measure the outcome of the great stir created by the rivalries of the Italian cities, by the jealousy of the French and Austrian dynasties, by the wars of the Protestant Reformation, by the tumults of the Parisian Revolution. Alfieri in his "Misogallo" painted the French of 1789 as a poultry-yard where "the cocks were organizing themselves by pecking at each other." But the satire was aimed at the whole human race as well as at the French community. Every war, civil or international, conveys a bitter, yet salutary lesson. Who will deny that the North American Union issued from the great secession contest a wiser and better community? The impression left by that calamitous trial of strength may wear out with time; the teaching of cruel experience may be forgotten or disregarded; but its influence is at work now. The great Republic never was soberer, never was mightier, never more prosperous or progressive than it is at this moment. With North America before our eyes, why should we despair of South America? The conditions of the Spanish American communities differ, indeed, in many essential particulars from those of the great Anglo-Saxon Northern Union, but that is no reason why they should not have a happy and glorious, though necessarily a peculiar, future of their own. There is no reason why men, even while accepting a state of things so very unsatisfactory, and apparently admitting of no remedy, should not wish to inquire into it, to study the causes which brought it about, and to ascertain whether, indeed, any attempt that might be made to relieve the evil must as certainly tend to its aggravation, as has been too generally, and, perhaps, too hastily, taken for granted.

It is with a view to come to some mature understanding of the situation of affairs in these regions that I have left England on a prolonged visit to some of the most important States of South America; and my first steps will be directed to the seaports and cities of those which are engaged as belligerents, especially Peru and Chili—not because the wretched war itself can have any interest, but because nothing can be more favourable to the study of the character and aspirations of these people or of the institutions of their government than the excitement of a war-like crisis calculated to call forth all the energies of the contending nations and to test the extent of their social and moral resources.

The Spanish communities of Central and Southern America—Mexico, Peru, Chili, the Plate, Colombia, Venezuela, &c.—are fully as old as any of the Anglo-Saxon colonies of the Northern Continent of the New World, but they arose under circumstances which were only apparently analogous. New England and Virginia were from the beginning occupied by freemen from a country long trained to the exercise of self-government; men leaving their native land in obedience to religious or political principles, and determined to find a new home and a permanent abode wherever fortune might drive them. Cavaliers and Puritans seized on their respective provinces as exclusively and indisputably their own. They drove the native Red Indian tribes from their territory inch by inch by a series of encroachments that led to their dispersion, extermination, or utter degradation; and they were strong enough to force any strange European or other white elements that settled among them into subjection to their laws and amalgamation or assimilation with their own race. In the south, it is true, they burdened themselves with negro labour—an interminable source of future trouble; but the Irish and the German who came to the north for bread and hard work merged their nationality and language in those of the ruling people, and learnt to value their birthright of freedom and to associate themselves with their high destinies. In the north there was from the first a nation compact and united in all but its name. The Spaniards, who on the first onset claimed all the most eligible regions of the

New World as their possession, were merely a handful of conquerors and adventurers. They came from a country which an internecine war between Christian and Moslem had brought into their subjection; they came to plunder and ravage; they fought their way to new, vast empires, passing from land to land, and establishing garrisons rather than colonies, terrorizing, hunting down, and exhausting the Red Indian races with such wholesale executions that of the millions of defenceless Indians whom they found in the Great Antilles hardly one survivor, we are told, remained at the end of the 16th century; but in Peru and Mexico they were brought into contact with large and flourishing native communities, incapable, indeed, of prolonged armed resistance, but yet able to hold their own by mere *vis inertiæ*, and who, though giving way on the seacoasts and in the outskirts of their boundless territories, stood their ground in their mountain fastnesses and in their pathless deserts, still constituting the great mass of the population, and living in a state of virtual independence of their white conquerors, and often in open and successful hostility against them. The consequence was that when the cry first arose of "America for the Americans," the provinces of Virginia and New England, firmly established on their own ground and free from any Red or Black admixture, passed from the condition of loyal British colonies to that of independent American Republics with little political and absolutely no social revolution. The Anglo-Saxon, accustomed to home rule, maintained his undisputed sway over the coloured races, and the work of assimilation of white immigrants went on without even the slightest attempt at disturbance; while in the Spanish settlements the Indian races remained and are still in possession of the great bulk of their territory, and the Spanish colonist, blended by intermarriage with coloured races, on the one hand, found it difficult to maintain his position against the native population—a mere Indian like Juarez or a Sancho like Rosas rising to supreme power in Mexico and at Buenos Ayres; and, on the other hand, allowing alien whites—Germans, Britons, and even Italians—to monopolize all trade and industry in the main centres of civilization, and to gain that ascendency which wealth must needs assume in all human communities irrespective of political institutions.

Such as they are, the Americans of the Northern Union have made themselves. They are the salt of their nation, the leaders of thought and action, and they only accept from adventitious elements,—from Irish, Germans, Chinese, or negroes—that amount of solid help which they need in their material development. Of the hard-workers in their community, only one portion, the white, can really aspire to equal rights with the sovereign people. But even they can hardly ever prevail by numbers, however broadly the franchise may be established on the principle of manhood suffrage. In the Spanish Republics, on the contrary, not only are all the whites an inconsiderable minority, but even among the whites the Spaniards and their descendants are seldom the largest, and hardly ever the most influential portion of the community.

The consequence is that while the population of both continents of America is reckoned at between 84,000,000 and 85,000,000—55,000,000 of which belong to the Northern and Central division, and only 25,000,000 to South America—in the United States of North America the pure whites are about 87 per cent. of the population, and the same or more favourable proportions are observable in Canada and the whole British Dominion, while in Mexico, which geographically is a part of the same northern continent, but which is a Spanish community, nine-tenths of the population, even of the cities, consist of Indians or half-castes; and the same or even more unfavourable proportions prevail in what is properly called Central America—Guatemala, Honduras, &c.—and in the various States of South America. In Peru the pure Indians, *mansos* or "civilized" or "independents," are 57 per cent. of the population, the various mixed races about 23 per cent., the negroes 3½ per cent., the Chinese 1½ per cent., the whites being thus reduced to a bare 13½ per cent.; and the foreign white admixture is so considerable that in the city of Lima alone the Italians, mostly artisans and petty traders, number 17,000. It would hardly be worth while to weary the reader with statistical details which are only given in round numbers, and which, after all, can hardly be relied upon for strict accuracy. Enough, I think, has been said to prove that in former Spanish colonies the white element, and especially the pure Spanish element, has since the emancipation been everywhere invariably losing ground. In the West India Islands—Cuba, Porto Rico, Hayti, Jamaica, &c.—the best part of which originally belonged to Spain, and where, as we have seen, the native Indian race was entirely rooted out, negro slavery was brought in with such recklessness that, while the population amounts now to 3,600,000 souls, 56 per cent. are pure Africans, 27 per cent. half-castes, and only 17 per cent are white. Were it not that some of the islands are under the sway of England, France, Spain, Denmark, and other European States, all interested in backing their white against their coloured subjects, there is little doubt that the black would gain the upper hand, and most of the islands would share the fate of Hayti and San Domingo, the two sections of one and the same island now in the possession of two black Republics, a Negro-French and Mulatto-Spanish, where liberated slaves are making the experiment of free institutions with doubtful success. No doubt the black man, the red man, and the yellow are entitled to be treated as "men and brethren;" there was no reason why they should be held in fetters, or even deprived of civil and political rights. But the question is, on what terms the coloured may live with the white people, especially where the dark outnumbers the fair, and in climates where the former alone can live and thrive, and the latter, especially in the second and third generation, inevitably falls off and degenerates, and gives symptoms of rapid decline of his physical and moral energies. Of this question England has given rather a practical than a logical solution in Jamaica by depriving both whites and blacks of those constitutional liberties with which the island had been improvidently endowed. The regress there was matter of necessity, and it established the fact that to make a "happy family" of such a mongrel community as we have in the West Indies is an attempt only to be tried by a wise, just, and paternal, but absolute government; and the United States, who for so many years coveted Cuba, bargained for Samana Bay at San Domingo, and expressed a wish to buy St. Thomas from the Danes, have, for the present, given up all thoughts of an extension of their empire in West Indian territory, well knowing that they would here be confronted by that negro difficulty the solution of which gives them sufficient anxiety in their own southern districts.

In the Spanish Republics, as we have seen, the contest is not, as in the West Indies, between the whites and blacks; for the negroes in South America, if we except Brazil, are only a small flock and give little trouble. But the difficulty rests with the native Indians, half of whom are unsubdued and unfriendly, and the other half, though not spurned or oppressed by the whites, and even freely and largely mixed up with them in motley half-castes, can with difficulty be turned to the purposes of civilization and resist its redeeming influences. In every imaginable human society there are and must always be classes doomed to do the hard, heavy, and dirty work of the community. In most European States, where rights are equal, the population homogeneous, and *la carrière ouverte aux talents*, it is custom, training, and circumstance that assigns to each man the place he is fit for. Valour, genius, or industry may raise a mere boor

to an English peerage ; every French conscript carries a marshal's *bâton* in his knapsack ; and it is free to every shaveling to aim at the Papal tiara ; the struggle is hard, but the fight is generally to the strongest and the race to the swiftest ; but such is not the case in South America, where Nature has drawn her barriers not between individuals, but between races, where the red man is at heart the white's enemy, and where he would have only to shake off his indolence and feel the consciousness of his numerical superiority to claim the equal rights which the law extends to all colours and attain such knowledge as the popular school affords to get rid of the weak, divided, and discordant alien race which despotism alone enabled to monopolize the supreme power. It seems impossible to foresee who in the Spanish communities of South America is to do the hard work in the country. It will certainly not be the native Red Indian, nor the original Spanish settler, nor the mongrel race which springs from the union of both. Such brain-work as is now going on is supplied by a few German, British, or Italian immigrants or mere passing visitors ; the hard work is contributed by the few negroes, and more lately by coolies from East India or China. There is nothing like a settled, deep-rooted, growing, and multiplying labouring population. Man, one would say, has hardly as yet taken firm possession of the soil. There are a few scattered settlements on the seacoasts and the cities ; but the main area of the continent is little more than a vast hunting ground with here and there a sheep-walk.

The organic vice which was observable in the primitive settlement of the Spanish colonies of South America became more flagrantly evident when those communities aspired to new existence as independent republics. In the British provinces the transition from "subjects" to "citizens" was perfectly natural and easy. The principles and practice of self-government were thoroughly understood among those Anglo-Saxon colonists ; and when real or pretended grievances or local instincts prompted a severance from the mother country, a nation was in existence fully confident of its ability to dispense with leading strings. The movement in those colonies was spontaneous and deliberate. They grappled with and wore out Great Britain, then in the height of her power, and purchased their freedom at a price which could never allow them to undervalue its blessings. They had made their country their own by heavy sacrifices ; they took the rights of sovereignty upon themselves, and allowed to aliens in blood or colour just such a share of power as seemed right and expedient to themselves. But in the Spanish colonies emancipation was owing to extraneous and fortuitous causes. The first cry for freedom beyond the Atlantic in the South was raised by the French negro slaves of Hayti in 1801, and it was merely the echo of the "Rights of Men" promulgated by emissaries from the revolutionized Parisian populace. It was only later that Mexicans, Peruvians, and Chilians, who, without being bondsmen, had never known freedom and never felt the want of it, in their turn, took up the cry, and what they clamoured for was not emancipation from bondage, but the boon of political liberties which they would have been at a loss to define or to turn to good, practical purposes. Whatever may be said of the exploits of the hero Bolivar, it is a fact that there was hardly anywhere a serious fight, hardly a genuine popular outbreak for independence. The distress of the Peninsula, trodden by the French of Napoleon in 1810 and torn by internal disorders throughout the reign of Ferdinand VII., and after that King's death, were the golden opportunities by which Spanish America won, almost without striking a blow and almost without consciously aspiring to it, the mastery over her own destinies. The vastness of those Transatlantic possessions, the imperfect means of communication, and the ubiquity of the movement bewildered the scanty and scattered Spanish forces, and the contest would at once have been given up by them had it not been in many instances taken up and maintained by parties among the colonists themselves, who fought some for, some against, Spain throughout the crisis, and carried on the strife long after the crisis was over, thus perpetuating a chronic state of violence and misrule.

As the achievement of independence was in South America the result of extraneous impulses, so the organization of its territory was effected in obedience to foreign ideas. The Spanish-American freedmen hesitated between the forms of French and North American Republicanism ; between Unitarian and Federal Constitutions. "United States" of Mexico, of Colombia, of Venezuela rose here and there, often under new names, sometimes within broader or narrower, but ever-shifting boundaries, the units breaking into fragments, and the fragments again running into units, the work of dissolution and recomposition going on with incessant viccissitude so as to bewilder lookers-on at a distance, and suggesting the idea of a world undergoing the perpetual changes of a kaleidoscope. The one important fact meanwhile observable in the series of events by which the formation and transformation of those Spanish-American communities have been for the best part of this century and are still daily effected is the almost exclusive assumption and monopoly of political power by that Spanish element which, as we have seen, constituted from the first a feeble minority of the population, and which has been rapidly decreasing since resentment at the disloyalty of the colonists indisposed Spanish emigrants to cast in their lot among them. In so far as Spaniards must be said to have been the authors of that revolt which deprived the Castilian Crown of so large a part of its Transatlantic possessions, the change might be expected to have been accomplished for their especial use and benefit. The Indians remained passive throughout the struggle, well knowing that whoever might be their master they could never be made to bear two burdens instead of one ; while the Germans, Britons, Italians, and other Europeans, who always had and have still the work and wealth of the country under control, had too utter a contempt for those South American politics ever to feel tempted to meddle with them. They minded their own business, and so long as they were not interfered with they allowed the government to be in whosoever's hands chance placed it, relying in extreme cases on the protection of their respective diplomatic or consular agents, and seldom applying for naturalization either in their own behoof or in that of their children. Neither in the bulk of the Indians nor in the ranks of these European strangers should the real people of these Republics be sought. When we speak of "the nation" in South America, especially in Mexico and Peru, we always allude to the few Creoles or lineal and unmixed descendants of the original Spanish settlers, or to the mongrel multitude of the Mestizos, the offspring of the union of the whites, chiefly Spanish, with the indigenous races of the country. It is in the language and in obedience to the ideas of these that laws are imposed and the government carried on. But the Spaniards have at all times been the last and least among European people in the development of any aptitude to rule either themselves or others. The Spanish Monarchy spread like a deadly Upas tree over all those vast dominions of Philip II. on which "the sun never set," and nothing, either in the sovereign State or in its dependencies, ever throve under its baneful influence. But if pure Spaniards can do no good for themselves or their fellow-beings at home or abroad, what can be expected of Hispano-Indians, a mixture in which all the faults and vices of the European and native American character are so blended and exaggerated as to bring forth whatever is worst in both? The government of those South American Republics is a strange tissue of North American institutions interwoven with the lawless practices of which the mother country is endlessly setting the example. It is theoretical constitutionalism illustrated by

practical *pronunciamiento*; a scramble for power and office; a contest of persons instead of principles; a chaos and pandemonium, out of which domestic and foreign war, peculation, bankruptcy, general miscarriage of justice, and want of public security emerge as dominant evils—now singly, now all at once, in a complex and formidable array. Such, as far as can be made out from all accounts that reach Europe, are the conditions of civil society in most of those vast South American regions in whose hands lie the sources of boundless wealth intended by Nature for the common enjoyment of the whole human race; those regions on which the world is in a great measure dependent for a supply of its precious metals, for its coffee, chocolate, sugar, and other luxuries which have become necessities, for its tropical fruits, its fine-grained woods, its most marvellous medicines, the manure of its fields.

Is there no future for those countries, no hope for their social improvement? It would be utter madness to meet such questions with an absolute negative. Providence, we must believe, goes to work in His own way, and there are no rough-hewn ends that He will not smooth and shape in His own good time. Material progress, commercial and industrial development are already everywhere perceptible. Mexico, Peru, the Argentine Confederation, and other smaller States are being crossed in every direction by lines of railways in active operation or in rapid progress; and the navigation of their great rivers is daily receiving further extension. One of the most formidable obstacles in the way of the civilization of those vast regions, the interminable distances and the immense tracts of unreclaimed desert, is being rapidly overcome; and with easier inter-communication a better understanding and mutual goodwill may be expected to spring up. With the steamboat and the locomotive, ideas will travel even in Spanish America. With the spread of wellbeing there will be an increase of the population, the tilling of millions of acres of virgin soil, an incentive to labour, an extension of agricultural and mining enterprise. It is true that railways and steamers, digging for ores, and nearly all other remunerative work is in the hands of strangers—French, German, English, and other speculators—who enrich themselves at the expense of the improvident and slothful natives. It is true that while Peruvian and Chilian politicians go to war for manure, these same European strangers are devising and pushing on that scheme of an interoceanic canal across this Isthmus, which, while it will equally benefit all the regions of the earth, must especially enrich the nations seated on the eastern shores of the Pacific—Colombia, Ecuador, Peru, and Chili, by shortening by several thousand miles their water communication with the Old World, and raising the value of their produce by lowering the cost of their freight. But the land in those, as well as in all other countries, cannot fail ultimately to belong to the men who show the greatest aptitude to render it fruitful. If the indigenous and what we may by courtesy call the ruling races—viz., the Independent Indians, and the Creoles, and Mestizos, boasting the few last drops of Spanish blood—persist in working little for themselves and nothing directly or indirectly for the public good, their fate will in the end be like that of the "tree that will bear no fruit;" and the strangers who are the bees of the hive, tired of subjection to its mere drones, will, in self-defence, take as much of the management of public affairs as, while guaranteeing their private interests, may put an end to those violent convulsions by which those senseless republics are periodically working their own ruin.

The accomplishment of the destinies of those countries is certain, however remote. For the present they must be looked upon not as States, but as mere embryos of States. Notwithstanding the silver dots with which most of their flags in imitation of the banner of the Great Northern Union, are spangled, those South American communities are not stars, nor constellations of stars. They are mere vaporous, nebulous meteors, destined, perhaps, at some incalculable future periods to assume the consistency and living light of genuine heavenly luminaries, but for the present only puzzling men of science as they endeavour to ascertain what is their real substance and what place they may be called to fill in the economy of the firmament.

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LONDON, TUESDAY, JANUARY 6, 1880.

Philosophical or poetical imagination has often attempted to picture a land especially prepared by nature for humanity to find in it the means of attaining to its highest development. A land actually exists in which all the conditions, at all events, of material happiness would appear to have been more than accomplished. It is traversed by natural roads in the shape of the most gigantic river system the world can boast. Its forests are splendid gardens and orchards. Its plains rear numberless cattle, which suffer nothing from disease and demand no care. Its native products are luxuries so exquisitely adapted to the tastes of man that they have grown to seem to him necessaries. If more is wanted than this fruitful soil itself supplies, there are the precious metals in extraordinary plenty to lay the rest of the world under contribution. In the lowlands winter is unknown, except by the change of blossoms in the ever-flowering woods. But there are wide and lofty table lands and snowy mountain chains for those who desire change of climate or scene. Fancy long had caught distant glimpses of such a region; and at last the dream was realized. The truth outstripped fiction. The first visitors to these wonderful shores thought Paradise had reopened its gates to mankind. South America lay stretched before them, a more delicious realm than had ever been conjured up in the dreams of poets. The Spaniard entered in, and Paradise was changed in a generation to Pandemonium. Squalor took the place of tempered well-being. The earth offered its manifold treasures in vain to men whose only conception of wealth was an ingot. In a hemisphere so bright and fair that its first explorers might be pardoned for their belief that it held the fountain of perpetual youth, speedily new forms of disease sprang up to desolate the Old World as well as the New. Theological arrogance imported its venom to poison human happiness. Nowhere did the Inquisition cast a more deadly shadow over society than in the Spanish possessions in the New World. Still, though the human reality was dismal and gloomy, the generosity of nature remained so profuse that observers from a distance held fast to their hope that human society in Spanish America must sooner or later rise to the level of its magnificent opportunities. Mr. CANNING's prediction of the rise there of Constitutional liberty was hailed with rapturous faith by the last generation of Englishmen. Even twenty years ago the old hope revived, and many British pockets yet preserve negative evidence of its persistency. It was only requisite to paint the region as it is, and to sanguine European investors it seemed that the very trees whispered cent. per cent. Most persons must have been favoured at some time or other with accounts of the natural wealth of various South American States. The projectors of works for which they sought the aid of European capital had no occasion to

draw upon their fancy for enticing pictures of the land they asked for means to develop. They told the simple truth which can be read in any child's manual of geography. Only their victims or themselves were nowhere confronted with the actual occupants of this raw material of hypothetical prosperity. On every side was spread, in the nineteenth century as in the sixteenth, boundless wealth to be had for the gathering. But now, as three hundred years ago, there was a strange dearth of reapers.

Human vigour and skill have made the desert of Utah blossom like the rose. Amid the fogs and enduring winter of Iceland men have discovered the art of making life happy and dignifying it with noble aspirations. There is no corner of the earth so apparently sterile and stolid but what nature will be found to have kept a blessing in reserve for those who, like Isaac's eldest born, insist upon extorting it. All that men elsewhere toil to enjoy, nature, throughout enormous expanses of South America, thrusts upon their acceptance. It is a strange enigma how the most perfect region ever formed for men to prosper in can have, we would almost say, escaped its natural destiny of social happiness and imperial grandeur. The marvel has been so long in evidence that it has lost its power to surprise. But the world outside will not bear patiently exclusion from enormous possibilities of benefit to mankind at large without attempting to discover whether the privation be or be not irretrievable. At this particular time the miserable war of Chili with Peru and Bolivia has cast a lurid light over the whole continent. The moment appeared opportune to inquire whether the received explanations of the contradiction between lavishness of means and poverty of results in the old American colonies of Spain were all which could be given. The facts, at any rate, of the problem lie on the surface. Our Correspondent, in his introductory letter, which we publish this morning, states them with his accustomed clearness and vividness. With the population constituted as it is, and the administration of affairs placed where it is, it would be strange were the result other than what it is. An inconsiderable number of pure or half-bred descendants of Spanish colonists monopolize political power. These make the nation, and not the great native population of Indians, or the enterprising Englishmen, Dutchmen, Germans, and Italians in whose hands rests the whole commerce of the country. An Indian may sometimes, like Juarez in Mexico, rise to supreme command; but it is on condition of accepting the traditions and governing in the spirit of the creoles, who look upon sovereignty as their birthright. The Spaniards who first occupied the land were needy and unscrupulous adventurers. Their descendants who rule it now under Republican forms have inherited their forefathers' views of the objects of government and the duties of those who exercise it. The Indians, who form the great bulk of the population, started under their Spanish conquerors from a much higher level of civilization than the Indians of the north. Dynasties of alien blood had discovered the art, which Europeans have never learnt, of compacting the aboriginal tribes of the forest into an industrious and orderly people. When the Spaniards discovered them they were no longer hordes of hunters, but diligent tillers of the soil. Under Spanish Viceroys, as under Peruvian Inca, the Indian continued to subsist by cultivating the earth; but he lost the zeal and pride in his work which the consciousness of political independence had bestowed. He exists, but he does nothing towards enriching the State and advancing civilization. The negro population, except in Brazil, is scanty; the fact is by no means to be deplored, for it helps to explain the scanty extent to which advantage is taken of the prodigal liberality of nature. In the coast towns our Correspondent will find wealthy and sagacious merchants, and a colony of enterprising engineers and contractors. The merchants, however, are of any nationality except Spanish; and the contractors and engineers are Englishmen, Frenchmen, or Italians. The merchants have the will and skill to turn to profit such part of the indigenous riches as reaches their counting-houses. The engineers can command as much of pecuniary resources as the land in its present condition could absorb. What neither class can supply is a "settled, deep-rooted, growing and multiplying labouring population." In South America the soil yields its increase more readily and on less compulsion than in any other district of the globe. Yet, even were a whole land a natural vineyard, there would be wanted men to tread the grapes in the wine-press. The need of labour is so obvious as to have penetrated the minds of the ruling class in the several South American republics. As they borrowed capital from Europe, so they have at various times endeavoured to borrow muscles. But the soil in South America itself does not yield its riches to every passer by. In the latter case the experiment has been more disastrous to its subjects than even in the former. A land and its tillers must be allowed time to become acquainted with one another. The wretched Italians and Russo-Germans whom pictures, scarcely over-coloured, of South American fertility lured from Southern Italy and Southern Russia found themselves thrown down in the midst of the natural forest or prairie without preparation made for their comfort or bare subsistence. A Government worthy the name would have provided for the preservation of the most precious import Europe could have sent it. A South American Government, if it could be supposed capable of troubling itself to arrange for the support of immigrants, would not possess the knowledge how to set about it. To cultivate the soil is no business of the caste which holds power in a South American State. It would be as foolish to expect that it should fulfil the conditions on which alone a labouring population can be engrafted upon a country which grows no such class as that a capitalist should execute a railway contract successfully who had never seen a pickaxe.

As our Correspondent points out, the Virginian Cavaliers, and still more the New England Puritans, quitted their West Country and Essex and Suffolk shops or farms, not because they thought they could live more indolently across the Atlantic, but in the hope of more open careers or a nobler scope of thought. Spain contributed to its territories in South America and the south of North America, not its hardworking peasants, but its broken-down courtiers, its needy placemen, its plundering soldiers of fortune. The administration of Cuba, now, happily, more or less reformed, survived down to very recent times to show how Spain planted and governed its empire on the continent. Spaniards went to the New

World to accumulate riches as fast as possible. They desired a quick return to corrupt their mother country as they had pillaged their adopted one. They brought nothing into South America except greediness and licence. Those qualities they put out to such excellent interest that they were able to leave as much behind as they carried home with them. Towards improving permanently the country in which they sojourned they did absolutely nothing. It might seem to have been merely the good fortune of North America that it happened to be settled by men trained from youth to labour and enterprise, and who left their country not for its good, but for their own. Similarly it might seem to be simply the evil lot of the southern continent that it fell a prey to an utterly different race. In truth, Spaniards, with the theory they had embraced of the art of colonizing, would never have even attempted to cultivate a soil like that of most of North America. Their principle of colonization was that they were to supply the administrative faculties, to be the soldiers, magistrates, and civil staff generally of a province—anything, indeed, rather than its ploughmen and peasants. Their descendants, with perfect self-complacency, have the demeanour of believing that they are now discharging all the duties incumbent on a sovereign people when they set up and pull down presidents and wage war one State against another. Chili alone seems to contain within itself elements of good government and stability. Elsewhere it is easier to indicate the sources of the present evil condition of the most splendid domain which spendthrift ever inherited than to see how the ruin is to be averted. If it is to be averted, as averted at some time or other it will be, one of two conditions must be fulfilled—either the incapable holders of power must unlearn their nature, which is impossible, or they must give way to more capable rulers. For regeneration to be conceivable, the "nation" in South America must cease to signify creoles or mestizos. Should the land ever be occupied by settlers strong and energetic, such as are reclaiming Manitoba and Minnesota, creoles and mestizos would simply find the reins drop from their hands. But the creoles and mestizos keep the gate, and suffer labour to enter in only under conditions which bar it from thriving. Our Correspondent evidently believes that the Europeans who have taken possession of the trade of these countries might demonstrate their natural title by right of capacity and public spirit to shape the administration. His future communications will be searched with interest for signs whether on a nearer view of the circumstances he will remain of the opinion that the influence of the trading communities in South America could or ought to be exerted with a view to any such result.

THE WAR IN SOUTH AMERICA.

(By Telegraph.)

(FROM OUR OWN CORRESPONDENT.)

LISBON, Wednesday Night.

The following is the Chilian Official Report of the victory at Tarapaca, forwarded to the Chilian Minister of War by the Commander, Colonel Emilio Sotomayor, Chief of the Staff:—

"Pisagua, 30th November, 1879.

"The Chilian division which departed from Dolores in pursuit of the enemy arrived at Tarapaca, at which point the foe rallied, being joined by the forces that had escaped from Dolores. The division was under the command of Colonel Don Luis Arteaga. An obstinate battle was fought at Tarapaca on the 27th November. The other Chilian division, which was to have started on 23d November, under the orders of General Baguesno, for the purpose of effecting a junction with the first division and attacking the enemy's forces reorganised in Tarapaca, had to suspend its march because the enemy had precipitately retreated at daybreak. Our losses in the combat of the 27th are not small. They cannot, however, be calculated with precision, because some of our men who had got astray, and who were regarded as lost, have already appeared. I think that our losses may be estimated at four hundred in killed and wounded. The losses of the enemy are not inferior to ours, according to the declarations of their chiefs and officers who were taken prisoners on the field of battle. Some bodies of cavalry will proceed to Tarapaca to collect the wounded and dispersed, while other cavalry forces will pursue the enemy in their retreat to Arica. The General in Chief will send to your Excellency a detailed report of the combat of the 27th. The cavalry division which marched from the encampment under the charge of the Chief of the Staff, by order of the General, in the direction of Pozo Almonte, occupied the latter position, and likewise Noria, without meeting with any resistance, and leaving a detachment in Pena Grande on the 28th. As your Excellency knows, Iquique was occupied by a battalion of the regiment Esmeralda on the 27th. The blockade of Arica by one of the vessels of our squadron was notified and established.

"Colonel Emilio Sotomayor, Chief of the Staff."

The Chilian Minister of War has, however, received a telegram from General Escala in which he states:—

"Our losses in the combat at Tarapaca were not so numerous as we at first thought. They do not exceed four hundred. The enemy's losses are more than eight hundred. The town was abandoned after the combat. Colonel Urriola, who arrived after the battle, found sixty officers and chiefs wounded. The enemy retreated, abandoning their arms, baggage, cattle, and the pieces of artillery which they had captured from us at the beginning of the combat. Our division retired from the field of battle because their ammunition was exhausted."

According to various telegrams which are in accord as to the principal points, the Chilians attacked Tarapaca under the persuasion that the place was defended by only two thousand allied troops. The allies, however, had divided their army into two divisions, leaving one in the city and keeping the other in reserve. The Chilians, having been repulsed in the first attack, charged for the second time with two fresh battalions, but were driven back with heavy loss. The garrison then feigned a retreat, which the Chilians took to be serious, and made a third desperate onset against the allied forces, but they were met by the reserve, who hurled them back at the point of the bayonet, inflicting serious losses on their antagonists. The impartial journals of Chili regard the combat of Tarapaca as a great disaster, and the public in general manifest great discontent at the very laconic and somewhat contradictory official reports that have been published. The following is General Prado's letter of condolence to Admiral Grau's widow:—

"Arica, 14th October, 1879.

"Senora Dolores Canero.

"Senora,—You have just received a mortal blow. The distinguished husband with whom Providence rewarded your virtues has ceased to be your companion in the pilgrimage of life. I comprehend the intensity of your grief at such an irreparable loss. I also, Senora, lament the disappearance of your husband, and consider it a national misfortune; but, on contemplating the heroism of his death, on hearing the accents of admiration and gratitude which proceed in chorus from all hearts, my grief is somewhat alleviated. We have lost a man, Senora, but have gained a hero who dignifies our country and our history. Though there is no consolation for the profound grief that oppresses you and your children, there still remain to you the inheritance of an imperishable name, the veneration of nations, and of all those in the world who admire sublime deeds. There still remains to you your country, whose gratitude will cause itself to be felt by you and your children at all times. There still remain to you your cou-

patriots, and among them your affectionate friend.

"MARIANO IGNACIO PRADO."

(REUTER'S TELEGRAM.)

NEW YORK, JAN. 7.

General Prado, President of Peru, arrived here yesterday.

The *Panama Star and Herald* of the 27th ult. states that General Prado embarked at Callao clandestinely, under an assumed name, and that he explains the object of his intended visit to Europe to be the purchase of ironclads for the Peruvian navy. The same paper adds that the Republic of Ecuador is at present enjoying a season of unexampled prosperity.

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GENERAL PRADO'S ACCOUNT OF THE BATTLES IN PERU.

General Prado, ex-President of Peru, arrived in New York, just before the last mail left, on his way to Europe. When he left Lima on the 18th of December to visit Europe for the purpose of arranging certain important interests of his country, he placed the Government in the hands of General La Puerta, the Vice-President, and other members of the Cabinet. It was not until his arrival in New York that General Prado received despatches informing him that he had been displaced, and that Don Nicolas Pierola had seized the reins of Government and been declared Dictator. This *coup d'état*, which took place about a week after the President's departure, puts an end to his mission abroad, and leaves him as yet undecided as to what course he will pursue. General Prado was interviewed by a reporter of the *New York Times* at the Albemarle Hotel. He is a fine-looking man of 47 years. General Prado, prior to his sailing from Peru, was directly from the seat of war in the South, where he had command, with his head-quarters at Arica. He said the descriptions of the battles as printed were considerably exaggerated in many cases. Of the battle of San Francisco, fought November 18, he gave this description:—"The Peruvian army, with their Bolivian allies, a force of 11,000 strong, all told, went to meet the Chilian army, about equal in numbers, which was intrenched upon the hill of San Francisco. The Peruvian army took position before the hill. This was all the Peruvian commanders intended to do on the first day, waiting to give battle on the second. The Chilian artillery, however, fired some shots at their besiegers, and the Peruvian battalions, which were at the front, promptly responded by firing without orders. A sharp engagement ensued. The advance battalions of the Peruvians scaled the hill of San Francisco, and succeeded in gaining the first position. But as this action was taken without orders from head-quarters there was no rear force to sustain them, and they were repulsed and driven back down the hill. At this point the Bolivian allies acted without discretion, and mistaking the Peruvian battalions, which were retreating, for the Chilian advance force, fired upon their friends. This naturally occasioned disorder between the allies. By this time it was dark, and the battle ceased. At night the demoralisation continued. The Bolivians, who numbered over 6,000 of the troops, withdrew inland to their own country. The Peruvian army retired to Tarapaca, where they remained until November 27, preparing to march to Arica, some five or six days' journey to the north, and one of the most fertile districts of Peru. The Peruvian army was obliged to retire from Tarapaca because there were no resources obtainable in that desert country. The Chilians, through their victories on the sea, had taken that two ports through which supplies could reach the Peruvians in Tarapaca, and the latter were forced to go north for food and water. Before they got out of the desert they were surprised by a force of about 5,000 Chilians, their own numbers being perhaps 3,000 men, under command of General Buendia. A sharp battle took place, in which the Chilians were routed, leaving more than a thousand of their slain on the field. The Peruvians, moreover, took many prisoners and some pieces of artillery, including Gatling guns. Two days afterwards the Peruvians were reinforced by a division of 1,000 strong, and began their march to Arica, where they arrived after a severe experience in the desert."

General Prado then returned to Lima, and resumed the Government. As to the future of the war, Gen. Prado said he was not a prophet, but he naturally looked for the success of Peru. Chili had been unquestionably victorious on the sea; the Peruvians were stronger on the land. The Peruvian army numbers about 20,000 men armed in the best manner. Half of this force is in the southern district, half at the capital. Chili has some 12,000 men in the field, and her whole force is centred in the southern district. The ex-President considered the war one of conquest on the part of Chili.

A gentleman who accompanied General Prado said the position at present was favourable to Chili, but that the Peruvians had no idea of giving up the war. The history of the Spanish race would show what might be expected of the Peruvians in that line. They considered the declaration of war by Chili wholly unjustifiable, and would fight to the last. Peru, he said, was not only stronger than Chili on the land, but had good protection at Arica and Callao in two monitors, besides excellent batteries, with 20-inch guns, at the latter important port. With these defences on the sea he apprehended no danger for these ports from the superiority of the Chilian naval force. Peru was wholly unprepared for the war, while Chili had evidently anticipated it and got in thorough readiness, having procured two ironclads from England, powerful ships with every modern improvement, and able, he believed, to whip every ship in the United States Navy. General Pierola was a man of much executive ability and force of character. That he had long contemplated what he has now done was evident from this incident. In 1879 President Prado offered Pierola the chief place in his Cabinet. Pierola declined, but urged Prado to become Dictator, and offered to be his secretary. Prado, elected President in 1870 under the Republican Constitution, declined. Pierola has now seized his opportunity and the Government.

SOUTH AMERICA.

PLYMOUTH, JAN. 23.

South American advices received at Plymouth early this morning give details of the revolution in Lima. The *Panama Star and Herald's* Lima correspondent says that Don Pierola was hailed as Dictator of Peru on December 23. The 21st (Sunday) was fixed as the day for proclaiming him Dictator, and the vespers services in the city of Lima were not accompanied by the chanting of priests and pealing of the sonorous organs of the churches, but were sung to a chorus of rifle balls, volleys of mitrailleuses, and the roar of artillery, the pious performers of the ceremony being metabited in Peruvian uniform, and fighting against their brothers in arms. Colonel Arguedas, commanding a National Guard regiment from Ica, and quartered in the barracks of the Inquisition-square, received orders early on Sunday morning from General La Cotera to send some of his men to the Government Palace, to be assigned to guard duty there and elsewhere. Arguedas, a sworn partisan of Pierola, stoutly refused to obey these orders, fully understanding their import, which was only to weaken his force of 400 soldiers, and to render them an easy prize to the battalions controlled by the Minister of War. The command was repeated, but Arguedas persisted in his refusal. At 5 o'clock on that afternoon La Cotera had a force of four battalions of infantry, two regiments of cavalry, and a section of four pieces of artillery, together with a Gatling gun, drawn up in the principal square, and leaving the Palace well garrisoned with regular troops proceeded at the head of his division to the quarters of the disaffected, only three squares distant. In the meantime Colonel Arguedas had closed the doors of his barracks, and placed his men most advantageously on the roof of the building and of the adjacent houses, where, from the flat form of the roofs and the parapets surrounding them, an excellent position was assumed. On debouching into the square, La Cotera's troops were greeted with a devastating fire of musketry from the housetops, but they speedily returned the fire, seizing the houses on the opposite side, and occupying the plaza with their artillery, while the streets close to the scene of action were held by the cavalry. The fight was very severe, but from the outset the Ica battalions had the advantage. La Cotera's gunners did all that was possible to break down the doors of the barracks with the balls from their light field-pieces, and after a combat of over three-quarters of an hour the Government troops retired to the Palace, leaving their

and wounded behind them. A few moments afterwards Pierola, at the head of his own battalion, the No. 8 of Lima, appeared in the great square, and opened a heavy fire on the Palace, which was sturdily replied to by the soldiers on the roof of that building, and the troops holding the lofty towers of the Cathedral. This seemed to have been a movement on the part of Pierola to keep the Government troops from interfering with the concentration of his own followers, which was then being effected at the other end of the city. After half-an-hour's waste of cartridges, the firing in the great plaza ceased, Pierola wending his way towards the Exposition, where he found many of his partisans, and was shortly afterwards joined by Colonel Arguedas and the Ica battalion. Pierola then marched to Callao, and the garrison of that place received him with a warm welcome. When this peaceful victory was made known in Lima, the majority of the battalions, up to that time obeying La Cotera, declared there was no occasion for further fighting. An intimation to this effect was made to General La Cotera, who, after having communicated with General La Puerta, came to the conclusion that nothing further could be done, and resigned his position as Cabinet Minister, together with his colleagues. Pierola is in the Government-house in Lima with his soldiers, and was hailed unanimously by the people. The combat was sharp and decisive. Sixty men were killed and 200 wounded.

MONEY-MARKET and CITY INTELLIGENCE.

The Peruvian Minister in London desires us to publish the following letter, addressed by him to the Peruvian Consul-General :—

"Peruvian Legation, London, Jan. 29.

"Sir,—In reply to your inquiries about the rumours that are being spread with respect to the exportation of nitrate and the position of our affairs in Tarapaca, I authorize you to publish for the cognizance of those whom it may concern the following paragraphs of a circular issued on the 15th of December last by the Minister of Foreign Affairs of Peru to the Peruvian Diplomatic Corps abroad.

"After reviewing the principal events which have marked the course of the campaign on land down to the retreat of the Peruvian army upon Arica, the Minister proceeds to say:—

"'Owing to the foregoing circumstances, Chili, from a military point of view, consequently occupies the province of Tarapaca. Such an occupation counts as a misfortune for our country, but we possess sufficient elements to repair the disaster and before long to recover the territory at present in possession of the military power of another nation. In the neighbouring department of Tacna there are 13,000 men perfectly armed and equipped. This force, which is alone sufficient to repel with ease any aggression on the part of the invading army, will soon be increased to 20,000, since from all the southern departments, and even from Lima, troops are marching with that object, and then, with the certainty of victory, it will operate upon Tarapaca.

"'In Lima there is another army of 20,000, which will soon be increased in numbers, and in every department fresh forces are being enthusiastically organized, which will be ready to move at the proper moment.

"'Chili, therefore, will continue sacrificing thousands of her sons without attaining to permanent possession of the department in question; her greed of gain will not be satisfied, and the object of the unjust war which she has declared against this country will remain unfulfilled. Patriotism overflows in our towns; the resolution of their inhabitants is firm; they are ready to sacrifice everything, whatever it may cost them, rather than leave the Government of Chili in peaceful possession of what, unjustly and without any legitimate pretext, it desires to rob them of.

"'Peru, therefore, is not conquered, but is strong enough, more than strong enough, to cast out the foe and seal the fate of the present war with a decisive victory.

"'With regard to the consequences of the military occupation I refer to, it must be borne in mind that it does not imply conquest. Tenure *de facto*, due to a momentary superiority of force, is not possession. Chili is not the owner of the Peruvian territory she occupies, and consequently any contracts which she may enter into regarding guano and saltpetre, and any concessions she may make of nitrate lands do not and cannot bind Peru in any way, nor will they ever be recognized.

"'There is something still more important and decisive in connexion with this. Some of the nitrate fields are private property, and others, which belong to the Treasury by right of expropriation, are mortgaged not only legally, but also by compact, and registered—as is to be seen from the documents relating to the negotiation according to the payment of their value or the price of their transfer, as stipulated in the certificates issued to that effect bearing interest as compensation for less produce. The guano is likewise pledged for the payment of the foreign debt of the Republic, and the Government has been authorized beforehand to hand it over to our foreign creditors. There are also anonymous companies that have acquired certain rights over the guano and saltpetre. Consequently Chili, even in the event of conquest, cannot dispose at will of those valuable productions, since she has no right to damage the private interests, the actions *in re* which fortify and guarantee them.

"'In view of the foregoing our Government issued on the 6th inst. (December) a decree closing the port of Iquique and prohibiting all exportations of salt, etre and other products from the Department at Tarapaca while that portion of the Peruvian territory is occupied by the Chilians, and by order of his Excellency the President of the Republic I authorize your Honour to embargo and sequestrate all cargoes of saltpetre and guano which may be exported from the country by the invaders and carried to the country where your Honour's diplomatic mission lies.

"'In order to avoid any surprise on the part of the Chilian Government, I send a circular to our Consuls stating that it is indispensable that they furnish the necessary information to the merchants of the country where they reside and to the public in general, showing the real position of matters, the impossibility of Chili retaining possession of the territory now occupied by her, and the nullity of all contracts she may celebrate, and your Honour must make manifest both to the Government of the country where you represent Peru and to the public, whenever the opportunity presents itself, the absence of all right on the part of the Chilian Government to make such contracts, the radical nullity of any that might be celebrated, and our determination not to sanction them in any case or for any reason whatsoever.'

"I am, Sir, your obedient servant,

"'C. PIVIDAL.'"

THE GLOBE, JANUARY 31, 1880.

CHILI AND PERU.

The French Government issuing edicts disposing of the property in the occupied districts of Alsace-Lorraine after the Germans had obtained possession of Metz, is the best parallel we can suggest to the assumption of the Peruvian Government that although the Chilians hold possession of the province of Tarapaca, they (the Peruvians) may still dispose as they please of all it contains. Tenure *de facto*, writes Senor Pividal from the Peruvian Legation, "due to a momentary superiority of force, is not possession." How long, then, must the tenure continue before it ceases to be "momentary?" The Chilians have been in possession of the province for some months; and although the Peruvian delegate vauntingly declares that his country is "more than strong enough to cast out the foe and seal the fate of the present war with a decisive victory," there are no signs of such a result visible to the eye of sense. Patriotism is an admirable virtue, but when it vents itself in vain-glorious boasting like this, it ceases to command respect. We have no intention of discussing the merits of the war between the two Republics; but when the Peruvians tell us it is an "unjust war" in which Chili is the aggressor, we may say that this representation of the case is wholly at variance with the facts so far as known to us. If there had been no violation by Peru and Bolivia of the treaty rights of Chili there would have been no war. The other point on which Peru is anxious to fix attention is the alleged nullity of any contracts for the disposal of the guano and nitrate deposits in Tarapaca, which may be entered into by Chili. As to this the Peruvian Envoy may be perfectly right if the question is argued on grounds of law apart from the change introduced by the fact of conquest. We are not aware whether Chili means to enter into any contracts or not; but she will be quite entitled to deal with the property and stores in the province she has conquered as hers by right of conquest, subject to the vested rights which foreign owners may have in any portion of them.

There is no need of any contracts, but if Chili is willing—with or without one—to allow those to whom Peru has voluntarily assigned the guano and nitrates to have access to them and, on payment of a certain royalty, to load vessels with them, it seems to us that the lawful owners will be very foolish if they do not take advantage of the opportunity of getting possession of what is really their own. As to the threats of Peru of dire vengeance upon all who hold intercourse with her enemies, they are empty vapourings, which may be safely disregarded. Peru cannot take vengeance upon her foreign creditors for using the opportunity of gaining possession of what she herself proclaims to be their property.

El Nacional.

LIMA, DICIEMBRE 16 DE 1879.

Paz con honor.

Por real y verdadero que sea el pequeño catalogo de pérdidas, en la felicidad nacional, con que la hoja inglésa del Callao, nos amonesta á una *paz con honor*, no ha pasado tal cosa por la imajinacion de ningun peruano.

No estamos acostumbrados á cotizar el honor, y el honor y la paz son ideas que se escluyen en un pueblo cuyo territorio está asaltado por el enemigo.

La situacion del Perú es ciertamente triste, bien triste, desde que no solo subsisten los males sino tambien los autores de los males que nos aflijen.

Sin embargo, con todo esto y mucho mas ?hemos dado, acaso derecho á que se nos compadezca, con un solo momento de vacilacion?

Las bajas de nuestro ejército, y el luto de nuestras familias ¿no están proclamando la resolucion inquebrantable de no dejarnos robar el territorio, de no dejarnos afrentar?

Pero se nos dice: dónde está el remedio?

Callaríamos si solo pensásemos en los hombres del poder, cuya inercia, en algunos de ellos, pesa como una roca sobre nuestros pulmones; pero no podemos olvidar el país.

Allí está el remedio, en ese pais que no cuenta sus bajas, en ese pais que se resigna al hambre, en ese pais que abre sus alcancías, en ese pais donde los hombres antes de retroceder se apresuran á los alistamientos, donde las señoras cosen los uniformes de los soldados, donde los niños nacen balbuciendo la palabra de venganza, en ese pais que prefiere la desolacion á la vergüenza.

Si, el dia que ese pais actue solo, que la generacion á quien esta época pertenece pase por encima de la influencia maléfica de los que pretenden sojusgarla, ese dia echará de sí los pocos que le hacen mal.

Creálo el «South Pacific times,» no son los diez mil chilenos hambrientos quienes nos impondran la ley; aun cuando les sobre la proteccion de nuestros mal encubiertos enemigos de dentro y fuera de la República.

El desierto no ha de ser la barrera que los libre mucho tiempo de nuestras manos; podrán cobijarse á su retaguardia un mes, dos tres, pero lo atravezará nuestra infantería y entonces, libre de los cobardes que en San Francisco la espusieron á un estéril sacrificio para abandonarla en seguida, devolverá con el vigor probado en Tarapacá el último palmo de territorio á la nacion.

Aun cuando así no fuera, aun cuando nuevos contratiempos hubiesen de destrozarnos el corazon, preguntamos á nuestro turno: Dónde está la base de la paz con honor, dónde?

Para esto sí y no para la prosecucion de la guerra es que se forma el vacio y el vacio absoluto, mudo y sin eco.

¿Por ventura, seria honroso para el Perú sancionar la desercion de López Lavalle, dejar á Chile el tranquilo dominio de Iquique en cambio de que nos perdone la vida, de que nuestros huéspedes de otras naciones no sufran paralizacion en sus negocios, de que los bonos salitreros no se depreçien, de que el tráfico de la compañía inglesa de vapores recupere su auge, de que los jugadores á la baja de nuestro credito en Europa consoliden, se consoliden tambien los accionistas de la compañia de Antofagasta y de que continúen en su bien estar aquellos á quienes el rumor importuno de la guerra distrae por momentos del *dolce farniente* de sus divanes?

No, amigos, es necesario que suframos un poco mas. Vencedores ó vencidos, el saldo de la reaccion cubrirá el déficit del tiempo de paralizacion en las utilidades mercantiles; y aun cuando no lo creais posible, dejad á este pobre Perú que corra hasta el fin el albur de su buena ó mala suerte en cambio de la esperanza, ilusoria ó real, de salvar el bien que persigue: su honor.

THE WAR IN SOUTH AMERICA.

(BY TELEGRAPH.)

(FROM OUR OWN CORRESPONDENT.)

PLYMOUTH, SUNDAY NIGHT.

By advices received to-day by the arrival of the West India Mail we learn that the French gunboat Hugon arrived at Callao on January 6, from southern ports, bringing the intelligence that on Dec. 30 a Chilian squadron, composed of the corvettes O'Higgins and Chacabuco and the transports Copiapo and Matias Cominó, appeared in the harbour of Ilo, landing some five or six hundred men with several light field pieces. This force easily drove back the small Peruvian detachment garrisoning the port, and, seizing a locomotive with some carriages, departed up the railroad leading to the town of Moquegua, about 60 miles inland. When the Hugon touched in Ilo on the 1st, no news had been received from this expeditionary party, and it was stated that a strong force of Peruvian infantry and cavalry had been sent from the neighbouring port of Ite to cut off the Chilians from their ships. The object of the movement on the part of the enemy is

such insignificant numbers was supposed to be a desire to intercept provisions and stores coming down from Arequipa for the use of Montero's army at Arica. The Hugon also reported that land and water communication by wire had been cut by the enemy. The Huascar was stationed on the blockade off Mollendo.

A Lima letter of January 14 says:—"The Chilians in Tarapaca are issuing somewhat stringent regulations. By order of Captain Patricio Lynch, who is reported to be Military Governor of Iquique, all nitrate manufacturers in the province are obliged to export the stock on hand within two weeks' time, paying an outward duty of one sol and fifty cents. silver per quintal, or if preferring to retain the article in deposit are subject to the same penalty, as a stringent order has been made public by the Government of Peru prohibiting the export of nitrate under very heavy fines and punishment. The manufacturers are in a somewhat difficult position, and all the more so since their bonds, &c., in Lima can readily be attached by the Government in case of disobedience. The Chilians evidently propose doing something in this neighbourhood. Yesterday morning five of the enemy's vessels were seen off the islands of Chinton, steering north, and last night two were sighted off Ancon, a little bathing-place 22 miles north of Lima by rail. Troops are being moved in that direction to support the garrison in case of attack. There are two conjectures—first, that the "Jingo" party in Chili has become powerful enough to induce a movement on Lima, and the another that Chimbote will be selected as a landing place to keep further reinforcements from the north from reaching Lima. It is strange that long before this the blockade of Callao has not been attempted. The Chilians who landed at Ilo and afterwards proceeded to Moquegua were in search of arms and ammunition, but were unable to find any. They then retired to Ilo and to their ships, barely escaping an encounter with the troops sent to intercept them by Montero."

News from Chili is to the effect that a rupture with the Argentine Confederation was confidently expected, and great preparations were being made. An army of 50,000 men was to be called out, heavy bounties were offered; and the last intelligence, to the effect that the Argentines had purchased two Italian ironclads—the Roma and Venecia—gives us to understand that the other side is also busily engaged in making ready for a fight.

SOUTH AMERICAN REPUBLICS.

PART I.—THE ARGENTINE REPUBLIC.

La Republica Argentina, which grandiose title has degenerated in Liverpool parlance into "the Plate," stands at the head of its sister Republics, if we accept the American test of size. It is generally confounded with Buenos Ayres, its capital; and although the province of that name has more than once asserted its independence, it now forms one of the thirteen provinces that make up the Confederation. Divided from Patagonia by the Rio Negro in latitude 40 degrees, she stretches northwards for nearly 20 degrees to the point where Jujuy marches with Bolivia; the Andes form a natural frontier to the west, and the great tributaries of the La Plata separate her from her eastern neighbours. Such a territory, both by its extent and compactness, should guarantee her against "earth hunger." But the war so disastrous for Paraguay had other motives than a disinterested desire to open the rivers Parana and Paraguay which Lopez had closed, and though the intention to carry the boundary line further southwards is always dissembled, it nevertheless exists.

Buenos Ayres has long been so intimately connected with the business world of England that we have almost forgotten an episode in our history which placed her in a much closer relationship. In the stirring days of the great war, when Englishmen were building up the Empire which some of us seem scarcely courageous enough even to hold, Sir Home Popham, after the surrender of the Cape, entered the River Plate and seized the capital. His conduct in disobeying orders was officially declared to be "highly censurable;" but there can be only one opinion as to the pluck and skill with which the enterprise was performed. While, however, its success was mainly due to General Beresford, who conducted the land operations, Sir Home appropriated the credit of the exploit, and addressed a manifesto to the merchants of England, setting forth the advantages which would accrue to them from the new markets which he had opened. Reading his glowing accounts, it is difficult to remember how brief an interval divides our prosaic age from the date of their composition. Yet they sufficed to intoxicate the sober British trader. It was assumed that the capture of Buenos Ayres was tantamount to the occupation of the South American Continent, that we should find willing subjects, delighted to exchange the Spanish yoke for our rule; and that while we had a solid source of wealth in agricultural produce, we should, by utilising the waterways, draw the costly merchandise of the northern provinces and the minerals of the Andes into English markets. These expectations, running in advance of events, would have caused much loss, even had they not been doomed to sudden extinction by the recapture of Buenos Ayres, which was cleverly effected under cover of a fog, by General Liniéres, a French officer in the Spanish service. The attack was made on the 12th August, in concert with a rising in the city, which had been previously planned, and, after a stubborn resistance, General Bereeford and 1,300 of his troops were taken prisoners. This reverse was, however, amply retrieved in the spring of the following year, when Sir Samuel Auchmuty, with a handful of men, took Monte Video from five times the number of Spaniards, by one of those acts of cool daring with which the military annals of this epoch abound. The assault was delivered by night, and though the troops were exposed to a terrible fire, while they searched in the darkness for the breaches, which had been closed with ox hides, their persistent valour carried everything before them. This is the last achievement, in general opinion, of which England can boast in these regions; yet if defeat is sometimes as glorious as victory, it was so in the final assault of Buenos Ayres. On hearing of the previous disaster, the Home Government, by diverting General Craufurd's expedition, collected nearly 10,000 men—a force amply sufficient for every contingency. The strength of this little army unfortunately made it necessary to seek an officer of "talents and judgment," and the choice fell on General Whitelocke. It is needless to dwell upon that wondrous piece of strategy for which other causes were suggested, since gross incapacity alone seemed insufficient for its explanation. The soldiers were ordered to thread their way through the narrow streets, with unloaded muskets, till they reached the rendezvous in the great square. Each flat-topped house had been turned into a citadel from which a torrent of missiles descended, while cannon swept every street with grape shot. It was a veritable *feu d'enfer*; and yet, through it all, one body of men, under Auchmuty, struggled to the Plaza de Toros—a spot which no Englishman can regard with feelings other than of pride. In spite of the strong position which had thus been won for him, the General decided to capitulate, surrendering at the same time the stronghold of Monte Video, which was amply garrisoned and supplied. The Argentines reverently preserve in one of their churches two British standards in memory of the day. But the toast which still lingers among the English settlers, "Grey hair, but no white locks!" shows that they understand to whom the miserable *fiasco* was solely due.

It would please the philosophic humour of a Gibbon to trace the results which flowed from General Whitelocke's folly. But it may suffice, to contrast Australia with the Argentine Confederation, to show that there is some difference in the progress of an English and a Spanish settlement. Those restless spirits who are found in every corner of the New World give the preference as a grazing ground to the prairie, which stretches in un-

broken monotony from the Atlantic to the foot of the Andes. Acre for acre it will carry more sheep than the runs of Australia. And many a rolling stone finds himself at last an *estanciero*, after balancing natural advantages against the evils of an unstable Government. It is especially adapted to horned cattle, which act as the pioneers of the more settled industry of the sheep farmer. The grass in the virgin pampas reaches to a horse's saddle girths, but when this has been pastured for a few years it gives place to the short sweet herbage, which is the shepherd's delight. Here, too, is no tsetse or horse-sickness, and its suitability to horses is proved by the fact that the descendants of those imported by the Spaniards had within about half a century spread themselves to the Straits of Magellan, and still thrive without the care of man. The climate, too, is of extreme salubrity; for although the *norte*, or north wind, may for a day or two oppress the spirits with the miasma of the tropical swamps, it is driven back by the first breath of the *pampero* blowing from the icy regions of the South. Pasturage and agriculture would alone guarantee the future of the Argentine Confederation, but in its magnificent rivers flowing down from the North it has the means of exchanging the necessaries of life for the luxuries of the tropics and the minerals of its own northern provinces. Its population is fed by a steady stream of immigration, and many nations meet together, overcoming the difficulties of Babel through the medium of a language which they call Spanish. The new comers bring with them the tastes of their countrymen, and there is a place for all. The thrifty German sets up a *pulperia*, which, in the diversity of its wares, would rival the most catholic of co-operative stores; the Genoese finds a congenial trade as boatman, or in navigating the rivers in his little craft, where he cuts wood for nothing, and sells it at an enormous price in the riverine towns; while the Italians and "Canary birds" find a lucrative employment in market gardening. Our countrymen gravitate almost without exception to "the camp," where, falling into native ways, they lead a life of voluntary discomfort which no Australian shepherd, much less squatter, would put up with. Buenos Ayres has irreverently been styled "England's penal settlement," and certainly many *estancieros* seem to feel that it is their duty to submit to a prison *regimen*. They have their compensation, however, when, having garnered their wool harvest, they come down to the capital, and after revelling for a brief season in the joys of civilisation, go back to the wilderness shorn as clean as their sheep. We have ventured a suggestion that as a British colony this country might have advanced with more rapid strides. But "who goes slowly goes safely," and no unprejudiced person can deny that immense advance in material prosperity has taken place since its emancipation from Spanish tutelage."

Part II.—Chili.

It would be impossible to discover a greater contrast than exists between two of the adjoining fragments into which the magnificent colonial possessions of Old Spain were shivered by the force of revolution. In physical configuration Chili offers no point of contact with its trans-Andean neighbour, the Argentine Republic. On one side we see an alluvial plain of some 700 miles in breadth, stretching away to a boundless horizon of waving grass; on the other a Pacific "Riviera" pent in between the mountains and the sea, and debarred by nature from passing its narrow confines. In the Argentine Confederation all is unrestricted freedom, and the Gaucho, accustomed to ride from Buenos Ayres to Mendoza, resents the intrusion of civilisation in the shape of a wire sheep fence, while the Chileno's aspirations are bounded by the ridge that backs his farm, scarce conscious that other little worlds like his own are looking upwards, each one with a nearer and clearer view of the stupendous barrier which divides him from the outer world. Such external circumstances have set their indelible mark on the national character, and we have here a striking instance of the extent to which surrounding can modify racial peculiarities. Life is easy in the Pampas, and the Gaucho, dreaming away his existence in an equestrian siesta, sees his flocks and herds multiplying before him. He believes that though vegetables may be good for the "Gringo" —as he contemptuously styles the foreigner—meat is the only food for him, and so he has no care. But on his brother beyond the Cordilleras the problems of civilisation have already begun to press. A league of land in the home counties of Buenos Ayres begins to command the price of a small farm in England; but as good an *estancia* may be had for nothing a little nearer to the Indian frontier. But to the Chileno, as he builds a fresh terrace against the mountain side, the thought of elbow room sometimes presents itself. The experience may be a hard one to the individual, but in the national existence he already begins to show its beneficial teaching. It is not only in the British Isles that a stern struggle against natural obstacles has whetted man's physical and intellectual energies. The rocky soil of Attica has been compared to the parched skin of an old man through which the bones protruded. But Athens brought the wealth of other nations to replenish her barren territory, and it is to her seaboard that Chili trusts for her future advancement.

The kindly feeling of England towards this maritime State is co-existent with its birth. Unofficially indeed, we assisted not a little at this auspicious event. And since political gratitude is extinct in Europe it is pleasant to feel that this sentiment still unites two distant peoples. Lord Cochrane's home at the Hacienda di Quintero is still an object of interest to his adopted countrymen. It was he who took the hardy peasants and fishermen, and training them in the stern traditions of the best period of our navy, taught them how to manœuvre and to fight. The skilful seamanship and self-confidence which he instilled into them are still apparent, and we have no reason to be ashamed of the "English of the Pacific." It is not, however, at sea alone that the Chilians claim superiority over their neighbours. The conditions of their narrow strip of country, with its varied soil and climate, passing from the perpetual downpour of the southern provinces to the torrid, rainless climate of Atacama, have enforced upon them many different ways of life, in all of which the same dogged patience and industry are noticeable. It is difficult to believe that the Guaso of Chili and the Gaucho of the Pampas come of the same stock. The Gaucho gives his services as a favour; he mounts his horse to cross the street, and is as ill at home on his feet as a sailor ashore. He will not dig, but he will not descend to herd his master's flock, though scarcely to remove the saddle from his horse. The Guaso, on the other hand, is an obedient slave, toiling hard above ground and below, and faring meanly. Indeed there is nothing in common to the pair but the poncho with which the Argentine throws off his Spanish finery and the Chilian cloaks his shabby European dress. Their diet affords a remarkable proof of the ease with which the human constitution can adapt itself to almost any circumstances. The Gaucho eats meat alone, while the peasantry of Chili, who perform infinitely harder work, are vegetarians, subsisting almost exclusively on beans.

Santiago, the aristocratic, and Valparaiso, the business capital, has each its peculiar charms, and no one especially can fail to be pleasantly impr

with the gay aspect of the latter place. It is, however, a little difficult to say why the title of "Valley of Paradise" should have been conferred on a straggling street fringing a steep acclivity, up which white houses climb gleaming against a background of deep red soil. It may have been some voyager benumbed with the glaciers of Tierra del Fuego, or drenched with the rains of Chiloe, that broke into enthusiasm as he saw how the sun of this delicious climate could conjure up beauty out of the most ordinary landscape. But, granted that his first impressions were exaggerated, there is many a glen hidden away among the spurs of the Cordilleras that well deserves the name. For nine months of the year, while the wind blows from the south, perpetual summer reigns without a drop of moisture. It is obvious that exhilarating as such a climate is to the human frame it is not conducive to floral life. The slopes of the Andes are sprinkled over with dry aromatic herbs, and though the fuchsia and some other garden favourites are met with, we miss the heliotrope and petunia, and the white and scarlet verbenas which spangle the prairie across the mountains. Patient irrigation, however, corrects this evil, and the glowing earth gives back a return which amply rewards the outlay. Those who know how the unkempt look of everything in the New World offends the eye can picture the delight of coming suddenly on the trim homeliness of the Old World among the rugged gorges of the Cordilleras. Here are vineyards and glades of pasture kept green by continuous streams, and orchards of fig and peach, and many a garden plot that might be nestling beneath the Appennines, so brightly do the oranges gleam among the grey foliage of the olive. There are, too, more solid sources of wealth in the harvests of wheat, maize, and beans, and in the innumerable mines, which it has been the object of the Legislature to develop. It is, however, in the quality of its inhabitants that the wealth of a country mainly consists. And, seeing how the Chilenos have cast off the apathy which weighs down the Spanish character, we are justified in believing that they will retain the lead which they have taken among the sister States.

Part III.—Bolivia.

If war answers no other good purpose, it has at least the merit of improving our geography. Twelve months ago people not ill-informed had very shadowy impressions as to the little land-locked republic—only ten times the size of England—to which Bolivia gave his name. The Bolivians were happy enough and prosperous, after their fashion, but like the Americans, they felt affronted that they had not a debt like the Europeans. Peru was the evil genius at the Republic's elbow. She had a seaboard, and had seen the world, or at any rate, much of the world. "Only mention Potosi," she whispered to her hesitating sister, "and your silver will fall back into your lap; transmuted into Danaë's golden shower." And perhaps the advice was sound; for the security was as good as the fortune amassed by provident sea gulls was hypothecated in future ages to Peruvian bondholders. Hence came the Madeira-Mamoré railway, an ill-starred memory; and it throws a curious light on the nation's credit to observe that it fluctuates from day to day according to the chances of withholding a portion of the loan. But the insidious advice of the politicians of Lima worked still further evil to their neighbours when they urged them to pick a quarrel with Chili. There was much in the outward circumstances of Bolivia that recalled the state of Paraguay—the once "garden of South America." The Jesuit colony was, indeed, entirely secluded from the world; but, though the desert of Atacama brought Bolivia down to the Pacific, the difficulties of transport through this inhospitable land made access to the outer world dependent on the Puertos Intermedios, represented by Tacna and Arica, rather than on its own harbour of Cobija.

It would have been well for both these primitive communities had they been content with that prosaic career which attests its success by offering no subject for comment. Paraguay was happy as long as its Acadian settlers drew from its fruitful soil their moderate requirements with little labour, but it perished miserably under the flash civilisation which Lopez imported from Paris. So, too, Bolivia, shut out by its mountains and deserts from the din of Bourses, had few aspirations till its Dictator, Melgarejo, taught his fellow-citizens to despise the ores of Chichas and Oruro, and proved that, by judicious "prospecting," a lode of foreign capital might be struck easier to win than that which for 300 years has enriched the miners of Potosi.

This favoured portion of the world is endowed by nature with advantages which all man's mischievous ingenuity has been unable to neutralise. Its physical conformation and its latitude insure to it the products of almost every country from the Arctic to the Tropic regions. It boasts that it has utilised the highest tableland in the globe, while in its eastern districts, sloping down to the tributaries of the Amazon, it possesses a soil and climate adapted to the choicest vegetation of the tropics. Its mines have collected a population in town and hamlet at altitudes rarely peopled; but even at the elevation of nearly 13,000 feet above the sea, a return has been exacted from the churlish soil. The kindred races of guanaco, alpaca, llama, and vicuna find a living from the scanty herbage, and besides affording valuable beasts of burden, yield the thick, close wool which has established for itself a well-deserved reputation. Wheat, barley, potatoes, maize, and rye flourish at a slightly lower level, but it is not till we descend into the sheltered valleys that we find the exuberant growth of coffee, sugar-cane, and cotton. As, too, in all this zone of South America the timber trees are of extreme value, while chinchona is numbered among the exports. There is a story, which has acquired the dignity of history, that when Pizarro, on one of his arduous marches, could find no iron to replace the shoes of his cavalry horses, the native smiths forged new ones of silver. And true it is that mining, which in many countries has only served to distract labour from more profitable employment, has here a national importance. Ever since its chance discovery in 1545 a steady stream of wealth has flowed from the many levels that pierce the steep sides of Potosi. And some notion may be formed of the amount of suffering by which it has been attained, since more than eight million Indians during the inhuman rule of the Spaniards perished under the system of compulsory labour known as the "mita." Illimani is reported to be rich in gold, and precious stones are discovered in various localities. Nor is the soil of Bolivia less abundantly stored with the cheaper but not less profitable minerals. Tin and copper exist in the province of Ingavi, as also in Potosi, Chuquisaca, and Oruro. The hopes and fears of the late war descended even lower in the scale, and the deposits of nitrate of soda and guano turn the desert of Atacama into a land of promise in the eyes of the Chilenos. The Spaniards gave to the guano hills whitened by incrustations of salt, the name of Sierra Nevada. And it is curious to reflect that while the British farmer was still innocent of the merits of "top dressings," the Incas were carefully husbanding their deposits and framing laws which enacted the penalty of death against any man who should kill a sea-bird or disturb their nesting-place in spring.

Like some countries nearer home, Bolivia seems to have burnt herself out in the fire of revolution, and so retrograde in many ways has her course been, that there are those who look back with regret to the days when the heaven-sent Incas, Manco Capac and his consort Mama Oello Huaco, appeared on the banks of Lake Titicaca to civilise and reform mankind. The Spaniards ridiculed the system which they supplanted, but their lawless reign of pillage and cruelty

contrasted ill with the beneficent government which made the welfare of the people its first care, which fostered husbandry and manufacture, and showed itself relentless alone against lust and idleness. But time avenged the wrong, and the Spanish power fell beneath the weight of its own crimes and follies. With the tale of the former, the world has too often been sickened; but as illustrative of the *raison d'être* of a dependency in the eyes of the mother country, we may mention that the Indians were ordered to marry—the men at the age of 15, the women at 13—in order to increase the capitation-tax, while the colonists were prohibited from growing or manufacturing those articles which Spain produced, or from trading with any other country. Under such circumstances it was natural that the flame which had broken out in the provinces of Buenos Ayres should spread, and the standard of independence was raised in 1809. At first Balcarce and his levies carried all before them, but his success was short lived, and for 14 years the disheartened revolutionists had to betake themselves to guerilla warfare. At length Santa Cruz revived their hopes, but it was reserved for General Sucre to achieve the deliverance of the country. His prowess was rewarded with a life presidency; but gratitude is evanescent in South America, and in two years his

Part IV.—Peru.

They say that the Anglo-Saxon conscience degenerates in a temperature exceeding 100 degs. Fahr., and generalising from this fact some people profess to be able to divine the character of a South American Republic by calculating its proximity to the equator. By carefully noting the latitude, they say, a surprisingly accurate guess may be made at the value of the external loan, at the annual number of citizens who from motives of the purest patriotism are impelled to seize the reins of government and "save the Republic," of the average recurrence of *pronunciamientos* and revolutions, and of the frequency with which it is necessary to re-christen the streets. It is an ingenious theory, and without pressing it too far, it must be owned that morals, political and social, do not show any great improvement as we approach the torrid zone.

Peru has sadly fallen from its high estate when its Viceroy divided with the Governor of Mexico the entire American possessions of Spain. It was, indeed, the wealth and luxury which it enjoyed under the mild rule of the Incas which provoked its downfall. When Balboa was Governor of Darien, rumours of a country, the streets of whose cities were paved with gold, continually reached his itching ears, till he determined to attempt its capture. The prize, however, was artfully stolen from him by Pizarro, who made the matter a family affair by associating his three brothers with him in the enterprise. He only required three ships and 180 men to undertake the overthrow of the vast empire ruled by the Incas. But armaments have swollen visibly since 1531. The conquest of Peru is the old tale of murder, fraud, and rapine enacted in the name of religion. It has left an indelible stigma on the Spanish race; and yet its crimes are no worse than those that were perpetrated a year or two ago by soldiers of the Cross. The dramatic scene in which Father Valverde conjured Atahualpa to obey the bequest of Pope Alexander, who had conferred his empire on the King of Spain, was but the prelude to the treacherous attack of Pizarro, who, having seized the Inca, routed his army with a loss of 4,000 men. Atahualpa so won upon the cupidity of the Spaniards that they promised him liberty if he would fill his prison with golden vessels to the highest point which he could reach; but though he carried out this stipulation, he was condemned to be burned alive. The old *regime* of Peru was shattered by this blow; Cuzco, the capital, was occupied without opposition, and Pizarro set to work to consolidate the government of his new possessions. Dissensions, as usual, soon broke out among the freebooters, but Pizarro quieted the outbreak, and got rid of a dangerous rival by murdering Almagro. He himself soon afterwards fell a victim to this, being assassinated by the friends of the chief he had put to death. The power of the Incas was, nevertheless, too much broken to enable them to take advantage of these quarrels, and the last of the line—the ablest and best dynasty that ever occupied a throne—resigned his crown to Philip of Spain. The grip of the invaders was thenceforth tightened, and was never relaxed till Bolivar declared that every citizen was free before the law.

Peru is the latest born of all the States of South America, and it was not till she was urged on by her neighbours that she broke into insurrection. The Argentines and Chilians felt there was no stability for their newly-formed institutions as long as the Royalists maintained a foothold on the Continent, and, joining their forces, came to the aid of the National party. They were ably commanded by S. Martin, while Lord Cochrane blockaded Callao. It was in this bay that he performed one of the deeds of reckless daring which endeared him to the Chilian sailors, by cutting out the largest of the Spanish war-vessels with a flotilla of boats under the fire of the heavy ordnance of the fortress. The Spanish general, Lascerna, was compelled to capitulate on July 28, 1821. After this the patriotic cause underwent the usual vicissitudes, till the appearance of Bolivar revived the spirits of the malcontents. The victory of Ayacucho virtually put an end to the struggle; and by the surrender of Rodil at Callao, Spain lost the last fragment of the inheritance she had enjoyed for three hundred years.

In natural advantages Peru stands behind much of the surrounding country, and but for the beds of guano which were recklessly drawn upon till the boring rod declared the supply exhausted; and the deposits of nitrate of soda, she would long since have been compelled to turn her languid energies towards the development of her resources. There are three distinct zones of vegetation—if vegetation can be said to exist in the sandy tract called La Costa which fringes the Pacific shore, unrefreshed by a drop of rain. Behind this lies La Sierra, or High Peru, an upland region well wooded and in parts fertile; and behind this again comes the belt known as La Montana. There are, it is true, valuable mines which would greatly supplement the deficiencies of agriculture, but before they can be successfully worked great improvements must be made in internal communications. The harbours, too, of Peru are by no means what a glance at the map would lead one to imagine. They are considerable in number, but with the exception of the splendid anchorage of Callao, few of them rise much above the dignity of a roadstead. Such as they are, however, they have sufficed to intercept much of the trade of Bolivia, and Peru, without labour or anxiety, has levied a heavy tax on the industry of her neighbour. It is obvious that this is a precarious source of profit, which a change in the trade routes would at once remove.

It may please the light-hearted dwellers of Lima—or the "City of Kings," as its founder called it—to lead the life of lotus-eaters as they lounge away existence in the Calle de Comercio, but their graceful apathy is resented by this unresting age. But after all, they may be the true philosophers. It would, at least, be an evil eye that would search for rancour beneath an exterior which is all kindness and affability, provided only that concession be made to the Castilian punctilio, which even democratic institutions have no power to eradicate. It may be galling to a smart agent accustomed to the brusque ways of Western cities to see a merchant contemplatively rolling a cigarette while he ought to be transacting business. But after all we may take comfort from his own proverb says, "Delay is a street that leads to nowhere." He may defer acting upon it to the *manana*. But many things can be done as well to-morrow as to-day. If we solved all the problems to-day there would be nothing left for the

Life would be dull indeed without a future, and so we may be thankful that there is a *manana*.

THE TIMES,

THE PERUVIAN SEA COAST.

(FROM OUR SPECIAL CORRESPONDENT.)

LIMA, Nov. 13.

From Panama, on the western side of the isthmus, to Callao, the seaport of Lima, there is a distance of about 22 degrees of the meridian—a run of 1,532 miles. The voyage is accomplished usually in nine days, occasionally in six, by the magnificent steamers of the English South Pacific Mail Company, which a few years ago only ran once, and then twice a month, but now leave Panama twice a week, some coasting the whole continent down to the Straits of Magellan and through the straits to the River Plate, Montevideo, and Buenos Ayres ; others merely plying between Panama and some of the intervening ports. By arriving one day too late at the isthmus (on Wednesday, October 22), my fellow-passengers from Southampton lost their chance of the steamer that left Panama on that day ; but they were able to continue their journey by an extra steamer on the following Saturday. On Monday, the 27th, a steamer again started from Panama on a short journey to Guayaquil and back, and, finally, on Wednesday, the 29th, I left Panama, and reached Callao and Lima on Saturday, November 8. Four steamers, between ordinary and extraordinary, thus started from Panama for the south in one and the same week, and these were in communication not only with the British Royal West India mail steamers from Southampton, but also with the French line from Cherbourg, with the American line from New York, and with the North Pacific British line from the western coast of Central America and from San Francisco in California.

I have dwelt on the prodigiously increased activity of the steam navigation centring on the isthmus, first, to give some idea of the further progress that navigation might attain were the scheme of the Panama Ship Canal to be carried out ; secondly, to show at the outset what development of commercial life is observable in these Western States of South America into the material and social condition of which I have been sent to inquire. The New World, on this side of the great continent, seems to be rising into a novel existence ; and it is important to note that the business arising from it is mainly, if not exclusively, owing to English enterprise ; for of the steam navigation, both of the Atlantic and the Pacific, the boats of the Royal Mail Companies have quite the lion's share (the Americans of the Northern Union showing no disposition or no ability to compete even with the Cunard, the White Star, and other lines plying between Liverpool and the various harbours of the United States) ; while in the ports of South America two-thirds, at least, of the large vessels of every description fly the British colours.

On Wednesday, October 29, towards sunset, the tender from the pier near the Panama Railway terminus conveyed us to the little island in the bay where our steamer, the Ayacucho, was anchored ready to start. Like all the coasting steamers round this western continent, this vessel, though built in Liverpool, was made after the pattern with which travellers along the Mississippi and the other great American rivers become familiar—a vessel, so to say, turned inside out, with an upper deck seemingly suspended in air, the saloons, the cabins, and the first-class state-rooms all on this deck, having their large port-holes and doors opening on the deck, and allowing the passengers as ample a supply of air as heart may desire, both at all hours of the day and night and in all kinds of weather—a blessing which men who have been for 20 days stifled under the close main deck of the steamer from Southampton are not slow to appreciate. Seen from the tender, as we drew near, the Ayacucho, with the lights streaming from all its openings, looked like a fairy palace ; a top-heavy structure, as one may fancy, not sufficiently compact and well-balanced to wrestle with the storms of the Atlantic, but along these coasts, with the steady trade winds and currents of the broader and calmer Pacific Ocean, calculated to combine the utmost comfort with the most perfect security. We were all on board at 7, and sat with some friends at a capital dinner, of which Captain Whittingham, our good commanding officer, did the honours with thorough British hospitality. At midnight all strangers were ordered off, and it was only upon rising early in the morning that we perceived we had left the Panama Bay in our wake. The steamer went southward along the western coast of the Confederacy of the United States of Colombia, to which Panama and its isthmus belong. This Republic is the only State in South America which has the advantage of extending its territory on both seas, its coast stretching on the north-east along the Caribbean Sea or the Atlantic, and on the other or western side along the Pacific. We, however, touched at none of the Colombian ports, but made a short cut to the coast of the Republic of Ecuador, coming in sight of land at Cape San Lorenzo and Cape St. Elena ; then winding round the island of Puna, at the mouth of the river Guayas, we ran up the estuary of that river as far as Guayaquil—the main harbour of the Equatorial Republic and the highway to Quito, its capital. After a halt of one day and night at Guayaquil we again descended the river, having the lands of Ecuador on our right, and, presently, the shore of Peru on our left. We stayed for a few hours near Tumbez, the first Peruvian town on our route. We again stopped at Paita, on the following morning ; then at Eten, and, further, at Pacosmayo, beyond which we followed our uninterrupted course to our destination at Callao.

We crossed the line at half-past 3 in the afternoon of November 1, before we reached Guayaquil, and we had the sun very nearly right over our heads all the way to Callao. From the state of the heavens or the temperature, however, it would have been impossible to imagine that we were in the tropics. We had had rain in torrents, with short glimpses of burning sun, and a close, damp, stifling atmosphere on our way through the West Indies and on the isthmus, and heavy showers and the same darkness and gloom prevailed now on the coast as far as Guayaquil. But the air freshened and the sky somewhat cleared as we reached the first station in Peru, at Paita ; and from that point we were met by a keen cold wind from the South Pole, so cold that we shivered on deck all the rest of the way, and were glad at night not only of our blankets, but of such rugs and wrappers as we had too rashly laid aside as useless encumbrances. The fact is we had reached the tropics at the end of what is here called "winter"—i.e., in the West Indies, the rainy season, which was this year unusually heavy and prolonged beyond its usual period ; and in Peru, where no rain ever falls, a season of darkness which spreads upon land and sea a pall of heavy clouds, and which, combined with the blustering breeze, might have caused us to fancy we were steaming along the English coast. We had not one single starry night on the Pacific ; and, with the exception of one glorious sunset off Pacosmayo on the 3d, we had no more heat or light from the pale and sickly sun (when we saw it at all by day) than from the watery moon at night.

The difference in temperature naturally affected the look of the country. Up to the entrance of the estuary of the Guayas, on the way to Guayaquil, the low shore on either side, refreshed by incessant

showers and flooded by the periodical rise of the tide, was teeming with the endless luxuriancy of a tropical vegetation. The primeval forest covered both the islands and the mainland as far as eye could reach ; fine straight trees rising clear and free to the sky like rows of Lombardy poplars, with the impervious tangle of the undergrowth at their base ; a mass of fresh green, the vividness of which no forest scenery, even in moist England, could match, broken here and there by a blaze of flowers of the brightest hues, enlivened by flocks of birds of gay plumage and haunted by tigers and alligators, which even the noise of the steamer does not always scare out of sight. All this region along the river is both uncultivated and uninhabited ; and only as one approaches Guayaquil a hut on piles is to be seen here and there close to the water's edge and inaccessible except by boat. At Guayaquil the ground rises and breaks out into a cluster of hills all mantled with verdure—a pleasant prospect, in the rear of which I was told may be seen, looming up half-way in the heavens, "but, alas ! only once or twice in the year," the snowy cone of Chimborazo and the other giant volcanic masses encompassing the valley of Quito, the glory of the Cordillera of the Andes. Quito is only to be reached by a journey of several days, steaming about 70 miles further up the river in small boats, then proceeding by rail a short part of the way, and accomplishing the rest on mule back.

Far different was the sight that awaited us on the coast of Peru. At Paita, a thriving port, connected by rail with the valley of Piura, there was not a bush or a blade of grass to be seen either about the town or on the mountains round the bay, the only bit of green the people enjoy there being the clumsy perspective of a painted garden on the outer wall of the grand café of the place. As we proceeded southward, always close to the land, the coast exhibited the same unrelieved line of rock and sand spreading upwards into jagged and cragged and bare hills, behind which we could see through the mist long ranges of mountains, blurred and softened by distance, but equally bald and savage, and all seamed with the rents and chasms which make them, to all appearance, utterly impracticable as well as inhospitable. Such is Peru all along the coast throughout that region that lies between the sea and the crest of the first Cordillera, or chain of the Andes. Between this first, or western, and another inland, or eastern, chains, there lies a table-land, somewhat between 12,000 and 15,000 feet above the sea-level, which constitutes the middle region ; and on the eastern slope of this second chain lies the so-called "Montaña," or mountain slope, through the deep valleys of which flow the streams the waters of which mix in the bed of the great river of the Amazons. These three regions —the western sea-coast, the table-land, and the eastern mountain slope—differ materially in soil, in climate, and in produce, Peru being by nature so placed that the parts of the country which are most easily accessible are the most barren and forbidding, while the inland territory, which can only be reached by painful effort, constitutes by far the wealthiest and most charming division of the territory. To correct this grievous fault of nature, the Peruvian Government had conceived a scheme than which nothing could be bolder or more magnificent, had there only been means, intelligence, and perseverance in the execution commensurate with the vastness and daring of the conception of the enterprise. They proposed to construct several great railway lines from the sea-coast to the Andes, cross both the chains of those mountains and the intervening table-land, and carry them on along the valleys of the great eastern slope to those points where the rivers become navigable, whence the traffic would continue by water through Brazil down the Amazons as far as its mouth in the Atlantic, thus opening a communication between the two oceans by rail and steam. The railways would have to be from 200 to 300 miles in length, and to be carried up to a height averaging at least 12,000ft. above the level of the sea ; and it has been ascertained that Peru possesses about 3,623 miles of navigable streams of its own, all tributary to the Marañon or Amazons before that river crosses the border into the empire of Brazil. Two of these great trans-Andean railways are already far advanced. One is the line of Oroya, which from Callao and Lima has been carried up 86 miles to Chicla, within a few miles of the uppermost crest ; the other is the line from the port of Molliendo, near Islay, running up to Arequipa, and thence to Puno, on the great Lake Titicaca, a line already 222 miles in length, to be continued on one side to the old city of Cuzco, on the other to La Paz, the capital of Bolivia. I shall have occasion to return to the subject of these railways, destined to become the main arteries of the South American continent ; but for the present I must limit my observation to the maritime region, and state that at many of the ports on the coast railway lines have been run up, from 20 to 50 or 60 miles in length, mostly by the Government, some also by private enterprise, with a view to facilitate the export of the boundless mineral wealth of the country, as well as of such produce as even this western region, with all its dreary aspect and its lack of fertilizing rain and sun, contrives to yield. Though the mountains on this side are hopelessly sterile, and though the clouds give no showers, there is no lack of good soil in the narrow and steep valleys, and no deficiency of water in the perennial streams that flow through them. These valleys, dependent for their moisture on the snows of the Andes and on the dews with which this misty atmosphere is charged, are like so many charming oases in the mountain wilderness ; and besides their multitudinous fruits and vegetables, they produce in their cool recesses rice, maize, cotton, tobacco, &c., a considerable quantity of which finds its way through these short railways to the sea, and are shipped off in the steamers of the Pacific Company to all parts of the world. Of this coasting trade, which is equally carried on all along the coast of Colombia and Ecuador as well as of Peru, and the increase of which has lately been enormous, we only could form an idea at Paita, Eten, and Pacosmayo, the ports at which the Ayacucho called. These places have as yet no real harbour accommodation. We anchored in the roadsteads outside, and were tossed about by a sea which is always high here, so that the landing and taking in of cargo was everywhere a laborious and difficult operation. I saw cows tied with a rope round their horns and hoisted on board by the crane with their legs all dangling and sprawling ; I saw pigs thrown out of a lighter as it neared the shore, and bidden to sink or swim, with a whack now and then from the boatman's oar to show them the way they should go. I saw passengers lifted out of the lighter in a kind of wooden cage not unlike an Irish slanting car, sitting back to back three on either side, and holding in their arms or laps bundles, babies, parrot cages, and other impediments, hanging dangerously high in the air, as the sea heaved and yawned mountain high between the steamer and the lighter ; and I saw also the same perilous ascension performed by the port captain and his adjutant at Eten ; those two officers standing in a tub, holding fast by each other's arms and by the chains of the crane as that machine made them fly over the bulwarks and shot them down into the hold with a smart bump, as if they had been bales of cotton, when they scrambled out all ruffled, the captain shaken out of his habitual official gravity and Indo-Castilian *sosiego*, and his attendant deeply concerned about the damage that aërial journey might have wrought in his tightly-fitting uniform. The maritime arrangements in these Peruvian havens, in short, are as primitive as one may conceive. There is nowhere any attempt at docks or breakwater ; the long railway piers which have been run out into deep water with a view to facilitate the transmission of the contents of their vans and trucks into the steamers are mostly unfinished

and will remain in a great measure useless till funds be forthcoming to complete the interrupted works both at the railway stations and in the harbours.

The fact is that the Government, which in its mighty undertakings displayed more zeal than understanding, which looked to the ends without considering the means, and relied for supplies not on the already overstrained revenue of the country but on a series of loans contracted with little discretion and on most onerous terms, ran too rashly to the conclusion that their credit would never fail them, that the resources it might yield would never be exhausted; and they seemed to forget that the work they had taken in hand, and which might possibly prove to be remunerative when carried to a thorough termination, would never pay a penny, and would, indeed, involve heavy liabilities, and run the risk of being utterly abandoned, so long as it remained incomplete. The railways, whose charges for goods and passengers were originally fixed in gold and silver, must receive payment in a depreciated paper currency, now as low as 200 per cent. The Government, whose property those railways are, can easily put up with the loss, as they pay no interest on the capital they borrowed for the construction; but it falls hard on the lines belonging to private companies, as, for instance, on the English Callao and Lima Railway, a creditable speculation, dating from 1855, and which yielded fair returns for many years, but which has now to withstand the competition of the Government railway of the Oroya line, and must also put up with paper payments, thus reducing its receipts by two-thirds, even without reckoning the recently-imposed war tax on the tickets. Such has been the state of things in this country for the last two or three years, when the activity with which the Government carried on its public works suddenly collapsed; the Republic finding itself all at once short of funds, and in the impossibility of raising the wind on any terms, so that next to nothing, I am told, has been done in railways since 1876—that is, long before Peru took up the cause of Bolivia in a matter which in no way concerned her, and became entangled in its war with Chili—"that beautiful war," sure, whatever may be its issue, to work a havoc on the Peruvian finance from which it is not easy to see how it can ever recover.

That war, undertaken by Peru in the mere spirit of bravado, and in a possibly mistaken consciousness of the superiority of her forces over those of a despised enemy, has hitherto been productive of nothing but serious disasters—the loss of the iron-clad Huascar, the pride and hope of the Peruvian naval power, and the defeat of the Peruvian land forces at Pisagua or Pisahua, where they vainly attempted to oppose the landing of 10,000 Chilians in Peruvian territory—such defeats by land and sea, sustained in spite of a display of great bravery, being accounted by the Peruvians, not as "victories," but as "national glories, to be valued much more highly than victories."

It is not my purpose to dwell on the particulars of this untoward conflict, nor on the domestic and foreign policy of a Government which is thus urging the country to the verge of utter destruction—no further, at least, than is necessary to point out the extent to which political causes may affect the material and social interests of these South American communities; and in this respect I must state that besides the grievous direct losses inflicted on the Peruvian exchequer by military and naval expenses, the State must put up with the far more serious indirect damage of the removal of so many useful hands from their employment, in a country where labour can hardly be procured on the highest terms, and where indeed the great, the vital question is how and whence labour is to be got on any terms. In their blind resolution to carry on the losing war to the bitter end, the Government here are laying a violent hand on all able-bodied men with a fury exceeding anything that ever was done by England in the darkest days of her press-gang; and a proof of their way of going to work in this respect was given to myself on my landing at Callao, when the railway porter with whom I had bargained for the conveyance of my luggage from the wharf at Callao to my hotel in Lima, and for which the man was to receive $10, was seized by the recruiting officers at the station, and smuggled away to the barracks, leaving me in sore perplexity as to what had become of him and of the "plunder" committed to his care, when he came up by a later train in great glee, announcing that he had "bought himself off" with the very money he expected at my hands. With the wretched multitude who have no cash wherewith to redeem themselves it must, indeed, go hard. Peru is bent on pursuing the struggle to her last man. As to her last dollar, alas! it has long since made itself wings and been seen no more.

THE PERUVIAN CAPITAL.

(FROM OUR SPECIAL CORRESPONDENT IN SOUTH AMERICA.)

Although Francisco Pizarro, the discoverer and conqueror of Peru, was only an illiterate warrior and adventurer, and the deed or instrument by which he bound himself with Diego de Almagro and Fernando de Lugue on the eve of his enterprise in 1526 bears "his mark" instead of his signature, there is every reason to believe that he was a man of natural intellectual abilities, as much a constructive as a destructive genius; and he showed no little discernment in his choice of a site and in the delineation of a plan for a city. Coming, as he did, from Panama to subjugate a country to which he could gain no access by land, he felt that he would have no other base of operation than the sea; and forsaking Cuzco, the ancient capital of the Empire of the Incas, which was too far inland and too far up in the mountains, he laid, in 1535, January 6, the Three Kings' Day, on the banks of the River Rimac, and about two leagues from its mouth in the Pacific Ocean, the foundation of Lima, to which, as he meant it to be the permanent seat of Government of the conquering nation, he confidently gave the name of "City of the Kings." Here he settled and here he resided to the end of his days, in 1541, when he fell by the hands of assassins, meeting the fate of nearly all the men of blood and iron of whom he was the type; like two of his own three brothers, like the two Almagros, like the Alvarados, the Carvajals, the Monk Valverde, and a hundred others, atoning for unheard-of deeds of violence by a violent death, the worthy end of a set of men than whom if we sum up the episodes of that great Iliad of the Conquest we shall find that none ever displayed more reckless, desperate daring, more unwearied energy and heroic endurance, but who also transcended all other mortals in their avarice, ambition, bigotry, and cruelty, in their implacable mutual jealousy and enmity, in their utter disregard of all faith, honour, and conscience, in whatever there was most admirable and most execrable in the old Spanish character.

From the fine harbour of Callao to Lima, or Los Reyes, as people still fondly call the city, the traveller crosses by rail a seven or eight miles flat, sandy, and stony shore, with an almost imperceptible ascent of 480ft., and he has before him, as he leaves the station, a straight, narrow street, the main street of the town, exceeding a mile in length, crossing at short intervals a labyrinth of other streets which all meet at right angles; the ground a perfect level, the streets all on one plan, of one and the same width, and the blocks of houses all of the same height; with the great square of the Cathedral about half way between the two ends of the main street, and a little further the Rio Rimac, with the fine old bridge crossing it, and causing the only break in the monotony of this rectilinear and rectangular chequer-board.

Such is the pattern of almost every brand-new city in the New World, a city raised with rule and compass, having none of the grace, of the quaint and picturesque variety of the old towns. The place seems to answer all the purposes for which it was intended, the thoroughfares just wide enough for the hackney carriages and tramway cars, the side walks, well paved once, now somewhat dilapidated, only too plain an evidence that Lima has seen better days; the dust, all-pervading and troublesome, in spite of the fitful efforts to water the streets; many of the shops, and especially the jewellers, glittering with almost Parisian magnificence; the houses, all of one story rising above the basement, on the footing of Republican equality; the upper floors of most of them hanging out with heavy balconies; from seventy to eighty huge churches, and several convents with vast cloisters cumbering one-seventh of the area of the city, and towering over it everywhere with their domes and belfries, and twin steeples or spires; the roofs flat; the masonry everywhere flimsy and shabby and rickety, in spite of its massive appearance, the inside all wood, the outside plaster and reeds, bamboo, and stucco; all that befits a climate where no rain falls and the earthquakes make themselves at home.

And yet, though with absolutely no pretension to architectural taste or correct style in its public or private edifices, Lima may not be without peculiar charms in the eyes of its inhabitants, and even of the least fastidious among its foreign visitors. The main square is spacious; the often restored and modernized cathedral on one of its four sides is imposing; and although the vast Government premises, Pizarro's original mansion, filling another side, and the Archiepiscopal Palace and the Town-hall are hardly distinguishable from the meanest houses adjoining, there is something in the colonnades or porticoes running in front of the shops along the two other sides and in the fountain and shrubs in the middle that gives an air both of provincial comfort and of metropolitan dignity to the place. The same may be said of other squares with monuments to Columbus, to Simon Bolivar, and other worthies; the same of the public promenades, the Alameda of the Barefooted Friars, the Alameda de Acho, and above all the so-called "Exhibition," combining botanical and zoological gardens, but with grounds sadly neglected; and the same of the good Central Market, the handsome and well-conducted Dos de Mayo Hospital, the modern Penitentiary, and the cemetery. But the chief interest for a lover of the picturesque arises from the frequent sight of the neat, cool *patios*, or courts, of the better houses, laid out somewhat after the old Morisco fashion prevailing at Seville or Cordova, though one misses here the plashing fountains, the shrubs and flowers and birds of those delightful prototypes. Some traces of the quaint and *baroque* taste of the latter end of the Spanish Renaissance are also observable in the cloisters of some of the convents and in the *façades* of two of the churches, St. Augustin and La Merced; but more strikingly in the curious old mansion of Dr. Cavallos, a perfect model of a wealthy Spanish nobleman's dwelling in the old gold-digging days, and boasting a fine collection of old Spanish pictures inherited from Castilian ancestors. This artistical collection, the mineralogic and general museum collected by the distinguished Italian scholar, Antonio Raimondi, which may one day escheat to the State, and the museums of Indian antiquity in a few private houses, the most valuable of which is the native pottery of Mr. Spenser St. John, Her Majesty's Minister, are among the main objects deserving a visit; and a traveller may also find entertainment in going through the Senate House and the Congress of Deputies, the former once the Palace of the Inquisition, the latter the old University, as well as in inspecting the new University, or Universities, the College of Arts, and the Mint, all edifices at the present moment somewhat indifferently answering the purposes for which they were erected.

Whatever, however, constitutes the chief claim of Lima to a stranger's admiration is its magnificent site. From the windows of the Phœnix Club in the main square, at the end of most of the straight streets, from the *miradors*, turrets, or terraces on the roofs of many houses, one may catch here a glimpse, there a prospect, further a panorama of the vast surrounding scenery. On one side looking seawards you behold Callao, a mere suburb of the capital, with its two lines of railway, its magnificent natural harbour, sheltered on the southern or windy side by the long and lofty island rock of San Lorenzo, looming about four miles off across the channel, with the merchant shipping at anchor, and the squadrons of Great Britain, France, and the United States rivalling one another in the high-finished condition of their formidable ironclads; and further off the low wooded shore stretching beyond reach of human ken. And all round on the other sides you have the spurs of the Andes, all brown or dark gray, bare and precipitous, clasping and hugging, as it were, the little plot of level ground where the town is built, a very world of mountains, reared up in huge pyramidal masses, hill above hill, and ridge behind ridge, through some of the openings in which, in very rare propitious atmospheric circumstances, you may have a vision of the snow line of the very giants of the chain. The mountains, you would say, close round Lima, as if constituting its walls and ramparts. You see no outlet, no way up anywhere, no gap save that little streak of green which marks the course of the valley of the Rimac. Through that valley—the track followed by the Transandean Oroya Railway—there trickle now the scanty rills of the Rio Rimac, a river at this winter season almost lost in the wilderness of its stony bed, but which will come down with a roar and overflow its banks with the fury of an Alpine torrent as soon as the snows of the Cordillera shall feel the heat of the sun's rays in the summer months. Such is the view one enjoys from Lima in ordinary weather; but as to the "gigantic range of the Cordillera here rising like a wall sheer out of the water" and "the glittering snow-fields, beyond which lie still more distant peaks towering to amazing heights"—all that must either be seen with the eyes of faith or under such a combination of clear sky and bright sun as has not as yet fallen to my lot.

The climate of Lima and in general of the western coast of Peru is one of the most equal and temperate, yet also absolutely one of the most dismal climates in the world. The average temperature throughout the winter ranges between 57deg. and 61deg., and in the height of summer it hardly ever exceeds 82deg. or 84deg. A real downpour of rain is an event occurring at the utmost once or twice in a century, when it finds neither persons nor things prepared for it; and it is the boast of the people here that no fickleness of the weather can ever interfere with their arrangement of picnics, rides, drives, garden-parties, or other festivities. But we are now at the outbreak of spring, and the sky frowns upon us as it would upon a London November. Two weeks since our arrival have gone, and we have seen nothing like a sunrise, or sunset, or starlit night. Thick clouds hang between heaven and earth morning and evening, clinging to the hills, and towards daybreak they now and then squeeze down a few almost imperceptible drops of Scotch mist, leaving off from minute to minute, and scarcely laying the dust, as if the heavens above were crushed under a weight of sorrow too deep for comfort, yet too heavy for tears. An hour or so before noon the sun breaks out, as a rule; a vertical sun, hot enough if it were in earnest, but doing its work in a reluctant, slovenly way, as if unable to make up its mind about it, and soon withdrawing behind its dense curtain of mist, as if loth to seem to dis-

appear at night's bidding. I am told that this state of things only lasts here throughout the six winter months, and that even during this period the gloom does not extend more than a few miles out of Lima; but strangers long acclimatized here aver that the weather is not much clearer even in the summer season; that a real bright view of the upper chain of the Andes is a very rare occurrence at any time of the year, and that at night the weather is always cold enough to make a provision of overcoats and wrappers extremely advisable; a state of the temperature not to be wondered at if we bear in mind that both winds and currents from the ice of the Southern Pole never cease to sweep along this coast from year's end to year's end. That Lima is without contradiction the unhealthiest and deadliest large city of South America is meanwhile freely and universally admitted, the only question being whether it is to nature's enmity or to man's improvidence that its dire mortality should be mainly ascribed.

With respect to mankind, the object, according to Dr. Johnson, of wise men's survey "from China to this country," I may say it presents here a phenomenon of such variety of complexion, shape, feature, and character as one might probably in vain look for in any other place. The work of mixture by intermarriage, legal or otherwise, of different races, especially of "a ha'p'orth of white with an intolerable deal" of dingy red, yellow, and black, has been going on for three centuries, and the result is such a confusion of colours as would puzzle the discerning powers of the most diligent ethnological inquirer. A Peruvian, as a rule, is theoretically a cross between a Spaniard and a native Indian. The conquerors found here, upon their invasion of the empire of the Incas, from 10 to 12 millions of people spread over a territory which is now divided between the three Republics of Peru, Bolivia, and Ecuador, and the population of which, taken altogether, now scarcely reaches five millions. The Spaniards, during their three centuries' sway, massacred, plundered and crushed, and destroyed by hard work more than half the enslaved native population; they came actuated by avarice and lust of power. They clutched the country's treasures with bloody hands and ruled with an iron rod, but seldom became permanent settlers even when the land was theirs; and at once and altogether estranged themselves from it when their power had passed away. A mere small flock as they were, it is astonishing to see what deep traces of their ascendency they left behind them. The soul and heart of the country are still as thoroughly Spanish as they ever were under the Castilian Viceroys. Such civilization and intelligence, such a sphere of ideas, such tendency of feelings, as are observable among this mongrel race, bear the mark of the Castilian character, intensified in whatever there is good or evil in it by the admixture of the by no means uncongenial Indian blood. In religion, in politics, in social habits and moral principles, the Peruvians are the most faithful copy of the Spanish original. Like the Spaniards, they are a brave people—born to bear the fatigues of heavy marches and to give or receive death with equal indifference; but, with the exception of war, fit for no trade or only for politics, which is with them a kind of warfare, and in which murder and plunder play as active a part as in war. For any other than the soldier's work a Peruvian himself would rather employ any other people than his own. The Indian or *mestizo* is of no real use in town or country, as long, at least, as the choice lies between him and either the negro or mulatto, or the East Indian or Chinese coolie. Without the introduction of a foreign element, no matter where it may come from, the labour question in Peru will never receive a satisfactory solution. This point alone is settled—that the native elements are of extremely little use for agricultural purposes and of none whatever for mining, road-making, or for any other navvy employment. As the Peruvian population of the lower class will not supply the labour, so neither can or the upper classes yield the intelligence or capital. In all branches of trade and industry, high or low, and even in those Government offices in which diligence, skill, and thrift, as well as common uprightness and integrity, are required, you will find foreigners or sons of foreigners, almost without an exception, filling the best places. The population of Peru, according to the last census of 1876, amounts to 2,699,945. Lima numbers 101,488 souls within its walls, and Callao 33,502. There were, it is said, between 15,000 and 20,000 Chinese in these two cities, and about 60,000 throughout the whole of Peru, but their number is now reduced altogether to about 35,000. Owing to the hardships these Asiatics endured on board the vessels that brought them over and the illtreatment they received at their masters' hands, England has interfered and forbidden this new kind of slave trade; so that immigration from that quarter, which began in 1853 and continued for 25 years, is now at a standstill. An English gentleman, owner of a large sugar estate, told me that he employed 1,000 Chinese, each of whom cost him $480 on his first arrival, and whose number is now reduced to 621, owing to death from illness, or suicide from *ennui*, or desertion and breach of contract. Though the Chinaman is able to work in the field, and not unwilling to do so upon compulsion or the inducement of high wages, he will choose any other employment for which he is better qualified, and will, as soon as he has a chance, quit the plantation and resort to the city, where he can earn a livelihood and accumulate money in the various capacities of skilful artisan or petty shop keeper, barber, cook and confectioner, waiter at an inn or club, nurse at a hospital, &c.

The contract by which these coolies were originally procured will expire in about two years; the Chinese who are now in this country will be free either to go back to their homes or to follow the bent of their own inclinations as to the kind of pursuit that best suits them. Unless new labourers can be brought on better terms from this quarter, much of the agricultural and all the mining and railway work will come to an end. Were it possible either by a better arrangement as to their immigration, or by a more humane usage, and especially by a free gift of small lots of available land, to entice millions instead of thousands of these thrifty Asiatics to effect a permanent settlement in the country and to constitute a new race of petty peasant proprietors, they might perhaps so leaven the whole mass of the population as to create a useful and efficient labouring class; for the Chinaman is naturally gifted with a higher intelligence than the negro, and a greater strength, energy, and power of acclimatization than the native Indian; and the objections which arose against his coming here un-mated and eschewing intercourse with the women of the country are found to have no real foundation, as nothing is now more common than to see new families springing from the connexion within the present generation between the Asiatic and the Indian or African races, the three colours, black, red, and yellow, blending in a new strange amalgam, the ultimate results of which no one can foresee.

I have heard a Peruvian say that there could be no well-being in his country till the Chinaman gained a decided ascendency over its destinies. Though spoken in jest, the saying may prove to be true in sober earnest. Or there would be at least no reason why such a consummation might not be realized were not the Peruvian himself unwilling or unable to turn the resources of his country to good account, yet envying and disliking, not only the Chinese, but all those aliens, whatever may be their race or colour, who, while seeking their own private interest, powerfully contribute to the development of the public prosperity. There are no such trustworthy statistics in this country as might tell us how many Italians, Germans, French, and North Americans are really living in Peru, or even in Lima-Callao; but what we can see without being told is that,

without these strangers or their descendants, nothing would be done in the way of business, in any great national enterprise, and even in the army and navy. The Italians, the most numerous "colony"—14,000, it is said, between Lima and Callao—have seized on the *pulperia*, or petty retail shops, at every street corner, driving a petty trade that leads to huge gains. The French have most of the hotels and *cafés*; the Germans monopolize the banking business; the English take upon themselves all the engineering work, the Yankees have the fattest contracts, &c. The Peruvian is an hidalgo, like his Castilian forefather, who looks upon himself simply as born to rule. Politics is his calling; the State is his oyster, which he with sword—*i.e.*, with intrigue and violence—will open. He has a Constitution, pays wages to Senators and Deputies, publishes a Budget, and goes by fits and starts through the forms of an election, of a President's Message, and of an opening and closing of the Chambers. But of law, justice, or public order and security, there is not the least shadow. "*Point d'argent, point de justice*" is the motto. The dastardly soldier who shot dead the well-meaning but utopistic President Pardo at the entrance of the Senate House in November last year; the ruffians who on the previous April broke into the house and into the bedroom of Mr. Young, the head manager of the Lima-Callao-Chorillos Railway, wounding and almost murdering him and his wife, are, with a legion of other malefactors, in prison awaiting their trial. The leader now of one, now of another political faction snatches at power by some stroke of surprise; he has the Chambers at his feet, and after a Session of vain declamation, his decrees are summarily indorsed, and he is invariably invested with full powers to enrich himself and his friends at the public expense, till the turn comes for another adventurer to trip him up by some sleight-of-hand trick, *verbi gratia*, by throwing him into prison and murdering him there; not, however, without running the risk of being himself murdered, mobbed in the streets, hung from the towers of the cathedral, and burnt on the square before it. Such are the *Cosas de Peru*, a counterpart of the *Cosas de España*. Name Balta or Pardo instead of Prim, and Prado or Gutierrez instead of Serrano, and you will find the history of the new colony merely a sad parody of that of the old Mother Country.

It might seem difficult to understand how the industrious and intelligent class of business men of the various foreign nationalities whose superiority of numbers, wealth, and energy could so easily assert itself, submit to be bullied, and harried by this mere handful of Peruvian political adventurers, remaining passive spectators of the misrule by which both the country and the interests they have in it are brought to utter ruin. But it must be considered that these strangers, notwithstanding the goodwill and amity which a sense of their common danger promotes and fosters, find it very difficult to overstep those barriers which their divided nationality and language, their diverging and often conflicting pursuits, and their allegiance to the various Powers on which they rely for protection, raise against any possibility of joint action and combination among them. Except for charitable or social purposes, they seem loth to put forth their influence, and they will rather allow the tide of tyranny and anarchy by turns to overthrow the country, heedless of the certainty that the flood must sooner or later reach and overwhelm themselves. One must add that there are among these foreigners men of all characters, some of whom can find no fault with that ill-wind of misgovernment which, after all, blows somebody good, or with that wholesale jobbery and robbery in which the unscrupulous have an easy chance of coming in for their share.

It would be rash to assert that things must continue in this state to the end of time; for the immigration of these foreigners is an affair of recent date, and society in Peru is in a state of transition of which we only witness the earliest phases. The children of these aliens, whether naturalized or not, become Peruvians *de facto*; and, as their tendency is to blend together in one race and to speak one language, a new nation may be formed, among which, though Spanish be the idiom, the evil instincts of the Spanish nature may be gradually counteracted. Could a new amalgam arise in which the Chinese, or some other equally thrifty race, undertook the hard work, and a new generation of naturalized Europeans supplied the intelligence and activity necessary for the order and progress of a civilized community, there might be for Peru a future somewhat better than can be anticipated from a continuation of its present condition. Worse circumstances than those in which this Republic is now involved it would hardly be possible to imagine.

And indeed the sense both of present and of impending evil visibly presses on every class of the population, and the complaint of "hard times" is universal. I found Lima and Callao on my arrival convulsed with the tidings of war, converted into a vast camp, with soldiers on duty day and night at the corners of every street, all thinking men anxious about the cost of a conflict, which, whatever may be the result, can hardly fail to be the prelude of a revolution. I found the Cathedral still hung with the mourning trappings of the funereal apotheosis of the naval hero Trau, the "Peruvian Nelson." I saw battalions of raw recruits hastily drafted by forcible impressment from the riff-raff of the city, drilled and paraded round the square and along the promenades; troops of all arms from the nimble sharpshooter or chasseur to the lithe lancer and the heavy dragoon and cuirassier, all clad in uniforms servilely reproducing both the cut and colours of the French models. The town has an earnest, downcast aspect; for all amusements are interdicted, and the only gathering of the population I have as yet witnessed was on Sunday before last, when there was music at the Exhibition Gardens, the money taken at the gates being destined to eke out the funds necessary for the purchase of a new ironclad to bear the name of Admiral Trau, and to fill the place of that Huascar which the lamented Admiral bravely but rashly committed to an unequal and inevitably fatal contest with the Chilians. The whole world of Lima was that day in the gardens, and one could study at least the outward characteristics of the various races which come in as ingredients of the Peruvian population. The army is mainly "Cholo," or native Indian. The whole of the rank and file and many of the officers display what is conventionally called the "copper" colour, more properly a dingy brown, slightly blended with yellow, indicative neither of robust health nor cleanliness. The Indian has often regular features, an indolent, dreamy, melancholy expression, with latent fire in the eyes, apt to break out in terrible flashes under excitement. He is not tall, mostly slender-built, yet easily inured to great hardships, though frequently and painfully affected by a sudden change of climate. With little training and good officers these Indians can be made excellent soldiers, desperate bravery and unwearied endurance being as common among them now as it was in the days of the Incas. Four battalions of men from the hills I saw drawn up at Chorillos, the Peruvian Brighton, the other day, seemed to me worthy to be called the *élite* of any army. Beauty is rare among the women of this race, though some pretty faces will now and then peep out of the little black hood which the Cholitas or Indian girls coquettishly draw round their head, Madonna-like, by gathering together the folds of their mantas. They are, as a rule, a slovenly set, especially the old women, and the "Sambo" women—those in whom there is mixture of negro blood. The ugliness of some of these latter passeth all understanding. They wear no stockings, often no shoes, and the dirt they collect as they go with their long skirts, which they trail behind them like Trojan women, is something prodigious.

Chinese women are seldom if ever seen about. Very few as yet have been brought to this country; and even their males, though not absolutely unsocial or unfriendly, do not often commune with men of other races. The yellow Asiatic moves briskly through the crowd, intent, demure, observant, but silent, as if, like the monkey in the fable, he were afraid if he spoke he might be made to work more than he liked. Among themselves, I am told, there are no more inveterate chatterboxes than these Celestials. The men of light skin—comparatively speaking, I mean, for a touch of the tar brush often reaches here very high in the social ranks—the men, and even more the women, of European extraction are extremely particular about their Parisian dress; tall hats, bonnets, black broadcloth, and silk, the liveries of "effete Monarchic Europe," being *de rigueur* among these worshippers of Republic equality, to the almost absolute exclusion even of the linen jacket and straw hat, which might be deemed better suited to this dry and dusty climate. Peru is a polyglot community from the highest to the lowest order. You hear a different language from every group you go past, and yet in every language, you would say, there is something peculiar, something Peruvian. It is not merely the coloured man that speaks negro English, negro French, and Spanish. Every idiom on crossing the ocean becomes to a certain extent Americanized. There is always some Yankeeism in the utterance of every Englishman who has been long a resident in the West Indies or in any part of the Western Hemisphere. It is not matter of pronunciation or twang as much as of phraseology or slang. Every man about whose health you inquire tells you he is "first-rate;" just like Tom Thumb. And the quaint exclamation, "You bet!" comes forth at every third word *apropos* to everything, and *apropos* to nothing.

PERUVIAN WEALTH.

(FROM OUR SPECIAL CORRESPONDENT IN SOUTH AMERICA.)

"*Vale un Peru*" is the expression the Italians use when they allude to a person or thing whose worth they deem inestimable. The name of this country has at all times been associated with the idea of boundless wealth. Tales which would be scouted as fabulous if referred to any other region are here matter of authentic historical record. We have all heard of Atahualpa, the last of the reigning Incas, who, being caught in the toils of the treacherous Spaniard, engaged to ransom himself by filling with gold the room where he stood—an apartment 35ft. by 18ft., and as high as the King's hand could reach; how he half fulfilled his promise, and might have been as good as his word, had his subjects shown more alacrity in obeying the behests of the fallen monarch, or Pizarro less bent on ridding himself of his captive by the most flagrant breach of faith. And we read of that same Pizarro, how on a toilsome march across the pathless Andes, he had every horse of his staff and troop shod with silver, that metal, in the absence of iron, being of no more account than mere dross. We have been told how in later times (1661), silver was still so plentiful in Peru that one of its viceroys, the Duque de Palata, on his entry into Lima, rode on streets paved with silver bars of the value of £15,000,000, which were shipped off on the following day as the annual tribute of the colony to the Spanish monarchy. We know, besides, how almost exclusively that silver was made to defray the costs of the ruinous warlike enterprises of the Emperor Charles V. and of Philip II., his son, as well as of the courtly extravagance of all the Philips that came after them. We have heard how Spain, like another Midas, toiled and moiled for centuries in her search for those precious metals, till she exhausted her energies, pined, and almost starved in the midst of her countless riches. That tide of doubloons and dollars which had so long flowed in to the Madrid exchequer seemed to run dry by the time these Transatlantic dependencies rid themselves of the Spaniards' sway. The fame of Peruvian ores was eclipsed by the report of the prodigious yield of Californian and Australian diggings; and Peru was fain to look to her guano and to her nitrate of soda or saltpetre for new sources of opulence which proved to be as profitable and promised to be more inexhaustible than her former mines.

There is, nevertheless, still gold in Peru; some in the old veins in the mountains and in the sand in the rivers; more, if one but knew where to look for it, in the treasures buried by the exterminated native Indians in their last unavailing struggles, and by their Spanish destroyers themselves in the bloody feuds by which their division of the booty was often signalized. But of the revenue accruing to the country from the production or exportation of that metal no account is published or perhaps kept. And almost as little is known about silver. The famous mines of the district of Potosi, on the hills beyond the Lake Titicaca, which supplied Europe with her silver stores for hundreds of years, belong now to Bolivia. In Peru itself, the production of silver is vaguely supposed to amount yearly to 5,000,000 or 6,000,000 dollars or soles (the current coin of the country, valued, in silver, at 3s. 6d. to 4s.). But very extensive silver mines are said to exist at Cerro de Pasco, to which the projectors of the Trans-Andean Oroya Railway intended to extend a branch line, in full confidence that by a diligent search of those grounds which have hitherto been clumsily and wastefully worked they would find and follow new veins sure to yield silver ore in sufficient abundance to repay the whole expenditure of their gigantic railway enterprise. But, whatever the revenue from silver may be, it is now all reserved by the Government for home consumption, a decree recently published having forbidden the exportation of silver in bars. The exportation of copper, a newly-opened branch of trade, yields, it seems, about 2,000,000 soles yearly.

Such sums, however, are simply contemptible when placed by the side of the amount reached by the figures representing the annual export of guano in recent times. Guano, the deposit of seafowl accumulating for centuries along shore, and kept dry throughout all time by this rainless climate, was well known to the native Indians, who used it as manure both in times of the Incas and at former periods; but it was suffered to lie unproductive by the Spaniards, the most improvident of husbandmen, and its very existence was forgotten till its fertilizing properties were made known to Europe by Alexander von Humboldt in the early part of this century, when it became one of the most important articles in the trading intercourse between the Old World and the New. The quantity and value of this precious dung at the time its exportation began, about the year 1840, enormous as it really was, was wildly exaggerated, and it was said that the annual revenue accruing to the Republic from it amounted to £4,000,000 or £5,000,000 sterling, covering thus more than half the State expenditure. And it was confidently asserted, even as late as 1873, that guano worth £50,000,000 or £60,000,000 sterling still lay untouched in the country, new deposits being discovered in various localities in the same measure as the old beds became exhausted. In spite of all efforts, fair or foul, made to keep up such delusions, it seems, however, a settled point that the richest guano beds of the Chincha Islands, lying near the coast between Callao and Pisco, have yielded all they had to give, while the guano that may still be found in the Lobos Islands, in the Guanapi and Macabi Islands, at Punta Alta, Puerto Yngles, Pabellon de Pica, and other spots along the southern coast, is said to be of an inferior quality, being mixed up with sand and stone and deficient in ammonia, so that the demand for guano has greatly abated; and the sale, which, in 1869,

amounted to 574,790 tons, diminished gradually till it sunk to 378,663 tons in 1876, and 310,042 in 1877. In 1878, if we may trust private reports, the sale was 338,000 tons. England, which in 1876, still imported 130,598 tons, lowered her purchase to 100,954 tons in 1877, and a similar falling-off occurred in the importation of France and Germany. With respect to the amount of available guano still being left for exportation in Huanillo, Point Lobos, Pabellon de Pica, and Chipana Bay, it was two years ago reckoned at about 1,800,000 tons, and its total exhaustion within a few years was naturally predicted. As the confidence of the country in the power of "King Guano" was thus abating, new hopes were grounded on the might of nitrate of soda, saltpetre, or *salitre* as the Spaniards call it, which rose, as it were, to the rank and honours of Crown Prince and heir of the Throne.

That same instinct which made the old Spanish treasure-seekers look to the precious metals for a source of wealth exempting them from the eternal law which bids man earn his bread in the sweat of his brow is still prompting their Peruvian descendants to put their trust in those resources of their country the development of which makes the least demand on their exertions. They would wish to live on whatever may be had for the mere asking. Guano was found in deep layers in uninhabited islands which belonged to no man. It was consequently claimed by the Government as national property; and, as it cost no more trouble than to pick it up and ship it off, it was made over or "consigned" to foreign, chiefly English, speculators, who, while they enriched themselves and the Government officials with whom they dealt, allowed a part of the produce to come to the assistance of the Peruvian revenue.

This public revenue of the Peruvian Republic, which in 1860 only amounted in round numbers to 21,000,000 soles, was supposed to have gradually risen to 31,000,000 soles in 1876. According to the last statements published by the Financial Department a few days ago, it, however, only reached 27,000,000 soles in 1877, when guano came in for a sum of 593,000 soles. The truth is that all the estimates printed by the Peruvian Government hold out theoretical hopes of a surplus; but the practical result of every Budget at the end of the year is invariably a deficit; and the accumulation of such deficits has burdened the Republic with a National Debt which was only 23,000,000 soles in 1860, but which had reached the sum of 213,880,000 soles—*i.e.*, had been multiplied nearly tenfold—in 1876. It was as a guarantee for the payment of the interest of this debt that the income arising from the sale of guano was originally destined; and as that sale, at the rate of £10 or £12 a ton, for some time was productive of something like £5,000,000, there was nothing oversanguine in the reliance that was placed upon it. As, however, guano is apparently near its end, nitrate of soda is expected to answer the same purpose, and yield a sum enabling Peruvian financiers to balance accounts.

The circumstances, however, are by no means the same. Guano lay on the ground as ready-made manure; the labour of shovelling it and delivering it to the consignees devolved upon a few negroes, and in later times on Chinese immigrants. But nitrate of soda, a substance used for a variety of purposes, and especially as a fertilizer, cannot, like guano, be exported in its natural state, but requires such manipulation and preparation as involve considerable labour and expense. The Government of the Republic, whose nitrate lay chiefly in the district called Provincia Litoral de Tarapaca, on the southern coast, parcelled out the nitrate land among a number of commercial houses, chiefly foreign, upon which it levied an export duty, at first only of 4 cents. (about 2d.) per Spanish quintal (the 22d part of an English ton), but which was subsequently raised year by year, till it reached 1 sol 25 cents. (about 4s.) a quintal. But, as even this did not meet the exigencies of the revenue, the Government, with a policy tantamount to killing the goose that lays the golden eggs, came to the resolution of re-purchasing the nitrate grounds from the foreign houses, and to elaborate and export it on its own account. It thus gradually assumed almost the whole monopoly of the nitrate, and the result was that the sale, which had gradually risen from 99,440 tons in 1866 to 386,869 tons in 1875, fell to 213,940 tons in 1877. England, which in 1875 imported 27,142 tons, limited her purchase to 12,367 in 1877; while the price, which was at first £11 per ton, rose to £16 per ton. The results of the Government monopoly were so disastrous that in the official statement of the sales of 1877 and the first half of 1878 it was found that for 143 cargoes, containing 116,867 tons of nitrate, and yielding £1,594,264 of gross proceeds, as large a sum as £1,324,226 had to be deducted for expenses, leaving thus £270,038, or only 46s. 2d. per ton, as net profit. As, however, the Government had no ready cash for the purchase of the nitrate or for its elaboration and shipment, and had to do its work by contracts with various persons and companies, it had to issue certificates of debt to the amount of 20,000,000 soles bearing 8 per cent. interest; and as this interest amounted to £293,328, it not only absorbed the £270,038 net profits of the sale at 46s. 2d. per ton, but actually left a deficit of £23,190 against the Government.

The decrease in the sale of nitrate after 1875, although it may be mainly ascribed to this untoward speculation and mismanagement, partly also arose from a glut in the market due in some measure to the competition made to Peruvian nitrate by the export of the same produce from Antofagasto, a territory lying within the boundaries of the adjoining Republic of Bolivia. This Bolivian nitrate, as we all know, became the cause or pretext of that quarrel between Bolivia and Chili which led to a war between these two Republics, in which Peru was soon involved as an ally of Bolivia. The Bolivian Government had ceded its nitrate grounds of Antofagasto to the Anglo-Peruvian house of Gibbs, by whom part of it was sold to some Chilian houses; and it was only after the transfer of these grounds to the Chilian merchants that the Bolivian Government laid a heavy export duty on the nitrate on the suggestion, as it was supposed, of the Peruvian Government. The Chilian Government, who, not improbably, only saw in this a good opportunity for a quarrel, took up the cause of its merchants, and hence the hostilities arose.

The war, as it appears now, has been disastrous for the Peruvians, and their defeats by land and sea have been aggravated by what seems very like a treacherous defection of their Bolivian allies. The result is only too likely to be that Chili is now and will remain in possession both of the Peruvian and of the Bolivian nitrate grounds, both of Tarapaca and Antofagasto, and that Bolivia may be rewarded for her treason by the acquisition of some, to her, most convenient Peruvian seaports—say Arica, Pisagua, or Iquique—a rich compensation for what she may have to give up to Chili.

The rapid diminution and even the final exhaustion of guano and the loss of the inexhaustible nitrate grounds would not be unmitigated calamities, and might, on the contrary, be reckoned as actual blessings to Peru, if they conveyed to the Peruvians the salutary lesson that their wealth lies not on the surface, but in the depth of their country's soil, and that it is to be had not by other people's work, but by their own. Sanguine patriots, confident of the future destinies of their country, are very eloquent in their enumeration of its agricultural and mineral riches, but they are not equally ready to tell us where their husbandmen and miners are to come from. The only branch of agricultural industry that has given very encouraging returns is the cultivation of sugar, the yearly exportation of which has lately reached 85,000 tons, valued at £1,360,000. Twenty per cent. of this produce was till lately sent to a sugar refinery at Valparaiso, in Chili, but nearly the

whole bulk of the remainder found its way to England, which bought only 251 tons in 1870, but has raised its purchases gradually, till the amount was 55,576 tons in 1877, Peru thus becoming the fifth cane-sugar growing State on which England depends for her consumption. The sugar is cultivated in 40 or 50 plantations, mostly in the neighbourhood of Lima, or in some of the valleys to the north or south of this city, but all on the western or maritime slope of the mountains. They are, as a rule, in the hands of foreign merchants, who have spent large sums in the purchase of costly machinery, and in some instances have even constructed private railways for the conveyance of their produce to the seaports, in emulation of what is done at Cuba. They are mostly dependent for labour on Chinese coolies, though some employ also *Cholos*, or half-caste native Indians, the negross in this country diminishing apace, and the hardier race of Indians of the interior sickening assoon as they are removed from their mountain air. It must be observed that since the early days of the Spanish conquest the conditions of the country have been completely reversed ; for while under the Incas' domination the rainless maritime region, although well-cultivated, irrigated, and provided with roads, seemed to be held of less account, and the population lived and throve by preference on the tableland between the two chains of the Andes and in the so-called *montaña*, or eastern slope of those mountains, and the valleys sloping down to the Amazon, the settlements of the Spaniards were chiefly limited to the seacoast, and efforts are only now made to turn the interior to useful purposes. The sugar cultivation, as I said, as yet in its infancy, has not to any extent crossed the mountains, and its results consequently are still far, very far, from what they may and must become. It is important, besides, to bear in mind that what has been hitherto done in that respect has been achieved under great difficulties, the most serious of which was the deficiency of labour, but also at the same time under peculiarly favourable circumstances, one of which is the rainless climate, which, combined with the seldom failing, plentiful irrigation of the mountain streams, enabled the planters to keep their sugar manufacture in full activity throughout the year, only allowing one or two months for the repair of their machinery and the general cleaning of the establishment, an advantage they have over the sugar growers of the West Indies and other tropical countries where labour suffers interruption during the rainy season. Moreover, the cultivation of sugar, like many other home industries in this country, is considerably aided by the circulation of that depreciated paper money which on many other grounds is justly considered as one of the greatest calamities, inasmuch as the high price at which gold and silver must be procured for the purchase of raw material, of machinery, and other things abroad acts as a stimulant to domestic energy and ingenuity, teaches dependency on native produce and resources, and necessarily extends over home manufacture that protection which in many countries is imposed by an unwise and illiberal policy of very high, prohibitive duties. That this fillip given, so to say, to national activity may be accepted as a meagre compensation for the grievous disadvantages to which a country is put by a forced paper currency is a phenomenon which I had occasion to observe in the United States, in Italy, and in Turkey itself.

I shall not waste many words to prove that (like sugar) tobacco, coffee, cacao, cotton, Peruvian bark, indiarubber, and other tropical produce, as well as rice, maize, grain of all kinds, wine, strong liquors, and all the fruits of the temperate zone, might be had in Peru in a larger quantity and of a better quality than in many other parts of southern or central America ; nor need I refer to the authority of Signor Antonio Raimondi, an Italian for the last 30 years naturalized in this country, and more familiar with every inch of it than any of the natives, who, in his great work on the "Minerals of Peru," concludes his catalogue of the principal classes of the mineral produce of the Republic by observing, "As for some minerals, such as the argentiferous lead ores, the gray copper, iron, and coal, to indicate alone the localities where they are known to be would fill volumes."

But of all this boundless variety of produce, agricultural or mineral, it must be said either that the exportation is in many cases as yet inconsiderable or the production insufficient even for home consumption ; for Peru is still to a great extent tributary to England for coal ; and, till the war broke out, to Chili for wheat, to the yearly amount of 2,000,000 soles. In some articles, again, the production, instead of rapidly advancing, shows symptoms of falling off. Cotton, for instance, which received some encouragement here in consequence of the Secession war in the United States, has been declining since the recovery of that branch of industry in the Union. The cotton exported from Peru of late years, though trustworthy accounts are not forthcoming, is supposed not to exceed 100,000 quintals.

Of all the import and export trade of Peru, of its navigation, and of part of its railway enterprise, England enjoyed for a long time more than her share. As late as 1877, according to official statements drawn from the returns of the custom-houses, Peru imported foreign goods of the value in round numbers of 24,000,000 soles, of which 10,000,000 were supplied by England ; and the exportation that same year, exclusive of guano and nitrate of soda, was 31,000,000 soles, of which 20,000,000 found their way to England. The other customers of Peru, following at a great distance in succession, were France, Chili, Germany, the United States, China, and Italy. With respect to navigation, and exclusive of the steamers of the Pacific Company, we find that out of 322 vessels, with 269,682 tons, visiting the ports of Peru in 1876, 142 vessels, with 126,728 tons—not far from one-half—were English, the nation occupying the next rank, with 56 vessels and 63,075 tons, being the United States. About the same relative proportions were maintained in 1877, with, however, a tendency to gain ground on the part of America, whose average tonnage exceeded that of England, especially owing to the construction of huge ships from the dockyards in the State of Maine destined to the conveyance of Peruvian guano to Liverpool. It must also be observed that, owing to the greater activity of their commercial travellers, and to the use and abuse of false labels and trade marks, France, Germany, and the United States run England very close in a variety of goods, of which, till very lately, she almost had the monopoly, such as cotton, woollen and linen tissues, furniture, provisions, &c., while in many minor branches of trade, such as soap, lucifer matches, paper, &c., even Italy finds in Peru a better market than Great Britain. With respect to beer, and especially lager-beer and pale ale, England is thoroughly beaten here by Germany and Norway.

That Peru is a wealthy country, and could, perhaps, be the wealthiest in South America, it would not be difficult to demonstrate. But the development of her wealth would require, first, peace ; secondly, a good provident Government ; thirdly, active, cheap, available labour ; and, lastly, a thorough system of inland communication—a net of roads and railroads. With respect to this last item, it might be said that much has been done, and better results might have been obtained if much more than could be achieved had not been attempted.

The great object of the Peruvian Government under Balta and Prado, the only two well-meaning Presidents this country ever had, and both of whom died barbarously assassinated, was to construct railways from various points on the sea shore which should cross the double chain of the Andes and the intervening table-land, and go down the eastern slope till they reached the great rivers tributary to the Amazon at those points where the streams become navigable, establishing thus a

steam navigation by rail or boat from the Pacific to the Atlantic. Of these bold, gigantic undertakings, known under the name of "Transandean Railways," two are very nearly accomplished. They were made at the expense of the Government and are national property. One is the Oroya Railway, starting from Callao and Lima and reaching a height above the sea level of 15,641 feet. The distance to Oroya beyond the summit is 136 miles, of which 86½, as far as Chicla, are open to traffic; and for the rest the earthworks are finished. This same line is to be prolonged to the silver mines at Cerro de Pasco, to the River Pachilea, to Tarma, to the Chancamayo, and the valley of the Amazon. The other might be called the Titicaca Railway; it leaves the seashore at the roadstead of Mollendo, goes up 112 miles to Arequipa, the most important town in Peru after Lima, and proceeds 230 miles further, to Puno, on the Titicaca Lake. The height above the sea at the culminant point on this line is 14,600 feet. For the whole distance from Mollendo to Puno, 342 miles, this railway is finished and open to traffic. It is further continued from the station of Juliaca to Cuzco, the ancient Incas' capital, the branch line extending over a distance of 209 miles, of which 120 are constructed. From Puno, across the Lake of Titicaca, a line of steamers and a carriage-road lead to La Paz, the principality of Bolivia.

The construction of these two Transandean lines was intrusted to Mr. Henry Meiggs, a native of the United States, a great contractor and railway king, who had previously achieved the Valparaiso-Santiago Railway in Chili, and who, by the terms of his contract with the Peruvian Government, was to receive altogether 84,084,000 soles, or, at 45d. per sole, £15,765,750. Mr. Henry Meiggs dying two years ago, the furtherance of the works devolved on his brother, Mr. John Meiggs, and the other executors of the deceased contractor. These gentlemen hold and work the Oroya line as security for the contracts as yet unfulfilled on the part of the Government. As administrators under a subsidiary contract, they receive 5 per cent. of the gross receipts, which in 1878 were, for passengers, 473,992 soles; for goods, 284,770 soles—altogether 758,762 soles, in paper currency now about 15d. per sole. The other line, to Puno and Cuzco, is being worked on lease from the Government to Mr. Thorndike, formerly one of Mr. Meiggs's engineers. The proceeds of this line are not published in the official reports of the Government.

Besides these grand and highly-interesting works, seven other minor railways have been constructed at the expense of the Government, of which, taken altogether, 521¼ miles are open to traffic, and the cost of which amounted to 44,270,000 soles. Most of these start from some of the most important ports and go up the valleys either to the busiest towns or to the most productive agricultural and mining districts of the interior. The lines are those from Chimbote to Huaraz and Recoay, 164 miles; from Paita to Piura, 62 miles; from Pacasmayo to Guadaloupe and La Viña, 90 miles; from Salaverry to Trujillo, 55 miles; from Ilo to Moquegua, 62 miles; from Pisco to Ica, 46 miles; from Lima to Chancay (Huacho Railway), 41 miles. Some of the lines are still unfinished, and nearly all admit of indefinite extension.

There are, besides, 12 other railway lines, belonging to private persons or companies, carried on and finished hitherto to an aggregate of 418 miles, about which only imperfect information can be obtained. Two of these lines—(1) the Lima-Callao Railway, 8½ miles; and (2) the Lima-Chorillos Railway, 8¾ miles—have been in existence since 1855, were constructed by an English company (limited), with a capital of £800,000, and enjoyed privileges which respectively expired in 1876 and 1878. As a metropolitan railway between Lima and its harbour, and between Lima and its popular sea-bathing places at Chorillos, Miraflores, La Punta, &c., the line yielded splendid returns till the competition of the Government line of Oroya, the depreciation of the paper currency, and political disorders interfered with its traffic. It is the best managed railway in Peru, under the direction of Mr. William J. Young. The other lines are—(3) from Iquique to La Noria, 70¼ miles; (4) from Pisagua to Sal de Obispo, 108¾ miles, both in the nitrate district; (5) from Eten to Ferreñafe and Chiclayo, 52¾ miles, among sugar plantations; (6) Pimentel to Chiclayo, 44¾ miles; (7) Arica to Tacna, 39 miles, monopolizing the trade from Bolivia (about £1,000,000 worth of goods); (8) a mineral line of Cerro de Pasco, 7 miles; (9) Huacho to Playa Chica, 10 miles, near salt mines; (10) Lima to Magdalena, 3¾ miles; (11) Chancay to Palpa, 12½ miles, through sugar estates; (12) Patillos, for nitrate, 57 miles.

There are thus in this country altogether 1,401 miles of railway constructed, and mostly open. Some few of them are adding to their mileage, but the two great Transandean lines are far as yet from reaching those points beyond the mountains where their real usefulness and their remunerative power would begin. Both of these, however, and all the minor lines, contribute to the development of agricultural and mining industry by facilitating the conveyance of produce to the sea, where the coasting steamers of the Pacific Company supply it with a common highway. The result on the whole is creditable to Peru, and would be of inestimable advantage to it if, as I said, peace and good government admitted of the further development of the country's wealth and of the free and safe application of foreign capital. But, alas! to paralyze everything and to dishearten every man, we have here war—a foolish war, which has hitherto only led to disaster by land and sea.

To give an idea of the kind of men whom incessant changes often raise to important rank and office in this country, I need only tell you that I met the other day the present Minister for Foreign Affairs, Señor Velarde, outwardly a very dignified and pompous personage, who, on my mentioning that I had that morning seen the alleged skull of Francisco Pizarro in the vaults of the cathedral, and that its strikingly receding forehead made me doubt its genuineness and authenticity, answered that the peculiar formation of the head was "owing to the admixture of native Indian blood in the veins of Pizarro, as well as of all the Viceroys in old colonial times," an evidence of the Minister's notions about his country's history which, I know, no one could or would believe had I not the Italian Minister, Signor Viviani, and the English Secretary of Legation, Mr. Alfred St. John, both present at the interview and ready to bear witness to the perfect correctness of my statement.

Continua

LONDON, SATURDAY, APRIL 3, 1880.

When CANNING boasted that he had called a new world into existence to redress the balance of the old, he could have had but little real perception of the way in which the prophecy was destined to fulfil itself. He must have hoped that, with all the advantages of a favoured climate and a fertile and inexhaustible soil, the Spanish American Republics needed only freedom and independence to achieve a future which should put the old world to shame. But the result has shown that in all true progress man counts for almost everything, and nature for very little in comparison. Mexico, the ancient seat of a mysterious civilization, is now a byword for misgovernment and political instability. Peru is another country where, according to the Correspondent whose letter we print this morning, all the conditions of wealth and prosperity exist if only its inhabitants had the sense to take advantage of them. What is the cause of this stagnation and instability? It cannot be the climate, for that has not changed since the times of

MONTEZUMA and ATAHUALPA. It cannot be the exhaustion of the sources of wealth, for in Peru at least, though Potosi has now passed to Bolivia, there is mineral wealth of vast extent, and the agricultural resources of the country are still almost entirely undeveloped. Possibly the explanation is to be looked for to some extent in the character of the Spanish race itself. The bounty of nature in South America has fostered the inborn pride of the Spaniard. When wealth seemed to come to him merely for the gathering, he had no need to descend to the hard and levelling labour of colonists in less favoured lands. Hence he still retains in substance all the military instincts of his forefathers of the time of CHARLES V. and PHILIP II. If he actually becomes a soldier, he aspires to command long before he has learned to obey, and he takes his part in a *pronunciamiento* as naturally as a citizen of the United States goes to the ballot-box or pursues his private affairs in peace. The Brazilian, on the other hand, like his cousin the Portuguese, is orderly, peaceful, and pre-eminently commercial. Hence Brazil is tranquil and progressive, while Spanish America, if we may take Peru for its type, is quarrelsome and turbulent, military and anti-industrial, covetous of wealth only where nature bestows it without the need of toil, disdainful of progress, and as full of sedition and turmoil as any colony of the ancient Greeks.

The letter of our Correspondent on "Peruvian Wealth" gives a singular and graphic picture of these salient national characteristics. The ancient silver mines of Peru once furnished forth in inexhaustible plenty the sinews of a great European empire. But, in contrast to the mythical order, the age of silver has long been superseded by that of gold; while, as far as Peru itself is concerned, both have now been succeeded by an age of nothing more savoury or precious than guano. Even guano, indeed, has now had its day, and though manure is still, or at least was until a few months ago, in the ascendent, it now takes the form of nitrate of soda. The history of these commercial vicissitudes is given in copious detail in our Corespondent's letter, and the lesson it teaches is that it is a very questionable advantage to a colony to find its wealth so ready to hand that it calls for no effort in the gathering. The mineral wealth of Peru was practically exhausted by the rapacity of Spain long before the colony could make any efforts in the direction of independent life and industry. It was only in the present century that the value of guano as a commercial commodity was pointed out by ALEXANDER VON HUMBOLDT, and it was only in 1840 that its export began to contribute largely to the financial resources of Peru. When the supply began to fail, or when the quality began to deteriorate, by the gradual exhaustion of the purer deposits, the Peruvians, still bent on the pursuit of wealth without proportionate toil, began to turn their attention to the deposits of nitrate of soda, in which certain portions of their territory abounded. Here, however, their lack of enterprise and skill soon opened a promising field for the competition of their neighbours, and the war with Chili, which arose out of fiscal regulations concerning the nitrate trade, is not unlikely to result in the total loss to Peru of the territory in which the nitrate deposits are situated. Thus the commercial and industrial prospects of Peru are in certain respects, at any rate, not a little gloomy at the present moment. Silver is exhausted, guano is deteriorating, Chili and Bolivia are preparing to divide between them the spoils of the nitrate grounds conquered from Peru. It only remains for the Peruvians to turn their attention at last to the untouched and inexhaustible resources of their soil and climate. They are not unlike the man in the story who dreamed that a great treasure was hidden in his orchard; he dug it all over and found nothing, but his labour produced a manifold return in the yield of his fruit-trees in the following autumn. The Peruvians, like all who possess a fertile soil and enjoy a kindly climate, are still "*fortunati nimium sua si bona nŏrint.*" The facile wealth which came without seeking is gone as easily as it came, but there remains to them the wealth which none can take from them, the labour of their own hands and the resources of their own territory.

There is a sort of political fatalism which is far too ready to say that that which has been must be. Because the natural resources of many parts of South America have remained undeveloped for centuries in the hands of their Spanish possessors, men are too apt to believe that there is some defect in the Spanish race which renders it incapable of developing them. It is true, perhaps, that a too fertile soil, a too luxurious climate, a too ready supply of easily-gotten wealth do not offer the conditions most favourable to colonial enterprise and progress. But the world moves on even in South America, and the great universal motives of self-interest and rivalry are not without their influence on the Spanish nature in spite of its hereditary pride and indolence. In the old times of the Incas, the wealth of the country chiefly lay in the table-land between the two great chains of the Andes, whereas the Spanish settlers have hitherto occupied by preference the rainless, but not ill-watered slopes of the Pacific coast. The development of the resources of the interior now depends on the construction of railways, and in this direction, notwithstanding the physical difficulties of carrying lines over heights of fourteen and fifteen thousand feet, a good deal has been already done. Sooner or later the two lines of railway already partially constructed will be carried down the reverse slope of the Andes, so as to connect the Pacific coast with the great river system of eastern South America. Altogether Peru possesses about 1,400 miles of railway, either in working order or nearly ready for traffic, and this is no inconsiderable effort for a country whose population does not greatly exceed two millions and a half, 57 per cent. of whom are described as aborigines, and 23 per cent. as mixed races of very multifarious origin. It is clear that we must not look to Spain alone for the national characteristics of such a population; but if the country still contains any descendants of that strange race which once peopled it with over thirty millions and covered it with imperishable records of its civilization and industry, there ought to be no reason why, under a stable and prudent Government, it should not recover in time something of its former prosperity. It is melancholy to think of lands once peopled and prosperous now given back to the wilderness; it would be still more melancholy to think that where man has once triumphed over nature, he is now lacking either in the power or the will to renew the struggle and to achieve the victory again.

THE WAR IN SOUTH AMERICA.

VALPARAISO, March 2 (viâ Lisbon).—Twenty transports, carrying 12,000 Chilian troops, sailed from Pisagua on the 24th February to attack Arica. Nine hundred men having landed at Ilo without meeting with any resistance from the allies, who were reported to be concentrated at Moquegua, the Chilian ram Huascar and the corvette Magallanes on the morning of the 27th of February attacked Arica, the forts of which and the Peruvian monitor replied vigorously. During the engagement trains conveying troops were observed leaving Arica. The Huascar had seven men killed and nine wounded. The Magallanes received three shots in her hull. The Chilian vessels having withdrawn to their anchorage the Peruvian monitor Manocapa sallied out to meet them. The Huascar encountered the monitor, which was circling round discharging cannon at 100 yards distance, but she desisted from ramming the Peruvian vessel as the latter was towing a torpedo vessel. A shell from the Manocapa destroyed the Huascar's mizen mast and killed her commander, Captain Thompson. The engagement was continued for an hour afterwards, when the Chilian vessels again returned to their anchorage.

VALPARAISO, March 8 (viâ Lisbon).—Intelligence received here states that during the engagement at Arica on the 27th ult., the Chilian corvette Magellanes was severely damaged by the fire from the Peruvian forts. The Huascar received five shots in her hull, but only suffered trifling damage thereby. The Huascar and the corvette Angamos continue to bombard Arica, the heavy gun carried by the latter enabling her to maintain a cannonade from a distance beyond the range of the batteries. The town has been set on fire on three occasions.

The Chilian cavalry has advanced near Moquegua without meeting the enemy. The Chilians are preparing for an advance from Ilo upon Taena

The name of the British ship laden with arms and ammunition for Peru, which was captured by the Huascar, is the Knight Templar.

BUENOS AYRES, March 8 (via Lisbon).—The Chilian ironclad Huascar is bombarding Arica three hours daily, and a part of the town is in flames. Twelve thousand Peruvians are defending the place, and their batteries have inflicted much injury on the Huascar. The latter has captured a British ship with a cargo of arms for Peru. Trains cannot leave Arica as the Magellane's guns command the railway.

A great meeting has been held at Buenos Ayres to proclaim Senor Bernardo Iryoyen candidate for the Presidency.

The invasion of Banda Oriental has been repelled by General La Torre.

NEW YORK, March 28.—The *New York Herald* says a private despatch from Panama giving Lima advices of the 18th inst. reports that the Chilians have been defeated in the Department of Moquegua with a loss of 1,300 men.

WASHINGTON, March 29.—The Chilian Legation in this city has received a despatch from Panama reporting that 14,000 Chilian troops have occupied Moquegua, and that no fighting occurred.

THE DAILY TELEGRAPH,

After a protracted display of masterly inactivity, the Peruvian and Chilian forces have again managed to come into collision. What has happened is doubtless not much, being simply that the Chilians, after long preparations, attacked the Peruvian port of Arica on the 27th of last month, and were repulsed with a loss which, as the account comes from Valparaiso, is, we may conclude, minimised rather than exaggerated. Nine thousand troops were landed, of whom nothing further is heard, if we except the doubtful statement in a New York telegram that they were afterwards defeated with a loss of one thousand three hundred men by a Peruvian force collected at Moguegua; and two men-of-war, the Huascar and a corvette, assailed the forts. After receiving some shots and losing several men, both vessels "withdrew to their anchorage," which appears to be a South American euphemism for being beaten off. A little Peruvian monitor then sallied out in pursuit, and encountered the Huascar with great pluck and apparently superior seamanship, as she circled round the big ram at a hundred yards distance, and plied her with shot and shell so vigorously that the Huascar lost her mainmast and her captain, and after an hour's fighting had again to execute a "strategic movement to the rear." The Peruvian monitor had a torpedo boat in tow, which had no opportunity of showing what she was worth, but whose aspect seems to have quickened the Huascar's desire to give her opponent a wide berth. The torpedo experiment is therefore still in the future, and the only new points elicited by the engagement are that Peru is not yet at the end of her resources, and that ill-luck attends the Huascar on whatever side she fights.

THE WAR IN SOUTH AMERICA.

The Chilians have conducted their operations against the Bolivians and Peruvians with such commendable regard for the prescriptions of civilised warfare that their many sympathisers in this country must greatly regret to see their present proceedings. The bombardment of Arica, as now carried on, is as cruel as it is senseless. Only three vessels appear to be engaged in it, and one of these is reported as so badly damaged by the fire of the defence that she has probably withdrawn to refit before this. Under any circumstances, a bombardment of a maritime town is a regrettable business, because the non-militant part of the population are sure to suffer far more than the militant. Sometimes, however, as at Algiers and Copenhagen, the exigencies of the occasion compel the attacking force to resort to this means. But it is a recognised rule of warfare that a bombardment, to be of any use, must keep up a perpetual *feu d'enfer* until the place submits. A large number of ships and a multitude of guns concentrating their fire upon the more vulnerable points form the essential feature of successful bombardments. This is utterly neglected at Arica, where the three Chilian ships have not more than half-a-dozen guns—of large calibre it is true—to maintain the fire. These may be sufficient to cause a good deal of suffering to the civilian population, and, indeed, we learn that the town has already been repeatedly set on fire in different parts. But the defence continues as obstinate as ever, and does not seem to be in the least demoralised by the intermittent firing of the enemy. The whole business is, therefore, an unnecessary cruelty, calculated to further embitter the feelings of the combatants without producing any practical effect on the issue of the war. It is somewhat astonishing that the Chilians, after their many easy victories, and holding, as they now do, the absolute command of the sea, should not have turned their advantages to more account by this time. Had they struck at the allies a succession of swift blows after their initial successes the war might have been over by this time.

THE WAR IN SOUTH AMERICA.

VALPARAISO, MARCH 12 (*vid* Lisbon).

The Chilian Army has occupied Moquegua without meeting with any resistance. The allies are concentrated near Tacna awaiting the arrival of reinforcements which are expected from Arequipa.

The Chilian corvette Angamos continues to bombard Arica.

NEW YORK, APRIL 4.

The Peruvian Legation has received an official despatch from Lima *vid* Panama, dated the 24th ult., stating that the Peruvian corvette Union has forced the blockade at Arica, after fighting for seven hours with two Chilian ironclads. She discharged her cargo of supplies and returned to Callao.

THE ANDES.

(FROM OUR CORRESPONDENT.)

AREQUIPA, DEC. 10.

I have made my acquaintance with the Andes. I have twice reached the summit of the Cordillera, and stood at heights between 16,000 and 17,000 feet (somewhat above the tops of Monte Rosa and Mont Blanc), where the waters which flow into the Pacific ocean part from those which find their way across a vast continent to the shores of the Atlantic.

The mere name of "the Andes" tasks from earliest youth all the active faculties of a man's imagination. Passionately fond, as I always was from native instinct, of mountain scenery, even while revelling on the beauties of the Apennines, the Alps, or the Pyrenees, I, with the same eagerness with which Virgil, from what he knew of his Provincial Mantua, evolved his idea of Metropolitan Rome, from what I saw near home, for many years endeavoured to conjure up before my mind's eye the image of what might be this remote mountain chain, which was then held to be the loftiest, and which is still the longest, and in many respects the greatest, in the world.

Behold me now at home in the Andes! A journey which till lately would have taken months of toil and danger is in our days accomplished by a few hours of easy and perfectly safe railway travelling. I set out from Lima on a Wednesday afternoon by a special engine on the Oroya line, and arrived before evening at the Matucana station, 101 kilomètres from Callao, and 2,374 mètres above the level of the sea. I proceeded early on the following morning to Chicla, the furthest spot which the railway has hitherto reached, 140 kilomètres from Callao, and 3,710 mètres above the sea level. At Chicla I took horses, and by a four or five hours' ride came to the summit of the Pass, 169 kilomètres from Callao, and at a height of 4,896 mètres (about 16,300 English feet) above the sea, and 838 feet above the uppermost 3,849 feet long tunnel, which the line is intended to reach, and to which the earthworks have already been extended. I travelled under the best auspices. I had with me three wise guides and instructors, M. Ernest Malinowski, a Pole, the chief-engineer who planned and executed all the works of the line; Mr. Cilley, its general superintendent; and Signor Antonio Raimondi, an Italian, for many years a resident of Peru, and more learned in the mineralogy, geography, history, and economy of the country than any native Peruvian. These gentlemen, as they were the most useful, so they proved also the most courteous, obliging, and genial companions.

The Andes, as the reader knows, constitute an uninterrupted Cordillera, or mountain chain, or net of chains, stretching all along the South American continent, from Tierra del Fuego and the Strait of Magellan, in the extreme south, to the sea-board of Colombia and the Caribbean Sea, adjoining the Isthmus of Panama, in the north. Its length is (from latitude 10 deg. N. to 56 deg. S.) 66 degrees, about 4,500 miles; and it runs from north to south, close to the Western or Pacific shore, falling on this side in precipitous ridges and through narrow rocky glens, almost close to the water's edge, while it slopes with gentler declivity on the other side, forming broad valleys, and traversing vast plains, all its waters joining in three great streams, the Orinoco, the Amazon, and the Parana or Plate.

Between the mountains of the Old World and those of the American continent there is this main difference, that, while most of the great chains in Europe, Asia, and Africa run from east to west, nearly all those of North or South America run from north to south. By this peculiarity the climate and the very aspect of the two continents are in a great measure affected. The chains that separate Central from Southern Europe, the Pyrenees and the Alps in all their offshoots as far as the Balkans, act as so many fencing walls, checking the impetuosity of the winds, and tempering the heat and cold of each region so as best to fit it to the exigencies of the vegetable and animal life which it was destined to develop. In Italy, for instance, the Alps protect Piedmont and Lombardy from the extreme rigour of German frosts; and a journey from Milan or Turin to Genoa in the winter months, owing to the shelter of the interjacent Apennines, is often suggestive of a sudden transition from the Poles to the Tropics. In Spain, a country crossed from east to west by five parallel sierras, the change of climate is equally perceptible at each successive zone and at a few miles' interval, and the progress of heat and cold does thus pretty fairly keep pace with the scale of latitude.

America, it might almost be said, has no climate at all. Here, in this Southern continent, the same wind from the South Pole blows throughout the year, fresh and keen, all along the coast; so fresh and keen that on the sea or close to it the vertical sun of the Tropics loses all its power even at noon, and the long equatorial night has a chill which renders it unsafe as well as uncomfortable to sleep in the open, and unwise and almost impossible to dispense with heavy blankets.

There is a warm and moist, generally unhealthy, rainy season in the West Indies, along that part of the coast which bears the name of the Spanish Main, and, as a rule, wherever the influence of unimpeded sea-air is felt. But on this western coast of South America the vapours that would be wafted up to it from the Pacific are met by the perennial breezes which, as I said, come up from the Pole, and they are driven upwards till they reach the summit of the mountain wall of the Andes, where, condensed by the cold of that lofty region, they fall in copious rain, drenching and fertilizing the eastern water-shed, passing over the western slope, and leaving it untouched, arid, barren and desolate. For the six winter months in the year, what in the West Indies is the rainy season is here the season of clouds and fogs. We have the constant threat of rain with hardly ever a drop of it, and the sun, that breaks out in pale glimpses towards noon, is seen but not felt. This is especially the case with Peru, the coast of which, projecting westward in all its length from Arica to Payta, is more immediately exposed to the polar wind and more unmercifully searched and blighted by its blast. That its climate, as a tropical one, may be all the better for it, is very possible; and, indeed, there is no fault to be found with it on the score of human health; but it is dull and gloomy and doomed to perpetual drought. There is no moisture or dew in the land, and consequently no vegetation, or only that which is fostered by the scanty rills creeping through the sand and stone of their narrow glens, and only breaking down, torrent-fashion, when the thaw of the perpetual snows of the Cordillera sets in in good earnest in the summer months.

On the other side of the mountains, across the Cordillera, or rather the several parallel lines of Cordilleras, and across the table-land which spreads far and wide between them, one comes to the so-called "*Montaña*," or Eastern slope of the Andes, "nearly," as it has been described, "an unknown, impenetrable forest, with rosewood, mahogany, calisaya, rubber trees, coffee, cocca, and coca bushes, a land of unequalled fertility, drained by the principal sources of the Amazon."

Without this short preface on the general physical conditions of the country, I could hardly have ventured on a description of the impression I received from a view of the Andes. The railway which comes up from Callao to Lima runs along the banks of the Rimac, a mountain stream, the valley of which, after leaving the last town bridge, gradually widens and expands into a plain, blooming with rich tropical vegetation, and cultivated in slovenly patches by the kitchen gardeners who supply the capital with fruit and vegetables. Before we reached Santa Clara, 29 kilomètres from Callao, we passed a cotton plantation and a sugar-mill, the latter of which I visited, and which seemed to me a very creditable establishment, supplied with every new contrivance of American machinery, consuming the produce of three large adjoining estates, employing 200 well-fed and apparently healthy and contented Chinese labourers, and turning out fine, white, well-granulated and crystallized sugar, of a better quality than I ever found in any of the grandest Cuban *Ingenios*. As far as Chosica, 55 kilomètres from Callao, the line ascends straight and smooth, gradually attaining a height of 895 mètres. The hills close in on all sides, every trace of vegetation, except on or very near the bed of the river, disappears, and the valley assumes that bare, bleak, savage aspect that characterizes it to the very summit. The mountains are huge rugged masses, mostly round, and all very steep and precipitous, yet seldom perpendicular, and their sides are here and there seamed with deep chasms, here called *quebrados*, bearing a resemblance to dry water-courses, though few of them can boast a thread of water; and they must be the result of convulsions, floods, or eruptions of which there hardly remains any distinct and authentic account in men's memory. Near the opening of many of these glens one can descry ruins of buildings, hamlets, or cemeteries, very puzzling to the ingenuity of archæologists, but which seem to have belonged to native races in existence before the period of the Incas, when the western slope of these mountains is supposed to have harboured a larger population than it ever afterwards numbered. A little above Chosica the valley divides into two branches, one of which, on our left, bears the name of St. Eulalia, while the one we followed, on the right, is the main valley, and its river is called the Rimac to the summit. Soon after entering the narrow dell, at San Pedro, Sta. Ana, and Cocachaera, begin the difficulties the engineer's art had to contend with. The railway was first projected in 1862, when the primitive notions that the locomotive could only run in straight lines and on perfectly level ground had not altogether become obsolete—at least, in these remote regions of South America. They were the ideas of the geographer, Mac-Culloch, who, in 1838, still contended that in matter of railways it was "impossible to depart from the principles established by the constructors of the Manchester and Liverpool Railway." Since then the achievements of the Giovi between Turin and Genoa, those of the Sömmering between Trieste and Vienna, and others still more stupendous, had shaken such old-world prejudices. Still a railway line which should compass and cross the crest of the Andes, 15,000 or 16,000 feet above the level of the sea, seemed to me even at the present day something fabulous; and as before I saw it I looked upon such a feat as something above the engineer's skill, so, after seeing it, I came to the conclusion that there is actually nothing that skill may not achieve, and that, could any Titan pile Pelion upon Ossa, and both on Olympus, nothing could prevent the locomotive from reaching the steps of Jupiter's throne.

The general opinion now is that wherever a man has made a path he can make a railway. But man's paths across a mountain-chain usually follow the course of the waters, and as a path—the shortest across the Andes—from time immemorial led up from Lima to the summit along the Rimac, it was along the Rimac that the locomotive had to run up. But the Rimac, which has only a gradual fall of 3 to 5 per cent. in its lower course, comes down in cataracts of 10 to 12 per cent. in the upper region, and the valley is throughout so narrow and abrupt as barely to make room for more than the stream and the path between the huge mountain masses that bulge and crowd and tower upon it on all sides.

To satisfy one's self that the works through which such obstacles were overcome are truly Titanic, it will be enough to state that, while from Callao to Oroya the distance in a straight line is only 145 kilomètres, the railway follows a course of 219 kilomètres, 74 of these being thus taken up by the windings and turnings, the zig-zags and tourniquets, the bridges and viaducts, the straight, curved, and horse-shoe-shaped tunnels—61 tunnels—to which the engineer had recourse to advance on his heavenward path. And from St. Bartolomé to Oroya, where the direct distance was only 77 kilomètres, but where the difficulties to be overcome were most formidable, the railway has to go over 144 kilomètres of ground, nearly double the extent of the footway having to be run over by the rail in obedience to the necessities of the ground itself. Be it observed also that the iron road is an uninterrupted upward slope from end to end, the gradients being seldom less than 3, and never more than 4 per cent.; so that, although the ordinary trains from Callao to Chicla employ seven or eight hours to get over the 140 miles' distance, a special engine, or a "handcar" without engine, can run down from Chicla to Callao in little more than two hours, notwithstanding frequent stoppages at swing-tables on some of the turnings, going at the rate of 50 to 60 miles an hour "in perfect safety." This descent I achieved myself, on my journey back, all the way from Chicla to Matucana, under the pilotage of Mr. Cilley; and, in spite of all assurance of "perfect safety," a somewhat nervous feat it seemed to me.

The "handcar," a light, small, and low railway truck, with two low-backed seats and room for two in each, moving with the ease of a chariot in the so-called "Montagnes Russes," upon a gentle push from behind acquires, after a few yards' slope, a *momentum* of which it would be awful to foretell the consequences were it not for the "breaks" with which it is supplied like an engine, and by which the driver has power to pull up in a few seconds and within a few yards of any point he may reach in his headlong career. But the driver himself, being human, delights in that entrancing rapidity of motion, and is soon almost unconsciously swayed by the fiery instincts of a racing horse. Away you go along this curve, away you tear round that corner, away you rush and dash from turning to turning, through this cutting and through that tunnel, with your face barely one foot from the hard-jagged rocks of the cutting on your right, and your knees barely one foot from the brink of the dizzy precipice on your left; down you plunge into the pitch-dark tunnel, yourself without a light, without a "cow-catcher," without a bell or whistle to scare away the stray cattle that often run to it for shelter; away you go, neck or nothing, till all your terrors are shaken from you, and you become a convert to the "perfect safety" doctrine; or till, with a fatalist's sullen courage, you almost urge the driver to more speed, as if thinking that if there is to be a smash it may just as well be now as by-and-by.

Not a little of the savage grandeur of the scenery through which the way is carved would pall upon us from its sameness were it not for the sense of the power man's genius has put forth in its contest with the most portentous works of nature. Here you have the gallant little special engine rattling up at full speed against a maze of huge rocks, where you absolutely see no issue, when she suddenly backs, and threads her way on a higher zig-zag path on the right, then on another still higher zig-zag path on the left, and so on for four or five zig-zags and as many tunnels one above the other on the same mountain-side, the track which

you are to follow with all its windings and turnings and its tunnel-mouths being visible before you and above you at an immeasurable height, and that which you have just left yawning in your rear at an unfathomable depth beneath ; and you feel that your progress is along an immense staircase, of which the invisible summit may reach heaven, and the bottom be lost in the abyss.

From one mountain to the other you cross over fearful chasms like that of Verrugas, where the glen and torrent of that name are spanned over by an iron bridge 525 feet in length, at a height of 252 feet ; or like the gap of Infernillo, where the main stream breaks through two perpendicular walls of solid rock, 1,500 feet high, the train crossing from wall to wall, out of the tunnel on one side into the tunnel on the opposite side, over a bridge 160 feet long, suspended in mid-air 165 feet above the churning cataract.

The very swiftness with which you are whirled along that dismal mountain scenery doubtless adds to its grandeur by crowding together the objects in a kind of phantasmagorial confusion, and throwing in that element of terror which lies at the root of all sublimity. When we alighted at Chicla, and taking to the saddle we proceeded at a foot's pace to the summit, I was better able to analyze my sensations, and to take a more sober view of the real character of this Andean region. The mountains around me were, and had been all along my progress, certainly very high ; but in proportion as they rose I also reached a greater altitude ; the walls of rock that seemed to crush me on all sides were more or less of the same dimensions, and if now and then through that wilderness of cliffs and crags and ravines I caught here a glimpse and there another of the loftiest peaks there was little either in their size or shape to appal the senses or to stir the imagination. It was only rock, mostly bare gray rock everywhere without relief or foreground ; volcanic formation, solid at the core, slightly crumbling on the surface ; round shapes, steep enough to be almost inaccessible, yet only in rare instances assuming the picturesqueness of bold perpendicular lines.

Even on the summit, near the limit of perpetual snows, and where the ground lay somewhat more open before me, the scene was rather bleak than grand ; the mountains of which I trod the skirts did not rise more than 2,000 feet or 3,000 feet above me ; snow lay in the clefts between their aiguilles and pinnacles of rock, and a great sheet of ice, a veritable glacier, slid down the straight slope of one of them ; while in others, further off, the snow lay in a compact mass as far as eye could reach ; but there had been nothing in my progress to prepare me for the wildness of that upper region by the contrast of the amenity of the lower grounds. From the moment I had left Lima I had seen nothing but rock ; here I saw nothing but rock and snow. The fringe of green vegetation, which, as I said, lined the banks of the stream and a few fortunate glens through which a rill trickled, dwindled and withered at a height of 9,000 or 10,000 feet. The little station gardens coaxed up with some care at Chosica, San Bartolomé, Matucana, &c., ceased altogether at Chicla ; for it is the peculiar misfortune of the Andes on this western side that on the skirts, near the sea, and for miles inland, where no rain falls, nothing grows ; while on the upper grounds, where sometimes rain is plentiful, the air is too keen and cold for even the most dwarfish and most stunted vegetation to thrive. The mountain on this side is a wilderness, not indeed without its oases, but these are not sufficiently frequent and conspicuous to redeem the prevailing barrenness ; and the traveller fatigued by the dreary sameness, is compelled to declare that even if the Andes can at their summits boast twice the loftiness and real sublimity of the Alps, they have not, on their western slope, one tenth of the variety, of the beauty, and loveliness of the Alpine valleys.

It is sad to think that this great work of the Oroya Railway, without contradiction the most marvellous achievement of engineering genius on any mountain pass I ever saw, should, owing to the improvidence of the Peruvian Government, remain unfinished, and, failing in the object for which it was intended, run the risk of going to destruction from lack of the funds necessary to keep it open. It had been styled the "Grand Central Trans-Andean Line," and was to become the main artery of Peru. From Chicla and the tunnel at the summit it was to go down to Oroya, and thence it was to throw out two branches, the one on the right leading to the silver mines of Cerro de Pasco, the one on the left to Jauja and the district of Junin, naturally one of the healthiest, wealthiest, and fairest regions in this country ; while the main trunk was to proceed to Chanchamayo, beyond the sources of the streams which swell the tide of the Marañon, or River of the Amazons, reaching down to those watercourses as far as the points at which they become navigable, and thus by rail and boat establishing a steam communication between the two oceans. Bent upon taking upon itself the furtherance of this and of other equally gigantic schemes, the Government, in 1862, came to terms with Mr. Henry Meiggs, a great American contractor, under whose direction the works were carried on for several years as far as Chicla, the Government being always in arrear in the fulfilment of its own part of the engagement. A new convention was entered into in 1877, by the conditions of which the Government was to pay the contractor a large sum to enable him to continue the line to Oroya ; but Mr. Henry Meiggs died soon afterwards, and the Government is in debt to the heirs of that contractor and the company associated with him to the full amount of the sums stipulated in that convention, amounting to several millions sterling. Mr. John C. Meiggs, brother of the deceased contractor, as guardian of his brother's children, and representative of their claims and interests, has at various periods, and as late as last August, offered to the Government to continue and open within five years the main line to Oroya, and two years later the branch to Cerro de Pasco ; and also to dig a tunnel for the excavation of the silver mines in that locality, asking in return the *explotacion*, or exercise and income of the said main line and of its branch, for the benefit of his brother's heirs, till such time as the debt of the Government be fully repaid. To these various proposals the Government has as yet given no answer, and it is not likely that the matter will for many years to come be brought to any satisfactory solution. Don Manuel Pardo, for a whole term President of the Peruvian Republic, and more lately President of the Senate, and one of the most zealous promoters of those great public works by which the destinies and the very aspect of the country were to be changed, in a pamphlet he published in 1862 on the "Provincia de Jauja," observed that in 15 years Peru had squandered $150,000,000 worth of guano, for which it had nothing to show. He thought that there might remain guano enough to last for 10 or 12 years more, and to yield as many millions as had been miserably and unaccountably wasted. He exhorted his countrymen to put their house in order, and to employ their remaining wealth in remunerative public works. He glanced at the boundless wealth which would spring up by merely tapping the province of Jauja, and concluded that, "by devoting three or four annual millions of dollars to the construction of great lines of communication, the future of the country would be insured."

Poor Pardo was barbarously murdered last year, and his death is as yet unavenged. The millions he reckoned upon have been made ducks and drakes of ; the supply of guano is nearly exhausted ; the public works which were undertaken are mostly unfinished, and little better than useless till they are finished ; they are unpaid for, and the Government, instead of troubling itself about "the future of the country," has compromised its present

by a war attended by grievous losses, which paralyzes labour, sinks the public revenue, increases the expenditure, destroys credit, and will, at its close, leave Peru crushed under the burden of an enormous debt and a mass of utterly debased paper currency.

THE ANDES.

(FROM OUR SPECIAL CORRESPONDENT IN SOUTH AMERICA.)

On my return from an inspection of the Oroya line, I embarked at Callao on board the Ilo, Captain Kehrhahn, and at the end of a three days' voyage landed at Mollendo, the terminus of the Great Transandean Railway to Puno and the Titicaca Lake.

This line is now finished and open to Puno, on the Lake. It is 420 miles long, and is travelled over by ordinary trains in three days, though an express train could easily get over the distance in 12 or 15 hours. The first day takes the traveller to Arequipa—107 miles. On the second the train proceeds to Vinoocaya, 96 miles further, and there reaches the culminating point of the whole route, 14,500ft. above the sea. On the third day the train goes down to Juliaca—93 miles distant, 12,550ft. high—a junction where a branch line runs off on the left to Cuzco, finished and opened to Santa Rosa, 80 miles, or about half way to the ancient capital of the Incas. From Juliaca the main line goes on to Puno, on the Lake—28 miles, 12,540ft. high. The summit of the Peruvian Cordillera has thus been attained, and we have come to that great table-land which contributes the central part of Peru, a kind of South American Tibet, spreading between the Peruvian and Bolivian Cordillera, and many of the rivers of which flow into the Lake of Titicaca—the largest sheet of water to be found anywhere at the same altitude (more than 12,000ft.) in the world.

This Puno Railway is, therefore, much longer than the Oroya line, and has been carried to a far more advanced stage of completion; but the mountain pass it had to overcome was lower by about 1,500ft.; the line throughout had to contend with less formidable obstacles, and was constructed on an altogether easier and more economical plan.

Owing to a disgraceful job by a man high in power, the terminus on the sea was laid at Mollendo—an open road with an unsafe anchorage—in preference to the adjoining port of Islay, which would best have answered all purposes. From Mollendo to Arequipa the line, after following the coast for several miles, winds round the mountain side by a series of well-contrived turnings to Tambo and Cachendo; then it crosses a wide, gradually-ascending, undulating plain, a scene of unspeakable desolation—a waste of yellow sand, with streaks of silvery dust or ashes blown about by the winds in heaps resembling snowdrifts. The ascent is gradual and easy; there is but one tunnel, and that only a few feet long, on the whole line; the view is everywhere unimpeded; the bleak and savage scenery unmitigated. There is no sign of verdure till one sees at a great distance at his feet the little valley of the Rio Sambay, which widens as the train advances towards Arequipa, and makes the plain on which the town lies an oasis of unsurpassed beauty and fertility. Long before the place is reached the dreary landscape is dignified by three great isolated mountains, the vanguard of the Cordillera, encompassing Arequipa like a diadem—the Chachari, the Misti (a volcano), and the Pichu-Pichu, with tops all rising above the level of perpetual snows, the dark, smooth cone of the volcano contrasting with the rugged and serrated summits of the two hills between which it sits enthroned.

Arequipa, the second city of Peru, with a population of 35,000 souls, placed at a height of 7,550ft., lately half destroyed by the earthquake, has little to recommend it in the way of beauty (besides its situation, its bright sky, and its soil), if we except the main square, which is now slowly rising from its ruins, and which, when finished, will be striking by the elegant design of the cathedral, which fills one side, and the lofty lines of porticoes which run all round on the three other sides. At Arequipa Mr. José Manuel Braun, a Bolivian of German extraction, and son of General Braun, one of Bolivar's most distinguished officers, undertook to take me up the line of which he is chief superintendent, by special engine, in one day, exempting me from the necessity of stopping for a night at Vincomaya, on the summit, and thus saving me from a risk of the *Soroche*, a kind of mountain seasickness, brought on by the rarefaction of the air in high altitudes, from which travellers suffer grievously, with vomiting, bleeding of the nose, and other afflictions, of which some are even known to have died. Mr. Braun proved to be a very useful and agreeable companion; and the same friendly attentions, the same unbounded kindness and lavish hospitality, I received from Mr. John Stuart Macdonald, the agent for the steam navigation establishment on the Titicaca Lake; from Mr. William Grundy, the manager of the Empresa Carrettera, or line of coaches running from the Lake end at Chililaya to La Paz, in Bolivia, and from many others.

The country on the ascent from Arequipa to the crest of the Peruvian Andes at Vincomaya exhibits everywhere the same barren and forbidding aspect; but the summit itself is almost level, and not far beyond it are some of those lonely little lakelets or tarns, which on mountain crests frequently mark the parting of the waters. The further advance lies along a broad, open valley, through which runs the Rio Suchez, and this gradually merges into the great tableland, many hundred miles in extent, of which the Titicaca Lake is the centre. This lake may be considered, both geographically and historically, the heart of Peru. It is about 180 miles in length and 60 miles in its greatest width, its surface approaching in extent that of Ontario, Erie, and other North American lakes. It is encompassed all round by rocky mountains of no great elevation, above which here and there all-round views are caught of the snowy Cordilleras. The waters flowing on all sides into this beautiful reservoir have only one outlet, the Desaguadero, or Emissary, which runs to the south-east into another lake (the Poo-po Lake), beyond which its waters are supposed to be lost in some subterranean channel, and hence to find their way somewhere into the Pacific Ocean. These lakes have not yet been properly and thoroughly surveyed, and hardly any maps or charts exist on which safe reliance may be laid. The very boundaries between Peru and Bolivia, each of which claims possession of half the lake and its coasts, are imperfectly defined and perpetually shifting, neither State keeping Custom-houses or military posts on many of its ports. I crossed the lake from Puno to Chililaya, a distance of 117 miles, by one of the elegant little steamers of the Speedie Company, and returned by another boat on a circumnavigation voyage, touching at Desaguadero and other points of great interest, after extending my journey by land across the table-land from Chililaya to La Paz, a distance of 48 miles, by a coach drawn by spanking teams of six and even eight horses, all admirably appointed.

The beauties of the great lake and of the road beyond it would well deserve descriptive powers above any I may have at my command. The mountains around the lake slope down to the water's edge in a succession of headlands, forming charming bays and narrow channels, dividing its vast surface in a variety and succession of sheets of water, seldom allowing the sight of land to be lost, and throwing out here and there little islets, some of which, like the island of Titicaca, that of the Sun, and of the Virgins of the Sun, are overspread with ruins and hallowed by traditions connected with the earliest religious and political life of the

indigenous races of the country. The lake is lonely and silent, hardly a sail being ever seen on its surface, unless it be that of some Indian *bolsa*, or canoe, made of reeds and sedge, and kept together by withes and grass ropes, the materials with which the natives also manage to construct their clumsy, yet tolerably solid, bridges. The only stir of life is made by a variety of aquatic birds, immense flocks, or rather shoals, of which flutter away to the reedy banks whenever the steamer comes within any of the bays or coves where the scanty inhabitants have their dwellings. I embarked at Puno towards sunset, and at the earliest hour of the following morning found myself near the Tiquina Strait, between the two headlands of which, as through the opening scenes in the foreground of a stage, I descried the long line of the snowy Bolivian Cordillera, the highest chain of the Andes, boasting the loftiest and grandest summits of South America, and whose giants, the Sorata, the Huayna de Potosi, and the Illimani, are only surpassed by a few of the great peaks of the Himalayas. Stately and solemn and unearthly, that sublime region loomed in the pale, dawning light, as I advanced through the Strait, and its long range unfolded itself, an interminable sweep, before my gaze; and glorious and marvellous it looked, as I neared it from hour to hour, and the sun began to gild it, and its endless summits revealed themselves one by one, breaking out from that phantom-like mass in bold relief, till the white fleecy clouds that rose from their midst, here clinging to their skirts, there hovering on their tops, again slightly blurred their outlines, shadowing without effacing their glittering slopes, and playing, as it were, at bo-peep with them, while by degrees clouds and snow blended together in one perpetually shifting haze, and it became impossible to discern where earth ended and the vault of heaven began.

Bring back to your memory, or conjure up in imagination, whatever you have seen or heard of the Oberland mountains as seen from the terrace at Berne, and all that can be said of the Jungfrau, the Schreckhorn, and the Finster-Aarhorn will have to be doubled both as to height and length, for the mountains before you here rise sheer and distinct 10,000ft. or 11,000ft. above the 12,000ft. of the lake or table-land from which you contemplate them, and their line stretches over a 200 miles' extent, the thinness and purity of the air bringing them apparently almost within reach of your hand, though three or four scores of miles of water or land intervene.

As you land at Chililaya, and proceed across the table-land to La Paz, you have the same long chain on your left all along the journey, a region of rocks and glaciers where, if you are one of the intrepid heroes of the European Alpine clubs, you will find all the year round an ample field for your climbing exploits, for which you may rely on the assistance of safe and indefatigable Red Indian guides, sharing their fare, and "roughing it" to your heart's content.

At the end of the journey across the 48 miles' table-land, you stand on the brink of a *bolson*, or gully, 2,000ft. deep, at the bottom of which you see the red-tiled roofs of La Paz, with the zigzag turnings of the road, carved on the sides of the abrupt rocks which encompass the city.

La Paz, where the Government of Bolivia resides (though the nominal capital is Sucre or Chuquisaca), is a large city, with, it is said, 70,000 inhabitants, with hilly streets and a large square, having a cathedral rising from its ruins on one side, and porticoes on the three other sides, with low, one-floored houses, a good "Grand Hotel," and all the look of an old Spanish town; its grand feature being formed by the mass of the giant Illimani, a mountain 21,500ft. high, rising scores of miles off, yet apparently so near as to seem to close the glen, and towering up so loftily as to dwarf by its hugeness all the vast mountain wilderness of the surrounding landscape. La Paz is one of the highest cities in the world (11,500ft.); it has a very limited territory and a stunted shrubbery in its immediate neighbourhood, but by driving only two miles down into the glen, at Obrajes, I found myself in the midst of gardens with roses on the hedges, and weeping willows along the streams, and fruit trees, and ripe strawberry beds, and all the produce of the temperate zone; and, had I gone farther, I should have soon reached the Bolivian *montaña*, or eastern slope, a region, like that of Peru and Ecuador, blessed with all the luxuriance of a tropical vegetation.

Peru, Ecuador, and Bolivia, as the reader knows, constituted one and the same viceroyalty under the Spanish domination, but were split into three separate Republics after their emancipation from the sway of the mother country. Bolivia, formerly "Upper Peru," with a territory exceeding in vastness that of Peru itself, but with a scantier population, lies partly on the table-land and partly on the eastern slope, and had only a small strip of land on the western slope by which it reached the Pacific along a few miles of coast between the mouth of the river Loa and the bay of Antofagasto, a district which the vicissitudes of the present war have brought into the hands of the Chilians. The real harbour of Bolivia, the outlet for her trade, amounting to about £1,000,000 yearly, was, till lately, Arica, a Peruvian town, not unlikely, also, unless a change in the fortunes of war occurs, to fall into the power of the Chilians, who, while taking the nitrate grounds of Antofagasto and Tarapaca for themselves, may, perhaps, be disposed to give up Arica to the Bolivians, as a reward of the treacherous defection by which the Bolivian President Daza and his troops determined the defeat of their Peruvian allies. Even with the possession of the much-coveted Arica, however, Bolivia could hardly hope to become a maritime State; and her trade has already in a great measure begun to flow across the Titicaca Lake, and along the Peruvian line of the Puno, Arequipa, and Mollendo Railway. On the other side of the mountains, towards the Atlantic, Bolivia can look forward to all the greatness and prosperity that may await her for the future; for the river of La Paz, which flows down the glen in which the city is embosomed, after winding round the Cordillera, and turning northwards, empties itself into the Rio Beni, and this, again, into the Rio Madeira, which is one of the great tributaries of the Amazons, while, further south, beyond the nominal capital, Sucre or Chuquisaca, the Bolivian waters flow into the Pilcomayo, and hence into the Paraguay and the Paranà, ending in the great estuaries of the Plate.

There is nothing more interesting than an anticipation of the destinies which may await this *montaña* or eastern slope of the Andes, of which the Republics of Colombia, Ecuador, Peru, and Bolivia have each a share, but which none of them have hitherto been able to turn to any great or good purpose. The western region, especially of Peru, and the table-land between the various mountain-chains, are only the shell of this great South American oyster, of which the *montaña* is the flesh. Between the sources of the eastern rivers the tributaries of the Orinoco, the Amazons, and the Plate, and the various points at which those rivers become navigable, we are told, there spreads the richest soil with every variety of the most propitious and healthiest climates, and the production of all the fruits of the earth in the largest quantity and of the very best quality. Unfortunately, as yet, a great portion of this land of promise lies waste, uncultivated, and in many large districts unexplored. Bolivia in her population of about 2,000,000 souls, includes 700,000 wild Indians, and 270,000 so-called "civilized" people of the same race, and these are found in equal proportions in Eastern Peru. Even in the cities on the coast, and in the rural districts, where Chinese coolies have not yet penetrated, the lower classes consist of *Cholos*, a mixed race, among whom dark complexions prevail, with a tendency to a further deepening of hue. But on the table-land and on the

eastern side you have the indigenous races with but little admixture, and these supply the great mass of agricultural and mining labourers, as well as the best soldiers and many of the officers of the army. The land in the thinner settlements belongs to the State, or has been parcelled out among great landowners, and depends for its cultivation on the tame Indians who live upon it, either singly or in communities, and pay no rents, but are bound to certain services or *corvées*, either to the State or to the private proprietors, on the principles of a strict feudal system. They are employed as rough road and bridge makers, as scouts or messengers, for which their extraordinary powers for walking and running admirably fit them, in a primitive and slovenly cultivation of the soil, and the tending of the flocks and herds, of which they have a large quantity, and which constitute their chief wealth. The whole table-land, the wide plains called *pampas*, placed between 9,000 and 12,000 or 15,000 feet above the sea-level, yield them only potatoes and barley, the latter seldom coming to maturity, but being mainly used as fodder. The herbage on the plain and on some of the mountain sides is thin and coarse, but on them both sheep and cows seem to thrive, though their milk and flesh are said to be of an inferior quality. Wherever soil, however thin, is to be found on the slope of the mountains, it is cut up in terraces, not unfrequently up to the summits, with a view to slacken the flow of the waters and to serve as beds for the seeds which are committed to them, and which often thrive better than on the plain. These terraces, somewhat analogous to those on which the peasantry of the Ligurian Apennines or of the valley of the Upper Douro above Oporto plant their vineyards, are on the Andes a traditional system of husbandry handed down to the present Indian generation by their remotest progenitors, of whose original works the traces are everywhere apparent, though partially obliterated ; the seamed and scored and furrowed soil, with its stubbly herbage, affording to the cattle some sustenance, for which they are not indebted to their present owners' industry. Both the wool of the sheep and the live horned cattle are profitable articles of exportation, and much wealth also accrues to the country by the sale of the wool and hair of the llamas, vicuñas, and alpacas, which were the companions and friends of the indigenous races before the Spanish conquest, the llamas alone being domesticated, and doing duty as beasts of burden, carrying weights of 100 pounds, and passively resisting the addition of any extra weight with the tenacity of the camel, an animal to which by their habits and humours they bear a close affinity. The vicuñas, huanacoes, and alpacas roam the hills untamed, but are hunted and killed for their skins, their furs fetching high prices, and being manufactured as rugs and wrappers for which there is a considerable demand all over the world. Deer and other game of all kinds abound on the hills ; and the lakes, especially the large one of Titicaca, swarm with water-fowl in such multitude that a pair of wild-ducks in the Puno market with difficulty can fetch as much as 5 cents. (2½d.). Large caravans of laden llamas and donkeys under Indian guides are met everywhere on the roads or paths ; and, beyond the limits of the railway and steamer traffic, on these alone the country depends for the conveyance of its agricultural and mineral produce. The Indians, both as husbandmen and as drovers or drivers, are an inoffensive and peaceful, but lazy, indolent, unambitious, unimprovable race, not deficient in natural intelligence, in courage, and in uncommon powers of endurance, but degraded by ignorance, by the reckless abuse of strong drinks, and by the gross superstitions that their less than half-educated and profligate priests inculcate among them as religion. They live in wretched mud huts, go about bare-footed, clad in absolute rags, unkempt, unwashed, many of them still exhibiting the wild lineaments, the fierce eyes, the long, projecting fangs of their cannibal forefathers ; though youthful faces with regular and almost handsome features, and mild, sad, yet pleasing expression, and yet with an undoubted copper complexion, are not uncommon among them. These of mixed blood and of a less untamed spirit work in the mines, accept employment on railways and steamers, and are admitted into domestic service ; but they are clumsy and not very active labourers, and, though well paid, three of them, I am told, hardly do as much work as might be obtained from one white man.

The patriots who, like the well-meaning but over-sanguine Manuel Pardo, relied on an improved method of communication, and especially on the construction of Transandean railways, for a rapid development of these countries' wealth and for the civilization of their people, must perceive how far their best hopes as yet are from a satisfactory realization. The Transandean railways are far advanced, and one of them very nearly finished. But the traffic between the barren sea-coast and the all-productive *montaña* is still inconsiderable, and both lines have hitherto been unable to run daily trains with even moderate profit. Much as has already been done, there remains still much more to be achieved. In this country, as, I believe, in British India, sufficient care has not been taken that the productive powers of the country, the irrigation of the land, and mining enterprise, should receive an impulse commensurate with the development of trading intercourse. Railways have been projected and carried out before it was quite clear where the passengers and goods which should repay their enormous expenses were to come from. No doubt the amount of unimproved and unexplored mineral wealth in the Andes is enormous ; no doubt even the western side, in spite of its aridity and apparently unconquerable barrenness, still admits of extensive profitable cultivation. No doubt Peru, Bolivia, and other States have in their *montaña* or eastern slope a very paradise teeming with the vegetation of all earthly climates. But it is idle for the Utopists of the Manuel Pardo school to point to Belgium or the United States as countries where the construction of railways and other means of communication has been attended by an immense development of public prosperity. In those countries a compact nation, a free, stirring, hard-working people, were in existence. Production and intercourse went hand in hand. But in Peru and Bolivia the want of a labouring and of a governing class is equally felt, nor is it very clear where either of those all-important social elements —the head and arm of the State—is to come from. Little or nothing has been done towards the education of the *Cholos* or mixed breeds, even in the towns, and less than nothing with the tame Indians in the country ; while beyond the Andes, as we have seen, there live large tribes of wild Indians acknowledging no masters, amenable to no law. Any attempt at the improvement of the *Indios mansos* (domesticated Indians), or at interference with the *Indios barbaros* (wild or nomadic Indians), would, in the opinion of the whites, be fraught with danger. Even the wholesale enlistment of coloured people in the army, a measure which the present war has made a matter of necessity, is looked upon as a perilous policy ; as instead of spreading the habits of peaceful civilization among these half-savages, it may have the effect of inspiring them with the consciousness of their own strength and stirring up among them a spirit of independence which the whites might find difficult to quell. The Peruvians and Bolivians may be said to be hardly in possession of half the country to which they lay claim. The best part of it, the *montaña*, is still the home of the Indian, and it is doubtful whether the tame Indian will for ever be the thrall of his white master, or whether he may not some day join his wild brother in an effort for the recovery of their common birthright.

It is under the influence of such apprehensions that President Pardo so eagerly recommended the establishment of a railway communication between the western and the eastern sides of the Andes, and the introduction of white colonies from Europe or North America into the best districts of the

montaña. But, as we have seen, all such schemes have hitherto failed; the railways are unfinished, the colonists are not forthcoming. And the trade of the *montaña*, were it at any time to become considerable, would always be more likely to follow the course of the navigable rivers and of the vast plains through which it could reach the borders of the Atlantic than to seek an outlet across the mountains, whatever facilities might be offered by the Transandean railways. Indeed the contingency that the Andes may one day become a political as well as a natural boundary, that the people on the east of those mountains may follow different destinies and constitute separate States from those on the west, may be looked upon as by no means improbable, and perhaps not very remote. And the wars and revolutions which in these countries seem to be the order of the day are only too likely to mature such catastrophes and to hasten their outbreak.

THE SEAPORT OF CHILI.

(FROM OUR CORRESPONDENT.)

VALPARAISO, JAN. 3.

Valparaiso, or Val-Paraiso (Paradise Vale), has been so named because it is not a valley, nor does it come up to any man's idea of Eden. It is a city in a bay, a very fine bay, which the people here fondly compare to that of Naples, and to which, indeed, it would bear some resemblance if it had Vesuvius on one side, the ridge of Posilipo and the shore of Mergellina on the other, the Riviera di Chiaia on the foreground, and Capri and Ischia with the other islands in prospect. There is no place on the sea, as we all know, in which ingenious minds do not manage to trace some likeness to the famous Campanian bay; and many are the times when in sight of Sandy Hook, and Highland Neversink, and Long Island, a "stranger" is asked whether the entrance of New York harbour does not remind him of the view from Cape Miseno, when the stranger, if he be polite, and anxious to reconcile his love of truth with a due regard to local patriotic susceptibilities, will get out of his difficulty by declaring that "each place has its own beauties, and those of Manhattan are of a very transcendent order;" and he need not too bluntly add that the two localities have as much in common between them as Fluellen's Monmouth and Macedon.

Valparaiso may well be content with being like itself. It lies, not in a vale, but at the foot of a wide, high, crescent-shaped mountain ridge, broken into many dells or glens, with here and there a thread of water trickling down between the bluffs and knolls that rise almost perpendicularly over the town. On the few yards of level between these heights and the water edge, and behind a spacious quay, there run two parallel streets all along the bay, two or three miles in length, and here are the shops and warehouses, the hotels, the banks, and all other buildings connected with trade or government business. These thoroughfares are well-paved, with good sidewalks, with the accommodation of tramway-cars, and hackney coachstands, and a general air of comfort and luxury telling of a well-being which, alas! belongs to the past rather than the present. This is properly the city; few even of the business men have their homes here; most of them, especially the English, reside with their families in the pretty garden-houses or villas with which the overhanging hills are thickly studded; many of them perched on the brow of perpendicular cliffs, propped up, only accessible through winding paths and long and weary flights of steps; the charm of air and view making the inmates reckless of insecurity of position, as men here build on loose volcanic ground all crumbling with the action of frequent earthquakes, and it is as much as walls and stockades and timber palisades can do to secure anywhere a firm foundation, and prevent the hills and the houses and whatever lives in them from coming down in landslips and burying everything underneath. The mountains that sweep round the bay are arid and dusty, for the coast, here as everywhere further north, is a thirsty, burnt-up region; but there is some thin soil affording meagre pasture up to their summits, which must look green in the winter, and some shrubs struggle into being in the glens; groves and thickets with something like tropical verdure are coaxed up with infinite pains about the villas, close to the water's edge, and altogether the long, smooth hilly ridge is not deficient in a certain amphitheatrical majesty and beauty; the blue of sky and water is intense; and so wonderful is the purity of the air that on a fine morning or evening, as you look towards the north-east across the bay above the masts of the shipping, you see the huge masses of the Cordilleras rearing themselves above the landscape, with the snowy range of Aconcagua peeping out in the rear of all, at the distance of at least 100 miles, and a height six or seven times that of Vesuvius.

No seaport in the Old or the New World is entitled to higher praise for cleanliness, order, and decency than Valparaiso. The muck and litter from the shipping are kept diligently out of sight; the wharves themselves are swept almost hourly, and the streets are free from any aspect of squalor or misery; for in the lower town there is no room for the poorer classes, whose habitations stretch and straggle in long suburbs away on the hills, in the rear of the neat country houses where their "betters" are located.

Valparaiso is rather a European than a Spanish-American city. Much of the commercial and nearly all the banking business is in the hands of Germans and English. The French keep the hotels, and the Italians, chiefly Genoese, have their general minor trade, *despacho* or *pulperia*; and they constitute here as at Lima a thriving colony of petty shopkeepers; a well-behaved, intelligent, and very popular set of immigrants, who land here as penniless adventurers, seldom become naturalized or look upon themselves as permanent settlers, but work and save, and by a few years of unremitting toil and thrift scrape together five or six thousand dollars, which is to them wealth, and with which they go back to their native villages, rich and happy for the rest of their lives. Some of their cousins or nephews are usually sent out to take their places and to carry out the business, sharing the profits, till the new-comers also in their turn set up on their own account, and accumulate what they consider a fortune, and make room for other poor relatives, the tide coming in and going out incessantly, and their peculiar business continuing an almost recognized monopoly in their hands. These aliens are filling a station which seems to belong to them by hereditary right in this country, while they benefit their own by periodical remittances of their well-earned money to that lovely but stony and barren Ligurian Riviera where it is sorely needed.

The Italian colony in Valparaiso is, however, not so numerous as the one in Lima nor is it by any means the largest in Chili. According to the last census, where the population of the Republic is put down at 2,075,971, the Italians muster something less than 2,000; about half the number of the English, who in their turn are out-numbered by the Germans. These latter have a large thriving colony of their own in the Southern district of Valdivia. There are about 3,000 French settlers here, and little more than one-third of that number of Spaniards. The immigrants from the Argentine Republic exceed 7,000, while the Peruvians are only a little more than 800, and the North Americans something above 900. These numbers, however, only represent those aliens who have not become naturalized; all the rest with their families, are of course, considered Chilian subjects. Altogether the foreigners are 26,635.

Valparaiso is a white men's town. That endless muster of dingy complexions and repulsive African or Asiatic features which saddens a traveller as he

lands in the West Indies, and, as crossing the isthmus, he proceeds along the Colombian, Ecuadorial, and Peruvian coast, if it does not altogether cease, becomes at least less obtrusive and offensive as he enters Chili. The colonization of this country and that of Peru, though it dates very nearly from the same epoch, and was effected by the same race of discoverers and conquerors, was, however, undertaken in pursuance of different objects and attended with various results. In Peru, the Spaniards of Pizarro and Almagro went merely in quest of gold and silver ; and they found those precious metals in such quantities as to induce them to look upon themselves as a privileged set of people entitled to a life of enjoyment, riches, and luxuries, to which the conquered races and all the rest of the world should be made to minister. On their first appearance they terrorized the native Indians by wholesale executions, they wore them out by incessant crushing toil in the mines, and, while they reduced them to a condition of slavery, they became dependent on them for all kinds of rural and household work, and domesticated themselves among them with a frequency and closeness of intercourse which led to intermarriage, or what the Americans called "*miscegenation*," and greatly damaged their purity of blood. With the indigenous population as well as with the negroes and Chinese of a later importation, in spite of greater loathing and antipathy, the white man, from the very helplessness to which his distaste to all manner of work doomed him, had to make himself at home and almost to constitute one family. Hence in Peru, in Bolivia, as in the Antilles and in the Slave States of the North American Union, there sprang up that amalgam of hybrid-coloured population, that race of Mulattos, Cholos, Sambos, Ladinos, and other Mestizos, which is fast obliterating the traces of white blood, and threatens many of those improvident communities with the fate of the old colonies of Hayti and San Domingo —*i.e.*, with the social preponderance and actual sovereign sway of those dusky tribes of mankind, which, according to Darwinian theories, have only reached a middle stage in the transition from monkey to man. In Peru, as I had occasion to observe, nearly the whole army employed in the present war has been enlisted or impressed and officered among the men of colour, and the medical attendants upon the sick and wounded Peruvian and Bolivian prisoners in the Valparaiso hospitals complain that, even in the officer's wards, the peculiar odour exuding from the dark skins is overpowering. The military establishment in both those Republics proves the extent to which the half-castes have raised their ascendency. General Daza himself, the Bolivian Commander-in-Chief, is a Cholo ; and at La Paz, a town of 70,000 souls, the blending of colours has gone so far that it would be difficult to point out 500, or 50, or five individuals of pure European descent.

It is otherwise in Chili. Here when the Spaniards made their first appearance the fever of gold had probably in a great measure abated, the precious metals were not at once forthcoming in the same abundance, or else their glitter did not madden the invaders' brains to the same extent as it had done in Peru ; and, on the other hand, the soil and climate, especially of the southern provinces, seemed so favourable to cultivation, that the earliest settlers showed a less disdainful objection to honest labour, sat down in the country as agricultural colonists, and only used the native races as subordinate auxiliaries in all manner of work, without ever allowing them to usurp its monopoly or depriving themselves of its management and direction. Add to this that the native races in Chili, recovering from the panic that the Spaniards' advent had spread in Peru, developed a love of independence, displayed a warlike spirit, and maintained an attitude of hostility which three centuries of warfare have not yet altogether quelled, especially in the Araucanian districts— an attitude which placed the colonists under a necessity of doing such work as there was to do in a great measure with their own hands, keeping the indigenous people at arm's length, mistrusting and watching them, and shunning too close an intimacy with them, even when they compelled or purchased their co-operation, never abating their ascendency or compromising their own safety.

The result was that the mixture between white and dark never did go as far here as it had gone in the north ; and this country had at all times a white as well as an Indian labouring population, not only sufficient for all its own purposes, but so large, as we shall see, as to enable it to spare some to its neighbours. It never countenanced the importation of negro slaves, and is even now stoutly resisting all attempts at Chinese or coolie immigration.

The same wholesome instinct that made the early Chilian settlers aware of what man owes to himself and his Maker, and made it imperative on them to wield the spade, the hoe, and the pickaxe in field and mine, sharing the use of those implements with their coloured subjects, equally disposed them to tolerate and even to encourage the immigration and settlement of strangers from all parts of Europe and from the United States, accepting and welcoming such impulse as these foreigners gave to the trade and industry of the country, harbouring no envy or jealousy of the fortune that these came to accumulate among them, but looking upon the strangers' prosperity as a stimulus to exertion on their own part, and taking their share of it on the terms of fair and open competition. Like Lima, Valparaiso constitutes a thoroughly cosmopolitan community, in which all civilized nations are equally represented ; but, unlike Lima, it can boast of a home element holding its own against all foreign rivalry, and has none of that dog-in-the-manger, rancorous spirit that cannot or will not itself work at the promotion of the country's well-being, and frets at the idea of accepting it at other people's hands. The Chilians are fond of being called the "English of South America," and they certainly deserve that appellation, not only by the readiness with which they welcome new settlers, but by that quiet and unobtrusive power of assimilation by which they admit all comers at once to a community of rights and interests, and cause them to feel at home among them. All European emigrants, the Spaniards not excepted, evince a preference for Valparaiso as a New World residence. Intermarriage and international commercial partnership are matters of less unfrequent occurrence here than in Peru, and at this crisis, when open hostilities have given full scope to the best and worst passions in these Republics, the feeling of perfect security with which, to all appearance, strangers live here among the Chilians favourably contrasts with the sense of uneasiness with which foreign settlers in Lima, and especially the English, look forward to any chance of a disturbance which should allow a free vent to the hardly latent dislike the populace of the Peruvian capital harbour against them. In Lima the presence of a French, English, and other squadrons are barely sufficient to allay such alarms, while here in Valparaiso none of the alien merchants would consider any display of foreign force a better safeguard than the laws of the country and the disposition of the people.

Valparaiso, a busy, yet not a very lively place in ordinary times, receives considerable animation at this season from the influx of a large portion of the population of Santiago, coming here from that seat of government for the benefit of fresh air and sea-bathing in these summer months. For the whole of January and February this seaport becomes also the actual working capital of the Republic. The President, Pinto, will soon take up his quarters in the Palace of the Intendente ; the Ministers will follow ; and all of them have been preceded by the Diplomatic Body, the members of which are already either quartered in some of the villas on the hills, or crowded together in the hotels of Viña del Mar, and other sea-bathing places. Theatrical performances, circus amuse-

ments, and the *élite* of metropolitan and provincial society will soon be here, and will lend fresh charm to the home circles, among whom female beauty, both of the dazzling fair and the piquant brunette type, is at no time deficient.

Chili is by no means the largest, nor naturally the wealthiest of the three States which are now engaged in the senseless war in which Chili, single-handed, seems hitherto to have gained a decided advantage over her two opponents. The whole Chilian territory, though more extensive than that of Italy and the Italian islands, is barely one-third of that either of Peru or of Bolivia; and, unlike that of those two other States, it all lies between the Cordillera of the Andes and the Pacific Ocean, and owns not one single inch of that "Montaña," or eastern slope of the mountains, which might supply boundless resources of agricultural wealth to Peru and Bolivia. But it is by no means sure that her narrower boundaries and her limitation to only one side of the mountains have not been from the beginning, and may not be to the end, a great blessing, instead of a disadvantage to the smaller community. For, in the case of Peru, the possession of her Transandine districts could be of little or no practical use till that country had established a thorough communication between her western and eastern watersheds. The railways intended to open that intercourse absorbed all her faculties and exhausted all her resources, and they are yet, and will probably remain for many years, unfinished, and, in so far, inefficient, unproductive, and, there is reason to fear, doomed to perish. The heavy outlay occasioned by those transversal lines has left nothing for the construction of longitudinal lines, which might and should have favoured the intercourse between the hundred valleys on the Pacific side, both along the coast and, what was more important, throughout the interior. A land journey from Lima to Payta and Piura in the north, or to Arica and Tacna in the south, can only be done on horseback, and not without considerable hardship and loss of time; and the consequence is that Peru, once worsted at sea, finds it now absolutely impossible to march a large force to the rescue of her blockaded ports or of her invaded nitrate districts at Tarapaca. With better judgment or better fortune, Chili, having no lands and no object to pursue across the Andes, turned all her energies to her own, the western side, of those mountains, and scored it with useful and productive lines of longitudinal railways. After running up a line 115 miles in length from her chief seaport, Valparaiso, to her capital, Santiago, she stretched it downwards from north to south, all along the table-land to Curico, Talca, Linares, Chillan, and Florida, with a sweep to the sea at Concepcion, and Talcahuano, and hence inland again, to Santa Fé and Nascimiento as far as Los Angeles and Angol, on the border of the semi-independent Araucanian Indian districts. Shut up on the eastern side by the Cordillera which separates her from the Argentine Republic, and deprived of that eastern slope which constitutes the flesh of the Andean region, Chili attached herself to the cultivation of the bones on the western side. She could not do much with the arid and rocky valleys on the coast north of Valparaiso and Coquimbo, for there she laboured, like Peru, against the evils of a barren soil and a rainless climate. But in the south, between the first maritime ridge of the mountains and the main chain, she possesses a more or less level zone susceptible of cultivation; and, although seemingly not well suited to the production of sugar, coffee, cotton, or other tropical plants, sufficiently fertile and blessed with a climate mild and moist enough to be turned into a granary, and to yield wheat, maize, and other cereals in such quantities as to make them important articles of exportation. Chili became thus, from an early period, a thriving agricultural community, making more of what she had on one side of the Andes than Peru was able to get out of her boundless possessions on both sides. In the same manner, although Chili is not without some veins of gold and silver of her own, she was at no time so opulent an Eldorado as Peru, and such wealth as she dug out of the bowels of the earth chiefly sprang from her inexhaustible copper mines. As a producer of corn and copper Chili attained and maintained the rank of a first-rate South American State, though her agriculture was of the most primitive description and a large part of her soil, never receiving the aid of manure, was allowed to lie fallow and seemed to show some symptoms of exhaustion, and though the competition of the Rio Tinto, Tarsis, and other Spanish mines caused a glut in the copper market and determined a very serious fall in the price of that metal. Of late years, and especially since 1872, there had been some perceptible decline in the trade of Chili; the imports considerably exceeded the exports, and the distress which during the same period more or less grievously affected all commercial communities, coupled with a succession of bad harvests, could not fail to influence the further depression or stagnation of business in the country.

Matters showed some disposition to mend a twelvemonth ago, towards the fall of 1878, when the exports throughout the year exceeded the imports by 6,479,305 Chilian dollars; but the outbreak of the war at the beginning of 1879 caused a new panic and sunk the exchange on London, which would be at par at 48d. for the Chilian dollar, down to 24½d. There was indeed a sudden rise to 34d. immediately after the taking of the Huascar, which gave the Chilians an undisputed command of the sea, and there is now a further advance to 36½d. But this improvement in the money market is illusory, and merely grounded upon a sanguine expectation of a favourable issue of the war; it is no safe criterion of the conditions of the trading community, for business is now as much at a standstill as it ever was.

The Chilians think they have reason to look upon their late successes as decisive and final, and to reckon upon the utter discomfiture and ruin of their enemies; for Peru and Bolivia are not only without the means of carrying on the war by sea, and in the impossibility of marching large forces by land, owing to the vast deserts they would have to cross, but they are also utterly incapable of coming to any resolution as to war or peace, being both at this moment a prey to domestic revolutions which leave them without a responsible government. Chili feels confident that she has her foes at her discretion, and that it will be for her to dictate the conditions of peace. But peace is for that very reason indefinitely far off, for there is no one on the enemy's side to treat with. Prado, the President and Commander-in-Chief of Peru, is a fugitive, and Daza, who was equally at the head of all civil and military authority in Bolivia, is absconding. Politicians in this country already look upon that Bolivian district of Antofagasta and on that Peruvian territory of Tarapaca, which were the primary cause of the war, as the prize of victory, and think they will thus secure for themselves the monopoly of that nitrate of soda which seems now to be the most valuable produce of South America. The exportation of nitrate, the Chilians say, was before the war altogether effected by the hard toil and industry of Chilian labourers, and in a great measure by the capital of Chilian merchants, and it was owing to the burdens and vexations by which both the Peruvian Government and, at its suggestion, the Bolivian authorities hampered and harassed that trade that the contest arose. The contest has turned out favourable to Chili, and it behoves this State to remove all cause of future quarrel by tightening its grasp on the prey it has already seized. That Tarapaca and Antofagasta must for ever become Chilian is here rapidly becoming an article of patriotic faith; opinions only differ as to whether the territories should at once be taken and held by right of conquest, or kept as a pledge for a war indemnity of 50 millions sterling, of which, of course, everybody feels sure the vanquished Republics would never be able to pay either capital or interest, an arrangement which

would amount to the same thing. The Government of Santiago has already sent military and civil functionaries for the administration of the new districts, and there is no doubt the installation of Chilian rulers in the places vacated by the Peruvians will be hailed as a happy deliverance both by the population of the country and by the foreign merchants interested in its trade. It may be allowable to doubt, however, whether the triumph of the Chilians is as certain and complete as they seem to consider it, and again whether the results, however splendid, will be as really and permanently beneficial to their country as it is natural for them to anticipate. In the first place, though Peru is conquered it has not yet laid down its arms. It has no legal Government, but cannot be at a loss for tyrannical rulers. Pierola, or whoever else may be the dictator, will shrink from the responsibility of proposing a peace ; that state of war without fighting, which is so often normal and always so ruinous in South America, may be continued for an indefinite length of months or years, and the belligerents will have to keep up large armaments, burdensome to both parties, but especially damaging to the country which, having lost less, has more to lose. In the second place, the nitrate of the newly-conquered districts, although a vast and possibly an inexhaustible source of wealth, had not, even before the war, done much good to Peru. Like the guano that preceded it, and like the gold and silver of the colonial era, it had turned to ashes in the mouths of its owners ; it had engendered extravagant, indolent, improvident habits, and raised expectations which no boundless resources could realize. It had diverted all the industry and energy of the people from other humbler and more laborious, but safer, pursuits, and set men against any career in which fortunes could only be the reward of consistent toil and enduring patience.

The Chilians, as a matter of course, flatter themselves that the wealth accruing to them from the nitrate districts will never have for them the same demoralizing effects that it had for the kindred people from whose hands they are wresting it ; but there is no doubt that the extension the nitrate works will be sure to receive under the new *régime* will attract great numbers of labourers now employed in this country in agricultural and mining pursuits. Those industries of the field and mine which were somewhat on the decline when labour was to be had at the rate of 20 cents. or 10d. a man per diem, are not likely to attain a more prosperous condition if the increased influx of Chilian labourers to Tarapaca and Antofagasta should lead, as lead it must, to a rise in the workmen's wages. Chili, unlike Peru, never was at a loss for such labour as answered her own purposes ; but she could not be said to have too much of it (no account is given in official statements of the various professions in which the population is employed), and the exit which periodically took place to Peru and other countries was not determined by a surplus population, but was the result of a system of husbandry by which the landowners in possession of very large estates had the means of grinding, starving, and otherwise distressing their farm labourers and driving them from the country in sheer despair. The establishment in this State of a well-to-do, powerful, and compact landed aristocracy, a phenomenon in a South American community, and which, as a conservative element, must be looked upon as a great political blessing, is not, of course, without its serious social drawbacks, and one of them is, doubtless, that it places the lackland tenant at the discretion of a grasping landlord, and leaves the poor scarcely any alternative between serfdom and emigration. There is danger also that Chili, flushed by her too easy victory, and by the rich prize she will reap from it, may gain a sinister reputation as a grasping, ambitious, quarrelsome community, and may be prompted to venture into other warlike enterprises, and to assume towards neighbouring States a tone of dictation and menace which may lead to new complications and collisions. For causes or pretexts for hostilities are always only too rife among these South American Republics, whose respective boundaries are seldom accurately defined, leaving conflicting claims about large tracts of disputed territories perpetually unsettled. Thus it was vaguely understood that the line of separation between Chili and the Argentine Republic was the great natural barrier of the Andes, the Government of Santiago being satisfied with the western, and that of Buenos Ayres with the eastern slope of that Cordillera. But to the south of what these States owned as available territory there was a vast, wild, mainly unexplored region, the abode of untamed Indians, extending along the coast of the Atlantic, from the mouth of the Rio Negro to the entrance of the Strait of Magellan, and Cape Horn at the extremity of Tierra del Fuego ; and, along the Pacific, from the Gulf of Penas, along Smith Channel to the end of the continent. On both coasts, leaving the inland districts to the Patagonians, Fuegians, and other savages, the two States gradually extended their settlements, and Chili especially went so far as to seize on Punta Arenas, or Sandy Point, at a middle point, and in the narrowest part, within the Magellan Strait, establishing a penal colony on the spot, and thereby wielding the command of that channel, a channel which has gained great importance since its navigation has become as convenient to steamers as it had always been difficult and dangerous to sailing vessels. Chili, besides, conceived that she had titles to the Patagonian coast north of the strait and up to the Rio Negro, as, it is alleged, that region formed part of the Spanish viceroyalty, whose rights she inherits and represents. Very strong protests and angry notes have again and again issued from the Foreign Office at Buenos Ayres in answer to these "preposterous" Chilian claims ; and the dispute has at certain periods waxed so hot that an appeal to arms was expected to be the upshot of prolonged and stormy negotiations. The Argentines deserve great praise for their forbearance, as nothing would have been easier for them than to call the Chilians to account at a time in which the issue of the war with Peru and Bolivia was still doubtful. It is to be hoped that Chili, now victorious and relieved from all fear, will, in her turn, show moderation and soberness, and abide by the proposals repeatedly made on both sides to refer all the disputed points to arbitration. But the risk of an outbreak is still very great, and it is not quite certain that Buenos Ayres, by her purchase of ironclads and enlistment of troops, is only acting on that doubtful and perilous doctrine that "peace is best insured by preparing for war."

Chili has for several years won the reputation of the model republic of South America. She has been a law-abiding, God-fearing, and peace-loving community, allowing her people the enjoyment of all wholesome liberty, and so conducting her administration and ruling her finance as to be able in the most difficult times to fulfil her engagements, to insure order and prosperity at home, and maintain her credit abroad. It is only natural to look upon her wise conduct throughout the past as a pledge of her equally prudent and exemplary behaviour for the future.

THE CHILIAN CAPITAL.

(FROM OUR SPECIAL CORRESPONDENT.)

SANTIAGO, JAN. 21.

The success which has for this last half-year invariably attended the warlike operations of this Republic by land and sea has placed its Government and its people in a difficult and, it may almost be said, a painful position. The annexation of the Peruvian province of Tarapaca and of the Bolivian district of Antofagasto has, in the almost universal opinion of politicians here, become a necessity, and it is even deemed expedient to indemnify one enemy

at the expense of the other, by enabling Bolivia to obtain possession of the Peruvian towns of Arica and Tacna, thus allowing her the most advantageous outlet for her trade into the Pacific Ocean.

There can be for Chili no objection to such an arrangement on the score of usefulness, for it would shift the frontier of this State about 250 miles further to the north, and lay at its disposal those guano beds and nitrate grounds the riches of which are deemed inexhaustible; and it would place between its new boundary line and the territory of that Peru which begins now to be looked upon as an irreconcilable enemy a barrier which Bolivia would be vitally interested to guard against all incursions.

There are, however, other questions to be considered besides that of expediency. The results of the Franco-German and of the Russo-Turkish wars seem, indeed, to have fully revived in Europe those notions about the right of conquest which of late years were thought to have become obsolete; but the New World professed to be ruled by principles altogether at variance with those which actuated the old monarchies. And for these Spanish American communities, which professed to look upon one another as "sister nations," to proceed upon

> "The good old rule, the simple plan,
> "That they should take who have the power,
> "And they should keep who can,"

may well seem not only an iniquitous, but also an extremely dangerous innovation. It must be borne in mind that Chili, in spite of that big carrion bird, the condor, which she bears as her cognizance, and of the motto, "*Por la Razon o la Fuerza*," which she adopted in the heyday of her youth, has for this last quarter of a century earned and deserved a high reputation for uprightness and forbearance. She was thought to have learnt to look on honesty as the best policy; and any attempt on her part to back "right" by "might" would not merely tend to damage her character, but expose her to the ill-will of her neighbours, who might possibly join against her as a common enemy. And more scandalous still appears the contemplated cession of Arica and Tacna to Bolivia, whereby Chili would seem to pay at Peru's expense the price of that Bolivian treachery to which the Chilian arms were mainly indebted for their too easy victory; for by thus rewarding the crime of that defection Chili would make herself its partaker and accomplice.

Nothing certainly till this unfortunate war broke out might seem more enviable than the position which this country occupied among the South American States. Without being very wealthy, it was highly prosperous. It had a fertile soil, an Italian climate, a laborious population, a thriving trade, an expanding revenue, the most insignificant national debt, the best-established credit on the European Exchanges, a well-conducted Conservative Government, a comparatively respectable priesthood, a flourishing seaport, and a magnificent capital.

It is at Santiago, the seat of Government, that one best learns the peculiarities of the political and social institutions of this country. In Peru, Lima and Callao, the trading and the ruling centres, only separated by a seven miles' distance, easily travelled over by two lines of railway every quarter of an hour, may to all intents and purposes be said to be one and the same city. But Santiago and Valparaiso are 115 kilomètres asunder. The shop is altogether apart from the dwelling-house. The business-place is more cosmopolitan, the capital more strictly national. Santiago is the Chilian's head quarters, the home of his pride. A Peruvian's fortune, easily made, is too often as readily squandered in some foreign pleasure haunt at Paris or New York; but a Chilian, whose wealth has to be accumulated by hard labour, is as a rule a comparatively untravelled man. To settle at Santiago, to build himself a handsome house, is the height of his ambition. To praise the city, to describe Santiago as "a slice of Paris dropped at the foot of the Andes," is for a stranger the best way to get at the Chilian's heart. And the town is indeed splendid, with broad, straight streets, with good stone pavements, with groves and fountains in the squares, with stately public buildings and sumptuous private dwellings, with an *alameda*, or poplar avenue, three miles in length, watered by four living streams, with a "park" or round carriage drive, and a "*finca normal*" or model farm, also a promenade, with cool, shady grounds, an exhibition palace, and a museum; and finally, with a high hill of Santa Lucia, visibly intended by nature for a citadel like the Acropolis at Athens, overlooking the town like the Pincio at Rome, and commanding a vast panorama of plain and mountain like the Superga at Turin; in fact with everything befitting a large, a rich, and a broad new capital. Better site for a city could hardly anywhere have been chosen; in the centre of a vast green level, compassed all round by brown hills, and crossed by a stream, the Macocho, the valley of which forms a gap in the mountain wall, opening up a broad view of the snowy Cordillera, with the Tupungato rearing its head to a height of more than 22,000 feet—an Andean giant so huge that our own Mont Blanc could barely reach up to his shoulder!

All the elements of a grand city are certainly here; but somehow, though Santiago was laid out and founded nearly three centuries and a half ago (1541) and has always been the sovereign residence, it has all the look of a town of yesterday; and reminds one of the "fine family mansion," which the builder and the upholsterer are instructed to re r from the ground and furnish "in the most approved style and regardless of expense." It is the home of a *parvenu* people. Hardly any trace of the old Spanish dominion is here, if we except the solid stone bridge once flanked by houses and shops, one half of which have been unfortunately pulled down; and the low, large, but commonplace cathedral; and the Moneda, or Palace of the Mint, which is now the President's and the Government's residence, which only dates from the latter part of the 19th century, and for which Chili is indebted to a lucky mistake of the royal architects of Madrid, who sent to poor Chili the model of an edifice intended for wealthy Mexico—a mistake which, owing to the slowness of communications in that age, the Government only found out and vainly attempted to rectify when the palace was more than half built.

With these few exceptions the town has nothing that may be said to bear a later date than yesterday. The Gran Hotel in the main square, the passages or arcades rivalling Milan and Paris, the Parliament House, the University, the Opera House, and many of the best private houses are mere reproductions of Parisian or North American structures; and as to churches and their domes and steeples, and the bronze and marble monuments to O'Higgins, Blanco Encalada, and other worthies, they are, as a rule, all that may be conceived most tawdry and grotesque; the prevailing bad taste being made conspicuous and offensive by the all-pervading tidiness and cleanliness of the streets, and the all-revealing brightness, dryness, and purity of the air. The very rock or hill of Santa Lucia, on which an ancient nation would have reared some grand Titanic temple like the Parthenon, or on which a modern people would have laid an esplanade for a sociable drive or lounge, like the Montagnola of Bologna, or the Piazzale Michael Angelo in Florence, has here been frittered away in a jumble of little terraces, crooked paths and steps leading nowhere, and laid out in little plots for petty chapels, cafés, wine shops, and wooden sheds, called observatories, little platforms with statues, miniature turrets with battlements, with swimming baths, and gymnastic poles and whirligigs, a medley of incongruous gimcrack

objects, only evidencing the vain efforts that have been made to turn the spot to any other uses than those for which it had been so obviously and so admirably fitted.

The truth is that the Chilians, like other Americans, better know how to make money than how to spend it. Santiago is the abode of that landed aristocracy the members of which have for many years monopolized both the legislative and the executive powers in the State, and governed the country upon that Conservative policy which, while it laboured at the promotion of the public welfare, never lost sight of the private interest of the ruling class. These wealthy landowners, *hacendados* or possessors of very large farms, are, as a rule, mere absentees, having little more than a *pied à terre* on their estates, which they only visit for a month or two in the year, and hardly ever leaving their homes in the capital, to which political or social duties are supposed to bind them, except for a short residence at Valparaiso or some other watering-place on the sea or inland. The extravagance of this gentry is described as boundless; more than £1,600,000 has been spent in house building in the period of four years (1872-6), some of these private houses at a cost of £20,000 to £50,000 each; and "the carriage licences taken out in the latter year show that there were altogether 1,284 private carriages, besides 471 public conveyances, and 2,750 carts and drays." This will appear somewhat considerable if we reflect that it refers to a town mustering a population of 160,000; and one wonders what proportion it would bear to the traffic of London, taking into account the difference in size and wealth between the two cities. The luxury in which these Chilian magnates so liberally indulge has the effect of raising the price of all commodities, and especially of all articles imported from abroad, to an enormous extent. A book or an almanac charged 1s. in London at shop price cannot be purchased here for less than 3s. 6d.; a pair of kid gloves is not to be had for less than 10s.; and as a rule a dollar, a silver dollar, the value of which varies from 4s. to 5s., will go no farther than one shilling would in the old countries. "The charge for haircutting," as Mrs. Brassey found out in Valparaiso, "is a dollar and a half; a three-and-sixpenny Letts's diary costs two dollars and a half; a tall hat (chimney-pot) costs 58s.; you must pay 6d. each for parchment luggage labels, 3d. apiece for quill pens, 4s. for a quire of common note-paper, and so on in proportion." All such articles for one who, like myself, tried the shops in both places, are even dearer in the capital than in the seaport. The people here seem to value things rather from their cost than from their actual worth. The extravagance of all Americans is something that far transcends the limits of Old World comprehension. At Guayaquil, the shabby seaport of the "one-horse Republic" of Ecuador, I have seen a toyshop where the price of German wax dolls varied from 20 to 80 silver dollars (£16). A Panama hat would be charged 50 or 60 guineas, and prices of the same enormity are charged for a guanaco coat or a vicuña rug, an ostrich feather wrapper or a poncho, and other luxuries of local manufacture. Equally extortionate are the charges at the hotels for board and lodging, particularly for the consumers of foreign wines; the meanest Bordeaux, of doubtful vintage, never being put down at less than $3, and the price of a room with boarding, whether the meals are eaten or not, being from $4 to $6.

With all this lavishness, which the wealthy natives encourage and practise, and to which a poor stranger must learn to submit, whether he likes it or not, the people here would seem to have little enjoyment for their money. The Italian companies which try their fortunes at the Santiago Opera-house are all bankrupt. What are called *cafés* in France, Italy, or Spain are unknown here, and the two or three clubs the place can boast are, as a rule, only frequented by the foreigners to whom they owe their foundation. The Chilians, as it seems, are easily satisfied with home pleasures. There is little visiting, little hospitable or social entertainment among them. Well-dressed women, well-appointed equipages are to be seen about the streets and in the promenades in the season. But the town has little animation at all times. "Long, quiet streets of private houses, mostly built after the fashion of the Parisian *petit hôtel*," to borrow the description of an English diplomatist, long a resident in this place, "with some of far more ambitious style, their drowsiness now and then broken in upon by the clatter of a smart brougham or barouche that might figure with credit in the Bois de Boulogne; refined-looking women gliding along the well-swept pavement; numerous churches and long, low whitewashed convent walls; the absence of bustle, the concentration of all trade and shopping in a few central thoroughfares, all combine to make one ask oneself if this be not the residence of some dreamily quiet, orthodox, luxurious Court, rather than the centre of a small, stirring, hard-working democratic State."

But the fact is that Chili is not and never was a democracy; and it owes its quiet life as well as its prosperity to an aristocratic rule which has, perhaps, by this time accomplished its task, and has brought the country to a condition which, however satisfactory, was factitious and ephemeral, and may not improbably have to be succeeded by something less pleasing but more real and more in keeping with the stern exigencies of a democratic community. The landowners who had assumed the functions of a governing class, and who, relying on the docility of the lower orders, had based their authority rather on the influence of rank and wealth than on popular institutions, relied for their position on the labour of a rural multitude which, scarcely issuing from the trammels of feudal serfdom, was too helpless and ignorant to exact higher wages than were barely sufficient for the most wretched existence. Chili was for many years an agricultural country. The exportation of wheat and flour, which hardly amounted to anything before the year 1848, and gave no encouraging results up to 1852, advanced with great strides upon the discovery of gold in California, grain to the amount of $2,000,000 to $4,000,000 yearly being supplied by this country to the swarms of adventurers who rushed to "the diggings." California, however, soon grew grain of her own, or looked for provisions nearer home; and then, from 1853 to 1859, the Chilian corn trade found a market in the new goldfields of Australia, where the same crowds of homeless strangers had to be fed by importation from what happened to be the nearest and most convenient bread-growing country. In 1855 Chili exported to Australia wheat and flour to the amount of half a million sterling. But Australia also soon supplied its wants from other sources, and then the best customer for Chilian breadstuffs was Peru, a country the population of which, engaged in mining enterprise and in the trade of guano, was unable to subsist on the produce of its own soil. Till very lately Peru bought corn from her Chilian neighbour to the amount of two millions of dollars yearly; but upon the outbreak of the present war that trade came to an end, and now Chili has no other market to look to for the sale of her cereals than that of the all-absorbing trader, Great Britain. The exportation of Chilian grain to England, which only began in 1861, and amounted to a value of $769,366, had risen to more than $6,000,000 in 1874, having thus increased eightfold. Years of bad harvest ensued; but now this country is again looking up, and there is no doubt that her trade would revive could Chili supply corn at sufficiently low prices to stand the brunt of Russian and North American competition. For their ability to stand their ground against the world in that respect the Chilian landowners relied on cheap labour; and up to 1870, as we learn from Consul W. Taylour Thomson, in his report of that year, the

wages of agricultural labourers were no higher than from 9d. to 11d. But the Chilian peasantry, however helpless and ignorant, well knew that they could better their condition and aspire to higher wages if they deserted their masters' fields for the mines of their own country, and still more for the guano beds and nitrate grounds of neighbouring States. A constant tide of emigration ensued, first from the central or mainly agricultural division of the country to the mines in the northern provinces of Copiapo and Coquimbo, then to those of the Atacama Desert on the frontier, and beyond that to the Caracoles silver mines, in the Bolivian district of Antofagasto, and to the guano beds and nitrate grounds of the province of Tarapaca, in Peru. Whatever hard work in this latter country exceeded the strength of the Indians, the Chinese, or the negroes, was willingly taken up by the Chilians, who bore a hand in all industrial and trading enterprise. And one of the arguments urged by Chilian politicians in support of their claims to the final occupation of those Bolivian and Peruvian territories of Antofagasto and Tarapaca lies in the fact, in itself undeniable, that those districts are, and have been for years, almost exclusively inhabited, indeed colonized, by Chilian immigrants. To the exertions of these men, aided in a great measure by Chilian capital, Peru and Bolivia, say the Chilians, are indebted for great gains, in return for which those useful colonists were taxed, and vexed, and illtreated.

Without expressing any opinion as to the reason and justice of these complaints and pretensions, or feeling any desire to settle the difference between the two countries, which is only too likely to be the ruin of both, one may from past experience glance at the consequences the conquest and ownership of the disputed territories would have for Chili for the future, were even those territories to come into their hands without any further exertion or sacrifice on their part. Chili was, up to recent times, above all things, an agricultural country. In 1865 there were 113,681 men engaged in field work against 23,625 labouring in the mines. These proportions had been maintained in 1875, when the census gave 173,476 agriculturists and 29,003 miners. Nevertheless, in that same year the mining produce still exceeded in value that of the produce of agriculture; the former amounting to 16,506,436 dollars, the latter only to 15,933,469 dollars; the former being 45·17, the latter only 43·60 per cent. of the general export of the country. In 1878 the mineral produce exported was valued at 17,525,866 dollars; the agricultural had fallen to 8,673,561 dollars. This diminution in agricultural exports may have been owing to bad harvests, and later years may give more satisfactory results, as the first nine months of 1879 gave 7,432,042 dollars of agricultural against 8,371,437 dollars of mineral produce. It may also be said that it little matters, so long as a country is rich, whether its wealth springs from field labour or mining industry or any other sources. But the question is whether or not Chili has been really growing rich. The revenue, it is true, has expanded from a little more than two million dollars to something like 14 or 15 million dollars in 40 years (1835-74). The "special trade" of the country (the imports and exports of real produce properly so called) taken together have risen from 14 to 74 million dollars in 30 years (1844-74). But there has been lately a serious disproportion between the imports and the exports. Taking, for instance, from the total exports for 1874 the foreign goods re-exported, and the export of Chilian coin and bank-notes, it results that the real exports only amount to 32,758,626 dollars, and the imports to 38,407,729 dollars; the latter exceeding the former by 5,649,103. Under a fair appearance of great prosperity, therefore, it would seem that the balance of trade has of late years been against Chili, and had to be made up for by an export of specie to the amount of several millions of dollars yearly.

Mr. Rumbold, formerly Her Majesty's Minister in Chili, and a sincere wellwisher to the country and people, in his very able report published in 1875, very justly ascribes these unfavourable conditions of the Chilian trade to the luxury and extravagance of the wealthier classes of Santiago and other cities, who, although otherwise deserving high praises for their management of the affairs of State which they almost monopolize, give both in their private and in the public expenditure the example of a reckless lavishness which the lower orders are only too ready to follow. The great landed aristocracy in Chili spend too much; but, what is worse, they do not get out of their properties as large incomes as they could easily be made to yield. The bane of the country seems to lie in those enormously large estates, those *latifundia*, which, according to Pliny, were equally the ruin of ancient Italy. Three great proprietors, it was said, a few years ago, owned between them all the land from Valparaiso to Santiago, a tract of country extending over 80 or 90 miles in length. Owing to some recent modification in the law of succession, the land is being divided, and it is calculated that there are in Chili 17,202 estates, averaging a yearly income of £20 each. Many of these estates are, however, in a few hands, and the great proprietors residing in Santiago let them out in nine years' leases to rich tenants, who are to them what the *mercanti di Campagna* are to the Roman princes, and have often more land in hand than they are able or willing to attend to. The real burden of the cultivation falls upon the *inquilinos* or under-farmers, many of whom are only poor cottagers paying by forced labour, or *corvée*, for the rent of their poor tenements and for a few acres that are doled out to them for their yearly crops, and receiving scanty wages for any extra work that may be required of them. The condition of the lower class of these *inquilinos* is, or was till lately, described as worse in some respects than that of Russian serfs; but it may be said to be enviable if compared with that of the *peons*, or mere labourers, a houseless set of men who roam from farm to farm in quest of a job and who must put up with any remuneration that may enable them to keep soul and body together. That a peasantry thus struggling with sore want should leave the country in great numbers would be only too natural; and no one will be surprised to hear that their emigration averages 8,000 a year, and reaches in bad times as many as 30,000 in one year. In the Bolivian district of Antofagasto the Chilian labourers make up 93 per cent. of the population; and altogether it is reckoned that 75,000 Chilian subjects of this class are now abroad. This out of a population of little above 2,000,000, in a country of which the cultivable land amounts to 792,000,000 decamètres, of which only 61 millions, or one-thirteenth, are under cultivation.

I have as yet seen little of the country besides what lies between Valparaiso and Santiago, along the beautiful valley of the Quillota; and I think I can bear witness to the backward and slovenly methods on which the operations of husbandry are here conducted. Large tracts of the level lands along the rivers, enjoying the benefit of a perennial but not very plentiful irrigation, are periodically allowed to lie fallow from year to year, never receiving any manure. The rest of the country, hill and plain, is parched and burnt by a drought which runs through the five or six summer months, and not unfrequently extends to nine months. The improvident Chilians, like their Spanish forefathers, like the Greeks, the Italians, and other southern people, have suffered never a stick of a tree to stand, and never suffer one to grow. Lately some rows of Lombardy poplars and a few weeping willows have been planted along the streams, the roads, and the borders of fields and gardens in the plain; but the whole mountain mass from the skirts to the summits is bare and desolate. Yet there is no doubt that the mountains are not here, as in Peru, mere barren rock, that a large part of the soil was once, and not many ages ago, clothed with deep forest; and it is equally certain that by

a little help to nature, or by simply allowing her to have her own way, the same green mantle would again cover all that nakedness, and the dryness which is here so general a subject of complaint, and which has made so fearful a progress within living men's recollection, would gradually be tempered by a blissful moisture, not only saving such crops as are now frequently withering on the fields, but giving the look of the country and the climate that beauty and freshness which caused the early settlers to hail Chili as an earthly paradise. Even such an Eden, I am told, I could easily find by a few days' excursion as far south as Valdivia.

SOUTH CHILI.

(FROM OUR SPECIAL CORRESPONDENT.)

VALDIVIA, JAN. 30.

It will be difficult for English readers to conceive how a traveller may undertake a journey solely in quest of rain. But imagine a poor wight who has seen the West Indies flooded, and crossed the Isthmus of Panama in a deluge, and just escaped drowning in a tropical shower at Guayaquil in Ecuador; fancy this same man steaming along the coasts of Peru and Chili for four or five thousand miles, stopping at Callao and Lima, at Valparaiso and Santiago for two or three months, and there becoming utterly parched and asphyxiated in a perpetual drought, and you will feel that in such a strange and violent transition he must either die a mad dog's death or move on to regions where himself and the earth may have the chance of a refreshing drop. In Peru from Payta to Arica, and in Chili from the desert of Atacama to the mouth of the Bio-Bio at Concepcion, the world is thus athirst throughout summer and winter. The wanderer is deceitfully urged on from north to south; he is tempted to venture inland up the Oroya line, up the Puno line of railway, to this or that top of the Andes, with vague assurances that he will at last come in for the needful moisture; but all his expectations are doomed to disappointment; the country exhibits everywhere the same forbidding, arid aspect; the harvest is equally burnt up in every field; the coast is all along swept over by the same icy winds from the South Pole, driving the vapours of 7,000 miles of Pacific Ocean across the Cordillera to drench the broad lands of Brazil and the River Plate with fertilizing streams, leaving you and the whole western slope in the plight of the Ancient Mariner, with a boundless sea before you, and "water, water everywhere, but not a drop to drink."

At Concepcion, at last, upon leaving the steamer at its port of Talcahuano, after a two days' voyage from Valparaiso, I rose in the morning and found the land soaked with the night dew and the atmosphere fresh with a dampness which at once made me feel like a bird released from the torture of a vacuum in an air-pump. I crossed the Bio-Bio, drove down across country from Concepcion to Lota, and at this latter place re-embarked in a regular English downpour. Two days later I landed at Corral, at the mouth of Valdivia Water; went up that beautiful estuary, the verdure of which reminded me of Guayaquil or Southampton Water; then went back to Corral; continued my voyage to Ancud, in the island of Chiloe, and hence threaded the Chacao Canal up to Port Monte, reaching thus the goal in my southern course, and here I heard people complaining that "they had had nothing but rain, rain, rain since the 1st of November, and for the last three weeks they had not had one day's respite from the incessant downpour." "*Tout comme chez nous,*" I exclaimed, and had since water more than to my heart's desire.

The effects of the change were soon perceptible. They could be seen at Concepcion in a magnificent *Alameda*, an avenue a mile long, with six rows of Lombardy poplars, the like of which one could hardly fall in with in their own native plain from Milan to Bologna; better seen at Lota, where Madame Cousiño, amid the thousand glowing fires, the dust, and smoke of her copper-smelting furnaces, coal mines, and potteries, has coaxed up a wonder of a park and garden unmatched in the New World, and hardly surpassed in the Old, for beauty of position or richness of vegetation, by Miramar at Trieste; finally, best seen at Valdivia, an interesting spot placed at the confluence of three rivers—Rio Cruces, Rio Calle-Calle, and Rio Futa—where, on a little isle facing the town, you can visit the villa and grounds of Mr. Prochelle, the German Consul, adjoining a large tannery and brewery, yet boasting a view of land and water something like what you may remember having seen at some of the most famous Swiss or Italian lakes.

To explain how it is that at a degree of latitude corresponding to that of Rome and Naples South Chili enjoys the blessings of a thorough English climate, while north of Concepcion both Chili and Peru endure the horrors of an African desert, one has only to cast a look at this continent. All the plague of the Chilian and Peruvian drought simply arises from the chill south wind to which the coast is constantly exposed. As between the coast of South Chili and the ocean a whole archipelago of islands from Tierra del Fuego to the isle of Chiloe interposes, this southern region is not only free from the blast of the all-blighting wind, but receives also those vivifying damp vapours which further north are wafted by the wind across the Andean chain.

South Chili, moreover, consisting of the three provinces of Valdivia, Llanquihué, and Chiloe, is separated from the rest of the country by the Araucanian region, a district of land never thoroughly subjugated by the Spaniards, and still inhabited by wild Indian tribes, mustering, it is said, 70,000 souls, who not only do not acknowledge the sway of the Chilian Republic, but maintain against it so hostile an attitude as to make any journey by land from the province of Concepcion to that of Valdivia a difficult and somewhat dangerous undertaking. The consequence is that this southern part of the Chilian mainland was for a long time only dotted with a few sparse settlements on the coast; the inland country was to a great extent unexplored and its virgin forest untouched; and I need not say how wonderfully the foliage of vast tracts of woodland influences the heat and moisture of the atmosphere, and how much it contributes to the soundness and beauty of the country and healthiness of the climate. It is but lately that some life has been given to small strips of this land by the influx of German and other foreign colonists; but the Chilian Government, which had first favoured their immigration, shows now some jealousy and dread of their too rapid increase; so that both the progress and prospects of these settlements have lately been by no means satisfactory.

I am not sure that the country is not in some respects all the better for that. It is a region as yet mainly in a state of nature. Primeval forests spread like a pall over vast tracts of mountain and plain, the verdure of dense foliage coming down everywhere from the hill summits to the water's edge. Though the chief article of export is timber, though the settlers have here and there cleared the ground by the axe, and more often by fire, man's work seems hitherto scarcely to have altered the earth's surface, and to have left as little mark upon it as it would on the ocean. Between the havoc of the woodman and the recuperative forces of the soil there is still a strife of doubtful issue. The field that has been stripped and tilled this year sprouts up with new growth next year, or the next

after that, as it lies fallow, and, were man to slacken in his exertions, every trace of his furrows and of his very habitation would be immediately overrun and obliterated, just as whole cities about the Isthmus of Panama and throughout Central America have disappeared and the country has to be re-discovered.

Anything more like an untrodden and inviolate Paradise than the entrance into Valdivia Water and the windings and turnings of the channels between Ancud and Port Monte I scarcely remember having ever beheld. Nothing could equal the luxuriancy of the verdure or the brilliancy and variety of the wild flowers along the placid waters of those land-locked bays and sounds; nothing could surpass the grandeur and majesty of the Cordillera as it opened before us, where the Ancud Gulf expanded, and revealed the chain in all its length, rising sheer from the waves, a dark green wall-like mass, with its peaks, the volcanoes of Orsono and Calbuco, the *Tronador*, or Thunderer, the Mount Yate, and other great cones or pyramids of snow floating in their baths of clouds half-way up into heaven.

We made a short stay at Port Monte, a town of 3,000 inhabitants, now in the 22d year of its existence, then turned back, by land, on our northward journey. We came by a three hours' drive to Puerto Varas, on the broad Lake of Llanquihué; here we took to the saddle and rode round the lake to Puerto Octay, whence our route lay through Osorno, La Union, and Los Olmos, back to Valdivia.

It was an easy, leisurely six days' ride, delightful throughout. Over indifferent and here and there disastrous roads; mounted on small, but strong nags, of the old Andalusian breed, marvellously sure-footed, clever, and thoroughly good-tempered and obedient; halting at hotels or farm-houses, where the fare was wholesome if not dainty, the choice lying between the German *sauer-kraut* and the Chilian *cazuela*, or *olla*; where the accommodation was homely, but not very unclean, and the charges seldom extortionate; and the greatest drawback was at the German houses where club festivities were held, and where the crash of the trombone, the bassoon, and the big drum, and the rattle of beer flasks and beer *choppen* broke in upon such rest as one might find within cramping procrustean bedsteads and under smothering *plumeaux*—making night hideous and never allowing us to lose consciousness of the cruel fact that we had to get up at daybreak for an early start on the morrow. Taking the good with the bad, however, we thus got over the 60 leagues distance, "roughing it" somewhat less than we should have had to do over an equal tract of Spanish or Italian ground.

The lake, or "lagoon," as they call it, of Llanquihué is about 33 miles both in length and width, and is crossed once a week by a little steamer which accomplishes the voyage in four or five hours from Port Varas to Port Octay. But on the day we got there the captain chanced to have taken to himself a wife, and did not light up his fires. Besides, as I said, we preferred a land journey on horseback along the western shore of the lake, which took us two days. It is a beautiful, smooth, and limpid sheet of water, without an isle or rock or speck on its blue surface; but its shores are all cut out into deep bays and creeks and hilly headlands, which compelled us to long windings and turnings over woody paths, affording an endless variety of charming views of the water and of the Andean chain on the eastern bank, its snowy volcanic summits blushing with the loveliest tints at sunset. Further north, had time allowed, we might have gone from lake to lake for hundreds of leagues, to Lake Puyehue, Lake Rauco, Lake Huahue, Lake Cafalquen, and Lake Villa Rica,—the last an old, sacred spot to the indigenous races—all uninhabited, and only seldom trodden by a few Patagonian Indians, who venture across the Cordillera, and are occasionally to be met with, grim, tall, and stalwart, dishevelled and fierce-looking, but inoffensive, at the market-places of Port Octay and Osorno, or at some of the inns or *ranchos*, labourers' huts, by the roadside. A journey along those waters, which stretch on a long row parallel to the mountain chain, and from which spring most of the rivers of this verdant region, would be most charming and perfectly safe; but has, I believe, seldom, if ever, been attempted by white men.

Round the bays of Lake Llanquihué to Port Octay we passed the clearings of native and foreign settlers scattered at long intervals over the vast virgin forest. Hour after hour and day after day we went through the midst of tall, straight timber, shooting up to the sky in glorious clusters, opening into vistas solemn as the aisles of some grand Gothic minster, under a canopy of foliage, through which the sun's rays vainly struggled to reach us, under which swarms of screeching green parrots had their homes, over bogs where our horses plunged to their breasts into deep mud, over felled timber where they had to skip and scramble, and through glades where the trees had been burnt or barked or girdled, and stood up in the gloaming, raising their bare branches to the sky and looming like huge phantoms in the moonlight.

From Port Octay, inland, to Osorno, La Union, and further on, we came to an almost level undulating region, where the clearings became more extensive, the farms were larger and better trimmed, and the cattle roamed over richer pastures; and it was only between La Union and Los Olmos, and from Los Olmos to Valdivia that we had to pass lofty ridges, beyond which we came down the valley of the Futa to the last-named place, our journey's end.

At Osorno, at La Union, as at Calbuco, Port Monte, and other towns, more than half the population are Germans, mostly traders, a great number of whom consist of the offscouring of the population of Hamburg and other cities, with a few peasants from the Rhine and the Black Forest, who came here in a state of utter destitution, but by infinite thrift and patience scraped together some money, which they lodge in the savings-banks of Valparaiso, or invest in land, which the native Chilian labourers are fain to cultivate for these strangers' benefit on half profits. Large fortunes are very unfrequently made here, for the land is said by the natives not to be very fertile (though much of it seemed to us particularly good), and little is exported besides timber; grain, to the extent of 40,000 *fanegas*, or metric quintals, yearly from Osorno, and 72,000 from Valdivia; a little cattle, but more *charquie*, or dried meat; excellent hides for shoe-leather, the whole of which finds its way to Germany and Russia; and that Valdivian beer and lager beer, for which there is a very considerable demand throughout Chili and Peru. Labour is cheap, yet somewhat scarce. A field labourer seldom gets more than 10d. to 15d. a day, for the peasantry, unlike that of North Chili, are seldom tempted to emigrate by the higher wages offered at the mines, rooted as they are by their strong attachment to their native soil and to their damp, but healthy, invigorating climate. In harvest time the "hands" are inadequate to the work, and thousands of peasants from the island and province of Chiloe come up with their sickles and spread about the farms all over the country. These men are here looked upon as strangers; they are called *Chilotes* and not *Chilenos* (Chiloans instead of Chilians), because in Spanish times Chiloe, the island, and all the mainland down to the strait, belonged to the viceroyalty of Peru, and was only annexed to Chili upon the emancipation and reconstitution of the two Republics.

In spite of the climate, the only climate on the Pacific coast of South America in which men from northern Europe, and especially from Germany and England, could live and thrive and feel thoroughly at home, and in spite of the beauty and bounty of the land, immigration into this or any other part of Chili has not been of late by any means brisk for a variety of reasons. The presence of the German

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settlers, which was at first hailed as a blessing, seems now, as I said, to cause some uneasiness to the Government, who conceive that these colonists, cut off from the main bulk of the State by the Araucanian savage districts, and living among themselves, with little intercourse and very rare intermarriage with the scanty Chilian population, may at some time become so numerous and powerful as to prove stubborn and unmanageable. "No objection," it is said, "might be raised against these Germans, if they were to spread equally over the whole country and merge into its people; but, crowded as they are in an out-of-the-way separate nook and corner, where they constitute the majority, either they—or Prince Bismarck for them—might harbour designs tending to shake off their allegiance and jeopardizing the integrity of the Chilian commonwealth." Under such vague and silly apprehensions, the Government has been less liberal in its encouragement to these foreigners, and has discontinued those grants of land and pecuniary aids by which the tide of immigration was originally induced to set in. Land, such as it is, is, however, to be had on cheap terms. Mr. Dartnell, of Port Monte, lately bought at Nochaco, near Port Octay, for $1,000, an estate of 4,000 *quadras* (a *quadra* equal to four acres), on which he feeds 1,200 of the finest cattle, though only a few acres of his land are yet cleared. Mr. Christie, also of Port Monte, owns at Desaque, on Lake Llanquihué, a farm of 1,000 *quadras*, which only cost $1,000. A young Englishman whom I met at La Union, Mr. Richards, has just bought in that neighbourhood land to the same extent for $900; always at the rate of less than $1 per acre. These gentlemen unanimously declare themselves fully satisfied with their purchases, and have no doubt they will be able to turn them to good purpose, if they can obtain any improvement in the means of communication; for the great length of the voyage from Europe and the United States, the total ignorance of the world as to the capabilities of this backward region, and the scantiness of capital, of intelligence, and energy hitherto applied to it, have been fatal to the development of public works; the roads are almost impassable even for bullock carts; bridges are few, and the navigation of such streams as the Rio Bueno, Rio Negro, and others, owing to sandy bars at their mouths, is slow and troublesome. Still, the greatest objection to life in this blessed region is its dulness, which strikes an educated Englishman as unendurable, though the less fastidious German more readily accommodates himself to it. The mails only come in once a fortnight, and the European news they bring is never less than two months old. A telegraphic line is, I am told, being constructed, but is not yet in working order. There is nothing to break the sameness of the days besides the excitement created by the arrival of the bi-monthly steamer. And "the rain, it raineth every day" for nine months in the year, and as this is an "extraordinary" or "exceptional" season (as people always say everywhere when the weather is particularly bad), the harvest here will be lost from the incessant wet, as it will perish in the north from perpetual drought. The Germans drink beer and smoke and have their singing clubs in every town and their piano in every cottage, and they breed patriarchal families and rear them and grow fat, and they work and some of them make money. The Chilians, an issue of the Spanish stock, run also into the extreme of obesity when they are not absolutely mere skin and bone. A good housewife at Ancud, in the island of Chiloe, was telling us, "Here we are all fat; we cannot help fattening, we must fatten." And she certainly had done her duty in that respect. She was herself so heavy as to be hardly able to move, and she had about her half-a-dozen fat daughters, of ages between 6 and 12, who all sat demurely on easy chairs round the room, saying nothing, doing nothing, with arms crossed on their stomachs, like China Mandarins, all as motionless as the geese in Alsace nursing their *foie gras* with feet nailed to the floor. We might, indeed, have doubted whether they were gifted with any power of locomotion had not presently the oldest and stoutest of the lot, a girl of 14, evidently the mother's pride, waddled in, a very Arthur Orton in petticoats, making at once for a vacant chair, and plumping down upon it, with arms folded on her stomach like the rest—a prize animal who would have gained a gold medal at any cattle fair in the fen districts of Lincolnshire.

The Chilians, as a rule, do not thrive in their country as the Germans and other strangers that settle among them, and they would be more than men if they did not harbour some envy and jealousy. Their families are also prodigiously numerous, but, whatever the cause may be, the mortality among them is very great. They are an indolent and unthrifty set of men, and either in their domestic or social capacity they seem not to know what to do with themselves. The young men in the towns have no other enjoyment than galloping full speed up and down the empty streets. They all seem to have horses; all go at a great pace as if they had business of life and death, but the truth is that in the town itself, even when they live in it, business they have none. The work falling to the lot of the native population is, as I said, chiefly agricultural. For many hours of the day and for the livelong night a town in South Chili is as lonely as the primeval forest out of which it has been cut. Nothing can be more dismal, expressive, and dispiriting than the still life of those dreary streets one mile long, those grass-grown squares four acres wide, all in straight lines and right angles, all silent as if plague-stricken.

And yet this South Chili, this semi-German detached and almost forsaken appendix of the Chilian Republic, where pure Castilian is as barbarously murdered as the Queen's English is in Yankeeland, is a blessed region, and could hardly fail to become a flourishing province if some pains were taken to facilitate its intercourse with the rest of the country and with the whole world. For, as I have said, between these southern districts and Northern Chili the Araucanian independent tribes intervene, across whose territory there is hardly any practicable and absolutely no safe way. The subjugation, dispersion, or annihilation of these troublesome savages would be no very arduous undertaking; and it could be speedily accomplished by simply running the railway which already extends from Santiago to Angol, Los Angeles, and Concepcion, across what is called the Province of Arauco to Valdivia, and hence to Port Monte. There is no doubt that the line would pay, as all Chilian lines, unlike the Peruvian ones, do pay; no doubt that by this line of communication these three southern provinces or colonies would rise to a new and happy existence. Every one here says so; the Government feels and acknowledges the expediency, and, indeed, the necessity of the enterprise. But the work has been put off from year to year, till the war—this stupid war for which 30 schools were shut up for want of Government patronage in the district of Osorno alone—broke out, and the iron which would have supplied the rails has been forged into sword blades, and instead of coal for the locomotive gunpowder is being burnt—burnt to little purpose too, for the war hangs fire, and no one here knows how military operations may be carried on or how pacific negotiations are to begin. The Chilians, it is true, have got Tarapaca and Antofagasto, all they wished for, in their hands, and they feel confident that the possession of those territories will make their Republic "the richest State in South America." But, even supposing that they are not "counting their chickens before they are hatched," it is questionable whether all the guano and nitrate of those districts which have been the bone of contention will in the long run be productive of more wealth to this Republic

than would have accrued to it by a railway which should turn to profit the waste lands on which the Araucanians have their hunting-grounds, and which should rescue the three provinces of Valdivia, Llanquihué, and Chiloe from the dull, stagnant life to which want of communication dooms them.

Chili reminds us of the dog that drops the meat to run after its shadow. Although the Germans are a loyal people and strongly attached to their adopted country, so that they are said to be more Chilian than the Chilians themselves; although, consequently, any mistrust the Chilians may harbour of the allegiance of these settlers would be unreasonable and ungenerous, still, no one can say to what extremes the most peaceful and long-suffering men may be driven by a constant systematic neglect of their just claims and disregard of their vital interests.

It is, meanwhile, somewhat remarkable, and may be taken as a sign of the disposition of these German settlers at the present juncture, that scarcely any of their youths have enlisted as volunteers for that Peruvian war which was and is so popular throughout North Chili—a fact of no little significance if we bear in mind the martial instincts of all German races, and if we recall to memory the active and decisive part the German colonists, both of the Eastern and Western States, bore in the great Secession contest of the North American Union.

THE CITIES OF THE PLATE.

(FROM OUR SPECIAL CORRESPONDENT.)

When a man crosses the Atlantic on a visit to America, whether he turn to the North or South, he is sure to see big things—big mountains, big rivers, big prairies, a big creation with bigger men, big nations, big cities. Very big places are Montevideo and Buenos Ayres, the two principal cities of the River Plate. They have not reached the dimensions of New York or Cincinnati; they have not grown at so rapid a rate as San Francisco or portentous Chicago. But their frog-like aspirations to swell up to the size of those Yankee oxen have been eager and active, and it may be worth while to inquire how near they have got to their goal, and to know what circumstances have stood in the way of the full attainment of their object.

Montevideo and Buenos Ayres both lie on the estuary of the Plate, at a distance of about 120 miles; the former near the mouth, on the northern; the latter more inland, on the southern shore. The steamers plying between the two places every night accomplish the voyage in 10 to 12 hours. The River Plate, or Rio de la Plata (so called because it was thought to be the highway to rich silver mines), is an estuary formed by the meeting of two great rivers—the Uruguay and the Parana, which, with their many tributaries, bring down to the Atlantic the waters of the Plate region—i.e., of little less than half the continent of South America; a large watercourse, second only to that of the Amazon, which drains the other half of the same continent, and which flows into the same ocean 2,000 miles to the north of the Plate. The mouth of the Plate, however, is considerably wider than that of the Amazon itself. There are 150 miles between Cape Santa Maria and Cape San Antonio—the two headlands at its opening—and there is about the same distance from this opening to the cluster of isles near the confluence of the two rivers, where the estuary begins, the Plate being thus as long as it is wide.

The whole of the Plate region, with all to the west and south of it, belonged in former times to Spain, the boundaries of whose colonies, with the Portuguese possessions of Brazil, had never been even approximately traced. There was on this the eastern side of the Andes a Spanish Viceroyalty of the Plate, with the seat of government at Buenos Ayres, as there was on the other, or western side, a Viceroyalty of Peru, embracing all Chili down to Cape Horn, with the capital at Lima. On the expulsion of the Spaniards, in the early part of this century, the Plate country split up into various territories, parts of which are now known as Bolivia, Paraguay, and Uruguay; but the great bulk of it constitutes the Argentine Republic—a confederacy of 14 provinces or states, of which Buenos Ayres is still the head. A portion of the land lying between the Uruguay and the sea, and bordering on Brazil in the north, became an independent, separate State under the name of Republica Oriental del Uruguay, and Montevideo was made its capital. The Argentine Republic, in its present limits, has an area exceeding half a million square miles, with a population of more than two millions. The Republic of Uruguay is only 73,000 square miles in extent, with between 400,000 and 500,000 inhabitants. These statistics, however, do not exactly agree with official measurements; for the claims of these South American States always encroach upon each other's boundaries, and are circumscribed within no definite lines. If we accept official statements, the area of the Argentine Republic is 4,195,500 kilomètres—*i.e.*, nearly eight times as large as France; while Uruguay is only about two-thirds the size of Italy. That there may be room for half mankind on the Plate, however, is hardly an exaggeration, and the question is, not as to the vastness of space the region possesses, but as to the chances its various States may have to fill it, and as to their ability to turn it to the best purposes.

Montevideo has the advantage of a magnificent position. It is built on a little tongue of land jutting out into the sea, and swept over by its breezes, rising between two bays or coves, one of which, on the eastern, or left side as one approaches the land, constitutes the harbour, the shore which encircles it measuring about six miles, and terminating with the Cerro or Monte—an isolated hill, 450ft. high, which gave the name to the city. This hill, shaped like a squat pyramid with broad sides, is crowned at the top with an old fort, which, whatever importance it may have had in Spanish times, belongs now to that category of strongholds which the Italians call *da pomi cotti*—*i.e.*, to be easily battered down with baked apples. Montevideo is a handsome, well-built, and tolerably well-paved town, and ought to be also well drained; for its main line of thoroughfares runs from end to end along a high level ridge, from which transversal streets have an easy slope to the sea on three sides. The sight from the harbour or the Cerro is pleasing, but not picturesque nor imposing. The city boasts two broad squares, the Plaza de la Constitucion and de la Independencia, and a magnificently broad street, Calle del 18 Julio (the custom here, as elsewhere, being to perpetuate the dates of great historical events by applying them as names to favourite localities); but, for the rest, Montevideo is like most other South American towns; very large, with straight streets, and broad squares, all laid out at right angles, with low, flat-roofed houses and tall *miradors*, or watch-towers or terraces, with nothing original or remarkable as to the beauty of its public buildings; but with elegance, if not taste, in its private dwellings; a profusion of Italian marble about its halls, courts, and staircases, and no end of luxury in the storing of its shops and the furnishing of its apartments.

The vastness of the town seems out of all proportion to the number of the inhabitants; and it would make the place uncomfortable, if not uninhabitable, were it not for its net of eight lines of tramways plying along every street, and reaching out five or six miles to its straggling suburbs in every direction; and so monopolizing all traffic as to have driven most of the private carriages and nearly all the hackney coaches from the thorough-

fares. The city has good hotels, clubs, and sea-baths, and a renowned Solis theatre. It exhibits all the appearance of a highly-flourishing city, though the people, here, as at Valparaiso and Santiago, complain of "hard times." Montevideo is out of all proportion with the State that belongs to it; an overgrown head on a dwarfish body, like some of the figures in *Punch's* caricatures; the capital absorbs more than one-fifth of the population of the whole country (105,000 out of 450,000), and its great and sudden development (from 3,500 souls in 1818, and 9,000 in 1829, to 105,000 in the city, or 127,000 including the environs, in 1872) was in some measure owing to the enormous gains and speculations made by its merchants and contractors during the Paraguayan war (1864 to 1870), when the cities of the Plate, and especially Montevideo, became the head-quarters of the Brazilian army and fleet. Subsequently this artificial prosperity, this tendency to over-trading, over-building, and general extravagance, were fostered by a very active smuggling trade carried on across the Brazilian frontier, where high protective duties made that unlawful business more profitable than any honest occupation. Peace being made, and Brazilian duties being reduced, at least on the frontier provinces of the Empire, contraband diminished, and Montevideo was brought down to its natural resources, which, as we shall see, are yet sufficiently large. But many of the shoddy speculators and upstarts were broken, and so rapid was their disappearance that the value of house property in the town and of villa residence in the pleasant suburbs has, I am told, sunk to about one-fourth or fifth of what it was a few years since. Signs of actual distress are, however, nowhere apparent. Uruguay is, I believe, the only State in South America in which no depreciated paper money circulates. It is a State in which hardly a shade of negro or Red Indian blood is anywhere visible, and a State in which mendicancy is utterly unknown; though for that matter such is the case throughout South America, nothing having struck me so agreeably as the almost total absence of beggars even in the most squalid purlieus of the Peruvian cities.

Had Uruguay never been separated from the Argentine Republic, or were a re-union of the two States still possible, a rise of Montevideo to the utmost importance, perhaps to some extent at the expense of Buenos Ayres, would be an inevitable consequence. Montevideo, as Mr. Edwin Clark tells us, is the real and the only seaport of the Plate; somewhat exposed to southerly winds, so that landing in boats in rough weather is neither an agreeable nor a very safe undertaking; but the depth of water even near the town is sufficient for the construction of good piers and wharves, and at the other end of the bay, under the Cerro, Messrs. Cibils and Son have built at an outlay of $2,000,000 a good granite dock or *digue*, which, with all the rest of the harbour, only awaits better times to become remunerative. In the opinion of the above-named distinguished engineer, this harbour might at a moderate cost become a maritime centre worthy of the trade of this enormous river system, "all the trade of the great rivers, with all the inland districts and the southern provinces of Brazil, having no other outlet."

Far different are the conditions of Buenos Ayres, and it is difficult to understand what may have induced Don Pedro de Mendoza, in 1535, to choose that spot for the seat of government and for the centre of business of the whole region of the Plate. Whatever may have been the state of the estuary at that epoch, or earlier, when Diaz de Solis first entered it in 1514, or when Sebastian Cabot explored it in 1527, it has been in later years and is now so rapidly filling up with silting sands and with the deposit of the great rivers, that large steamers like those of the Royal Mail and Pacific Companies are compelled to anchor out in the river at the distance of ten or 12 miles from Buenos Ayres, and even the river steamers, tugs and tenders, and the smallest boats cannot, at low water, approach the Custom-house pier; so that passengers and goods have to be transferred to and landed in high-wheeled carts drawn by horses, some of which are not unfrequently drowned in the clumsy operation. It is thus reckoned that the cost of landing a cargo at Buenos Ayres is almost higher than the freight paid for the conveyance of the same merchandise all the way across the Atlantic from Liverpool.

A remedy for this serious and growing evil has been sought in some schemes by which a harbour for Buenos Ayres should be constructed at the Boca del Riachuelo, or Mouth of the Creek, near the city, or at Punta Lara and Ensenada, two spots connected with it by rail, about 30 miles down the river, where the Government has some thought of establishing its naval station. But the expense necessary for the construction and maintenance of such a port would be enormous, and even the most sanguine partisans of such projects are alarmed at the constant progress of the sands throughout the estuary, as many of the channels through which it was, a few years ago, easy to row and steam from isle to isle along the delta of the Parana have been choked up and swamped so as to be now impassable. The fate of Ravenna in the middle ages, and that which awaits Venice in our own days, seems equally to threaten Buenos Ayres. The sea is fast receding from it, and will leave it like the helpless hulk of a wrecked ship, high and dry and sand-whelmed on the shore.

A city, however, does not live on foreign trade alone or on maritime enterprise. Buenos Ayres has immense resources in the boundless territory in its rear, and must always be the capital of half a continent. As a seat of Government and a centre of social life, this city has been for three centuries and a half the favourite residence of those great landowners among whom in Spanish times the country was parcelled out. These *estancieros*, or holders of *estancias* (as estates are here called), like the *hacendados*, or holders of *haciendas* in Chili, had attained great wealth and exercised a corresponding influence previous to the emancipation of the Republic; and although the civil laws about inheritance at the present day tend to the rapid division and subdivision of property at every new generation, not a few of these wealthy men are still well off, and these with the bankers, merchants, and minor traders ministering to their wants will always constitute a nucleus of thriving population, which, like that of Santiago in Chili and other inland capitals, may maintain its lustre without relying for its importance on the advantages of a seaport. I had been told before I came here that I should find in Buenos Ayres "a city four times as large as Montevideo." And so it may be admitted to be, not as to population (though it is now supposed to have reached 250,000, including the suburbs), nor exactly as to area (though the town alone, without the suburbs, covers 2,000 square acres; for its streets are narrower than those of Montevideo, and space is of little account in these new regions), but as to life and movement; for Buenos Ayres has decidedly more stir and bustle, more wealth in the shops, more style and grandeur in some of its edifices—in short, higher pretensions to the rank of a great capital, not only than Montevideo, but than Lima and Santiago, and perhaps than any city in South America, Rio Janeiro alone excepted. But Buenos Ayres, though a new-looking, is an old city, and has many of the inconveniences, without any of the charms of quaintness and originality which age imparts to all it touches in the Old World. There is hardly a wide street in the town—the largest, Calle de Rivadavia, hardly comes up to the width of the Corso at Rome, and like that famous thoroughfare it has such narrow footpaths or side-walks as in many places hardly allow two persons to pass one another or to walk side by side. In that and in most other streets the pavement is the roughest and hardest, the most dila-

pidated and broken up, the most slippery and treacherous, and murderous to man and beast, that I ever trod upon even in Turkey or in Spain itself, and the yard or two of footpath rises and sinks with every inequality in the ground, in many ups and downs compelling a pedestrian to incessant jumps over awkward steps and along little precipices; for the side-walks are often raised two or three and more feet above the roadway, and athwart some of the streets drawbridges are thrown as in the old Foria at Naples, to enable the walking people to cross them when flooded by heavy rains. When rains fall you perceive that the drainage is bad, the smells pestilential. Buenos Ayres lies close to the mud of the river Plate; but all its streets run up from the water-edge for about 20 feet to an upper level which continues unbroken throughout the city and its suburbs. The city cannot, therefore, be seen to advantage on any side, nor can any view of the surrounding country be caught from any point in its streets, or in its largest squares. It cannot be called a picturesque place; and little can be made of its cathedral, shaped like a massive Grecian temple, with a portico borne by 12 huge brick-and-mortar columns, or of the Government house and the *Cabildo* or town-hall—all Spanish structures, which give some stateliness to the Plaza de Mayo and Plaza Victoria, twin squares making a fine show in the immediate vicinity of the river bank. But more striking are the private town and country houses, some of them in the modern Italian style, almost palatial, with fine balconies and terraces and lofty towers, but, many more, mere cottages, one-storied, with their ground-floor apartments inclosing the court or *patio*, with flowers and shrubs, and in some instances a fountain in the middle, a reminiscence of the Andalusian cities, and a style inherited by the Spaniards from the Arabs, and by these probably imitated from the Greco-Latins of Pompeii.

Of these buildings, very little, if anything, has been reared by native hands. Masons and builders, here as at Montevideo, are Italians, as the constructors of rail and tramways are mostly English or North Americans, cooks and hotel-keepers French, and workmen of any description foreigners. Had the early Spanish colonists been left to themselves, this vast Plate region would still be a sheep-walk, the saddle-horse the only means of communication, a *rancho*, or hut of wood and mud, the only human abode; for Spaniards came here apparently on the understanding that they should never be called upon to do a stroke of work, and all should be done for them by slaves whom force or want should bring to their doors. In Montevideo, out of a population of 110,167, official statements number 43,940 foreigners. They, however, only consider foreigners those who exhibit a passport on landing; and they describe as citizens all the children of foreigners who may happen to be born within the territory of the Republic, even children in their nonage and before their non-naturalized parents have lost all authority over them, which is simply an absurdity. Were the facts more carefully inquired into, it is likely that foreigners with their children of the first generation would make up fully one-half of the population in Montevideo, and this would still more be the case in Buenos Ayres, as the tide of immigrants which at first showed some disposition to linger in the Uruguay, has lately set in with greater impetus into the Argentine Republic. From the year 1857—when records began to be kept—to 1878, there entered into this Republic 544,630 immigrants; an average of 24,947 for each of the 22 years. In 1873-4, the numbers were respectively 76,332 and 68,227, after which there was a considerable falling off, followed more recently by a steady increase. By far the largest number consists of Italians, and their chief employment, besides house-building, is as boatmen in river navigation, navvies on the railways, &c. Not a few of them, however, settle as agricultural colonists in various parts of the country. Of other European nations, the most numerous are the Germans, Swiss, Spaniards (especially Basques, Galicians, and Catalans), English, French, and Russians or Russo-Germans. Most of the English are employed in large estates as cattle breeders and sheep farmers. The natives of the country bear no very goodwill to these intruders, whom they nickname "Gringoes," and whose success in many branches of trade and industry excites their envy. It is upon these foreigners, however, that they depend for the well-being and progress of their community, as well as for any intelligence, energy, and activity that may develop themselves in their national character. What this vast uncultivated country requires is not only "arms," or "hands," as everybody is calling out, but also brains. You hear the Argentines say that what they have here is not *muchos estrangeros*, but *mucho creollo*; the Creole, or mixture of the older settlers with the new arrivals constituting a national amalgam into which every European nation has brought its own ingredients, with such results as may not prove altogether unsatisfactory in the end.

Whatever may be the feelings of the native people in this respect, there is little doubt that the rulers of the country are alive to the expediency of welcoming newcomers from all countries, and show especial favour to the rural colonies, scores of which are everywhere springing up in the provinces. That there are occasions and perhaps good grounds for mutual dissatisfaction and complaint between these immigrants and the Government and people of the country to which they come for a new home it would be vain to deny; and it is a subject to which I shall have to refer at some length by and by. For the present, limiting my observations to the cities, where the strangers are more mixed up with the native population, I have only to say that what most forcibly strikes me is the rapid absorption and apparent disappearance of all extraneous elements; so that where so many and various are the components an almost homogeneous compound is the result. Most of the immigrants, as I said, about 56 per cent., are Italians, and these have their Latin blood, look, and character in common with the Spaniards; they find here a climate akin to that of their own peninsula, and fall naturally into ways and habits which do not materially differ from their own. Of all foreigners, the Italians are the readiest to fraternize with the natives. Of all immigrants, they are the most popular. They bear an excellent character as sober, well-behaved, and thriving workmen; they all put by some money, and some of them accumulate considerable fortunes. Being natives of all parts of Italy, Lombards, Genoese, Neapolitans, &c., they are at a loss how to understand each other's uncouth dialects, and even among themselves use Spanish as a common language, as it comes easier to them than the soft and pure but stiff and formal Italian, which is merely a written or literary, in fact a dead language spoken by no man of their class in Italy itself. As to their children, they neither can nor will speak anything but Spanish, and pride themselves on their Argentine, or "American" nationality. Many of these Italians, uneducated and deluded men, were attracted to these regions by crude and vague democratic notions, and all they see of the alternate anarchy and tyranny of these Spanish-American communities fails to cure them of their unreasoning partiality to the mere name of a Republic. They look upon the Plate as a former scene of great and almost fabulous Italian exploits; they come to a land hallowed by the footsteps of Garibaldi, and to towns where the first object that meets them at the landing-place is a bust of Mazzini. Yet with all their readiness to identify themselves with their adopted country, these Italians still cling to one another with patriotic instincts; they hold together by a spirit of association visible in their many Workmen's Unions, provident and charitable institutions, to say nothing of secret Masonic and other fraternities, the chief object of which is mutual assistance and sup-

port. Italy makes itself at home in Buenos Ayres; and readily as it merges into and blends itself with the native race, it still labours to keep up its individuality, feels and puts forth its strength, and becomes a State in the State. Every immigrant is ready to profess that he is "an Argentine, if you please, but an Italian first."

A great fact is this of the foreign immigration for the Republics of the Plate, and on it mainly depend their chances of ever becoming great countries. Of what avail would it be to Buenos Ayres to have millions of acres of territory, the very deepest and richest soil in some parts, the brightest and most genial climate, a wealth of 4,000,000 horses, 13,000,000 horned cattle, 57,000,000 sheep, &c., if all these attractions fail to entice here more than a fraction of the wanderers who constitute the great European exodus, and if, with the exception of the Italian and the Spaniards, the great bulk of emigrants—British, Irish, German, and Swiss—prefer the United States, the Cape, Australia, as countries where they can find those greatest of social blessings, order and security? It is not merely the cholera or the yellow fever that stayed the tide of immigration into these South American communities, and even in frequent instances forced it back. It was mainly that series of foreign and intestine wars which desolated these Republics ever since their emancipation, those causeless and aimless revolutions, that prevalence of military violence and despotism which trod down all laws, corrupted all free institutions, and laid both the public treasury and private fortunes at the mercy of official spoilers. "The Rosario branch of the River Plate Bank," Mrs. Brassey tells us, "was recently robbed of £15,000 by an armed Government force, an unprecedented proceeding, and one that might have led to the interference of foreign Powers." And Mr. Edwin Clark states:—"During my residence in Buenos Ayres, a body of voters quietly going to the poll were driven back by a volley of musketry from the roof of a neighbouring building, and, what is more remarkable, the perpetrators of the outrage maintained a right to retain the arms thus used in a time of profound peace." And it is only lately that the youth of this same city were loading their rifles with the avowed intention of using lead bullets instead of ballot papers at the Presidential election. The parties by which the murderous passions of these good patriots were excited came to some compromise of their differences, and hopes are now entertained that there may be no violence at the polls; but men familiar with the country are still far from being reassured as to the upshot. And at Montevideo, when I was there, the strange abdication by Latorre, lately President, formerly Dictator of the Republic of Uruguay, had spread such a terror throughout the country, that the cattle farmers of the interior were hastening with their bullocks and cows to the *saladeros*, anxious to sell at any price, in full conviction that upon the outbreak of any disturbance the leaders of the contending parties would be down on their *estancias*, laying hands on their most valued beasts and offering in payment Government bonds, which long experience had taught them would never be worth the price of the paper on which they are written. It is to little purpose that the terrified owner pleads for the rescue of some favourite stallion or brood-mare, offering as a ransom ten and even 20 of his best stud at the marauder's choice; the ruffian wants that particular steed for his own riding, and that particular mare or cow for his own *corral*. There are wanton malice and perverseness as much as ferocity in his demeanour, and the plundered man is well aware how vain would be for him any attempt at resistance or hope of redress.

It is systematic robbery that perpetuates revolution as the most profitable of all speculations in these unsettled communities, as it is the practice of public functionaries of enriching themselves at the country's expense that determines endless change in the Government. Politics in South America are the privilege and monopoly of a few intriguing lawyers and soldiers of fortune. No one, for instance, could believe how utterly passive and indifferent the population of Montevideo remained during the singular crisis which removed General Latorre from the presidency and raised Dr. Vidal into his place. People could make nothing of the General's dodge, and of his proclamation that he resigned because "he found the country ungovernable," and "he could not rule with the Chambers." The most tenebrous designs, a settled determination to re-assume the Dictatorship which he had given up a few years ago, were imputed to him. The uneasiness of thinking men was great, and the language of the Press dark and ominous; but the multitude betrayed no consciousness that anything of importance was going on. Within the Chamber, where the new President was sworn in, there were not a hundred spectators. Outside all the noise of a military band and the marching of troops failed to bring together a crowd. A vague feeling that the change boded no good, that disaster would follow, haunted the public mind, and has not yet been dispelled. But evidently what had occurred was merely the business of the faction leaders, and the mass of the citizens had nothing to do with it.

Some of the incipient disturbances I chanced to witness in Peru and Bolivia were of the same apparently harmless character, and would have been simply ludicrous had not the result been violent or even tragic.

At Lima, on Saturday, the 15th of November, the bells from all the church steeples set up a tremendous alarm, which continued all night. On that very day, Colonel Lacotera, the Minister for War, had told Mr. St. John, Her Majesty's Minister, that there was then—at that war crisis—no Government in Peru, as the President, Prado, was away with the army, the first Vice-President was ill, and the second on a mission to Europe. In the evening, as the *tocsin* tolled its loudest, a few ragamuffins assembled in the square before the Palace, Pizarro's house, shouting for "Lacotera, Dictator!" No one objected; the cry went on hour after hour, and all seemed settled, when towards morning Señor Pierola, a civilian and a lawyer, happened to cross the square on horseback with a few friends. At sight of him matters suddenly changed, some of the very men who had been all the time proclaiming Lacotera, now shouting "Long live Pierola Dictator!" Lacotera, who witnessed the scene from his window and did not like the turn things were taking, sent forth a posse of policemen, who speedily hushed up all clamours and cleared the square. All was quiet for a few days after that comedy in Lima; but upon Prado coming back to the capital, and unexpectedly leaving his post and the country, Lacotera and Pierola again entered the lists as competitors, and after the slaughter of a few hundred soldiers on both sides victory declared in favour of Pierola, who is now at the head of the Peruvian Government, with, as he declared, "unlimited powers;" the first use he made of which was to throw all journalists into prison. At La Paz, in Bolivia, on the 10th of December, being Sunday, in the afternoon, a drum was beaten in the square, where the town-crier read a proclamation. A person called Nuñez de Castro called his countrymen's attention to the fact that the President of the Republic, General Daza, had unaccountably absconded, leaving the army without a leader and the Government without a head. As the country could not in such supreme moments remain without a Government, he, Señor Nuñez de Castro, would "so far sacrifice himself to the public good as to take the affairs of the country into his own hands." People read the proclamation, and some shook their heads; but the thing seemed natural and no one presumed to find fault with it. But on the following morning the Ministers of the former President assembled, wondered very much how Señor Nuñez

could assert that the country was "ungoverned" so long as they were in their places, which they had only quitted the previous day, being a holiday; and they intimated to the would-be saviour of his country that he need not trouble himself about what in no way concerned him. Matters ended thus smoothly on that occurrence, but not long afterwards Daza was deposed and disgraced, and the Bolivian people and army found new masters, though the public-spirited Señor Nuñez de Castro was not named among them.

In this matter of incessant riot and violence and civil war, the Argentine Republic has not, from its first struggling into existence, been ranked among the most backward South American States. The annals of Rosas, Urquiza, and other party leaders' ascendency were written in blood. But since the close of the Paraguayan war the country has gone through a period of comparative repose; in the elections of Mitre and Avellaneda as heads of the Republic at least the bare outward forms of constitutional legality have been observed, and during these last five or six years of Avellaneda's Presidency, now expiring, the country has been, on the whole, quiet and prosperous. Were public order to be insured for another half-dozen years, there might almost be no limit to the development of the weal and wealth of this great and expansive community. The influx of such vast numbers and of so great a variety of immigrants ought to a considerable extent to contribute to so desirable a result. Not that these strangers, at least of the first generation, have much chance, or show any inclination to meddle with the politics of the country or to sway its councils; but the indirect influence of the vital interests which they have at stake in the land of their adoption is no less actively at work; their power for good is tacitly but irresistibly acknowledged; and the blending of so many new elements with the native race by intermarriage has the effect of counteracting the evil tendencies of that dark Spanish blood which shows so much unfitness for either freedom or order wherever it flows.

THE STRUGGLE AT BUENOS AYRES.

(FROM A CORRESPONDENT.)

The few people in England who take any interest in Argentine affairs are rather puzzled at the deadly combat at present going on around the walls of Buenos Ayres. As the siege progresses the fighting is the sharper, the defence the more resolute; nor is it difficult to predict that if the National Government succeed in reducing the rebellious city the victors will march in over piles of slain, through the smoking ruins of the Paris of South America.

It may appear strange to many bondholders and others in England that so fierce a struggle has suddenly come to pass, almost without an apparent motive. And yet the cause of the quarrel is a matter of 20 years' growth, the present outbreak having long appeared inevitable, in the judgment of impartial spectators who could appreciate the force of the under-currents of public feeling. Let us examine the matter *ab ovo*. It will be remembered that the Dictator Rosas, after 25 years of despotic rule, was overturned in the battle of Monte Caseros on February 3, 1852, and compelled to escape to England, where he died only two years ago. The forces that triumphed at Monte Caseros were chiefly Argentine, but were powerfully supported by a Brazilian *corps d'armée* under the Marquis of Caxias, the supreme command being in the hands of General Urquiza, Governor of Entre Rios, who had long been the most skilful of the Pro-consuls of Rosas.

As soon as General Urquiza saw himself in possession of absolute power, he exercised it in the best interests of commerce and civilization. He threw open the rivers Paraña and Uruguay to the flags of all nations; he promoted the introduction of agricultural colonists from Europe, and gave evidence in many ways of the comprehensive views of an enlightened statesman. He had, nevertheless, the misfortune to incur the distrust of the Porteños, or citizens of Buenos Ayres, who fancied that they had only changed masters, and that Urquiza was bent on following up the iron rule of Rosas. Availing themselves of his temporary absence from the city, they shut the gates against him on his return, and elected Dr. Obligado as Governor. This move resulted in a regular siege by land and water, precisely as at present, but the Porteños succeeded in buying over the blockading fleet, which so much disconcerted General Urquiza that he fled from his camp outside the walls and took refuge aboard the United States gunboat Pulaski. Buenos Ayres became a separate Republic in July, 1853, and General Urquiza established the seat of government for the Argentine Confederation at Paraña, a village of Entre Rios, opposite the ruined city of Santa Fé. Another village lower down, called Rosario, soon grew into importance as an outlet for the trade of Cordoba, Tucuman, and other inland provinces. The two Republics might have prospered side by side but for an unwise decree of the Paraña Legislature imposing extra duties on all vessels arriving at Rosario from the high seas if they had touched at Buenos Ayres. This so much enraged the Porteños that they sent an army under General Hornos to invade Entre Rios and overturn General Urquiza, an expedition which ended unfavourably, the invaders being forced to retreat.

Dr. Alsina succeeded Dr. Obligado as Governor of Buenos Ayres, and fresh quarrels ensued with the Argentine Government, until General Urquiza, in August, 1859, crossed the frontier with an army of 15,000 men, to crush the Porteños and annex their province. The Buenos Ayrean army, under Colonel Mitre, met the invaders on the field of Cepeda, 150 miles north of Buenos Ayres, and was utterly routed, the Gaucho cavalry having fled on the first shot being fired. The battle was fought on October 19, 1859, and ten days later the red ponchos of Urquiza's cavalry could be descried from the church towers of Buenos Ayres sweeping down upon the devoted city. The Porteños manfully stood to their barricades and repelled the assault. The Prime Minister, Dr. Dalmacio Sarsfield, with all the energy of a Celtic orator, made an impassioned appeal to the citizens, exclaiming "Hannibal *ad portas!*" and obtained from the Chambers a vote of 100 millions (say, one million sterling)) to defray the cost of defence. Firing went on with little effect for 12 days, when the British and French Admirals interfered, and compelled Governor Alsina to resign in favour of a respectable old wine merchant, named Llavallol. The latter soon came to terms with General Urquiza, who agreed to disband his army, provided the Porteños allowed him to enter the city with six officers, and engaged to send deputies to Paraña to arrange a reunion with the Argentine Confederation.

In 1861 war was again declared because the Paraña Congress treated the diplomas of the Buenos Ayrean deputies as informal. The result was the battle of Pavon, near Rosario, on September 17, 1861, in which General Mitre defeated General Urquiza and annihilated the army of the Confederation. In 1862 General Mitre was unanimously elected President of the 14 Argentine provinces, and Buenos Ayres surrendered her Customhouse to support the cost of the National Government and Congress.

The revenue of the 14 provinces in 1863 amounted to £1,140,000 sterling; the only public debt was that of 1826, contracted in London, about £2,100,000, in the name of the province of Buenos Ayres. The civil war, however, had given rise to so many claims that the Congress of Buenos Ayres, in 1864, recognized and funded an internal debt of about £3,000,000. No sooner was order restored than the tide of immigrants

from Europe rose with astonishing rapidity, and the trade doubled in a few years.

Success inspired ambition, and Minister Elizalde (Foreign Affairs Department) confessed to Sir Edward Thornton that he hoped to annex Bolivia, Paraguay, and Uruguay. Accordingly, one of General Mitre's officers, named Flores, was made Dictator at Montevideo, and the conquest of Paraguay was arranged with the Brazilian Cabinet. Mr. Riestra, who was despatched to London, succeeded in negotiating a loan for £2,500,000—the first Argentine loan on record. The Paraguayan war lasted from December, 1864, till May, 1869, when General Lopez was overtaken in the forest of Aquidaban and slain by a Brazilian trooper. It cost Brazil £41,000,000 in money and 170,000 men; besides a loss of £8,000,000 sterling and 35,000 men to the Argentine Republic.

In October, 1868, Dr. Sarmiento was elected President of the Argentine Confederation, and as soon as the Paraguayan war terminated he turned all his attention to schools and railways. A loan for £6,125,000 was arranged in London, through Dr. Varela, on very favourable terms. In two years the number of schools was almost doubled, 140 free libraries were opened, and railways were begun to places that had never given employment to a dozen bullock-carts. Commerce and immigration grew like hothouse plants, the influx of English gold causing a febrile activity in every branch of enterprise. Land speculation assumed prodigious dimensions; fortunes were made in a week, and as the buoyancy of things was increased by two new loans (1871 and 1872) for the province of Buenos Ayres, everybody found himself growing richer every hour.

The bubble burst in 1873. In a space of three years and a half the failures of Buenos Ayres exceeded 600 (in some cases over £200,000), making an aggregate of 20 millions sterling, as generally estimated, and doubtless this estimate was little over the reality.

When Dr. Sarmiento handed over the reins of power, October 12, 1874, to his successor, Dr. Avellaneda, the country was in the midst of this crisis. A revolution occurred, owing to the dislike that the Porteños felt for a continuance of power in the hands of the Arribeños, or people of the upper provinces. Sarmiento was a native of San Juan, and his administration materially promoted the interests of the Andine provinces. Avellaneda was a lawyer from Tucuman, no less remarkable than his predecessor for his patriotic efforts to promote schools, libraries, and railways in the interior, for he had already acted as Minister of Instruction under Sarmiento.

The revolution was headed by General Mitre, who possessed great prestige in Buenos Ayres, and also among the army. Some of the colonels of the Line threw up their commissions and joined the rebels, and one of the Government ironclads also seceded from its duty. But the new President found another Warwick in the person of General Alsina, who in one week collected an army of 50,000 men, and a fortnight later captured General Mitre with all his followers. Alsina had been a competitor for the chair of President, but he preferred to keep Dr. Avellaneda in that post while he retained the actual control of the nation in his own hands. General Mitre and his followers were pardoned, an epoch of conciliation was instituted by Alsina, and it was confidently expected that the commercial crisis would quickly pass away under the auspices of consolidated tranquillity.

At the beginning of 1876 hundreds of bankrupt estates were wound up at an enormous sacrifice, some landed properties realizing in depreciated paper money only one-fifth of their value in 1870. Still, it was hoped that when the *débris* was swept away the edifice of commercial prosperity would rise on a sounder basis. There was, however, no material improvement. Quite the contrary; for the small Italian tr[illegible] left [illegible] country in shoals sooner than suppo[illegible] [illegible] est of

the revenue was derived from import dues, the Congress was forced every year to meet the decline of trade by raising the duties, until ultimately they reached 50 per cent. *ad valorem*. In September, 1876, the Finance Minister found himself reduced to extremities, and requested the Bank of Buenos Ayres to lend him 500 million piastres—say, £4,000,000 sterling. This request was endorsed by Governor Casares, the Governor of Buenos Ayres, but the directors refused and resigned *en masse*. Some fierce discussions ensued in the local Legislature of Buenos Ayres, but the Minister of Finance triumphed and obtained the sum demanded. Since 1876 he has been able by means of the 500 million loan, coupled with the ordinary revenue, to pay his way, but the quarrels between his Excellency and the bank in 1878, for failing to pay the quarterly quotas due on the loan, showed how disorganized the finances were. It was, perhaps, not Dr. Plaza's fault that he could not pay up the quarterly quotas, but he is very much to be blamed for inducing Congress to raise the export duty on wool in 1879.

Taxes national, taxes provincial, taxes municipal rained on the heads of the citizens, till Dr. Riestra declared that if this continued "the authorities would drive the people mad with taxation." And still the exodus of Italian hucksters and Irish sheep farmers had no effect on the obstinate policy of the rulers. Deficits piled upon deficits during a long series of 15 years had now grown colossal. Dr. Riestra advised the Government to suspend the sinking fund on all debts, and pay the interest in gold, but the foolish *soi-disant* financiers laughed at him and said the crisis would pass over. The deficit in 1879 was the smallest ever known, only £470,000, but the taxation was terrific. A lottery loan (offering prizes of £2,000 for 10s.) was created by the local Legislature, and taxes on railway tickets, on street porters, &c., were also resorted to. All in vain. Another loan of 500 millions from the bank would have put everything straight, but neither the Minister nor the public could think of again "watering the stock" of the poor paper dollar.

The currency dollar or piastre had now fallen to three-halfpence—say 160 per pound—and gold was at 30 per cent. premium. The currency was, therefore, in too desperate a condition to stand another issue of paper dollars.

The chief burden of taxation falls on Buenos Ayres, which province has 25 per cent. of the population, and pays 92 per cent. of the national income. This is irrespective of the cost of the Governor and local administration, which averages 150 million piastres, or £950,000 sterling—say £2 per head. As for the municipal expenditure, it is so heavy that fresh issues of municipal bonds are made at short intervals to cover the deficits. All the money of the London loans has been spent in making railways to impossible places, and as the net income of these railways has for some years averaged less than 1 per cent., the people of Buenos Ayres have to make good the difference. Most of the upper provinces are so poor that for the last 10 years they have received monthly subsidies from the Executive at Buenos Ayres to pay their Governors, Ministers, and petty local Legislatures. All the colleges in the interior are a serious drain upon the national exchequer, and must likewise get subsidies from Buenos Ayres. All the joint-stock railways which have concessions of guarantee on their capital, such as the East Argentine, Campana, and the Central Argentine lines, have deficits every year, and this causes an additional burden on the people of Buenos Ayres. In a word, Buenos Ayres has been always termed the *vaca lechera*, or milch cow, to supply the means for every class of expenditure, whether a mining college at San Juan or an arsenal at Zarate. It has been truly said in Congress that the "Argentine Republic consists of the province of Buenos Ayres and 13 *ranchos* or mud-huts," for the other 13 provinces are really of trifling importance in the national wealth.

The words of Dr. Riestra, who died only six months ago, are now fully verified, for it is mainly the weight of taxes that has led to the present *imbroglio*, although the ostensible cause is a rivalry for the chair of President. It seems the contest has been between two candidates, Governor Texedor, of Buenos Ayres, and General Roca, the latter having obtained the votes of 12 provinces, and the former those of Buenos Ayres and Corrientes. Dr. Texedor is a man of much ability and ambition, and has travelled in Europe. His father was superintendent of the gaol of Buenos Ayres under Rosas. General Roca is the same who, under General Alsina, suppressed Mitre's rebellion in 1874; he is about 30 years of age, courteous, well-read, and of genial manners. He is not, however, such a tower of strength as the late General Alsina, who died in 1877 of fever contracted in a campaign against the Indians, and not of poison as was maliciously rumoured. Governor Texedor can dispose of the immense resources of Buenos Ayres, and rely for support on 30,000 National Guards, besides enlisting Italian boatmen, butchers, bakers, &c., who count 60,000 male adults in the city. He has also the Krupp guns of the Parque and the other elements of war so suddenly abandoned by President Avellaneda when he fled on the 4th of June to Rosario. General Roca has the army of the Line, almost 6,000 strong, mostly old Italian or French soldiers, backed by the Gaucho Cavalry Militia, of which the muster-roll shows 130,000 men, but probably only one-fourth would be available. He has also the co-operation of the fleet, comprising vessels built by Laird, of Birkenhead. The National Government has, meantime, fixed its residence at Rosario, awaiting the issue of the struggle.

The Porteños are no match for General Roca in the field, but they will fight like tigers behind their trenches. As the city counts 200,000 souls the blockade will soon cause a famine, or, at least, reduce the citizens to rice and horseflesh. If the fleet be not prevented by the foreign Powers from shelling the place it can do an immense amount of injury? but this might have more effect in reducing the city than a siege of eight years and a half, like that of Montevideo in 1843-51.

The province of Buenos Ayres counts 54,000,000 sheep, of which 13,000,000 belong to Irish settlers within a day's ride of the city. These flocks will suffice, if necessary, to feed the National Government army for many years, without counting 6,000,000 cows, which belong mostly to natives.

If Buenos Ayres triumph the march of prosperity will be greater than at any previous period, as the port has been made free by Governor Texedor, and thus the enormous weight of 50 per cent. *ad valorem* dues removed. If the National Government humble the rebellious city, the present difficulty will be put off for ten years more. The secession of Buenos Ayres is inevitable sooner or later. In fact, the Legislature has already formally seceded from the Republic.

ARGENTINE PRODUCTS AND FINANCES.

(FROM A CORRESPONDENT.)

If Dr. Norberta de la Riestra, who recently died at Buenos Ayres, had been Argentine Finance Minister for the last six years, since the accession of President Avellaneda to office, the position of the Argentine Republic would be very different, and in all probability the rupture between Buenos Ayres and the 13 upper provinces been either indefinitely postponed or altogether averted. Unfortunately, President Avellaneda confided the portfolio of Finance to a young lawyer from the province of Entre Rios, who knew nothing about the resources, capabilities, or requirements of the nation. His name, Victorius de la Plaza, was so unknown on the day of his appointment that people asked in astonishment who he was. Nevertheless, he had hardly been two months in office when the official and semi-official newspapers commenced to speak of him as a heaven-born Minister, a financier by instinct. His talent lay in boldness, and he certainly succeeded in carrying the Avellaneda Cabinet safely through a sea of perils by means of the following measures:—1. Increase of import duties; 2, increase of export duties; 3, bank loan of 500,000,000 piastres, say four millions sterling.

But in putting off the *mauvais quart d'heure* he by no means improved the financial state of affairs; in fact, he accumulated a legacy of woe to his successor, and intensified the public discontent at the burden of taxation. His one object was to get President Avellaneda to the end of his term without national bankruptcy, and in this he succeeded, contrary to the predictions of most people.

It was, however, manifest to any one who studied the inverse ratio between the increase of taxes and decline of trade that a crisis must ensue as soon as the 500 millions (taken from the bank in September, 1876) were all spent. Dr. Riestra, who had been thrice Minister of Finance, wrote some letters of warning in the Buenos Ayrean papers, and recommended a sweeping reformation of the national expenditure as follows:—1. To stop the amortization or sinking fund on all classes of public debt, and pay only the interest, during the remaining years of the 19th century. 2. To reduce the expenditure on the army and sell most of the ironclads, &c. 3. To close the national colleges in the upper provinces as far as free boarders were concerned and make them day schools for externs only. 4. To cut down or suppress *in toto* the monthly subsidies to the Governors, Legislatures, &c., of the 13 needy provinces of the interior. 5. To prohibit any more public expenditure for railways, telegraphs, artesian wells, surveys, &c., until the year 1900, and only pay the guarantees on existing lines. This plan of financial reform raised a storm against Dr. Riestra, and he died a couple of years after with the conviction that financial shipwreck was not far off, unless the pilot of the ship of State changed his course.

If General Roca now take up the command he must do one of three things—either adopt Riestra's programme, or suspend the service of the public debt, or raise another loan. If he is wise, he will do the first, since the Argentine Republic has such marvellous vitality that in ten years she would recover from the blunders of the past. If he suspend the public debt, he will do a great injury to national credit that could be prevented. If he compel the Bank of Buenos Ayres to make another issue of 500,000,000 piastres and lend the amount to the National Government, he will, perhaps, cause gold to rise so much in price that the paper dollar will be almost worthless.

Supposing, therefore, that the Riestra reform be adopted, there is no reason to fear that the Republic will be bankrupt. Few countries have grown more rapidly in products in the last 20 years; few are less indebted in comparison with undeveloped wealth and resources. It is only necessary to avoid "heaven-born Ministers," and to intrust the public revenues to men of clear intellect and cool brain. A country that can show such figures as the following is far from hopeless:—Revenue of Argentine Republic.—In 1863, £1,294,700 sterling; in 1870, £2,966,200 sterling; in 1878, £3,088,000 sterling.

The above shows that between 1863 and 1870 the revenue rose 120 per cent., and since 1870 a little over 4 per cent. It seems the returns just presented to Congress show a still further rise for 1879, but this is partly the result of the increased export tax on wool, for which Dr. Plaza obtained the permission of Congress in 1878. It is an express violation of the Constitution to impose any export dues on native products, and yet the tax on wool has been raised to 6 per cent. *ad valorem*. How can Buenos Ayres compete with Australia, which has no export duty on wool, if the *estancieros* are to stand the brunt of every deficit?

It is only fair to say that Dr. Plaza was cordially supported by the people of the city of Buenos

Ayres in imposing a fresh tax upon the sheep-farmers. As the inhabitants of the city already paid £9 per head to the National Government, £4 per head to the Provincial Government, and nearly £2 per head to the Municipal Council, it was thought wiser and more patriotic to put any new taxes on the people living in the *estancias* or farms outside town.

The incidence of taxation is as follows :—

NATIONAL REVENUE.

City of Buenos Ayres	£1,720,000
Province of Buenos Ayres (outside)	960,000
Thirteen Upper Provinces...	420,000
	£3,100,000

REVENUE OF BUENOS AYRES.

City of Buenos Ayres	£650,000
Province outside city	300,000
	£950,000
Total	£4,050,000

Thus it came to pass that the people of the Republic paid as follows :—

	Population.	Taxes.	Per head.
Buenos Ayres City ...	190,000 ...	£2,370,000 ...	£11 stg.
Buenos Ayres Province	420,000 ...	1,260,000 ...	£3
Thirteen Upper Provinces	1,330,000 ...	420,000 ...	6s.
	1,940,000	£4,050,000	£2 1s.

I have not taken into account the municipal taxes of Buenos Ayres, or the local tolls and imposts of the upper provinces. Suffice it to say that the city of Buenos Ayres paid 35 times per head as much as the upper provinces, which explains the wish to get rid of so much government.

The cause of such heavy taxation is the extra liberality of the British public in lending us money, as the interest and sinking fund on the following loans involve a heavy drain yearly. The loans negotiated since 1865 have been :—

1865	...	Argentine	£2,200,000
1870	...	Buenos Ayres ...	1,050,000
1871	...	Argentine	6,250,000
1872	...	Hard Dollars ...	1,150,000
1873	...	Buenos Ayres ...	2,100,000
			£12,750,000

The above table does not include the Buschenthal loan of 1863, the Foreign Indemnity Bonds, the loan of 500 million piastres in 1876, the Lottery Loan of 1878, nor such small affairs as the loans to Santa Fé and Entre Rios. If we except the guarantees on railways, the whole public debt of the Republic and Buenos Ayres is about £20,000,000, which is only £10 per inhabitant, or one-fourth of the Australian average.

If the finances be carefully handled, the country will retrieve itself in 10 or 15 years. It is a pity that the public men are violent protectionists, and impose on imports 50 per cent. *ad valorem* duties so as to promote manufactures. In this way good sheep farmers are being converted into bad boot-makers and execrable tailors ; and the exported products of 1878 showed a fall of 20 per cent. from the previous year, chiefly in wool, tallow, and hides.

The flocks and herds increased threefold between 1860 and 1874, but there has been hardly any increase in the last six years. The following table of exports shows the increase of pastoral wealth in the 14 years above mentioned :—

EXPORTS.	1860.	1874.
Hides (number) ...	1,662,000 ...	2,538,000
Wool (bales)... ...	42,275 ...	210,000
Sheepskins (bales) ...	10,715 ...	62,000
Tallow (tons) ...	— ...	43,750
Jerked beef (tons) ...	21,200 ...	33,500
Value of exports ...	£4,220,000 ...	£11,130,000

It is only necessary for the people to revert to pastoral pursuits and give up the dream of agriculture to see the nation again what we must all desire—prosperous, happy, and able to pay its way without fresh taxes or compulsory loans from the Bank of Buenos Ayres.

THE STRUGGLE IN BUENOS AYRES.

TO THE EDITOR OF THE TIMES.

Sir,—Will you favour me by inserting the following ?

Your correspondent of the 1st inst. is unjust in his remarks respecting the interior Argentine provinces, making them out so despicable as to render them unworthy of forming part of the Republic. All who know the country are aware of the wealth and superiority of Buenos Ayres, but those unacquainted with its history are ignorant of the causes that have made Buenos Ayres so much richer than her sister provinces. Localism and monopoly have caused Buenos Ayres to advance rapidly. Until General Urquiza broke the power of Rosas, the Porteños had the entire foreign trade in their hands. They despotically prohibited all sea-going ships proceeding higher than Buenos Ayres, consequently keeping the 13 interior provinces closed to the outer world. From the period General Urquiza opened the Parana and Uruguay rivers a gradual but marked progress occurred in all the interior provinces. Santa Fé especially has advanced the last 15 years as rapidly as Buenos Ayres. Your correspondent affirms that Buenos Ayres chiefly furnishes the sources of revenue to the National Government. True the principal revenue is derived from the Custom-house. Nearly all merchandise paying duty is landed first at Buenos Ayres, thence transhipped to the upper provinces. Hence the duties your correspondent wishes your readers to believe only belong to Buenos Ayres really appertain to the nation at large, being moneys on articles for the consumption of the Republic generally.

The Porteños can only object to General Roca's candidature simply on the plea that he is a provincial, for he is otherwise a most desirable candidate, being a very young man for the position he has acquired, a most successful soldier, well informed, moderate in his views, of attractive manners, and in every respect fit to occupy the presidential chair. Gratitude alone should have inclined favourably the people of Buenos Ayres towards General Roca, who only last year, at the head of an armed expedition, drove the Indians from the province over the Rio Negro, thereby freeing them for ever from constant incursions and the loss annually of tens of thousands of cattle, horses, and sheep, as well as human lives ; acquiring, moreover, thousands of leagues of fertile country which hitherto had been in the possession of the Indians. Such great advantages, not having been achieved by one of themselves, will not be readily pardoned by them.

Your obedient servant, J. OLGUIN.

107, Cambridge-gardens, W., July 3.

THE REGION OF THE PLATE.

(FROM OUR SPECIAL CORRESPONDENT AT BUENOS AYRES.)

The early Spanish adventurers who came to this country attracted by its name of "La Plata," or silver, were soon undeceived as to the existence in any great quantity of those precious metals which were the main object of their eager quest. The silver trinkets worn by the Indians whom Sebastian Cabot met far inland in 1528 were probably the produce of remote mountain districts. But the vast plains between the Andes and the Atlantic Ocean offered no other wealth to the invaders' covetousness than their soil and the scattered native tribes who were made to do the strangers' work and minister to their wants. When the coloured men were either trodden down or enslaved or driven to the farthest solitudes, the Spaniards, who became the undisputed masters of the boundless territory, hardly knew how to turn it to useful purposes, and did not for a long time attach as great a value or importance to these southern possessions as they did to their settlements among the golden fields of Mexico and Peru. They, however, stocked these wildernesses with herds and flocks, which they imported from their native peninsula, and which, favoured by rich pastures and tended by Indian thralls, spread and multiplied with amazing swiftness, and roamed at large over the land in wild freedom, ousting the bizcachas, or prairie dogs, and the other numberless species of rodents which had been for many centuries the undisturbed tenants of the Pampas or prairies. By the time in which these colonies aspired to the dignity of independent States and proceeded to the emancipation of their coloured

bondsmen—*i.e.*, at the beginning of this century—large tracts of land had already been parcelled among the early settlers and their descendants, and the scattered cattle were gathered together in *estancias*, or grazing farms, to which the right of ownership was claimed and acknowledged. These countries had thus attained the second stage of civilization—pastoral life. But this could not at that epoch have made very considerable progress, as we are told that the population of the Argentine Republic in 1809 did not exceed 409,000 souls, a large proportion of which were crowded in Buenos Ayres and the other cities.

The establishment of a free commonwealth, however, could not fail to open the frontier to a good number of aliens, who, by superior thrift and intelligence, and in some instances by available capital, came in for a large share of the property, movable and immovable, of the Creole or Spanish-American races, and by their example sharpened the wits and stimulated the energies of a naturally indolent and backward people. With the emancipation of the country its colonization began, and a tide of immigrants set in, which, according to official accounts, amounted in 22 years to 550,000 souls, and which with their families and descendants may be presumed to constitute now at least one-half of the population of the country and to be in possession of half its wealth and its trade. Though a large number of these intruders live by a variety of employment in the cities, doubtless a considerable proportion are at work in the country as herdsmen or husbandmen. The advancement of the country from a merely pastoral to an agricultural community was in the main owing to these aliens, and its results are so satisfactory that, if we rely on the same official reports, this Republic, which was not many years since often dependent on foreign countries for her supplies of corn and flour, has in its turn become an exporter of wheat and maize, 4,188 tons of which were shipped off from the port of Rosario alone—the main centre of foreign colonization—in 1878. In the following year, 1879, the export from the whole country was 30,000 tons of wheat and 40,000 of maize.

Apart from the frequent and prolonged political convulsions which plunged these new countries into all the calamities of domestic and foreign wars, the development of their wellbeing was hindered or retarded by material causes, some of which are now being gradually, but successively removed. In the first place, communication in the region of the Plate was at first only practicable through the magnificent highways which nature had provided in its great rivers, navigable in some instances for thousands of miles; but, away from their banks and across vast plains of unmatched fertility, the only means of locomotion was till very lately the horse, which, indeed, converted the population, both indigenous and imported, into a race of centaurs, but which was of little avail for the conveyance of goods on a large scale. The subjugation and colonization of the plain were, therefore, limited to the watercourses; for, as it has been justly observed, up to the present day the rich plains of the Pampas have been a more effective barrier than the giant chain of the Andes; and the progress of the Spaniards to the inland districts of Paraguay, Corrientes, Entre Rios, &c., was effected rather from Lima and Santiago than from Buenos Ayres and Montevideo. Roads, other than the most wretched tracks for bullock carts, there were and are now none. Railways were not thought of till 1857, and far more than half the territory was till that date in the undisturbed possession of untamed Indian tribes. These and the half-caste Gauchos (properly *peons*, or farm rough-riders and drovers, turned wild and used as tools of political factions in civil feuds) scoured the country, at war with society, and had the cattle and produce as well as the life of the settlers at their discretion; thus the total want of security put every thought of cultivation and colonization away from the centres of population altogether out of the question.

A scourge inflicting even more serious evils than the savages were the terrible droughts in which the cattle, as well as the wild animals, perished by thousands and millions—1,000,000 horned cattle in 1859—"the dead bodies and skeletons of the poor beasts," as travellers describe, "strewing the roads and fields for miles and miles, lying about in every stage of decomposition, those more recently dead being surrounded by vultures and other carrion-birds." They tell us of reedy marshes and ditches choked up with the carcasses of beasts which had struggled thus far for a last drink, and which had then not had sufficient strength to extricate themselves from the water. They tell us how in the last great drought 500,000 head of cattle and millions of sheep were lost, but "before they starved the wretched creatures consumed not only the grasses and every vestige of vegetation, but the very roots, which they tore out with their feet." Were it not for the fences by which the scanty plantations round some of the *estancias* were sheltered, every shrub and tree would have rapidly disappeared.

In connexion with the drought, and often as a consequence of it, are the ravages of the locusts. These destructive insects come up like storms in vast and dense purple clouds in the distant sky, darkening the air in their onward flight; with the sun's rays directly on their wings "looking like that heaven of golden dots which many of us remember hovering about our cradles in infancy," and presently, as they fly past, resembling "a snow-storm, or a field of snow marguerites which have suddenly taken to themselves wings," and when wearied in their flight they lie on the ground ankle-deep, and railway trains travel with great difficulty over them on account of "the greasiness of the rails arising from their destruction by the train." As one rides over them, though not a quarter of them can rise for want of space in which to spread their wings, they form so dense a cloud that one can see nothing else, and the horses strongly object to face them. "They get into one's clothes and hair" (it is a lady that speaks), "and give one the creeps all over."

Finally, though the climate is one of the healthiest, brightest, and loveliest in the whole world, and the open plain is free from the earthquakes to which Peru and Chili and all the volcanic region of the Andes are exposed, the Plate is frequently visited by terrific storms, by *pamperos*, *tornadoes*, and other irresistible blasts, which not only sweep off fruit and forest trees, cattle sheds, and human habitations, but, as Mr. Edwin Clark describes, drive before them the light seeds of the Flechilla grass, "a terrible plant which is the scourge of the country," invading all the fields and filling the hollows. The barbed seed, with its horny processes and its long arms studded with short hairs all set one way, possesses a power of penetration which is irresistible. "They work their way through men's clothes and gaiters, but are far more seriously damaging to the poor sheep: they ruin the wool, and, working their way through it, frequently kill the animals that are not shorn by penetrating the flesh; and they are often found in the muscle of the joints brought to table."

There is nothing wonderful or exceptional in all this. Such has been the experience of all lands (out of Eden) in primitive times. It is only Nature in her untamed state, and with all her productive as well as destructive energies at work, awaiting man's brain and hand to give them moderation and method, to curb the conflicting elements, and to bring order out of chaos, asserting that mastery which was allotted to him over creation. No part of the earth could have been better prepared for man's habitation than this region of the Plate; but the people's enjoyment of it was subject to the general condition that men should learn to value the blessings of peace and order, that they should first control their own passions and abide by their own laws, ceasing thus to be their own worst enemies. Very little has been done towards the

establishment of public security in this country. Little can be said in praise of its government ; but even such improvement as is observable in many particulars has already borne fruit; it has enabled the people in some measure to remove those natural obstacles and to lessen those natural evils which I have been enumerating, and which, if properly grappled with, will not eventually prove more insurmountable or irremediable here than they have been or are in any other region of the globe.

Railways, for instance, have in these countries achieved something towards conquering distance, making up for that absence of carriage roads which was partly owing to man's sloth and indolence, but partly also to the absolute lack of stone or other available material throughout the plain. The Argentine Republic already boasts 2,252 kilomètres, or 1,407 miles, of rails finished and in full operation, of which about one half is State property, the remainder representing foreign capital of which the Government guarantees the interest. Most of these lines are remunerative, yielding, in some instances, 5 and even 7 per cent. But though in about 23 years this country has in this matter shot ahead of other Spanish-American Republics, it is still far from the goal to which, considering the enormous extent of the territory, it should and could tend. There are six lines radiating in all directions from Buenos Ayres, but not one as yet crosses or even reaches the frontier of the province of the same name, a province with an area equal to that of England, and a population, excluding the town, of 317,302 souls, constituting the very kernel, the heart and soul of the Republic, and representing its civilization, industry, and culture in their fullest development.

Two of these home railways run along the bank of the river or estuary of the Plate. One, the "Northern," 18 miles long, ends at Tigre, near the confluence of the two great rivers, Parana and Uruguay, a favourite resort for summer pleasure parties from town, who have among the low, green, fruitful islets with which the Delta of the Parana is studded, their boating clubs, tea-gardens, cafés, &c. ; the other, the "Ensenada" line, 37 miles in length, runs southward to Boca, Punta Lara, and Ensenada, those spots where, it is still hoped, a practicable harbour and naval dockyard for the Argentine capital may be constructed. There is a "Western" line, the first opened in the country, finished now to Civilcoy and Bragado, with a branch from Merlo to Lobos, and another from Lujan to Azcuenaga, altogether a line of 204 miles ; a "Southern" line, branching out into two lines, one to Dolores, the other to Azul, about 252 miles, intended at some future time to go down to Patagonia, at Bahia Blanca, and Rio Negro ; and a "Campana" line, of 48 miles, which strikes across the country to the Parana, at the branch called Parana de las Palmas, enabling travellers to embark at Campana for Rosario, avoiding the labyrinth of the isles of the shallow Delta ; and from Rosario to go by steamer up the whole length of the Parana itself, and of the Paraguay, and the tributaries of both rivers from north and west, a watercourse navigable for several thousand miles.

Still the railway or net of railways which is to exercise the greatest influence over the destinies of this part of the world starts for the present, not from Buenos Ayres, but from Rosario. From Rosario the "Central Argentine" Railway proceeds to Cordova, 238 miles to the west. From Cordova the "Central Northern," now finished to Tucuman, 337 miles, will be carried on to the frontier of Bolivia. But, again, the "Andine," or "Transandine" line, starting from Villa Maria, a junction station on the "Central Argentine," between Rosario and Cordova, is opened to Villa Mercedes, whence it is to cross the provinces of San Luis and Mendoza ; and from Mendoza to go over the Uspallato Pass across the Cordillera of the Andes, there to join the Chilian lines at Santa Rosa de los Andes and San Felipe, leading to Santiago and Valparaiso. It is not easy to foresee how soon Chili, engrossed by its expensive war, may be able to fulfil her own share of this great scheme of an "inter-oceanic railway," rivalling in importance the "Pacific line" of the United States ; but so far as the Argentine Republic is concerned, the people here are very earnest and confident, and the Minister for Public Works has just dug the first turf of the trunk line from Villa Mercedes to Mendoza. To enable a traveller to cross the Continent by rail from Buenos Ayres to Valparaiso, it will, however, be necessary to construct the direct line from Buenos Ayres to Rosario, 185 miles long, the project of which has long been entertained.

There has not been the same activity displayed in the furtherance of works of this nature by the neighbouring Republic of Uruguay. The only line of some importance, leaving Montevideo north to Durazno, 135 miles, will some day go up to join the Brazilian lines across the frontier. And there are two other lines, one "Western," to Colonia and Higueritas, and the other, "Eastern," to Pando and Rocha, of both of which only a few miles have as yet been open to the public.

The two Republics, Argentine and Uruguay, are, besides, engaged in two simultaneous and parallel works tending to one and the same scope. The Uruguay river, a broad and deep stream, is navigable for large steamers as far as Salto, 215 miles from its mouth, but above Salto, for a distance of 100 miles, to Santa Rosa, it flows over a rocky bed, somewhat like the Iron Gates of the Danube, with rapids, and a fall of 25 feet, which renders its navigation impracticable, except when its waters are at the highest. To do away with this inconvenience the Government of Montevideo began, by the aid of a guaranteed English company, the construction of a railway from Salto to Santa Rosa, 110 miles long, which is, however, not yet finished. Meanwhile, the Argentine Republic has been at work on the opposite or right bank of the river, and carried on its railway from Concordia to Monte Caceros, which is now in full working order, and beyond which the Uruguay becomes again navigable to Uruguayana, and along the Argentine territory of Corrientes and Missiones up to the Brazilian frontier.

The Republic of Paraguay, the third of the Independent States of the Plate, 1,100 miles inland, lying between the Upper Parana and the Paraguay rivers, and bordering in the north with Brazil, has only one railway 46 miles long, from the capital, Asuncion, to Paraguari. It was built during the dictatorship of Francisco Solano Lopez, that despot, half madman, half brute, and wholly a coward, who by his own infatuation, seconded by the blind though more than heroic devotion of his people, brought such utter ruin and desolation to the country that out of a population amounting, according to the exaggerated census of 1857, to 1,337,449, there were left, it is said, at the close of the war with Brazil and her allies in 1870, barely 100,000 inhabitants, mostly helpless women and children.

The establishment of electric telegraphs throughout this region more than kept pace with the development of railway enterprise. There are now over 7,000 miles of telegraph lines in the Argentine and Uruguay Republics, and the construction, it is stated, proceeds at the rate of 500 miles yearly ; the home lines extending through land or submarine lines to the Chilian and Brazilian lines, and through them to all parts of America and Europe.

The whistle of the steam engine and the spark of the electric wire were not without their wonted beneficial effects. To begin with, they have scared the wild Indians and their allies, the marauding Gauchos, from the abode of civilized man. The really settled part of the Argentine Republic consisted till lately of the city and province of Buenos Ayres, and proceeded northward along both banks of the Parana to the provinces of Entre Rios and Corrientes on the right

bank, and to that of Santa Fé on the left. West of Santa Fé the construction of the Central Argentine Railway led to the colonization of the lands along that line as far as Cordova, and of large tracts of the northern provinces of Tucuman, Catamarca, and others along the chain of the Andes. But north of Santa Fé spread the wilderness of the Grand Chaco, of which the native tribes still asserted the mastery. West of Buenos Ayres and south of Cordova lay the vast extent of the Pampa, into which but few even of the boldest pioneers had ventured. Finally, south of Buenos Ayres, across the Rio Negro, there spread the waste territory of Patagonia, down to the Magellan Strait and the Tierra del Fuego, to which Chili and the Argentine Republic lay contending claims, but on which the latter State had some settlements at Bahia Blanca, and the Chubut. Between the Argentine people and the wild tribes of these three deserts there was for many years open war, the Indians, led and aided by some of the worst characters among the Gauchos and by malefactors of every description, frequently breaking through their boundaries and terrorizing the settlements by the suddenness and ruthlessness of their onslaughts. Against such an evil the country had no other protection than a cordon of troops posted along the border, which was frequently overleapt, and the support of some of the friendly Indians, whose alliance was not always to be relied upon. General Alsina, a man of energy, whose success as a candidate for the Presidency at the forthcoming election would, had he been living, been certain, undertook during his administration of the War Department in 1877 military operations which were to advance the frontier lines for scores of leagues in every direction, driving the savages farther and farther into their hunting grounds. Like the Araucanians in Chili, the various tribes of Indians on this side of the Andes have lately been greatly cowed by the Snider and Remington rifles, not only of the troops, but also of the rural population, especially of the English, German, Swiss and other settlers; so that their incursions, even in remote and unprotected districts, are, in normal times, seldom attended by the deeds of violence and bloodshed of former times—the painted warrior of a romantic era having now sunk to the condition of a skulking cattle-lifter.

"Normal times," however, are in this country apt to be the exception. The dread of political disturbance, and with it of a recrudescence of Indo-Gaucho outrages, impends, like a sword of Damocles, over the head of the pacific settler. Security is a plant of slow growth and of very tender fibre, and society here, both in town and country, is always haunted by a sense of coming evil. Several grazing estates belonging to English subjects are being converted into agricultural farms, as these, possessing less cattle and requiring more hands, hold out less hope of plunder and supply ampler means of defence. On the same ground some Russo-German colonists, applying for grants of land, bargained for permission to crowd together in a village in the centre of their lots for mutual protection, unwilling to trust themselves to the perils of an isolated existence; and the permission had, however reluctantly, to be granted by the Government, who urged vainly, though with good reason, that there can be no good and thrifty husbandry where the labourer dwells at a distance from his fields. The wish to provide for safety by united strength prevailed with the prudent settler over all economical considerations.

In the Republic of Uruguay, again, where the wild native tribes were trodden down and exterminated during the contest between Spain and Portugal for the occupation of the territory, the people, easy on the score of the red men, labour under the incessant fear of even worse savages; for such are the adventurers, whether of the Government party or of the Opposition, who on any outbreak of political warfare never fail to spread themselves all over the country, and at the head of scratch bands of soldiers or so-called National Guards, levy black mail in the name of an authority, which, on the restoration of order, naturally hastens to disavow its own instruments, and declines every responsibility for their doings. Revolution in these countries has passed from the acute to the chronic state; but the complaint is by no means radically cured. At any crisis rabid politicians and a blatant, fire-and-brimstone Press seem bent on allowing no man easy slumbers; and the experience of the past forbids any too sanguine confidence in the present or the future.

With all this, however, the country is immensely rich, and its wealth is every day attaining fresh development. The Province of Buenos Ayres, as I said, is the centre of all movement, and with a population amounting to about one-fourth of that of the whole Argentine Republic exports about three-fourths of all the produce, and consumes more than three-fourths of the imports. The province, however, is as yet in the main a pastoral community. The land is almost a perfect level, entirely bare of wood, and, except in some of the southern districts, without a stone or even a pebble. It is divided into cattle and sheep farms, owning collectively eight to ten millions of horned cattle and 56 millions of sheep, besides several millions of horses. For the whole Republic the statistical tables gave, in 1875, 13 millions of cattle and 57 millions of sheep, the former valued at $83,789,514 (about £16,000,000), the latter at about £17,000,000. With horses, mules, asses, goats, and swine, the pastoral wealth of the country amounted to $191,432,918 (about £40,000,000). The Republic of Uruguay, with an area and population nearly equal to that of the Province of Buenos Ayres, but with an undulating territory and a soil, perhaps, less fertile, has only 5,500,000 cattle and 12,000,000 sheep, the whole estimated at £9,000,000.

These figures would not, perhaps, convey any very distinct meaning, even if they could be relied upon for strict correctness, and it will be more to the purpose if I give some particulars of such of the pastoral establishments as I have visited. The province of Buenos Ayres, as I said, within a radius of about 75 miles round the city, consists mainly of cattle and sheep farms, and some of the large *estancias* or estates combine the rearing both of herds and flocks. A journey of a little more than four hours by train on the Southern Railway, and a two hours' drive from a station, brought me to an estate of this description, belonging to an English absentee, and managed by a Scotchman eminently gifted with the brain and muscle necessary for his arduous task. *Estancias* in former times extended over a surface of 20 to 50 square leagues; but they have lately undergone considerable division and subdivision, and those boasting 10 square leagues are becoming rare. The one I am speaking of does not exceed 6½ leagues, or about 20 square miles. It was probably bought for an old song originally, but its value by the tax-gatherer's assessment is now £50,000, and it would readily fetch at least double that price if it came to the hammer. It yields to the owner a net revenue of £10,000 to £15,000, and is stocked with 10,000 cattle, 70,000 sheep, and 2,000 horses. It has a very comfortable dwelling-house, with a *monte* or plantation of 20 acres of garden, orchard, and wood, and all the appurtenances of a first-rate English gentleman's seat. The main business of the manager consists in experiments to improve his stock by the importation of the best English or foreign breeds. He has crossed the Spanish cattle with the finest specimens he could obtain from Durham and Hereford, and can show the most splendid rams from Lincolnshire and Rambouillet, and he also showed me some of the handsomest thoroughbred stallions. These he sells and swops and trades in at the markets, or with neighbouring farmers, benefiting the surrounding districts by bettering their stock at the same time that he drives the most profitable bargains for his employer. He has two young English gentlemen for his assistants, and the work

THE BRITISH ASSOCIATION.

THE PRESIDENT'S ADDRESS.

(By Telegraph.)

(from our own correspondent.)

SHEFFIELD, Wednesday Night.

The proceedings of the forty-ninth annual gathering of this Association commenced this afternoon with a meeting of the General Committee, Mr. Spottiswoode, the retiring President, in the chair.—The Secretary read the report of the Council, which amongst other matters stated that there being no adequate space for a library in their present London office, they recommended that the library should no longer be maintained there; but in order to afford facilities to the members of the Association for consulting works of reference as fully as hitherto, they had made an arrangement with the University of London whereby the books belonging to the Association would be deposited in the library of the University of Burlington House. The Council had also decided to reappoint the Committee on the possibility of establishing a close time for the protection of indigenous animals. The recommendations of the Royal Commissioners on Science having been altogether disregarded in the Act lately proposed to enable the trustees of the British Museum to remove the Natural History collections to South Kensington, the Council drew up a memorial on the subject, and requested Lord Beaconsfield to receive a deputation to present it. Owing to the pressure of public business his Lordship was obliged to forego receiving a deputation; but the Lords of the Treasury, in reply to the memorial, declined, amongst other reasons, to propose any immediate change in the management of those collections, because it was a very wide and important question whether public aid to science should be administered by a body professing a certain real independence of its own. The Council had taken active steps to make known its views with respect to the consolidation and improvement of the Patent Laws proposed by the Government, and the measure, in the form in which it was produced, had been withdrawn. The Council mentioned with regret the loss by death of Mr. W. Froude, F.R.S.; and that Mr. Bramwell, C.E., Dr. W. Farr, Mr. Pengelly, and Professor Prestwich retired from the Council by rotation. The Council recommended the re-election of the other members, together with Messrs. Easton, Gwyn Jeffreys, Newmarch, Sorby, and Professor Hughes.

Some discussion followed the reading of the report; and the reply of the Treasury on the subject of the Natural History collections being deemed unsatisfactory, it was agreed to rediscuss the whole subject in Section D (Zoology). The report generally was adopted.

At eight o'clock this evening the first general meeting was held in the Albert Hall. There was a large gathering of members and associates, including a very considerable number of ladies. Among the gentlemen on the platform were Mr. Spottiswoode, Professor G. J. Allman, M.D., the President elect, the Mayor of Sheffield (Mr. Ward), the Master Cutler (Mr. W. H. Brittain), the Rev. Canon Blakeney, Sir Antonio Brady, Mr. Mundella, M.P., Captain Bedford Pim, M.P., Sir J. Lubbock, M.P., Professors Adams, Attfield, Dawkins, Dewar, Duncan, Ferguson, Forbes, Huxley, Lebour, Lowenthal-Lonsdale, Newton, Adling, Thompson, R. W. Williamson, W. C. Williamson, Adamson, St. G. Mivart, Vernon Harcourt, and Sanderson; Captain Galton, Dr. Gladstone, Mr. A. Grote, Rev. A. Harland, Dr. Orpen, Dr. Ransom, Mr. E. Renals, Canon Rawlinson, Dr. Sclater, Dr. Scott, Dr. Sorby, Lieut. General Sir H. Thuillier, Dr. M. Foster, Dr. Houghton, Mr. V. Ball, Sir R.W. Rason, Mr. E. Baines, and Mr. Barry, President R.I.B.A.

The Mayor, in introducing the President of the British Association to the assembly, spoke of the great honour done to Sheffield by its selection for this visit. The town had long been under a cloud, but he was happy to be able to say that that cloud was dispersing. They had recently derived so much benefit from the visit of the Church Congress, that he was certain the citizens would give a hearty welcome to the British Association (cheers) and its President.

Mr. Spottiswoode took the chair, and said the two concluding duties of his year of office were very simple. One was to give the members his hearty thanks, and the second to vacate the chair in favour of his successor (cheers). Dr. Allman was well-known to all biologists as one of the most ardent, the most persevering, and the most successful of all investigators in that field of research. In the change from the outgoing to the incoming President they would hop from the abstractions of mathematics to the plenitude of animal and vegetable life in the curious lower forms of existence (cheers).

The new President took the Chair, and read the inaugural address. After a few words of introduction, he said he proposed, as the subject of his address, to give some account of the most generalised expression of living matter, and of the results of the more recent researches into its nature and phenomena. More than forty years have passed away since the French naturalist Dujardin drew attention to the fact that the bodies of some of the lowest members of the animal kingdom consist of a structureless, semi-fluid, contractile substance, to which he gave the name of Sarcode. A similar substance occurring in the cells of plants was afterwards studied by Hugo von Mohl, and named by him Protoplasm. It remained for Max Schultze to demonstrate that the sarcode of animals and the protoplasm of plants were identical. The conclusions of Max Schultze have been in all respects confirmed by subsequent research; and it has further been rendered certain that this same protoplasm lies at the base of all the phenomena of life, whether in the animal or the vegetable kingdom. Thus has arisen the most important and significant generalisation in the whole domain of biological science. The chemical composition of protoplasm is very complex, and has not been exactly determined. It may, however, be stated that protoplasm is essentially a combination of albuminoid bodies, and that its principal elements are, therefore, oxygen, carbon, hydrogen, and nitrogen. In its typical state it presents the condition of a semi-fluid substance—a tenacious, glairy liquid, with a consistence somewhat like that of the white of an uncooked egg. While we watch it beneath the microscope movements are set up in it; waves traverse its surface, or it may be seen to flow away in streams, either broad and attaining but a slight distance from the main mass, or else stretching away far from their source, as narrow liquid threads, which may continue simple, or may divide into branches, each following its own independent course; or the streams may flow one into the other, as streamlets would flow into rivulets and rivulets into rivers, and this not only where gravity would carry them, but in a direction diametrically opposed to gravitation; now we see it spreading itself out on all sides into a thin liquid stratum, and again drawing itself together within the narrow limits which had at first confined it, and all this without any obvious impulse from without which would send the ripples over its surface or set the streams flowing from its margin. Though it is certain that all these phenomena are in response to some stimulus exerted on it by the outer world, they are such as we never meet with in a simply physical fluid—they are spontaneous movements resulting from its proper irritability, from its essential constitution as living matter. This protoplasm is totally destitute of structure, and yet no one who contemplates this spontaneously moving matter can deny that it is alive. Before passing to the further consideration of the place and purport of protoplasm in Nature, he would give some definite examples of protoplasm, such as are actually met with in the organic world. A quantity of a peculiar slimy matter was dredged in the North Atlantic by the naturalists of the exploring ship Porcupine from a depth of from 5000 to 25,000 feet. It is described as exhibiting, when examined on the spot, spontaneous movements, and as being obviously endowed with life. Specimens of this, preserved in spirits, were examined by Prof. Huxley, and declared by him to consist of protoplasm, vast masses of which must thus in a living state extend over wide areas of sea bottom. To this wonderful slime Huxley gave the name of *Bathybius Haeckelii*. Bathybius has since been subjected to an exhaustive examination by Professor Haeckel, who arrives at the conviction that the bottom of the open ocean, at depths below 5000 feet, is covered with an enormous mass of living protoplasm, which lingers there in the simplest and most primitive condition, having as yet acquired no definite form. No law of morphology has as yet exerted itself in this formless slime. Even the simplest individualisation is absent. We have a living mass, but we know not where to draw its boundary lines; it is a living matter, but we can scarcely call it a living being. Other minute lumps of protoplasm found in the fresh waters in the neighbourhood of Jena may be compared to minute detached pieces of Bathybius. Haeckel has seen them multiplying themselves by spontaneous division into two pieces, which, on becoming independent, increase in size, and acquire all the characters of the parent. Passing on to a stage a little higher in the development of protoplasmic beings, the famous amœba was described, in which we have the essential character of a cell, the morphological unit of organisation, the physiological source of specialised function. The cell is essentially a definite mass of protoplasm, having a nucleus imbedded in it. How the amœba feeds and multiplies itself having been glanced at, its varieties and modes of motion were described. The part fulfilled by these simple unicellular beings in the economy of nature has at all times been very great, and many geological formations, largely built of their calcareous or siliceous skeletons, bear testimony to the multitudes in which they must have swarmed in the waters of the ancient earth. In our own days similar unicellular organisms are at work, taking their part silently and unobtrusively in the great scheme of creation, and mostly destined, like their predecessors, to leave behind them no record of their

existence. But organisation does not long rest on this low stage of unicellular simplicity, for as we pass from these lowest forms into higher we find cell added to cell, until many millions of such units become associated in a single organism, where each cell, or each group of cells, has its own special work, while all combine for the welfare and unity of the whole. In the most complex animals, however, even in man himself, the component cells, notwithstanding their frequent modification and the usual intimacy of their union, are far from losing their individuality. Examine under the microscope a drop of blood freshly taken from the human subject, or from any of the higher animals. It is seen to be composed of a multitude of red corpuscles, swimming in a nearly colourless liquid, and along with these, but in much smaller numbers, somewhat larger colourless corpuscles. The red corpuscles are modified cells, while the colourless corpuscles are cells still retaining their typical form and properties. These last are little masses of protoplasm, each enveloping a central nucleus. Watch them. They will be seen to change their shape; they will project and withdraw pseudopodia, and creep about like an amœba. But, more than this, like an amœba, they will take in solid matter as nutriment. They may be fed with coloured food, which will then be seen to have accumulated in the interior of their soft transparent protoplasm; and in some cases the colourless blood corpuscles have actually been seen to devour their more diminutive companions, the red ones. In the lowest organisms, where the whole being consists of a single cell, the performance of all the processes which constitute its life must devolve on the protoplasm of this one cell; but as we pass to more highly organised beings, the work becomes distributed among a multitude of workers. These workers are the cells which now make up the complex organism. The distribution of labour, however, is not a uniform one, and we are not to suppose that the work performed by each cell is but a repetition of that of every other. For the life processes, which are accumulated in the single cell of the unicellular organism become in the more complex organism differentiated, some being intensified and otherwise modified and allocated to special cells, or to special groups of cells, which we call organs, and whose proper duty is now to take charge of the special processes which have been assigned to them. In all this we have a true division of labour—a division of labour, however, by no means absolute; for the processes which are essential to the life of the cell must still continue common to all the cells of the organism. No cell, however great may be the differentiation of function in the organism, can dispense with its irritability, the one constant and essential property of every living cell. There thus devolves on each cell or group of cells some special work which contributes to the well-being of all, and their combined labours secure the necessary conditions of life for every cell in the community, and result in those complex and wonderful phenomena which constitute the life of the higher organisms. In very many instances the protoplasm becomes confined within resisting walls composed of cellulose which entirely shut it in from all direct contact with the medium which surrounds it. The imprisoned protoplasm, however, loses none of its activity, and its irritability may be easily rendered manifest. There are many herbaceous plants in which if the young succulent stem of a vigorously growing specimen receive a sharp blow, of such a nature however as not to bruise its tissues, or in any way wound it, the blow will sometimes be immediately followed by a drooping of the stem commencing at some distance above the point to which the stroke had been applied: its strength appears to have here suddenly left it, it is no longer able to bear its own weight, and seems to be dying. The protoplasm, however, of its cells is, in this instance, not killed, it is only stunned by the violence of the blow, and needs time for its restoration. After remaining, it may be for some hours, in this drooping and flaccid state, the stem begins to raise itself, and soon regains its original vigour. That there is no essential difference between the protoplasm of plants and that of animals is rendered evident by various motor phenomena, which we are in the habit of regarding as the exclusive attribute of animals. Another fact which shows the uniform character of protoplasm and how very different are its properties from those of lifeless matter, is the faculty which all living protoplasm possesses of resisting the entrance of colouring matter into its substance. No more illustrative example can be offered of the properties of protoplasm as living matter, independently of any part it may take in organisation, than that presented by the *Myxomycetæ*, a group of remarkable organisms, which, from their comparatively large size, and their consisting, during a great part of their lives, of naked protoplasm, have afforded a fine field for research. They are found in moist situations, growing on old tan or on moss, or decaying leaves or rotten wood, over which they spread in the form of a network of naked protoplasmic filaments, of a soft creamy consistence, and usually of a yellowish colour. A description of the growth and reproduction of this singular group led, to a consideration of the process of cell-multiplication, which has of late years been studied, with the result of adding largely to our knowledge of the phenomena of life. By far the most frequent mode of multiplication among cells shows itself in a spontaneous division of the protoplasm into two separate portions, which then become independent of one another, so that instead of the single parent cell two new ones have made their appearance. It sometimes happens in the generation of cells that a young brood of cells arises from the parent cell by what is called "free cell formation." In this only a part of the protoplasm of the mother cell is used up in the production of the offspring. It is seen chiefly in the formation of the spores of the lower plants, in the first foundation of the embryo in the higher, and in the formation of the endosperm—a cellular mass which serves as the first nutriment for the embryo—in the seeds of most phanerogams. Related to the formation of new cells, whether by division or by free cell formation, is another very interesting phenomenon of living protoplasm known as "rejuvenescence." In this the whole protoplasm of a cell, by a new arrangement of its parts, assumes a new shape and acquires new properties. It then abandons its cellulose chamber, and enters on a new and independent life in the surrounding medium. The beautiful researches which have within the last few years been made on the division of animal cells show how close is the agreement between plants and animals in all the leading phenomena of cell division, and afford one more proof of the essential unity of the two great organic kingdoms. Protoplasm, however, may present a phenomenon the reverse of that in which a simple cell becomes multiplied into many by the fusion into one another of cells originally distinct. In many of the lower plants a coalescence is known to take place between the protoplasmic bodies of separate cells, and constitutes the phenomenon of conjugation. The formation of plasmodia, regarded as a coalescence and absolute fusion into one another of separate naked masses of protoplasm, is a phenomenon of great significance. It is highly probable that, notwithstanding the complete loss of individuality in the combining elements, such differences as may have been present in these will always find itself expressed in the properties of the resulting plasmodia—a fact of great importance in its bearing on the phenomena of inheritance. Recent researches, indeed, render it almost certain that fertilisation, whether in the animal or the vegetable kingdom, consists essentially in the coalescence and consequent loss of individuality of the protoplasmic contents of two cells. In by far the greater number of plants the protoplasm of most of the cells which are exposed to the sunlight undergoes a curious and important differentiation, part of it becoming separated from the remainder in the form usually of green granules, known as chlorophyll granules. The chlorophyll granules thus consist of true protoplasm, their colour being due to the presence of a green colouring matter, which may be extracted, leaving behind the colourless protoplasmic base. On the cells which contain chlorophyll devolves the faculty of decomposing carbonic acid. On this depends the assimilation of plants, a process which becomes manifest externally by the exhalation of oxygen. It is under the influence of light on the chlorophyll containing cells that this evolution of oxygen is brought about. In the higher plants, while the work of assimilation is allocated to the chlorophyll-containing cells, that of cell division and growth devolves on another set of cells, which, lying deeper in the plant, are removed from the direct action of light, and in which chlorophyll is therefore never produced. In certain lower plants, in consequence of their simplicity of structure and the fact that all the cells are equally exposed to the influence of light, this physiological division of labour shows itself in a somewhat different fashion. Thus, in some of the simple green algæ, such as Spirogyra and Hydrodictyon, assimilation takes place as in other cases during the day, while their cell division and growth takes place chiefly, if not exclusively, at night. The action of chlorophyll in bringing about the decomposition of carbonic acid is not absolutely confined to plants. In some of the lower animals, such as some infusoria, the Green Hydra, and certain green planariæ and other worms, chlorophyll is differentiated in their protoplasm, and probably always acts here, under the influence of light exactly as in plants. All recent research has been bringing out in a more and more decisive manner the fact that there is no dualism in life—that the life of the animal and the life of the plant are, like their protoplasm, in all essential points identical. But there is, perhaps, nothing which shows more strikingly the identity of the protaplasm in plants and animals, and the absence of any deep-pervading difference between the life of the animal and that of the plant, than the fact that plants may be placed, just like animals, under the influence of anæsthetics. We owe to Claude Bernard a series of interesting and most instructive experiments on the action of ether and chloroform on plants. He exposed to the vapour of ether a healthy and vigorous sensitive plant, by confining it under a bell-glass, into which he introduced a sponge filled with ether. At the end of half an hour the plant was in a state of anæsthesia, all its leaflets remained fully extended, but they showed no tendency to shrink when touched. It was then withdrawn from the influence of the ether, when it gradually recovered its irritability, and finally responded, as before, to the touch. Claude Bernard has also shown that germination is suspended by the action of ether or chloroform. The same great physiologist has also investigated the action of anæsthetics on fermentation. If the yeast plant be placed along with sugar in etherised water it will no longer act as a ferment. It is anæsthesiated, and cannot respond to the stimulus which, under ordinary cir-

cumstances, it would find in the presence of the sugar. If, now, it be placed on a filter and the ether washed completely away, it will, on restoration to a saccharine liquid, soon resume its duty of separating the sugar into alcohol and carbonic acid. The quite recent researches of Schützenberger, who has investigated the process of respiration as it takes place in the cell of the yeast fungus, have shown that vitality is a factor in this process. He has shown that fresh yeast, placed in water, breathes like an aquatic animal, disengaging carbonic acid, and causing the oxygen contained in the water to disappear. The respiration of living beings is therefore identical, whether manifested in the plant or in the animal. One of the most valuable results of the recent careful application of the experimental method of research to the life phenomena of plants is thus the complete demolition of the supposed antagonism between respiration in plants and that in animals. In conclusion the President said: I have thus endeavoured to give you in a few broad outlines a sketch of the nature and properties of one special modification of matter, which will yield to none other in the interest which attaches to its study, and in the importance of the part allocated to it in the economy of nature. Enough has been said to convince you that in protoplasm we find the only form of matter in which life can manifest itself, and that, though the outer conditions of life—heat, air, water, food—may all be present, protoplasm would still be needed, in order that these conditions may be utilised, in order that the energy of lifeless nature may be converted into that of the countless multitudes of animal and vegetable forms which dwell upon the surface of the earth or people the great depths of its seas. We are thus led to the conception of an essential unity in the two great kingdoms of organic nature—a structural unity, in the fact that every living being has protoplasm as the essential matter of every living element of its structure, and a physiological unity in the universal attribute of irritability which has its seat in this same protoplasm, and is the prime mover of every phenomenon of life. We have seen how little mere form has to do with the essential properties of protoplasm. This may shape itself into cells, and the cells may combine into organs in ever increasing complexity, and protoplasm force may be thus intensified, and, by the mechanism of organisation, turned to the best possible account; but we must still go back to protoplasm as a naked formless plasma if we would find—freed from all non-essential complications—the agent to which has been assigned the duty of building up structure and of transforming the energy of lifeless matter into that of living. To suppose, however, that all protoplasm is identical where no difference cognisable by any means at our disposal can be detected would be an error. Of two particles of protoplasm, between which we may defy all the power of the microscope, all the resources of the laboratory, to detect a difference, one can develope only to a jelly-fish, the other only to a man, and one conclusion alone is here possible—that deep within them there must be a fundamental difference which thus determines their inevitable destiny, but of which we know nothing, and can assert nothing beyond the statement that it must depend on their hidden molecular constitution. In the molecular condition of protoplasm there is probably as much complexity as in the disposition of organs in the most highly differentiated organisms, and between two masses of protoplasm indistinguishable from one another there may be as much molecular difference as there is between the form and arrangement of organs in the most widely separated animals or plants. Herein lies the many-sidedness of protoplasm, herein lies its significance as the basis of all morphological expression, as the agent of all physiological work, while in all this there must be an adaptiveness to purpose as great as any claimed for the most complicated organism. From the facts which have been now brought to your notice there is but one legitimate conclusion—that life is a property of protoplasm. In this assertion there is nothing that need startle us. The essential phenomena of living beings are not so widely separated from the phenomena of lifeless matter as to render it impossible to recognise an analogy between them; for, even irritability, the one grand character of all living beings, is not more difficult to be conceived of as a property of matter than the physical phenomena of radial energy. It is quite true that between lifeless and living matter there is a vast difference, a difference greater far than any which can be found between the most diverse manifestations of lifeless matter. Though the refined synthesis of modern chemistry may have succeeded in forming a few principles which until lately had been deemed the proper product of vitality, the fact still remains that no one has ever yet built up one particle of living matter out of lifeless elements—that every living creature, from the simplest dweller on the confines of organisation up to the highest and most complex organism, has its origin in pre-existent living matter—that the protoplasm of to-day is but the continuation of the protoplasm of other ages, handed down to us through periods of indefinable and indeterminable time. Yet with all this, vast as the differences may be, there is nothing which precludes a comparison of the properties of living matter with those of lifeless. When, however, we say that life is a property of protoplasm, we assert as much as we are justified in doing. Here we stand upon the boundary between life in its proper conception, as a group of phenomena having irritability as their common bond, and that other and higher group of phenomena which we designate as consciousness or thought, and which, however intimately connected with those of life, are yet essentially distinct from them. When a thought passes through the mind, it is associated, as we have now abundant reason for believing, with some change in the protoplasm of the cerebral cells. Are we, therefore, justified in regarding thought as a property of the protoplasm of these cells, in the sense in which we regard muscular contraction as a property of the protoplasm of muscle, or is it really a property residing in something far different, but which may yet need for its manifestation the activity of cerebral protoplasm? If we could see any analogy between thought and any one of the admitted phenomena of matter, we should be bound to accept the first of these conclusions as the simplest, and as affording a hypothesis most in accordance with the comprehensiveness of natural laws; but between thought and the physical phenomena of matter there is not only no analogy, but there is no conceivable analogy; and the obvious and continuous path which we have hitherto followed up in our reasonings from the phenomena of lifeless matter through those of living matter here comes suddenly to an end. The chasm between unconscious life and thought is deep and impassable, and no transitional phenomena can be found by which, as by a bridge, we may span it over; for even from irritability, to which, on a superficial view, consciousness may seem related, it is as absolutely distinct as it is from any of the ordinary phenomena of matter. It has been argued that because physiological activity must be a property of every living cell, psychical activity must be equally so, and the language of the mechanician has been carried into biology, and the "cell soul" spoken of as a conception inseparable from that of life. That psychical phenomena, however, characterised as they essentially are by consciousness, are not necessarily co-extensive with those of life, there cannot be a doubt. How far back in the scale of life consciousness may exist we have yet no means of determining, nor is it necessary for our argument that we should. Certain it is that many things, to all appearance the result of volition, are capable of being explained as absolutely unconscious acts; and when the swimming swarm spore of an alga avoids collision, as by a reversal of the stroke of its cilia backs from an obstacle lying in its course, there is almost certainly in all this nothing but a purely unconscious act. It is but a case in which we find expressed the great law of the adaptation of living beings to the conditions which surround them. The irritability of the protoplasm of the ciliated spore responding to an external stimulus sets in motion a mechanism derived by inheritance from its ancestors, and whose parts are correlated to a common end—the preservation of the individual. But even admitting that every living cell were a conscious and thinking being, are we therefore justified in asserting that its consciousness, like its irritability, is a property of the matter of which it is composed? That consciousness is never manifested except in the presence of cerebral matter, or of something like it, there cannot be a question; but this is a very different thing from its being a property of such matter in the sense in which polarity is a property of the magnet, or irritability of protoplasm. I know that there is a special charm in these broad generalisations which would refer many very different phenomena to a common source. But in this very charm there is undoubtedly a danger, and we must be all the more careful lest it should exert an influence in arresting the progress of truth, just as at an earlier period traditional beliefs exerted an authority from which the mind but slowly and with difficulty succeeded in emancipating itself. But have we, it may be asked, made in all this one step forward towards an explanation of the phenomena of consciousness or the discovery of its source? Assuredly not. The power of conceiving of a substance different from that of matter is still beyond the limits of human intelligence, and the physical or objective conditions which are the concomitants of thought are the only ones of which it is possible to know anything, and the only ones whose study is of value. We are not, however, on that account forced to the conclusion that there is nothing in the universe but matter and force. The simplest physical law is absolutely inconceivable by the highest of the brutes, and no one would be justified in assuming that man had already attained the limit of his powers. Whatever may be that mysterious bond which connects organisation with psychical endowments, the one grand fact—a fact of inestimable importance—stands out clear and freed from all obscurity and doubt, that from the first dawn of intelligence there is with every advance in organisation a corresponding advance in mind. Mind as well as body is thus travelling onwards through higher and still higher phases; the great law of evolution is shaping the destiny of our race; and though now we may at most but indicate some weak point in the generalisation which would refer consciousness as well as life to a common material source, who can say that in the far off future there may not yet be evolved other and higher faculties from which light may stream in upon the darkness, and reveal

to man the great mystery of Thought?

At the close of the Address, which was very well received, a cordial vote of thanks to Professor Allman closed the proceedings.

Algo que debe saber la junta de donativos.

Cuando el 6 de Abril comenzó la suscricion para los *gastos de la guerra*, y en menos de sesenta dias llegó á seis millones, dijimos y con razon, esto no es mas que *nuestro primer óbolo*.

Cuando estos fondos comenzaron á entrar en la caja de la junta central de donativos, aconsejamos que esta caja ó la junta desempeñasen la superior vigilancia de una inversion legitima, es decir, de su verdadera aplicacion en las necesidades de la guerra.

Tres millones, ó mas, se han colectado, pero se han consumido á juicio de nuestros mandatarios; esto no quiere decir que no se hayan invertido en necesidades bélicas, mas no sabemos si lo han sido en necesidades importantes y preferentes, ó en necesidades de segundo órden.

No queremos tampoco averiguarlo en esta hora, la menos oportuna para las residencias recriminosas.

Lo que sabemos, desde un principio, es, que pocas veces se han juntado ciudadanos de mejores antecedentes ni de mayor probidad y confianza pública, que los que la guerra ha congregado en la junta de donativos patrióticos, comenzando por el M. R. señor Obispo del Cuzco, que tan dignamente la preside.

Por eso al oblar en el ára de la patria nuestro segundo óbolo con un destino especial, cual es el grande objeto de reemplazar el «Huascar» por el «Almirante Grau» para inmortalizar, si es posible, la encarnacion en un hombre de la virtud y el deber, como para recuperar prontamente las fuerzas que la imprudencia ha hecho perder á la República, todos hemos estado de acuerdo, como por intuicion, en que este óbolo no se confunda con el primero, en que se recaude y se guarde distintamente, y en que su producto se aplique precisa necesaria y únicamente á su objeto, por la administracion y la accion privada de la sociedad peruana, representada en su grande comité, la junta central de donativos.

Como este óbolo se compone de la ofrenda que hace todo el Perú, de la segunda moneda que dá el rico y entrega el pobre, la nóvia que se desprende de su anillo de boda como la doncella que, cortándose los cabellos de oro, entrega una de las joyas que le dió la naturaleza; necesario es tambien, que digamos á la junta de donativos algo que le pueda ser útil saber, en órden, sea al valor de los diamantes y el mejor modo de venderlos, sea á la inmediata colocacion que debe hacerse de los valores, en metalico y papel, que se colectan por los señores comisionados en Lima, provincias, y departamentos de la República.

Lo que vamos á decir interesa á todos los donantes, es el resultado de las observaciones que hemos hecho en Europa, en el mercado de los diamantes, en el año de 1874.

Los diamantes brutos de pequeña dimension, pero buenos por su talla, se venden generalmente por lotes al precio de 48 francos el quilate, con el peso de veinte y un cuarto centígramos: cuando exceden de este peso, se les valoriza por el cuadrado de su peso multiplicado por 48: así, un diamante bruto de tres quilates vale $3\times3=9\times48$—ó sean 432 francos—un diamante de diez quilates vale $10\times10=100\times48$ ó sea 4,800 francos.

Los diamantes tallados ó lapidados tienen un valor mucho mas considerable: los mas pequeños llamados *rosas* empleables en los adornos de que se rodean las joyas valen de 60 á 80 francos el quilate, pero este precio acrece rápidamente con el volúmen de las piedras: los brillantes mas pequeños valen de 168 á 192 francos el quilate, y cuando exceden de este peso hasta 2 ½ quilates, se venden desde 250 a 300 francos: desde tres quilates, los brillantes suben su precio hasta 1,800 y 2,000 francos. En general, se estiman los diamantes tallados por el cuadrado de su peso multiplicado por 192 francos; así, un diamante de doce quilates vale $12\times12=144\times192=26{,}648$ francos, pero cuando los diamantes sobrepasan cierto número de quilates, desde 12 á 20, ya no hay una regla fija de estimacion.

Cuando se compran y se venden diamantes, es preciso examinar atentamente aquellos que son los mas limpios, los mas puros, ó, como se dice entre los joyeros, de mas bellas aguas, sin ninguna especie de coloracion, que no estén descompuestos por ninguna mancha ó punto negro, ni por ninguna grieta, escarcha, ó jardin, aquellos, en fin, en que el tallado ó lapidacion es la mas regular. La belleza de los brillantes principia desde cinco hasta doce quilates, su rareza desde 12 á 20 quilates, y son contados en el mundo los que, excediendo de 20, llegan á 50 quilates.

Los diamantes negros se consideran en un precio doble al de los blancos, en las relativas condiciones de estos.

Tal es el valor de estimacion legal mercantil que, los maestros, contrastes, joyeros y artistas, dan en Francia á los diamantes brutos y á los brillantes, en las grandes tasaciones de estas piedras preciosas, como son las joyas de las coronas, los potentados y las ventas judiciales. Estos precios son equivalentes en todo el Occidente de Europa, y están admitidos en general en la América del Norte y del Sur. No por otra regla fueron estimados los brillantes que el Rey de Persia trajo á Paris en 1873, en la fabulosa, al parecer, suma de 72 millones de francos.

Pero una cosa son los brillantes tallados, y otra los brillantes montados, y otra todavía, los brillantes montados en obra de arte, y los montados en obra comun y de exportacion.

El brillante montado con arte tiene que pasar bajo el ojo perspicaz del artista, ó del

amador esperimentado, para recibir su precio, que consiste, en el valor de la piedra tallada, más el de la obra de arte y su procedencia y edad; por ejemplo, una piedra bien tallada de primera agua, montada en arte al estilo del siglo XV. con procedencia de persona, casa ó corporacion notable de su época, vale más que otra piedra igual, de montura artística, al gusto moderno.

El brillante montado en obra comun ó de exportacion, tiene por precio, sobre el intrinseco de la piedra, lo que se llama en Europa *la obra de mano*, ó el *trabajo del oficila*.

Hay pues una diferencia muy grande entre la montura de arte y la mano de obra, sean estas antiguas ó modernas. Llega el arte hasta vencer al diamante, es decir, una joya artística puede contener solamente tres quilates, en pequeños y ricos brillantes, y valer más que un brillante de montura comun con 4 quilates.

Tomando en consideracion lo que dejamos apuntado, creemos que lo que debe hacerse con las joyas de brillantes donadas, es clasificarlas en el órden que va indicado, separando las obras de arte de las que no lo sean.

Las obras de arte son del momento vendibles en Lóndres y Paris.

Los brillantes que se encuentran en obras de exportacion, deban ser desmontados, porque si se venden como estan, el comprador solo paga el brillante, quedándole en márgen la mano de obra y el oro, mientras que desmontados se obtiene el mismo precio y se aprovecha el oro. Ademas el brillante desmontado se vende en el dia al peso, segun su calidad y su lapidacion.

Deben clasificarse los brillantes, por piedras.

1.° Los de primeras aguas puros y limpios.

Desde 1 hasta 5 y 1/16 centígramos.
Desde 5 y 1/16 hasta 10 $\frac{1}{8}$ id.
De 10 $\frac{1}{8}$ hasta 15 id.
De 15 a 20$\frac{1}{4}$ id. quilate.
De 20 $\frac{1}{4}$ á 30 $\frac{3}{8}$ id.
De 30 $\frac{3}{8}$ á 40 $\frac{1}{2}$ id. dos quilates.
De 40 $\frac{1}{2}$ á 50 $\frac{3}{4}$ id.
De 50 $\frac{3}{4}$ á 60 id. tres quilates.
De 3 a 3 $\frac{1}{4}$ á 4 y 4 $\frac{1}{2}$ quilates.

2.° Los brillantes comunes, colocados, con manchas, grietas y escarchas, deben ser clasificados en el mismo órden de peso por piedra.

Tanto los brillantes montados en arte, como los brillantes desmontados, pueden recibir desde Lima una apreciacion bien aproximada, con la cual, á lo menos, sabremos cual puede ser el producto de esta clase de erogaciones patrióticas.

Estos brillantes deben ser conducidos á Europa por persona notoriamente honorable: al llegar á Europa, deben ser valorizados por contrastes en Lóndres y Paris, con la intervencion del ministro de la República, y en seguida deben ser vendidos, bajo la misma intervencion, con el certificado de la compra. Debe dejarse á la honradez del comisionado y el ministro el margen de la venta—es decir del 5 por ciento al 20 del precio estimativo—De este modo sabremos el producto verdadero de la negociacion y su inversion.

No es que tengamos desconfianzas, en los comisionados, no; por el contrario tenemos muy grande fé en su probidad, pero sabemos tambien que nadie se resiente en su rectitud, de saber lo que recibe y lo que debe entregar, con mayor razon, cuando los valores vendibles pertenecen á diez millopietarios en uno, del todo abstracto, nombrado la defensa nacional.

Los vendedores honrados encuentran en esta medida las sólidas garantias de su conducta; solo las repudian *los hombres de bien*, los que en cuarenta años han saqueado la República, han devorado el guano, se han comido las contribuciones, y nos han conducido hasta el punto de que empleemos, las joyas de nuestras familias, las de las vírgenes y santos de nuestras devociones, y hasta las medallas y las reliquias de nuestros antepasados, en la compra de las naves que nos defiendan. Cansados estamos de ladrones, y ya que no comenzemos ahora por ahorcarlos, por lo menos principiemos, para salud pública, á precavernos de su intervencion en los negocios raza y netamente populares.

No creemos que las erogaciones en especies de oro ni plata sean de valor artístico, aunque constituyan los mas caros recuerdos del corazon y la familia; todo eso debe fundirse y convertirse en lingote ó barra con ley de veintiun quilates y de 998 milésimos.

En cuanto á las erogaciones hechas en los célebres billetes de Banco, llámense este Junta de Vijilancia ó como se quiera, estas sumas han debido y deben, hoy mismo, convertirse en letras de cambio ó en barras de plata, si no se quiere, por efecto de una inocente pero mala administracion, que los donativos para el «Almirante Grau» se reduzcan, en pocos dias mas, á la mitad, á la tercia parte de su valor. Por ejemplo, la barra de plata que pudo comprarse el lúnes 13, siguiente de las erogaciones, al precio de S/ 21 50 cts., por el marco, hoy no podra comprarse á menos de 25; la libra esterlina que entónces valia S/ 15 50 cts., hoy no se consigue por menos de S/ 16 80 cts., y las letras que valian 17 peniques hoy valen 14, lo que significa haber reducido en 21 %, en mas de una quinta parte el valor de nuestros donativos.

Preciso es, por consiguiente, que verificado, noche por noche, el balance de la caja, se invierta la existencia en letras ó barras de plata ántes de las doce del dia siguiente. Asi debe hacerse y necesario es que se haga, ántes que el sol de papel se reduzca á 12, á 10, á 8 peniques, por efecto de la inundacion de la moneda de bonito nombre inventada por los *fiduciarios*, que nos han saqueado mas de 30 millones y siguen saqueando todavia á los pobres *fiduciados*.

Hay que tener presente, que los primeros grandes productos de nuestras erog

siones patrióticas deben estar en caja, en Europa, para el 1º de Diciembre, y que, por consiguiente, solo nos quedan diez dias para terminar las santas oblaciones del patriotismo,—esas ofrendas que, consagradas por el amor de la patria, van á resumirse en el blindado «Almirante Grau,» en el barco que ha de fijar en la historia el dia en que el pueblo peruano, cansado de ser engañado, comenzó á gobernarse por sí mismo, sin distincion de clases, personas, profesiones, ni partidos políticos; el dia en que la union y la firmeza comenzaron á ser, de veras, el vínculo único de su defensa, su poder y su felicidad.

Lima, Octubre 22 de 1879.

FERNANDO CASOS.

THE RISE AND FALL OF THE BAROMETER. THE CIRCULATION OF THE ATMOSPHERE.

TO THE EDITOR OF THE GLOBE.

SIR,—"Another depression has appeared off our west coast, and appears to be travelling eastward," or, "A large but shallow depression has appeared off Valencia, and is moving towards Germany." Such are instances of the very interesting, and, possibly to those who send them out, instructive reports with which we are almost daily favoured by our Meteorological Department. Again, we are informed, "New York telegraphs as follows:—June 10th, 1878—'Storm centre moving rapidly; will arrive British coasts, affecting French Norwegian coasts, 13th, with heavy rains and strong gales, south-east to south-west,'" &c. But, as if in very derision of this message, the barometer here, instead of falling and bringing south-east to south-west gales, rose high and turned the wind right from the eastward! Twenty years have elapsed since meteorological departments were first established in this country and America, and yet, notwithstanding their being furnished with the best of instruments and connected by telegraph with stations hundreds of miles away, the simple fact that the movements of the barometer are governed by a law as fixed and certain as that which governs the movements of the solar system, and that all its movements can be calculated with equal precision, seems never to have entered the minds of those who have been placed in charge of the establishments. A depression formed in America can no more cross the Atlantic to Europe in the same form than can the Rocky Mountains move in a similar manner from one continent to the other. The popular idea is that the barometer ought to foretell the weather. Nothing can really be more fallacious. Certain atmospheric disturbances coincide with certain movements of the barometer, it is true, but the movements of the latter are perfectly independent of the former. The movements of the barometer depend primarily on its position with regard to the magnetic bands or belts which girdle the earth—very similar to those which girdle the planet Jupiter. Half of these belts revolve from west to east, and the remainder from east to west, and may be said to govern the winds. For the sake of reference I will call those revolving from west to east negative, and those from east to west positive. If the sun and moon always remained in the same relative positions, these belts would always revolve over the same points of the earth's surface, the winds would remain the same, and the rise and fall of the barometer would be the same from day to day and year to year, simply showing the diurnal solar and lunar atmospheric waves. Next, the earth is connected with the sun by a series of magnetic bands revolving from west to east, and east to west—the change occurring every 13 days. The sun has phases similar to those of the moon—one side being far brighter and having greater magnetic influence than the other, and according as this brighter side is turned to or away from the earth so the currents change their direction and force, bringing changes of weather, heat and cold, sunshine or rain, thunder, &c., according to the force and direction of the moon's currents, and whether they are running in the same direction or in opposition to them. The earth's magnetic bands revolve round the so-called magnetic poles, but the sun's belts, when the sun is on the equator, are parallel with the latter. As the sun moves north or south her belts cut the earth's belts, or press upon them, thus causing them to change their positions somewhat on the surface of the earth, thereby producing one of the principal disturbances in the circulation of the atmosphere and in the rise and fall of the barometer. Next come the moon's belts, which connect her with the earth, and as the moon passes round the earth monthly, and her inclination of axis is greater than the earth's, it follows that her disturbing influence is far greater. Twenty years ago I wrote (see "Winds and their Courses," p. 63):—"I look upon the moon as the great compensating balance in the system of atmospheric currents." Later experience confirms this. When east of the sun her bands revolve from east to west, and when west of the sun from west to east. The change is accomplished in about 72 hours, accompanied by rain, and generally by lightning and thunder. It is by the crossings, recrossings, and reversings that all the changes in the weather are produced; but the barometer does not indicate the force of wind, the amount of rain, &c., it indicates with unerring precision the movements of the belts, the changes of the moon, and the revolution of the sun on its axis. Let any one who doubts this note carefully the barometrical waves and he will soon be convinced that they are governed by a fixed law and are not left to chance, as people have hitherto been led to suppose. This leads us to another popular delusion, viz., the pointing of the magnetic needle. The magnetism of the earth has hitherto been an unsolved problem; but the system of magnetic bands which govern the movements of the atmosphere solves it at once. The magnet is kept in position by the magnetic bands, and its movements indicate the movements of the latter. I may add that seeing what the law is, the wonder should be, not that so many vessels have been lost through the deviation of their compasses, but that there have been so few.

I have said, "Watch the barometer," I would add, "Watch the beautiful clouds." There are three distinct series—the sun, the earth, and the moon clouds. At certain times, especially at the quarter moon, all these series are visible together—ascending, descending, crossing, recrossing, absorbing, attracting, repelling, or moving quietly on their several ways; accompanying the calm or the storm, the rain, the snow, or the sunshine, according to the hour of the day, the season of the year, and the positions of the heavenly bodies, governed by a law as fixed and certain as that which governs the universe. As a simple illustration of what is taking place around us, imagine the earth to be girdled by four great bands to the height of several miles, revolving slowly, but surely. Next imagine the sun to be the nucleus of an immense comet, the tail of which stretches millions of miles beyond the earth, passing in six well-defined bands above and below it. Thus, in the morning, from six until ten (when the revolution is from west to east), these bands point directly towards the sun, the angle with the horizon increasing as the sun ascends towards the meridian, and decreasing as the sun descends in the west. At seven p.m. the belts of clouds may be again seen pointing and wending their way to the east, the clouds dissolving as they approach the limits of the earth's atmosphere, leaving the magnetic current to pass on its way, perhaps to a world that no mortal man has yet seen. Then, again, imagine the earth to be the nucleus of another comet, the tails formed as in the last case, and passing beyond the moon. The clouds formed by the belts moving nearly the same as in the case of those of the sun, from west to east, from about 36 hours after the full until about 36 hours before the new moon, and from east to west from about 36 hours after the new until about 36 hours before the full. No costly instrument, no 40-foot telescope, is required to enable man to witness these movements. The eyes alone with which the great Creator has endowed him are sufficient.—Yours truly,

G. JINMAN, F.R.G.S., F.M.S.

110, Cannon-street, London, E.C. June 29.

AN ASTOUNDING DISCOVERY.

If the latest discoveries which the eminent philologist, Dr. Rudolf Falb, claims to have made during his linguistic researches in South America should prove to be well founded, we shall have to interchange the titles which we are giving at present to the two hemispheres. America, according to Dr. Falb's hypothesis, is the "Old World;" Europe, Africa, and Asia really constitute the "New World." We learn from his own summary of his researches, communicated to the *Neue Freie Presse* of Vienna, that the languages spoken by the Indians in Peru and Bolivia (especially in Quichua and Aimara) exhibit the most astounding affinities with the Semitic languages, and particularly with the Arabic—in which tongue Dr. Falb himself has been skilled from his boyhood. Following up the lines of this discovery, Dr. Falb has found (1) a connecting link with the Aryan roots, and (2) has ultimately arrived face to face with the surprising revelation that "the Semitic roots are universally Aryan." The common stems of all the variants are found in their purest condition in Quichua and Aimara, from which fact Dr. Falb derives the conclusion that the high plains of Peru and Bolivia must be regarded as the point of exit of the present human race. So Adam was an American.

Meteorolojia Florestal.

(De la "Revu des Deux Mondes.")

Al presente, gracias al teniente Maury, son bastante conocidos los movimientos generales de la atmósfera; pero los fenómenos que los acompañan varian en los distintos lugares, segun la topografia del terreno, su proximidad al mar, el cultivo y la naturaleza del suelo. Entre estas circunstancias, la existencia de bosques ejerce una influencia notable, pero que no ha sido estudiada lo bastante. A este punto, sobre todo se han dirijido las observaciones de los señores Becquerel, Mathieu y Fautrat. Procurare dar á conocer el resultado de esos estudios; pero ante todo hay que recordar los fenómenos que se verifican en la atmósfera.

La atmósfera que nos rodea tiene una altura de cincuenta kilómetros, mas ó menos, pero varia con el tiempo y segun los lugares. En las rejiones elevadas, el aire se halla enrarecido y la temperatura es muy baja: por el contrario, en lugares mas bajos se eleva junto con la densidad la temperatura del aire. El peso de la atmósfera se mide por medio del barómetro, cuya altura indica la del aire, y como en un cuerpo fluido las moleculas se mueven siempre del lugar en que están en exceso hácia aquel en que faltan, resulta que cuando el barómetro está bajo, es decir, cuando es poco elevada la altura atmosférica, se producen corrientes que tienden á restablecer el equilibrio.

El aire contiene en suspension una cantidad de vapor de agua tanto mayor cuanto mas elevada es su temperatura; por consiguiente, si se enfria, se condensa una parte de ese vapor y produce la lluvia. La presion produce el mismo efecto que el enfriamiento, mientras que la dilatacion produce el efecto contrario.

Los rayos solares al calentar en la zona ecuatorial las masas gaseosas, las dilatan y las obligan á elevarse y formar al rededor de la tierra una especie de anillo jigantesco. Esas masas de aire caliente desbordánse corren hácia el norte y sur, miéntras que el aire helado de los polos viene á llenar el lugar que antes aquellas ocupaban; el mismo fenómeno se produce en una pieza caliente en donde sale por la chimenea el aire caliente y entra el aire frio por otras partes. Hay, pues, en cada hemisferio una corriente doble que en la parte baja de la atmósfera camina del polo al ecuador y del ecuador al polo en las rejiones elevadas.

Si la tierra no jirara sobre si misma, estas corrientes se dirijirian directamente hacia el norte ó hácia el sur; pero, á causa del movimiento de rotacion del globo, que se efectúa en el sentido de oeste á este y que es mas rápido en el ecuador que en los polos, el aire, al avanzar (en el hemisferio boreal) hácia el norte, se va desviando sucesivamente hácia el este, y el viento que en el ecuador era viento sur, se convertirá en viento sur oeste en la zona templada y en viento oeste en los polos. Por otra parte, experimenta esta corriente varias alteraciones debidas á la estrechez de los meridianos á medida que se acercan al polo, lo que impide que quepa allí todo el aire que sale del ecuador.

La otra corriente que vuelve del polo al ecuador encuentra paralelos cuya velocidad de rotacion es cada vez mayor, por consiguiente irá quedándose atras y toma á la direccion de norte á sur-oeste.

Segun que estas corrientes atraviesen océanos ó continentes, se surten de agua ó se secan y traen consigo el buen tiempo ó la lluvia. En el ecuador el sol toma grandes cántidades de agua que forma esa zona nebulosa llamada por los ingleses *clou-rin*; parte de esa agua cae al llegar á las altas regiones de la atmósfera, en donde se enfria, el resto se dirije á las zonas templadas y allí se cámbian en lluvia á medida que baja la temperatura ó que circunstancias especiales hacen que se condense el vapor de agua que ese aire lleva en su presion; pero como al llegar al polo ha perdido su humedad, cuando vuelve á medida que se va calentando, adquiere un poder absorbente cada vez mayor y viene á ser asi un viento desecante. En nuestro hemisferio hay dos corrientes; una de ellas nace en el océano Atlántico, la otra en el Pacífico. Esta última, siguiendo la direccion, de la *gulf-stream* (1), á medida que avanza al norte, va variando su curso hácia el este y á la altura de Finlandia y Suecia su direccion desde oeste á este. Allí, una vez que se ha enfriado lo bastante, se convierte en corriente polar y vuelve al ecuador dirijiéndose cada vez mas hácia el este y pasando por sobre la Europa oriental y el Asia.

Tal es la direccion general de las grandes corrientes, direcion que varia algo, sin embargo, por causas desconocidas. Con to-

do, son estas indicaciones preciosas que nos permiten poder calcular cual será el caracter de una estacion. Cuando pasa sobre Europa la corriente ecuatorial, es casi seguro que el invierno será templado y húmedo y el verano frio y lluvioso; si, por el contrario, pasa por aquí la corriente polar tendremos un invierno seco y frio y un verano seco y ardiente; si nos encontramos entre las dos corrientes, el tiempo será variable. Tengase presente que estas son indicaciones generales, base del problema; pero no nos dan una solucion exacta, porque ejercen bastante influencia algunas otras circunstancias.

Una de estas es la accion de la luna. Esta accion, que niega Arago y muchos otros sábios, desde los tiempos mas remotos ha sido considerada como capital por los agricultores y marinos; y es muy probable que en este caso tenga mas razon la opinion general que los sábios. En un opúsculo intitulado *La plute et le beau temps*, Mr. Glauckler, injeniero de puentes y calzadas, ha procurado dar una explicacion científica de la influencia de la luna. Durante su rotacion diurna va presentando la tierra todos sus meridianos á su satélite, y en virtud de la ley de atraccion van produciendose mareas atmosféricas semejantes á las marítimas.

Por otra parte, en su revolucion al rededor de la tierra, atraviesa dos veces la línea equinoccial, una vez en la luna nueva y otra vez en la luna llena; si al atravesar la línea ecuatorial lo hace sobre el mar, llevará consigo, á medida que va formando la marea, aire húmedo y por consiguiente ocasionará lluvias; si, por el contrario, lo hace en un terreno seco llevará solo aire seco; pero se necesita cierto espacio de tiempo (4 ó 5 dias) para que el aire llegue á un lugar determinado. De aquí la regla del mariscal Bougeaud, que, para sus operaciones militares, se guiaba por la luna. (2)

Son, así mismo, las borrascas, causas de las variaciones atmosféricas. M. Le Verdier concibió la idea de hacer un resúmen de las observaciones meteorológicas, de Francia y del extranjero; para eso señalaba diariamente un mapa, con signos convencionales, el estado de la atmósfera á las ocho de la mañana. M. Marié-Davy, compañero suyo de trabajo, trató de unir por medio de curvas los diferentes puntos del mapa en que era igual la presion atmosférica; y notó que todas las curvas eran concéntricas, que el centro era el punto de menor presion y que los vientos giraban alrededor de este punto. Como esos fenómenos se producian en diversos lugares, dedujo que eran grandes remolinos atmosféricos que marchaban hácia el oeste con una velocidad de 10 á 15 leguas por hora.

Las borrascas, remolinos de los grandes rios aéreos, se forman en las rejiones ecuatoriales, suben hácia el norte, costeando la América, de donde se dirijen á Europa atravesando la Islandia, la Suecia, y á veces la Francia, y, despues de haber pasado por la Europa, se pierden en el oriente. Se suceden con frecuencia, y, apenas llega á Francia ó Inglaterra una de esas borrascas, comunican la noticia á los marinos, los observatorios meteorolójicos; de esa manera se ha conseguido salvar á millares de personas que habrian perecido si la tempestad los hubiera tomado de improviso.

Pero si es útil para los marinos el tener conocimiento de las tempestades y direccion de los vientos, no lo es menos para los agricultores, el saber, con algunos dias de anticipacion, qué tiempo tendrán; de aquí esos numerosos refranes que corren por los campos y que, á pesar de que no reposan sobre base alguna científica tienen siempre algo de verdad. Las observaciones hechas desde hace algunos años han permitido señalar hechos, cuya causa se ignora, por lo que no ha sido posible formular leyes.

Así M. Ch. Sainte-Claire Deville ha observado que del 9 al 14 de cada mes se produce un descenso de temperatura. Este hecho ha sido confirmado por otros observadores, y, si llega algun dia á convertirse en ley, proporcionará datos preciosos á los agricultores. Así, por ejemplo, si durante los primeros dias de Abril y Mayo, baja á cero la temperatura, habrá que temer fuertes heladas durante los dias 9 y 14, y se tomarán entónces las precauciones que exijan las circunstancias.

Otro tanto sucede con el barómetro de M. Sartaux ha comparado la marcha de este instrumento con la del termómetro y ha descubierto que las oscilaciones de ambos instrumentos son mas ó ménos paralelas, pues á cada *máximum* y *minimum* de presion del barómetro corresponde un *minimum* ó *maximum* de temperatura con pocos dias de intervalo. Así se podrá saber con anticipacion la temperatura de un dia dado. Pero como no es posible que todos los agricultores tengan instrumentos de precision, convendrá que las comisiones meteorológicas publiquen sus observaciones con la anticipacion posible. Estas comisiones que hoy existen solo en unos pocos departamentos, prestarian incalculables servicios.

Los señores Dausse y Belgrand, despues de numerosas observaciones hechas en el Sena, han descubierto que las lluvias que caen durante los meses de calor, por evaporarse pronto, no tienen influencia alguna en los cursos de agua, los que se alimentan solo con las lluvias que caen durante la estacion de los frios. Así, pues, se puede asegurar que cuando la estacion de los frios es húmeda, habrá agua suficiente durante el verano, aunque este sea muy seco; y por el contrario, si aquella es poco lluviosa, por húmedo que sea el verano, de nada servirá.

(1.) La corriente marítima llamada *gulf-stream* nace en las Antillas, dá una vuelta al rededor del golfo de Méjico, costea los Estados Unidos y al llegar á Terranova se divide en dos partes principales; una de estas sigue por entre la Groenlandia y el continente hasta el polo norte; la otra se dirije hácia el Portugal, en donde se subdivide de nuevo en una y vuelve al Ecuador y otra que vá al polo norte costeando la Suecia.

(2.) Hé aquí cómo calculaba: "Primero, segundo, tercer dia (de la luna) ninguna influencia, cuarto dia un poco, quinto y sexto dias eran los que señalaban el tiempo con mayor exactitud."

Apoyada en esta ley, la comision meteorolójica del Departamento de Oise, despues de haber observado que desde el 1.° de Noviembre de 1873 hasta el 30 de Abril de 1874 habia caido muy poca agua (0,17 y el termino medio ordinario era de 0,26), anunció por medio de los periódicos que ese año traerian muy poca agua los rios durante el verano. Gracias á este aviso la mayor parte de los industriales que tenian máquinas movidas por el agua, la sustituyeron con tiempo por máquinas de vapor y no tuvieron que paralizar sus trabajos. Por aquí se ve cuanto se podria esperar de un servicio metereolójico bien organizado.

II.

Acabamos de exponer á la lijera las leyes que dirijen los movimientos atmosféricos; pero la acción de esas leyes varia segun las circunstancias de los lugares en que deben ejercer su acción; y podemos decir que cuando se forma la lluvia en el Ecuador, los accidentes locales son los que determinan su caida en nuestro pais. En ese caso es la atmósfera semejante á una esponja impregnada de agua que arroja á la menor presion. Entre esos accidentes uno de los mas importantes es la presencia de los bosques; por eso vamos á estudiarlos.

La influencia de bosques sobre los climas ha sido un punto muy discutido; unos la han negado, otros la han admitido y estos tampoco han estado de acuerdo acerca del modo como ejercen su influencia. Esto proviene de que los fenómenos que la manifiestan son complicados y ocultos los unos tras de los otros; así es que hay que analizarlos por separado para no caer en confusion.

Averiguando los diversos modos como obran los bosques sobre el clima, creemos que se reducen á cuatro, segun que ejercen una accion química, física, fisiológica ó mecánica. La accion química proviene de la descomposicion del aire por las hojas que absorben el carbono del ácido carbónico y dejan libre el oxíjeno. La accion física se manifiesta por las propiedades higrométricas de los terrenos cubiertos de bosques, por el obstáculo que oponen los árboles á la evaporacion de la humedad del suelo, y por las barreras que oponen al movimiento del aire. La accion fisiolójica es el resultado de la traspiracion de las hojas que devuelven á la atmósfera una parte del agua que las raices han chupado en el suelo; por fin la accion mecánica es producida por las raices que mantienen unida la tierra, impiden que se formen barrancas y facilitan la filtracion de las aguas hácia las capas inferiores. Examinemos por separado estas acciones para ver qué consecuencias traerá consigo cada una de ellas.

¿Cuál puede ser, bajo el punto de vista de los climas, el efecto de la descomposicion del ácido carbónico del aire y de la asimilacion del carbono? *A priori* puede contestarse que ese efecto será el descenso de la temperatura, puesto que si por el hecho de formarse la madera desprende calor, para quemarse la misma madera será necesario que absorba. Por consiguiente, puede considerarse á los bosques como aparatos enormes de condensacion destinados á absorber el calórico del aire, guardarlo bajo la forma de madera hasta el dia en que al quemarse esta vuelva el calórico al aire, á su primer estado. Los hechos confirman este raciocinio teórico. En su interesante obra intitulada *Des Climat et de l'influence qui exercent les saltitudes et non boises*, M. Becquerel ha descrito este fenómeno y citado numerosos ejemplos de un descenso de temperatura debido á la presencia de los bosques. M. Boussingault, en su viaje á las rejiones equinoxiales, hizo observaciones directas y demostró que la temperatura media de las rejiones en que habia bosques era á lo ménos en dos grados inferior á la de aquellas en que no los habia.

Desde entónces nuevas y repetidas observaciones han puesto fuera de duda este fenómeno. M. Mathieu, desde 1866, ha hecho nuevas observaciones sobre la temperatura de las regiones cubiertas de bosques y de las no cubiertas. Estableció observatorios en medio del bosque de Haye á ocho kilómetros de Nancy, en Bellefontaine, que es una de las extremidades del mismo bosque, en Amance, á 16 kilómetros de Nancy, terreno descubierto destinado á los trabajos de agricultura. Estableció pluviómetro, termómetros y atmidómetros para medir la evaporacion. Sus observaciones de diez años lo han hecho llegar á los siguientes resultados, que se han reproducido constantemente y que pueden ser considerados como ley general. En un bosque es siempre mas baja la temperatura que en un terreno desnudo, pero la diferencia es ménos sensible en invierno que en verano; las temperaturas máximas son mas bajas en los bosques y las mínimas mas elevadas. En los bosques el frio y el calor se producen con mayor lentitud; la temperatura es allí mas constante, es mas igual la del dia con la de la noche, la de un dia con la de otro, la de una estacion con la de otra estacion; apenas si se dejan sentir los calores y los frios súbitos; de todo lo cual se puede deducir que, si los bosques tienden á hacer bajar la temperatura, alejan en cambio los meteoros peligrosos.

El hecho solo de ser mas baja la temperatura en un terreno poblado de bosques basta para concluir que deben ser allí mas abundantes las lluvias. La experiencia confirma este raciocinio. M. Mathieu, al comparar la cantidad de agua caida en las diferentes estaciones, ha podido formular la conclusion siguiente: El agua que cae en un terreno cubierto, excede en un seis por ciento á la que cae en otro cultivado; además, como es menor la evaporacion en el primero resulta que retiene por mayor tiempo la humedad.

M. Fautrat ha hecho experimentos mas preciosos aun. Temiendo que por la distancia de las estaciones pudieran no ser exactos los resultados de M. Mathieu, estableció las suyas á 200 metros de distancia y colocó sus aparatos á 7 metros de al-

tura, el uno en el bosque y el otro afuera, á 200 metros del primero. Sus observaciones demostraron que durante ocho meses habia caido en la primera estacion 800 milímetros de agua y en la segunda 275, es decir, un ocho por ciento menos. El sicrómetro indicaba el grado de saturacion del aire y señalaba para el primer punto 63 grados y para el segundo 61. Son notables estos resultados, sobre todo si se toma en cuenta la corta distancia que mediaba entre las estaciones.

EXTRAORDINARY MOUNTAIN ASCENTS.

TO THE EDITOR OF THE TIMES.

Sir,—The enclosed letter from my friend Mr. E. Whymper, who is at present in Ecuador with the two guides Carrel, of Valtournanche, may interest your readers, especially as showing that, contrary to the opinion entertained by some authorities, it is quite possible to become sufficiently accustomed, in a comparatively short time, to the rarefaction of the air at heights of 19,000ft. to 20,000ft. to admit of active exertion without inconvenience. I am, Sir, your obedient servant,

Frenchay, near Bristol, May 2. F. F. TUCKETT.

"Quito, March 18,1880.

"My dear Tuckett,—You will be glad to hear that I have succeeded in polishing off Chimborazo, Corazon, Sincholagna, and Antisana. We have also passed 26 consecutive hours on the top of Cotopaxi. This last I reckon a feat, and I am not aware that any one has ever before encamped at so great an altitude as 19,500ft.

"Antisana is the most difficult of those we have been up, and few more difficult ascents have ever been made.

"We are now going off to Cayambe, the mountain on the Equator, and shall try on the same journey to polish off Saranen and Cotocachi. Cayambe is thought to be an active volcano, but it is not certain that this is the case, neither is its height well determined. The height of Saranen is not known, but it *is* high. Cotocachi is the volcano which destroyed Ibarra some years ago, and is reputed to be 16,300ft. high.

"We have grown out of being affected by rarefaction of the air, and can be quite gay and lively at 19,000ft. At first I was fairly knocked over by it and was rendered quite incapable. The barrels also were nearly as bad.

"The way in which one's time gets muddled away here is horrible. Directly you get into a town or village you seem to be stuck fast. And we were unfortunate, first in getting stopped at Colon by the destruction of the Panama Railway, and secondly by Louis Carrel getting his feet frost-bitten on Chimborazo, and being useless to me for five weeks afterwards.

"The climate of Ecuador is the most utterly abominable that can be imagined. We have not had one single day fine from beginning to end, and not one view from a mountain top. An hour of clear weather from 6 to 7 a.m. is the most you can reckon on, and after that everything is bottled up in a mist. If this letter is deficient in clearness you will understand why.

"We carry about mercurial barometers everywhere, and boil water to an extent that would delight your heart.

"Faithfully yours, "EDWARD WHYMPER."

Our columns have recorded no more remarkable list of mountaineering achievements than that comprised in Mr. WHYMPER's letter which we published yesterday. A catalogue of five colossal peaks vanquished, of heights varying from more than eighteen to more than twenty-one thousand feet, reads like a summary in a school manual of MARLBOROUGH's or NAPOLEON's victories. Three more are doubtless by this time added to the number, with a throng of lesser altitudes which Mr. WHYMPER would disdain to chronicle. He has accomplished what would have delighted the soul of HUMBOLDT; yet he writes to his friend in the same spirit, and with something of the same diction, as if he had been winning prizes at Lillie-bridge or were an undergraduate recounting his successes with pass examination papers. These results, so lightly clubbed together, must have cost weeks or months of preparation and thought. Not a little diplomacy even will have been needed to overcome what may be described as preliminary moral difficulties. Mr. WHYMPER writes of "the way in which "one's time gets muddled away here." So might Sir FREDERICK ROBERTS or Sir DONALD STEWART have complained to an acquaintance of Commissariat embarrassments on the march to Cabul or Ghazni. By the trifling with his time and patience Mr. WHYMPER means the impossibility of introducing into the dense understanding of Spanish creoles or half-breeds the slightest sympathy with his enthusiasm, or any manifestation of resource in supplying his modest mountaineering wants. Compared with such obstructions, frostbite and atmospheric sulkiness can have been but minor inflictions. Then, when the enterprise was fairly on foot, the alphabet of its dangers and pitfalls would have to be learned by the explorer as if he and his guides had not already forced the innermost secrets of the European Alps. These heights of the Andes are glacier and volcano in one. The wild impulses of nature are still, and have been for ages, at work making and marring. From hour to hour of progress upwards it is never certain that some vast unsuspected fissure may not be discovered yawning at the climber's feet to forbid his advance. No pioneers have mapped them out. No friendly hands have built cairns and chalets to shelter the wanderer. The Indians have their clue to the passes across the chain; but curiosity does not tempt them up the crests, for which Mr. WHYMPER was bound. When the air chances to be clear, the citizens of the earthly paradise of Quito watch the snow-fields, standing sentinels about their green and fruitful plain. But never has the most transient dream flickered across their fancy that Chimborazo and Cotopaxi are things to be climbed. Men of science and adventure from distant lands have essayed to reach the summits, but have failed. The crest of Chimborazo is not supposed to have been ever before touched. A French traveller has boasted that by mere force of mountaineering genius he mounted to the top, though, by reason of the mist, he was not conscious of his triumph until his descent. But the evidence he produced of the circumstances would not satisfy the Alpine Club. HUMBOLDT attained within two thousand feet. The cone of Cotopaxi, with its crater vomiting thousands of feet of flames, the great philosopher pronounced inaccessible. That of which he despaired Mr. WHYMPER has done.

The absolute height of these fortresses of nature above the spot from which the real ascent begins is not enormous. Quito, where Mr. WHYMPER was staying at the date of his letter, stands at an elevation of nearly ten thousand feet. So much is to be abstracted from the 21,424 feet of Chimborazo, the 19,137 of Antisana, the 18,875 of Cotopaxi. In point of elevation above the plateau the exertion of climbing these giants of the Andes is less than that exacted by Mont Blanc with its 15,732 feet of height above the sea. But there all comparison ends. The ascent of Mont Blanc itself is child's play now; it was a perilous undertaking when DE SAUSSURE revealed to mankind the king of Euro-

pean mountains. Ordinary cragsmen climb the Matterhorn every season with little of the risk which brought death to four of Mr. WHYMPER's own companions fifteen years ago. In mountaineering, as in other things, the first step is the painful one. Feet like Mr. WHYMPER's leave a track, though none be discernible. Chimborazo and its snows, the ice-clothed furnace of Cotopaxi, have now and henceforth a road traversing their rugged sides as plain and legible to instructed eyes as if General WADE had engineered it. It may become as favourite an excursion to run across the Pacific for the sake of climbing the peaks of the Andes as it has been to explore the recesses of Iceland. Stranger things than the growth of such a fashion will happen when M. DE LESSEPS has dug his canal. But the pathway Mr. WHYMPER has traced the pioneer is not likely himself to go on treading. There seems almost a prodigality in the enumeration of eight huge mountains ascended in a season, when it is understood that the explorer has by his very exploit sealed up, as it were, the region against himself. The charm to a mind and, it would be unfair not to add, to feet like Mr. WHYMPER's is the unknown. He has worked out the Alps of Dauphiny, and Switzerland, and Savoy. The Greenland mountains hide no mysteries from him. Now the highlands of the Equator have ceased to be novelties, and he must go to the Himalayas and Thibet for surprises. Not mere restlessness of spirit has endowed England, in Mr. WHYMPER, with a sort of Wandering Jew, but rather, we suspect, some such instinctive sense of the correlation of art and science and literature as an illustrious surgeon regretted the other day was not more common in the present generation. Every one knows Mr. WHYMPER is an accomplished painter. He has proved himself equally graphic with his pen. He is a geologist and an experimentalist in all branches of natural philosophy. Something less than the gifts he possesses would have made of him a professed traveller, not contented until he had reached the Pole or opened up a continent. A little more intensity in any one of his many faculties, and one or another side of Burlington-house might have absorbed him. Certainly our readers would not have the pleasure of seeing at longer or shorter intervals announcements of more mountain tops brought low, of fresh insurmountable peaks surmounted, by Mr. EDWARD WHYMPER's invincible ardour and a patience as invincible in selecting his opportunities.

Mr. WHYMPER has created a new vocation, in which all his tastes appear to find their field by turns. Other Alpine Clubsmen have manifested the same kind of power. But circumstances, or the tyranny of some particular faculty, have been against them. They have subsided reluctantly into industrious pleaders and conveyancers, manufacturers, church dignitaries, philosophers, or even mere members of Parliament. Not the less is it evident from a cloud of witnesses that human nature, or, at any rate, British human nature, contains a tendency which can be fully gratified only by the eccentric physical exercise of scaling whatever happens to be the loftiest height within access. We have never shown any indulgence towards the conventional fashion of ascending peaks and passes without natural endowments for the pastime, or proper practice and preparation. Dangers thus incurred by the inexperienced testify commonly not to courage, but to ignorance. The victims most to be pitied for the consequent disasters are not the immediate sufferers. Where, however, there is the innate passion for the climbing of rocks of which men like Mr. WHYMPER and Professor TYNDALL have given sign, it would be as absurd to condemn it as any other emotion of the mind. In the more exceptional natures the pursuit is an incident of a craving to be present in person at the unfolding of new combinations of beauty, or undiscovered secrets of science. Even among the larger number of Englishmen who have earned a right to go up Mont Blanc or the Matterhorn, but whose friends would hardly claim for them the praise of enthusiasm for nature or art, the ambition is yet excused and justified by a curiosity to learn, if not more of nature, at all events more of themselves. A mountaineering excursion, whether it be up Antisana or only Monte Rosa, so that due precautions have been neither neglected nor exaggerated, will teach a young man more about his own resources and deficiencies than a dozen seasons of battue shooting. No better occasion for real introspection could be devised than a night two-thirds up a Swiss or Tyrolese mountain or the minutes passed on the brink of a wide and bottomless crevasse. Our Correspondent in South America has been telling the story of Hispano-American indolence and waste of opportunities more vividly and forcibly than we remember to have seen it ever told before. To Spanish Americans who have the courage to read those burning indictments against their countrymen, and who are moved to try to break up the mental stagnation, we would recommend a suggestion from yesterday's tale of a stranger's assaults on their mountain barrier. A South American who should have the energy and the social power to set the fashion of mountaineering among his people of the wealthy classes would do more towards reforming them than if he were to train himself for the most philanthropic of military dictators. There might be hope even for South America were young South American gentlemen who now squander their youth on careering about their streets to be induced to brace themselves to breast their Andes, and take stock of all the wonders of which now they apathetically survey the secret chambers from the neighbouring table-land.

MR. GLADSTONE AND THE AUSTRIAN GOVERNMENT.

The following despatch has been addressed to Sir Henry Elliot, Her Majesty's Ambassador at Vienna, enclosing copy of a letter from the Right Hon. W. E. Gladstone to Count Károlyi :—

"Earl Granville to Sir H. Elliot.

"Foreign Office, May 6, 1880.

"Sir,—I forward to your Excellency, by Mr. Gladstone's request, a copy of a letter written in consequence of previous oral and written communications with Count Károlyi.

"I am, &c., GRANVILLE."

(Enclosure.)

Mr. Gladstone to Count Károlyi.

"London, May 4, 1880.

"Dear Count Károlyi,—I thank your Excellency for your letter, which, uniting frankness with kindness, renders my task an easy one.

"Without discussing the accuracy of certain expressions in the report you have forwarded, I proceed at once to the subject. At the moment when I accepted from the Queen the duty of forming an Administration I forthwith resolved that I would not, as a Minister, either repeat or even defend in argument polemical language in regard to more

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than one foreign Power which I had used individually when in a position of greater freedom and less responsibility.

"Two points have been raised by your Excellency. I will dispose of the first by expressing my regret that I should even have seemed to impute to His Imperial Majesty language which he did not use.

"Your Excellency says that His Imperial Majesty expressed, in conversation with Sir H. Elliot, 'his deep regret at my hostile disposition towards Austria.' Permit me to say I have no such dispositions towards any country whatever, and that I at all times have particularly and heartily wished well to Austria in the performance of the arduous task of consolidating the Empire. I feel a cordial respect for the efforts of the Emperor, and I trust that their complete success may honourably and nobly mark his reign.

"With respect to my animadversions on the foreign policy of Austria at times when it was active beyond the borders, I will not conceal from your Excellency that grave apprehensions had been excited in my mind lest Austria should play a part in the Balkan Peninsula hostile to the freedom of the emancipated populations, and to the reasonable and warranted hopes of the subjects of the Sultan. These apprehensions were founded, it is true, upon secondary evidence, but it was not the evidence of hostile witnesses, and it was the best at my command.

"Your Excellency is now good enough to assure me that your Government has no desire whatever to extend or add to the rights it has acquired under the Treaty of Berlin, and that any such extension would be actually prejudicial to Austria-Hungary.

"Permit me at once to state to your Excellency that, had I been in possession of such an assurance as I have now been able to receive I never would have uttered any one of the words which your Excellency justly describes as of a painful and wounding character. Whether it was my misfortune or my fault that I was not so supplied I will not now attempt to determine, but will at once express my serious concern that I should, in default of it, have been led to refer to transactions of an earlier period, or to use terms of censure which I can now wholly banish from my mind.

"I think that the explanation I now tender should be made not less public than the speech which has supplied the occasion for it, and as to the form of such publicity I desire to accede to whatever may be your Excellency's wish. I have only to thank your Excellency alike for the matter and the manner both of your oral and of your written communications.

"With, &c., W. E. GLADSTONE."

THE PROPHECY OF ST. MALACHI.

TO THE EDITOR OF THE STANDARD.

SIR,—The death of the Pope calls to mind the curious old legend called "The Prophecy of St. Malachi," an Irish Primate who flourished in the 12th century, and was Archbishop of Armagh in 1127. This prediction is given in Neale's "Essays on Liturgiology and Church History." Dr. Neale suggests a felicitous interpretation of the motto which applies to Pius IX. "Crux de cruce," viz., the troubles brought upon him by the House of Savoy, the arms of which are a cross. The prophecy runs as follows:—

"The Prophecy of St. Malachi, first printed in 1595 by Arnold Wyon in his 'Lignum Vitæ.'

Pius VII.—Aquila rapax.
Leo XII.—Canis et Coluber.
Pius VIII.—Vir religiosus.
Gregory XVI.—De Balneis Etruriæ.
Pius IX.—Crux de cruce.

"The remaining eleven Pontiffs—for according to this prophecy there will be eleven more—are thus characterised:

"1. Lumen in cœlo; 2. Ignis ardens; 3. Religio depopulata; 4. Fides intrepida; 5. Pastor angelicus; 6. Pastor et nauta; 7. Flos florum; 8. De medietate lunæ; 9. De labore solis; 10. Gloria olivæ; 11. In persecutione extrema sanctæ Romanæ Ecclesiæ sedebit *Petrus* Romanus qui pascet oves in multis tribulationibus: quibus transactis civitas septicollis diruetur et Judex tremendus judicabit populum."

It now remains for us to look for the coming of the "Lumen in cœlo."

I am, Sir, your obedient servant,

HUGH A. KENNEDY.

Reading, February 13. 1878.

A SPEECH FROM THE THRONE SPOKEN THREE THOUSAND YEARS AGO.

The nation has lately become possessed of an archæological treasure, which is already a good deal talked of in the higher literary circles, and is not without interest for a wider public. It is the gem of a valuable collection of Egyptian and Greek papyri, with some Coptic fragments, formed by the late A. C. Harris, Esq., whose useful work on "Hieroglyphical Standards" gives him rank as an Egyptian scholar. His personal tastes and his long residence as British consul at Alexandria, at a period when the mummy-pits yielded far richer finds than they do now, alike favoured his success. On his death, at the end of 1869, his sarcophagi, busts, funeral tablets, reals of the Pharaohs, including the Hophra of the Bible, Egyptian toys, amongst them a veritable chessman, his gods and goddesses, together with the papyri, passed into the hands of his daughter, Miss Selina Harris. From her the entire *herbarium* of sliced Egyptian bulrushes, glued together to form rolls of what gave name to the sheet now in the reader's hands, was purchased about a twelvemonth ago by the Trustees of the British Museum. The Great Harris Papyrus, incomparably the finest of the precious collection, would be remarkable as a marvel of Egyptian paper-making, if for nothing else. In an American catalogue printed in 1868, before it was unrolled, its length was estimated at a hundred yards. A hundred cubits by about one in breadth may be taken as a fairly accurate statement of the real dimensions. And when it is borne in mind that papyrus is almost as fragile as tinder these figures are sufficiently wonderful without any resort to exaggeration. How such a sheet of paper could have been made three thousand years ago, and how it could have lasted uninjured all that while, passes the understanding of all save the initiated. But in the warm sand beds of the rainless Theban necropolis books rest without rotting in the embalmed fingers of those who wrote or loved to read them, and lo! at the end of the Transmigration cycle of thirty centuries, in which, as Herodotos tells us, the old Egyptians believed, the dead volumes at any rate breathe and speak again! Ten times as tender as the finest tissue-paper, papyrus is as lasting as the Pyramids. The Prisse Papyrus, containing the Proverbs of Ptahhotep, a prince of the House of Cheops, was found in a virgin tomb of the Tenth Dynasty, and the Pyramids of Illahoon belong to the Twelfth. In its native climate the ink and the rush, which it still brilliantly blackens, were possibly good for four or five thousand years more. But there is one thing against which papyrus even is not proof—and that is gun-cotton. In 1870, owing to an explosion of this combustible at Alexandria, the Great Harris Papyrus, the largest, most beautifully written, the best preserved in the world, and forming a chapter of incomparable interest in the archives of mankind, was within an ace of sublimation into a puff of blue smoke. It was high time to secure it against such risks, and happily this has now been done. Aided by a special parliamentary grant for the purpose of 3300*l.*, the Museum Trustees have secured all the Harris papyri for the nation. The rest of the half dozen hieroglyphical and hieratic rolls are all valuable, but are not to be named in the same day with "The Giant," as the distinguished French Egyptologist, M. Chabas, styles it in a letter to Dr. Birch obligingly shown to us. By the skilful fingers of the latter gentleman, the Keeper of Oriental antiquities in our national collection, the extremely delicate task of unrolling this enormous volume has been successfully accomplished, and it is now laid down on cardboard in 79 sheets, corresponding to the paging of the Egyptian scribe. This is necessary for convenience both of reference and reproduction. For happily the trustees have ordered that it shall be forthwith published in lithograph, and the whole has already been laid down upon the stone by Mr. Price, the eminent facsimilist.

Of these seventy-nine pages incomparably the most interesting are the last five recording nothing less than a Speech from the Throne spoken 3000 years ago, in the 32d year of his reign, on the 6th of the Egyptian month Epiphi, by the great, enormously wealthy, and no less wise Pharaoh Ramses III., the Rhampsinitus of Herodotos. It is hardly going too far to say that, for these five pages the nation has paid 400*l.* apiece, or say, surface for surface, has covered them with 50*l.* notes. This unique State paper, fished out of Lethe, has cost us thirty guineas a line.

The whole papyrus may be described as a contemporary palace copy, in hieratic script, or cursive hieroglyphics, of the Royal words, including the lengthy acts of devotion at large, spoken in full durbar by the Pharoah, probably on the occasion of the coronation of his son and successor, or, perhaps, on an anniversary of that solemnity. The protocol on the first page and the last paragraph of the speech lead to this view. No Indian durbar was ever more brilliant, we may be sure, than the Egyptian King's, whilst even the gods honoured with their presence the audience hall of their brother god. After the initial date, already given, we are told, in the protocol, that "Ramses Hak-An," or King of Heliopolis, "the great God," speaks in the hearing not only of his Royal ancestors, of the people of Egypt, nay of all mankind, at least of all good and enlightened men, but also of "all the gods and goddesses of the North and the South."

Herodotos, the reader will remember, makes Rhampsinitos a great miser, and Diodoros caps the calumny by telling us roundly that "he spent nothing in offerings to the gods or in doing good to men." Thus is history written. No wonder honest professors of that branch of ignorance are beginning to find it against their consciences to teach it, and warn our mechanics' institutes against the study of any of the less exact sciences. But perhaps there are stones as well worth study as the purbecks of our pavements, and those who have so often caught Greek annalists tripping should be the last, one would think, to sneer at Champollion. The Pharaoh's Acts of Devotion fill fifteen-sixteenths of the Great Harris Papyrus, so prodigious is the number and value of the stingy miser's gifts to the gods! The Roll of Offerings, which, with the first page and the five last, makes up the seventy-nine leaves of this beautiful and precious book, consists of four parts. In the first, filling twenty-two pages, the King speaks of what he has given "of his own proper good," to the Divine Triad of Thebes, viz., Amun Ra, King of the gods, his consort Maut, or the Mother, and their son Khonsu, with all their contemplar gods. Next, through 19 pages, come the offerings to the gods of Heliopolis. The King speaks of his gifts "to the House of Tum (Pithom), his sublime father, and to Ra-Armachis, Iusaas, Nebthotep," and the rest of the Heliopolitan cycle of gods. Thence the roll of offerings passes to Memphis. Fourteen pages are filled with the King's gifts to its Triad, consisting of Phtha (the Egyptian Vulcan), his beloved goddess Sekhet, and their child Nefertum, with all the gods of Hakaptah, a sacred name of Memphis, in which Dr. Eisenlohr recognises the prototype of Homer's Aigupto-s, and so of our word Egypt. As we have mentioned the learned Professor of Egyptology at Heidelberg, it is proper to own at once our obligations to him as the first translator of the Pharaoh's Speech from the Throne. Nor must Dr. Lauth, of Munich, who helped him in the arduous task, be forgotten; nor M. Chabas, the most eminent of the French Egyptists, the merits of whose revision of the first version make us forget the undue severity of his criticisms upon his forerunner's work. Perhaps when Dr. Birch, who is translating the whole papyrus for "Lepsius's Journal," shall have reached this concluding portion M. Chabas will find something to learn from him, as we ourselves have been glad to do.

After the gifts to the gods of Thebes, the capital of Upper Egypt, to those of Heliopolis, the metropolis of learning, and to those of Memphis, the primeval city of Menes, the King recounts, in eighteen pages, his endowments to the rest of the temples throughout the whole land. The Roll of Offerings thus forms a sort of Domesday Book for Egypt at the epoch of its reorganisation under the new Menes, after the disestablishment and disendowment of religion brought about by foreign intruders. That the national historian Manetho fully recognised the importance of this religious revolution is clear. He not only narrates it in substantial accordance with the contemporary account given in the Speech from the Throne, with the remark that popular hearsays connected it with the Hebrew Exodus, but he also began with the King who completed the reaction, viz.:—Ramses III. himself, the third and last book of his lost history. Hence the value of this original State paper.

RETROSPECT.—VIRTUAL VACANCY OF THE THRONE AT THE END OF THE NINETEENTH DYNASTY, RESULTING IN ANARCHY WITHIN AND THE CONQUEST OF EGYPT BY A PALESTINIAN CHIEF.

"Listen. I let you know my glorious deeds which I have done as King of men."

"The land of Egypt was flung down at the feet of any body. From within they had in former days no ruling mouth for years not a few. At one time the land of Egypt was shared amongst provincial chiefs; one slew another with boastings and exultations. Other times followed during the years of the vacancy. Arses, a man of Palestine, was King amongst them. The whole land was brought into subjection to him. One joined his fellow in plundering their goods; they treated the gods after the same fashion as men. offerings were not presented in the *penetralia* of the temples.

TI-RA, THE FATHER OF RHAMPSINITOS, EXPELS THE INTRUDERS AND RESTORES THE MONARCHY.—HE ASSOCIATES HIS SON IN THE GOVERNMENT AND DIES.

But the gods changed and became appeased. They turned the country on its centre according to its true

They established their son, sprung from their loins, shepherd of the land—all hail to him!—and Lord on the throne, Vesorshara Sotepenra—all hail to him!—son of

Seti-Ra Meira Meiamun—all hail to him! He was named god Khepera, like the god Seti when he is enraged. To [illegible] in order the whole land, which was in rebellion. He annihilated the men of violence in the land of Egypt. [illegible] the great throne of Egypt."

"He was Shepherd—all hail to him!—of Upper and Lower Egypt in the seat of the god Tum. He set himself to reorganise what had been overturned. Every body saw his brother, of those whose hearts had been alienated against each other. He re-established the temples, with their divine offerings, that due honours might be rendered to the contemplar gods according to their rights."

"He raised me to the dignity of Crown Prince on the throne of the god Seb, and I was the great ruling mouth over the Egyptian realms for the administration of the whole land in its utmost range."

"He rests in his double dawn like the contemplar gods. The Osirian rites were paid to him; a sail on the river in his Royal funeral barge, and the deposit of his remains in his eternal house west of Thebes."

RHAMPSINITUS (RAMSES III.) ASCENDS THE THRONE AND IS CROWNED AMIDST UNIVERSAL ACCLAMATIONS AS SOLE KING.

"Then Father Amun, Lord of the Gods, with Ra, Tum, Phtha, of the fair countenance, raised me as Lord of the Two Egypts in the room of my father. I received my father's dignity amidst exultation. The land was at rest enjoying peace. Men were overjoyed to see me as Shepherd of the Two Egypts, in the same manner as the god Horus rules both lands on the throne of Osiris. I was crowned with the divine regalia like the god Tonen: I seated myself on the throne of the god Armakhis, and arrayed myself in ornaments like Tum."

THE KING REORGANISES THE POPULATION.

"I distributed the population of Egypt into numerous classes; palace officers, magnates, captains, infantry, and chariotry, to be counted by hundreds of thousands, Sardinians and Kahak auxiliaries, innumerable boatsmen, slaves, and thralls of Egypt."

FOREIGN AFFAIRS—EUROPEAN, IDUMEAN, AND LIBYAN WARS.

"I extended the frontiers of Egypt on all sides. I beat back those who came from their own lands to overstep them. I smote the Danai when they came from their islands, the Zancleans and Pelasgians were made to melt away as in a furnace; the Sardinians and Aneu-es of the sea were annihilated at one blow, and brought as captives to Egypt numerous as the riverside sands. I incarcerated them in a military prison, bound hard and fast in my name. Their families swarmed in hundreds of thousands. I made them all pay tribute year by year in garments and in wheat, for the temples and the granaries."

"I have sacked the city Sela (Petra), whose people belonged to the Shasu tribes, levelling their dwellings. With their wives, their goods, and their cattle likewise without number, they have been bound and brought captive amongst Egypt's spoils. I have given them to the gods as temple slaves."

"Behold, I will show you what deeds besides I have achieved in the land of Egypt under my rule. The Libyans and the Maxyes had squatted in Egypt. They had got possession of the western zone from Memphis as far as Karbana. They pushed on to the Great River, and lined the whole bank, and having reduced the towns of [illegible] district Kaoutout they had settled in Egypt for many

years. Behold, I gave them battle, and shattered them at one blow. I overthrew the Maxyes, the Libyans, the Sabatas, the Shai, the Hasas, the Bakanas, wallowing in their blood, and reduced to heaps of carcases. I made them recoil from trenching on the frontiers of Egypt. Those whom my sword spared I brought home as captives, many in number, and trussed like geese before my horses; their women and children in myriads, their herds of cattle in tens of myriads. I made their princes prisoners of war in my name, and made them serve as captains of auxiliaries and great officers of such tribes as are skilled to do duty as seamen on board my vessels. Their wives and children I treated in like manner. I brought their cattle into the temple of Amun, giving it to the God as sacred herds for ever."

PUBLIC WORKS.

"I made a vast reservoir in the land of Aina. It is girt with a wall like a granite mountain, formed of twenty si of squared stones with terraces. They rest on the basem of earth, and rise to a height of thirty cubits. The bea and posts of the parapet are of cedar, and the pilasters the balustrade of bronze."

COMMERCIAL ENTERPRISE.—ARABIAN EXPEDITION.

"I built great ships and barques, all of them well manned. I put captains and supercargoes on board, and plenty of hands to freight them with the countless merchandise of Egypt. They were in myriads of all sorts and sizes. They navigate the Great Sea of the Water of Kat (the Red Sea). They sail for the land of Arabia; they escape shipwreck, safe in the midst of danger. They lade ships and boats with the products of the Land of the Gods, with every wondrous thing, with the hid treasures of the lands they visit, with the spices of Arabia, cargoes by the myriad, countless! The princes of the Land of the Gods (Arabia) travel at the head of the processions, bearing tribute, with their faces turned towards Egypt. They arrive safe and sound at Coptos; they anchor peacefully with the treasures they have brought with them. Their gifts are quickly shifted to the backs of asses and men. They are afterwards put on board barges and set afloat on the river and the canals from Coptos. They make a fresh start; they arrive shouting for joy; they bring forth the tributes to be admired. The foreign princes do obeisance; they kiss the ground prostrate on their faces. I gave these things to all the gods of this land to appease them every morning."

METALLURGIC EXPEDITION TO ATAKA.

"I have sent an expedition to the land of Ataka (unidentified), to the great copper foundries there. Ships were freighted and manned; others went on foot with their asses. The like had never been heard of since there were kings. Having discovered the foundries, and laden their vessels with copper in tens of thousands of ingots, they set sail again for Egypt, and arrive safe and sound. What they bring is stored up at the depot, bricks of copper in hundreds of thousands. They are of the colour of gold. I show them to everybody as marvels."

WORKING OF THE MALACHITE MINES IN THE SINAITIC PENINSULA.

"I sent envoys and chiefs to the Malachite Land of the goddess mother Hathor, Queen of the Malachite Land, to lay at her feet silver, gold, byssus, garments, and other precious things, in number like the sands of the sea. There were brought to me thence masses of malachite, miracles for size and beauty. Many bags of them were brought to me. Never was the like seen since kings began to reign."

THE TEMPLE OF JANUS SHUT.

"I have caused the whole land to be planted with trees and shrubs, and have allowed men to sit at ease in their shade. I have made Egypt's women walk with free step wherever they please; neither the rabble nor others molest them on the road. I secured repose for the infantry and chariotry in my time, and for my Sardinian and Kahak Guards in their cities. They walk at ease; they no longer stand on the alert. Cush no longer attacks. The bows and other weapons of the men of Palestine are laid up in their arsenals. Men eat and drink shouting for joy, their wives and children at their side. They look not to the past. Their hearts are at peace. I was a helper to them, the guardian of life and limb."

"I gave fresh life to the whole realm; to the degraded and the more refined, to all human beings, every mortal, to men and women. I freed every one from his plague, and breathed life into him; I have saved him from the might who oppressed him. I have brought all the citizens on their way in their cities. I have enabled others to live by charity. I have succoured afresh the despoiled country. The country has been well satisfied during my reign. I was open-handed to gods and men. I have nothing in my hand which belongs to another. I reign over the land as Shepherd of the Two Egypts. Ye are my slaves under my feet. I do not stir, and your posture is not irksome. For I wish nothing save your wellbeing. Therefore, do my pleasure, and obey my commands."

THE KING BIDS HIS SUBJECTS FAREWELL AND COMMENDS TO THEM HIS SON AND SUCCESSOR, RAMSES IV.

"Behold! I go down to the shades, like my father Ra (the Sun). I go to join the great gods in the heaven, the earth, and the depths."

"Amun Ra establishes my son on my throne. He takes peaceable possession of my dignity as Shepherd of the Two Egypts, seated on the throne of the god Horus as Lord of the Two Egypts."

"He assumes the diadem like the god Tonen, under the name Vesormara Sotepenamun—all hail to him!—eldest Son of the Sun, who himself has begotten him, Ramses Hakma Meiamun—all hail to him!—infant child of Amun, sprung from his loins, crowned as Lord of the Two Egypts, like Tonen. He is a true son, the boast of his father."

"Creep beneath his sandals, kiss the ground before him! Oh! bend before his face! Serve him every moment! Adore him, glorify him, magnify his virtues every morning! Present to him your tribute in his august palace; bring to him the blessed productions of mountain and plain! Obey his words and his commands."

"Even whilst I am yet with you bow to the words of his mouth; your safety is in the breath of his nostrils."

"Toil for him, as one man, in all sorts of labours. Drag for him stones for monuments; dig canals for him. Oh! do for him all the works of your hands. Yon will find your reward in his feeding you day by day."

"It is the god Amun who has ordained his reign upon earth. He has multiplied the years of his life as King of Upper and Lower Egypt, Lord of the Two Lands, Vesormara Sotepenamun, Son of the Sun, Lord of Diadems Ramses Hakma Meiamun—all hail to him!—Lifegiving for ever!"

FOUR RICH MEN.

The *Liverpool Courier* gives some rather interesting particulars as to the four men who are supposed to be the most wealthy living. Of these the poorest is his Grace the Duke of Westminster, whose income is set down at £800,000 a year. Taking it at that sum, the amount which the Duke can spend without entrenching on his capital is £2,000 a day, £90 per hour, and £1 10s. a minute. The next man in the ascending scale is Senator Jones, of Nevada, whose income is valued at exactly one million sterling, giving him the right to spend, if he likes, £2 a minute out of revenue. The head of the Rothschild family comes next, with a yearly income of two millions, and the expenses which he can defray thereout are, of course, double as great as those of the Senator. At the top of the list comes Mr. J. W. Mackey, with a revenue of 2¾ millions, which enables him to disburse £7,000 a day, £300 an hour, and £5 a minute. The fortunes of the other three are insignificant if compared with this gentleman's wealth. For they were the growth of many years either of successful toil or lucky speculation, or both combined. But Mr. Mackey, as the *Courier* remarks, was 30 years ago a penniless boy in Ireland. Sixteen years ago he was bankrupt; and now he is the owner of the richest silver mine that has ever been discovered. There is, therefore, hope for all the penniless boys in "ould Ireland." We commend to them the example of Mr, J. W. Mackey, who, it appears, is now only 45 years old, and if he goes on at the same rate as during

the last 16 years will have ample time to treble his fortune and possess an income ten times as large as that of the Duke of Westminster. Already the capitalised value of his property is set down at 55 millions sterling, against the modest 16 millions of the Duke. Such figures are pleasing to the eye and ear, but we regret to add that the *Liverpool Courier* does not by any means vouch for the accuracy of the totals it publishes.

A MATCH MADE AND BROKEN.

A middle-aged man applied to the magistrate at the Thames Police-court to-day for advice under singular circumstances. He stated that some time back he went into a shop to buy a collar. He noticed by the bill in the window that the shop was to let, and spoke to the lady behind the counter about it. After she had told him all about the shop, he said to her, "How about yourself, my dear, are you to be taken as well as the shop?" She told him that she had been married already, and she thought that that was enough. He told her he thought that was all the more reason why she should try a second venture. After some talking, he persuaded her to say "Yes." The Magistrate: But had you never seen the lady before? Applicant replied gravely that it was the first time he had ever seen her, but "directly he clapped eyes on her he thought she would suit." He noticed the name over the door was a Jewish one, and he asked her if this would be any bar to their marriage. She replied "certainly not," adding that it did not matter to her whether he was Jew or Gentile. They accordingly arranged matters, and a day or two later he met her by appointment, and gave her £150 for the business, on the understanding that she was to marry him. She now refused to carry out the agreement, and he could neither get her, the shop, or his money. His worship told the applicant that he had no power to force the lady's inclinations. It seemed a rather peculiar tale, and he would send an officer to inquire into the matter.

'TIS SIXTY YEARS SINCE.

The celebration on Saturday of her Majesty's birthday may justly be regarded as a milestone in our national life, a convenient halting-place from which we may look back and take stock of our progress. On Saturday, in an especial manner and with especial emphasis, the morning drum-beat, "following the sun and keeping company with the hours, encircled the earth with one continuous and unbroken strain of the martial airs of England." When in 1814, "Waverley; or, 'Tis Sixty Years Since," appeared, and startled the reading world, it was found that the time represented and reproduced by the magic pen of the great unknown novelist was sufficiently remote in character and incident to be romantic to his generation, and to interest a greater number of people than had ever before been interested in a work of fiction. The difference in the condition of the world between 1814 and 1754 is, however, as nothing when compared with that between 1880 and 1820. Between these dates there is immeasurable distance. The six intervening decades have, indeed, witnessed greater changes than any six centuries of our era. It is only necessary to mention a few to show the vast gulf between the first birthday of our Sovereign Lady and that which was celebrated on Saturday.

In 1820 Napoleon was still alive in St. Helena, and Louis XVII. was King of France. Alexander I. was autocrat of All the Russias. There was no kingdom of Greece; no kingdom of Belgium. But there was a kingdom of the Two Sicilies. In Germany there were more than thirty reigning princes, and in Italy several; while the Pope was still a temporal sovereign. Among the eminent immortals then living were the poets Coleridge, Wordsworth, Scott, Byron, Moore, Campbell, Shelley, and Keats; the musical composers Beethoven and Weber; the actors Kean, Kemble, Siddons, and Talma; and the sculptors Flaxman and Canova. Goethe and Jean Paul Richter were still living in Germany, and Kotzebue died only the previous year. When her Majesty's first birthday was kept the population of Great Britain did not exceed fourteen millions. The two great colonies of South Australia and New Zealand had no existence. The one, founded in 1836, has now a thriving population of over 250,000, and the other, first colonised in 1839, a population of over 420,000. That the material, moral, and legal condition of the people at home and in the colonies has been ameliorated in the interval will be manifest from an enumeration of some of the most notable changes that have been effected since that event.

In 1820 slavery was at its height in the British colonies. So long ago as 1772, in a suit in the King's Bench, in the case of the slave, Somerset, it was established that slavery could not exist in Great Britain. But it was not till 1833 that the Act for the abolition of slavery in the colonies, and the compensation of persons entitled to the services of such slaves was passed. In 1820, coining, forgery, arson, and horse-stealing were punishable with death. So late as 1827, Edward Lowe, a coiner, was drawn to the scaffold on a hurdle, and it was only in 1829 that Thomas Maynard completed the catalogue of those who were executed for forgery. There were no railways, the Stockton and Darlington Railway, constructed by Stephenson and Pease, not having been opened till 1825; and the Liverpool and Manchester Railway, at the opening of which Mr. Huskisson was killed, not till 1830. Only the year before the first steamer, the Savannah, crossed the Atlantic. Gas had not yet been supplied to all London, and some of the most important provincial towns were lighted with flickering oil-lamps. The London police did not commence duty till 1829. The first omnibus run in London started from Paddington to the Bank of England on Saturday, 4th July, 1829. "Sixty years since" nobody would have dreamed that in the lifetime of any then living one would be able to hold immediate communication with another at the end of the earth, and receive an answer in a moment. In that year Apère had invented his telegraphic arrangement, employing the magnetic needle and coil, and the galvanic battery; but it was not till 1838-9 that Mr. Cooke set up a telegraphic line on the Great Western Railway from Paddington to West Drayton. It was only in 1824 that M. Daguerre commenced those curious experiments which resulted in the wonderful art of photography, which has not yet reached the limits of its power. So common an implement as a steel pen did not come into use until 1820, when the first gross of three-slit pens was sold wholesale for £7 4s. A better pen is now sold for 4d. a gross. Pens, first used in England by Catharine Howard, were of brass, and it was only in 1824 they were manufactured by machinery under a Yankee patent, and thus became a synonym for something worthless. Tea and sugar and salt were articles so heavily taxed that they were regarded as luxuries by the poor. The restrictions on the importation of foreign corn were

so great that half the population were ill fed. In 1815 an Act was passed permitting importation when wheat reached £4 a quarter; but during the discussion on this bill mobs assembled in London, and the houses of its supporters were damaged. Other riots followed. Free Trade in corn was prohibited down to 1846.

There was no literature for the people, and newspapers were so taxed that only the rich could procure them. Even had they been reduced in price to what they now are the vast majority would have been unable to benefit from them, as they were unable to read. The Society for the Diffusion of Useful Knowledge had not yet started, and penny serials were unknown and unthought-of. Music, now the enjoyment of the million, was then the heritage of the rich. There was no Royal Academy of Music, and twenty years had to elapse before Mr. Hullah and others began to popularise the study. There were no harmoniums; and pianos, now articles of furniture, were then objects of luxury. Lucifer-matches had not been invented. To procure a light the old flint-and-steel arrangement had to be used, and after a light had been produced the candle used gave only a sorry light. In the year of her Majesty's first birthday certain classes of the community were denied the most coveted privilege of citizens. Her Majesty was nine years old when the Act was repealed which directed all officers, civil as well as military, to receive the sacrament according to the form of the Church of England, and to take the oath against "transubstantiation." She was only a year older when the Roman Catholics were emancipated. She herself had reigned no fewer than twenty-one years before one of her Jewish subjects could take a seat to which he had been elected in the House of Commons.

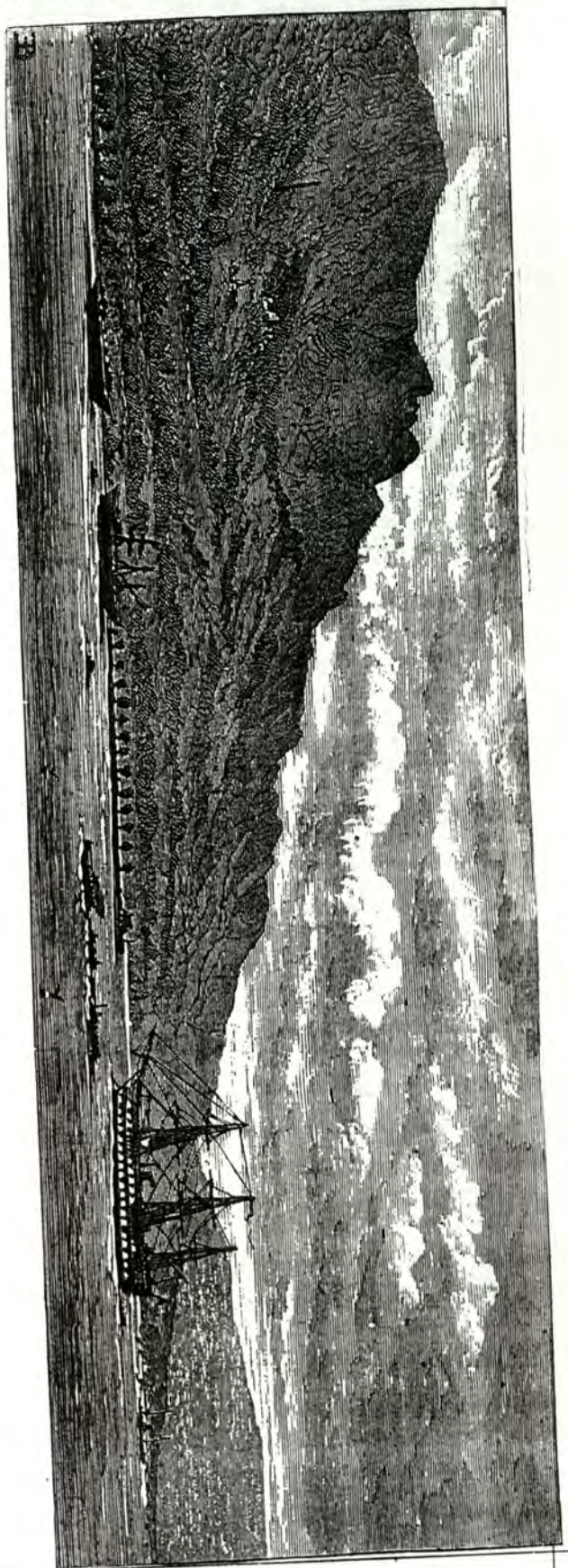
There are signs that changes of even greater magnitude, political and scientific, are close approaching. It seems as if Science is now about to grasp the secrets of nature, and to be able to utilise her forces at will. It is probable that progress for the next sixty years will be much more rapid than during the past. In one direction, however, there is no indication of a new departure. Loyalty to the throne does not abate, but has immeasurably increased and deepened since the accession of our Sovereign Lady. In 1820 high treason was not an unknown crime, and in the May of that year five men were executed as traitors for what was known as the Cato-street conspiracy. In this May of 1880 hundreds of millions of people of all races, forming a Power which, to use again the words of the American Webster, "has dotted over the surface of the whole globe her possessions and military posts," look with reverential affection to Queen Victoria.

THE CAVE HILL, BELFAST

pos of our sketch of Washington Rock, St. Vincent, Mr. Q. Lane, of Belfast, sends us a picture of the Cave Hill, nce several hundred feet high, about two miles north of the h bears an equally striking resemblance to the features of Napoleon. The hill takes its name from several caves in which are partly natural and partly artificial. Underneath t point of the hill—known as Macart's Fort—appears a ion, erected a few years ago by the Marquis of Donegal; the Memorial Chapel, underneath which deceased members ily are buried. To the right appears H.M.S. *Gibraltar*, training ship for boys; while to the left two dilapidated visible. South "Twin Island" appears beyond—between l the North "Twin" runs the new navigable channel to f Belfast, studded with trees. The house at the end is the n.

CAVE HILL, BELFAST

THE RIDGE OF THE HILL IS SUPPOSED TO RESEMBLE THE FEATURES OF NAPOLEON I.



is done by 40 *peons* or riders, drovers, and other labourers, aided by 50 or 60 more when sheep washing or shearing, field-weeding, and other hard work is required. The whole estate is protected by strong iron fences resting on wooden posts, and divided into great *rodeos* or paddocks about 400 or more acres in extent, also protected by iron fencing. The fencing of an estate of this size, with houses, wells, sheds, pens, carts, implements, &c., would cost $200,000, or £40,000. The purchase of the stock would involve twice as large an expense. It is well understood that an establishment of this magnitude is not got up in a day. The land in the olden times was to be had for the mere asking, and the capital required to render it available could gradually be made out of the profits which even the most primitive farming did not fail to yield. For nothing can equal the fertility of these alluvial plains, even before unwearied industry has cleared it of thistles and other bad weeds, and of the *bizcachas*, or prairie dogs, and other noxious and destructive vermin, as has been and is done with great diligence on the model estate I have briefly described. The only drawback to the glorious climate, as we have seen, is the drought, an evil which may be cured in time, if the landowners will submit to the trouble and expense of planting trees on a large scale, an operation practicable even on grazing farms, by lining the paddocks with a fringe of double rows of eucalyptus, poplars, acacias, or other fast-growing trees, and screening them with double fences from the attacks of the browsing cattle. The mildness of the climate admits of the flocks living and feeding out of doors all the year round. For any fodder that may be wanted in the depth of winter, when frosts are not unfrequent, though snow hardly ever falls, ample supply is yielded by sowing a few fields round the home plantation with *alfalfa*, a kind of clover which is mown five or six times in the year, and of which huge stacks may be seen overtopping the farm buildings. Not a few of the *estancias* in Buenos Ayres, and some of the best, are the property of British subjects or of their descendants. In the northern districts of the province smaller tenements, generally held as sheep farms, are in Irish hands. The British subjects in the province in 1875 were said to be 30,000 Irish and 5,000 Scotch and English. Many of them are well off, the revenue of their estates averaging 24 or 25 per cent. of the capital.

Besides landed estates, I have seen a few *saladeros*, or houses where the cattle are slaughtered, and their meat salted or dried for exportation; and among others the famous Fray Bentos, where Liebig's extract of meat is manufactured. This establishment, so called from a monk who is said to have had here his hermitage, lies on the left, or eastern, bank of the Uruguay river, within the territory of the Republic of Uruguay, about 100 miles above the meeting of that river with the Parana, and may be reached by steamer in 12 hours from Buenos Ayres. The house and outbuildings stand on high ground sloping to the water's edge, and there are piers and wharves where vessels of almost any size can be moored. At the back of the establishment lies an estate of 6,500 acres of good, undulating, and sparsely-wooded land, such as one usually sees over large tracts of Uruguay territory. All this is the property of an English joint-stock company with a capital of £500,000, and is managed by an Irish gentleman, whose residence and grounds leave nothing to desire on the score of elegance and comfort. Here during the summer months, December to May, when the cattle are fattest, about 1,000 or even 1,200 bullocks and cows are daily disposed of. Large herds arrive daily from distances of 100 and more miles; they are penned up in large paddocks, so as to have a constant supply at hand; and when their day comes they are marched into wood-fenced *corrals* or pens, narrowing, funnel-like, as the slaughter-house is neared, and are at last huddled up in the narrowest, where they are singled out and caught with the lasso round their horns, and dragged by mounted Gauchos down a slippery floor, on a level with which, at the end, is a truck, running on wheels on a tramway. The animal, after a short struggle, is borne to the ground under a scaffold, on which stands the butcher ready with his short knife, with which he strikes his victim at the back of the horns, severing the spinal marrow. The poor brute collapses at once as if struck by a thunderbolt, is immediately seized by men who push away the cart with the carcass along the tramway, and lay it with others on a flagged floor, where the carcasses are flayed and cut into pieces, and these hurried off with such amazing swiftness that in less than seven minutes nothing is left on the ground; the last to be removed being the hide, which is neatly spread out, doubled up, and carried to the salting-house. This terrible haste with which the whole operation is achieved, and which enables the men to dispose of the animals at the rate of 80 per hour, is determined by the necessity of salting the meat while it is still fresh and warm. The slaughtering ground is about two acres in extent. The men employed in the establishment are 550; most of them are Basques, an inoffensive race of men, gentle and pacific, in spite of the blood in which they dabble all day and of the excellent meat which constitutes their almost exclusive diet. The skill they show in the use of the knife is truly appalling; the large joints of meat, the muscles of the limbs, fall asunder and glide down from the bone as if the flesh were mere butter or dough.

I have no space and no skill to describe the various processes by which beef is salted or dried, and by which hides, horns, tails, bones, the fat, and every part of the animal are turned to the best uses, and made into valuable articles of trade. Nothing is wasted, not even the offal, on which 1,000 swine are fed in or near the premises. At Fray Bentos only oxen and cows are killed; but in other establishments such is also the fate of mares, thousands of which are slain merely for their hides and their fat, which is boiled into tallow. The price of a mare at the *saladero* is only $2 (8s.), that of an ox or cow $15 to $20 (£3 to £4), and the owner of one of these salting-houses told me he made about $1 (4s.) out of every animal that went through his hands. I asked how it could be good economy to kill the cows, especially some which were visibly on the eve of calving, as this wholesale execution must surely interfere with the propagation of the species; but the answer was that the tendency of the herds was to overgrow the capabilities of their pastures, that to keep up a proportion between the cattle and their food it was necessary to sweep off the superfluity, and that there was no leisure for choice or discrimination. At Fray Bentos, machinery on a very large scale has been applied to the boiling of the fat and other important operations. The extract of meat is obtained by simply boiling some of the choicest parts of the animal in large caldrons, as it would be done in a common kitchen, allowing the broth, when separated from the meat and strained to the utmost purity, to go through various stages of evaporation, till all the liquid substance has dissolved into air. The establishment at Fray Bentos yields, it is said, £81,000 a year; it burns 6,000 tons of coal, and consumes 1,000 quintals of salt.

The business of a *saladero* is, as a rule, kept separate from that of the cattle-grower; but in many of the *estancias* and at some of the sheep farms there are *grasserias*, where the sheep are killed and boiled into tallow. To form some idea of the extent to which business of this nature is carried on in this region, it will be sufficient to state that the Argentine Republic exported in one year, 1874, 3,000,000 salted or dried ox hides; and that, while in 1852 there were only in the whole country four and a half millions of sheep, valued at £1,350,000, the flocks had in 1876—*i.e.*, during a period of 24 years—increased to the extent of 40,000,000, or, as I said, of 57,000,000 sheep at the present time, producing about £7,000,000 per annum. The produce of the sheep during the said

period, reckoning wool, sheepskins, and tallow, is reckoned at £77,000,000. Of the thousands of Britons, or at least of Englishmen, settled in these countries, few, if any, have taken up their quarters in the agricultural colonies, probably because pastoral life had greater charms for our people, or because, accustomed as they were at home to a large scale and high finish of husbandry, they find the work here rather primitive and slovenly. But all the other nations of Europe, and of both North and South America, have contributed their contingents to the agricultural colonies of the Plate. Of these, there is only one in the province of Buenos Ayres, the Baradero, with about 311 families and 2,000 souls. The main strength of these settlements is in the province of Santa Fé, along the banks of the Parana river and the line of the Central Argentine Railway. Most of the latter are flourishing, while several of those in the province of Entre Rios have come to grief, and some exist only in name, like those cities of Eden, Palmyra, or Babylon in the United States, through which a traveller drives without perceiving them. The cluster of about 30 of the best in Santa Fé made up altogether, in 1875, 3,185 families, with more than 16,000 persons; and their farms, cattle, &c., represented a value of £1,864,359 or £585 for each family, a considerable sum for people most of whom landed on these shores in a state of absolute destitution. Some of their lands which they bought for 2s. per acre are now sold at £2. Other colonies have sprung up in other provinces, and some even in the deserts of the Gran Chaco and in Patagonia, beyond the boundary of the Rio Negro, where there is a Welsh settlement of 187 families at the mouth of the River Chubut. In the Republic of Uruguay there are also several colonies—two in the districts of the Rio Rosario, of Swiss and Piedmontese, these latter chiefly Waldensians, with a third called "Cosmopolitan," a fourth from the Canary Islands, &c. The numbers of these colonists must have considerably increased of late, as immigration has taken a very rapid development, and the Government of both Republics spare no efforts to encourage and aid it. Up to a recent time the Swiss outnumbered the settlers of any other nation; but lately the Italians have taken the upper hand, as emigrants from that country come in at the rate of 90,000 to 100,000 a year, and on the first Sunday of my stay in Buenos Ayres 1,300 landed here from two steamers from Genoa, all of whom were at once sent to the settlements. The latest importation consists of Russo-Germans, from the banks of the Volga—the descendants of a colony that took refuge in that part of the Empire under the Empress Catherine II. towards the end of the last century. They are of the Mennonite persuasion, and, like the Quakers, object to military service on religious principles. As exemption from the service in Russia was only granted to them for a period of 90 years, which is about to expire, they are now betaking themselves to America, where they first settled in Brazil, and whence they have been transmigrating to the Argentine territory. It is expected that the whole tribe, 300,000 persons, will follow them.

Many of these colonies have been founded under the patronage of the Central Government of the Argentine Republic or by the Government of the various provinces or municipalities; but others owe their origin to private speculation, to banking and joint-stock companies—some of the best to the Central Argentine Land Company, and these are clustered along the line of the Central Argentine Railway.

Those which are intrusted to Government management have often reason to complain of the arbitrary and rapacious rule of the public functionaries, against whose ill-treatment some of them show a disposition to revolt, in frequent instances taking the law into their own hands, appointing their own magistrates, organizing their own police, and altogether laying the basis of self-government. For their own part, the Argentine Republic, anxious as it is for the progress of colonization, frequently, and perhaps not unjustly, finds fault with the many men of bad character who land here as immigrants; and there has even been some exchange of diplomatic notes between this Government and the Italian Foreign Office on the subject of some notorious bandits being allowed a free passage to this country, as an easy way of relieving the Old World of the maintenance of its malefactors at the expense of the New.

It would be idle to inquire into the ground of these mutual complaints. A free country in want of population must needs be, like ancient Rome, an asylum. It must take the bad with the good, and it should be the boast of liberal institutions that the man who under the rule of his native country was a most objectionable subject may, in the wholesome air of a Republican State, become a most useful and exemplary citizen.

PARAGUAY.

(FROM OUR CORRESPONDENT AT ASUNCION.)

If you engage in political conversation with any free and candid citizen of a South American Republic, you will invariably receive the same assurance that his country is thoroughly sound at the core, although its Government is hopelessly rotten. There is no act of venality, of rapacity, of glaring iniquity with which the men at the head of the nation, of a province, or a corporation are not loudly charged, and not merely in private intercourse, but in the virulent articles of an unbridled Press. Bad as things are, they can never be so black as they are painted. A stranger, at all events, cannot and must not believe one-hundredth part of what he hears or reads. Indeed, if he is wise, he will stoutly refuse to accept any statement as truth. One day, for instance, he will learn that a late President of the Republic of Uruguay has sailed for Europe with $2,500,000 in his pocket. On the morrow one will be as positively assured that the ex-Dictator has neither left the country nor absconded, though no one takes the trouble to acquit him on the score of his wholesale peculation. Ask any man in Cordova, in Tucuman, or any other provincial town why the place is not lighted with gas, and the answer will be that the people pay indeed very high rates, but the municipal councillors embezzle all the money for themselves. The same explanation is given of the fact that Buenos Ayres is most wretchedly paved and drained. All men are honest in the community, but all functionaries are thieves. No one seems to perceive that in an independent country, where all authority springs from popular suffrage, he who abuses the Government only cuts his own nose to disfigure his face; that this readiness to blacken all public characters, to impute the worst motives, and to receive the most wanton calumnies as gospel must needs undermine public confidence, disarm and demoralize all constituted power, and offer it an easy prey to the factions which are compassing its overthrow. Where all men are corrupt, what remedy can there be in incessant revolutions, since every change must always be from bad to worse?

It is vain, on the one hand, to reason with Americans on these subjects, or, on the other, to attempt to shake their faith in the destinies of their country. The country is all right at bottom, they tell you; a Republic is always sure to fall on its feet; there is no limit to its material resources; no possible exhaustion of its recuperative powers. What matters it how many millions may be squandered in civil feuds or international wars? Who cares how large may be the deficit, how heavy the debt, how low the national credit, how enormous the mass of depreciated paper currency? Who's afraid? So long as the Republic can dispose of half

a continent of virgin soil ; so long as Peru has guano and nitrate, Chili copper and grain, the Plate cattle and sheep, the heaviest liabilities are merely a flea-bite. No public calamity, no misgovernment, no alternation of anarchy and tyranny can drain the sources of South American wealth. There is no disorder that time will not cure ; no wounds that freedom will not heal.

If this be so, then what about Paraguay ? There, if anywhere, was a State which, even as a colony, was blessed by Providence with all the elements of wealth and happiness. Under Spanish rule, from the early part of the 16th century as a remote dependency of Peru, and subsequently of Buenos Ayres, Paraguay had been almost entirely abandoned to the Jesuits as a virgin ground on which to try the experiment of their idea of a theocratic government. The Loyola Brethren, first brought in in 1608, baptized the Indian tribes, built towns, founded missions, gave the tamed savages pacific, industrious, and passively obedient habits, married them by wholesale, bidding the youth of the two sexes stand up in opposite rows, and saving them the trouble of a choice by taking it upon themselves; drilled and marshalled them to their daily tasks in processions and at the sound of church bells, headed by holy images ; and in their leisure hours amused them with Church ceremonies and any amount of music and dancing and merry-making. They allowed each family a patch of ground and a grove of banana and other fruit trees for their sustenance, while they claimed the whole bulk of the land for themselves as "God's patrimony," bidding those well-disciplined devotees save their souls by slaving with their bodies in behalf of their ghostly masters and instructors.

With the whole labouring population under control, these holy men soon waxed so strong as to awe into subjection the few white settlers whose estates dated from the conquest ; and by degrees, extending their sway from the country into the towns, and even into the capital, Asuncion, they set themselves above all civil and ecclesiastical authority, snubbing the *intendente* of the province and worrying the bishop of the diocese. Driven out by a fresh outburst of popular passions in 1731, and brought back four years later by the strong hand of the Spanish Government, they made common cause with it, truckled to the lay powers whom they had set at naught, and shared with them the good things which they had at first enjoyed undivided. All this till the time of the general crusade of the European Powers against their order, when they had to depart from Paraguay as well as from all other Spanish dominions in 1767.

In the early part of the present century, when the domestic calamities of Spain determined a general collapse of her power in the American colonies, Paraguay raised its cry for independence, and constituted itself into a separate Republic in 1811. But, although the party of emancipation was the strongest and seized the reins of government, there were still many among the citizens who clung to their connexion with the mother country, and these were known as *Peninsulares ;* and there were many more who favoured the scheme of a federal union of Paraguay with the Republics of the Plate, and these went by the name of *Porteños,* owing to the importance they attached to the dependence of their country on Buenos Ayres (the *puerto* or harbour), the only outlet as well as the natural head of the projected Confederation. All these dissenters were soon disposed of by the ruthless energy of one man, Juan Gaspar Rodriguez, known under the name of Dr. Francia.

This man, the son of a Mamaluco, or Brazilian half-caste, with Indian blood in his veins, a man of stern, gloomy and truculent character, with a mixture of scepticism and stoicism, was one of those grim, yet grotesque, heroes according to Mr. Carlyle's heart whom it is now the fashion to call "Saviours of society." A Doctor of Divinity, issuing from the Jesuit seminary at Cordova, but practising law at Asuncion, he made his way from the Municipal Council to the Consular dignity of the new Republic, and assumed a Dictatorship, which laid the country at his discretion for 36 years (1814-1840), wielding the most unbounded power till his death, at the advanced age of 83. With a view or under pretext of stifling discontent and baffling conspiracy within and warding off intrigue or aggression from without, he rid himself of his colleagues, rivals, and opponents by wholesale executions, imprisonments, proscriptions, and confiscations, and raised a kind of Chinese wall all round the Paraguayan territory, depriving it of all trade or intercourse, and allowing no man to enter or quit his dominions without an express permission from himself. Francia's absolutism was a monomania, though there was something like method in his madness.

There were faction and civil strife and military rule in Paraguay for about a twelvemonth after his death. In the end, a new Constitution, new Consuls—one of whom, Carlos Antonio Lopez, a lawyer, took upon himself to modify the Charter in a strictly despotic sense, had himself elected President, first for ten years, then for three, and again for ten more, managing thus to reign alone and supreme for 21 years (1841-1862). On his demise he bequeathed the Vice-Presidency to his son, Francisco Solano Lopez, whom he had already trusted with the command of all the forces, and who had no difficulty in having himself appointed President for life in an Assembly where there was only one negative vote.

The rule of Francia in his later years, and that of the first Lopez throughout his reign, though tyrannical and economically improvident, had not been altogether unfavourable to the development of public prosperity. The population, which was only 97,480 in 1796 and 400,000 in 1825, had risen to 1,337,431 at the Census of 1857. Paraguay had then a revenue of 12,441,323f., no debt, no paper money, and the treasury was so full as to enable Lopez II. to muster an army of 62,000 men, with 200 pieces of artillery, in the field and in his fortresses.

Armed with this two-edged weapon, the new despot, whose perverse and violent temper bordered on insanity, corrupted by several years' dissipation in Paris, and swayed by the influence of a strong and evil-minded woman, flattered alike by the skill he fancied he had shown when he played at soldiers as his father's general in early youth, had come to look upon himself as a second Napoleon, and allowed himself no rest till he had picked a quarrel with all his neighbours and engaged in a war with Brazil and with the Republics of the Plate, which lasted five years (1865-1870). At the end of it nearly the whole of the male population had been led like sheep to the slaughter ; and the tyrant himself died "in the last ditch," not, indeed, fighting like a man, but killed like a dog when his flight was cut off, and not before he had sacrificed 100,000 of his combatants, doomed to starvation, sickness, and unutterable hardship a great many of the scattered and houseless population (400,000, as it is calculated), and so ruined the country that the Census of 1873 only gave 221,079 souls, of whom the females far more than doubled the males.

To such conditions was Paraguay brought by half a century of Republican government. A race of coloured men (for the Indians, or the "Indigenous," as they are here called, are still 57 per cent. of the population and the half-castes 23 per cent.), who had scarcely been bettered when they were raised from blind, but free, savagedom to the rank of hardly less ignorant, but more grossly superstitious, priestly thralls, were at once endowed with autonomous constitutions and called upon to exercise sovereign rights. This population, constituting a large majority, not only was too passive and supine to understand what duties freedom imposed, but was an available instrument as an armed force in the hands of any adventurer aspiring to build his power on the preponderance of one party over its opponents.

And, be it remembered, there was nothing

ceptional in the conditions of Paraguay—nothing that may not equally apply to the other Spanish American Republics. Black, red, or white, the labouring classes in these countries are unfit for self-government ; unfit from want of moral education, and still more from utter, invincible apathy ; yet formidable for the material aid their numbers and military organization supply to any party leader who may harbour tyrannical designs against the public liberties. Francia and the two Lopez usurped the supreme power because there was in every case only one man of sufficiently independent character to dispute it, and that solitary dissenter became an easy victim of the despot's vengeance, not only without opposition, but with the consent of the Chambers and the acclamation of the multitude. What then happened in Paraguay we are now witnessing in Peru and Bolivia. Power is at all times, and especially in troublous times, within reach of any bold man who will snatch it. The factions among the few politicians may have a squabble or tussle for it ; but the mass are everywhere ready to accept *faits accomplis* and bow to the strongest ; to a Lacotera or Pierola in Peru, to a Daza or a Canseco in Bolivia ; ever ready not only to acknowledge the winning party, but to lend their support and give their blood for any one who will rid them of their irksome burden of freedom.

We are told that these are passing evils : mere phases through which all new States must needs pass ; that these infant Republics have vitality enough to withstand such shocks ; to be nursed, as it were, rocked and cradled by them ; that, after a few years' rest, not only is every trace of wars and revolutions effaced, but the country, by going through such ordeals, seems to gather new vigour and spirit, and to take a fresh start on its free and happy onward career.

Has such been the case of Paraguay ? This is the question to which I deemed it worth while to seek an answer, and it was with a view to obtain it that I embarked at Buenos Ayres on board the steamer Cisne, on my way to Asuncion.

From Buenos Ayres to Asuncion there is a distance of 1,071 miles, which the steamer accomplishes in six to seven days. The way lies almost due north along the banks of the Parana and Paraguay rivers. We steamed across the estuary of the Plate, threaded that maze of islands which forms the Delta of the Parana, on its confluence with the Uruguay, and ascended the Parana for more than 600 miles, up to its meeting with the Paraguay, a score of miles above Corrientes. Here we left the Parana on our right, and followed our course up the Paraguay, about 300 miles, to Asuncion.

It will not be difficult to understand how the land lies. We have here two large strips of country, to each of which the name of South American Mesopotamia may be equally applied. The first lies between the Uruguay and the Parana, and consists of the province of Entre Rios (between rivers), that of Corrientes, and the slip of territory called Misiones. All this belongs to the Argentine Republic, which on this side is bounded by the river Uruguay, separating it from the Republic of Uruguay as far as Santa Rosa, and beyond that from Brazil. The Parana waters these same provinces on its left bank, and has on its right bank the province of Sante Fé and the Grand Chaco ; this last a wild region, part of which belongs to Brazil and part to Paraguay, but which is Argentine territory as far as the mouth of the Pilcomayo, nearly opposite to Asuncion. The second Mesopotamia constitutes the territory of Paraguay, bounded on the south and east by the Parana, which separates it from the Argentine provinces and from Brazil, on the west by the Paraguay, which runs between it and the Grand Chaco, and on the north by the Rio Apa, which marks the frontier of Brazil.

Our voyage was slow and the scenery somewhat monotonous, but it had a greatness, or at least vastness, of its own, hardly less striking than any beauty. The Parana is a giant among rivers ; it brings down, we are told, a volume of waters larger than all the rivers of Europe put together, and its current flows at the rate of three miles an hour. For upwards of 600 miles its banks are so far asunder that one can nowhere catch a glimpse of both at the same time ; and its bed is throughout that distance studded with low, large, intensely green, beautifully wooded islands, at this season more than half flooded, the intervening channels broadening at the various bends of the river, and bearing the semblance of a succession of lakes. The grounds for the most part are flat, but the banks on both sides are made by *barrancas*, or cliffs, raised between 20ft. and 30ft. above the bed of the river, and at some points, where the undulations of the country slope down to the water-edge, attaining the dignity of miniature hills, enclosing tiny valleys, the chosen sites of towns and villages (such as Campana, San Nicolas, Rosario, and Santa Fé on the right bank, and Diamante, Parana, La Paz, Goya, Bellavista, and Corrientes on the left), some perched on the crest, some half hid in the glen, but all by their signs of life and movement, by the white of their dwellings, and the motley of their gardens relieving the sense of desolation inseparable from the sight of that grand and verdant, but unmitigated wilderness extending for hundreds of miles at a stretch.

The Paraguay is much narrower than the Parana, but it winds more gracefully, is more brimful, more free from cumbersome islands, and has an aspect of greater calmness and majesty. The vegetation is equally luxuriant, but more tropical, the palm, the cocoa-tree, the banana taking the place of the poplar and willow, of the ombu, of the peach and pear tree of the more temperate zone. The cranes and storks, herons, owls, hawks, and waterbirds of all kinds follow us along our course; but the Paraguay is more infested by the caymans or alligators, herds of which at low water may be seen crawling and sprawling in the mud, giving the chance of fair shots to the passengers weary of the tedium of their life on board the steamers. Both rivers have a course of thousands of miles above their confluence at Corrientes ; but, while the Paraguay is navigable up to Cuyaba, the capital of the Brazilian province of Matto Grosso, the navigation of the Parana is interrupted 445 miles above Corrientes by the *salto* or fall of Guayva, where the river contracts from a width of three or four miles to a gorge only 200ft. broad, and comes down in a cataract of 56ft. in height, which travellers describe as one of the wonders of the world, the roar of waters being distinctly audible 20 miles off. Besides the many great tributaries these main streams receive from the Brazilian sierras in the north, the Parana is joined at Santa Fé by the Rio Salado, and the Paraguay by the Rio Vermejo at Villa del Pilar, and by the Pilcomayo at Asuncion; these three great rivers flow from the Andes of the Upper Argentine provinces and of Bolivia ; the whole river system drains, it is said, a region half a million square miles in extent. The Vermejo and Pilcomayo, which bring down the mud of the Grand Chaco, flow for some distance unblended with the Paraguay which receives them ; its purer waters seeming to shrink from the contamination of those tributaries—a phenomenon equally observable at the meeting of the Missouri with the Mississippi below St. Louis.

At Humaita, where the Paraguay runs in its narrowest channel and makes its boldest bend, we steamed along the low cliffs which Lopez II. had lined with his 200 cannon, in the vain hope of withstanding the advance of the Brazilian ironclads, a ruined church and shattered barracks still bearing evidence of his decisive defeat. Further up we came in sight of Lambaré, a beautifully wooded pyramidal hill, named after a valiant Indian Cacique, who had there his abode ; and a few more turns in the river brought us to Asuncion.

The first sensation we received as we landed prompted the idea that we were entering the city of the dead. It was about noon, and the day was

festive ; the shops were closed, neither persons nor things were stirring. We had left behind Buenos Ayres and other Argentine cities wretchedly paved, but here during the 344 years since the town was founded not even an attempt at paving had ever been made. The roadway was deep sand, flooded here and there at the crossings, and the bricks clumsily laid on the side-walks were shattered and scattered, stumbling-blocks to the pedestrian at every step. The main square and other open spaces, with rare exceptions, were wildernesses, from which the dingy turf was never removed, and where no tree was ever planted. The old town seems only roughly sketched ; not one carriage, public or private, is visible ; the only means of conveyance is the tramway, barely one mile in length, and crossing the whole town, from the landing at the Custom-house to the railway station, at intervals from hour to hour. Paraguay only boasts one railway, to Paraguari, 42 miles in length, running four weekly trains ; and along it is laid the only telegraphic wire, the Argentine lines stopping at Corrientes. The population of the city, like that of the Republic, is reduced to one third of what it was at the outbreak of the war, hardly exceeding 15,600 souls, and very little efforts are made to repair the havoc that the calamities of the war inflicted. The rulers of the Republic, Francia and the two Lopez, could dispose of great wealth, as the land which the Jesuits usurped as Church patrimony had become State property, and the tyrants still employed the Indians as their drudges, in spite of the laws by which slavery was abolished. But all those rulers used the means at their disposal, not for the public good, but for the furtherance of their own ends. Lopez II., a monster cast in the mould of the most loathsome tyrants of the ancient Greek and mediæval Italian Republics, dazzled by the ephemeral success of the liberticide policy of Napoleon III., was quite imperial in his ambition, and, while pushing on his ruinous preparations for war, and relying on his ability to wrest provinces from Brazil and the Argentine Republic, he was laying in Asuncion the foundations of an empire of which this city was to be the metropolis. All his buildings were on a scale befitting such high expectations. His palace, with its huge tower, a conspicuous object, in a commanding position as you approach the city, all but finished, yet never to be finished, stands up, not ruined, but hopelessly dilapidated, covering nearly as much ground as Hampton Court. His theatre, an edifice of great massiveness, and a marvel of architectural design, still unroofed, and never to be roofed, was intended to exceed San Carlo and La Scala, both in size and magnificence. A rotunda on the model of the Parisian Pantheon was reared as a mausoleum of the Lopez dynasty, that dynasty of which he hastened the extinction by a double fratricide ; that church has neither doors nor windows, and will never be anything but a ruin. The same may be said of the arsenal, a vast jumble of yards, sheds, and lofts, of which even the tiles have been removed and sold, the timber being left to rot ; the same of the railway station, still used, but seriously damaged, being absurdly out of proportion with the importance of the line. It is impossible to calculate what revenue might have been necessary to achieve or even to begin such works ; but Lopez paid little for the material and nothing for labour. The lower classes, whether organized as soldiers or pressed as workmen, received no pay, and their maintenance fell upon their wealthier fellow-subjects, who had to give tithes of all their produce. Lopez heaped up stone, brick, and mortar by the same resources as enabled ancient Egyptian monarchs to rear their pyramids. No man's power was ever more unlimited ; no man's will ever less disputed. No people-eating king more utterly enslaved a nation than did this first magistrate of a free commonwealth. The gentleness and submissiveness which seemed innate in the Indian population, and on which the wily Jesuits and their successors had traded for centuries, were now enhanced by the terror which the wholesale executions of the late and worst of tyrants inspired. From the last farthing to the last drop of blood all was claimed and all mutely and passively yielded. The condition of the country after Lopez's downfall was somewhat analogous to that of the buildings that were so improvidently constructed at its direct expense. Paraguay was still an undeveloped State when it was struck by a calamity from which it is doubtful whether it will ever recover. Its revenue now hardly reaches half a million dollars ; its ex-

ports never exceed a million dollars. It has a debt of £1,500,000 contracted in England, and owes $400,000,000 for war expenses to Brazil, $75,000,000 to the Argentine Republic, and $25,000,000 to the Republic of Uruguay, besides $8,000,000 to Brazilian subjects and $5,000,000 to Argentine subjects as indemnity for ravages inflicted on the neighbouring population by Lopez in the early part of his campaigns—altogether a debt of $588,000,000, or £117,600,000. The population of Paraguay, as we learn from Don José Segundo Decoud, the present Minister of Foreign Affairs of the Republic, in his pamphlet *Cuestiones Políticas y Economicas*, "is still stationary, and only amounts to 32 souls for each square league, while the proportion is 70 in the province of Buenos Ayres, 50 in the remotest Argentine provinces, and 60 in the Republic of Uruguay.' It is difficult to imagine to what sources, intrinsic or extrinsic, the country may look forward for a better future.

After a few days spent in Asuncion, I took the train to Paraguari, and hence rode in various directions, to Caapucu, to Pirayu, Caacupé, Altos, &c., wherever my progress was not stopped by the streams swollen by unusually heavy rains, in a region where bridges are unknown and ferry or other boats not forthcoming. The country along the railway tract and throughout my rambles, though not transcendently beautiful, as the natives think it, is not without peculiar charms of its own. The train took us across an uncultivated, yet not unfruitful, plain, with isolated hills on our right, most of them of rounded shape like the one at Lambaré, and on our left a light, broad lake, beyond which rose a long mountain range, smooth and blue, called here the Cordilla, which crosses the whole country as far as and beyond Villa Rica. The plain is covered with brushwood and clusters of trees here and there ; the grounds are mantled with deep verdure, being in many a forest of fine orange trees.

The towns and villages above named, where I stopped, and others which I merely passed, are almost all laid out on a uniform plan. Low houses or huts of wood and mud, and thatched, are built on the four sides of a large square or common, having the church, generally a flat edifice, in the centre, with an isolated wooden belfry in one of the corners, and a huge flagstaff or maypole facing the main door at some score of yards distance. The houses have almost invariably a verandah, and the church a portico in front and rear. Every house has its little plot of ground, and sheds and outbuildings at the back, the garden fences joining together outside, so as to enclose and barricade the place on all sides, only allowing access at the main avenues. The square is common land, a closely-cropped meadow, used as pasture for the horses and donkeys of the whole people. The cottagers are generally proprietors, with a few head of cattle, and they have small farms in the neighbourhood, where some dwell in scattered homes. The little community live on good terms with each other, on the footing of equality, no house rising above its neighbour's, unless be the town-hall ; and the priest, the schoolmaster, the magistrate, and the shopkeeper however better off they may be, have nothing in their furniture or their every-day dress to distinguish them from the rest. The majority of the people are dark, Indians of the Guarani tribe, half-castes; for even the whites of Spanish descent and the few immigrants look for domestic comforts among the

natives, and the ascendency of the dusky hue asserts itself more and more at every new generation, as it does in Bolivia, Peru, and generally throughout South America, with the exception of Chili and the two Plate Republics, where, on the contrary, the dark colours are being rapidly absorbed by the fair. Black or white, however, the inhabitants here are all Paraguayans, and a peaceful, inoffensive people they are. The women, though seldom remarkable for fine features or clear complexion, and often positively hideous, have all that beauty of figure and elegance of movement which are contracted from the habit of carrying weights on their heads—a practice which might be recommended to boarding-school mistresses as the best substitute for their back-boards. Their dress consists of a loose white cotton frock, trailing at their heels, and slipping from their necks and shoulders so as to expose more of their brown charms than a Tartuffe would approve. Over their frock they throw a scarlet woollen mantle, and wear a linen cloth on their heads, the folds of which they gather round their faces with a coquetry betraying anxiety to exhibit what they half pretend to hide. They all go barefooted, and are never without a big cigar in their mouths; but their costume is that of Grecian statues, and their gait and bearing are queen or goddess like. There is little apparent animation or quiet cheerfulness about them. They sit silent and demure with their children on their knees under the house-porch, looking vacant and sad, and equal to any amount of dawdling. It is only at the market-places or at the railway stations, where they crowd with provisions, or with carpets or lace of their own making for sale, that they look alive and chatter, breaking now and then into sudden shrieks of laughter upon the least provocation, and, one might think, from sheer idiotcy. There is little work done in the country, but that little is done by them, whether in the household or in the field, the men's time being taken up by horse-racing, cock-fighting, and card-playing, the last a besetting vice of every people with a drop of Spanish blood in their veins. One may easily conceive what any amount of female fieldwork may be worth, and what degree of human progress such inversion of duties between the sexes without reciprocity may betoken. Indeed, it would be idle to talk here of civilization or of what we should call morality. Education is at the lowest ebb, and religion is still what the Jesuits made it among their Indian converts—an amusement rather than a rule of life. Very little has been done towards weaning young couples from their free-love connexions. Marriage is dispensed with to such an extent that out of 50 candidates for the priesthood in the newly established National College, only two were able to produce evidence of their legitimate birth. Concubinage is the rule, both among the natives and the foreign immigrants. The priests themselves, many of them Neapolitans, give the first example of glaring misconduct; and, strange to say, their flagrant breach of their most sacred vows, the presence of a harem and full nursery in every parsonage, far from shocking or scandalizing their flocks, seem to be looked upon as the suitable subject for many a stupid joke. They will tell you, for instance, with great glee, that the Pope, "taking pity on poor Paraguay, in consideration of its depopulation, has vouchsafed to send the clergy a secret bull exempting them from the observance of their canonical obligations."

The fact is, the men who undertook to rule this country as it came all ravaged and bleeding from the hands of Lopez in 1870 had a task before them far exceeding the extent of human faculties. The four Presidents or Vice-Presidents—Rivarola, Jovellanos, Gill, and Iriarte—who successively wielded the supreme power within a period of eight years, hampered by the absurdly democratic Constitution they had sworn to observe, either shockingly abused their power or threw it up in despair. Two of them, Gill and Rivarola, died by the hands of assassins, without any attempt being made to bring the murderers to justice; Paraguay is in that respect no exception from the general practice in South American States. Better fortune, one must hope, may be in store for the present President, Señor Candido Bareiro, installed in 1878, who is credited both with honesty and ability, and well supported by his Minister for Foreign Affairs, Señor Decour, the most accomplished and Europeanized man in the country. The description the Minister gives of his country in the pamphlet above alluded to is heartrending; nor, while he bravely points out the evils, does he seem over-sanguine as to the remedies he suggests. After dwelling at full length on the gross ignorance, supineness, and vagrancy of the population, on their unfitness for municipal institutions, and incapacity for self-defence against a corrupt Administration, he inveighs against the provincial governors, or "Pro-consuls" as he calls them, for their iniquity in the exercise of their power, in which they act with perfect impunity and free from all responsibility, so grinding and outraging their subjects as to "drive thousands of families to the neighbouring Argentine province of Corrientes, seeking there a refuge against the official tyranny and spoliation prevalent in their own country."

It is to be hoped either that the picture was too deeply coloured or that matters have greatly mended since the author of the pamphlet came into office; for the country, as far as I could judge, had the appearance of the most thorough calmness and security. There was a general depression of spirits consequent upon the failure of the tobacco crop; but, on the whole, my conviction was that

BRAZIL.

(FROM OUR SPECIAL CORRESPONDENT AT RIO JANEIRO.)

When Pope Alexander VI., in his capacity as Moderator and Arbiter among all earthly Potentates, undertook to carve out the realms of the New World to the crowns of Spain and Portugal, he hardly perhaps flattered himself that the two emulous nations would long abide by the terms of his partition. Yet the boundary line, in South America at least, is still, in the main, what it was meant to be. The original discoverers and conquerors still share the land between them. The Portuguese Empire very nearly balances all the eight Spanish Republics put together. The area of Brazil extends over more than three-sevenths of the vast continent. With the exception of Chili, it reaches the frontiers of all those democratic States, as well as those of the three European colonies, English, Dutch, and French Guiana. Brazil has a sea-coast line of 4,000 miles, and from the sea at Pernambuco to the foot of the Andes, on the Peruvian frontier, its greatest width is 2,600 miles. It is divided into 20 provinces, one of which, Matto Grosso, not quite the biggest, is ten times the size of England. The Amazon and its tributaries, within Brazilian territory, are navigable for 24,500 miles, so are also the Upper Parana and Paraguay, which have their sources in the Empire, thousands of miles above their confluence at Corrientes; and so likewise the San Francisco, the Cacoheira, the Parahyba, and a hundred others flowing from the Brazilian sierras into the Atlantic.

With all these advantages of mere bulk, however, Brazil, like most other Transatlantic States, is little better than a formless, unwieldy mass. Its boundaries are imperfectly defined; large tracts of its territory are mere swamps and forests, unexplored and impervious, some of them the hunting grounds of untamed, hostile Indian tribes. There are no other great cities than the seaports. Railway communication, much as it has already achieved, has still measureless distances to contend with. From the capital to some of the towns in

inland provinces, as to Cuyaba, in Matto Grosso, or Tabatinga, in Amazonas, the only intercourse is by water, along the seacoast and up navigable rivers—a roundabout voyage of 4,000 miles to either place.

Heavily weighted as it may be by these material obstacles, Brazil is nevertheless considerably more advanced in the race of civilization than any of the Spanish Republics. Its population (about 12,000,000 souls) is nearly as numerous as that of all those States collectively; its revenue (£12,000,000 in 1873) is as large; its trade (£21,000,000 exports in the same year) as extensive; and, although the Paraguayan war of 1865-70 added £39,000,000 to the National Debt, the country shows no grave symptoms of declining prosperity, and its credit stands as high on the European Exchanges as that of some of the most respectable States in Europe itself.

We shall not have to go far for an explanation of this contrast between the conditions of Spanish and Portuguese America. In the first place, South American colonies were founded by cognate, but by no means homogeneous nations. The Iberian Peninsula, though geographically one country, only at short and rare intervals constituted a political unit. Both in mediæval and modern times it was split into two separate rival States, speaking distinct, though kindred idioms, developing peculiar characters, pursuing divergent and often conflicting interests. Equally heroic and chivalrous in their military and naval exploits, they acted on different instincts. The Spaniard, with perhaps greater energies, showed a more violent, turbulent disposition. He ventured more rashly into political experiments; fell more headlong from the excesses of bigoted loyalty into the extremes of rebelliousness; the alternative was for him between loathsome tyranny and mad anarchy; the tutelar saints, who obtained for him all earthly blessings, failed to secure the greatest—a good Government. The Portuguese, though, perhaps, equally vainglorious, was at all times less venturesome, cooler, more practical.

The peculiarities which determined the destinies of the two races in the Peninsula equally influenced the course of their settlements on the shores of the Atlantic and the Pacific. The Spanish colonies, abandoned to themselves at the beginning of this century, when the mother country lay prostrate under the heel of the First Napoleon, had no sooner aspired to independence than they achieved it; and the arms which they seized in the struggle were scarcely as much used in resistance to exhausted Spain as in feuds which soon arose among themselves, and which were perpetuated for many years after complete emancipation. The Spanish colonies, upon emerging from despotism, were bewildered by crude notions of French democracy and American federalism. They tried every form of unity and union; crowded the western hemisphere with "Lone Stars" and "Clusters of Stars," and entered into endless political combinations in which they found no permanent rest.

Portugal, on the other hand, from the beginning of those same troubles, found herself under the influence of England, and learnt abhorrence of lawless republicanism and reverence for settled representative institutions. Driven from Lisbon, the House of Braganza came to Rio Janeiro for a refuge; and Brazil (like Sicily when Naples was invaded and the Bourbons fled to Palermo) remained faithful to its dynasty and to the monarchical principle, modified by some rudiments of English self-government. After the liberation of Portugal, the parts between that kingdom and its great colony were reversed. Brazil became the sovereign State, and Portugal the dependency; till a separation between the two countries was found advisable, and was effected with little disturbance as a mere dynastic compromise, leaving behind no greater rancour or estrangement between the severed people than is usually experienced in any case of a similar operation. The premature yearnings for independence previous to the great crisis, and the subsequent attempts at secession never assumed in Brazil a general character, and were suppressed after a prolonged, but not very violent contest; and in the wars of the Argentine Republic and Uruguay, Brazil merely took the field as the champion of one party against the other, showed little warmth in the quarrel, and withdrew from it as soon as circumstances allowed.

Up to the time of the Paraguay war, in short, Brazil belonged to the category of those happy communities of which "the annals are silent." The short reign of the Emperor Pedro I.—1822-1831—and the nine years' regency elapsing between his abdication and the coming of age of his son, Pedro II., in 1840, passed off in the best order; and, whatever aspirations might exist among a few ultra-democratic politicians, the mass of the people seemed to know that they were well off, and showed little inclination to "better themselves."

The Brazilians would, indeed, have little reason to be dissatisfied with their own lot. No Empire of the size of Brazil (3,287,964, or by other accounts 5,053,240 square miles, constituting 1-15th part of the land surface of the globe) could boast of a more magnificent geographical position. Separated in the west from the arduous chain of the Andes, Brazil does not, like the Argentine Republic, slope down into an uninterrupted monotonous plain, but rises in its central part into a high plateau or tableland, crossed by a cluster of mountains, where, on the north, are the sources of some of the great tributaries of the Amazon; on the east, those of many streams flowing into the Atlantic; and on the south, those of the Paraguay, Parana, and Uruguay mixing their waters in the great estuary of the Plate. The three main chains of this central plateau, the Sierra do Mar, or Maritime Chain, the Sierra da Mantiqueira or do Espinaço, the backbone of Brazil, and that dos Vertentes, or of the watersheds, all known under a multitude of names in various localities, are nearly parallel, and run all across the country from north to south, intersected in every direction by transversal chains, forming with them a mountainous labyrinth which has not yet been satisfactorily surveyed or mapped out. The central or backbone chain is the highest, the summits of the Itaiaia rising, it is said, more than 10,000ft. above the sea level. That of the watersheds is much lower; and through it, it is thought, it may not be difficult to establish a canal or railway communication between the two great river systems of the Amazon and the Plate; as it would be equally practicable, further north, to open a water or iron way from the tributaries of the Amazon to those of the Orinoco.

The Empire, politically divided, as we have seen, into 20 provinces, consists thus, geographically, of three distinct regions—the mountain cluster in the centre; the valley of the Amazon in the north, from where the great river crosses the Peruvian frontier at Tabatinga to its mouth; and in the south the valleys of the Paraguay, the Parana, and the Uruguay, down to the boundaries of the Plate Republics. The great bulk of the country lies within the torrid zone from 5deg. north of the Equator to 33deg. of south latitude. The capital, Rio Janeiro, is just within the southern tropic. The climate is, therefore, tropical or semi-tropical; hot, moist, and unhealthy in its lower regions, but not unfit for the habitation even of white men in the southern provinces, and in the high mountains throughout the country.

It would be idle to enumerate the multitude and variety of the products of Brazil, or even to inquire what the Empire does not or could not be made to produce. All the most precious stones, the most valuable metals and useful minerals, all the finest woods are found here. Coffee, sugar, tobacco, and cotton have been by turns and may still become staple commodities. All tropical fruits, medicinal and other plants either grow spontaneously or may be successfully cultivated. Nothing of what the tropics yield is stinted; and all the fruits, herbs, and roots of the temperate zone thrive in extensive tracts throughout the country.

Even in Brazil, however, man can only live by the sweat of his brow, and the question most urgently pressing for solution here as throughout all America is what men or race of men are to do the work—the hard work—of the community; whether men are to till the earth, and turn it to the purposes of civilization, or abandon it wholly or partly to the hunter and grazier.

In answer to this question the ruling race—the white Creole, or native Brazilian race, and the Portuguese and other European settlers among them—begin by laudable endeavours to obtain a full knowledge of their country, exploring by land and water its remotest and most recondite regions, and establishing such means of communication as may bring together people whom nature seemed to have put hopelessly asunder. From the time when the heroic Orellana, crossing the Andes of Ecuador, forced his way down the cataracts of the Rio Napo into the waters of the Amazon, and paddled his canoe along that broad stream to its mouth, in 1539, few attempts had been made to explore Brazilian rivers, till very recently the Brazilian Government commissioned some of its Engineer and Staff officers to survey the country with a view to establish the navigation of the great rivers and their tributaries, and eventually to join them at their sources by canals or railways. In this official task the Brazilians were aided by European travellers and scientific men, among whom Hazfeldt, two Kellers, Agazziz, Vignolles, Marcoy, Lloyd, and Smith distinguished themselves. The result is that of the 28 steam navigation companies, native and foreign, now plying in Brazilian waters, some with a subvention from the Government, a good number carry on the river trade. There is an English Amazon Company, which, besides following the course of the main stream up to Tabatinga, on the frontier of Peru, a distance of 1,800 miles, ascends some of its greatest tributaries, employing four steamers on the Madeira, four on the Purus, and two on the Negro; and these travelled last year along a line, collectively, of 2,746 miles in length, touched at 120 stations, and conveyed 13,976 passengers and 20,000 tons of merchandise. The same service is performed by various companies on other tributaries of the same Amazon, and again on the San Francisco and other streams flowing into the Atlantic; and, finally, from Montevideo, on the Plate, the Parana, and the Paraguay, up to Cuyabà in Matto Grosso.

With respect to railways, there were in 1867 only six lines running over 427 kilomètres. In 1872, the lines had increased to 15, with 1,026 kilomètres; in 1876, to 22 lines, with 1,660 kilomètres; and there are now, in 1880, 31 lines, with 3,059 kilomètres in traffic and 1,910 kilomètres in progress of construction, altogether 4,969 kilomètres. The most conspicuous works have hitherto been made in lines stretching out in every direction round Rio Janeiro, on both sides of the bay, to San Paulo and Santos, to Leopoldina, &c., with many branches to other localities, a very respectable net of 2,547 kilomètres, and very profitable, yielding dividends of 13 to 20 per cent., though in some cases involving an expense of construction of £20,000 to £30,000 a mile, as it was carried across arduous passes of the Sierra do Mar, Miñas Geraes, and other mountainous regions, partly by Government, partly by private companies, with a guaranteed interest of 7 per cent.; the whole involving an outlay of £22,000,000 to the State before 1877, with other considerable sums added at subsequent dates. The success of these railways round the capital is especially due to the conveyance of coffee, the main produce of these districts.

The result in some of the remote provinces has not always been equally satisfactory. It must be observed that Brazil is only nominally a Monarchical State. The 20 provinces into which the Empire is divided are organized on the general principles of American federation, with nearly as little cohesion among themselves as the provinces of the Argentine Republic or the States of Colombia. Local affairs are here in the hands of provincial or municipal assemblies, whose only connecting link with the Central or Executive Power is the "President" or Governor appointed by the Emperor or his Ministers. In their furtherance of public works, as in the case of railways, these autonomous bodies are naturally apt to consult what they consider their own advantage, with little regard to any neighbouring interests with which it may clash; and they are equally reckless of any disproportion between any object they have in view and the means they may require for its attainment. Provincial railway lines have thus been started in almost every part of the Empire, most of which have gone little beyond the stage of mere projects, and others, even when carried to completion, have turned out very bad speculations. The 125 kilomètres from Bahia, for instance, and the 124 kilomètres from Pernambuco, both intended to reach some point on the navigable course of the Rio San Francisco, have never paid, and will probably never pay, working expenses. Railways in Brazil have to cross large tracts of absolute desert. They can have little reliance on passenger traffic, and the freights are only remunerative in districts highly productive of the staple goods of the country. Very few of them drive as good a trade as the tramways of Rio Janeiro, the various companies of which carry 40,000,000 passengers yearly out of a population of about 400,000 souls.

The Imperial Government, which in the distress caused by the Paraguayan war had somewhat slackened its activity in railway enterprise, and allowed the provinces in that respect greater freedom than is assigned to them by the Constitution, has now come to the aid of local undertakings, and offers the various provincial lines whatever subvention it can afford, subject, however, to the exercise on its part of stronger control, both over construction and management. A better understanding between the central and the local powers may eventually speed the work; but rulers and speculators in these new countries are too often tempted by the vastness and grandeur of an enterprise, concerning themselves but little about its practicability. They do not sufficiently consider that a work which might prove highly remunerative when completed may cause unprofitable outlay while it is only in progress. Brazil has been for some time and is still wasting its resources in schemes that admit of no prompt realization. The attempt to turn to good purpose the navigation of the San Francisco by railways from Bahia and Pernambuco has led, as we have seen, to signal failures; and the same results may be expected to attend the efforts to prolong existing lines to the frontiers of Uruguay, Paraguay, and Bolivia. These gigantic undertakings, 700 to 1,000 kilomètres in length each of them, which come under the ominous appellation of "strategical and commercial railways," would, it is said, reduce to five, 10, or 12 days journeys which can now hardly be achieved in as many weeks. But the mere survey of these lines has been or must be a costly business; and little would be gained were even these railways to be carried on as far as those of the Oroya, of Puno and Cuzco, in Peru, which, after bringing that unfortunate Republic to the brink of ruin, will have to be abandoned, the impossibility of completing them or working them in their unfinished state being equally demonstrated.

Independently of the magnitude of the public works of Brazil, and of the high cost at which capital must be procured for their furtherance, severe losses have also been incurred owing to the inexperience and presumption of the native engineers, to whom the Government, from wrong views of patriotism and jealousy of aliens, intrusts all execution and management. Witness the great reservoir at Pedregulho, near Rio Janeiro, a colossal work, intended to contain 80,000 cubic mètres of water for the much-needed town supply, which, after four years' labour, and an outlay of £2,000,000, is now, in its unfinished state, cracking and giving way in every direction, from the

treacherous nature of the soil and the clumsy weight of the structure; so that, after a first partial experiment, which caused an alarming leak, all attempts to fill it with water had to be indefinitely adjourned and a commission appointed; the whole of Rio Janeiro being convulsed with fear of a collapse of the whole fabric—a fear which even the presence of the Emperor, who paid a two hours' visit to the spot when I was there, and all the assurances of his flattering, though blundering, engineers, had no power to allay.

In the expectation of the results that roads, railroads, and such works may have on the development of public welfare, Brazil, like other South American States, seems to have proceeded with little consideration of the condition of its finances. The revenue of the Empire, which had again and again been doubled at every period of ten years, and was reckoned, in round numbers, at £12,000,000, in 1873, has since that year proved insufficient for the expenditure; and, notwithstanding the efforts of various Ministers to keep up a fictitious balance, public accounts have closed with annual deficits, exceeding £2,000,000. The consequence has been a serious aggravation of the debt, which amounted to £72,000,000 in 1876, but which subsequent loans have raised to something like £80,000,000; and to the emission of Treasury Bonds, for which the Government accepted payment in paper, while it bound itself to pay 6½ per cent. interest in gold. The annual charge of the debt, probably exceeding £3,000,000, and at least as large a sum applied to the Army and Navy Departments, absorb thus more than half the revenue, another fourth of which is devoted either to the construction of railways or to the guarantee of their interest at 7 per cent. yearly.

It has been urged, and it will be readily granted, that Brazil is a rich country; that it has a world of wealth in its soil and climate, in its underground treasures, in its immense agricultural resources, "only 1-150th of which have as yet been developed, or even revealed;" that "maize yields from 150 to 400 fold, rice as much as 1,000 fold, wheat from 30 to 70 fold;" that "an acre of cotton is found to give four times as much as in the United States;" that "an able-bodied man can easily cultivate 2,000 coffee trees, on an area of five acres, which will give him an average crop of 6,000lb. of coffee, worth about £80," &c. But the question is not what the country might be made to yield, but what it actually does yield; and it will hardly be denied that Brazilian trade has for these last ten years shown little elasticity, and its exports, if there has been no falling-off, have not exceeded the sum of £21,000,000, which they attained in 1873—a trade barely as important as that of Cuba, which exported to the amount of £20,000,000 in sugar alone at the time of my visit to that island in that same year, 1873.

Those wonders of the gold and diamond fields of Miñas Geraes, which yielded so many millions during the last century, and part of the present, which "enabled an extravagant Governor at Ouro Preto to shoe his horses with gold in solemn religious processions," which "enriched the reigning dynasty with £3,000,000 worth of diamonds, and set on the Portuguese and Brazilian diadems those two famous jewels, the Southern Star and the Abacete, rivalling the glories of the Koh-i-Noor," are in a great measure things of the past. Hardly 1,000 men are now at work in those diggings which formerly employed 80,000, and the outcome of their labours does not go for much among the items of the Budget. A few foreign companies, chiefly English, however, have taken up the abandoned shafts, and are now working the mines of Morro Velho, Pary, and other localities, from which they extract gold to the yearly amount of £280,000 to £300,000.

The only produce which gives fair returns, on which the country depends for half its income, is coffee, the average yearly exportation of which, between 1865 and 1870, is said to have been 164,114 tons, of the value of £10,190,000. Coffee is King in Brazil, and threatens to absorb all the productive powers of the Empire, to the great dismay of those prudent economists who declaim against the folly of "carrying all their eggs in one basket." There are, it is said, 530,000,000 coffee plants in the Empire, covering 1,500,000 acres, to which large additions are made year by year; the annual crop is 260,000 tons, of which 50,000 are for home consumption. And yet, though "Brazilian coffee makes up about one-half of the quantity of coffee produced in the whole world," though its excellence has been recognized at the Vienna and Philadelphia Exhibitions, and rewarded with gold medals and *mention honorable*, it seems to be held of so little account in the markets that, to insure a sale, it has to be labelled as Java, Porto Rico, Ceylon, or Mocha produce. There is room for improvement in this branch of production in Brazil, and it also admits of further extension; but, although coffee can be planted almost throughout the territory of the Empire, I was assured at the well-known *fazenda*, or estate, of Baron Faro, of Rio Bonito, near Barra do Pirahy, a model establishment, yielding, with two adjoining estates, 2,300,000lb. of coffee, an annual income of £60,000, that the coffee crops above the latitude of Rio Janeiro are liable to be withered by droughts, while below the latitude of San Paulo they are often nipped by frost, the most favourable soil and climate being found in the northern districts of San Paulo, where the income to be made by coffee is higher by one-third than what the Baron himself can raise out of his own model farm.

Nearly all other branches of agricultural industry in Brazil are on the decline. Sugar, though still doing tolerably well, has lost the first rank it once held among staple commodities; its exports are valued at £2,680,000 yearly. Cotton, which owed its rapid growth to the civil war in the United States, suffered an equally swift downfall at its termination, and has sunk to £3,670,000 a year. Indiarubber gives the country a yearly revenue of £1,150,000; Maté, or Paraguay tea, £410,000. Tobacco only figures among the exports for £800,000, though Bahia cigars are in some demand at Montevideo and Buenos Ayres. Brazil owns, it is said, 20,000,000 horned cattle, and exports hides of the annual value of £1,400,000. The remainder of the exports is made up by "sundries" to the amount of £1,000,000. Among the various customers dealing with the Empire, England holds the first rank, as it sends in 30 per cent. of the imported goods and takes away 25 per cent. of the exports. The United States, however, make larger purchases, 35 per cent., but only sell 5 per cent.; French trade—19 per cent. imports, 13 per cent. exports—is said to be on the increase, owing especially to the great consumption of wine; for both in this country and throughout South America, in spite of some partial success in Peru and Chili, the cultivation of the vine will probably never be very extensive, and the New World will always in this respect be tributary to the Old. The other customers of Brazil are the Republics of the Plate, and Portugal, Belgium, Germany, &c., coming in, collectively, for 32 per cent. imports and 17 per cent. exports.

(II.)

Although there can be no doubt that Brazil has been blessed by nature with an amount of agricultural and mining wealth almost inexhaustible, it must be evident that the present or future well-being of that country, like that of other South American communities, reduces itself to a mere question of labour. By such meagre accounts as we have, the population in 1872 was only a little above ten millions, and had not increased by more than two-and-a-half millions since 1856. It may now be presumed to be about 12 millions. Of these, a little less than four millions were, at the last census, numbered as "Caucasians," or pure whites, two millions were "Africans," or negroes,

00,000 "Americans," or tame Indians, and four millions of mixed blood, mulattoes or mestizos. Besides these, there were the wild Indian tribes, vaguely estimated at 200,000, 400,000, or even one million.

All this, however, is mere guesswork, and it is extremely likely that the number of the pure whites was overrated, and that of the dark or blended complexions far exceeded the official statement. The important point is that of the two millions of Africans or of their offspring one million and a half were slaves, and nearly all the hard work of the country fell to their lot. By the law of September, 1871, which emancipated all unborn children, and by other charitable measures, the number of slaves, according to Ministerial reports, is now reduced to 1,119,168, and it is understood that before the end of this century there must be an end of all slavery, the living generation of bondsmen either dying off or being gradually enfranchised. Eager abolitionists, however, loudly charge the Government with prevarication on this subject. They contend that the number of slaves has increased rather than diminished; they complain of the "illegal reduction to slavery of freed and free blacks, of the sale of freeborn children of slave mothers, and of the unchecked traffic of Indian children on the Amazon," &c. And they conclude, "As the case now stands, gradual emancipation is a failure and a fraud."

I must leave the Brazilian Government to clear itself from this imputation of bad faith as it can. I have never been blind to the difficulties besetting this question wherever it arises. The abolition of slavery has been imposed on all Christian States upon principles which admit of no discussion. But it was a fatal necessity, and wherever it was sudden, general, and simultaneous, it has entailed grave calamitous consequences. The Brazilians, taught by the example of other nations, hoped to break, as it were, the fall of their slave system by going to work deliberately and gradually. But they are greatly mistaken if they hope to "put off the evil day" by the evasion of their own laws, and the tolerance of an underhand traffic. There has been of late an active transfer and barter of slaves, bringing a large number of them to localities where slave or negro labour seemed least required. The greatest number are now in the provinces of Rio Janeiro, Bahia, Miñas Geraes, and San Paulo, where many are employed in domestic service; and there are frequent cases in which German and English subjects purchase and hold slaves in defiance of the laws of their respective countries. All this, however, will avail little. Slavery is doomed; and Brazil, by tampering with what she has established as right, will only eventually have to yield to might. The Negrophiles, both in and out of the country, will not long be put off with mere shams.

If we take it for granted that within 20 years at the utmost the work of emancipation must be completed, it becomes interesting to inquire to what extent such a measure may influence either the wellbeing of the slaves themselves or the general productive power of the land. Judging from such precedents as we have in the West Indies or in the United States, one would say that the negro is not a man to work as cheerfully or as efficiently from choice as he is apt to do on compulsion, or even to take as much care of himself, of his home and family in a state of freedom as he does in the keeping of a humane and provident master. The Brazilians have decreed that the rising generation of freedmen should be fitted for the condition to which they are called by a long apprenticeship, and by an education which they must receive either at the hands of their masters or at the expense of the State. But the question is whether it will be possible, mentally or morally, to "wash the negro white;" to bring him by any amount of schooling to do as much work, and precisely of that kind of work as he performed under the dread of the overseer's whip; whether any persuasion will win his consent to that condition of mere drudge of the community for which it was taken for granted that he was naturally intended. The emancipated negro, like the Indian, the mulatto, and the mestizo, will stand on the white man's birthright to do just as much work as will supply his own immediate wants, and it will only be in rare individual cases that his requirements will act as a stimulus to very earnest and sustained exertion. Considerations for his employer's interests or for those of the State, and even the hope of "bettering himself," will hardly counterbalance the instinct which prompts him, as it prompts the Neapolitan or Sevillan, to enjoy his leisure as the greatest charm of existence.

The mere fact that the majority of coloured freedmen have flocked to the cities and looked for domestic service may be taken as an earnest of what will become of sugar, cotton, and other plantations when the whole slave race has ceased to exist. It is supposed, indeed, that coffee may thrive in the hands of white labourers; but at the estate of Rio Bonito, where slave labour is carried on with equal regard to economy and humanity, there is a firm conviction that the full enforcement of the law of 1871 must be a deathblow to their industry. And again, other planters, aware that the days of slavery are numbered, work their land to utter exhaustion, anxious to get as much profit out of it as they can with their slaves, and convinced that with final abolition their property will have to be abandoned as valueless. This, as we may remember, is what happened in Virginia before the civil war; and here, as there, the price of slaves has risen with every step the country has made towards abolition. An able-bodied negro will fetch £200, and even £300, at the Brazilian slave markets.

The Government here withholds the publication of all particulars respecting colour. We know very little as to the real number of negroes, Indians, mulattoes, or mestizos. We have no statement of the increase or diminution of any of these races, of their respective vitality, or reproductive powers. We are vaguely left to surmise that mortality is greater among the emancipated slaves than it was among the same people in a state of bondage; that in the blending of races colour is apt to deepen; and that the mixed has little power of multiplication, unless it draws from the primitive sources at every new generation. Finally, that, although the mixed race, mulatto, quadroon, or octoroon may individually attain great beauty, and even develop rare intellectual faculties, it exhibits, in the mass, the bad rather than the good qualities of the parent stems, and on the lowest cunning and knavery of the White it engrafts the supine indolence and the stolid improvidence of the Black.

Yet there is no doubt that this hybrid race constitutes at least three-fourths of the Brazilian nation, and that up to very recent times the country depended upon it for all its rough and dirty work. The Brazilians dwell, with good reason, on the fact, honourable to them, that they are entirely free from the ungenerous prejudice with which the people of the United States look upon their "niggers;" and it is very true that here, in railway carriages or in tramway cars, you may see any day some baroness or viscountess, refulgent in all the snow-white and pink of the most perfect Caucasian complexion, seated near a hideous Ethiopian, without any apparent squeamishness or mutual repulsion. We are told, indeed, that in good old white families the line is rigidly drawn against intermarriage; but this can hardly be the rule among the lowest classes, where all seems cast together into a motley, mongrel community.

To counteract this darkening tendency of the

population, and also to fill up in the fields the places likely to be vacated by the slaves on their emancipation, the Brazilians have been for many years endeavouring to draw to their shores the tide of European emigration. The greatest influx of strangers is, of course, from Portugal. Up to the year 1820, in that kingdom and its great dependency of Brazil, there was but one people; and it was only after the erection of the colony into an empire that a Portuguese ceased to be as much at home at Rio Janeiro or Bahia as at Oporto or Lisbon. Portuguese subjects now are here, of course, numbered as aliens, though so great is their number, and so rapid their domestication among their Brazilian brethren, that a distinction is not easily drawn. At the last census, when the white population were put down at 4,000,000, the Portuguese were said to number 121,246; but this did not include the multitude of those natives of Portugal who quietly settled in the country and merged into the Creole population. Of native Portuguese and of their offspring in the first generation there cannot be less than one million; and though some of them, upon realizing a fortune, are apt to go back to their own country, and there "live as princes," under the denomination of Brazileros, there still remain enough of them in Brazil to make up by far the greatest mass of immigrants. Out of 53,000 commercial houses numbered in 1876 only 29,000 were Brazilian, while 18,000 were put down as Portuguese, and 6,000 described as "foreigners of other countries." At the celebration of the Camoens tercentenary, which plunged this city into a fever of incessant revelry for three days and nights, Brazilians and Portuguese met and embraced as one and the same people; the jealousy and estrangement, not to say downright rancour, with which the rapid fortunes frequently crowning the thrift and skill of the new-comers fill the hearts of the less enterprising old inhabitants, had a short period of respite and intermission. Camoens, like Shakespeare, had power to make readers across the ocean "kiss and be friends;" but the gushing of brotherly feeling was too impetuous to be lasting, the profession of goodwill too loud to be genuine.

Independently of this mutual aversion, it must be remembered that Portugal is a small country; that it has not much population to spare and that its people, except in the northern districts, are not remarkable for laborious energies. The Portuguese come to Brazil because they hardly know where else they could do as well. They think they are here "the one-eyed men in the land of the blind," and under the stimulus of want, greed, or ambition they bestir themselves so as to become one of the most useful classes of the community. They, however, like the Italians in the Plate Republics, are here dwellers in the cities; bricklayers and carpenters, petty traders or artisans; on the whole, not much available for agricultural or mining purposes; and the same may be said of the honest Gallegos, or natives of Galicia, who are hewers of wood and drawers of water in Portugal, as well as all over the Peninsula, and many of whom follow the stream of immigrants into this New World, where their stout thews and sinews are of considerable value. These also seldom take to field work.

It is, then, chiefly to northern men, to German, English, or Irish, that Brazil has most earnestly looked for the formation of agricultural colonies. Some of the settlements, and especially the German, have given in past years satisfactory results. In the southern provinces, and especially in Rio Grande do Sul, Santa Catarina, &c., not only have the immigrants as husbandmen greatly added to the wealth of the country, but they have also taken to some branches of industry, as saddlers, coopers, tanners, &c. San Leopoldo, the oldest of these colonies, dating from 1825, although sadly ravaged and almost rooted up by the long civil war in Rio Grande, survived its most calamitous times, and is still looked up to as a model settlement and the parent of many other settlements. The produce of its labour is valued at £1,000,000 annually. The same good accounts are given of other colonies, such as Leopoldina, New Petropolis, Blumenau, Itaiaia, Donna Francisca, &c. But, when all is said, it cannot be asserted that the colonizing experiment in Brazil has met with full success, and, indeed, both the Government and people are somewhat disgusted and disheartened at its results and prospects. Contracts for the importation of 40,000 more Germans and 100,000 English or Irish have been made, but as yet their fulfilment seems to have met with insurmountable obstacles. In the first place, available emigrants, especially Britons or Teutons, have the wide world to look to for a new home, and the inducement to give preference to Brazil is not great. There is something formidable in its torrid climate. Although its heat and its effects on the human frame have been greatly exaggerated, it would be vain to deny that at least in 13 of the 20 provinces of the Empire no man of white race can work. Even in the seven southern provinces, even south of the capital, and outside the tropic, the heat is very enervating and distressing. I have been inured to a high temperature all my life, and rather like it. Yet here at Rio Janeiro in the heart of winter, I feel the heat more oppressive than I ever experienced it at Lima, or anywhere else on the western coast, in the heart of summer. People may console themselves with the reflection that the nights in Brazil in the winter season are cold; but they should not forget that it is in the daytime men must work; and it is no wonder if people born and brought up in this country find mere existence and keeping cool a sufficient occupation, looking for "help" to the natives of other lands, whatever may be their nationality or complexion.

Besides this great physical objection, strangers coming here as colonists complain that the best lands in the only habitable situations were parcelled out among the early Portuguese settlers in colonial times, and are now in the hands of their descendants, so that the Government has little better than bare rocks or swamps to offer to newcomers, or sends them empty and hungry away to great distances and inconvenient latitudes in the interior, taking no thought about providing the colonies with roads or other means of intercourse and trade. Both the conveyance and the management of the immigrants are also found fault with. The men appointed to administer the colonies are, if one listens to the colonists themselves, invested with too absolute a power, and apt as well as allowed to abuse it with full impunity. And the Government itself would seem to have felt that such charges are not wholly groundless, as it has provided that colonies upon a few years' good behaviour should be "emancipated"—i.e., allowed the benefit of self-government on the principles of the common municipal law of the Empire. For their own part the Brazilians, like the Argentines and Uruguayans, have their own grievances to urge against the colonists, some of whom, they contend, are by roguish agents recruited out of the very scum of the European cities, the offscourings of gaols and bagnios, physically too weak, morally too corrupt, and altogether too incorrigibly lazy, too mutinous and riotous, for any honourable employment, and especially for that field labour which would make them most valuable. In Brazil, as in all South America, as in Spain and Portugal, between the natives and the strangers settled among them, there is little love lost. No end of lip courtesy and hospitality to the passing traveller, but he who lands with a view to permanent residence, who comes in quest of a fortune and achieves it, is the object of a general, unpleasant, dog-in-the-manger feeling, of the most generous as well as improvident envy of men too helpless to do any good for themselves and their country, too unjust and ungrateful to those aliens who labour for the common benefit of all. The truth of this assertion will, I know, be impugned in every community respecting which it is made; but each of them, while striving to

clear itself of the imputation, will liberally extend it to all its neighbours. To Brazilians, Argentines, and all South Americans (the Chilians, perhaps, excepted) a stranger is a "*Gringo*," an expression equivalent to that of "*Giaour*" among the Osmanlis.

But, whatever may be the causes, the effect is certainly to bring to Brazil a number of emigrants which may seem inconsiderable if compared with the crowds that steamers almost weekly land on the shores of the Argentine and Uruguay, or even, before the war, of Peru and Chili. The accounts published by the Minister of Agriculture and Commerce of the immigrant population of last year (1879) tell us that only 22,189 were landed at Rio Janeiro during the twelvemonth, while, again, 8,806 left the same harbour for various destinations abroad. Of those who entered, 9,677 were Italians, of whom 4,948 went out again. The Portuguese were 8,841, and most of them remained. The immigrant Germans were 2,022; the emigrants of the same nation, 1,653. There were, besides, 886 Spaniards, 264 French, 51 English or British, 129 Russians—an insignificant muster if we compare Rio Janeiro with Buenos Ayres, where of Italians alone 1,000 or 1,500 land weekly, and about 90,000 yearly. And it must be borne in mind that of the Brazilians themselves a good number annually find their way into the adjoining Republics, especially into Uruguay and Paraguay, their number in the last-named State fully equalling that of the ubiquitous Italians. In 1869, when, as I said, the white population of Brazil was nearly four millions, the aliens were put down at 243,481, of whom 121,246 were Portuguese. The remainder consisted of 45,829 Germans, 6,108 French, &c. These numbers have undergone considerable modification since that date. The Portuguese, as we have seen, muster 1,000,000. The Italians, whose name ten years ago was hardly mentioned, count for 60,000; the Germans are probably more numerous. But the current which brought in people from the *Vaterland* has lost much of its intensity, and of the Russo-Germans who came hither from the Volga many have moved southward to the Argentine provinces, some have gone back to Europe, and those who remain are little in favour with the Brazilians and harbour no goodwill to them.

Weary of looking for labour to the nations of Europe, Brazil is now laying her hopes on Asia; and a deputation has for some time been in China to see on what plan a migration of labourers could be organized in that Empire to people the waste lands of this. But, alas! commissions from other American States to the same country and on the same errand have long been at work; and, large as may be the supply, the Chinese hive can never yield its bees in numbers adequate to the demand. John Chinaman, besides, independently of some peculiarities of manners and morals which have made him obnoxious, is apt to have a predilection for city life and sedentary employment. He is wilful and tricksy; resentful and treacherous upon provocation; and, when hard driven, he sets little value on other people's life or his own. In California, the West Indies, Peru, people are still debating whether Chinese and Coolie immigration has been productive of greater good or evil; Chili wisely abstained from the experiment. As to Brazil, it is hardly likely that the atrocities perpetrated on board Portuguese transport ships have been forgotten. Brazil and Portugal were the last citadel of the now doomed slave system; and the Celestials, if even they consent to leave their homes, will hardly trust themselves to those traders who have achieved a sinister reputation as the most ruthless Negreros.

But, after all, if the Brazilians fail in all attempts to bring in labour from abroad, why should they not look at home for it? If slavery was a sin, it has wrought out its penance, and with abolition may come redemption. Time and necessity will dispel that prejudice which in slave-holding communities degraded labour by associating it with the idea of servitude; they will do away with the fond notion that the old settlers have a right to own the land, and that it is the new-comers' duty to till it. Why should the Black alone, or the Red or the Yellow, or the German and Irish dig and delve in America, while the free and independent Creole only looks on? Are not these Creoles aware that of the immigrants themselves, and especially of the Italians, Portuguese, &c., the greatest number have left their homes out of invincible repugnance to field labour? Will the peasant who has thrown down the spade in his father's field, and crossed the ocean with a vague hope of becoming a free citizen and a gentleman, take up that spade again at a slave-owner's bidding? It will be long before agriculture is held in the estimation it deserves in the Old World itself; but, in the New, to bring freemen back to the plough must be the work of a social progress amounting almost to a revolution.

And yet we must come to this. The stream of emigration will not for ever flow, nor will available land always be had at discretion. American equality has too long been based on the degradation of alien races—of the Pariahs from Africa, Europe, or Asia, whom violence or want drove across the ocean. It is full time there should be an American people having all the elements of social existence in itself, supplying out of its own ranks as much the classes doomed to work as the classes privileged, in obedience to the immutable instincts of human nature, to enjoy the fruit of other people's work.

Were Brazil at any time to look to its existing population for the development of its resources, it would soon find that it has in itself, if not all the elements of greatness, at least all the requisites for happiness. Its coloured people will probably not do as much work as freedmen as they did in bondage. The whites will not be able to exert themselves to much purpose in the valley of the Amazon or in any of the lowlands of the northern provinces. But in Rio Grande, Santa Catarina, Miñas Geraes, and other either southern or mountainous districts, where life is enjoyable, work—any kind of work—may be practicable. South and west of Rio Janeiro there is a territory as vast as all Europe, minus Russia and Turkey, almost as temperate, fully as productive. To have brought slavery back to these provinces, where it was unnecessary, was a backward step. It was, if not a crime, at least one of those fatal mistakes which will have to be repaired at any cost.

But for this irksome question of labour, Brazil—the southern provinces of Brazil, at least—could take rank among the happiest human abodes. When you have seen Naples and the Tagus and the Bosphorus, you have still to cross the Atlantic for a view of Rio Janeiro. This bay is the very gate to a tropical paradise. There is nowhere so bold a coast, such a picturesque cluster of mountains, such a maze of inlets and outlets, headlands and islets, such a burst of glorious, all-pervading vegetation. The city itself is mean enough—like Lima or Buenos Ayres, a mere chess-board of shabby, narrow streets, where it is equally difficult to move or breathe, with hardly a building or a monument claiming particular attention; a busy, bustling, ill-smelling place, with all the discomfort of an old town unrelieved by any of the interest of an ancient capital. But the environs all round—the Botafogo Bay, the Vale of Larangerias, the heights of Tejuca, San Cristoval, Santa Teresa, and others, where the upper ten thousand of a population now fast approaching half a million have their detached or semi-detached villas, with grounds running up to the hill-crests—may well challenge comparison with any of the loveliest localities of either hemisphere. You are bidden to drive out to the Botanic Garden; but the whole road, inland or along the water, is nothing but a continuous garden; for every dwelling has its patch of land, its rank flower-bed, its tangled banana shrubbery, its dense bamboo grove. I thought I had become sufficiently familiar with tropical vegetation; but, surely, nowhere have I seen palms shooting up so lofty and stately; nowhere was the deep crimson of the

Poinsettia pulcherrima so dazzlingly vivid. Here, where the power of the sun is aided by the gushing of perpetual moisture, the soil puts forth its richest treasures with the least help from man. From the spontaneous growth of a primitive forest to the high-finished culture of an Imperial garden, the transition is scarcely perceptible. Human skill, which can do little without nature, can do nothing here to out-do her.

Nor is the beauty circumscribed within the precincts traversed by the long lines of metropolitan tramways. All along the Pedro II., San Paulo, and Leopoldina Railroads, the variety of landscape, the rich soil, the luxuriant verdure are still the same. I took the ferry across the 14 miles' width of the bay, from the Arsenal Pier to Mauá. The train from Mauá conveyed me 16 miles further, to Raiz da Serra, at the foot of the Organ Mountains. Hence I was driven for four hours up a zigzag ascent, rivalling the wonders of the Mont Cenis and Simplon roads, and reached Petropolis at the summit. Petropolis, 25 years ago a poor German colony, is now an Imperial summer residence, 2,600ft. above the bay, where the Court and diplomacy, and all who can, seek a refuge from the "Yellow Jack" ravaging the pent-up city. Here I had long rides and drives, up the hills, down the glens of the charming mountain labyrinth, and a survey of its grand panoramas over land and water. Then, by a 60 miles of unrivalled road, in a coach drawn by teams of the smartest mules, I came down to Entre Rios, at the junction of some of the most important railway lines to the interior.

The character of the country continues the same. Wherever a clearing has been made in the virgin forest, the coffee trees run up in verdant rows, the sugarcane fills the hollow of the valley; room is found here and there for a variety of other produce; and only where the heights are too steep, or the forest only half cleared, the ground is abandoned to the browsing cattle. Here, in the district of Rio, in the territory of San Paulo, and in some strips of the provinces of Miñas, Parana, Santa Catalina, and Espirito Santo, you have the kernel of the Brazilian Empire. The port of Rio Janeiro till lately monopolized half the commerce of the country. More recently the coffee trade has sought new outlets at Santos and Porto Alegre, in the south. Bahia, the former capital, is now doing less business than Pernambuco; and both may soon be outdone by Para, in the north, near the delta of the Amazon, now the emporium for the export of sugar, cotton, indiarubber, ipecacuanha, and other produce of that vast remote region.

Between the condition of the southern and maritime provinces and that of the unreclaimed inland territory the difference is so great as to constitute the main difficulty, if not the danger, of this colossal Empire. The thriving districts clustering round Rio Janeiro and other ports complain that an undue proportion of the public burdens which weigh upon them are wasted in gigantic works undertaken on behalf of remote and savage regions, which will never, or not at least for many years, profit by them. On the other hand, the inland provinces murmur against the niggardliness that grudges the funds necessary for the development of their wealth and the promotion of their interests. We have here in Brazil the same antagonism which sets Buenos Ayres against her sister provinces in the Argentine Republic, and which has now brought that confederacy to the verge of secession and civil war. In Brazil, a separation between north and south, or even a disruption of the Empire into several fragments, is almost universally looked forward to as an inevitable contingency, though it is expected that the dissolution may be adjourned to an indefinite future, and that it may eventually be accomplished by common agreement, and without an appeal to violence.

Brazil is a monarchic State, and as such more amenable to the ideas of order and permanence. There is an Emperor on the throne, and most men are confident that "the evil day" may be put off so long as he lives. Hardly any Sovereign now living is more universally or deservedly respected than Pedro II. But even he is not quite a prophet in his own country, and some of his subjects are too familiar with him not to indulge in harmless sneers about his prodigious activity, his early-rising habits, his proficiency in many languages, and the courage with which, in his 55th year, he has undertaken to grapple simultaneously with all the difficulties of Hebrew, Arabic, and Sanscrit. They question whether Dom Pedro's omniscience "goes beyond the depth of the Conversation Lexicon," they think him "vain, fussy, pedantic," and question "whether it be a Marcus Aurelius or only a James I. that they have on the throne."

On the part of politicians of a certain order the charges against the Emperor are of a graver character. These complain that Dom Pedro, even while exaggerating the most advanced democratic principles, is too fond of personal rule, in the exercise of which he is countenanced by the terms of the Constitution, placing him not only at the head of the Executive, but also of a fourth power, the *Pouvoir Moderateur*, which enables him to "put a finger into every pie," and which in a recent instance induced him to dismiss the Prime Minister, Sinimbu, in spite of a large majority of the Chamber, the Emperor, as he dealt the blow, screening himself behind the authority of the Council of State, a mere consultative and irresponsible body, entirely consisting of his nominees, and in Brazil, as in other countries, merely "a fifth wheel intended to clog and trammel the chariot of State." The lavish display of patents of nobility flowing from the Emperor, as the fountain of honour, in a community where hereditary titles were abolished, and where all distinctions are granted for life, and only transmissible from father to son, at the Sovereign's good pleasure, places, in the opinion of malcontents, "too vast an amount of patronage at the Crown's disposal, and gives it a preponderance over the other powers of the State, laying all classes and ranks of society on a dead level, at an unapproachable distance from the one supreme and absolute ruler."

Notwithstanding the loud clamour of these *frondeurs*, the mass of the people here are firm in their allegiance to Dom Pedro, and almost sure to go on with him to the end, though serious doubts are entertained as to the continuation of the dynasty, the immediate successors of the Emperor having to contend against great unpopularity—his daughter Isabel, as a bigot, her consort, the Count d'Eu, an Orleanist Prince, as an alien.

In anticipation of the future, we have here a considerably large Republican party, loudly outspoken in the Press, and mustering strong under leaders distinguished as members of the Chamber, and in several instances as Cabinet Ministers. What a Republic could do for Brazil to give an extension to its democratic institutions it would be impossible to say. So far as the letter of the charter and the organization of the government are concerned, this Empire has little reason to envy the liberalism of any of the neighbouring Republics; nor can it complain of being behindhand with them in that corruption in the higher ranks and venality in the lower orders of the administration which characterize every South American community.

Whatever time and the Emperor's death—which is still, in all probability, a remote event—may bring to Brazil, nothing can certainly cancel the debt these people owe to their Sovereign and Constitution for the half-century of comparative order and quiet which they were permitted to enjoy among the turmoil of those adjoining countries where between the will of the people and the evil minds of its demagogic advisers there was no controlling power. Even had Monarchy been only a stopgap—had it even done nothing for Brazil besides saving it from the storms, the conflicts, and savage murders which in so many South American Republics signalized the periodical election of a President—the obligation of this country to the

law of succession established in favour of the reigning dynasty would be beyond calculation. The Brazilians may fancy they have a right to set aside the Emperor's daughter and son-in-law. But, if they attend to the lessons of the past, if they consult their short history, they must see that, had not Providence supplied them with a legitimate line of Sovereigns when they proclaimed their independence half a century ago—had there at the time been "no King over Israel"—it would have been a wise and a farsighted policy for them to "make one."

LONDON, TUESDAY, SEPTEMBER 21, 1880.

The description of the vast Empire of Brazil, with which our Correspondent in South America closed last Tuesday and yesterday his survey of the continent, fills almost to overflowing the sense his letters must have produced of the splendour of man's inheritance in the New World. Pictures of the boundless breadths of fruitful soil awaiting the plough in Manitoba and Illinois and Minnesota, of the gold of California, the timber of the Pacific States, the pastures of New South Wales, and the fisheries of Newfoundland are incomplete without the introduction of farmers, and shepherds, and miners, and fishermen, and lumbermen. In the view of South America we have been able to place before our readers, impressive from its uncompromising reality, nature shows herself doing more, and man doing less, than in any other habitable portion of the globe. It is no flight of imagination, but the strictest rendering of homage where homage is due, which prompts the declaration that, in this wondrous mine of physical wealth, "from "the spontaneous growth of a primitive forest to "the high-finished culture of an Imperial garden "the transition is scarcely perceptible. Human "skill, which can do little without nature, can do "nothing here to outdo her." The mere size of the domain in the hand of a single offshoot of the human family is itself sufficiently impressive. With so bountiful a rule has it been meted out that estimates of its surface still hover between something over five million square miles and seventeen hundred thousand fewer. To take the lower computation, its extent exceeds European Russia; it exceeds even the United States. China and the British Empire alone can vie with it in acreage, if the parched deserts of Central Asia are left out of account. This is no delusive stretch of barren wildernesses. Whatever men hold most precious among vegetable and mineral products are natives there. If there be anything good for human use or pleasant to the human eye which is not indigenous, it has only to be transported thither to surpass itself in the land of its origin.

Nature in Brazil does without help of man all she needs for her own replenishment and adornment. She plants the most luxuriant parks for her pleasure. Every waste spot puts to shame the costliest European conservatories. She industriously fills in each missing link in the chain of vegetable and animal existence. But, though she can dispense with the nursing care which a less generous soil and climate require in order to be persuaded to yield their flowers and fruits, she does not repulse it. She may be guided in Brazil as elsewhere, if she cannot be mastered. In return for the tribute of human labour the earth is as willing to clothe itself with the coffee plants, and sugar canes, and cotton, and tobacco, and spice bushes, which minister to human wants, as with the glorious weeds which have, in their degenerate shape, transformed the gardens of the rest of the world. Our Correspondent's object, and our own, in his long journey was not to make a picturesque tour, but to discover the extent to which the necessary human energy has been contributed. Except in the maritime fringe which constitutes the Republic of Chili, and in strips, for the most part bordering the sea, of the huge Brazilian Empire, the results he has found are slender and disappointing in the extreme. The lords of the land he reports abandoned to a debased indolence which is not incompatible with an exaggerated vanity and arrogance. When broken it is broken only by fits of savage political frenzy. Such work as is done towards gleaning after nature proceeds from strangers and foreigners whom the lords of the land, while they profit by the effects, envy and hate for presuming to seize opportunities they will not stoop to use. When Brazil itself is held up by our Correspondent for admiration, it is not absolutely, but in contrast to countries almost equalling it in material advantages, like Peru and La Plata, where intestine fury devours even such progress as foreign vigour inspires. Brazil is a Portuguese, and not a Spanish colony; and that counts for much. Its European blood comes from a part of the Iberian peninsula in which the tradition is of liberty triumphant and not suppressed. When it burst its bonds as a colony and dependency, it had no ugly memories of rapacious tyranny to forget in a general subversion of every landmark of the past. Though an independent State, it remained Portuguese in national associations, and half European in spirit. By the very fact that it was Portuguese in race, the Brazilian people had, and has, an instinct of the duty, at least to itself, of making the most of a noble heritage. Whatever the faults of the Portuguese nation, it has never been content to be able to number its possessions without enjoying the proceeds. Oppression may have characterized the history of its colonial empire, but scarcely stagnation. From the same source whence Brazil has derived its activity such as it is, it has derived, what is hardly less important, a respect for European opinion. The loiterer about the streets of Lima, or Caracas, or Buenos Ayres cherishes a sovereign contempt, which is only surpassed by his ignorance, of the judgment of Europe on his tragicomedy of politics. He is conscious of nothing but his Castilian blood, though he maintains as little intercourse with his Spanish mother country as with Denmark, and far less than with Great Britain and Germany. He feels the inconveniences of exclusion from European stock exchanges in the event of default in his engagements. But he judges solely by the embarrassment to himself. A Brazilian financier is as sensitive to the temper of the London or Paris Bourse as to the money market of Rio Janeiro. Perhaps, after summing up the moral and political points of superiority of the Brazilian Empire over the Republicans on its borders, it is only fair to add that while all have been munificently dowered by nature, Brazil carries the palm in riches and capabilities away from every compeer. Yet, when all is said, it is a poor account which our Correspondent has had to render even of this one undoubted exception to the blight and mildew with which European invasion has overspread the rest of the South American Continent. Twelve millions of people are lost in a State larger than the whole

of Europe. A revenue of twelve millions sterling is several millions less than Holland and Belgium, with an extent of twenty-five thousand square miles, raise between them. From a coast of four thousand miles in length, feeding an interior at some points two thousand six hundred miles in depth, Brazil sells to the world outside less than a fourth of the value of the exports of the minute kingdom of Belgium alone. Population and revenue and foreign trade do not make national happiness. Switzerland, with a revenue under two millions and a population less than three, is better furnished with the conditions of prosperity than Russia with its eighty-five millions of people and its equal number of millions of revenue. Density of population is not by itself a test of superior well-being. Holland, which is thickly peopled, is much less thickly peopled than China; yet life is not supposed to be especially desirable in the latter. But though the sparseness of Brazilian population, income, and trade does not constitute adversity for the Brazilian people, it is proof of a deficiency in that people of the qualities which elevate populations in the rank of nations. That the Portuguese planters of the half of the New World assigned them by POPE ALEXANDER should, with the little throne of Portugal at their back, have made more of their portion than the whole of the great Spanish nation to which the residue had fallen, tells well for Portuguese blood against Castilian and Andalusian and Arragonese and Catalan. That the total proportion of what has been won from nature in Brazil to what remains not merely ungained but unsolicited should be wholly insignificant indicates an analogy, nevertheless, between the shortcomings of Portuguese and of Spanish colonization.

Our Correspondent explains wherein the defect lies. The Brazilian is not, like the Peruvian or Bolivian or Venezuelan, too proud or idle to remark the means of affluence and grandeur scattered lavishly around him. He has energy enough to covet and calculate. He surveys the fertile regions of the interior. He would like to see the extraordinary network of its navigable waters covered with barges and steamers. The wealthier points of the coast, as it is, "complain," we are told, "that an undue proportion of the public burdens "which weigh upon them is wasted in gigantic "works undertaken on behalf of remote and savage "regions, which will never, or, at least, not for "many years, profit by them." The native Brazilian feels in himself abundant power to pervade his whole territory with administrative wisdom. He is impatient at the intrusting of public enterprises to strangers, though native talent may squander millions on colossal leaking reservoirs. But while he boils over with political theories, and is eager to manage and engineer by himself his three or his five millions of square miles, his hands shrink from grasping the spade and guiding the plough, which are the especial service nature requires of him. In a continent which after three centuries and a half continues to be a new country manual toil is the sole condition on which empires and republics can depend for greatness. Italians and Germans and negroes are or have been imported in vain to do the hard work which the lords of the soil detest. Unacclimatized, they could never work like natives of the tropics in one immense section of the State. Neither there nor in the equally immense temperate provinces of the Empire will immigrants ever learn to labour until the native population set them the example or surrender a heritage they are incompetent to take up. As the ages go on, it is a matter of positive certainty that the physical resources of the South American Continent will be reduced into possession by mankind. Peru, and Bolivia, and Paraguay, and Ecuador, and Venezuela will come to support their teeming population like the New England States and the States of Europe. In them, or some of them, the present occupants will gradually fade away and decline to the inferior places which their feeble temperament marks out for their destination. The Brazilian people has qualities too good for Englishmen to resign themselves readily to the conclusion that it is to share the fate of its feverish or sluggish neighbours. Even for Brazilians, however, there is in the circumstances of their land no choice between a similar future and the personal exertions against which they have hitherto rebelled. Had their lot been cast in a corner of their continent, neither very large nor very amiable, they might have been let to slumber out existence. With a fifteenth of the earth's surface in their trust, and such a fifteenth as their huge treasure house of actual beauty and possible delight, they must climb, or they will fall.

THE TIMES,

SEPTEMBER 21, 1880.

THE POPULATION OF THE EARTH.

From an early copy of the sixth issue of Behm and Wagner's well-known publication, "Die Bevölkerung der Erde," we are able to gather what is the present condition of the earth's surface, so far as its area and population are concerned. This now indispensable publication is issued at intervals of from 18 months to two years, and is the great fountain from which all other statistical works are supplied, so far as relates to the subjects of which Herren Behm and Wagner treat. Every column of this publication bears evidence of the utmost care and discrimination, as well as of tireless research. The difficulty of obtaining statistics of several States are known only to those whose duty it is to do their best to obtain them. So great, indeed, are these difficulties in some instances, that the able compilers of the "Bevölkerung" have actually to manufacture their statistics for themselves. This may seem very doubtful praise to some of our readers, but the process is the only one that can be adopted in some instances, if we are to have trustworthy statistics at all. For instance, in some of the South American States and elsewhere the official statements of areas are so varied and untrustworthy that the editors are compelled to make estimates themselves in the most trustworthy maps that can be obtained, and after a method that demands great delicacy. So also where there are either no, or inconsistent, or only partial, statistics of population, Herren Behm and Wagner rightly deem it their duty as editors to complete these statistics by estimation, after the most trustworthy methods at their command. Too much credit, indeed, cannot be given to these two eminent geographers for the thoroughness and fulness with which at regular intervals they edit the statistics of the world in respect of two such important items as the area and population of its various States and divisions. Dr. Behm, since the last issue of the "Bevölkerung," has succeeded to the position so long occupied by the late Dr. Petermann in the eminent geographical house of Perthes, of Gotha; while Dr. Wagner has been transferred from the geographical chair at Königsberg University to the corresponding chair in the University of Göttingen. Both of them have done and are doing much to sustain the high position to which geographical science has attained in Germany.

Since the last publication censuses of several countries have been either taken or published, the results of which the editors have been able to utilize. These are:—Spain, 1877; Portugal, 1878; Greece, 1879; Bosnia and Herzegovina, 1879; New Zealand, 1878; New Caledonia, Marquesas Islands, and Tahiti, 1876; Tuamotu Archipelago and the Sandwich Islands, 1878; French Senegambia, 1878; Canary Islands, 1877; San Salvador, 1878; some of the West India Islands and French Guiana, 1877; and Peru, 1876. The general results for Denmark and Lichtenstein have also been obtained. Although some of the results of the United States census of this year have been made public, the editors have wisely refrained from adopting them, awaiting trustworthy official statements. In view of the recent rumours of foul play, this must be considered prudent. As they state in their preface, we are on the eve of a great census period. Austria and Germany, as well as the United States, take their census this year, and next year our own census is due; so that within the next two years we may look for a fresh issue of the "Bevölkerung." For many of the States which have taken no census since the last issue the editors have been able to avail themselves of official estimates, which in many cases have almost the value of a census.

Herr Nessmann, of Hamburg, contributes an interesting prefatory essay on the progress of population statistics, and Professor Wagner a table of all the censuses that have been taken in the various countries up to the beginning of 1880. The latter also on a map with various shades of red shows at a glance the countries in which actual censuses have been taken, the shades of colour showing their frequency. Countries which have had only one regular census are all the South American States except Chili and India; those that had none before 1853 are Austria, Italy, Spain and Portugal, Algeria, the Australian and South African Colonies, and several smaller places; Britain, Germany, France, Norway and Sweden, Denmark, Greece, and the United States had censuses before 1853.

According, then, to the latest *data*, as given in the new issue of Behm and Wagner's work, Europe has a population of 315,929,000; Asia, 834,707,000; Africa, 205,679,000; America, 95,495,500; Australia and Polynesia, 4,031,000; Polar Regions, 82,000; giving a total of 1,455,923,500, showing an increase since the last publication, 19 months ago, of 16,778,200.

The following are the populations of the various countries of Europe, with the dates to which the figures refer:—Germany, 1875, 42,727,360, estimate end of 1877, 43,943,834; Austria, end of 1879, estimate, 22,176,745; Hungary, 1876, 15,506,715; Austria-Hungary, 1876, 37,342,000, estimate for end of 1879, 38,000,000; Switzerland, 1878 estimate, 2,792,264; Belgium, estimate 1878, 5,476,668; Netherlands, estimate 1878, 3,981,887; Denmark, 1878, 2,070,400; Sweden, estimate 1878, 4,531,863; Norway, census 1876, 1,818,853; Great Britain and Ireland, estimate 1879, 34,517,000; France, census 1876, 36,905,788; Spain, census 1877, 16,625,860, including the Canaries (280,388), the Balearic Islands (289,035), and Ceuta and other places in North Africa (12,179); Portugal, census 1878, 4,745,124, including the Azores (264,352) and Madeira (132,221); Italy, estimate 1878, 28,209,620. A census of Greece was taken in 1879, which gave a total area of 51,860 square kilomètres and a population of 1,679,775. This population, for reasons stated in the official publication, was considered too small, and 1,702,356 is given as the correct figure. Of course, the editors have not felt themselves justified in giving any estimate of the proposed additions to Greece, as they deal only with accomplished facts. It is hoped that by the date of the next issue they may have a different tale to tell.

In dealing with Roumania and the countries of the Balkan Peninsula the editors have no easy task to perform in putting definitely the numerical results of the Treaty of Berlin, so far as these have been accomplished. They very rightly give the chief heads of this treaty before attempting to interpret it. The utterly unsatisfactory character of most of the statistics relating to this region is notorious, and in working the subject out the editors enter into elaborate comparisons of statistics from various sources; we can only here give the results. So far as the areas of the countries are concerned, the editors in most instances made a careful planimetric calculation for themselves from the Austrian Staff map, and probably their results are, on the whole, the most trustworthy to be obtained until we have actual surveys of the region. With regard to Roumania, after taking account of the retrocession of Bessarabia to Russia and the cession by the latter of the Dobrudja, the editors found that the present area of Roumania is 129,947 square kilomètres, and the population 5,376,000. The latter figure is based on rather old *data*, but there is nothing more trustworthy until the Roumanian Government has completed the results of the census. The area of Servia, after its recent addition of 11,097 square kilomètres, is given as 48,657 square kilomètres, and the population in 1880, 1,353,890. Though the latter figure is furnished by the able Servian statistician, M. Jakschitsch, it seems to be less than it ought really to be by 235,000. The treaty area of Montenegro is given as 9,433 square kilomètres, and the population, 280,000. With European Turkey the difficulties of the editors culminate, their main resource being to strike a balance of probabilities; the details are much too complicated to give here, and we must content ourselves with the results. The following table, then, gives the results of the calculation of Herren Behm and Wagner as to the area and population of the immediate possessions and the dependencies of European Turkey:—

	Area. Square Kilos.	Population.
Immediate possessions	179,475 ..	4,790,000
Eastern Roumelia	35,387 ..	923,179
Bulgaria	63,865 ..	1,965,474
Bosnia, Herzegovina & Novi Bazar	60,484 ..	1,187,879
	339,211	8,866,500
Then, taking the Turkish possessions in Asia, we have:—		
Immediate possessions	1,889,055 ..	16,133,000
Cyprus	9,601 ..	150,000
Tributary Princedom of Samos ..	550 ..	37,000
	1,899,206	16,320,000

The entire possessions, then, of Turkey in Europe and Asia have an area of 2,238,417 square kilomètres, and a population of 25,180,000.

Turning now to Russia, we find the statistics very mixed, some being comparatively recent and trustworthy, others no one knows how old, and by no means reliable. There are, indeed, very recent figures for most of the governments and district towns, but they are seldom the results of an accurate census. Such a census is, we believe, in progress; meantime we must content ourselves with the very careful reduction of Herren Behm and Wagner. For Poland, we ought to see that we have perfectly trustworthy statistics up to 1877:—

	Area. Square Versts.	Population.
European Russia (1870)	4,313,800·6 ..	65,864,910
Poland (1872)	111,875·4 ..	6,528,017
Addition to Bessarabia (1878) ..	8,149·2 ..	127,000(?)
Finland (1877)	328,233·2 ..	1,968,626
Caucasus (1873-6)	385,687 ..	5,391,744
Increase in Armenia (1878) ..	22,643·7 ..	236,600(?)
Siberia (1870)	10,979,687·3 ..	3,440,362
Central Asia	2,920,524·2 ..	4,401,876
Caspian Sea	386,125·2 ..	—
Russian Dominions	19,456,925·8	87,959,000

Until we know the final results of the Kuldja Treaty with China, there is, of course, some uncertainty about the Central Asian figures. As to the area of the still independent region between Khiva, Bokhara, Afghanistan, Persia, and the Russian Transcaspian district, the editors give 206,500 square kilomètres, and the population, after Vambéry, 450,000. The only stock that have up to the present moment retained their entire independence are the Tekkes, of whom 200,000 are Akhal-Tekkes, frequenting the odses at the foot of the Kuren-Dagh; the remainder 100,000 have their seat to the east, at present in Merv. Of Khiva, the area is given as 57,800 square kilomètres, and the population 700,000. In a foot-note the editors give, on the authority of Vambéry, they state by mistake, correctly on the authority of Mr. A. H. Keane, in *Nature*, the total number of people of the Turcoman stock in Central Asia, 1,100,000.

Proceeding now to the other countries of Asia, we find Bokhara, with the adjacent district of Karategin, Schignan, Roschan, &c., has an area of 239,000 square kilomètres and a population of 2,130,000. The total area of Arabia is given as 3,156,600 square kilomètres, and the population 5,000,000; of this 2,507,390 square kilomètres, with a population of 3,700,000, are still independent of Turkey. There are quite recent estimates for one or two districts of Persia; but the editors still give the area as 1,647,070 square kilomètres and the population 7,000,000; the district of Kotur, ceded to Persia by the Berlin Treaty, has an area of 1,125 square kilomètres, and a population of 8,000. The editors wisely refrain from giving numerical effect to the Gandamak Treaty in Afghanistan, the area of which they still set down as 721,664 square kilomètres and the population as 4,000,000. At the same time they give the detailed lists of the various tribes and stocks published in *Nature* by Mr. Keane, as the result of careful and independent research, and yielding as the estimate of population the much higher figure of 6,145,000. Kafiristan has an area of 51,687 square kilomètres and a population of 1,000,000, and Beloochistan 276,515 square kilomètres and 350,000 inhabitants. China, with all its dependencies, has an area of 11,813,750 square kilomètres, and a population of 434,626,500. The latter figure is, however, very uncertain; some authorities maintain it is much too high, and others much too low; the former are more likely to be right. Hongkong in 1876 had an area of 83 square kilomètres, and a population of 139,144; Macao (1879) 11·75 square kilomètres and 77,230 inhabitants. Japan, according to official statistics of 1878, had an area of 379,711, and a population of 34,338,504. For India many of the figures are more recent than those given in the last issue of the "Bevölkerung." The total area of British possessions in India, including Burmah, is given as 899,341 square miles, and of tributary States, 557,908 square miles; population of former, 191,095,445; of latter, 49,203,053; total British possessions, 1,457,244 square miles, population 240,298,500. The French possessions in India have an area of 508½ square kilomètres, and a population (1877) of 280,381; the Portuguese an area of 3,855 square kilomètres and a population of 444,987. Ceylon has an area of 24,702 square miles, and a population in 1877 of 2,755,557. The following table shows the areas and populations of the various subdivisions of the Indo-Chinese Peninsula, according to the latest attainable *data* of any value:—

	Area. Square kilos.	Population.
British Burmah	229,351	2,747,148
Manipur	19,675	126,000
Tribes east and south of Assam	65,500	200,000
Independent Burmah	457,000	4,000,000
Siam	726,850	5,750,000
Anam	440,500	21,000,000
French Cochin-China	59,457	1,600,000
Cambodia	83,861	890,000
Independent Malacca	81,500	300,000
Straits Settlements	3,472	350,000
	2,167,440	36,963,000

The East India Islands are subdivided thus:—

	Area. Square kilos.	Population.
Andamans	6,497	14,500
Nicobars	1,772	5,500
Samoa Islands, &c.	1,698,757	27,343,000
Philippines	295,585	7,450,000
		34,813,000

Professor Wagner animadverts with good reason on the careless manner in which the statistics for the Dutch East Indies are published. There is no want of such statistics, but for want of scientific editors and proper arrangement they are almost practically useless. Indeed, the most varied and inconsistent figures are given in official publications in these islands, and this want of method gives the geographer and statistician a feeling of despair. Herr Wagner, with infinite trouble, has sought to reduce this chaos to order, and this part of the work will, no doubt, be regarded as the best authority on the subject we possess.

Turning to Australia and Polynesia, the editors notice the recent annexation to Queensland of several islands in Torres Straits, and give the population of the colonies as follows for 1878:—New South Wales, 693,743; Victoria, 879,442; South Australia, 248,795; Northern Territory, (1879), 3,265; Queensland, 210,510; West Australia, 28,166; Tasmania, 109,947; New Zealand (end of 1878), 476,642; including Maoris, which is considerably larger than the census figure of March of the same year, 414,412. From careful estimates the area of New Guinea is set down as 785,362 square kilomètres, or, with the neighbouring islands, 807,956 square kilomètres, and the population 500,000. The following table relates to the Oceanic islands:—

	Area. Square kilos.	Population.
Melanesia	145,855	606,800
Polynesia	9,791	130,400
Sandwich Islands	17,003	58,000
Micronesia	3,530	84,650
	176,184	879,850

As the result of a new estimate of the area of Africa, the editors give 29,283,390 square kilomètres. This area is, according to Dr. Nachtigal, so far as productiveness is concerned, divided as follows:—Forest and cultivable land, 6,376,725 square kilomètres; savannas and light woods, 6,235,378; bush, 1,572,431; steppe, 4,269,027; desert, 10,659,133, of which the Sahara occupies upwards of 9,000,000 kilomètres, including many oases and cultivated patches. The area and population of Africa are divided among the chief countries and regions as follows:—

	Area. Square kilos.	Population.
Morocco (including Swat, &c.)	812,332	7,823,000
Algeria	667,065	2,867,628
Tunis	116,348	2,100,000
Tripoli, &c.	1,033,349	1,010,000
Sahara	6,180,426	2,850,000
Egypt and dependencies	2,986,915	17,420,000
Central Soudan	1,714,983	31,770,000
West Soudan and Upper Guinea	1,993,046	43,600,000
Abyssinia	333,279	3,000,000
Harar, Galli, &c.	1,897,038	15,500,000
North Equatorial Regions	2,254,980	27,000,000
South Equatorial Regions	1,717,900	20,000,000
Independent South Africa	1,500,000	13,286,350
Portuguese East Africa	991,150	1,000,000
Portuguese West Africa	78,470*	9,000,000
Orange Free State	111,497	75,000
British South Africa	968,418	1,966,000
African Islands	626,054	3,892,400

* Angola.

For some of these figures we ought to say that Behm and Wagner are not responsible, as we have put them together from various *data*, not always complete, furnished by them; the areas especially are much too small, as for some regions no estimates are given, and the lakes are not included.

Coming to America, we have British North America, with a total area (including Polar lands) of 3,248,078 square miles, and a population of 3,839,470; Bermudas, 19½ square miles, and, in 1838, 13,812 inhabitants; French possessions in North America, 90 square miles, population (1877), 3,338. For the United States the new census returns of the year were not available; but from a careful calculation the editors think that for 1880 a population of 48,500,000 is not too much to expect, exclusive of 300,000 Indians; the area of the States is given as 3,603,884 square miles. The area of Mexico is given as 1,921,240 square kilomètres, and the present population as 9,485,600. Central American States, 547,308 square kilomètres, and 2,759,200 population; West Indies, 244,478 square kilomètres, 4,412,700 population; Guiana, 461,977 square kilomètres, 345,800 population; Venezuela, 1,137,615 square kilomètres, 1,784,197 population; United States of Colombia, 837,000 square kilomètres, 3,000,000 of population; Ecuador, 643,295 square kilomètres, with population (1878) 1,146,000; Peru, 1,119,941 square kilomètres, with population (1876), 3,050,000—this is inclusive of the recent addition of the Bolivian littoral; Chili, 321,462 square kilomètres, population (1878), 2,400,000; Argentine Republic, including Patagonia, 3,051,706, population (1879) probably 2,400,000; Uruguay, 186,920 square kilomètres, population (1877), 440,000; Paraguay, 238,920 square kilomètres, with population (1876), 293,844; Brazil, 8,337,218 square kilomètres, population 11,108,291; Falkland Islands, area according to official statement, 6,500 square miles, but more probably according to Behm and Wagner, 4,840 square miles, population (1878), 1,394. As the editors greatly distrust the official estimates of area in the South American States, they give the result of a new planimetric measurement by Dr. Wisotzki, of Königsberg; this gives the total area, including islands, as 17,752,303 square kilomètres, nearly 8,000,000 kilomètres less than the official statistics make it.

Finally we have the statistics of the Polar regions. The total area of the regions on or around the Arctic circle is given as 3,859,400, the only regularly-inhabited lands, so far as we know, being Iceland and Greenland, the former with 72,000, and the latter 10,000 inhabitants. No doubt there are a few wanderers in the Arctic regions of North America, but we have no means of ascertaining their number. The South Polar regions are credited with an area of 660,000 square kilomètres, in which, so far as known, there are no inhabitants.

Such, then, is a condensed *résumé* of the valuable collection of statistics contained in the new issue of the "Bevölkerung der Erde," which may be taken as the most trustworthy statement we have as to the present area and population of our globe.

THE CIRCUMNAVIGATION OF SOUTH AMERICA.

(FROM OUR SPECIAL CORRESPONDENT AT MONTEVIDEO.)

The 23d of April, 1838, will be for ever memorable in the annals of New York. On that day I had taken my passage on board the St. James, one of the last sailing vessels of the Transatlantic Royal Mail Line, which was to convey me to England, starting on May-day. On that same 23d of April, at about 10 o'clock in the morning, I became aware of a more than usual stir and clamour under my hotel windows in Broadway. I went out and moved along with the crowd for some time before I could make out anything about the cause of the commotion. "Here she is!" "In the East River," "Just anchored," were the cries, and the multitude set off like a great tide in the direction of the Battery.

What was it? It was the Sirius—the first steamer that had accomplished the voyage across the Atlantic, and thus reduced the distance between the British and the North American coasts by at least two-thirds.

The rejoicing in the city was loud and hearty, as one may imagine. Still the first tumult of exultation abated towards 1 o'clock in the afternoon, when for a considerable part of the population it was in those days dinner-time. But later in the day, towards 4 or 5, the uproar rose again louder than ever, and the rush to the landing places was even more tumultuous; while the cry "The steamer! the steamer!" was bandied about at every street crossing. It was again a steamer, from Europe—the Great Western—which, leaving Liverpool four days later than the date on which the Sirius had started from her Irish harbour, had also come to her anchorage off Staten Island within a few hours of her rival. A more momentous achievement, and one more auspicious for the intercourse between the Old and the New World had never before been recorded, nor has it since been equalled in importance even by the laying of the Transatlantic telegraph cable, nor can it be surpassed in magnitude unless a suspension bridge be thrown athwart the ocean from shore to shore.

The Columbus egg being broken—the problem of steam navigation across the Atlantic being actually and happily solved at the very moment that scientific men were still lecturing on the impossibility of the undertaking—nothing, of course, could be easier than to follow up that first success, to run bigger and bigger steamers, not only in a direct line from the Mersey to the Hudson, but also northward to Halifax and Quebec and southward to the West Indies, to Brazil, and the River Plate. But, the Atlantic being crossed, the new question arose how the Pacific might be reached—a puzzle which had set to work human ingenuity and enterprise ever since the day on which Nuñez de Balboa first beheld that great ocean from the Isthmus of Darien in 1513. A waterway from sea to sea could only be found either by cutting a ship canal across the isthmus at Panama or elsewhere, or by going all round the South American continent, either by the which took the name of Magellan, the first mariner who threaded it in 1520, or by going Cape Horn, which was discovered by 58 years later, and only doubled by Le- and Schouten in 1646.

ng to the intricacies of the Strait, the route he Cape was preferred by mariners for three s, in spite of the storms which made that even more formidable than the Cape of ope; and it was only in 1868 that the s of the Pacific Mail Company opened a re- of communication along the Strait, gra- surveying its hitherto almost unexplored , and making its navigation so safe and easy enable Mrs. Brassey and her husband to steer yacht Sunbeam through it in 1876.

whole months' tacking and veering, while now the steamers ply along the coast from end to end, touching at every port once and even twice a week, monopolizing all the trade along the water-way. or, although the success of this Pacific line stirred other companies to emulation—the English White Star Line, the French Messageries Maritimes, the Compagnie Générale Transatlantique (this latter backed by all the might of the Third Napoleon), and a "Belgian Royal Mail," and several others—all these rivals were driven from the field by the perseverance of the Pacific Company, not without heavy sacrifices; so that there only remain the "South American" and the Hamburg line "Kosmos," which have been wise enough to accept such friendly terms as the Pacific Company offered, and to carry on such business as enabled them to come in for a small share of its profits, without in the least clashing with its work or interfering with its great interests.

The Government and people of the United States of North America are naturally jealous of the monopoly of trade which the establishment of these European steam navigation companies, and especially of the Pacific line, insures for their respective countries; and Mr. Frälick, a Commissioner of the Post Office at Washington, who, in 1878, was sent to make some postal arrangement with all these South American States, dwelt at great length in his report on "the fact everywhere apparent that the recent splendid growth of commercial cities and the enterprise shown by the leading citizens of the South American States are mainly due to the influence of these lines of communication with the heart of Europe." And he used every argument to stimulate both the private enterprise and the Government patronage of the Northern Union to strenuous exertions to compete with these European lines, so that a share of the benefits accruing to the Old World from the activity of its steam navigation might fall to the lot of American speculators. Nothing as yet has come of these eloquent patriotic exhortations; for, on one hand, the European, and especially the English lines, have cast such deep roots and taken so strong a hold of the South American trade—in one word, they have become so big—as to defy the competition of any rival company, whatever amount of means and energy it may muster; and, on the other hand, however shrewd and pushing and all-engrossing Yankee speculation may be, especially in the matter of railways, it has seldom turned its energies to Transatlantic steam navigation, and none of its attempts in that direction have met with permanent success; so that all the intercourse of the United States with the Old World is now as utterly dependent on European steam navigation for its continuance as it was in the days of the Sirius and Great Western for its initiation.

To accomplish the circumnavigation of the South American Continent I embarked at Valparaiso on board the steamer Valparaiso, of 3,575 tons, Captain Hamilton, bound for Liverpool and calling at Punta Arenas, Montevideo, Rio Janeiro, Lisbon, and Bordeaux. It was not without much feeling that I bade farewell to Chili after a two months' sojourn in the country; for I could from my heart back Mr. Rumbold in his description of the Chilian Republic as "a sober-minded, practical, laborious, well-ordered, and ably-governed community," especially if contrasted with other States of kindred origin and similar institutions; ascribing also, as Mr. Rumbold does, the blessing Chili enjoys "to the pure traditions implanted in her administration by the founders of the Republic, to the preponderating share taken in public affairs by the higher and wealthier classes, to the happy eradication of militarism, to the sedulous cultivation of innate conservative instincts," but also, and one might think chiefly, "to the nearly entire absence of those accidental sources of wealth—gold, guano, and nitrate, so lavishly bestowed by Providence on some of her neighbours."

All that, alas! is changed; and as I never doubted that the wealth of Peru, its gold and silver,

surveying its hitherto almost unexplored ..., and making its navigation so safe and easy ... enable Mrs. Brassey and her husband to steer ... Sunbeam through it in 1876.

Long before that date, however, steam navigation along the eastern coast of the Pacific was in full activity. There lived for some time at Valparaiso an engineer and shipbuilder, William Wheelwright by name, a native of the United States, to whom the Republic of Chili was so deeply indebted that it raised a statue to his memory in a little triangular space called a square in Valparaiso. Mr. Wheelwright, who first conceived the notion of a railway across the Andes, was also the originator of the Pacific Steam Navigation Company. He had something of the vastness of conception and perseverance of a Columbus, and met also with some of the fortunes of the great Italian navigator. Like Columbus, he first applied to his native land for the furtherance of his scheme, but, failing to make any favourable impression in New York or Washington, he addressed himself to England, where his views were better understood and appreciated. Two steamers, one Peru and Chile, destined to ply along the coast between Callao and Valparaiso, were built in Liverpool in 1840, and made to sail round Cape Horn, while their engines were conveyed across the Atlantic to Colon, and hence by land across the Isthmus to Panama. A few years later (1844) the company was organized, and the two steamers with which it began rose to the number of 53, with an aggregate tonnage of 123,654, eight of their vessels exceeding 4,000 tons each, and their capital, which was originally £250,000, was raised to £500,000 in 1859, and to £4,000,000 in 1874. Their steamers extended their voyages to Panama in 1847, and, as I said, one of their lines began in 1868 to ply between Liverpool and Valparaiso, *vid* the Magellanic Strait.

I have made several voyages with the vessels of this company: from Panama along the coasts of Colombia and Ecuador to Guayaquil; along those of Peru from Payta to Callao, and hence to the now disputed territories of Arica, Pisagua, and Iquique; and along the coasts of Chili from its old frontier of the Atacama desert to Valparaiso, from Valparaiso to the southern districts of Concepcion and Valdivia, and through the Chacao Strait between the Island of Chiloe and the main land of Llanquihue, to Port Montt.

I have also visited the head-quarters of the company at Callao, and saw there a whole hive of working men of all classes and trades, engineers, carpenters, coalheavers, &c., with a staff of clerks, ... and officials of all ranks—a thorough ... time establishment—a little English town and community, standing on ground of its own, independent and self-governing, and exhibiting all that marvel of neatness and order, of quiet, stubborn, incessant activity, which carried me back to whatever I had ever seen most admirable in the wharves and docks of Portsmouth or Liverpool. And I was rowed out to a floating dock in the bay—a mammoth structure of iron, conveyed across the water from Glasgow in 1866, 300ft. in length, 100ft. wide, and 76ft. between walls, with a displacement of 5,000 tons—a dock which, since it began operations, has harboured in its bosom over 1,000 vessels, some of them 2,700 and 4,350 tons—the whole giving an idea of the power and energy of British private enterprise hardly surpassed by the Royal dockyards which minister to the wants of the Channel or Mediterranean fleets.

To come to some understanding of what this Pacific Company has done for the welfare of the South American States of the Western coast, it will be sufficient to quote that "at the beginning of this century it was only at intervals during the year that an anxious crowd at Valparaiso were watching for the solitary sailing vessel from Peru which was to bring them news of the world and such supplies and luxuries as might befit a needy outlying province." Contrast this state of things with the conditions of this same port in 1874, when "about 3,000 vessels, one-third of them steamers, entered or left it, while 11,000 traded in the year in all the harbours of the Chilian Republic." Consider, also, that the vessels of the company, which at first only called at six great ports in the whole length of the coast, now transact business at 64 harbours, at each of which are busy agencies, that of Valparaiso alone employing above 150 clerks and other attendants. Add to this that "each ship which leaves the western coast twice a month for Europe, *vid* the Magellanic Strait, carries an average cargo of 2,500 tons, chiefly composed of copper, wool, sugar, cocoa, and bark; so that the company's vessels ship some 65,000 tons of valuable merchandise in the course of a year." Be it also remembered that until lately Peru and the whole of Northern Chili, destitute of all means of communication by land, cut up into narrow valleys by impracticable mountain ridges, only relied for their home and foreign intercourse on sailing vessels, the traffic of which was exposed to the inclemency of the southern gales perpetually sweeping along the coast; of those accidental sources of wealth [illegible] and nitrate, so lavishly bestowed by Providence on some of her neighbours."

All that, alas! is changed; and as I never doubted that the wealth of Peru, its gold and silver, its guano and nitrate, had been the ruin of that country, so I do not feel by any means easy in my mind as to the consequences which a transfer from Peru to Chili of those same "accidental sources of wealth," as seems likely to be the ultimate upshot of the present war, may have on the sober-minded and laborious Chilian population; for, if Peru only turned into curses those gifts which Nature had given her for blessings, how will Chili employ to better purposes those same gifts which come to her by right of conquest at the close of a period of violence and bloodshed of which we seem as yet so far from foreseeing the end? If a prolonged career of success do not turn the heads of the Chilians and unnerve their bodies; if, in spite of all the guano and nitrate of Tarapaca and Antofagasta, they do not forsake their fields, and still obey the "necessity of strenuous labour, repaid by a bountiful soil;" if the leisure and luxury arising from the sudden building up of large fortunes do not undermine the "patient endurance and capacity for toil of their hardy population"—why, it will be well for "dear Chili," and there will be an end of the croaking of her envious enemies, and also of the anxious forebodings of her most cordial well-wishers.

Were it not for this untoward war, the condition of Chili would at this moment be most enviable. A State little exceeding two million inhabitants, and yet possessing a capital in land of 666 millions of dollars, and investing besides 150 millions in banking and general trading enterprise, however it might be called, and even if it called itself "poor," had, it would seem, no great reason to covet its neighbour's wealth. During these last 34 years (1844-78) Chili exported 672 millions of dollars' worth of agricultural and mineral produce; and although the mines at first yielded twice and three times as large an income as that which sprang from agricultural labour, the tendency in later years has been to very nearly balance the revenue arising from these two different sources of wealth; a clear evidence of the extension and improvement of the cultivation of the soil, in spite of the many thousand labourers who are incessantly withdrawn from it. That, owing to a variety of causes, there had been a gradual decline of Chilian prosperity since 1874-5 is undeniable; but it is also very certain that things were "looking up" in the early part of last year, when the war broke out—that war which is not only sure while it lasts to deepen the distress from which the country was just recovering, but cannot fail also when it is brought to an end to have fatal consequences for the nation, whether the issue be defeat or victory.

But to return to my subject. To go from Valparaiso on the Pacific to the mouth of the River Plate on the Atlantic a traveller has the choice of a land or sea journey; and as it was for me an established maxim "never to tempt Providence by choosing a water-way to any place that might anyhow be reached by land," I had at first made up my mind to travel across the Andes, the great Cordillera being now easily accessible on both sides at many points, and especially along the railway from Valparaiso to Santiago, leaving the main line at the Llay-Llay Junction, and hence proceeding by a branch line to San Felipe and Santa Rosa de los Andes, where it becomes necessary to take to the saddle. A five days' ride on muleback to Mendoza and two or three days' coaching further would enable the traveller to reach the terminus of the Argentine Railway at Villa Mercedes and to reach Buenos Ayres by train.

Along this land route a communication by rail between the capitals of the Chilian and of the Argentine Republic has long been in contemplation, the project being entertained by Messrs. Clark, the constructors of the Transandine Telegraph. This Transandine Railway would cross the mountains at the Uspallata Pass, between Santa Rosa and Mendoza, at a height of 3,000 to 3,200 mètres above the level of the sea. The distance across the mountain region is about 70 kilomètres, and the whole length of the line from Valparaiso or Santiago to Buenos Ayres would, it is supposed, be travelled over in 48 hours. The cost of the enterprise has been reckoned at something like $12,000,000. While the scheme is being brought to maturity (a matter against which the present hostilities between Peru and Chili and the conflicting territorial claims between Chili and the Argentine Republic are likely to raise serious and permanent obstacles) the mountainous part of the land journey is exposed to considerable hardships and even dangers for several months in the year; and, although it was now summer, and I do not mind "roughing it" when any object is to be attained by hard exertion, I had been raised to so high a pitch of expectation by what I had heard I was to see in a voyage across the Strait that for once I was induced to give my preference to a sea over a land route. From Valparaiso the steamer

renounce the wonders of this inland route, and put up with the Valparaiso, which, after much tossing and beating up against those blustering southern gales which had persecuted me all the way from Panama during four previous voyages, brought me in four days to the entrance of Magellan's Strait.

The entrance to this Strait on the western or Pacific side lies between Cape Pillar on Desolation Island, on the right, and "Westminster Hall," one of the foremost rocks fronting Queen Adelaide Island and Archipelago on the left. We proceeded along a broad channel—Cordova Channel—coasting Desolation and St. Inez Islands on our right, and on our left passing Parker Bay, at the entrance of Smyth Channel, and, further on, steaming along King William Land and Croker Peninsula. Here the two coasts suddenly closed in, allowing a narrow sea-way through Long Reach, Crooked Reach, and English Reach, the width at some points scarcely exceeding three-quarters of a mile. The route goes on coasting the main land, along the Brunswick Peninsula, and doubles Cape Froward, the southernmost point of the South American continent. Fronting the Cape and the Peninsula, across the Strait, are Clarence and Dawson Islands, and in the rear of them the much larger island of Terra del Fuego, with all its archipelago, terminating with the rock-islet on which rises the redoubted Cape Horn.

From Cape Froward the Strait turns up to the north, to Port Famine, Freshwater Bay, and Punta Arenas or Sandy Point, in which last named locality the Chilians have founded a penal settlement, now a little colony, with 800 inhabitants, lying at 53deg. 53min. of south latitude—i.e. nearer the Antarctic Pole than any other civilized community. From Punta Arenas the Strait bends to the north-west, a wide channel only contracting itself at "Second Narrows" and "First Narrows," beyond which its shores gradually decline and end in a dead flat, where the channel blends its waters with the green waves of the Atlantic, its mouth lying between Cape Virgins in the north, and Catherine Point in the south. The whole length of the Strait, from its entrance at Cape Pillar to its outlet at Cape Virgins, is 320 miles, and the steamers usually employ 36 hours in its navigation.

Even independently of the marvels of its accessory, Smyth Channel, the Strait of Magellan possesses beauties enough of its own to render it one of the most striking localities on the face of the globe. Like the Bosphorus, like the Strait of Gibraltar, like the Sound at Elsinore, and other gates in the world's highways, this Strait is so framed by Nature as to appeal for a variety of reasons even to the dullest imagination and to leave on the memory an impression that the subsequent sensations of the longest life will have no power to efface. We had had dark, windy, and, although not formidable, at least very uncomfortable weather on the outside, and as we made Cape Pillar before noon little could be seen of the highlands of Desolation Island, or of the outline of the opposite shore, now in a great measure wrapped in mist, to answer the description one had heard or read of this renowned passage. The mountains had the usual bare, rugged look common to the whole Andine region, only remarkable for the variety of vivid colours imparted to the rocks by the metallic and volcanic substances with which they are largely impregnated and commixed. The fogs deepened as we advanced, and became at last so dense that the captain deemed it advisable to stop at Felz Point, about 40 miles inside Cape Pillar, and there to lie at anchor for the night. The gloomy reception we met with was no unusual occurrence; for the weather is, as a rule, dark, cold, and wet on this, the western side of the Strait, very nearly at all seasons of the year; while on the other side, beyond Cape Froward and Punta Arenas, the sky is not unfrequently clear and bright, and the atmosphere milder and drier than would seem natural in these high latitudes. But on the morrow, as the moon rose and the mist somewhat cleared, we were able to resume our journey towards 2 o'clock in the morning. We came to the narrow windings of Long Reach, and here, as the day dawned, in spite of the spitting and at times even pelting and blinding rain, we went through such a succession of amazingly grand and weird scenery as struck dumb with awe, not only the most frivolous and loquacious among our educated fellow-passengers, not only a French high-born lady, who had been complaining that "she could see nothing *joli* in this Strait of which she had heard so much," but even the common men in the steerage and the crew, on whom frequent trips along these same passages ought to have wrought the callousness of long familiarity.

We were now nearing the end of summer, the early days in March corresponding to our September, when the sun's action for the last three months might be expected to have cleared the mountains of their wintry encumbrance. But the

all intercourse with their destroyers. Owi to repeated sanguinary mutinies, Punta Aren has almost ceased to be a penal settl ment. The rogues who again and again brok from the penitentiary are mostly at large, and may be a prejudice, but it seemed difficult to us, we looked into the faces of the mob that crowde around us, to distinguish which of them might few years ago have been the prisoners and whic the gaolers. At Punta Arenas we shipped 40 larg barrels of sealskins, the only important article export trade in the colony.

The progress of steam navigation has done awa with a vast amount of the terrors with which th imagination of past ages peopled the Magellani Strait. Not a little danger, however, still lurk in the many rocks and breakers with which it waters are strewn, and the position of which ha not yet been quite satisfactorily set down i the charts which the captains of the Pacific Company's steamers are constantly revising and rectifying for themselves. The thick growth of kelp, an aquatic plant which has its roots in these rocks and springs up from their depths to the water's edge, seems intended by Providence as a sufficient warning—a kind of natural buoy—to such as keep a sharp look-out in the daytime, but at night, and especially in the foul weather which so often prevails, the pilot must steer at haphazard, for there is no beacon to show the way. From Valparaiso down the west coast, and across the Strait, and up the eastern coast to Montevideo, for a distance of 1,923 miles, there are only three lighthouses—on Quiriquina Island, at Talcahuano, near Concepcion, where Chili has chosen the site for a naval station; at Point Galera, near Valdivia; and at Punta Arenas. Half-a-dozen lights in the Strait, at both entrances and at some of its most important turnings, would not be superfluous. The Chilian Government has hitherto excused itself on the plea that south of Port Montt it was "No man's land." But now it has a colony in the extreme south, and claims the sovereignty of the Magellanic territory, all Terra del Fuego and Patagonia included, it seems only too natural to expect something to be done by it for the safety of the seamen to whose bravery Chili is indebted for so much of the prosperity accruing to it from its coasting and foreign trade. The Egyptian darkness in which a nation aspiring to take rank among enlightened nation suffers its shores to be plunged has cost the Pacific Company two of its most splendid steamers—the Illimani, lost on the Isle of Mocha, on the coast of Arauco, and the Santiago, wrecked at Port Mercy, within the Strait, where we still saw its shattered hulk on the strand as we passed.

From Cape Virgins, at the outlet of Magellan's Strait, a five days' voyage brought us to Montevideo, at the mouth of the River Plate. From Montevideo there are 11 lines of steamers of different nations, weekly and semi-weekly, conveying passengers up to the ports of Brazil, and across the Atlantic to all the coasts of Western Europe.

TERMINAL CHARGES ON GOODS TRAFFIC.—An important decision was given by Mr. Martineau in the Brighton County Court, on Friday, in the case of "Shoesmith and Sons v. the London, Brighton, and South Coast Railway Company," the case having been heard some time since, when Mr. Merrifield appeared for the plaintiffs and Mr. Jeune for the railway company. The action was practically a test case promoted by the Brighton Traders' Association. The action was to recover the sum of 6s. 8d. being part of a charge of 18s. 4d. paid by the plaintiffs for the carriage from London to Brighton of a ton of canary-seed, the plaintiffs alleging this to be an overcharge. The railway company paid into court the sum of 3s. 8d., and claimed the other 3s. for "terminal charges." It was proved that the consignment was delivered at the Willow-walk Station, London, by an independent carman, who placed the sacks in the van without any assistance from the company's servants. The specific services charged by the company were—(1) loading at Willow-walk; (2) covering at Willow-walk; (3) unloading at Brighton; (4) paying the carrier's charge at Willow-walk; and (5) advising the plaintiff of the arrival of the seed at Brighton. The Judge disallowed the charge for loading, on the ground that the carman had performed all that was requisite; as well as the charge for unloading at Brighton, because it was not done at the plaintiffs' request or with an option on their part. He could not allow the claim of the defendant company to charge for advising, it being for the company's advantage that the plaintiffs should be informed of the arrival of the goods, in order that they might fetch them away as early as possible. On the point of covering, the Judge quoted the Lord Chancellor's dictum in the case of the Lancashire and Yorkshire Railway Company, reported in vol. 42 of the "Law Journal," and decided that as the service was one which ought to have been performed by the carrier, and as the plaintiffs had no option in the matter, the charge could not be sustained. On the charge for entering the amount "paid on," judgment was given for the defendant company. Mr. Winter, for the company, asked leave to appeal, saying the points in question were of great importance to other railway companies, and had not, he believed, been decided before. The Judge, in giving leave, said that he had been unable to find any direct decision in the superior courts, and that these charges ought in reality to be settled by the Railway Commissioners.

took us in 24 hours to Lota, and hence, after a few hours' stay, we proceeded on our southward voyage along the coasts of Arauco and Valdivia, keeping to the open sea, outside the Island of Chiloe, and outside all that long archipelago that lies along the coast down to the end of the continent.

The South American continent, as one may see by a mere glance at the map, is a huge triangular mass, solid and compact, with few very wide or deep bays, and few projecting headlands, either at its base on the north, or on either of its sides on the east or west; but it breaks out, as it were, into innumerable fragments at its point on the south, forming a maze of large and small islands, peninsulas, capes, and promontories, intersected everywhere and interlaced by straits and creeks and coves; a maze of fragments in a net of channels; a little world all cracked and starred and pulverized like a shattered plate of glass or china; a labyrinth of land and sea, of which it is as difficult to decipher the outlines in the map as to put together the pasteboard pieces of a child's puzzle. Until the invention of steam, large vessels that trusted to their sails for propulsion and needed a wide berth for their manœuvres, eschewed these narrow passages, dreading less the constant head winds and awful storms of Cape Horn than the treacherous calms, the rocks and shoals, the fogs, and chopping seas of land-locked channels. But, with the progress of steam navigation, preference began to be given to smooth waters, and man, aware of its new power to make his way, not only without the help of wind and tide, but even in strenuous opposition to both, abandoned the open sea whenever and wherever a quiet and safe passage could be made through sheltered inlets and outlets and steered within friendly banks.

It is thus, as I have said, that, after struggling for three centuries by the open route round Cape Horn, mariners have now come back to the inner passage which Magellan had opened for them at the outset; and the same wish to shun the boisterous gales that incessantly blow from the South Pole induced the Pacific Company to run its steamers along what is called "Smyth Channel;" a narrow gut about 360 miles in length, which, south of the Island of Chiloe and the Peninsula and Archipelago of Taitao, enters at the Gulf of Peñas, passes through a line of channels of various names between the main land on one side and Wellington, Madre de Dios, Chatham, Hanover, and Queen Adelaide Islands on the other, and issues forth at Cape Philip, at the head of Parker Bay, near the western entrance of the Magellanic Strait.

This line, which, besides smooth sailing, offered to the passengers the advantage of a succession of the most sublime scenery of mountain and glacier, was lately given up by the Pacific Company, owing to the difficulties the largest steamers encountered at some of the tightest passes, and especially at the so-called "English Narrows;" but hopes are still entertained to resume the traffic along this route, the scheme being to follow the Smyth Channel from its southern end, at Cape Philip, as far up as the Gulf of Trinidad, and hence, leaving the "Wide Channel," the "English Narrows," and the "Messier Channel" —the old way to the Gulf of Peñas—on the right, to proceed outside Wellington Island, and between this and Campana Island, along a new line of channels, which, under the names of "Picton Channel" and "Fallos Channel," would equally reach the Gulf of Peñas. This projected new route, which has only been partially explored, is now being diligently surveyed in the interest of the company, aided by the officers of Her Majesty's gunboat Alert, which we found anchored at Tilly Bay, Carlos III. Island, on our way through the strait.

The vessels of the Hamburg (Kosmos) line, being smaller and narrower, still venture, or did venture till lately, through the intricacies of the Smyth Channel, and I might have had the chance of taking my passage in the Luxor, of that company; but by so doing I should have acted against another maxim of mine—never to trust myself to the sailors of any other [illegible]

scenery on both sides the narrow passage still wore a Polar look: the glaciers slid down in perpendicular sheets from the brow of the hills to the water-edge; the water-falls in the glens seemed to hang frozen in the air like crystal columns, and, although neither the wind nor the storm reached us, we could see far up on the mountain summits, when a rift in the clouds laid them bare, the surface all covered with fresh-fallen and thick-falling snow, drifting into wreaths and heaving into heaps as it flew eddying before the blast. But snow and ice and angry gales are not the only elements of grandeur and beauty in this unique scenery. Travellers who cross the Strait in the depth of winter, or, better, on the early outbreak of spring, may well descant on "glaciers 15 and 20 miles in length," "on immense masses of ice, sometimes larger than a ship, continually breaking off and falling into the waters with the noise of thunder, sending huge waves across to the opposite shore, and sometimes completely blocking up the channel." Phenomena like these, though they throw "even the wonders of Norway and Switzerland into comparative insignificance," may at any time be met with far up in the Polar regions, where the sublime of all that ice and snow is apt to border on the monotonous. But here the peculiar charm lay in the contrast between the hoary winter on the brow of the hills and the genial warmth, the rich moisture, the rank vegetation on their sides along shore. And this juxtaposition of ice and flowers, of snowy summits and glassy slopes, of blue glaciers bordering on green meadows and yellow cornfields, and of icicles hanging on the branches of budding trees—could be seen to the best advantage at this period which precedes the fall of the year, while Nature is still going through every phase of teeming life, and wavers on the brink of that severe season in which the deadening chill of the south wind will bury all the struggling year's growth under its funeral pall. At every step, as we wound through the narrow reaches of the channel, and we found ourselves hemmed in by the mountains closing around us on all sides, as in a succession of Alpine lakelets without visible outlets; as we passed many an islet, a cove, or inner channel, at a loss how to trace out our perplexing route,—as the fleeting glimpses of sunshine lit up the landscape with prismatic tints, and the rents in the clouds laid bare the huge mountains, exhibiting them in a kind of dim phantasmagoria, peak above peak and range behind range, while along shore, almost within the reach of the limit of perpetual snow, the green sward on the slope of Cape Froward, and the wood-clad hills and ripening crops of Freshwater Bay and Punta Arenas, basked in a blaze of noonlight,—we scarcely knew whether we were more grateful to the fitful weather for what we were allowed to see or for what we were left to imagine.

We must also avow that we heard nothing of the "shouts and hoots" that told other travellers of the dangerous neighbourhood of wild Indians lurking on the shores. Of long-robed Patagonians and stark-naked Fuegians, of whom we had read such interesting descriptions, we saw no trace. What awed and almost appalled us at night, as we rode at anchor, once at Felz Point, and again at Punta Arenas, was the solemn stillness of that blank solitude, its silence as striking as darkness, and strangely contrasting with the of birds, the shoals of fishes, of seals, and marine monsters with which the Strait, other great channels, is all alive in the da We were in no dread of being boarded by sc Indians in their canoes; our danger only aros the boats of Yankee sharpers at Sandy Poi covered our deck with guanaco hides and ostrich feathers, and drove as hard bargains i such trumperies to us as they doubtless ha with the helpless natives with whom t "traded" for them. Away from Punta and its dependencies there is hardly any tra habitation for hundreds of miles, for the w man has as yet hardly pitched his tent on Strait, and the native tribes [illegible]

THE ROTHSCHILD WEDDING PRESENTS.

The forthcoming marriage of Mr. Leopold de Rothschild with Mdlle. Perugia, daughter of the late M. Perugia, will, it is arranged, be solemnised on Wednesday next. Mr. Leopold de Rothschild, it is well known, is the son of the late Baron Lionel de Rothschild. The numerous costly presents which the young couple have been fortunate enough to receive in anticipation of the occasion were yesterday laid out for the inspection of a few of their friends and others at the residence of Mr. Alfred de Rothschild, No. 1, Seamore-place, Mayfair. The ex-Premier and many other noblemen are among the contributors to this magnificent collection. Lord Beaconsfield's gift consists of an elaborate and beautifully-engraved gold card tray, with some heads and human figures in the hollow, together with representations of snakes upon the rim. Other donors have chosen the same article in various styles as a suitable present, and indeed, as usually happens under the circumstances, there are many objects which are represented by a large number of specimens, while there are scarcely any which are not to be seen in duplicate. Not the least valued among the presents are those which have been made by the servants and other dependants of the family. Among these are a gold plateau with one large and four small baskets for bread and fruit, from the clerks at New court, and other suitable presents from the tenant farmers upon the estate of the bridegroom in Buckinghamshire, the servants at Ascot, the servants at Gunnersbury, the tradesmen at Gunnersbury, the servants at No. 1, Seamore-place, and the villagespeople and cottagers of the parish of Wing. Among the more noteworthy of the gifts, besides those already referred to, are the following:—A handsome diamond tiara, set with pearls, a diamond necklace, a pearl necklace, and a gold travelling dressing case, with the name "Marie," in turquoises, and diamonds upon the different articles inside, and a gold watch and pendants, ornamented with emeralds—all these are the gifts of the bridegroom to his bride-elect; a diamond necklet from the Earl and Countess of Rosebery; a gold snuff-box, engraved with a female head, and bearing the date 1706, from the Duchess of Manchester; an exquisite little card-countercase from Lord Carington; a gold snuff-box from the Earl and Countess of Howe; an antique silver tankard from Viscount Dupplin; a silver teapot from Lord W. Campbell; a watch, no more than about one inch in diameter, from Lady de Clifford; a blue and silver candlestick from Lord and Lady Cadogan; a Dresden china mantelpiece ornament from Lord and Lady Dorchester; a set of four salt-cellars in blue and white china and silver from the Earl of Rosslyn; a green and white tea service from Mr. R. Bernal Osborne; a pair of massive ash-pans in silver from Viscount Torrington; a watch inlaid with turquoises from Lady Emily Peel; a stuffed bear supporting a whip-stand from Mr. Panmure Gordon; six gold deenars struck by the Merinide Kings of Morocco in the 14th century, from Mr. Birch; a diamond brooch from Sir Albert Sassoon; two gold salvers from Sir Moses Montefiore; a gold tray with a representation of a pastoral scene, from the Earl of Clarendon; a curiously wrought little gold musical box with a tiny singing bird, from Mr. Bignell; and a fine pair of gold candelabra, from Count Jarnawski. Besides these there are many other presents from persons of note, and there are also objects of great beauty and value presented by members of the different branches of the family of the Rothschilds in England, France, and Germany. The Baroness Nathaniel de Rothschild contributes a snake bracelet, ornamented with diamonds and two large emeralds; Lady de Rothschild, a diamond tiara; Mr. Alfred de Rothschild a diamond bracelet, with grey and pink pearls; the Baroness de Rothschild, a pearl necklace of four rows of pearls, together with two brooches with sapphires and pearl, and a diamond brooch; Baron Alphonse, a bronze mantelpiece ornament, representing a spirited group (Apollo driving the horses of the sun), and two antique jugs; Baroness Alphonse, a diamond headdress, with pink silver and grey pearls; Baroness Solomon, a gold mantelpiece clock and a bracelet; Baron Charles, a large silver salver, engraved with the initials of the bride and bridegroom; Baron Frederick, two silver candelabra; Baron and Baroness James, a diamond-leaf head-ornament and a silver tray; Baron Gustave, a pair of silver ice-pails, engraved; Baron Anthony, a dressing-case; Miss Alice de Rothschild, four antique silver candlesticks; Baron and the Baroness Edmund, a silver centre-piece; Baron and the Baroness Adolphe, a silver centre-piece and a head-ornament in pink silver and grey pearls. Other members of the family who are also represented are Baron Nathaniel Rothschild, Mdlle. Beatrice de Rothschild, and the Freiherr Wilhelm von Rothschild.

JANUARY 20, 1881.

THE ROTHSCHILD-PERUGIA WEDDING.

Sun is proverbially said to bring good fortune to a bride, and rain to be equally unlucky; but there is no phrase of the crystallised folly of mankind which applies to a bridal wreathed with snow. The arrest of communications unfortunately prevented the presence at the wedding of Mr. Leopold de Rothschild and Mdlle. Marie Perugia of the venerable Sir Moses Montefiore, whose presence would have been prized at that high celebration; but in every other respect the robe of white in which London was draped yesterday only served to enhance by contrast the festive as well as solemn character of the celebration. Without, the great city stared palely at the nuptial preparations; but there was warmth and light and life at the nuptial banquet, graced by the presence of the Heir Apparent, and the Portland-street Synagogue afforded a welcome change from the nipping and eager air outside. Without pretension to the display of gorgeous Orientalism, the interior of the synagogue is yet handsome architecturally, and has the advantage of not being too large to enable all assistants at a wedding to obtain a satisfactory view of the ritual of the elder section of the Jewish Church. Profuse floral decoration lent beauty to the series of steps ascending to the "ark" or "oran hakodos," in which are enshrined, in illuminated scrolls, the sacred books of the Mosaic law. In position the "ark" occupies the spot assigned in Christian churches to the altar, and it was as richly adorned yesterday as any cathedral shrine. Immediately beneath the steps leading to the ark—which, after the ceremony, was unveiled for the inspection of the Prince of Wales and other distinguished wedding-guests—was spread a magnificent carpet rich in orient hues, having in its centre a smaller carpet or rug of a darker colour. Over the carpet hung, suspended by four gilt columns, the canopy or "kuppah," beneath which the ceremony was to be solemnised. In the midst of the church stood the "omalmema," or reading desk, a species of estrade, affording ample space for the officiating priests, the Rev. A. L. Green and the Rev. S. Lyons, and their assistants, the Rev. Mr. Hest and the Rev. M. Keyser. In front of the "omalmema" sat the elders of the synagogue, and towards the entrance was arranged an impromptu orchestra for the accommodation of the organ and singers, never employed except at jubilees and other extraordinary celebrations. The aisles were carpeted with crimson, and the shafts of the columns wreathed with flowers and evergreens in that excellent taste which outruns not chaste simplicity.

Shortly after one o'clock the galleries and the floor of the synagogue were occupied by a large gathering of the members and friends of the House of Rothschild, and descendants of the southern race of "Sephardim," with which the family of the bride is allied. A few present, of advanced age, could recollect how the fortunes of the Rothschilds, begun and fostered by their probity, received an immense impulse when they became the guardians of the Elector of Hesse-Cassel's great wealth—destined, despite its ignoble origin, to fructify in their skilful hands into boundless fortune. This, however, is not the place in which to write the history of the Rothschild family, but simply to chronicle the happy event of yesterday. The bridegroom, Mr. Leopold de Rothschild, and his brother, Mr. Alfred de Rothschild, who officiated as his best man, have long been two of

the most popular men in English society, and their popularity was demonstrated by the numerous and distinguished assemblage which graced the ceremony. The bridegroom arrived early, and, as a humourist observed, "appeared to take great interest in the proceedings," welcoming each arrival, and displaying that good humour and self-possession from which bridegrooms as a rule are conspicuously free. Presently arrived Lord and Lady Rosebery, Lord Londesborough, Colonel Loyd-Lindsay, and Lord Wilton; and then came the Prince of Wales, who took his seat next to Lord Roseberry, and remained in conversation with him till the mid-day service of the Hebrew Church began. It is needless to remark that the strict etiquette which required all to keep seated, and with their hats on, when the Prince arrived, was violated by many unthinking Christians, if not by a few of the elder faith. The former were undoubtedly uncomfortable at wearing their hats in church, and fidgetted with their head-coverings in a curiously awkward manner. Christians who have never assisted at a Hebrew wedding may, however, be interested to know that the bride did not, at least publicly, take part in the devotions which preceded the actual marriage service, and which were for the most part intoned. Commencing with the Jubilee, or Hallelujah, Chorus, the simple ritual of the older Jewish Church soon came to an end with the prayer for the Queen, delivered in English, and the "us Kadal," or invocation to the Supreme Being, chanted in the ancient Hebrew or, perhaps more correctly, Chaldaic tongue. Then came the actual marriage service according to the Jewish rite. On a carpet of flowers scattered on the floor of the aisle walked, first the supporters of the bride, her mother, Madame Perugia, and M. G. Landauer, her uncle. With Madame Perugia walked the Baroness Alphonse de Rothschild, one of the supporters of the bridegroom, both these ladies being dressed in dark costumes, rivalling in splendour the remarkable peacock-coloured plush gown worn, with ermine, by Lady Rosebery. Next in the procession came the bride alone, clad in white satin, with a faint infusion of pink in it, like the palest petal of a blush rose. A rich garniture of lace adorned her beautiful costume, which was completed by a tiny wreath of orange flowers on the back of her small head, and a diaphanous bridal veil which permitted her fair young face to be almost fully seen. Behind her walked her bridesmaids, Mdlle. Beatrice de Rothschild, Miss Luna Sassoon, Miss Forbes, and Miss A. Forbes (of Newe), wearing costumes of the palest shade of blue, trimmed with velvet of a darker hue. Awaiting his bride at the "Kuppah" or canopy stood Mr. Leopold de Rothschild, with his shoulders encircled by the "tolleth" or bridal scarf, of a whitish gauzy material—the "Kuppah" being held by the Baron Arthur de Rothschild, M. Perugia (the bride's brother), M. E. de Rothschild, and M. Lambert. As the young couple stood side by side beneath the canopy, the bride being to the right of the bridegroom, the marriage service was commenced by the Rev. A. L. Green, with the invocation to the Supreme Being already alluded to, followed by the blessing given in Hebrew, and equivalent in English to "Who in majesty is like our God? who so blessed as our Lord? who so omnipotent as our King? May He bless the bride and bridegroom." The officiating priest then took in his hands a cup of wine, from which the bridegroom, the supporters, and the bride drank. Then the bridegroom, speaking after the priest, placed the ring on the bride's finger, and declared her wedded to him "by the law of Moses and of Israel."

While the priest still held the cup in his hand the assisting clergyman read aloud, first in Hebrew and then in English, the wedding contract, and the prayer to the Supreme Being, followed by the Seven Blessidgs was intoned. At the conclusion of the Seven Blessings the priest again handed the cup to the bridegroom, and he and the assistants as well as the bride having again drunk therefrom, there was heard a short crisp sound—the breaking of a glass under the bridegroom's foot, an emblem of the sacred nature of the marriage bond, for "sooner should those fragments grow together again than that tie be broken." As the organ pealed forth Mendelssohn's "Wedding March," the bridal party ascended the "omalmema" to sign the book of the registrar without whose presence no marriage ceremony in any religious edifice, save of the Established Church, is legal in this country. There was some little delay in leaving the church, and leisure was afforded for admiring the magnificent diamonds worn by many of the ladies present. The bride wore the magnificent suite already described in the *Daily News*, and the bridesmaids the gold "Porte Bonheur" bracelets with the names "Marie and Leopold" enlaced in rubies and diamonds, presented to them by the bridegroom.

The bridal party then repaired to the residence of Mr. Arthur Sassoon, at Albert-gate, to partake of the wedding breakfast. Mr. Sassoon's mansion was adorned with flowers, brilliantly illuminated, and filled with guests, among whom were Lord Beaconsfield, Lord Houghton, Lady Granville, and many leaders of the fashionable world. In a few kindly words the Prince of Wales proposed the health of the bride and bridegroom, adding that the house of Rothschild owed no little of its success, name, and fame to its possession in an eminent degree of the domestic virtues. Family ties had ever been held precious by all who bore the name of Rothschild, and he was proud to bear testimony to the admirable reputation his friend the bridegroom had won in every relation of life, and to say that he had only to be as good a husband as he had been son, cousin, and friend to ensure the happiness of his wedded life. Thanks were returned by Mr. Leopold de Rothschild for the honour done to him and his by his Royal Highness, and then Lord Beaconsfield in proposing the health of the Prince of Wales said that the popularity acquired by the Prince as heir apparent to the Crown was due to those merits which would continue to endear him to the English people over whom he would one day be called upon to reign. The Prince of Wales having thanked Lord Beaconsfield for the terms in which he had spoken, and alluded briefly to his lordship's services to his country, Mr. and Mrs. Leopold de Rothschild took their departure for Leighton Buzzard to pass the early days of the honeymoon.

W. ROBERTS,

DEALER IN

MARINE STORES.

And All Kinds of

CAST-OFF WEARING APPAREL.

I, with most respectful feeling,
Beg leave to inform you what I deal in,
I have not come your purse to try,
Yourself shall sell and I will buy.

So please look up that useless lumber
That long you may have left to slumber,
I buy old boots, shoes and stockings,
Jackets, trousers, and bed tickings.

Towels cloths, and cast off linen,
Cords, cashmeres, and worn-out woollens
Old gowns, caps, trimmings torn to tatters
If fine or coarse it never matters.

Smock frockings, fustians, velveteens,
Stuffs, worsted cords, and bombazines,
Old worn out handkerchiefs or shawls,
Umbrellas.

Sheep nettings, canvas, or carpeting,
Whatever else you have to bring,
Of the weight I'll soon convince you,
And pay in cash the utmost value.

I'll purchase floor cloths, dusty rags,
Old roping, sacking, and old bags,
Both cow and horse hair, broken glass,
Wine bottles, pewter, or old brass.

Old stewpans, boilers, copper kettles,
Pewter spoons, and other metals,
Old coin or silver, or ancient buttons,
Old copper or lead.

Skins worn by hare or rabbit,
However small your stock I'll have it,
I buy old rags, however rotten,
If made of woollen, hemp, or cotton.

I buy old iron, cast or wrought,
And pay the chink when it is bought,
If you have any bones to sell,
Their value in a trice I'll tell.

So over your dwellings give a glance,
You'll never have a better chance,
My price is good, my weight is just,
And mind I never ask for trust.

So please look up if but a handfu,,
And for the same I shall be thankful.

W. R. collects and buys all such kind of articles in this neighbourhood, and gives a regular Market Price, without attempting to impose upon anyone. All kinds of Leather Harness purchased.

Please look up all you have and you will receive a good price in Ready Money.

WASTE PAPER BOUGHT.

Rags, &c., and this Bill will be called for in two hours

POPULATION OF THE UNITED STATES.

(FROM OUR CORRESPONDENT.)

PHILADELPHIA, JAN. 10.

The Census Bureau has computed the census of the population of the United States taken on the 1st of June, 1880, and gives the approximate total at 50,152,559. This is subject to a few minor corrections that may slightly change the figures, but practically this is the population of the country—showing an increase of 11,594,188 in the ten years since the census of 1870, or about 30 per cent. Of this increase not quite one-fourth is said to be made by immigration, the remaining three-fourths being the natural growth of the population. In considering the different sections of the country it is found that, while all portions show a steady growth, by far the greatest growth has been west of the Mississippi. The unexpected fact is also demonstrated that the country south-east of the Mississippi has made a greater proportionate increase of population than that north-east of the Mississippi. The great growth of all has, however, been in the Northern States, west of the Mississippi, in the Pacific States, and in the territories. Nebraska and Colorado have quadrupled their populations in the decade ; Kansas has grown almost threefold ; and Oregon and Minnesota have nearly doubled. In the South-west Arkansas and Texas have also nearly doubled. The greatest growth of all has been in some of the territories, and there are five of them that have each a greater population than the State of Nevada. The smallest proportion in growth is shown in Vermont, New Hampshire, Maine, and Delaware. The following shows the population of the country by sections, according to the two censuses :—

	1880.	1870.
New England States :—		
Maine	648,945	626,915
New Hampshire	347,784	318,300
Vermont	332,286	330,551
Massachusetts	1,783,086	1,457,351
Rhode Island	276,528	217,353
Connecticut	622,683	537,454
	4,011,312	3,487,924
Increase about 15 per cent.		523,388
Middle States :—		
New York	5,083,173	4,382,759
New Jersey	1,130,892	906,096
Pennsylvania	4,282,738	3,521,951
Delaware	146,654	125,015
Maryland	935,139	780,894
	11,578,596	9,716,715
Increase about 19 per cent.		1,861,881
Western States (east of the Mississippi):—		
Ohio	3,197,794	2,665,260
Indiana	1,978,358	1,680,637
Illinois	3,078,636	2,539,891
Michigan	1,634,096	1,184,059
Wisconsin	1,315,386	1,054,670
	11,204,270	9,124,517
Increase about 22¾ per cent.		2,079,753
Southern States :—		
Virginia	1,512,203	1,225,463
West Virginia	618,193	442,014
North Carolina	1,400,000	1,071,361
South Carolina	995,706	705,606
Georgia	1,538,983	1,184,109
Florida	266,566	187,748
Alabama	1,262,344	996,992
Mississippi	1,131,899	827,922
	8,725,894	6,641,215
Increase about 31½ per cent.		2,084,679
South-Western States :—		
Kentucky	1,648,599	1,321,011
Tennessee	1,542,463	1,258,520
Missouri	2,169,091	1,721,295
Arkansas	802,564	484,471
Louisiana	940,263	726,915
Texas	1,597,509	818,579
	8,700,489	6,330,791
Increase about 37½ per cent.		2,369,698

Western States (West of the Mississippi) :—		
Iowa	1,624,463 ...	1,194,020
Minnesota	780,807 ...	439,706
Kansas	995,335 ...	364,399
Nebraska	452,432 ...	122,993
	3,853,037	2,121,118
Increase about 81 2-3 per cent.	...	1,731,919
Pacific States :—		
California	864,686 ...	560,247
Oregon	174,767 ...	90,923
Nevada	62,165 ...	42,491
Colorado	174,649 ...	39,864
	1,276,267	733,525
Increase about 74 per cent. ...	...	542,742
Territories :—		
Arizona	40,441 ...	9,658
Dakota	134,502 ...	14,181
District of Columbia	177,638 ...	131,700
Idaho	32,611 ...	14,999
Montana	39,157 ...	20,595
New Mexico ...	118,430 ...	91,874
Utah	143,907 ...	86,786
Washington ...	75,120 ...	23,955
Wyoming ...	20,788 ...	9,118
	782,594	402,866
Increase about 90 per cent. ...	...	379,728
Total population ...	50,152,559 ...	38,558,371
Increase 30·07 per cent. ...	...	11,594,188

The growth of the United States since the first census was taken, in 1790, is shown by the following statement of the aggregate population given by each census :—

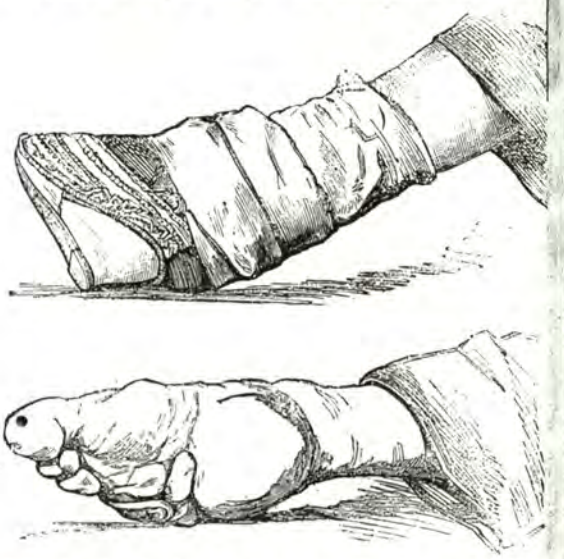
Year.	Population.	Per cent. increase.
1790	3,929,827 ...	—
1800	5,305,925 ...	35·02
1810	7,239,814 ...	36·45
1820	9,638,131 ...	33·13
1830	12,866,020 ...	33·49
1840	17,069,453 ...	32·67
1850	23,191,876 ...	35·87
1860	31,443,322 ...	35·59
1870	38,558,371 ...	22·63
1880	50,152,559 ...	30·07

The chief cities of the United States and all having over 30,000 population on June 1, 1880, are the following :—

New York, 1,206,590 ; Philadelphia, 846,984 ; Brooklyn, 566,689 ; Chicago, 503,304 ; Boston, 362,535 ; St. Louis, 350,522 ; Baltimore, 332,190 ; Cincinnati, 255,708 ; San Francisco, 233,956 ; New Orleans, 216,140 ; Cleveland, O., 160,142 ; Pittsburg, Pa., 156,381 ; Buffalo, N.Y., 155,137 ; Washington, 147,307 ; Newark, N.J., 136,400 ; Louisville, Ky., 123,645 ; Jersey City, 120,728 ; Detroit, Mich., 116,342 ; Milwaukee, Wis., 115,578 ; Providence, R.I., 104,850 ; Albany, N.Y., 90,903 ; Rochester, N.Y., 89,363 ; Alleghany, Pa., 78,681 ; Indianapolis, 75,074 ; Richmond, 63,803 ; New Haven, 62,882 ; Lowell, Mass., 59,485 ; Worcester, Mass., 58,295 ; Troy, N.Y., 56,747 ; Kansas City, Mo., 55,813 ; Cambridge, Mass., 52,740 ; Syracuse, N.Y., 51,791 ; Columbus, Ohio, 51,665 ; Paterson, N.J., 50,887 ; Toledo, Ohio, 50,143 ; Charleston, S.C., 49,999 ; Fall River, Mass., 49,006 ; Minneapolis, Minn., 46,887 ; Scranton, Pa., 45,850 ; Nashville, 43,461 ; Reading, Pa., 43,280 ; Hartford, 42,553 ; Wilmington, Del., 42,499 ; Camden, N.J., 41,658 ; St. Paul, Minn., 41,498 ; Lawrence, Mass., 39,178 ; Dayton, Ohio, 38,677 ; Lynn, Mass., 38,284 ; Denver, 35,630 ; Oakland, Cal., 34,556 ; Atlanta, 34,398 ; Utica, N.Y., 33,913 ; Portland, Me., 33,810 ; Memphis, 33,593 ; Springfield, Mass., 33,340 ; Manchester, N.H., 32,630 ; St. Joseph, Mo., 32,484 ; Grand Rapids, 32,015 ; Wheeling, 31,266 ; Mobile, 31,205 ; Hoboken, N.J., 30,999 ; Harrisburg, 30,760 ; Savannah, 30,681 ; Omaha, 30,510.

CHINESE WOMEN'S FEET

AN American missionary, Miss Norwood, of Swatow, recently described in a *Times* paragraph how the size of the foot is reduced in Chinese women. The binding of the feet is not begun till the child has learnt to walk. The bandages are specially manufactured, and are about two inches wide and two yards long for the first year, five yards long for subsequent years. The end of the strip is laid on the inside of the foot at the instep, then carried over the toes, under the foot, and round the heel, the toes being thus drawn towards and over the sole, while a bulge is produced on the instep, and a deep indentation in the sole. Successive layers of bandages are used till the strip is all used, and the end is then sewn tightly down. The foot is so squeezed upward that, in walking, only the ball of the great toe touches the ground. After a month the foot is put in hot water to soak some time; then the bandage is carefully unwound, much dead cuticle coming off with it. Frequently, too, one or two toes may even drop off, in which case the woman feels afterwards repaid by having smaller and more delicate feet. Each time the bandage is taken off, the foot is kneaded to make the joints more flexible, and is then bound up again as quickly as possible with a fresh bandage, which is drawn up more tightly. During the first year the pain is so intense that the sufferer can do nothing, and for about two years the foot aches continually, and is the seat of a pa[in] which is like the pricking of sharp needles. With continu[ed] rigorous binding the foot in two years becomes dead and ceases [to] ache, and the whole leg, from the knee downward, becomes shru[nken] so as to be little more than skin and bone. When once formed, [the] "golden lily," as the Chinese lady calls her delicate little foot, [will] never recover its original shape. Our illustrations show the



both bandaged and unbandaged, and are from photographs kindly forwarded by Mr. J. W. Bennington, R.N., who writes :—"It is an error to suppose, as many do, that it is only the Upper Ten amongst the daughters of China that indulge in the luxury of 'golden lilies,' as it is extremely common amongst every class, even to the very poorest—notably the poor sewing women one sees in every Chinese city and town, who can barely manage to hobble from house to house seeking work. The pain endured while under the operation is so severe and continuous that the poor girls never sleep for long periods without the aid of strong narcotics, and then only but fitfully ; and it is from this constant suffering that the peculiar sullen or stolid look so often seen on the woman's face is derived. The origin of this custom is involved in mystery to the Westerns. Some say that the strong-minded amongst the ladies wanted to interfere in politics, and that there is a general liking for visiting, chattering, and gossip (and Chinawomen *can* chatter and gossip), both and all of which inclinations their lords desired, and desire, to stop by crippling them."

THE GREAT FROST OF 1814.—This was preceded by a dense fog, which came on on the evening of Dec. 27, 1813. After the fog departed there were heavier falls of snow than had been known within the memory of man ; and the snow, which constantly fell for 48 hours, was hardened into ice, the result of four weeks' unabated frost. The river was frozen over for a full week, and a Frost Fair held upon it. On Feb. 1 the Thames presented a thoroughly solid surface between London and Blackfriars bridges. Thousands of people perambulated the rugged plain, where a variety of amusements were provided. A sheep was roasted whole, and for a view of this spectacle sixpence was willingly paid. The cooked meat was sold at a shilling a slice, and termed "Lapland mutton." A grand walk

was cleared and smoothed between the central arches of the two City bridges, and dubbed the City-road. Eight or ten printing presses were erected, and numerous scraps of matter commemorative of the "Great Frost" were printed on the ice. Here is one specimen:—

> You that walk here, and do design to tell
> Your children's children what this year befell,
> Come, buy this print, and it will then be seen
> That such a year as this has seldom been.

Swings, bookstalls, booths for dancing, skittles, and for the sale of refreshments, appeared in great numbers. There was a profusion of books and toys labelled "Bought on the Thames." The Thames watermen profited by the suspension of their avocation. Each person paid a toll of twopence or threepence ere he was admitted to Frost Fair, and a heavier mulct was exacted on departure. Some of them were said to have taken six pounds in the course of a day. On February 5th the wind, which had been steadily in the east, veered to the north, and there was a light fall of snow. In the evening rain began to fall and the ice to crack. On a sudden it floated with the printing presses and booths, to the no small dismay of typographers, caterers of refreshments, vendors of nicknacks, and merry-makers. The thaw advanced more rapidly than indiscretion and carelessness heeded. An unusually strong tide accelerated its action, and in a very few days, which chronicled the loss of not a few human lives, the Thames once more presented its wonted aspect.—*City Press.*

THE DAILY NEWS,

JULY 13, 1877.

ENGAGEMENT WITH A PERUVIAN IRONCLAD.

The following interesting letter, written on board H.M.S. Shah, has been kindly placed by the friends of the writer at our disposal:

On our arrival at Callao on May the 7th we found Peru about to enter on another revolution. The evening before (May the 6th), the partisans of Nicolas de Pierola, the revolutionary candidate (undergoing banishment in Chili), seized the turret ironclad Huascar—the most powerful vessel of the Peruvian navy—and put to sea without any resistance from the Peruvian fleet at anchor in Callao harbour. Half an hour after the seizure all manner of wild plans were projected, but no action taken, and the Huascar steamed quietly southward to embark Pierola at a Bolivian or Chilian port. The usual revolutionary manifesto against the present Government was issued; but, awaiting the arrival of their chief, no decisive steps were taken by the revolutionists on shore. The Government, after a delay of six days, despatched the Peruvian fleet and three regiments to protect their southern ports. Rear-Admiral de Horsey, the British Commander-in-Chief on the Pacific Station, having used every endeavour to maintain a neutral position, was at last forced to protest against the Huascar's depredations on English property—two of the Pacific Steam Navigation steamers were intercepted, fired at, passengers forcibly taken out of them, and coals taken out of an English vessel by force. The Peruvian Government at once declared itself not responsible for any acts committed by the Huascar. Admiral de Horsey was in consequence obliged to take the matter into his own hands, and after consulting with her Britannic Majesty's Chargé d'Affaires, the Shah sailed for the south on May the 18th; her Majesty's ship Amethyst at the same time being ordered up from Chili. At Iquique we received news of Pierola having embarked on board the Huascar at Cobija, in Bolivia. Information received led us to believe he would try to effect a landing at Ylo, or else at Quilca, to the north of Islay, where his chief supporters were understood to be awaiting him. We therefore steamed up the coast, in company with the Amethyst, calling in at the various ports for news. On the 29th May, when off Islay, the Amethyst brought us intelligence of the Huascar having on the day previous bombarded Pisagua, a small town to the north of Iquique, and when last seen she was standing north. The Peruvian squadron, consisting of the broadside ironclad Independencia, the corvette Union, and gun vessel Pilcomayo (the two latter very fast steamers), proceeded at once to Pisagua on hearing of the bombardment, and engaged the rebel ironclad for an hour and a half without any damage being done, with the exception of a shot through the Independencia's funnel, when one of the Huascar's guns getting disabled by a shell jamming in the muzzle, she hauled out of action intact, and proceeded to the northward. If this accident had not occurred there appears little doubt that the Huascar would have effectually disabled the Peruvian squadron.

The above intelligence caused us to steam full speed southward. When off Ylo, at about one p.m., we sighted a steamer, which, a quarter of an hour later, we recognised as the pirate Huascar, cleared and ready for action, bearing the Peruvian flag at main and peak. On seeing us she immediately altered course and stood in towards shore. We likewise altered course so as to intercept her, at the same time firing a gun to bring her to. Lieutenant Rainier was sent on board to demand her surrender to the British flag, stating that if complied with, both individuals and private property would be respected and landed at any convenient port; that the Admiral acted entirely in behalf of British interests, repudiating any complicity or party feeling with the Peruvian Government. The demand being refused by Pierola, he politely requested that the Admiral would not take advantage of the Huascar's position, he having at once neared and stopped to communicate; stating that then the English Admiral must do his worst, he being determined to resist the demand. After hoisting our boat up, Admiral de Horsey gave Pierola five minutes to consider and haul down his flag. At the expiration of this time a blank charge was fired, then a shotted gun, across her bows. The flag remaining up, we commenced the action at six minutes past 3; the Huascar replying with shell from her turret guns, and immediately steamed full speed towards the town of Ylo, and continued manœuvring backwards and forwards in front of the town, frequently causing us to cease firing to avoid destroying property, and also evidently with the intention of drawing us after her, her draught of water being only 14 feet and that of the Shah 27 feet; in addition, the navigation was rendered highly dangerous owing to rocks and shoals at the entrance of the bay; our range was in consequence principally from 1,500 to 2,500 yards; at this distance our two 9-inch guns being able to penetrate her turret, and our broadside 7-inch guns her hull at the extremities; our 64-lb. shell guns and those of the Amethyst being only available for clearing the upper deck, destroying boats and upper works, which they did most effectually. At these long ranges our shot that did not strike, lit close alongside, ricochetting over the vessel, the trajectory being so high. Owing to the size and weight of the Shah, and the confined space to manœuvre in, we were unable to benefit by steaming up to an effective range, of 1,000 or 1,200 yards, and stopping to deliver a steady fire, the greater rapidity of the enemy's movements rendering such action dangerous, and the risk of being rammed, before we could "gather way" again, too great. At about 5 p.m., the Huascar being clear of the shoals, we seized the opportunity to close; the enemy likewise closed with evident signs of ramming, firing shell from her 40-pounder. Our Gatling gun then commenced firing from the fore-top, causing their upper-deck quarters to desert their guns. Our port-guns immediately commenced "independent firing." A Whitehead torpedo was fired at moment of passing, but the Huascar at that instant altered her course, turning stern on. The torpedo failed to reach her, the Huascar going certainly 11 knots, and the torpedo having only a speed of nine knots could not overtake the vessel; the torpedo's track was observed going direct for about half the distance towards her. The Huascar then steamed full speed close in under the town, and darkness coming on we at 5.45 p.m. ceased firing and steamed out of range. Neither the Shah nor Amethyst were hulled during the action, though the shooting from the Huascar was good and well directed, almost all the shot striking the water close alongside and ricochetting over the ship, doing minor damages to ropes, &c. The greatest disadvantage we laboured under was, that owing to the Huascar having the inshore position we were but seldom able to ascertain her proper distance. At 9 p.m. the steam pinnace with outrigger, torpedo, and whaler with Whitehead, in charge of Lieut. Lindsay, were sent into Ylo Bay to attempt the destruction of the pirate ironclad. On arriving off the town

they, however, discovered that the Huascar had slipped away under cover of the high land, the night being extremely dark, with a mist over the land. The boats returned at 3.30 a.m.

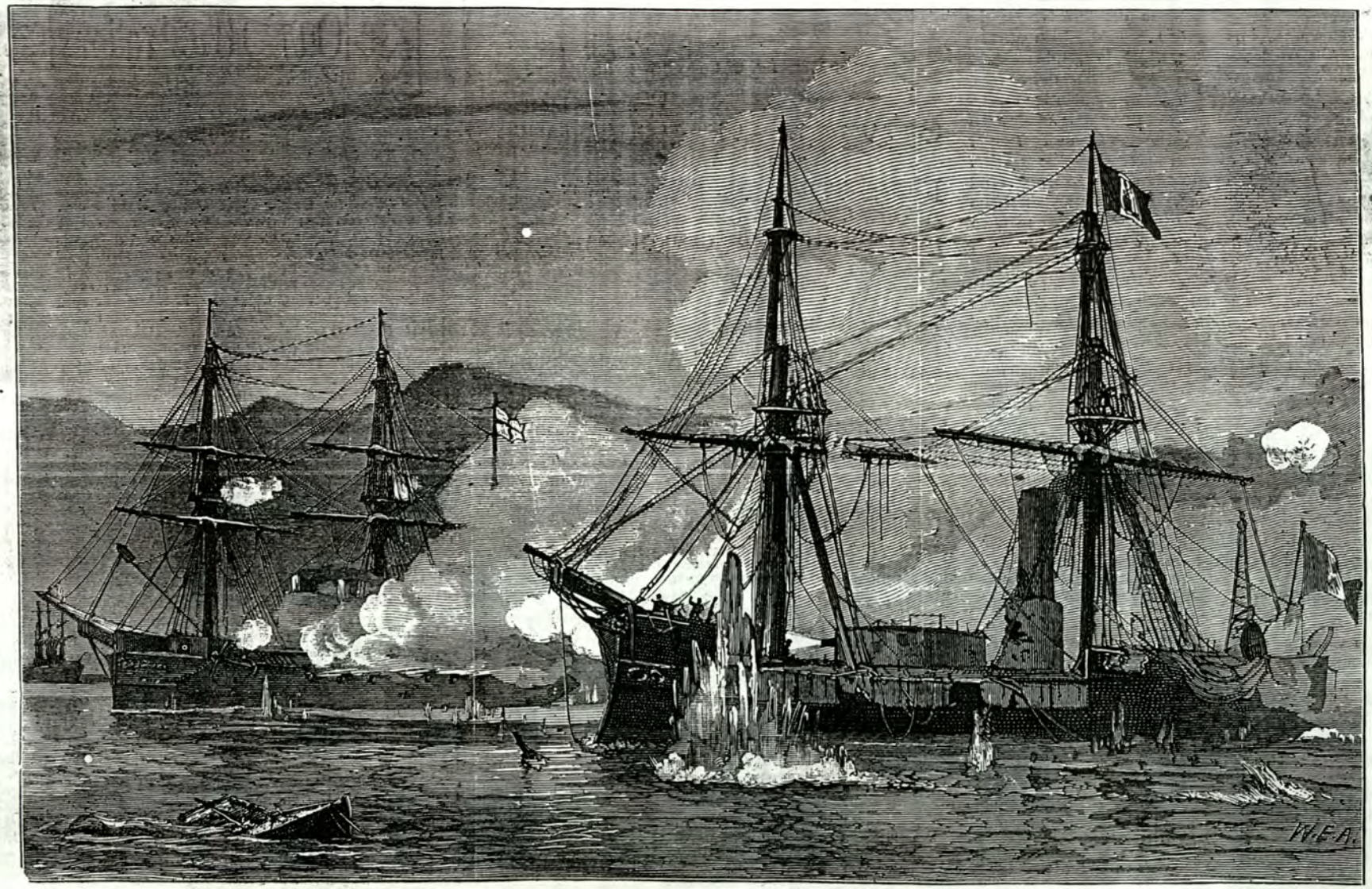
Being still under the impression that the Huascar would stand towards Quilca, to land Pierola, we steamed north, sending the Amethyst into Mollendo (Islay) for intelligence. In the evening of May 30th the Amethyst was seen standing out towards us, and we were informed that the Huascar had gone south to Iquique. We immediately steamed full speed to the southward, arriving off Iquique at 6 p.m., intending under cover of the night to again attempt the destruction of the pirate ironclad by means of torpedoes. The steam-pinnace was hoisted out, and cutter and whaler prepared to accompany her. The Amethyst was sent to board a passing steamer for intelligence. The expedition had hardly left the ship when rockets, guns, and blue lights recalled us to the Amethyst, and by her we were informed that the Huascar had surrendered that morning to the Peruvian squadron. We recalled the boats, and remained off Iquique till daylight, when we proceeded in and anchored under salutes from the Peruvian squadron. We found the Huascar at anchor, surrounded by the squadron, Pierola and his officers prisoners, and the revolution at an end. This is the third time Pierola has attempted to overthrow the Government, and failed; his last venture being also at Ylo, in the Talisman, an English vessel, the seizure of which gave rise to important differences between England and Peru, only lately arriving at an amicable conclusion. The gunner lieutenant and lieutenant R.M.A. were sent on board the Huascar by permission of the Peruvian Commodore, to make notes on the damage done during the late engagement. The Huascar is an ironclad turret vessel, built by Laird, of Birkenhead, 200 feet long, single screw draught of water 14 feet, freeboard 6 feet, divided into four compartments by three bulkheads—one before the turret, one abaft and before the engine-room—the other abaft the engine-room. Special stations are made out for repelling boarders, by throwing boiling water from three firemains on the upper deck. The skylights and hatchways are in action replaced by 2-inch iron plates. The boilers are new, and vessel can steam eleven knots with ease. The plating on hull is 4½-inch iron tapering to 2½ at bow and stern, with 14-inch teak backing, and inner skin of ⅜-inch iron. The turret 5½-inch plating, with 12-inch backing and ⅜-inch inner skin. The turret is hung round inside with mats of painted canvas stuffed with oakum to lessen concussion and stop splinters. The turret revolves by winches worked on the inside. The guns are run in and out by winches in the rear. The projectiles are whipped up from a port under the muzzle. The turret mounts two 300-pounder Armstrong M.L.R. guns, throwing segment and common shell and chilled shot and a steel battering shot; the two former, being fitted with percussion fuzes, were used during the action; 40-pounder on each side of quarter deck, one 12-pounder aft under the poop—all Armstrong M.L.R. The conning tower under the centre of the bridge is thickly plated, has telegraph to engine-room—an open grating on the floor shows the steering wheel immediately underneath. As near as could be judged, from seventy to eighty projectiles must have struck the vessel, principally about the upper deck, funnel casing, bridge, masts, boats, and numbers of pieces of shell sticking into the woodwork. One 9-inch common shell struck the hull the starboard side about two feet from the water line and 50 feet from the stern, in the foremost ward-room cabin; bursting in the backing, the head splintered in all directions, and wounded one man; the base continued its course, killing the sentry, and going through the casing in an opposite cabin, brought up against the inner skin; the plating at this spot was 3½ inches, same backing and skin. One bulwark each side was blown away; two 64-pounder shells had penetrated the bulwarks and left indentations in the platings. One heavy shot—evidently a ricochet—hit upper edge of plating starboard side, scoring it to a depth of three inches after going through the bulwark. Another hit the plating two feet from water line at an angle, making a dent of two inches in depth and 18 in length. On the port side there was a similar shot to the ricochet. The hull itself showed that several 64-pounder shells had struck it, only leaving a mark; one shot struck the poop on port quarter and went out on starboard side, splintering on an iron beam. The funnel casing and funnel had been struck about 12 times by shot and pierced by the Gatling gun. The turret had only been struck once by a 7-inch projectile, hitting direct and penetrating three inches. Port fore rigging was shot away and every boat destroyed. The Huascar was admirably fought and manœuvred by the two brothers Carrasco, lieutenants in the Peruvian navy, espousing the cause of Pierola, and chief actors in the seizure of the vessel in Callao. The elder brother manœuvred the ship, the younger brother fighting the turret. The English residents at Iquique were greatly pleased at our arrival, as reports of the wildest description had been sedulously circulated by the Peruvians, to the effect that the Shah was on shore disabled, and the Amethyst on fire.

With regard to casualties only one killed and one wounded have as yet been authenticated, though rumours are rife of a larger number having succumbed. The victim to our 9-inch shell was buried at Iquique, covered with the Peruvian ensign, and a placard placed on the coffin bearing the following inscription, "This man died whilst fighting for his country against the British."

This is the first instance of an English man-of-war engaging an ironclad of any description, also of wooden ships attacking a turret vessel, and as such cannot fail to be of interest. Notwithstanding the disadvantages we laboured under as regards inferior strength, and having to engage in confined and badly surveyed waters, we succeeded in driving our enemy close in shore and in front of an unarmed town, where we could not follow him on account of our great draught of water, and inflicting such damage that he was glad to escape under cover of the night, clearly proving that he had no desire to renew the engagement. Having thus for a time eluded us, to avoid the inevitable result he surrendered to his own countrymen, having first fruitlessly endeavoured to persuade them to join him in a general attack on us—obtaining such terms that we in England could not understand granted to rebels; and thus ended, as far as we were concerned, an affair that might have been fraught with serious consequences to the small British force on this station, but which seemed necessary to teach Peruvian revolutionists that in their periodical internal struggles they must respect the British flag.

WE publish to-day a private letter, which has been forwarded to us by a friend of the writer's, containing an account of the first sea-fight in which an English man-of-war has ever engaged an ironclad of any description. By a curious coincidence, the scene of combat was the Spanish Main, and the enemies by race, though not by birth, were our ancient foes, the Spaniards. In other respects the battle did not in the least resemble the exploits of DRAKE, or the famous final struggle of GRENVILLE. The enemy was regarded as a pirate, and as a pirate she was engaged, and the affair, in which but one man seems to have fallen, ended in the restoration of the Huascar to the navy of Peru. In spite of this want of dramatic interest, persons who do not estimate the importance of a battle by what is coarsely called the butcher's bill, may find that this skirmish, or fencing bout, was not uninstructive.

Peru is unhappily not unlike that Italian State in which the tourist, observing a street crowd, and asking why it came together, received for answer, "Niente, Signor, nientissimo; una "revoluzione." Revolutions are almost as common in Peru as charges of drunken disorderliness in an English town, and when the Shah and the Amethyst reached Callao on May 7, the officers were not amazed to find that NICOLAS DE PIEROLA was making a new attempt to gain power. PIEROLA'S career, as described in the letter we publish, seems not unlike that of an old Greek or a mediæval Italian party leader. He has thrice tried to overthrow the Government, and on this present occa-



THE ENGAGEMENT BETWEEN THE "HUASCAR" AND H.M.S. "SHAH" OFF ILO, MAY 29, 1877

excites little public attention beyond the district in which the occurrence took place. But this demoralising effect is still more likely to be produced when a criminal (or for the matter of that, a civil) investigation is held which attracts the notice of the whole kingdom, which, in fact, becomes a *cause célèbre*. The various proceedings arising out of what is known as the "Euston Square Mystery" afford a typical example of this. What an upsetting effect this affair must have had on such a woman as Hannah Dobbs! Two or three years ago she was in respectable domestic service. Since then she has been arraigned as a murderess, and became the talk of all England. After her acquittal she wrote or indited a pamphlet, for which she seems to have been better paid than most authors are for their first works, and we find her courted by sensation-mongering interviewers, and glibly talking of "my solicitors." We will not say that the effect in this case is exactly "demoralising," for Miss Dobbs' previous character, by her own admission, was not altogether unblemished, but it is surely very unhinging to the moral framework of the person chiefly concerned. Will Miss Dobbs, after tasting the sweets of celebrity, easily be content again to carry up scuttles of coals, or bang dusty mats against area-railings?

PRIVATE ENERGY AND THE STATE.—In an interesting speech delivered the other day by Mr. Fawcett, at the opening of a Nonconformist Church, he spoke of the spirit of self-help as that which has always most prominently marked Nonconformist communities. And he went on to say that this spirit is not quite so strong in England to-day as it once was. There is undoubtedly some truth in this view. Even comparatively young men can remember a time when there was a strong and general jealousy of anything like State interference. But now all that is changed. Everybody who develops a crotchet at once thinks that it ought to be taken in hand by the Government; and it must be a very foolish crotchet indeed, if some member of Parliament is not willing to make it the subject of a speech. It would, of course be a mistake to condemn altogether this new tendency of English life. The mere fact that it is so powerful should suggest that it may not be without justification. It may be that in the old times we were all too much alarmed at the idea of centralised action. There are undertakings—such as popular education—which experience has proved to be beyond the reach of private enterprise, yet which must be executed if the nation is not to suffer damage. In such cases there seems to be good reason why the State, acting as the representative of all that is best in the national life, should achieve what individuals are incompetent to deal with. At any rate we ought not to be deterred from making

THE GRAPHIC CHRISTMAS NUMBER,
READY on DEC. 8.
The popularity of these CHRISTMAS NUMBERS has encouraged the proprietors to greatly increase the outlay each year, and on the present occasion it will be far in excess of any previous one. Not only will the whole
SIXTEEN PAGES of ILLUSTRATIONS be printed in COLOURS from Pictures by celebrated Artists, but the EXTRA PRINT will also be an elaborate FAC-SIMILE IN COLOURS of an
OIL-PAINTING, specially painted for "THE GRAPHIC," by BRITON RIVIERE, A.R.A., entitled
"HIDE AND SEEK."
FOLLOWING are the Titles of the other Pictures.
A THRILLING STORY.
ELIZABETH AND GEORGIANA—DUCHESSES OF DEVONSHIRE.
SAVED AT LAST.
GOD'S ACRE.
THE STIRRUP CUP.
TWENTY MILES AN HOUR.
ONE TOUCH OF NATURE.
CHRISTMAS MORNING AT THE MASTHEAD.
FOUR HUMOROUS WATER-COLOUR SKETCHES BY R. CALDECOTT.
A CHRISTMAS COSTUME PARTY—SUPPER-TIME.
CHRISTMAS DAY AT THE SEAMEN'S HOSPITAL, GREENWICH—COMING DOWN TO DINNER.
CHRISTMAS DAY—THE UNINVITED.
THOUGH LOST TO SIGHT TO MEMORY DEAR.
THE LITERARY CONTENTS will include the following Stories:—
PHOTOGEN AND NYCTERIS. By GEORGE MACDONALD.
MY HAUNTED CHAMBER.
THE IVORY CABINET. By MISS BRAMSTON.
BOSSOM'S DAUGHTER.
PRINCE ADOLF.
WHEN THE CAT'S AWAY. By ARTHUR LOCKER.
NOTE.—The last two years the whole issue has been sold outright on the day of publication, and as it is impossible to print more than one Edition, it will be necessary for you to order at once of your Agent if you wish to secure a copy of
THE GRAPHIC CHRISTMAS NUMBER. ONE SHILLING, or by post, 1s. 2½d., to any part of Great Britain, Europe, United States, and Canada.—Office: 190, STRAND, LONDON, W.C.

SACRED HARMONIC SOCIETY, EXETER HALL, 48th Season.—Conductor, Sir MICHAEL COSTA.—Final Series of Concerts in Exeter Hall, commencing on FRIDAY, Dec. 5, with Handel's JUDAS MACCABEUS. Principal Vocalists: Madame Sherrington, Miss Julia Wigan, Miss Julia Elton, Mr. Edward Lloyd, Mr. M. Smith, and Mr. Bridson. Subscriptions for Nine Performances, 2, 2½, and 3 guineas each. Office: 6, Exeter Hall. Open from 10 till 5 o'clock.

MR. and MRS. GERMAN REED'S ENTERTAINMENT, ST. GEORGE'S HALL, Langham Place.—THE PIRATE'S HOME, written by Gilbert A'Beckett. Music by Vivian Bligh. After which A QUIET VISIT, by Mr. Corney Grain. Concluding with BACK FROM INDIA. Every Monday, Tuesday, Wednesday, and Friday Evenings, at 8. Morning Performances every Thursday and Saturday, at Three.



THE DUKE AND DUCHESS OF CONNAUGHT AT BRIGHTON

ON Tuesday last week their Royal Highnesses the Duke and Duchess of Connaught made a special visit to Brighton for the purpose of opening a Bazaar held in the Royal Pavilion in aid of the Royal School for Daughters of Officers in the Army. Travelling by special train from Victoria, they were received at the railway station by the Mayor and Corporation of the town, and after the presentation of an address, the procession, escorted by a detachment of the 16th Queen's Lancers, wended its way by a circuitous route, gaily decorated with bunting and crowded with enthusiastic sight-seers, to the Aquarium, where the Royal guests spent some time inspecting the occupants of the tanks. They next proceeded to the Royal Pavilion, where they were entertained at luncheon by the Mayor, the Duke of Connaught responding to the toast of "the Royal Visitors." From the Banquet Hall they went to the Rotunda, where the Bazaar was opened, Bishop Claughton opening the proceedings with prayer; and the Duke of Connaught made another speech, recommmending the School to the charitably disposed, after which a number of ladies and children passed across the platform in single file and laid purses, each of which contained not less than 5*l*., before the Duchess. After the ceremony had been completed, their Royal Highnesses visited the sixth annual Exhibition of Modern Pictures in the Royal Pavilion Gallery, through which they were conducted by Captain Hill, the chairman of the Fine-Arts Sub-Committee. They then took their departure for London. At the railway station some members of the 1st Sussex Rifles formed a guard of honour, whilst a similar service was performed at the Aquarium by the Royal Naval Artillery Volunteers, and at the Royal Pavilion by the 1st and 6th Artillery, and the Brighton contingent of the Middlesex Yeoman Cavalry. Of our sketches it is only needful to say that the procession of Bonfire Boys took place on Guy Fawkes' Day—the day after the Royal visit—and consisted of 1,000 persons dressed in every variety of fanciful costume, the picturesque effect of the parti-coloured and quaintly fashioned dresses being greatly heightened by the glint of the light from gas-lamps and torches.

THE PERUVIAN IRONCLAD, "HUASCAR"

THE Peruvian turret-ship *Huascar*, which for seven months has been the terror of the Chilians, bombarding their towns, capturing their mail steamers, and figuring prominently in all the naval engagements of the present war, was captured on the 8th ult. by the Chilian ironclads the *Almirante Cochrane* and *Blanco Encalada*, her gallant commander, Admiral Grau (whose portrait appeared in our issue of October 18), being killed, together with a large portion of her crew, who were mainly composed of Englishmen and Scotchmen. The *Huascar* was a British-built turret vessel of 4¼-inch plating, armed with two 300-pounders and a few guns of minor calibre; while her adversaries carried twelve pieces of 12½ tons, while their armour was six inches thick. Moreover the Chilian vessels were fitted with twin screws, so that when they ultimately cornered the *Huascar* between Antofogasta and Mejillones, after chasing her along the coast, they were able to elude all her attempts to ram them by keeping their stems carefully pointed towards her hull. This position also enabled the Chilians to

he was an exile in Chili when the disturbance began. The hopes of exiles are not in Peru the desperate things of the proverb. The faction of PIEROLA seized the Huascar, a turret ironclad, and the strongest in the Peruvian navy, and stood quietly out to sea on the 6th of May. There was no resistance, and to understand the later state of feeling in Lima, we must keep in mind that, in the eyes of the insurgents, the Huascar for the moment was the State. Every one remembers how the Athenian fleet once decreed that the city had revolted from them, that they were Athens. In the same way the Huascar was Peru, PIEROLA President, and President PRADO on land, with army and navy and all, was the real traitor and rebel. It is alleged that the compendious Huascar not only declared herself a belligerent, but treated neutral vessels, English ships among others, in a high-handed way. Piratical, indeed, does not seem too strong a term for the conduct which her officers permitted themselves to pursue. Two Pacific Steam Navigation ships were fired at, stopped, passengers were taken out, and coal was seized on board an English vessel. The Peruvian Government on shore, that of President PRADO, declared itself no longer responsible for the arbitrary acts of the Huascar. Admiral DE HORSEY, after consulting the English Chargé d'Affaires, was thus compelled to take the affair into his own hands, and to prevail on the Huascar to stop. On this mission the Shah sailed for the South, and the Amethyst was ordered up from Chili. The Huascar, on May 29, was reported to have bombarded a small town to the north of Iquique, and that piece of work over, to be standing north. The Peruvian squadron, consisting of a broadside ironclad, a corvette, and a gun vessel, went in pursuit, and the Huascar fought them for an hour and a half. A good ship, and well handled by two brothers named CARRASCO, the Huascar had the better of an indecisive affair. After fighting for ninety minutes, she sent a shot through the funnel of the other ironclad, and then a shell stuck in the muzzle of one of her own guns, and she hauled out of action and went northwards. Shortly after noon on the following day, as we gather, the Shah sighted the Huascar, which, in accordance with the political views already explained, bore the Peruvian flag at main and peak, and was cleared for action. A gun from the Shah brought her to, and an English officer was sent to demand surrender. The Admiral, of course, pointed out that he acted only in British interests, and that he was not prompted by any sympathy with the Peruvian Government, on shore, or with any party in a domestic quarrel. It will readily occur to the reader that the Admiral's motives were of no kind of importance to the crew of the Huascar. They did not at all wish to be landed with their property at any convenient port, but to maintain their claim to govern their country. Had they been prudent enough to abstain from attacks on the British flag, this ambition would not have been thwarted by English sailors. Politely, but firmly, PIEROLA declined to come to terms, and the first shot was delivered at six minutes past three. The plan of the Huascar was to dodge backwards and forwards before the town of Ylo, as a small street boy gets in front of a shop window when an enemy threatens him with a stone. The Shah, of course, could not fire when she might damage private property on land, and the Huascar expected to gain some advantage from the difficulty of the navigation. She drew but half of the Shah's draught of water, and so kept at a distance of from a little under a mile to a mile and a half. At this distance the nine inch guns of the Shah could penetrate the turret of the Huascar. If the English vessel tried to come to closer quarters her swifter opponent might turn and ram her before she could gather way again. By five o'clock the Huascar was clear of the shoals, and the Shah drew nearer, while the piratical vessel showed her design of ramming. As the opponents came closer, the Gatling gun in the British foretop silenced the Peruvian's fire from the upper decks. A Whitehead torpedo, with a speed of nine knots an hour, was launched at the Huascar, which now turned and fled at her full pace of eleven knots. Faint, but pursuing, the torpedo could be seen following indeed in the right direction, but hopelessly out of the race. Here the Huascar's turn of speed served her well; she ran close in under the town; "at one stride came the night," and the battle was over. Under the cover of a mist she slipped away, leaving the Shah and Amethyst but slightly damaged in their rigging, but as to the hulls untouched. Energetic measures were taken next day for destroying the Huascar by aid of torpedoes. In the circumstances, we may decidedly rejoice that these strong measures were unnecessary. The Huascar had surrendered to the Peruvian squadron.

We need not repeat in this place the details of the Huascar's structure, and of an ingenious device for repelling boarders by streams of boiling water. It is only important to notice that from seventy to eighty of the shots fired, under great disadvantages, by the Shah and Amethyst, had struck the Huascar. The injuries were mainly on the upper decks, boats, funnel, and rigging. A more decisive shell had penetrated the hull about two feet above the water line, at a spot where the plating was three and a half inches. Only one projectile had hit the turret direct, penetrating three inches. Thus the Peruvian Government have recovered in a damaged state a vessel which they should never have allowed, by their own *lâches*, to leave their fleet and annoy the commerce of friendly Powers. It is stated that on the coffin of the only man slain in battle a placard was placed to the effect that "he died while fighting for his country "against the British." This was done at Iquique, and it appears that at Callao and Lima the same distorted view of the occurrence was prevalent. No one expects gratitude for interference in domestic broils, and perhaps no one here expects Peruvian logic to discriminate between the repression of a pirate, and interference in party politics. After all, the partisans of PIEROLA, and PRADO, and PUERTO feel that they are all Peruvians, and that it is disagreeable to have a Peruvian vessel restored by alien agency. We do not know what terms PIEROLA made with his countrymen, but, at all events, his escapade seems to have raised him, in their opinion. Pirate or not, it would be said, in a strong turret ship, he actually declined to surrender to two wooden vessels. But whether or not this view is current in Peru, and whether

or not it leads to amity and reconciliation, we must wish that factions there would settle their quarrels without dragging foreigners into the fray. It is to be presumed that the conduct of the Huascar justified the action of Admiral DE HORSEY, but action of that kind is not desirable, even if it is unavoidable. In the meantime, as we gather, the position of English residents in the land of earthquakes and of revolutions is even less satisfactory than usual.

THE ECHO, JULY 19, 1877

OUR TROUBLES IN PERU.

UNTIL the official papers are laid before Parliament it would be rash to say what are the rights or the wrongs of the *Huascar* business in Peru. The accounts of that occurrence which have reached us, however, all as yet go in one direction, and unfortunately in a direction not very favourable to Admiral De Horsey's judgment. We have had letters from Peru, written by English subjects, and accounts from the same quarter, indited from a Peruvian point of view. And between the two versions there is no material difference. The facts seem plainly as follows. Señor Pierola—an old and very experienced rebel—had one of his chronic revolutions on hand. This time he was more successful than usual. He had won over to his cause the officers and crew of the *Huascar*, an ironclad, which we had built for Peru a few years ago. The English Admiral accused him of pressing British subjects into his service, and of taking coals from English ships against the colliers' wishes. This was denied; but, notwithstanding, Admiral De Horsey joined issue with Don Pierola, commander of the *Huascar, in esse*, and President of Peru, *in posse*. The result was that though the *Huascar* was seriously damaged in the encounter with the *Shah* and the *Amethyst*, she escaped into port and surrendered to the authorities. The next phase of the question is quite as serious. The Peruvians declare that Señor Pierola did not press any English subjects: they joined him of their own accord. They further deny that he stole any coal: he bought the fuel and paid for it. So far he is free from having given any *casus belli* to the English Admiral; and accordingly, if this be so, Admiral De Horsey must justify, on other grounds, his attack on the ironclad, commanded though it was by a Peruvian rebel. Of course, we may hear another version of the affair; and it may yet be proved that, as is only too likely, the *Huascar* did really steal coals and men. A gentleman who was prepared to seize a Commonwealth would not hesitate at annexing a few tons of the Welsh staple, or asking one or two English engineers to join him in his new enterprise. The most awkward result of the affair is that the Peruvians are incensed to the boiling point against the English. In Lima the lives of English subjects were threatened, and placards ("Pasquires") were posted on the walls advising the people that if they left an Englishman alive in Lima were undeserving of their proud descent from the heroes of the Independence. Thanks to the unwonted activity of the authorities, these riotous designs were promptly suppressed. Unfortunately, however, on it being rumoured that President Prado was favourable to Admiral De Horsey's action, his Ministers had to resign, and the greatest difficulty was found in getting any other to take their vacant posts. This in itself speaks volumes. Señor Pierola is now a hero, and if the tide in his favour does not turn the ex-Rebel may obtain the Presidential chair, as the hero who fought with two British war-ships, and succeeded in coming off with all the honours of war. This will be a disagreeable ending to Admiral De Horsey's interposition in the Peruvians with ludicrous grandiloquence "the domestic differences of the Republic."

We are afraid that Admiral de Horsey is in the wrong. He has been foolhardy and hasty, and in consequence has cut out some months' work for the Foreign Office. We are not, however, inclined to blame him altogether. He was acting according to the best of his judgment, and on what he no doubt considered sound information, in protecting British interests and vindicating the honour of the English flag. The officers of any other nation would, under the same circumstances, have done the same, and had he taken any other course, he would, no doubt, have been soundly rated by his countrymen both in England and in Peru. Moreover, he evinced no little pluck in attacking a heavily armoured iron clad, with two wooden ships; and had the *Huascar* been managed as well as the *Shah* and the *Amethyst* we should have had another story to tell. The *Civis Romanus Sum* doctrine is an excellent one if carried out in moderation, and we keep war-ships in the Pacific for no other purpose than to enforce it. The question, however, has another bearing; was Admiral De Horsey justified by any principles of international law or prudence, in attacking, asked or unasked, the war-ship of a friendly Power, even though that vessel was for the time being in the hands of a "rebel"? International law is so shadowy that the light it throws on the question we may omit discussing. The common-sense view of the action is, however, easier to come to a decision on. It leads us at once to decide it would have been more prudent not to have interfered so long as the actions of the *Huascar* were not more overt than they were reported to be. Rebellion in Peru and the other South American States, is not looked upon as in more civilised countries. It is a very venial act, and indeed a revolution is considered a most legitimate protest on the part of a defeated candidate for office. This view is strengthened by the fact that most of the Governments of Peru—and the very Republic itself—were founded on armed resistance to the Powers which they ousted. What is a rebellion to-day may become a Government to-morrow. And so it is likely to prove in Señor Pierola's case. From being a hunted rebel he has become the most popular man in the country, and stands a good chance of being able to discuss his high-handed acts from the standpoint of the Viceroy's Palace in Lima. Most awkward of all, Señor Pierola's political "ticket" advocated the honourable payment of all the creditors of the Republic also. Peru owes to Lord Cochrane and a few other Englishmen her national life, and she has continued owing to England ever since. She borrows, but, like some of her sister Republics, forgets to pay. She has nitrates and guano deposits, and could, if she cared, meet all her liabilities. Until she does so, the world will be apt to judge her boasts about "national honour" and so forth, as so many mouthfuls of fine words. If Señor Pierola gets into power we will be sure to be blamed in Peru for his success, and if he does not, then his friends will declare that it was wholly owing to our unscrupulous interference that so eminent a patriot failed to obtain the object of his ambition. Whichever way we look at things, they appear by no means pleasant for us. Meantime the diplomatists have their autumn's work cut out for them, and we may consider ourselves lucky if the *Huascar* is not as often in Parliament as the *Talisman* was. We shall be glad to see Admiral de Horsey getting a good deliverance. But if, on the contrary—as seems only too likely—he has made a mistake England can afford to cry *peccavi*, and pay the damages.

SINLESS SABBATH-BREAKING

By the Author of "John Halifax, Gentleman"

I AM no Sabbatarian. That is, I do not believe in the Jewish Sabbath—which, if kept at all, should be kept on a Saturday—and is, to my mind, no more binding on us Christians than the Feast of Weeks, of Tabernacles, or other Mosaic ceremonials; necessary to the world in its infancy, not now. But I do believe in Sunday: the first day of the week—the Lord's Day—on which He rose from the dead, and "opened the gates of heaven to all believers." Unbelievers, even, often find a certain peaceful sanctity in a periodical day of rest; but to us, our Master's confessed servants, it is a peculiar delight and privilege to remember His day and keep it holy.

How?—It is one of the most difficult questions of our day. In what way can we Christians—real, earnest, openly-professing Christians—"break the Sabbath"—that is, the Mosaic bonds which so heavily oppress us—and yet not become heathens, either in name or thought, nor cast from us that blessed safeguard of one day in the week when the dizzy round of both labour and pleasure has a pause—which gives to all who desire it at least a chance of remembering those better things which raise them above the beasts that perish?

Let me preface a brief word or two of argument by a still briefer word of experience.

"We must do at Rome as the Romans do—so of course you won't go to church?"

This was said to me in Paris one summer Sunday morning—too summer-like to incline one to spend it in any English chapel, amidst close air, feeble preaching, and feebler music. So as there is some truth in the aforesaid axiom, and it is often good to worship with any worshipping Christians among whom we may chance to be—we went to early mass in the nearest church.

That gathering of all classes into a crowded, earnest, devout congregation—how it startles people accustomed to believe in the "wickedness" of Paris!—Where in London could we find the like? so many hundreds who rise early from their beds to go and

huge glasses of new milk, were consumed by young and old with much satisfaction. But there was no beer, no gin, no brandy, and consequently no ill-manners—no squabbling—no fighting—none of the brutalising elements which would have made it absolutely impossible for a lady and child to mingle in an English holiday crowd. In this one there was no difficulty whatever. The good French mothers regarded quite tenderly the little French-speaking English maiden, and were delighted to have their own children noticed. I heard the whole history, from birth upwards, of a certain precocious "Jean," who was just able to totter forth, sous in hand, and bargain for his own glass of milk, and found myself shortly afterwards watching with the deepest interest the first steps of a pretty little "Margot," evidently an eldest child, who was lured from the paternal hands to walk at least two yards towards the kneeling young mother, at which performance a little ring of amused spectators broke into a murmur of applause.

Very silly, perhaps—but very harmless—and scarcely to be denounced as Sabbath-breaking; no more than the endless little games planned and played by the groups of children round about—the fathers and mothers looking on. For, as I have said, Jacques Bonhomme is an essentially domestic animal, and his evident pride in Madame and the children, dressed in all their Sunday best, was a pretty sight to see.

Nor—let Sabbatarians say what they will—was it an ugly or an ominous sight—the hundred or two of people, decently, nay, elegantly, dressed, who, occupying many rows of chairs, sat chatting and laughing, waiting with the good-humoured patience peculiar to "foreigners" for the commencement of a concert—probably military, for the empty orchestra had a decided military air. The music, too, was doubtless military and secular, though I cannot say, for I did not wait to hear it. But whatever it was, I honestly think it would do the audience no harm—and that to sit listening to it, in the fresh air and sunshine, at the cost of two sous per chair, was a good deal cheaper, not to say more sanitary, to mind and body, than crowding round the bar of a gin palace, hoping thereby to kill a Sunday afternoon.

For it must be remembered, both in London and Paris, the

where we preach to out of pulpits on the duty of keeping the Sabbath, but never attempt to show how this may be done in a right, rejoicing, and yet innocent way?

Cheerfulness, loving-kindness, the rational and wholesome exercise of all our powers and affections, constitute, in the belief of many who in this sceptical age are not ashamed to call themselves Christians, the best and only form of keeping, not the Jewish Sabbath, but the Lord's Day. Could there not be found (and these few words are cast adrift like seeds in the hope that there may be found), for our humbler and weaker brethren—the ignorant are always weak—some righteous way of eliminating the good from the evil of a Continental Sunday—some form of what I call "sinless Sabbath-breaking." Then surely many of us would respond to Herrick's familiar lines:—

And, *having prayed together*, we
Will go with you along.

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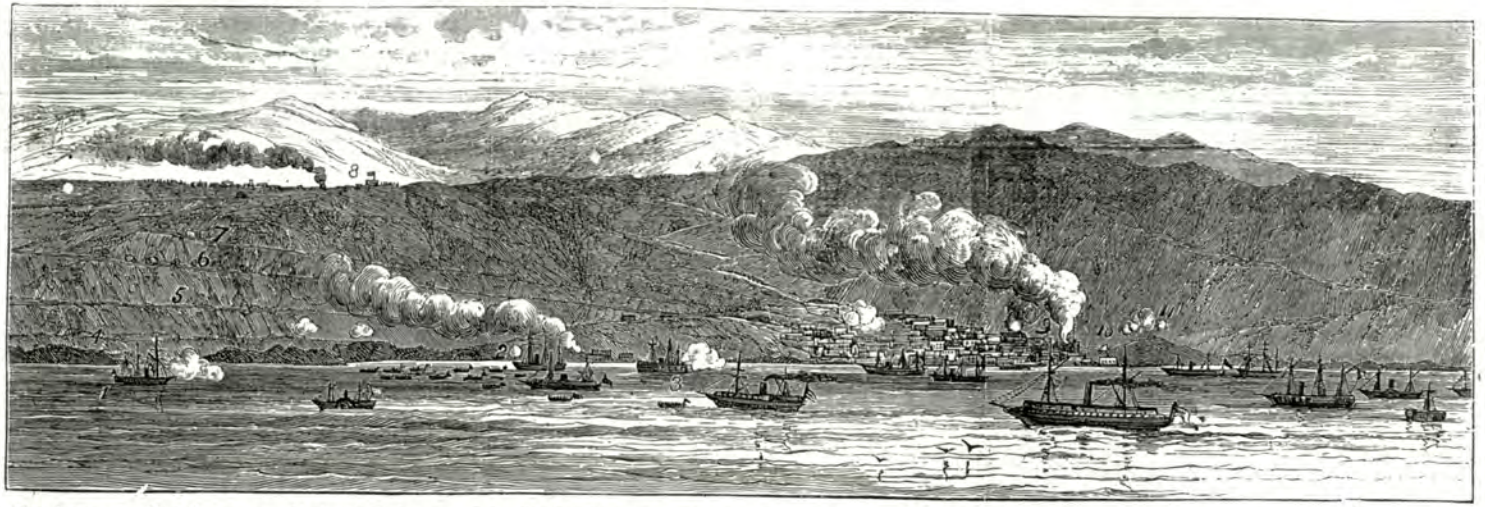

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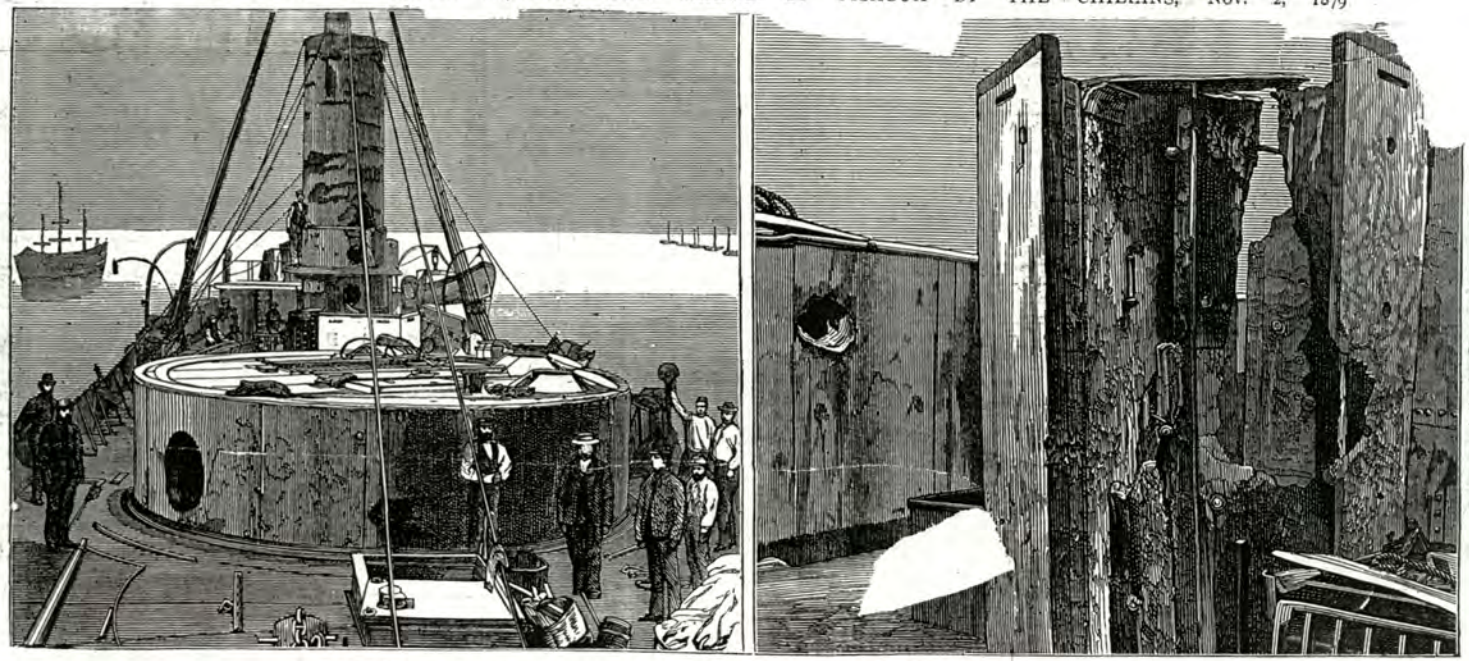

General View of the Deck.—The Fighting Turret and the Conning Tower, where Admiral Grau was Killed.

THE CAPTURE OF THE "HUASCAR"—VIEW OF THE VESSEL AFTER THE ACTION WITH IRONCLADS

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of the Incas. There is something incredibly gloomy and tragic in the stubborn nature of those Spanish American races, intensified as their character has been by the admixture of native Indian blood. There is nothing more marvellous than the blind docility, the almost childish confidence, which make them amenable to the guidance of him who suggests the most desperate counsels and to the rule of him who demands the heaviest sacrifices. It is merely by self-assertion that PIEROLA has placed himself at the head of the Peruvian people, as the First NAPOLEON assumed the Dictatorship in France after the *Dixhuit Brumaire*, or as GAMBETTA took the command of the French armies on his descent from his Parisian balloon ; although the Peruvian did not boast the military genius of the Corsican nor the forensic eloquence of the Genoese. It may be in PIEROLA's power to prolong hostilities till he and his followers die in the last ditch, as LOPEZ did in Paraguay ; it is possible that he will bring Peru to the same extremes of desolation and misery as Paraguay now exhibits, unless he is cut off before he has time to achieve all the mischief he is capable of by some untoward catastrophe, such as those to which BALTA and PARDO, and other Peruvian rulers, so much better than he is, fell victims.

It is not easy to say to what lengths Peru in PIEROLA's hands might when driven from Lima still carry the struggle against such forces as Chili can muster for its subjugation. Whichever of the three States originally engaged in this war may justly bear the blame of having led to its outbreak, there is no doubt that Peru took the field under the erroneous impression of the vast superiority of its armament, and especially of its maritime forces. The geographical conditions both of Peru and Chili, but especially of the former country, were an insurmountable obstacle to any scheme of a campaign by land. A march even of a few miles away from the railways across the steep mountain chains that come down in endless parallel lines from the crest of the Andes to the sea would be now almost impracticable, though it seems to have offered so little difficulty to the ironclad followers of the PIZARROS, ALMAGROS, and VALVERDES between three and four centuries ago. The Chilo-Peruvian contest was expected to be settled on the high seas ; and the faith of Peru in that Huascar "by which "an English Admiral had been put to rout" was so implicit that no one dreamt of the expediency of securing the territory of the Republic against the chances of an invasion. The loss of the Huascar turned the tables upon Peru. The sceptre of the seas passed from Peruvian into Chilian hands, and Peru was called upon at once to be on its guard all along the line of its coasts. It was the impossibility of moving armies along the coast to the protection of its many threatened points that led to the surrender of Iquique, Arica, Mollendo, and all the sea-ports, till the war was brought to the harbour of the capital. Chili, mistress of the sea, was free to disperse or condense her troops at her pleasure. Peru, deficient in means of communication, was at great pains to recall her scattered forces ; to gather round her heart all the blood which she had imprudently sent forth throughout the limbs in a vain hope to reach and support the extremities. Presently the conditions will be reversed. The Chilians have brought together all their strength for a supreme effort against the Peruvian capital. Were they to gain possession of Lima, and were PIEROLA with all the manhood within its walls to betake himself to the hills, the Chilians would find it very nearly impossible to carry on the war away from the sea, which is their only basis of operations ; while the Peruvians, though driven for subsistence to a barren, forbidding country, might find in their flocks and in those of their allies of Bolivia the means of prolonging a struggle in which they would soon have the advantage both of numbers and positions over their invaders.

It is to be hoped that these considerations may not be without their due weight upon the Chilian rulers. Whatever may be thought of the respective valour of the soldiers and sailors of the two nations, there is little doubt that Chili owed the success which has hitherto crowned its arms to the superior political and social organization of its State, to the long prevalence of moderate, pacific,

GREAT BATTLE NEAR LIMA.

DEFEAT OF THE PERUVIANS.

(THROUGH REUTER'S AGENCY.)

BUENOS AYRES, JAN. 20.

A telegram received here from Valparaiso announces that a great battle has been fought near Chorillos, which resulted in the defeat of the Peruvians, who were driven from their positions with heavy loss. Chorillos is in the hands of the Chilians. The loss sustained by the victorious army is not stated.

That a battle between the Chilian and Peruvian forces near Chorillos was imminent could be plainly gathered from the intelligence we

THE WAR IN SOUTH AMERICA.

CAPTURE OF LURIN BY THE CHILIANS.

(THROUGH REUTER'S AGENCY.)

NEW YORK, JAN. 13.

The *Panama Star and Herald* of the 4th inst., received here by mail, announces that 12,000 Chilians had landed at Corayaco, and subsequently attacked Lurin, which they carried at the point of the bayonet after an hour and a half's fighting, dislodging 9,000 Peruvians from a good defensive position. The Chilian fleet before Callao continued to cannonade the Peruvian forts, which replied, inflicting considerable loss on the enemy.

One of the Armstrong guns in the Chilian squadron burst during the bombardment, killing several men.

The Chilian General Lynch, while depredating in the north, replied to the remonstrances of the Foreign Ministers at Lima against the destruction of the property of neutrals, that he should treat neutrals as enemies when he found them concealing property belonging to the enemy. He is also stated to have sent "a sarcastic and insulting reply" to a confidential note from the British Minister, who requested him to suspend operations while the late peace negotiations were in progress.

CHILI AND PERU.

BUENOS AYRES, JAN. 10.

The latest telegrams received here announce that the Peruvian army is encamped at Chorillos, near Lima. The capital is guarded by police and the foreign residents, and is also defended by a large number of dynamite mines, placed at various points outside the city. The Chilian army is at Lurin, near Lima. A battle is believed to be imminent.

Our intelligence from South America acquaints us with the recent movements of the Chilian forces before Lima. On the 4th inst. it was reported at Panama that twelve thousand of those troops had landed at Corayaco, and subsequently taken Lurin at the point of the bayonet, driving from that spot the nine thousand Peruvians by whom it was defended. Later news from Buenos Ayres tells us that the Peruvian army is encamped at Chorillos, while the Chilians are still at Lurin, and a battle is considered imminent. From all this one must argue that the success of the Chilians, however splendid as a deed of arms, is not decisive, though a victory. Lurin lies on the coast outside the natural stronghold that encompasses the Peruvian capital, the main lines of which stronghold are traced by the two short English railways from Callao to Lima, and from Lima to Chorillos, meeting at a right angle in the city. The town of Lima lies high on a sandy plain formed by the little valley of the Rimac, and all shut in by two slopes of pathless mountains, the one running from east to west, to the harbour, Callao, the other from north to south, to the sea-bathing place, Chorillos. Each of the two railways is between six and seven miles in length, and both end at two points on the sea, about the same distance from each other, facing the Isle of San Lorenzo and other rocks intended by nature as a shelter to the harbour. To gain possession of Lima the Chilians must force their way into this triangle of the two railways and the coast, either by a bombardment of and an attack on Callao or by storming Chorillos, or finally by a *détour* across the mountains which should enable them to come down into the valley of the Rimac, or, at least, to cut off the communication between the city and the boundless region in its rear. The attempts of the Chilians at Callao have as yet been unsuccessful. The Peruvian batteries have inflicted serious losses on their shipping, and one of their Armstrong guns has burst during the bombardment, killing several men. They may have a better chance at Chorillos, advancing upon it from Lurin by land; but that Peruvian "Little "Brighton," as it is called, rises loftily upon the sand of a narrow tongue of land, and the Peruvians may be able to stand their ground there with greater obstinacy than perhaps they chose to show at Lurin. Much may depend upon the result of the battle which was described as imminent; but meanwhile it is well to bear in mind that the Chilians have succeeded in almost everything they have attempted, that they have taken one after another all the seaports they chose to attack between the Peruvian frontier and the capital, and that a nation which falls back for its defences on its seat of government may look upon its final downfall as a mere question of time.

It is by no means certain, however, that even the surrender of the capital by its defenders, or a magnanimous resolution on their part to bury themselves under its ruins, would bring about the termination of the war; for the Dictator, PIEROLA, whose arbitrary will has hitherto never been disputed in Peru, is supposed to harbour some wild scheme of prolonging the struggle by a timely escape along the Oroya line of railway to the Andes, where he might doubtless hold out for years in the mountain region, removing his seat of government to Cuzco, and engaging all the energies of the nation in defence of that old residence

published a few days ago. Driven from Lurin, Chorillos was clearly the next point at which the Peruvians would endeavour to make a stand. Situated on the sea coast at a few leagues' distance from Lima, with which it is connected by a short railway, Chorillos is to residents in the capital of Peru as Brighton is to residents in London. Lying to the left of the direct line of march of an invading army marching on the capital, it would, if held by the Peruvians, have constituted a base from which the Chilians could be seriously annoyed in flank and their approach to Lima delayed, if not altogether impeded, having regard to the number of their forces. On the other hand, Chorillos itself laboured as a military position under the disadvantage of having its line of communication—the railway—with the capital seriously threatened by an enemy possessed of sufficient boldness to run the risk of getting wedged in between his immediate enemy and a possible force acting from under the walls of Lima. The rapidity with which the Chilian general has followed up the advantages gained at Lurin seems to render it probable that he has been enterprising enough to adopt this strategy, and to threaten the Peruvian line of communications at the same time that he attacked them in front. Possibly he has been the better able to follow this course by the presence of a force co-operating with him, and threatening Lima from another direction. At any rate, it is clear that we were not in error in attaching a high importance to the recent action at Lurin, and in expressing the belief that the struggle is now approaching a very grave crisis. After this defeat at Chorillos there is nothing left for the Peruvians but to make such a stand as they can behind the walls of Lima itself, which cannot but be in danger of being seriously incommoded through the want of supplies. This difficulty, it must not be forgotten, is one that will also affect Callao, which has long been entirely dependent on supplies from the interior. It is, too, quite possible that, apart from the cutting off of these supplies, the Chilians may be able to interpose such a force between the capital and the port as effectually to prevent their being of any military assistance to each other—a step which would materially hasten forward the impending crisis.

FALL OF LIMA.

COMPLETE DEFEAT OF THE PERUVIAN ARMY.

(THROUGH REUTER'S AGENCY.)

BUENOS AYRES, JAN. 20.

The Chilian army has attacked and completely defeated the Peruvian army at Miraflores. The Dictator Pierola fled, and the Chilians occupied Lima without resistance on the 17th inst.

Pierola's brother and the Peruvian War Minister were made prisoners. The Peruvian loss in the battle of Chorillos is stated to have been 7,000 killed and 2,000 prisoners. 25,000 Peruvian troops were engaged in the battle at Miraflores. The Chilian loss in killed and wounded in both battles was heavy.

The Diplomatic Body at Lima have urged the conclusion of an armistice, and ask that the person of Pierola should be respected.

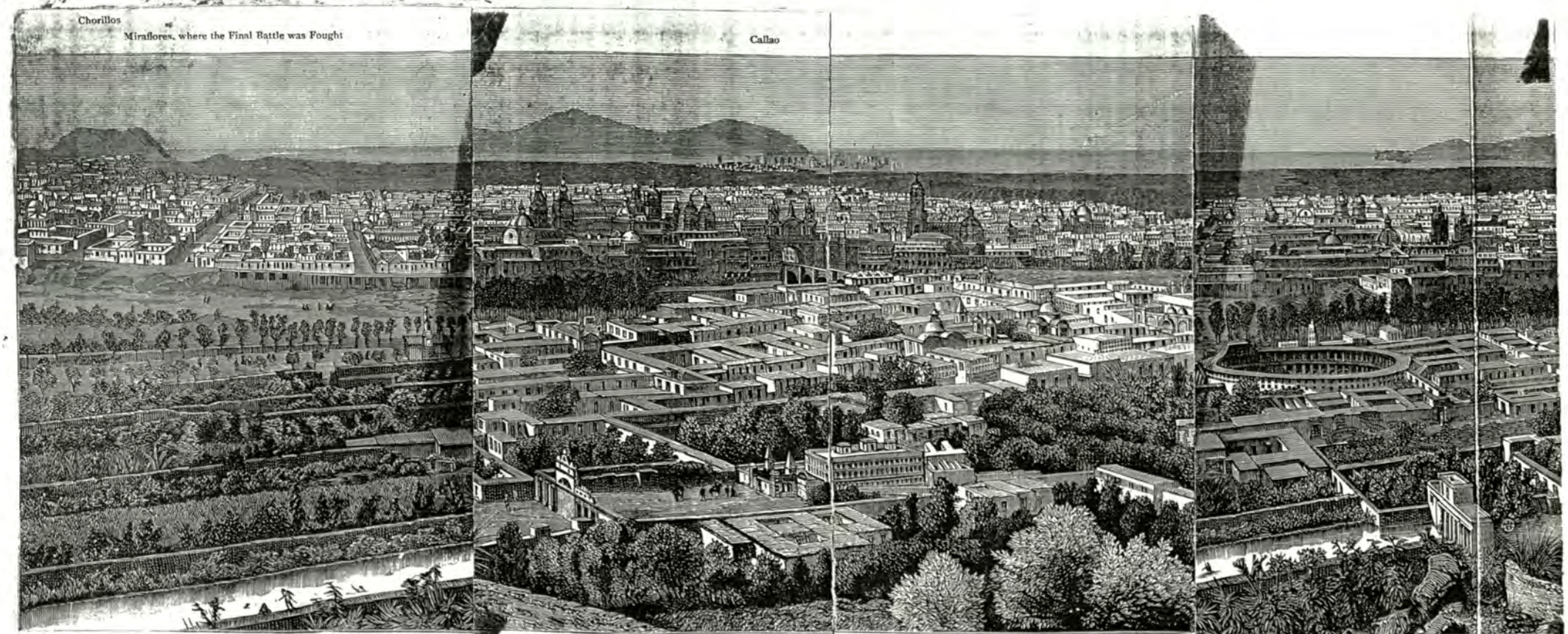
PARIS, JAN. 21.

The Chilian Minister in this city has received an official despatch of yesterday's date announcing the surrender of Lima to the Chilian army.

PARIS, JAN. 21 (EVENING).

Intelligence received here states that in the battle of Chorillos the Peruvians lost 70 guns.

The city of Lima, to which attention is naturally largely attracted at the moment, deserves some mention beyond that given to it in our columns a few days ago. Founded in 1535, it occupies the banks of the river Rimac, which is crossed by a series of bridges, several of them possessing considerable architectural beauty. The city of Lima proper occupies the south bank, while on the north lies the suburb of San Lazaro, noted for its pleasant walks between double rows of magnificent trees. The streets of the city, which is surrounded by brick fortifications of no very great strength, are usually narrow, crossing each other at right angles, and thus dividing the ground into upwards of 200 square blocks of buildings. The houses, owing to the necessity of providing against frequent earthquakes, are low, and built for the most part of yielding materials. One peculiarity that strikes a stranger first visiting the city is the absence of windows looking into the streets. All the better class of houses, in fact, look out upon large



THE WAR IN SOUTH AMERICA — LIMA, CAPITAL OF PERU, CAPTURED BY THE CHILIANS, JANUARY 17TH, 1881

interior courtyards, the sides of which are often highly ornamented with frescoes. As in all cities built under the Spanish regime in South America, the principal point of interest is the Plaza Mayor, or great square, on one side of which stands the Cathedral. Each side of the square measures 170 yards. The cathedral is a stone building some 300 feet long and 180 wide, under the great altar of which lie the remains of Pizarro. Among other buildings of note may be mentioned the former palace of the archbishops, more lately used as a hall for the meeting of the Legislative body, and the palace of the Spanish viceroys, a building calculated to disappoint those who expect to see in it any relics of bygone Spanish greatness. In the centre of the square stands a stone basin, fed with water from the Rimac, and formerly, in days when the water-carriers constituted one of the most powerful—and troublesome—bodies in the city, almost the sole source of water supply. Within late years, however, more modern ideas have come into vogue, and the citizens of Lima enjoy the advantage, if it is one, of a supply conveyed through leaden pipes into their houses. One of the striking features of the city is, of course, the large number of churches and convents which it contains. In 1866 no less than 57 churches, 16 nunneries, and 25 chapels stood within its walls, many of them decorated in the most costly manner with gold and jewels. The Church of the Dominicans is estimated to enjoy a revenue equal to some 20,000*l.* sterling per annum, and this is probably a good deal under the mark. The University, founded in 1571, and once the foremost seat of learning in South America, is now almost deserted, though there is more than one good school in the city. A Spanish city without an amphitheatre for bull-fights would be altogether an anomaly; that at Lima is capable of seating, it is said, as many as 12,000 spectators. The climate is renonwed for its salubrity and slight variations of temperature; indeed, if it were not for earthquakes and revolutions, Lima would be as desirable a place of residence as could be hit upon. The reputed wealth of the city will no doubt induce the Chilian commanders to levy a heavy war indemnity, though it may be hoped that the rumour as to the probability of its being given over to the troops will prove unfounded. The fact, indeed, of its having been occupied without resistance would seem to render such a contingency unlikely.

LONDON, SATURDAY, JANUARY 22, 1881.

The war between Chili and Peru has culminated in the complete defeat of the forces of the latter, and the Peruvian capital is now in the hands of the Chilians. Such is the latest news respecting this protracted struggle. Previous intelligence had prepared us for tidings of this supreme disaster to the Peruvian cause. Blow after blow, in quick succession and with decisive effect, has been struck by the Chilians. They have followed up each advantage and pressed their adversaries hard, and they are now masters of Lima. To the number of twelve thousand the Chilian troops landed at Corayaco, and subsequently drove out of Lurin the Peruvian garrison of nine thousand men. The next fight took place at Chorillos, towards which, after attacking Callao, the Chilians seem to have directed their operations, and near it, as our telegraphic news yesterday stated, a great battle was fought. It resulted in the overthrow of the Peruvian troops, who were driven from their positions with heavy loss, 7,000 of them being killed and 2,000 taken prisoners. A third battle was fought with the same result. The Chilian army attacked and routed its opponents at Miraflores. Their overthrow seems to have been complete. The brother of the DICTATOR PIEROLA and the Peruvian WAR MINISTER were made prisoners, and the DICTATOR himself fled. This decided the fate of the Peruvian capital, which was occupied without resistance by the Chilians on the 17th inst. According to a well-authenticated telegram, Callao also was captured, a result only to be expected, considering its proximity to the fallen capital. It remains to be seen whether the war will forthwith be concluded in consequence of this quick succession of important battles. PIEROLA is credited with a design to protract the struggle still further, and to carry on hostilities in mountain regions far away from the sea, to which the Chilians would find it difficult to penetrate. Guerrilla warfare might be prosecuted there indefinitely. With its barren tracts and mountain chains the interior of Peru would be almost impracticable for an invading army, and the aid which allies might lend might suffice to turn the tables against those who were rash enough to quit the coast. But the Chilians have achieved all the success they could desire. There is neither profit nor glory to be got in pursuing broken and dispirited armies into remote fastnesses, or in undertaking a costly campaign on land. At no stage of the war have the Chilians been unduly elated or carried away by excitement.

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They began the contest and have hitherto prosecuted it with calmess and sobriety of temperament; and it is to be hoped that their last brilliant successes will not inspire too ambitious designs, or prevent them from exercising magnanimity and imposing moderate and reasonable terms upon the vanquished. The representatives at Lima of the various foreign Powers have urged that an armistice be concluded, and that the person of PIEROLA be respected, which seems to imply that he is in danger of being captured; and in the interests of humanity it is greatly to be desired that those friendly offices will prepare the way for the conclusion of peace.

The Chilians have, no doubt, accomplished a surprising feat of arms. They have been brave, even to the verge of audacity, and almost uniformly successful; they have triumphed over grave difficulties; and in the multitude of surprises, in the rapid development of events, in the overthrow of preconceived ideas of superiority, the campaign which has resulted in the capture of Lima is, in South American warfare, the parallel of that which ended in the capture of Paris. When this unfortunate war began, the Peruvians did not doubt that they were superior at sea as well as on land. Their fleet, including as it did the famous Huascar, was as powerful as that of the rival Republic. On land they possessed more numerous forces; they had allies, and apparently they were not so exposed to attack from sea as Chili. But all has turned out contrary to what might reasonably have been expected. The Huascar was lost in spite of ADMIRAL TRAU'S bravery, and from that time the Chilians have been masters at sea. In more than one fight they have shown themselves worthy successors of the seamen whom LORD COCHRANE led. The struggle on land has equally redounded to their fame. Ever since the Peruvians failed to prevent 10,000 Chilians from landing at Pisagua they have been unfortunate. Overpowered at sea, and unable, from the nature of their country to move their troops freely from one point to another and to avail themselves of their advantage in numbers, they have seen one seaport after another forced to surrender. Callao, it is true, was able to offer stout resistance when attacked from the sea. The Chilian fleet appear to have met there a warm reception from the Peruvian batteries on shore; but it is probable that the landward defences were weak, and that as soon as Lima, from which Callao is separated by only seven or eight miles, was captured the fall of the seaport became inevitable.

The war has been waged with so much fierceness and obstinacy that many new passions have been enlisted in it, and the original quarrel has ceased to be much regarded. It is no longer a question of guano or nitrate of soda. The people of Lima and Callao have often talked about spending their last dollar and shedding the last drop of blood in the struggle, and they will be reluctant to recognize that they are vanquished in a contest with a State supposed to be inferior in resources. It will be bitter to own that they who have been somewhat boastful as to their prowess are at the mercy of their foe. The issues of the struggle, as seen at Valparaiso and Santiago, may not appear so simple as they once did. Ever since fortune has clearly declared in favour of Chili, the politicians of the country have begun to discuss the propriety of obtaining territorial compensation, and questions as to annexation are sure to arise when the terms of peace are debated. The appropriation of the Peruvian territory of Tarapaca and of the Bolivian district of Antofagasto would no doubt be advantageous to Chili. It would give her possession of guano beds and nitrate grounds; and it has been suggested that Bolivia might obtain such indemnity as she required at the expense of Peru. In fact, there have been many signs of a feeling that a re-adjustment of boundaries is a necessary condition of the conclusion to a successful war. The Chilians are, however, a practical people, who never hitherto have fallen into the errors common to the other South American Republics. They have not been prone to go to war with their neighbours. They have attended to their own affairs and paid their way. They have sustained heavy losses in the last two battles; and they may be proof against the seductions which are apt to follow brilliant victories such as they have won. The efforts of the United States to settle the bases of peace between the two combatants failed when the struggle was at its height and the question of military superiority was undecided. But a series of victories to the Chilian arms culminating in the capture of Lima and Callao ought to satisfy the pride of the one belligerent and to convince the other of the folly of continuing the war. Both, if well advised, will lend an attentive ear to the pacific suggestions of neutrals; and the victor will do well not to humble its adversary overmuch by insisting on territorial concessions, the only certain effect of which will be to bring about a renewal of the war hereafter.

THE DAILY NEWS,

THE war between Chili and Peru has rushed rapidly to the conclusion which had become all but inevitable. The last line of Peruvian defence has been broken through; the Peruvian Dictator has fled; Lima is in the possession of the Chilian forces. A chapter in the history of a war already too long spun out has been thus closed. Whether a new chapter will be commenced must depend on circumstances. According to ideas pretty widely received, the possession of the capital of a country by an invading force is the last token of general defeat. Resistance after this point is reached, if the conquerors will grant any reasonable terms, becomes almost culpable. It is true that even the loss of a capital may be retrieved, and that the uncompromising sternness of the invading Power may give both strength and sanction to a renewed resistance. When the weight of the sword is added to the scale of ransom, the victor must not be surprised if he finds himself opposed by such forces as only desperation can call forth. The further progress of events round the captured capital of Peru will therefore depend in a large degree upon the attitude assumed by the Chilian commanders. It is a fact decidedly favourable to a moderate settlement that the city has been occupied at the last moment without resistance. As we pointed out a few days ago, the fortifications of Lima are little calculated to withstand a siege or an assault. It was in all probability the consciousness of this fact that led the Peruvians to base their hope rather on positions taken up in front of the city. That their resistance to the invading armies was of the most gallant kind is indicated by the returns of killed and wounded. It is true that the "seven thousand killed," spoken of in the telegrams we publish this morning, will probably turn out to be a mistake or an exaggeration. Seven thousand would, according to recent intelligence, constitute at least a fifth part of the whole Peruvian force. Such slaughter in a conflict between armies recognising the laws of civilized warfare would be without parallel. Still there can be little doubt that a series of most sanguinary actions have been fought, marring the face of one of the most beautiful neighbourhoods round the Peruvian capital. It is easy to trace the course of the conflict—for the two battles have been practically one—by the names which appear in the telegrams. Driven out from among the houses and orange groves of the watering place of Chorillos, the Peruvian army retired directly upon Lima, following the line of the railway. Taking up a new position near the beautiful town of Miraflores, which is but six miles distant from the capital, they made one more effort to stem the incoming torrent of invasion. It was in vain. Flushed with the success of two brilliant victories, and fixing their gaze on the towers of the long-coveted capital, the Chilian troops, despising every obstacle, pressed forward. Once more the Peruvians gave way. There was nothing left to bar the Chilian advance, and without, happily, more bloodshed, the second Chilian occupation of Lima became an historical fact.

The war which has thus at least reached a pause had its origin in events which probably many persons have forgotten. Since, indeed, the assertion of independence by the Spanish colonies in South America some sixty to seventy years ago, the seeds of the present conflict have been sown. It was easy, when the independence of the three South American Republics of Chili, Peru, and Bolivia was declared, to determine that their boundaries should remain as they were when the rule of Spain was recognised. It was not so easy to say what those boundaries were. The question between Bolivia and Chili was in the beginning a question of latitude. The Bolivian Government, supported by no less an authority than HUMBOLDT, claimed to exercise authority as far south as Cape Taltal. The Chilians, on the other hand, regarded their territory as reaching as far north as the Bay of Mejillones. A coast extending over upwards of two degrees of latitude was thus in dispute. For some years, however, the dispute slumbered. About forty years back the discovery of the value of the guano deposits along the South American coast stirred it into life. In 1842 the Chilian Government issued a proclamation declaring the guano islands as far as the Bay of Mejillones to be national property. Disregarding this assertion of right on the part of Chili, the Bolivian Government continued to dispose of concessions for working the guano deposits within the disputed limits. It was not till 1861, however, that any open conflict of interests arose. In that year, becoming alive to the danger of the situation, the Bolivian Government offered to proceed to arbitration. The proposal was refused. Diplomatic relations became more and

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more strained as more valuable deposits of guano were discovered. Ultimately a boundary was agreed to midway between the points in dispute, the mineral wealth of the district being declared common property. Such an arrangement, it might have seemed obvious, would only sooner or later lead to renewed dissension. Early in 1879 events occurred which brought matters to a crisis. On the ground—whether real or assumed—of protecting certain Chilian subjects, a Chilian force occupied the district of Antofagasta, on the Bolivian side of the treaty boundary, while a Chilian ironclad was sent round to the same spot. The Peruvian Government tendered its good offices as mediator. This offer, as well as several subsequent suggestions for a settlement of the dispute, was declined by Chili, while the fact was about the same time brought to light that a secret treaty for mutual defence had been some years previously concluded between Peru and Bolivia. Seeing herself thus confronted by a double adversary, Chili resolved upon an appeal to the sword. Diplomatic intercourse was broken off, and war declared by the Santiago Government against Bolivia and Peru.

The events of the war will be more freshly remembered than its causes. Directed with a decision and an enterprise which were totally unexpected, the naval forces of Peru gained at the outset some striking successes. The famous ironclad Huascar for several months held possession of the coast, paralyzing the action of the Chilian commanders, and rendering their occupation of Cobija and other points on the coast comparatively valueless. A critical point in the war was reached when a naval action was fought with much gallantry on both sides off the mouth of the Loa. Two vessels, including the renowned Huascar, were engaged on either side, and on each side one of the two was lost. The Chilian Government meantime halted and hesitated. Their towns were bombarded; their transports and treasure ships were taken. Waking up one morning to a sense of their humiliation, the Chilians compelled an effete and incapable administration to retire, and established a military dictatorship in its place. New life was breathed into the operations of the Chilian forces, and although the Peruvians gained a success in compelling the enemy to evacuate Antofagasta, the fortune of war from that juncture declared itself against the northern republics. Soon the Huascar, left alone by her consort, fell a prey to a superior force. The Chilian army, disembarking at Pisagua, occupied the province of Atacama, famed for its agricultural barrenness as much as for its mineral wealth. The fall of Iquique soon followed. In vain the Peruvian generals hurled their battalions against the Chilian positions at Asua Santa and Tarapaca. In vain the Peruvians and Bolivians, following Chilian example, exchanged their Presidents for military dictators. The flood tide of events was on the opposing side and carried the Chilian flag from victory to victory. Struggling gallantly, with failing strength and exhausted finances, the Peruvians kept up the conflict throughout the whole of last year. Occasionally a gleam of success seemed to encourage them to continued resistance. But all such gleams were transitory, and the beginning of a new year sees their capital occupied by their foe. That they have fought gallantly no one will deny. But it is equally impossible to deny that they are thoroughly beaten. It will be well if both conquerors and conquered, mutually recognising each other's title to respect, can arrange such a peace as will plant no seeds of a future retaliation.

THE STANDARD,

From a Buenos Ayres telegram which appears this morning in another column, it would seem that Chili has at last dealt her enemy a decisive blow. The Peruvian Army has been routed at Miraflores; Señor PIEROLA has fled; his brother and his War Minister, IGLESIAS, have been taken prisoners; and Lima has been occupied "without resistance." That these events were to be expected we indicated very recently; but the least sanguine believer in the staying power of Peru could scarcely have believed that they would have come so soon, or have succeeded each other so rapidly. The capture of Lurin on the 4th inst. broke down the first of the Limeños' lines of defence. This town lies just outside the triangle, the two sides of which are formed by the lines of railway terminating at Chorillos and Callao, and the apex and base, by the Capital and the sea, respectively. For months past the Chilian Fleet has not been able to effect much headway against the forts of the Port, and having evidently abandoned the idea of taking the Capital in the rear by a march through the wild mountainous country which narrows into the eastern extremity

of the Rimac Valley, the Army has concentrated its efforts on forcing an entrance by the route which terminates opposite the southern end of the Isle of San Lorenzo, which acts as a natural breakwater to the harbour of Callao. This strategy has proved entirely successful. From internal evidence, though the news is as yet somewhat vague, it seems that Chorillos was taken on the 16th, and the Capital entered next day. If the figures relating to the casualties are to be relied on, the carnage must have been sickening. It is, at all events, clear that the disaster must have been complete, otherwise it is impossible to understand the final collapse. Only a few days ago, it was confidently affirmed that Lima was prepared to stand a protracted siege, and even allowing for the rhodomontade of Dictator PIEROLA, there was no reason to doubt its capability for defence. The position of the metropolis, which is naturally a good one, had been strengthened within the last year by earthworks, forts, and a circle of dynamite mines. The native troops had for the most part been drafted to the army encamped at Miraflores; but as the foreign residents had furnished a sufficient garrison, the absence of the Cholo Militia, and the riff-raff which forms the bulk of the regular Army, was not to be regretted. But if the report of the surrender of the city to the victorious Chilians be correct, and from the celerity with which they were able to occupy the place there is good ground for accepting the telegram as accurate, the Limeños must have either played false, or completely lost heart. Most probably both causes were at work to produce the disaster. "Patriotism," except so far as it concerns the pocket, is rare in Peru. The country is wrecked by self-seeking politicians, who make a trade of *pronunciamientos*, and as for the foreign residents they, of course, could not be expected to sympathise very deeply with the wretched quarrels of Peru and Chili. They came to the country to "make their fortunes," and the war brought ruin to them. Hence their only desire was to see it ended. Whether that wished for *dénouement* has arrived, it is difficult to say. PIEROLA has fled as PRADO and DAZA fled before him, and it is quite possible may endeavour to cover his retreat by some inflated talk of dying in the last ditch. If he makes a stand, he may give the Chilians an infinite amount of trouble, though whether he will benefit Peru in an equal degree is extremely doubtful. Chili can now open Callao and the other ports, and draw the revenue which the foreign importers will pay with the most unpatriotic impartiality to any one in possession of the Custom House. Already, she has control over the Guano Deposits and the Nitrate Deposits which were the nominal cause of the original quarrel. It thus follows that any such forlorn hope as LOPEZ led in Paraguay, can in Peru only be a guerilla war. Señor PIEROLA, however, is, like all the tribe of professional politicians, not without discretion, and when he sees his Army melting away may be only too glad to secure his personal safety through the good offices of the foreign diplomatists, who have so long endeavoured to persuade him of the hopelessness of the struggle on which his country entered with high hopes of success.

DAILY TELEGRAPH,

IN the interests of humanity it is sincerely to be hoped that an end will shortly be put to the devastating, embittered, and, we may add, irrational war which has been raging with intense fury for the last two years between Peru and Bolivia in alliance on the one side, and the Republic of Chili on the other. Lima, the capital of Peru—the "City of Kings," as FRANCISCO PIZARRO, its founder, proudly named it three and a half centuries since—has surrendered to Chili, as the inevitable consequence of the sanguinary battle which has just taken place at Miraflores, and in which the Peruvian forces, estimated as being twenty-five thousand strong, were subjected to a crushing and, we trust, final defeat. It is not a little remarkable that, ever since the first rupture between the belligerents at the commencement of 1879, the success of the Chilian arms, both by sea and land, has been steadily and persistently maintained, despite the fact that the population of Chili, when the census of 1875 was taken, amounted to little more than two million souls, and that when the Peruvian census took place in 1876 the Republic numbered about two millions seven hundred thousand inhabitants, who were sustained, although with little energy, in the war by about two million Bolivians. When hostilities began confidence as to their probable issue was loudly expressed by the Peruvians, and echoed by some of the commercial firms in the United States, and especially in Philadelphia, which were largely engaged in Peruvian enterprises. This confidence was based, first, upon the supposed wealth of Peru in guano and oubic nitre, which was deemed by her ignorant and boastful citizens to be inexhaustible, and, secondly, upon the

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acknowledged superiority of the Peruvian navy, which consisted, early in 1879, of six ironclads and six other war steamers. Among the ironclads were numbered the Huascar, built on the Clyde, and armed with three five-hundred pounders, and also the Independencia, a ram, carrying two one hundred and fifty pounders. Peru's third largest ironclad, the Atahualpa, was purchased from the United States in 1870, being a turret ship with three guns, throwing shots of five hundred pounds weight from her revolving turrets. Her three remaining ironclads, the Union, the Victoria, and the Loa, carried four guns, and those of insignificant size, the vessels themselves being of antiquated construction. Against this formidable war navy, Chili could array but two first-class ironclads, the Admiral Cochrane and the Valparaiso—sister ships of the same design and dimensions, which were constructed at the works of Earl's Ship-building Company, Hull, after the designs of Sir E. J. REED, who was formerly Chief Constructor to the Admiralty. Yet, despite the inequality of the naval forces wielded at the outset by the Republics of Peru and Chili, the fortunes of war have inclined, by sea no less than by land, in favour of the latter. During the naval engagement fought on October 8, 1879, in the Bay of Mejillones, the Huascar, regarded as "the pride of the Peruvian navy, which had taken the conceit out of the English Admiral," was captured by the enemy, and the maritime supremacy in the western waters of South America passed decisively into Chilian hands.

By land the victories gained by the Chilians have been equally pronounced. Success has attended almost every enterprise which they have seriously taken in hand, ever since the day when the Peruvian forces vainly attempted to oppose the landing of ten thousand Chilians at Pisagua. One after another the Chilians have also taken all the seaports attacked by them on the Peruvian coast, and at Tacna and Arica, no less than at Lurin and Miraflores, victory has lighted upon their banners. As has invariably been the case during the last four centuries, the hostilities of which South America has constantly been the scene were accompanied from the commencement of the struggle in 1879 with the most ruthless and inhuman barbarities. Upon both sides quarter was neither asked nor given, and wounded soldiers lying upon the ground either had their throats cut without delay or, with a refinement of cruelty, the sufferers were lashed to the pommel of a horse, the rider of which set off at full gallop and dashed out his victim's brains from the contact of his head with the rocky ground. "War to the knife" has from the first been the cry of both belligerents, and plunder the main object with which hostilities were conducted. In Peru it is estimated that fifty-seven per cent. of the population consist of Indian aborigines, and that twenty-three per cent. belong to mixed races, called Cholos, Tambos, and Ladinos. The remaining twenty per cent. are divided between pure Spaniards, negroes, and Chinese, with a European non-Spanish leaven hardly amounting to two per cent. of the entire aggregate. On the other hand, Chili, though inferior in number to her two allied adversaries, boasts a far more homogeneous population than either. Valparaiso and Santiago are, comparatively speaking, "white man's towns," and, moreover, throughout the "length without breadth" of Chili labour has never been so obnoxious to the white man as in the two Republics lying at the apex of her northern frontier. She has long been regarded as the model South American Republic—moderate and scrupulously honest in her expenditure, so that even in the worst times she has been able to maintain her public credit at home and abroad. Her Government has attracted to its service the best and most upright citizens within her confines; her Presidents have not been the bloodthirsty and avaricious monsters with whom other South American States have made mankind so unhappily familiar; and law, peace, and order have uniformly prevailed throughout her borders. Even during the last two troubled years, a stranger who visited Valparaiso and Santiago would have had difficulty in believing that a desperate and merciless war, taxing the whole strength of the little Republic, was being waged not many scores of miles away; and no insurrectionary hand or voice has ever been uplifted against President PINTO, although his gentle disposition and studious habits seem to incapacitate him for the vigorous conduct of hostilities. On the other hand, Peru, possessing those two abounding gifts of prodigal nature, guano and nitrates, has given herself over to sloth. Roughly speaking, it may be said that in Peru there is no labouring population at all, and that war, with its concomitant hopes of plunder and its opportunities for the manifestation of vindictive cruelty, is the only business to which a hybrid and mongrel population naturally applies its indolent hand. Who can wonder that Lima, with nearly two hundred thousand, and Callao, its port, with about forty thousand inhabitants, are about the most ill-kept and unhealthy large cities to be found even upon the continent of South America?

The first question likely to suggest itself at this moment to European readers is, "Will Lima be sacked and pillaged by the enemy which has the rich Peruvian capital at his mercy?" We fear that, so far as it is possible to foreshadow the future from a knowledge of the past, an affirmative answer is all that can be rendered to this crucial question. The city itself, and Callao, its port, teem with objects of value, which are likely to inflame to the utmost the cupidity of the exasperated and victorious Chilians. Their cry has long been, "On to Lima!" and the city, with its seventy-nine churches, abounding in treasures of gold and silver, in fonts, statues, and countless other ornaments, lies helpless at their feet. It is alleged that, profiting by their maritime supremacy, the Chilians have already sent off many shiploads of Peruvian valuables to Valparaiso, and prophecies are not wanting to the effect that the annals of war, ancient and modern, will be searched in vain for greater atrocities than the sack of Lima is likely to supply. In the two Peruvian cities upon which the eyes of Europe during the next few days will be anxiously bent, there is an immense amount of foreign property at stake. It is said that there are five million pounds worth of goods belonging to foreign houses established in Lima and Callao, three-fifths of which are the property of British subjects. Mr. FRALICK, a merchant of Philadelphia, has just returned to the United States from a prolonged visit to Lima, and, contemplating the possibility of the city being taken and sacked, he expressed the gravest doubts whether the property of foreign houses would be respected by the Chilians. "Perhaps," he added, "it is possible that some English houses, such as those of Messrs. DUNCAN, FOX, and Co., of GRACE Brothers, and of others who have important agencies or their principal commercial establishments in Valparaiso, may be spared; but, anyhow, the destruction will be very great." With these ominous words of warning in view, great interest attaches to the telegraphic message from Buenos Ayres to the effect that "the diplomatic body at Lima have urged the conclusion of an armistice," to which solicitation they have added a request that the person of PIEROLA, the Peruvian President, shall be respected. It may hence be inferred that PIEROLA, to whom the embittered resistance of Peru is mainly due, has not made his escape from Lima, and that thus it will be impossible for him to carry out his threats of prolonging the war by retreating to the mountains, even if Lima fell. Many persons, however, may be inclined to urge that a war, already stained by so many atrocities as to be a reproach to civilisation, ought at once to be stopped by the immediate and determined interference of foreign Powers. In concert with the United States—the Government of which has already made many efforts at mediation—Great Britain has it in her power to put an end to the carnival of cupidity and cruelty of which the western seaboard of South America has too long been the scene. Whether the war will not ultimately be ruinous to conquerors and conquered alike, it is at present too soon to inquire, but the voice of humanity and of civilisation imperatively demands that a term should at once be set to its devastating and revolting barbarities.

THE ECHO,

EXTRAORDINARY—if not startling—intelligence reaches us from South America. The Chilian Army, in a sanguinary battle, is reported as having routed the Peruvian forces in the field, to have driven out the newest Dictator, Pierola, and even to have occupied the Peruvian capital, Lima. The loss of the invading army, in killed and wounded, is admitted to have been heavy, while that of the enemy is set down at seven thousand slaughtered and two thousand made prisoners, not a word being said about the wounded in that part of the computation. An armistice has been proposed by the diplomatic body; but with what result is unknown, though it is certainly time that some attempt were made to forbid the continuance of this senseless and unsparing carnage, arising, ostensibly, from a cause so contemptible as the monopoly claimed, on both sides, in the deposits on the outlying guano islands. Meanwhile, it is impossible not to wonder at the tenacity and success with which the comparatively small Republic of Chili, with a territory of about twice the size of Great Britain, and a population of a million and a half, has assailed her neighbour with a geographical area more than twice that of France, and a superiority, in point of population, exceeding a million of souls. It is in the last degree improbable, however, that she will be permitted to take full advantage of her triumph by retaining her conquests, because, in the first place, these sudden South American victories rarely lead to enduring results, while, although the celebrated Monroe Doctrine has no application here, it has not, for a long period, been the policy of the United States to encourage any Power in aiming at a political ascendancy over the Southern half of the continent. We may, therefore, anticipate that the next intelligence will be to the effect that a pacific interposition has taken place, and it certainly is to be hoped that the expectation may not be disappointed. These South American conflicts are at all times conducted in a spirit disgraceful to human nature; for, although the

figures may be, and probably are, exaggerated, sufficient is known of South American warfare to warrant the belief that this, its latest illustration, is conducted in a spirit which recognises no civilised law.

CAPITULATION OF CALLAO.

The news received by private telegram yesterday that Callao has capitulated will cause no surprise to those who have closely watched the course of events in Peru. As we have pointed out more than once already, by their success at Lurin the Chilians stopped the principal channel by which supplies reached, not only the capital but the port. Under ordinary conditions it is the port of Peru that to a large extent supplies the capital. Under the conditions of blockade that have now existed for some time past the capital has been supplying the port. Nothing could reach Callao from the sea through the closed ranks of the Chilian fleet. So long as the routes into the interior were open this caused little inconvenience to the Peruvians. They had with them the necessaries of life in plenty, and it may be remembered that one of their most recent successes—the destruction of a Chilian transport off Callao—was effected by means of a ruse, in which a boatload of fresh vegetables was held out as a lure to the Chilian squadron. The position at Lurin, however, having gone, and the route to the interior being thus closed, the whole situation was altered. The one chance of the Peruvians was to be able to destroy the invading army in a series of engagements, and to drive it back to the south side of the Lurin river. That they failed to do this we know; the result of their failure being an occupation of Lima. This occupation gave the Chilians an advantage by which they were not slow to profit. Sixty years ago, it may be remembered, when the first Chilian occupation of Lima took place, Callao held out for some months longer. The position of affairs, however, was then very different to what it is now. The Chilian army was in 1821 hailed in Lima as an army of deliverance. The Peruvians were to be rescued from the Spanish yoke, and the aim of the Chilian army was rather to ingratiate itself with the people of Lima than to disturb them. If the Spanish commander at Callao still held out that was his affair. To-day, however, when the Chilians enter Lima as a hostile force, the possession of the city gives them a tremendous advantage. The fact has not been stated, but it may easily be understood that a refusal to surrender Callao would entail very harsh and disagreeable consequences to the population of Lima. In their own interest, therefore—even apart from the very serious question of supplies—the Peruvians would find it the wisest course to surrender Callao without more resistance.

The port which has thus passed, with the Peruvian capital, into the hands of the Chilians, has had a peculiar and chequered history. Founded in the reign of Philip IV.—between the years 1621 and 1665, that is to say—it was in 1746 entirely destroyed by one of those earthquakes to which the Andean coast is periodically subject. As it was only a few years back at Arica, so it was in the middle of last century with Callao. The sea retired to return in an overwhelming wave, submerging the whole town, and wiping out of existence nearly the whole of a population of some 4,000. Only 200 it is said escaped, while to this day the remains of the old houses are to be seen in still weather below the surface of the water. It was some twenty-five years after this catastrophe, and as a part of the work of rebuilding the port, that the walled quadrangular fortress was erected, which has in its turn become comparatively useless. Since the beginning of the present century the history of Callao has been somewhat eventful. In 1821 it was, as we have seen, surrendered by the Spanish to the Republican forces. It was captured again in 1826, after two years' siege, during the progress of the struggle between Brazil and Buenos Ayres. In 1835 it became the headquarters of one of those revolutions for which Peru is perhaps as much celebrated as for its earthquakes. General Salavery, having seized the forts, proclaimed himself President of the Republic, and sought to make good his assertion by force of arms. His act, however, was not sufficiently successful to please the Peruvian people. After sustaining two severe defeats he was captured, imprisoned, and executed. In 1865 Callao was the scene of the negotiations with Spain over the possession of the Chincha islands, and a treaty was signed there by which, on the payment of 60,000,000 reals, the islands were acknowledged to be Peruvian territory. In the following year a naval demonstration made against the port by a Spanish squadron was successfully repelled. Since then the history of the town and port has been little else than commercial. Its situation has always given it peculiar advantages. Built as it is on a low point of land, its harbour, partly sheltered by this point, and partly by the neighbouring islands of San Lorenzo and Fronton, affords a safe anchorage at all seasons of the year to the largest class of vessels. The roadstead, it is true, is open to the north and west, but from these quarters the wind never blows with any violence, while anchorage can be obtained in deep water in almost any part of it. The sea is always tran-

quil, while the capacities of the place can be judged of from the fact that it has been chosen as their headquarters by the Pacific Steam Navigation Company, whose fleet of magnificent steamers gives employment to numerous workshops, including foundries and biscuit factories, on shore. As a modern port, indeed, Callao presents a singular amount of enterprise. The new sea wall, constructed of immense blocks of concrete, provides berthage for as many as thirty vessels at once, and is supplied with every imaginable facility in the shape of cranes, railway sidings, gasworks, &c. The town itself has within more recent years not been slow to follow the same guiding light of improvement. The streets have been in many instances widened, and many substantial buildings erected—too substantial, perhaps, when the prevalence of earthquakes is taken into consideration. The principal street, running parallel with the edge of the bay, is nevertheless a street that might do credit to a place possessed of a far larger population, that of Callao probably not exceeding 20,000. Its population, indeed, has curiously varied, in some years exhibiting a marked decline, and in others almost as marked an increase. By the census taken in 1866, for instance, it became apparent that the population had declined no less than 2,000—some 15 per cent.—in seven years. Another marked decline occurred after the epidemic of yellow fever in 1868. Nothing, however, has for the last 20 years at all seriously interfered with the trade of the town. As many as 2,000 vessels enter the port yearly, many of them steamers of the largest tonnage, a brisk trade being constantly kept up with California, Mexico, and Panama, besides that which goes through the Straits of Magellan. The exports, the value of which amount to an average of some 4,000,000*l.* sterling annually, consist mainly of guano, copper ore, cubic nitre, bark, and wool, the guano trade having, however, been somewhat shorn of its proportions since 1872, when the deposits at the Chincha Islands were exhausted. Since the year 1850 the demand for labour has been largely met by the importation of Chinese coolies, through the Portuguese authorities at Macao; no less than, it is estimated, 100,000 having since that date entered the country under contract for eight years' service. One of the curiosities of the port is the phenomenon known as the "Callao Painter," consisting of the bubbling up of sulphuretted hydrogen gas in the harbour, producing an effect on vessels frequenting the port of a kind indicated by the name by which it is popularly known. Among the principal buildings are included three Roman Catholic churches, a Protestant church, two clubs, a hospital, and four banks. The old fort is now used as a custom house, the defence of the place being entrusted to batteries built in commanding positions. Callao has for some years past been connected by railway with Lima, from which it is only some two leagues distant. This close proximity of the capital to the port is a fact which has clearly exercised an important influence on the course of recent events.

CHILI AND PERU.

THE PEACE CONDITIONS.

(THROUGH REUTER'S AGENCY.)

PARIS, JAN. 29, EVENING.

The *Temps* of this evening announces that the conditions of peace imposed by Chili upon Peru and Bolivia are: The cession of Autofagasta and the surrounding district; the surrender of the allied fleet; the payment of a war indemnity of 750,000,000 francs, Peru to contribute 500,000,000 and Bolivia 250,000,000; until full payment of the indemnity Chili to occupy Callao and to work on her own account the guano deposits and the copper and saltpetre mines.

LONDON, MONDAY, JANUARY 31, 1881.

The fall of Lima seems to have caused a general brightening up of South American prospects. The Chilians, we are told, are already disbanding some of their regiments, looking, apparently, upon the forces they have in the field as superfluous, even in the event of a renewal of hostilities. More probably, however, they rely upon the present armistice as certain to lead to the conclusion of a treaty of peace. The Paris *Temps*, indeed, reports that they have already declared the conditions on which they insist. These are the cession of Antofagasta and the surrounding districts, the surrender of the allied fleet, the payment of an indemnity of 750,000,000f., of which Peru is to contribute 500,000,000f, and Bolivia 250,000,000f. Until the full payment of the indemnity Chiliis to occupy Callao, and to work on her own account the guano deposits and the copper and saltpetre mines. Something like these demands, however, were attributed to them after their first successes. At any rate, the Peruvians must be aware of the futility of any attempt at further resistance on their part. Indeed, there is little doubt that they have for a long time been hoping against hope. Had they ever been allowed leisure to think or freedom to act for themselves, the struggle would have been at an end a twelvemonth ago, when PRESIDENT PRADO, despairing of his country's destinies and only thinking of his private fortunes, ran from Lima, leaving that city, the army, and

the Republic without a Government. The continuation of the war at that crisis was PIEROLA's act, and PIEROLA is now no longer in the way of that peace which has been so long for the majority of his countrymen a matter of necessity. He is now a fugitive. Most probably he envies the good fortune of his brother and of his Minister of War, if it is true that they are prisoners of war, for they are undoubtedly safer in the hands of their enemies than they would be if left to the tender mercies of their own people. The removal by his own act of PIEROLA from the management of affairs is a gain that will go a long way towards counterbalancing the losses that Peru will have to sustain as the penalties of this disastrous war.

Thus, therefore, in all probability, ends the first international war that was ever fought in the South American Continent. It is very true, indeed, that since the emancipation of those Spanish and Portuguese colonies fratricidal quarrels have been by no means unfrequent among them. It is true that even Peruvians and Chilians have before this been arrayed in hostile ranks, and that these latter on a former occasion entered Lima as conquerors. But all previous contests either rose out of enmity between the partisans of independence and the supporters of the rights of the mother country, or were the upshot of the intervention of one State in the quarrels of its neighbours, when the invader appeared as the champion of one faction against another, as when it became necessary to put down a tyrant like ROSAS at Buenos Ayres, or a monster like LOPEZ in Paraguay. So that in all cases a recourse to arms in South America had hitherto been the result either of well-meant but blundering attempts at peace-making, or had been prompted by just but Quixotic feelings of humanity, and partook of the character of a crusade.

But in this Chileno-Peruvian struggle we have the first instance in Transatlantic regions of two sister nations—new, young, sister nations, both of the same Spanish descent—deliberately drawing the sword as independent States, and engaging in a duel to the death in obedience to the same ambitious passions and sordid interests as were looked upon as the bane of the monarchies of the Old World. Between Peru and Chili there was a frontier question, and it is discouraging to think that there are hardly two communities on that continent where disputes on the same subject may not arise, anywhere, any day; for in their early stage of colonization, when a whole world, so to say, belonged to the same State, little attention was paid to the definition of mere provincial limits; there was only too much land for all men, and every one took as much of it as answered his immediate purposes, leaving it to time and chance to trace those lines of demarcation upon which all feelings of good neighbourhood must permanently depend. The Chileno-Peruvian frontier, which was of no value whatever to either State at the date of their emancipation, became a subject of contention as soon as the trade in guano and nitrate of soda attained its full development. It was King Manure that set those two Republics by the ears, and no one can say how many other material interests may be latent in those disputed territories lying between the different South American States, to become causes or pretexts for future dissension.

It has been asserted, or thought, that the success of Chili was owing to the timely measures she took to insure it, and her earlier preparation has been taken as evidence of longer premeditation on her part. But the Chilian victories may surely be ascribed to other causes. At the outbreak of the war nothing to outsiders seemed more natural than that Peru, with a more extensive territory, a larger population, and a reputation for boundless wealth, should have the better of it. But it had not been sufficiently borne in mind that Chili was in every respect the better organized State; that her finances were in a more prosperous condition, her Government had a stronger hold of the resources of the country and of the sympathies of the people; so that, while from the beginning Peru had to impress citizens into the ranks by force, mustering negroes, Cholo Indians, and all mongrel races, both as men and officers, Chili relied on the service of volunteers and had but few coloured men in her pay. Chili was comparatively a *white* State; her strength lay in her mining and agricultural population, mostly of European descent, advanced in the ideas of civilization, amenable to order and discipline, accustomed to look to the upper classes for rule and guidance. Peru had to wield a brute mass, not many degrees removed from sullen slavery or untamed savagery; she relied on mere impetus and fury; she succumbed to the arbitrary will of petty tyrants, whose policy was limited to the suppression of all free opinion and the creation of a fictitious excitement, very different from honest, spontaneous patriotism, and who, after committing the State to a conflict which they were unable to direct, exposed it to a defeat which their ignoble flight disgraced. Chili, on the other hand, though less headlong and confident, went to work with more calm and deliberation. She felt the need of all the forces of the nation, appealed to the best feelings,

consulted the most vital interests, allowed free scope to all action, and stifled no utterance. She curtailed no liberties, she clogged or deranged none of the wheels of administration. The people took the field with one accord, with every man in his place; the soldier to fight, the officer to lead; the citizen to sow, to reap, to trade—the military to do the work, the civilian to supply the sinews of war. With such a contrast between the two belligerents, whatever might be the outset, the end would certainly be in favour of the party which could best afford to wait. Chili conducted the war as suited her own purposes. No landing was attempted, except at the most opportune spots; no blow was struck that was not promptly and surely telling.

We are told that it is natural, and, indeed, necessary, for Chili to seek for territorial compensation. It is likely enough that Peru will have to lose those guano beds and nitrate grounds of Tarapaca which were at the bottom of the quarrel; with those also will have to go those strips of Antofagasta which belonged to Bolivia, and this latter Republic will cease to have an inch of ground on the Pacific, unless the Chilians can induce Peru to cede to her late ally those districts of Arica and Tacna which were always, even under Peruvian domination, the main outlets of Bolivian trade. Chili has now the upper hand; she can deal with her prostrate enemies upon the principles which the war code of the Old World has always sanctioned. But even in the Old World milliards and territories taken as spoils of war seem in our days to be of little benefit to the conquerors, and it would be a great triumph for the Americans if an example of a saner and more generous policy were to come from them. It would be to little purpose for Chili to insist upon being paid to the uttermost farthing. Peru must needs be for many years a bankrupt State, and loss of territory will certainly not contribute to improve her financial condition. It would be for the well-being as well as for the glory of Chili if she could be induced to use moderation in dealing with her fallen foe. It is by renouncing the material advantages likely to accrue to her from this untoward war that she will best purge herself of all suspicion of having wished for and provoked it. It is by the display of forbearance and magnanimity to the neighbour whom she has now at her discretion that she will best be able to disarm the jealousy and dispel the uneasiness of those other neighbours who look upon her success in a first trial of strength as likely to prove an irresistible temptation to venture upon a second and a third, and whose opinion of Chilian greed will not be lessened by the prospect of any material addition to Chilian power.

TELEGRAPHS OF THE WORLD.—It appears that at the close of the year 1880 there were in the United States 170,103 miles of line, and during that year 33,155,991 messages were sent. The miles of wire were about 300,000. This does not include the lines used exclusively for railroad business. The other countries having the greatest length of lines are as follow:—Russia, 56,170 miles; Germany, 41,431; France, 36,970; Austria-Hungary, 30,403; Australia, 26,842; Great Britain, 23,156; British India, 18,209; Turkey, 17,085; and Italy, 15,884.

THE UNITED STATES.

(FROM OUR AMERICAN CORRESPONDENT.)

PHILADELPHIA, MARCH 21.

The computers of the United States census of 1880, after having ascertained the total population of the country, proceeded to separate it into the native and foreign born and the white and other races. In the aggregate the population is 50,152,866, of which 43,475,506 are native born and 6,677,360 foreign born, while of the total 43,404,876 are whites, 6,577,151 coloured, 105,717 Asiatics, and 65,122 Indians mingled with white men and not under tribal relations or living upon reservations. Compared with the census of 1870, when the total population was 33,589,377; the foreign born, 5,567,299; the Asiatics, 56,197; the civilized Indians, 25,731; and the coloured people, 4,880,009, the relative increase is shown to be about 30 per cent. in the total population, while the coloured have gained nearly 35 per cent. and the foreign born but 18 per cent. The foreign increase is, of course, entirely by immigration, as the children of foreign parents born here are enumerated as native born. The natives, it will be seen, increase at a much faster rate than the immigrants, large as the in-flowing tide has been.

In examining the relative numbers of native and foreign born, it is found that while the foreigners were equal to nearly 17 per cent. of the natives in 1870, the proportion had decreased to about 15 1-3 per cent. in 1880. The territorial distribution of the foreign born is also very unequal. In Nevada they are equal to 70 per cent. of the native born, while in North Carolina the proportion is barely ½ of 1 per cent. In Arizona the foreigners are 65½ per cent.; in Dakota, 62 per cent.; in Minnesota, 52 per cent.; and in California, 51 per cent. Idaho, Montana, Utah, Wisconsin, and Wyoming report 40 per cent. or over. New York has 31 per cent.; Massachussets, 33 per cent.; Rhode Island, 36½ per cent; Michigan, 31 per cent.; and Con-

necticut, 26 per cent. Pennsylvania reports 16 per cent. ; Ohio, 14 per cent. ; Iowa, 19 per cent. ; and Kansas, 12 per cent. Delaware, Florida, Louisiana, Kentucky, Maryland, Texas, and West Virginia have less than 10 per cent., and the remainder of the South less than 2 per cent., while Indiana in the North is under 8 per cent. and Maine under 10 per cent. The South, which has the most negroes, is, excepting in the States above mentioned, practically without any foreign element, showing that the stream of immigration flows almost entirely into the North. Where the foreign element is large the general causes are apparent, being manufacturing in New England and the Middle States, and also coal and iron mining in the latter, the immigrants being mainly Irish, German, French, Canadian, and some Welsh. In the North-Western States, where agriculture is the moving force, the German and Scandinavian are the chief nationalities drawn from. In the extreme West mining is the chief attraction, though agriculture and cattle-raising are important feeders. In 31 of the States and Territories natural increase has gained upon immigration during the decade, while in but 12 is the reverse the case. The relative decrease of foreign to native born since 1870 in the whole country is, accurately stated, 1·516 per cent. The chief foreign increase, proportionately speaking, has been in New England, developed by manufactures; in Dakota and Oregon, where wheat fields have invited settlement; and in Colorado, Nevada, and New Mexico, where the decade has witnessed an unusual development of mining industries. In actual numbers the State of New York contains the largest number of foreign born inhabitants—1,211,438—being nearly one-fifth of the total. Pennsylvania and Illinois contain about half a million each, the other States smaller numbers, the least being in North Carolina, 3,679 foreign born out of a total population of 1,400,000. Tennessee, where the Rugby colony is located, has slightly over 1 per cent. of foreigners, or 16,582 out of a total population of 1,542,463; so that if the colony thrives it will have an important effect upon this feature of the next census in that State.

The distribution of the negro population relatively to the whites is upon an entirely different territorial arrangement, though the negroes number nearly as many as the foreign born population. The negroes are most numerous in the South, where the foreigners are fewest. In spite of the widespread notoriety of attempts at "exodus" and colonization the Southern blacks show little inclination to come to the North, and the immigrants from Europe exhibit equal disinclination to go to the South, where labour is believed to be held in dishonour. At the same time, the negroes multiply faster than the whites, and have increased in larger proportion in a state of freedom than they did when in slavery. In the country, as a whole, there has been, accurately speaking, a gain in the decade of 625 negroes on an assumed basis of 100,000 whites, there having been 14,528 negroes to 100,000 whites in 1870, and 15,153 negroes to 100,000 whites in 1880. The greatest relative gains have been made in the former slave-holding States, but the Census-office announces its belief that these apparent gains are due in a measure to the imperfections of the census of 1870, as under the conditions then prevailing it is probable that the census omitted a larger proportion of negroes than of whites. Nine slave-holding States show proportionate gains, eight being at the head of the list. Texas and Florida have, however, lost, on account of receiving a heavy white immigration from other parts of the country, which has more than over-balanced their gain in coloured population. They have developed rapidly, so that their relative decrease of blacks is to be accounted for, not by an exodus or a dying out, but by an infusion of whites. The movement of blacks in the Northern and Western States is of little account. The migration of negroes from the South has been comparatively imperceptible, the States from which the exodus took place—Mississippi, Louisiana, and North Carolina—all having apparently gained heavily in the relative proportion of blacks, while Kansas, where the greater part went, has lost in proportion to its increase in population, and Indiana, also a supposed heavy recipient, having gained but slightly.

The greatest proportion of negroes to whites is in South Carolina, where three-fifths of the whole population are coloured. In Louisiana and Mississippi, one-half to three-fifths are coloured; in Alabama, District of Columbia, Florida, Georgia, North Carolina, and Virginia, the coloured are one-third to one-half of the total; and in Arkansas and Tennessee, from one-fourth to one-third. The least proportion in the former slave States is in West Virginia 4 per cent. and Missouri 7 per cent. Outside the former slave States the proportion of negroes is very small. Proportionately to the whites, the more populous slave States show the following percentages of coloured :— South Carolina, 154½ ; Mississippi, 135½ ; Louisiana, 106 1-3 ; Alabama, 90½ ; Georgia, 89 ; Florida, 88½ ; District of Columbia, 50¼ ; North Carolina, 65 ; Virginia, 71¼ ; Tennessee, 35 ; Arkansas, 35½ ; Texas, 33 ; and Maryland, 29. Delaware has 22 per cent. and Kentucky 19½. In the North the largest relative proportion of negroes is 4½ per cent. in Kansas and 3½ in New Jersey, while Pennsylvania has but 2 per cent., New York 1¼ per cent., Massachusetts 1 per cent., Ohio 2½ per cent., and Rhode Island 2½ per cent. The others have generally much smaller numbers. Idaho, Minnesota, and New Hampshire have but one-fifth of 1 per cent. negroes, and Utah, the smallest of all, but one-eighth of 1 per cent. The greatest actual numbers of negroes are 724,685 in Georgia, 650,337 in Mississippi, 631,754 in Virginia, 604,275 in South Carolina, and 600,249 in Alabama ; and the least actual numbers, 58 in Idaho, 138 in Arizona, and 204 in Utah.

Of the 105,717 Asiatics in the United States,

75,122 are in California, 9,515 in Oregon, 5,423 in Nevada, 3,378 in Idaho, 3,227 in Washington, 1,764 in Montana, 1,632 in Arizona, 518 in Utah, 610 in Colorado, and 914 in Wyoming. The Far Western States and Territories thus monopolize almost the whole of the Mongolian population, though 942 of them are reported in New York, 483 in Louisiana, 256 in Massachusetts, and 214 in Illinois. This class of population has largely increased during the decade, being fed by immigration from China to California.

There are extensive preparations making at Atlanta, Georgia, for the "International Cotton Exposition" which is to be held at Oglethorpe-park, in that city, during October, November, and December of this year. It is designed as a cotton exhibition in every stage of growth, transportation, and manufacture. The plan contemplates a systematic display of all the kinds of cotton plants in the world, growing in the field; the implements of every kind for cultivating, picking, and baling; all kinds of machinery for carding, spinning, weaving, dyeing, washing, drying, finishing, printing, knitting, and doing all other mill work, and every device and apparatus used in field, store, or factory. The Exposition is being encouraged by the various cotton exchanges and machine-makers of the United States, and is expected to be an elaborate and successful display. Senator Brown, of Georgia, is president of the Exposition Company, and a representative is to be sent to Europe in April to secure English, French, and German co-operation in the enterprise.

The Administration that has just gone out of office has brought the country from a period of depression to one of the greatest prosperity. President Hayes, although he has not had any great events to deal with, leaves a record that he can well afford to look back upon with pleasure. During his four years' term the public debt was reduced by nearly 209 millions, more than half of the reduction being in his last year, the net debt, which was 2,089 millions when he went into office, being down to 1,880 millions when he went out. The revenues of the country swelled from 265 millions in his first year to 356 millions in his last year, and aggregated 1,192½ millions in the four years, of which the ordinary expenditures of the Government absorbed 990¾ millions, leaving the remainder for debt reduction. His Finance Minister reduced the annual debt interest charge from 94½ millions to 76¾ millions, thus saving by repayment and refunding an amount equal to nearly one-fourth of the present annual charge. When he went out of office the Secretary left the magnificent sum of 173 millions in gold and 84 millions in silver in the Treasury, of which together nearly 161 millions were available cash, not subject to any charge, and included the resumption fund. Of course, this resulted from the prosperity of the country, and how that grew is shown by a comparison of the products of President Hayes's first year and his last—the first year ending March 4, 1878, and the last ending March 4, 1881. The cotton crop then was 4,485,423 bales, and it has now increased to 5,761,252 bales. There were then raised 207 million pounds of wool; now 264 million pounds. The 364 million bushels of wheat then raised have increased to 481 millions, and the 1,342 million bushels of Indian corn to 1,537 millions. The 2,066,594 tons of pig iron and 54,308,250 tons of coal then produced have increased now to 3,835,191 tons of pig iron and 69,200,934 tons of coal. In the four years the country presents the grand total production of 20,131,471 bales of cotton, 914½ million pounds of wool, 1,714 million bushels of wheat, 5,816 million bushels of Indian corn, 10,944,853 tons of pig iron, and 241,448,166 tons of coal. This growth of product naturally made a corresponding growth of foreign trade. The live stock exported in President Hayes's first year was valued at $4,205,893, but that trade had grown in his last year to $20,681,738, and in the four years its value was nearly $48,000,000. Likewise the other food exports, which were 269¾ millions the first year, had increased to 456¼ millions in the last year, and for the four years were 1,427½ millions. The foreign trade of the country in the first year was 639½ millions of merchandise exports and 476 millions of imports, and this in the last year had become 915 millions of exports and 703 millions of imports. How we have grown rich is shown by the four years' total of 3,048 millions of exports and 2,166 millions of imports, a balance of 882 millions in our favour, to liquidate which 130 millions of specie balance has moved in favour of the United States, all within the last two years. No nation of the earth can make such a showing for the past four years, and the retiring President may well be proud of this record that he leaves behind him.

GOLD AND SILVER.—Last evening's lecture at the London Institution was delivered by Mr. G. Phillips Bevan, F.G.S., F.S.S., the subject being the "Gold and Silver Mines of the World." It was replete with interesting facts and figures. Speaking of the early discoveries in the colony of Victoria, he cited Mr. Brough Smyth for the facts that three diggers at Forest Creek obtained in 19 days 360oz. of gold; a party of five cleared 2½lb. in a single day; another of four got 11oz. from sunrise till 3 p.m.; while another of three obtained £1,000 in 14 days. The same authority mentioned that at Ballarat, the head-quarters of the deep mining district in that colony, a party of six got 1,344oz. of gold for ten weeks' work, while in four months another gang earned £24,000. The winnings of 42 Ballarat companies up to the date of Mr. Smyth's writing were no less than £4,305,463, one of them—the Band of Hope—having washed 14,975oz. in 44 working days. Of colossal nuggets the lecturer mentioned the Welcome Stranger, weighing 2,280oz., 21in. long and 10in. thick, a lump of solid gold found by the merest chance, yet worth £9,534; the Welcome Nugget, which weighed 2,217oz., and was sold for £10,000; the Blanche Barkley, 1,743oz. in weight, and sold for £6,905; the Heron, weighing 1,008oz., which fetched £4,080. The Victoria goldfields now covered an area of 1,241 square miles, which in 1879 yielded 715,000oz., valued at £3,000,000. Queensland was traversed by a chain of gold rocks from north to south, and at least 4,000 square miles were being worked with all the experience gained from the failures of the sister colony. The yield for 1879 was over a million sterling. South Australia was more a copper than a gold country, but the goldfields of Port Darwin were being industriously worked by the Chinese. After mentioning South Australia and New Zealand, the present rage for speculation in Indian gold mines was touched on, with a

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due caution to perplexed investors. The Russian mines in the Ural range were interesting, both as having been probably referred to by Herodotus and as having enabled Murchison to forecast the success of gold mining at the Antipodes. Passing over to the American continent, the lecturer spoke of the goldfields of North Carolina and Virginia, the Californian discoveries, and the rich silver mines of Nevada and New Mexico. He gave an elaborate description of the Great Comstock lode, the two mines of which had yielded in 20 years $363,671,605. He spoke further of the immense wealth of the Arizona and Colorado silver mines, as well as of the Bolivian mine long known by the name Potosi, and of those worked in Peru, Chili, and Mexico. The European mines were the last to pass in review. It had been computed, Mr. Bevan said, that the grand total amount of gold produced during the historic ages was £3,517,093,500 and that of silver £2,826,250,000, making for both the precious metals together no less than £6,343,343,500.

It was mentioned yesterday in the letter of our Paris Correspondent that the French Government has forbidden the importation of pork from the United States, on account of the prevalence of trichinosis; and that a similar prohibition has also been issued by Russia, Spain, Italy, Austria, Portugal, and Greece. The phrase "the prevalence of trichinosis" applies, we imagine, to the pork, and is not intended to express that the disease so-called has as yet attacked any considerable number of the French people. The prohibition is further attributed to the hopelessness of inducing the poorer classes to disinfect the pork by boiling, as well as to the impossibility of microscopically examining the whole of the importation, which at Havre alone amounts to thirty millions of kilogrammes per annum. The sudden arrest of so large an industry, not to speak of the stoppage of so considerable a source of food supply, is a matter of very serious importance; and it is, therefore, not surprising to hear that the prohibition may perhaps be only temporary, and that the French Government will endeavour to devise a less stringent but sufficiently protective method.

The modern knowledge of trichinosis, and the steps by which that knowledge has been gained, form one of the most curious chapters in the annals of science. Many years ago SIR JAMES PAGET, then a student, observed that the muscles of a subject which he was dissecting were thickly beset by fine particles, like grains of white sand, and he applied himself to ascertain their nature. He found that each particle was a little cell, or bag, covered by a calcareous envelop, and containing a tiny worm, curled up into a spiral twist. The worm received the name of *trichina spiralis*, and was described as a parasite inhabiting human muscles; but not even a guess was made as to the way in which it gained access to them, or as to the symptoms which might indicate its presence. In course of time, the natural histories, the migrations, and the changes of form of other parasites having in the meanwhile been closely studied, trichinæ were again seen in human muscles, and the discovery led to minute inquiry into the particulars of the illnesses from which the person in whom they were found had suffered. It was ascertained that he had, either as the immediate precursor of death or at some former period, been attacked by a malady which had been called "fever," but which presented unusual symptoms; and as the chief varieties of fever had then recently for the first time been distinguished from one another, these unusual symptoms were perceived to possess significance. It was suggested that they might be connected with the presence of the parasites, and experiments were devised for the purpose of testing the accuracy of the supposition. Carnivorous animals were fed with scraps of the trichina loaded muscles, and were killed at various periods afterwards for the purpose of examination. The results at first obtained were verified by successive repetitions of the process; and, at length, the whole facts of the case were disclosed. Briefly stated, the conclusions arrived at were that the trichinæ in the encapsuled condition, as they were first seen, were dormant and for the time harmless adults, and that they might remain in this state for an indefinite period. As soon, however, as the flesh containing them is swallowed, and the calcareous capsules are dissolved by the action of the digestive fluids of the stomach, the contained worms are set at liberty within the alimentary canal, where they speedily deposit myriads of ova. In the course of a few days these ova are hatched and give exit to innumerable young trichinæ, individually insignificant but collectively formidable. Each of them is furnished with a sharp extremity by means of which it can perforate all the soft tissues of the body, and the whole brood soon start upon their travels, their ultimate object being to arrive at muscle, in which they may become encapsuled, until, by being again swallowed, they repeat the history of their race. The migrations of the worms riddle the walls of the alimentary canal, the muscles, and the intervening structures with countless tracks of perforation; and the whole process may be described as the infliction of an enormous wound, made up, so to speak, of millions of wounds which would individually have been unnoticed. It is this collective wound which produces the symptoms of trichinosis, such as high fever, great pain in the limbs, local swellings of the eyelids and other parts. In many cases these symptoms terminate in death; but when they are less severe they begin to abate as soon as the

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worms reach their goal in the muscles, where they become encapsuled and do no further harm. A man who had recovered from trichinosis would be in the condition first seen by SIR JAMES PAGET, and would be exposed neither to danger nor suffering from his dormant guests. Their only effect would be to render it possible for him, by self-sacrifice, to compass the destruction of a whole nation of cannibals.

The pig is very frequently the subject of trichinosis, being liable to swallow the encapsuled worms in many ways ; and it bears the period of migration with comparatively little injury, so that its flesh often contains the encapsuled worms in great numbers. Among human beings, the chief sufferers have been the Germans, in consequence of their practice of eating swine's flesh uncooked, in spiced sausage and other forms. It has happened more than once that a pig has been driven into a German village, has been sold and killed there, that its flesh has been pretty generally distributed among the inhabitants, and that in a short time there has been no survivor of the deadly feast. The fatality of trichinosis would depend mainly upon the number of encapsuled worms which were swallowed and set free ; and this, again, upon the amount of infested flesh which was consumed ; but in undoubted examples of the malady the rate of mortality is always high. In doubtful cases, where the presence of the parasites is only suspected, the suspicion may be verified or refuted by the examination of morsels of muscle under a microscope ; and for the purpose of obtaining such morsels it is customary to make little punctures into the limbs with a small harpoon, which brings back a scrap of muscle upon its barb. American pork has already been suspected of causing trichinosis in this country ; and an epidemic of so-called fever, which occurred on board the Cornwall training-ship, was attributed to this cause after it had ceased. A *post mortem* examination of the body of one of the victims was supposed to confirm the suspicion ; but the conclusion was not accepted by the chief authority upon parasites in this country. Putting aside the absolute exclusion of infested meat, there appears to be only one complete means of protection against the diffusion of trichinosis, and that is furnished by the heat incidental to proper cookery. The encapsuled parasites cannot survive a certain elevation of temperature ; and death renders them harmless. Fresh pork, or fresh meat of any kind, however loaded with them, would be a perfectly safe article of food after thorough roasting or boiling. In the case of salt meat, however, the security thus obtained is less complete, because the hardening of the salted tissue places a difficulty in the way of the penetration of heat into its interior. Such a risk would be smaller, one would think, in France than in any other country, on account of the national leaning towards long-continued stewing ; but it is evidently the opinion of the Government that some further safeguard is necessary. The inspection of meat at the ports of arrival would be a gigantic undertaking, since it would require a specimen to be taken from every single carcass, and to be examined with a microscope by an expert. It would almost seem more feasible for the American Government itself to interfere for the preservation of the imperilled industry, and to appoint inspectors at all the great slaughtering places, whose certificates of the freedom of the meat from trichinæ might be accepted by foreign Custom-houses. The examination of fresh meat could be more rapidly and more completely accomplished than that of salt meat ; and there would be in America no lack of competent investigators. In this country, we presume, matters will be left to take their chance ; and people will be at liberty to incur the risks incidental to the swallowing of trichinæ if they are so minded. While such a state of things endures, the heads of families should be careful to bear in mind the importance of thorough cookery ; and it might be desirable, before consuming pork derived from any unknown or suspected source, to have it examined by the medical officer of health or by the public analyst of the district.

LONDON, TUESDAY, MARCH 29.

IT is not a little significant of the absorbing preoccupation of Europe in Continental affairs that, since the arrival of the tidings that, on the 17th of January, Lima, the Peruvian capital, had been occupied by the triumphant Chilians, no further general interest has been expressed, in the Eastern Hemisphere, with regard to one of the most bitter and exhausting wars ever waged in any part of the world. The struggle between the two chief Republics of South America—Chili and Peru—had long threatened to repeat itself before it again burst into a flame, about two years ago. It ought not to be forgotten, indeed, that the war of which the first stage has lately been brought to a conclusion by the surrender of Lima to the Chilians is not by any means the only armed collision which, during the present century, has taken place between the rival Republics. So far back as 1821, when Peru was in insurrection against her mother country Spain, the Chilians

took sides with the Peruvian insurgents, and under the leadership of JOSE DE SAN MARTINO, an Argentine, and of BERNARDO O'HIGGINS, a Chilian of Hibernian extraction, assisted in establishing the independence of the new Republic. Again, in 1838, the Bolivians, under their celebrated Captain-General JOSE DE SANTA CRUZ, having conquered Peru, were about to establish a confederation between the Bolivian and Peruvian Republics, when Chili vigorously intervened. The Chilian General, MANUEL BULNES, landed in 1838 at Pisco, as SAN MARTINO had done before him in 1821, and as General BAQUIDANO did for the third time last year, and, having carried Lima by assault from the southward, General BULNES overthrew the so-styled Bolivian Protector, SANTA CRUZ, in the decisive battle of Yungay, fought on January 20, 1839. Forty years were then to intervene before the lesson given at Yungay was to be forgotten by a new generation of Peruvians. The existing Government and inhabitants of Lima had taught themselves to believe that, in 1821 and 1838, the Chilians received such important assistance from Peruvian malcontents that to it the easy successes gained by the invaders were mainly attributable. Accordingly there was, two years since, a renewal of the ancient struggle for supremacy upon the Western coast of South America between the two inveterate rivals and enemies. Peru forgot that, when Chili overcame her upon the two former occasions just named, the conqueror treated the conquered with singular generosity. The victorious forces of Chili were withdrawn in 1821 and 1839 so soon as Peru could set up a stable government, and no onerous conditions were imposed. Again, when in 1864 Spain seized upon the Chincha Islands, Chili made common cause with Peru in resisting Castilian aggression, and had to bear the brunt of the war by being forced to see her chief city, Valparaiso, bombarded by the Spanish ironclads. It was due to Chilian, more than to Peruvian, tenacity that Spain had to withdraw, baffled, from South American waters, and again a large debt of gratitude was added to the score owed by Peru to her stout Southern neighbour. But the relations between States are seldom guided by sentiment. Peru soon saw in Chili a formidable commercial and naval rival, and directly one of the two Republics had acquired a new ironclad the example was followed by the other. An early renewal of the contest was, therefore, generally foreseen, and two years ago it burst once more into a violent flame.

History repeats itself, and for the third time the Chilian flag now waves from the towers of Lima. The immediate cause which led to the outbreak of war in 1879 was the rapid development of the lucrative nitrate traffic on the southern borders of Peru and Bolivia and upon the northern coast of Chili. The two northern Republics came into the field, in alliance with each other, to retain the territory which they had long held; while Chili, their lean and hungry southern sister, having for many a year cast a covetous eye upon the rich nitrate beds belonging to her neighbours, fought single-handed to get possession of them. Attempts have been made in many quarters to show that the Chilian war of aggression was undertaken upon strict principles of justice; but the truth appears to be that Chili, being poorer, more homogeneous, more solvent, and less revolutionary than either of her enemies, had long been waiting for an opportunity to enrich herself at their expense. Close to the northern frontiers of Chili lie the mineral districts of Atacama, belonging to Bolivia, and of Tarapaca, belonging to Peru; and, tempted by the copper mines and the nitrates of cubic soda in each of these districts, thousands of Chilian miners had emigrated into the territories of Bolivia and Peru. Chili, in fact, was in the same position as the ancient and starving realm of Scotland, painted by the inimitable hand of Sir WALTER SCOTT, who makes LE BALAFRÉ, one of his imaginary Scottish archers, remark, when serving in the pay of LOUIS XI. of France, that as a lad he was forced by poverty to leave his father's barren lands in the hungry North "in order to pick up a living among the pock-puddings of the South." It is idle to talk of Chili having embarked upon the present war from any romantic sentiments that she entertained for the English holders of Peruvian bonds, the truth being that she went into it, in the first place, to take from Bolivia the flourishing ports of Autofagasta and Mejillones, through which the mineral wealth of the Bolivian province of Atacama finds its way to the sea; and, in the second place, to take from Peru the still richer district of Tarapaca. Whether the British holders of Peruvian bonds will be better, or the contrary, for having exchanged King LOG for King STORK—or, in other words, whether it will benefit them to have Peru and all her wealth transferred to the hands of the Chilians—yet remains to be seen. There has, indeed, been some praise heard in European newspapers, extolling Chili as a frugal, moderate, debt-paying, and steady State, inhabited by the most homogeneous Iberian population to be found in any South American kingdom or republic—a State, in short, which

took the field under intolerable provocation received from Peru and Bolivia, and came into it with cleaner hands than either. The truth, however, is that the frugality of Chili was largely due to her poverty, and the bravery of her sons to the stern conditions imposed upon them by the narrow and rugged strip of land—a kingdom consisting of length without breadth—in which they "forced a churlish soil for scanty bread." The Chilians were virtuous and honest because they were poor and simple; and their easy triumph in three wars over the indolent and luxurious Peruvians and Bolivians was explicable by the same reasons which made the Romans, when they had degenerated, unable to resist the Huns, Goths, and Visigoths, who swooped down from the North upon the former Mistress of the World.

For two months, and more, Lima has now been occupied by the Chilinos, and, although they have not sacked the Peruvian capital, enough has been done by them to establish the fact that success tends to spoil national virtues. The Chilian Commander-in-Chief, General BAQUIDANO—a man of great energy—has received orders from his Government to assume administration over the conquered coast region, and to collect the heavy war indemnity of thirty millions of dollars imposed upon the vanquished Republic if he is unable to find a competent Peruvian authority with whom to negotiate. In the meanwhile, NICHOLAS DE PIEROLA, the late Dictator of Peru, is at Arequipa, one hundred and twenty miles away in the interior, with a motley and ill-equipped army, variously estimated at from ten to eighteen thousand men, with which he vainly hopes to continue the war. The practical Chilinos, on the other hand, are making the most of their opportunity, and—upon the "Uti possidetis" principle—are said to be sending off from Lima to Valparaiso the libraries, archives, works of art, and spoils from the shrines, for which the opulent capital of Peru has long been celebrated. With much sagacity they have given over the guano deposits, now nearly exhausted, to the English holders of Peruvian bonds, subject to the payment of a royalty, but have expressly stipulated that this concession shall only last so long as the war continues. As regards the nitrates of soda, variously estimated at from thirty to two hundred million tons, nothing is said by the shrewd occupiers of Lima; and, if Peru should long be subject to Chilian control, it is to be feared that little benefit will be derived from the Chilian administration of the valuable nitrates which now belong nominally to Peru. In point of fact, Chili and Peru stand in the same position at present with regard to the ill-fated bondholders of the latter Republic—Chili during the continuance of the war taking the royalty upon guano which would have been payable to Peru, and handing the balance of the guano—a mere bagatelle—over to the bondholders. Behind lies the far more important question of the nitrates of soda, of which the quantity and the value are practically almost illimitable. The situation is serious for those concerned—with Chili in uncontrolled possession of the whole resources of Peru, and with Peru, under PIEROLA, resolved not to part under any circumstances with an acre of her territory. Meanwhile all parties suffer, and if diplomatic intervention be anything more than an empty phrase, it behoves powerful nations like Great Britain, the United States, and France to interpose between the irreconcilable belligerents, and put an end, if possible, to a wasteful and costly anarchy, involving both European and American interests.

ABOUT three months ago the victorious forces of Chili took possession of Lima, the capital of Peru; and although, since the 17th of January, events of the greatest importance have occurred upon the western coast of South America, little interest appears to have been taken in them by Europeans. Nevertheless, Europe has excellent grounds for watching with suspicious vigilance the spoliation of Peru which is now going on, seeing that the Republic whose pride the Chilians have just humbled to the dust is not without its foreign creditors, for the most part English, to whom it owes a trifling debt of from forty to sixty millions sterling. Meanwhile the whole resources of a country of unparalleled richness, covering five hundred thousand English square miles, lie absolutely at the proud foot of an embittered foe—a foe, too, with which Peru has twice before been engaged in mortal combat, by which it has twice been vanquished, and which, having twice shown reasonable forbearance to its defeated enemy, is now at last resolved to make the way of the transgressor hard. We use the word "transgressor" advisedly, for in this light Peru has long appeared to her southern neighbour, Chili. For thirty years or more the two Republics have been competing for the lead upon the South Pacific coast, and it had long been apparent that when the next struggle came "Væ Victis!" would be the cry of the conqueror. For this struggle Chili had prepared herself with characteristic energy and prudence, while Peru, her bigger and far richer sister, followed her usual policy of "letting things slide." Loans, it is true, were again and again contracted at Lima,

with any European capitalists who might care to pay down a little ready money to the Peruvian Government of the time being, and to supply small arms for the army, and ironclads for the navy: but when the war actually broke out in 1879 there were only fifteen hundred muskets in the arsenal at Lima, and the Peruvian navy amounted practically to little more than a single ironclad ram, the Huascar, built on the Clyde. The war, which at first promised well for the Peruvians, soon began to incline in favour of the steadier, soberer, and better equipped Republic. The capture of the Huascar in October, 1879, gave the command of the sea to the Chilians, whose land forces, ten thousand strong, were consequently emboldened to disembark at Pisagua—the most difficult operation of war—and completely to rout a superior number of Peruvian and Bolivian troops. The confidence thus inspired in the Chilians, both by land and sea, knew no pause or abatement from the close of 1879 until on the 17th of last January the Chilian ensign was triumphantly hoisted above the towers of Lima. Europe, so far as she took any note at all of "a squabble between two South American Republics," accepted the fall of Lima as the natural end of a war in which her anguid sympathies were rather with industrious, solvent, and virtuous Chili than with her bankrupt, profligate, and indolent rival.

We now know that the war is as far from being ended by the capture of Lima as was the resistance of the Confederates during the great Civil War in North America from being quenched by the Battle of Gettysburg. It becomes, then, a matter of the first importance that Europe should inquire how the Chilians have comported themselves during the first stage of the fratricidal conflict, and how far the "virtues" for which they have received just credit from European writers of many nations have manifested themselves between April 1879, when active hostilities commenced, and the 17th of last January, when Lima fell. It should be premised that when war broke out England had been well prepared to sympathise with Chili. Thus Mr. HORACE RUMBOLD, the British Minister at Santiago, concluded one of his reports to the Foreign Office by remarking that he should have written in vain if he failed to convey a picture of Chili as being a sober, practical, debt-paying, and laborious nation, well organised and wisely governed, and contrasting favourably with other South American Republics. For these benefits Chili, he adds, is indebted to wholesome traditions: to the preponderating part in public affairs taken by her upper classes; to the extinction of militarism; to the fortunate absence of those accidental sources of wealth lavished by Providence upon her neighbours; and to the consequent necessity for labour and honesty. Peru, on the other hand, is still very much what PIZARRO found her—a nation prodigally endowed by Nature with multifarious resources, with a bountiful climate, with unsurpassed scenery, and with all that can breed enervating luxury among her inhabitants—a garden of Paradise, in short, "where all save the spirit of man is divine." It might have been supposed that fighting against such foes, the virtuous, brave, and hardy Chilenos would have treated them when vanquished with generosity. How different is the tale told by eye-witnesses of the conflict! Take, for instance, the "tender mercy" shown by Don PATRICIO LYNCH, the Chilian commander, to the great "Hacienda del Puente," the property of Señor Don DERTEANO, a banker of Lima, and perhaps the richest of Peruvians. The "Hacienda" in question is the largest sugar plantation in the world, with the exception of one belonging to the Khedive of EGYPT. Don PATRICIO LYNCH landed in September, 1880, at Chimbote, to the north of Lima, and, after having burnt the Chimbote Custom-house, sent a demand to the son of Don DERTEANO for one hundred thousand dollars in gold, equal to one million dollars in Peruvian paper. The young man was willing to pay, and telegraphed to his father in Lima, but before an answer could be received General LYNCH applied torch and dynamite, and in a few minutes buildings, crops, and machinery estimated as being worth one million pounds sterling were reduced to a mass of smoking ruins. Naturally it was the object of the Chilians, who had not yet taken Lima, to render worthless the most valuable plantation in South America, so that it could no longer pay taxes to the Peruvian Government.

Previously, however, to these high-handed operations of General LYNCH near Chimbote, the Chilian Commander-in-Chief, General BAQUEDANO—by whom Lima was lately taken—showed last June in the South what the Peruvians had to expect from their conquerors. Suffice it to say, that when Tacna and Arica were carried, after military operations which did great credit to General BAQUEDANO and his soldiers, the sack of both cities was remorselessly complete. "There is not a single house in Arica," wrote an American correspondent, "left standing intact; the excuse given by the Chilian officers being that they could not control their men." Passing over many similar scenes, we come now to Lima, in regard to which we asked in these columns, when tidings of its capture arrived, whether it would share the

fate of Arica, Tacna, and of the magnificent sugar plantation near Chimbote. Three months have almost passed since Lima fell, and reports as to the Chilian proceedings during two of these months have now reached us. Sacked, indeed, the rich Peruvian capital has not been, its houses being needed by its conquerors for their own accommodation; but that to the fullest extent it has been pillaged who can deny? Every moveable piece of property in Lima—pictures, libraries, works of art, the machinery of the Mint, pianos, cabinets, tables, chairs, and even the animals belonging to the Zoological Gardens—have been shipped off from Callao to Valparaiso. One thing more was needed—that General BAQUEDANO should find something like a Government in Lima with which to negotiate and make terms. For two months he waited in vain. PIEROLA, the late Dictator of Peru, had fled to the mountains, whence within the last few days he has issued a proclamation that peace will never be signed with Chili by Peru if one acre of Peruvian territory be taken. A Government had to be created, and General BAQUEDANO conceived the idea of demanding the instant payment of one million dollars in silver from fifty prominent Peruvians—the first instalment of the war indemnity of thirty million hard dollars imposed upon Peru. In order to obtain time to pay what they had not got, these fifty victims have, under duresse, named a so-called Provisional Government—of which due notice has just been given to Europe by the Chilian Minister in Paris—consisting of five members, the life of not one of whom, unwillingly though they are said to be acting, is safe outside the protection of the Chilian garrison of Lima. Our latest advices state, indeed, that poor pillaged Lima has actually paid two hundred thousand dollars in silver—considerably less than one per cent. of the gross sum demanded from her. Meanwhile, the war seems likely soon to spread, seeing that the Argentine Republic, Chili's jealous rival, threatens to intervene on Peru's behalf. Eighty thousand Remington rifles have lately been supplied to the Argentines, and one of the most powerful steel corvettes in the world—the Almirante Brown—has sailed from Mr. SAMUDA's yard to Montevideo, to be shortly followed by a still bigger sister, the San Martin. The fall of Lima thus appears but the close of the first act in this desolating war. Unless the Great Powers, and especially England, the United States, and France, shall intervene, and that promptly, we must shortly expect an extension of the existing conflict throughout the greater part of South America.

A ROYAL BULL FIGHT.

[FROM OUR SPECIAL CORRESPONDENT.]

MADRID, MAY 26.

Although, technically speaking, the Calderon fêtes were not inaugurated by the great bull fight which took place last Sunday in this singular capital, there can be but little doubt that to the major portion of the Madrileños it appeared that the festival in honour of Spain's great poet was being fitly heralded by the spectacle which they were promised should be shown them as soon after morning church service as convenient in the Plaza de Toros. It was a brilliant day, and the sun glared upon the white buildings of the city as though it would melt the eyeballs of its inhabitants; yet carpenters were hard at work all over the capital putting up wooden and plaster statues to Calderon in every corner, long lines of flags, triumphal arches, festoons of colours, and pillars for illuminations. They were not the only people, however, who were busy. If ever the Jehus of Madrid had a day of agreeable employment, it was on Sunday last. Where the vehicles came from, or where the numberless mules and horses that drew them were found, which at three o'clock in the afternoon suddenly appeared in the Prado, its precincts, and the Puerta del Sol, is to me still a mystery. There they were, however, the motliest gathering to be found in any city in the world, only waiting till Madrid, having finished its devotions, its siesta, and its coffee, should be ready to mount and drive away. Suddenly, as if by magic, the whole sprang into motion. From the churches (costly, I suppose, from the cafés and from their couches, issued ladies by thousands, all wearing the beautiful mantilla, and in no case without the national fan; thousands, too, of men of almost every hue, from the pale northerner to the dusky Manilla negro, dressed in every conceivable costume, were to be seen, all rushing into the vehicles as though a moment's delay might be absolutely fatal, and then driving away at a pace that defies description. Never was such a helter-skelter as that which now set in, not even on the road to Epsom on a Derby Day when the crowd is liveliest and the pace the hottest. For, after all, you in England are restricted to certain classes of vehicles—the coach and the costermonger's cart, the 'bus, the open wagonette, the dogcart, the carriage, the phaëton, and the "trap," with a few more specimens of the coachbuilder's or the carpenter's art—but you have no such variety as Madrid can turn out. No names could, however, be affixed to half the wheeled

machines that, pulled in many cases by ten, or even twelve, wild mules, flew over the road, jostling against each other, swaying from side to side, threatening to crush everything before them, and then to break up into pieces themselves. Pandemonium mounted in "shandrydans" of every description, driven by insane whips—such was the rabble which set out all at once for the scene of the Royal Bull Fight.

The Plaza de Toros at Madrid is one of the most remarkable buildings in the world. In general appearance it must very greatly resemble the old amphitheatre. It is built in the style in which those of ancient Italy and Greece were constructed, and it will hold some fifteen thousand persons when all are seated. From the outside it simply presents a huge circular red stone wall, rising high in the air, and somewhat sparsely accommodated with windows; but when once the huge portal is passed and the inside gained, the magnificence of the structure bursts upon the stranger. In the centre is a large ring covered with white sand, and encircled by a solid wooden fence about eight feet in height, loftier, yet like those used for our English circuses, fitted all along its inside with a step which is contrived so that a man chased by a bull may get his foot upon a sufficiently advantageous elevation to allow of his swiftly vaulting over the barrier out of reach of the infuriated beast. There have been instances in which the animal has cleared it also, but these, it seems, are rare. Still, to guard against the possibility of the bull getting in amongst the spectators another and still higher fence encompasses the first one at the distance of about a yard and a half from it, so that no danger can possibly accrue to the ladies and gentlemen who have come to enjoy the national pastime. The spectators are seated on tiers of granite benches rising one above another all round the ring to a great height, above them being a row of wooden seats, cushioned, for grandees and distinguished legislators, the Royal Box for the King and Queen, and still higher up a number of private boxes, the *loges* being so high indeed that their occupants can only be recognised by the aid of a strong opera glass. The immense band of music whose duty it is to keep up a succession of martial airs is placed in that part of the great open building (for the "Corso" is too immense to allow of a roof) where the sun's rays beat hottest. The people till the moment of the ceremony commencing, wander about at will in the ring, scanning the names of the men who are about to imperil their lives in the various encounters arranged for the day, and betting upon them just as did the citizens of Rome and Pompeii upon the gladiatorial shows. Indeed, once change the costumes of the spectators from the surtout to the toga, and there would be nothing left in all that followed to make you think you were not still living in the first or second century.

As I look down upon the careless hundreds who have come specially to witness the spectacle of blood and to enjoy it, sauntering about the central ring and arranging their wagers as to the chances of escape which this "banderillero" or that "espada" or "picador" may have of losing his life, a loud blare of trumpets announces that the time for the spectacle has arrived, and that the people must take their places. There is a hurried movement to the granite seats, not one of which long remains empty, a hoarse murmur of readiness, and then the entertainment begins. I should here mention that communicating with the ring and opening upon passages which, passing beneath the granite benches, lead to the cells where the bulls are confined or to the place where the actors wait, are four large iron doors, one of which fronts the Royal box, and that ere the fight begins it is customary for all who are to take part in the battles, except of course the bulls, to enter the ring at one of these doors, and to parade in front of the King. That august personage having arrived, accompanied by his Queen, and attended by his Court, it now remains only therefore for this promenade to take place. Wide open then fly the great doors, and through them comes a procession such as one never sees except in pictures or here. First ride two masters of ceremonies, clad in black velvet dresses of patterns hundreds of years old, large ruffles, and vast "sombreros" or rolling hats, ornamented with ostrich feathers. Then the "espadas" or swordsmen, clad in costumes like those of our conventional pantomimic harlequins, only that they wear little gold capes on their shoulders and the Spanish round hat on their heads. These come on, sword in hand, at a stately pace, in a line, but some yards apart, followed by the "banderilleros," or men who use a pointed piece of wood, or dart, armed with steel and ornamented with coloured paper, the said "banderilleros" being clad like the "espadas," though with perhaps a little less gold on their shoulders. Next there march the "capeadores," a dozen men or so, all tightly dressed in the harlequin costume, but holding in their hands voluminous cloaks of red and black or green and gold, following whom, mounted on most sorry steeds, are a number of "picadores" or lancers, armed with long wooden weapons, slightly tipped with tiny pieces of steel, sufficient to send a bull mad and to jag his shoulder and neck, but not large enough to check him if he be determined to rip up the horse on which the "picador" is mounted. Lastly arrive two lots of three horses, harnessed together, and pulling chains and hooks behind them, the scavengers of the ring, to be sent presently to drag away the dead bodies of bulls or horses. Forward tramps this brilliant show as the music rings out; the people cheer, the King bows, the ladies of Madrid shriek with joy and wave their handkerchiefs, and, amid a

scene of tempestuous excitement, all but the scavengers, arrange themselves in the ring and await the coming of the bull.

To understand what followed it should be explained that a bull fight in Madrid consists of three acts. The first is that in which the "picadores" and their steeds, together with the "capeadores" who bear the flowing cloaks, combine to enrage and bewilder the bull. When this is over—and it may cease at any moment by command of the people—the act of the "banderilleros" begins, one which, as you will presently see, involves the utmost peril to human life. The third act is that in which the "espada" enters and kills the bull with the sword. It so chanced that the first animal which was down on the list, a huge, powerful brute with horns eighteen inches long, was not quite the fiercest that might have been found. He hesitated to leave his cell and come out into the midst of the howling, screaming circle, and would probably have kept where he was had not something in the shape of fire been resorted to. When he did make his appearance, however, he was evidently very furious, and at once rushed at a "capeador," with the intention of goring the man. A moment sooner and he would have undoubtedly accomplished this, for the onslaught was so sudden that the fellow had hardly time to wave his cloak in the face of the bull and vault the fence before the bull's horn had caught one of his legs, and rent it. Still he escaped, and the animal at once made for another foe. He, too, narrowly got off, saved, however, not so much by his own nimbleness as by the sharpness of another "capeador," who, just when the bull had nearly caught his comrade, and had, indeed, knocked him down, so artfully trailed a cloak in front of the creature's nose that it forthwith gored the garment, and trampled upon it for half a minute, giving both men time to escape, and half a dozen more "capeadores" time to come up, and worry him with their cloaks into the bargain. Filled with rage, he now dashed at a horse, trying with all his might to rend its stomach, but the "picador" was skilful, and so lacerated the bull's shoulders with his lance that the creature desisted, and, covered with blood, made a fresh attempt upon the men. All to no purpose, however; cloak after cloak trailed in front of him successfully misled him till at length he made for another horse, succeeding in goring both it and its rider to such an extent that the pair rolled over on to the ground together, and were only rescued by the never failing cloaks. There was now a loud uproar, for the bull was, in the opinion of the Spanish public, not thoroughly up to its work and needed more tantalising—a great cry for the "banderilleros" went up. Instantly the "picadores" departed, and the three men carrying each two little darts of wood, made their appearance in front of the bull. He, irritated by their fiery costumes, was not slow in rushing at one of them with his head down, and to all appearance would have had his enemy in the air in another instant, when the "banderillero," giving a spring and pushing his arms between the bull's horns, contrived to plant the two sharp points of his darts in the neck, afterwards, by a marvellously adroit movement, taking advantage of the sudden pause which this shock caused the animal to make, to dash on one side and to avoid the point of his horn. To say that the bull was furious now that the two pieces of wood hung from his bleeding neck, and rocking to and fro in the air gave him horrible pain, scarcely conveys an adequate idea of the creature's state. He dashed on one side and on the other, rushing after "banderilleros" and "capeadores" with such force as nearly to overthrow himself against the fence by which they escaped, but always being baulked either by means of the cloaks, the darts or the fence, till six darts had been safely planted in his neck, and the act thus finished. It was time for the "espada" to appear; and he came in with great ceremony. Armed with a long sword and a red cloak, he advanced to the front of the Royal box, where, facing the King, hat in hand, he made an oration to the effect that either he or the bull must now die, and then, bowing, advanced to the bull. The animal was not unready for him, for he made at once a tremendous dash, covered, as he was, with blood, and maddened by the six darts that still hung in his flesh; but the attack was useless, for the "espada" was a skilful man. It is etiquette to allow the bull to charge in this manner seven times, and this the bull did; but all to no purpose. The swordsman was always on the alert, only once having to fly for his life, and then being shielded from the horns of his adversary by the cloaks of the "capadores," till it came to his turn to assume the offensive. Now all eyes were fixed upon him. Would he strike or wait? There was a stillness in the air, the cloak was in front of the bull, the sword was hidden beneath it. Down went the animal's head; there was a short rush, and then the weapon was seen to enter the back of the bull just to the left of the spine, close behind the ears, and pierce the huge carcase up to the very hilt. A long breath seemed to be drawn by the spectators, as all expected the bull to fall. But no; the animal made another rush, this time right across the ring with the sword through its body. A fresh weapon was handed to the "espada;" there was another exhibition of the cloak, another pause, and then the new blade flashed in the air, there was a thrust—and the bull fell dead. Now entered the scavengers with their teams, to draw the dead bull away, while the "espada" retired amid the enthusiastic cheers of the crowd.

The dreadful scene of the day was, however, yet to come, for a young Murcian bull of a dull

dun colour had not entered though he was already being tormented by his keepers in the cage. Scarcely had his comrade been dragged forth than out he came into the centre of the ring with a bound, lashing his sides with his tail and looking viciously round. The "picadores" had by this time entered, and on their blindfolded horses had taken up their positions at the sides of the ring near the fence; the "capeadores" were all in their places, and the excitement was intense, for your Madrid connoisseur of bull-fights knows when an animal is going to give trouble the moment he sees him, and the occupants of the amphitheatre were all sure that the Murcian bull was a wild one. In an instant the creature was across the ring, and had rushed at one of the horses. In vain its rider caught the infuriated assailant with the point of his lance; in vain he pushed as hard as he could to stave off its terrible horns; the bull would not be denied, but in spite of lance and rider, and horse's feet, pushed his horns into the stomach of the wretched creature, and turning them round actually ripped up the entire belly, tearing out the whole of the entrails and tossing the rider into the air. Down went the horse, and up rushed the "capeadores," succeeding in diverting the bull's attention; but for a moment only, for the bull had cleared half the ring once more and had rushed at another horse that he saw in front of him. For a time it seemed as though this too must share the fate of the other, for the horns were under it and the bull could not be kept off, but by some miracle the animal passed beneath without doing more than upsetting the "picador," and was upon another horse before a single "capeador" could come up. With more success this time the huge horns were able once again to disembowel the horse and dethrone the rider, and the bull was left free to attack a fresh horse, and to serve it in similar manner. To a stranger not a Spaniard the sight was now horribly revolting, for three horses lay struggling upon the ground with the whole of their insides torn out, and the bull, from the efforts of the "picadores," was bleeding rapidly from its shoulders. Worse was, however, yet to follow. With a roar like that of a lion, the bull now dashed over the ring once more. He had seen the first horse he had attacked trying to struggle, all *éventré* as he was, from the ground, and he resolved to attack him again. Up he rushed, and, standing over the wretched creature, whose eyes had been closed by bandages, he began once more to gore him, this time rending open his neck and part of his shoulders, and so pushing him against the fence in one mangled lump. Happily the horse was by this time nearly dead, but the sight of its torn body was one which I could scarcely support. The bull was evidently mad. So said the Madrilleños, who for that reason now thought it was time the "banderilleros" should enter, and run a risk of their lives. So, in obedience to the command of aristocratic Madrid, the poor fellows with the darts entered, and began their desperate work. Over and over again they tried, at the imminent peril of their bodies, to plunge in the barbed arrows, and over and over again the plunging bull made them fly for safety. But their superior intelligence gradually triumphed, and two by two the darts were affixed, till, tearing with rage, the bull stood in the centre of the ring waiting the "espada." What this gentleman's name was is not so much to the point as that he was very nearly an amateur, having been a lawyer in his earlier days. He was not the one who had entered at first, and grave doubts existed whether he could kill the bull. However, in he came, made the usual speech, and approached the infuriated beast. The charges were duly made, and now was the time for the thrust, when it became apparent that without the aid of the "capeadores" the "espada" had no more chance of giving a satisfactory thrust than he had of eating his enemy. Over and over again he tried with always the same result. He would get his sword a little way into the neck of the bull, and then leaving it there would dance away with the animal after him, only to be saved by the cloaks of the "chulos" or "capeadores;" then he would have a fresh sword brought him and try again. From loss of blood, the beast almost fainted, and there was a pause. Then came another rush, for the indomitable spirit of the bull was not yet conquered. Another stab followed, but with only this success, that it seemed to daze the bull for a moment and make him fall on the ground; still that it had not killde him was demonstrated by the fact that the animal got up and made another bound. The Madrid "señores" were by this time delighted. There was blood flowing enough even for them, for several men had been slightly hurt, three horses killed, one seriously injured, and the bull was bleeding from a dozen wounds. Down fell the Murcian, but not to die—he rested. There was a cry for the slaughterman to come up and strike the beast, and that official now stepped forward. No sooner had he done so, however, than once more the poor brute rose and essayed to walk away, bearing the sword with him. No cloak or man could now tempt him to attack. Slowly he moved round the ring, followed and surrounded by a crowd of butchers, disdaining them all, for three or four minutes, when from loss of blood, and without another fight for life, he sank to the ground for the last time, and then died in agony.

I felt I could stay no longer to look upon the rest of the "entertainment"—the dismal slaughter had unnerved me. To the people of Madrid, however, it was by no means destitute of amusement, for they now composed themselves to witness the afternoon's proceedings with becoming satisfaction, and refreshing themselves

with oranges, "aguardiente," and cigarettes, shouted hoarsely for the next bull and the "picadores." "They love it," said a native of Madrid to me as we went out together, "and sooner than give up their bull-fights they would have a revolution." I should say, from what I saw last Sunday, that he was right.

PHYSICIANS AND HOMŒOPATHY.

(FROM A CORRESPONDENT.)

There can be few things more certain than that every inhabitant of a civilized country, however healthy and vigorous he may be, will from time to time require the assistance of medical practitioners, either for himself or for those most dear to him; and hence everything which concerns the duties of medical practitioners to their patients, or to each other in relation to their calling, becomes a matter of universal public import. A striking illustration of the difficulties which may sometimes stand in the way of the exercise of the art of healing is furnished by the statement with regard to Lord Beaconsfield's physicians which you published yesterday as a bare narrative of facts which have already occasioned considerable discussion. It is well known that Dr. Kidd, who has been Lord Beaconsfield's customary medical attendant for some years, is more or less identified in the public mind with what is called homœopathy, and that he holds, or did hold, office as physician to what is called the Homœopathic Hospital. It is equally well known that the practitioners of ordinary medicine or surgery refuse to meet the reputed practitioners of homœopathy in consultation; and, by the public, this refusal is commonly understood to mean that the doctrines of the two schools are so entirely antagonistic that no useful community of action can be established between their respective followers. Notwithstanding all this, Dr. Quain, an eminent representative of regular medicine, has met Dr. Kidd in attendance upon Lord Beaconsfield, and the two physicians have regularly consulted together touching the management of the case. Many medical men have been greatly scandaliezd by this procedure, and there can be no question but that the public are likely to be in some degree perplexed by it. It seems to imply the abandonment, either by Dr. Quain or by Dr. Kidd, of positions which each has previously maintained, and the patients of both will naturally desire to know what is the nature of the compromise which has been effected. Has a professor of homœopathy discarded his system? Or has a professor of regular medicine discovered that, between that system and his own, there is less antagonism than had been supposed? The question is of considerable importance, for there are many patients who, either from habit or from personal regard, like to be attended by a homœopathic practitioner in slight or ordinary ailments, but who do not like to be debarred from associating with him in graver conditions of disease regular physicians of the highest reputation. An answer to the doubts of the public and relief to the disquietudes of the profession may both be obtained from the simple narrative to which I have already referred.

It is useless to attempt to disguise that the objection of regular practitioners to consult with homœopaths is based upon something very different from the alleged difference of opinion upon matters of scientific principle. The real reason of this objection has never been concealed, and is not far to seek. The system called homœopathy sprang into existence at a time when the practice of medicine had been shaken to its foundation by physiological investigations of various kinds, when old methods were being distrusted and new ones tried, and when nearly everything relating to the use of drugs were being re-examined from a more scientific basis than had formerly existed. Its originator, one Hahnemann, had no pretensions to scientific knowledge, and was probably even too ignorant to perceive the full absurdity of his own teaching. He asserted that the symptoms of every disease might be imitated by the administration of some drug, and that every disease might be cured by the administration of the drug which, if given to a healthy person, would produce these imitative symptoms. This, which was called "the doctrine of similars," was apparently founded upon nothing more or less than a mistranslation of one of the maxims of Hippocrates. Hahnemann also asserted, this time with entire originality, that the potency of any drug increased in proportion to the smallness of the quantity which was administered; and his favourite dose was what professed to be the decillionth of a grain. On this showing, the trace of alcohol which modern chemistry is said to have discovered in river water should be more intoxicating than undiluted gin or brandy. Neither Hahnemann nor his followers had any idea what the decillionth of a grain would be, and the absurdity of attributing any action to such a dose is, perhaps, best illustrated by a calculation of what it would amount to. The orbit of the planet Uranus is about 3,500,000,000 of miles in diameter; and, if the square of this length were made to form one side of a cubic measure, more than eleven times the contents of such a measure would be required for the dilution of a single drop of laudanum to such a degree that every drop of the mixture should contain a decillionth of a drop of the medicament. To the great majority of the medical profession all this seemed not worth pursuing; but homœopathic doctrines were first preached at a time favourable to the reception of novelties, and were more or less taken up by the public, whose faith in them was speedily confirmed by reputed cures, which, in so far as they were real, were in those early days the effects of time, or of faith, or of anything excepting treatment. The homœopathic medicines were at first prepared in the form of globules, composed mainly of sugar of milk, and their freedom from taste was greatly

in their favour. The drawback to their use was that the doses which they professed to contain were too minute to be discoverable, even if present, by the most refined chemical processes, and hence it was soon believed that manufacturers did not take the trouble to introduce medicines the absence of which could not be detected, and that the only difference between one globule and another was that the two, having been originally made as comfits at the same time and in the same copper, were afterwards sorted into different bottles and labelled by different names. As time went on, the faith of the public increased, homœopathy became a fashionable mode of treatment, and its practise a lucrative profession. In the meanwhile, however, regular medicine had advanced with enormous strides, and had made great progress in the treatment of diseases previously known to be curable, as well as in bringing under subjection others which had been reputed to be incurable. Of this knowledge, which was in entire opposition to the principles which they professed, homœopathists became possessed as students; because, in order to practise medicine or surgery at all, they were compelled to pass through the ordinary medical curriculum, and to obtain one of the ordinary qualifications. They first became physicians or surgeons, and only afterwards declared themselves to be homœopathists. In this state of things it soon became apparent to regular practitioners that the patients of homœopathists shared in the benefits which the progress of regular medicine had conferred upon the rest of the community, and it was easy to draw the inference that the practise of what was called homœopathy was something very different from the pursuit of imaginary "similars" or the administration of infinitesimal doses. A distinguished provincial physician took the trouble to collect and publish prescriptions written by professing homœopaths in the treatment of acute disease, and the accidental occurrence of a case of poisoning by what was said to be homœopathic medicine confirmed the conclusions at which he had arrived. It became apparent that most of those who called themselves homœopaths were persons who treated actual disease, often, no doubt, very skilfully, by precisely the same methods as ordinary practitioners, and who either did not practise homœopathy at all or who did so only in those cases in which all that was required was to amuse the patient while nature was curing him. They called their medicines by different names from those in common use, and they employed the resources of modern chemistry in order to facilitate the administration of the most powerful remedies in small bulk; but beyond this their methods were undistinguishable from those of physicians and surgeons of the orthodox school.

In these circumstances, the regular practitioners determined, almost with one consent, to hold no professional communication with the so-called homœopathists, and not to acknowledge them as members of the same calling. The ground of this decision was not, as commonly supposed by the public, the recognition of a difference of opinion with regard to the principles which should govern the treatment of disease; but it was simply the repudiation of what was regarded as a system of fraud. The regular practitioners maintain that there are no homœopaths, and that the whole system of doctrine and practice died out many years ago. They maintain that those who now call themselves homœopaths do not differ from ordinary practitioners in anything but in making a profession of pursuing a particular method of treatment, which, as a fact, they do not pursue; and the question is not one of science at all, but simply one of morals. Such being the view of the bulk of the medical profession, when Dr. Quain was applied to to meet Dr. Kidd he would probably have declined if the case had been a less urgent one, and would have made Dr. Kidd's retirement the condition of his attendance. What he actually did was to communicate with Dr. Kidd, to receive from him a confirmation of Lord Barrington's statement that Lord Beaconsfield was not being treated homœopathically, and also to receive an undertaking that his (Dr. Quain's) prescriptions and directions should be carried out to the letter. Armed with these two statements in writing, and after having consulted the actual and a past President of the Royal College of Physicians, he, with their full approval, undertook to meet Dr. Kidd, and has since admitted the great value of the assistance which he has derived from that gentleman's professional acumen and knowledge of the patient. Dr. Quain would have incurred deserved censure from the public, and also, I imagine, when the facts were fully known, from even the stiffest of his professional brethren, if he had declined to see Lord Beaconsfield, or if he had made a stipulation which, in Lord Beaconsfield's then condition, would have suddenly deprived him of the adviser in whom he had been accustomed to trust. Dr. Kidd, in admitting that he had not treated Lord Beaconsfield homœopathically, was either denying that he was a homœopath or was absolutely confirming all that is said about the practice of professing homœopaths by regular physicians, but it is a matter for himself alone to reconcile the apparent discrepancy between his former professions and his admitted practice. I do not myself see how it is possible to combine a belief in homœopathy with a belief in those principles which the homœopaths describe as "Allopathy"—a name which, it ought to be remembered, has never been either accepted or employed by those to whom it was applied by the original disciples of Hahnemann. However this may be, the first duty of a physician is to save life, and his first consideration is, or ought to be, the patient. Assuming Dr. Quain to hold the opinions about homœopaths which are commonly entertained by his brethren, I think there can be no doubt that he would be right, on moral grounds, in declining to meet them in ordinary cases. But the urgent peril of an illustrious life was not an ordinary case, and was surely sufficient to modify the ordinary standard of duty. Dr. Quain has deserved well both of his own calling and of the public by his prompt recognition

of this fact in circumstances which at first sight appeared to be in no small degree embarrassing.

HOMŒOPATHY.

TO THE EDITOR OF THE TIMES.

Sir,—Under the heading "Physicians and Homœopathy" there appears in *The Times* of this morning a lengthy communication from an anonymous correspondent purporting to set forth what homœopathy is. This letter displays such gross ignorance regarding it, alike from an historical, a scientific, and a moral point of view, and at the same time forms the medium for circulating so infamous a slander upon a number of medical men of as good education, as high honour, and as good social repute as any similar number of men in the profession, that we trust you will allow us an opportunity of refuting these errors and repudiating the slander in *The Times*.

Your correspondent states that "homœopathy sprang into existence at a time when the practice of medicine had been shaken to its foundations by physiological investigations of various kinds, when old methods were being distrusted, and new ones tried, and when nearly everything relating to the use of drugs was being re-examined from a more scientific basis than had formerly existed. Its originator, one Hahnemann, had no pretensions to scientific knowledge, and was probably too ignorant to perceive the full absurdity of his own teaching." We will first say a word or two about Hahnemann. Born in 1755, of poor parents, his education had nevertheless been so carefully tended and his aptitude for learning had so displayed itself that at the age of 20, when he entered the University of Leipsic, he was thoroughly acquainted with eight languages—German, French, Italian, English, Greek, Latin, Arabic, and Hebrew. It was by teaching these languages that he was enabled to maintain himself at the University; it was in consequence of his unusual scholarship that the University allowed him the privilege of free instruction—a privilege which on the same ground was accorded to Skoda, Oppolzer, and Hyrtl in later years. After studying in Vienna for a year, he graduated at Erlangen. In 1786 he published a work on arsenical poisoning, a contribution to medical science which has ever been regarded as one of an unusually high order, one from which Sir Robert Christison, in his "Treatise on Poisons" (1832), repeatedly quotes. Similar illustrations of Hahnemann's profound learning might easily be cited, but we must not trespass further on your space in doing so than to add the estimate formed of him by the late Sir John Forbes, who, in his well-known article entitled "Allopathy, Homœopathy, and Young Physic," published in the *British and Foreign Medical Review* (No. XLI.), described him as "undoubtedly a man of genius and a scholar; a man of indefatigable industry, of undaunted energy." To describe one whose career is so well known, has been so largely written upon, and so highly appreciated as a man having no pretensions to science, is an exhibition of ignorance for which we were scarcely prepared.

The period when homœopathy "sprang into existence" is very inaccurately described by your correspondent. In 1796, when Hahnemann published the first essay in which his views were set forth, and in 1810, when the "Organon der Heilkunst" first appeared, medical science was at a very low ebb, while the modes in which drugs, cauteries, and lancets were used were such as no one now would regard as being in any sense scientific. Neither was it until 1840 that much advance in therapeutics can be said to have commenced. The article by Sir John Forbes, to which we have referred, was one of the earliest efforts to remodel drug-therapeutics; and the storm of indignation with which it was received, culminating in the retirement of Sir John from the editorial chair of the *Review*, is sufficient evidence how unwelcome was the "distrust" he showed of "old methods" so lately as 35 years ago.

Your correspondent errs again in attributing the doctrine of similars to a "mistranslation of one of the maxims of Hippocrates." Hahnemann's first hint as to the probability of such a doctrine being one on which drugs could be satisfactorily selected was derived from some experiments made by him with cinchona bark for the purpose of ascertaining the action of that drug on the healthy human being—experiments he was induced to undertake in order to supply a more satisfactory explanation of its power to control ague than that given by Cullen, whose work on Materia Medica he was at that time translating. Hippocrates does refer to "similia similibus curantur" as one principle upon which drugs may be prescribed. That he does so is vouched for by the late learned Dr. Francis Adams in his translations of the works of Hippocrates for the Sydenham Society. "He further," writes Dr. Adams, "makes the important remark that although the general rule of treatment be 'contraria contrariis curantur,' the opposite rule also holds good in some cases—namely, 'similia similibus curantur.'" "It thus appears," adds Dr. Adams, "that the principles of both allopathy and homœopathy are recognized by the author of this treatise." ("The Grimm Works of Hippocrates," vol. I., page 77.) This maxim is quoted by Hahnemann in the preface to the "Organon der Heilkunst," together with numerous illustrations of the unconscious application of the law of similars in the cure of disease scattered through the medical literature of the preceding centuries.

Hahnemann's idea of dosage is also misrepresented. He, taught not that power was in an inverse ratio to quantity but that by the processes of trituration and succussion power or potency was developed to such an extent as to insure a drug influencing health, when homœopathically indicated, in a quantity too small to be appreciable by physical tests. What amount of truth there may be in this is altogether independent of the question of homœopathy. Hahnemann used small but appreciable, tangible doses for some years after he formulated and practised homœopathy. Public confidence, your correspondent states, was confirmed by "reputed cures which, so far as they were real, were in those early days the effects of time or of faith or of anything except treatment." No one will doubt that at a period when medicines were given in a wholesale fashion scarcely credible now, when mercurialization, bleeding, blistering, purging, and other spoliative measures formed so large a part of therapeutics, many patients were materially advantaged by abstinence from such procedures. But this explanation will not account for the cure of diseases in children and in the lower animals, neither will it account for the vast disparity in the results of the homœopathic and allopathic treatment of cholera and yellow fever. It was the enormous difference which was proved to exist between the homœopathic and allopathic treatment of

cholera in Vienna that led the Emperor of Austria to rescind the Imperial edict which prohibited the practice of homœopathy throughout his Empire. Of this a full account is given in a work by the late eminent ophthalmic surgeon, Sir W. R. Wilde, entitled "Austria, its Literary, Scientific, and Medical Institutions," 1843. That there is a reality about these reputed cures which is very distastetful to all opponents of homœopathy is made abundantly clear by the fact that in New York there exists and has not only existed, but for many years has prospered, a life insurance company the special feature of which is that those who undertake to restrict themselves to homœopathic treatment during illness are insured at lower rates (10 per cent. lower) than are those who decline to do so! Between July, 1868, and January 1, 1879, 8,455 policies were issued to homœopathists; during that period 113, or 1 in 75, terminated by death; while of 2,381 non-homœopathic policies assured during these ten years 80, or 1 in 30, terminated by death. There is something eminently practical about such a business as life insurance. It would scarcely harmonize with all we know of the business character of the American to suppose that he derived his averages for tables of premiums from merely "reputed" cures.

The book to which your correspondent refers as having been published by a distinguished provincial physician to show that homœopaths treated disease on the same principle as other doctors, is, we presume, one of which Dr. Roberts, of Manchester, was the author, and which was fully and clearly replied to at the time (nearly 20 years ago) by Dr. Drummond and Dr. Rayner, two of the physicians whose prescriptions Dr. Roberts therein published. These gentlemen showed that the cases in which the majority of the medicines were ordered were such as were homœopathic to them, and that in the others the palliative action of the drug alone was sought, because they were cases in which cure was either impossible or only possible by the removal of some mechanical obstruction, by acting on the principle *tollo causam*—one which is as fully appreciated by homœopathic as it is by any other practitioners. It is further alleged as a grievance that our medicines are called by "different names from those in common use." This is so far true as regards some, inasmuch as the names of medicines in the "Homœopathic Pharmacopœia" are those under which the drugs are known in Germany, whence homœopathy sprang, and where half of those ordinarily used were first experimented with in such a manner as to admit of their being used homœopathically. When, however, he says that we have "employed the resources of modern chemistry in order to facilitate the administration of the most powerful remedies in small bulk," he says what is utterly untrue, that for which not one single fact can be adduced in evidence.

The people your correspondent styles "regular practitioners" may maintain that "there are no homœopathics," and doubtless will do so as long as they can find any one sufficiently ignorant to accept their statement; but they know that their assertion is untrue. He assures the world that medicine has of late years advanced with enormous strides, and that the added knowledge is in entire opposition to the principles of homœopathy. Assuming that your correspondent refers here to advances in the application of drugs to the cure of disease, the position of affairs is precisely the reverse of that he has stated. In this country the two most popular manuals of therapeutics are those by Dr. Sidney Ringer, of University College Hospital, and Dr. C. Phillips, of the Westminster; those of highest repute in the United States are by Dr. Bartholm and Dr. Horatio Wood, of Philadelphia. We are within the mark when we say that one-half of the uses to which drugs are directed to be applied in these books are homœopathic, have been made known through the use of the law of similars, and have first been made public through the writings of homœopathic physicians. Any one who understands what homœopathy is and who is at all familiar with the writings of avowed homœopathists will see at once on looking into these books that our statement is absolutely accurate. Homœopathy is pooh-poohed and sneered at in them in a so-called orthodox manner; but we will venture to say that if one book alone—Dr. Hughes's "Pharmacodynamics"—had never been written, each of the works we have named would have been much less valuable than it is. Further, Dr. Ringer's mode of studying the action of a drug is that pursued in the first instance by Hahnemann. Again, when, as in the instance of advising ipecacuanha as a remedy in vomiting, he recommends the use of a medicine having a homœopathic relation to the condition to be cured, his dose is wonderfully small! In short, the cream of the drug therapeutics of the hour has been filched from homœopathy without acknowledgment. Homœopathy is at this moment denounced theoretically and taught practically. The man who openly avows that to the best of his knowledge he prescribes medicines homœopathically whenever he can is termed what the Yankees call "a fraud;" while the one who declares that homœopathy is "all humbug," goes to homœopathic literature for hints as to how to employ drugs, and teaches the result of his inquiries in an empirical fashion is "an honourable and scientific physician."

Your correspondent states that non-homœopathic physicians refuse to assist or advise with homœopathic physicians in their efforts to save life on the ground that while professing to practise homœopathy they actually practised the opposite. Prior to the advent in type of your correspondent no such excuse for not fulfilling a plain duty when called upon had ever been urged. At the meeting of the British Medical Association in 1851, the reason alleged was that "homœopathy, as propounded by Hahnemann and practised by his followers, is so utterly opposed to science and common sense, as well as so completely at variance with the experience of the medical profession." More lately we were told, in 1875, that the objection to meet us was that we were known as a body by a distinctive name. But when Dr. Wyld turned round on this and offered, so far as he was concerned, to give up the name, the *Lancet* replied that for a renewal of professional intercourse homœopathy must be given up in deed and fact, as much as in name. And now we are told by an anonymous correspondent that we profess to do one thing while ever doing another. The statement is utterly false—is a perfectly unjustifiable slander.

The extent to which a physician who knows that homœopathy is true practises homœopathically is to a very great extent one of ability to do so. The physician whose acquaintance with the details of the *materia medica* is limited, or whose professional occupations are so incessant that he has no time or opportunity for studying his more complex cases, and who yet must do something in the way of drug-giving to relieve, inevitably falls back upon

antipathic palliatives. It is not his honesty that ought herein to be called in question, but his knowledge. Again, there are and ever have been certain cases of an incurable character, cases where disease depends upon some irremovable mechanical impediment to recovery, which have ever been recognized as cases in which palliative treatment can alone be of any avail.

With Dr. Kidd's position in this matter we have nothing to do. It is perfectly true that Dr. Kidd has hitherto been a "reputed homœopath," but few homœopathic practitioners who have been acquainted with his style of prescribing of late years have credited him with being homœopathic to any but a very limited extent. To what degree he does attach importance to homœopathy he has made abundantly clear in his little book, of which a second edition appeared the other day, entitled "The Laws of Therapeutics." It is, however, interesting to note that all the cases reported in that book as having been cured were treated homœopathically. The cases illustrating the allopathic uses of drugs were only relieved for a time.

We are, Sir, your obedient servants,

ALFRED C. POPE, Vice-President of the British Homœopathic Society, Lecturer on Materia Medica and Therapeutics.

D. DYER BROWN, M.A., M.D., Lecturer on the Principles and Practice of Medicine, and Physician to the London Homœopathic Hospital.

London School of Homœopathy, 52, Great Ormond-street, April 15.

TO THE EDITOR OF THE TIMES.

Sir,—The discussion upon homœopathy which has been opened in your columns in consequence of the circumstances connected with the attendance upon Lord Beaconsfield seems likely to be of great benefit alike to patients and to the medical profession. It is calculated to scatter the whole system of the so-called homœopaths to the winds, and to open a door through which they may resume their places as acknowledged members of a scientific and honourable calling.

Hahnemann professed to be the discoverer of a system of treatment which was universal, perfect, and complete. It was to afford the means of combatting all diseases, if not of obviating the occurrence of death itself. It was the expression of a natural law, subject to no exceptions, and to which nothing could be added by enlarged experience or further investigation. Any who added to or took from it were to be scientifically accursed, and the destruction of any portion of it was to be fatal to the rest.

This system was called homœopathy, and it rested upon three great principles.

The first principle was that all disease was essentially suppressed itch (*Psora*). Hahnemann did not know that itch is produced by a parasite which infests the skin, and that the parasite may be destroyed and the disease cured in the course of one hour by external applications. This first principle has long ceased to be maintained by anybody, and has gone to the tomb of departed errors.

The second principle was that the more any medicinal agent was diluted the greater became its power; whence decillionths and other impossibilities. Hahnemann went so far as to say that it was dangerous to carry medicines about in a fluid form, because their potency would be increased in an unknown degree by accidental shaking, which would separate the particles. The letters which you have already published show that the second principle has long ago followed the first, that professing homœopaths no longer put faith in infinitesimal doses, that they no longer believe that the smaller the dose the greater its effect, and that, so far, the homœopathy of Hahnemann has ceased to exist. A recent writer widely known as a homœopathic physician says:—"Truth is greater than Hahnemann, and of late years his speculations about *Psora* and 'infinitesimal doses' have been tacitly given up by all the more skilful and intelligent of his followers."

There remains, therefore, only the third principle—the so-called law of similars—which does not admit of very condensed expression. What Hahnemann meant by it was that every drug gave rise to symptoms when administered, that every disease was marked by symptoms, and that every disease could be cured by the administration—but in infinitesimal doses—of the drug which would produce the same symptoms. We have here something which is at the least intelligible, and which is worth a moment's examination.

Those who know anything about such matters know that similar symptoms are produced by very diverse causes, and that the great difficulty in the practice of medicine is not to observe the symptom, but to ascertain the cause to which it is due. For example, sickness is a symptom, and one the existence of which is self-evident. It may be produced by many causes, which require widely different treatment. It may be produced by an overloaded stomach, by disease of the brain, by obstruction of the intestinal canal, by the motion of a ship. In the first case alone it would be relieved or cured by the administration of an emetic. In the second or the third case the administration of an emetic would probably or certainly be fatal; in the fourth case, the administration of an emetic would retard recovery, and would increase distress.

We have here, therefore, an illustration of a symptom which may arise from four widely different conditions, not to speak of many more. In the first of these conditions homœopathic treatment—that is to say, the administration of medicine which would produce the same symptom, would be beneficial; in the last three it would be injurious or deadly. A real homœopathist, if there were such a person, would escape from the difficulty by administering his tartar emetic or his ipecacuanha in all the cases; but by administering it in infinitesimal doses, which could do neither good nor harm, he would avoid killing or injuring the three last patients, but he would avoid this at the cost of doing no good at all to the first. Fortunately, in the case supposed, the overloaded stomach would relieve itself in due time.

A wider examination of the subject leads us to a very plain principle—namely, that when a symptom is the expression of a curative effort of nature, as when sickness is the endeavour to relieve an overloaded stomach, good may be done by the administration of medicine which will produce the same symptom—that is, which will increase the vigour of the effort. When a symptom is not the expression of a curative effort of nature—that is, when it is a direct result of morbid action—a medicine which would produce the same symptom would, unless in infinitesimal doses, be a dangerous poison. For instance, certain febrile diseases are attended by a great increase in the temperature of the blood, and this increase, when it surpasses a certain degree, is always fatal. If we were to

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treat increase of temperature by some means which really made the blood hotter, we should kill our patients more speedily than they would be killed by the unaided disease. In so far as the law of similars expresses a truth, it has formed part of medical practice from the days of Machaon and Podalirius, and was in no sense discovered by Hahnemann. It was perhaps first formulated by the man who sought relief from the effects of a debauch in a morning glass, and who called his remedy, "A hair of the dog that bit him." But its scientific truth, and its practical applications, are alike extremely limited.

If I may pursue the subject a moment longer, I would point out that the "likeness" between the symptoms produced by a drug and the symptoms produced by a disease is in most cases merely superficial and entirely deceptive. To take two of the illustrations given by early homœopathists, if not by Hahnemann himself, I would cite the case of cinchona as a febrifuge, and of belladonna as a remedy for scarlet fever. An overdose of cinchona produces, it is true, a certain amount of febrile irritation, such as would be produced, by an overdose of many other tonics. Belladonna produces dryness of the throat and an eruption upon the skin. But there is no real resemblance between the fever produced by cinchona and the special form of intermittent fever which it certainly cures, and there is no real resemblance between the symptoms produced by belladonna and those of scarlet fever, which, by the way, it does not cure.

I should like, then, to ask people who call themselves homœopathists what there is in the third principle, for which alone they now contend, which in any way justifies them in describing themselves by a distinctive name and in professing to be the followers of a distinct system. I have tried to show how far the so-called law of similars is true; and to this extent it has formed part of the practice of medicine in all ages. In so far as it is not true, it had better be abandoned, whether as a basis of action or as a badge of difference.

Some of your correspondents have attempted to bolster up the reputation of Hahnemann as a man of science, but the endeavour is utterly vain. No doubt, he commenced his life as a scientific student, and did some good work, although not in the direction of medicine, before he deserted the search after truth to follow the mazes of speculation. I will not dispute with one of the correspondents in question whether he was "drunk" or "sober" when he put forth the system of doctrines which received the name of homœopathy; but I will say that science means the pursuit of facts and principles by methods of exact search, and that it is incompatible with the stringing together of random hypotheses. If Hahnemann were ever scientific, he forsook the torch of truth to follow the wandering lights of his imagination, and a Nemesis has fallen upon the school of which he was the founder. Such as the master became, such have been the disciples. The followers of legitimate medicine have been conspicuous among the fathers of science; and the Royal Society would be shorn of half its glories if the names of the physicians and surgeons by whom it has been adorned were removed from the roll of its fellows. The followers of Hahnemann, on the other hand, have been content to seek a short cut to remunerative practice by ministering to the ignorant credulity of the vulgar rich. From the days of their founder to the present times there has never been a single instance in which a professing homœopath has enlarged, in however small a degree, the boundaries of science, or has added one iota to the sum of human knowledge.

"It is never too late to mend." Why cannot the homœopaths, even now, take advantage of the late events to admit that their professions are no longer tenable, and that everything which is true in the "doctrine of similars" is the property of all the world? Their practice does not depend upon their profession of homœopathy, but upon their personal skill and merit; and the public would be distinctly gainers by the utter effacement of an unreal and unscientific appellation. I am, Sir,

YOUR FORMER "CORRESPONDENT."

TO THE EDITOR OF THE TIMES.

Sir,—The able letters which appear in *The Times* of to-day in defence of homœopathy seem to leave unanswered the main accusation of your correspondent against the system—namely, that homœopathy differs from ordinary practice in name only. I am perfectly aware that this is not an idea peculiar to your correspondent, but is shared by the majority of medical men of the opposite school. It is strange that allopaths should have remained so long in the dark about homœopathic practice, when, if they had taken the trouble to investigate the matter for themselves, they might easily have discovered the truth. The pleasant delusion of allopaths that our practice closely approximates to theirs might easily be refuted by impartial inquiry. I may be allowed, perhaps vainly, to assure them that the difference between the two systems is still sharply defined. If any approximation is visible, are they sure that it does not proceed from their side rather than from ours? For instance, Professor Ringer's standard allopathic work on therapeutics abounds with instances of remedies borrowed from the school of Hahnemann. Of course, the methods adopted by homœopathic practitioners can only be known by those who have tried them, or those who will take the trouble to inquire about them. But it is open to anyone to visit the wards of the Homœopathic Hospital and see with his own eyes that homœopathic physicians still differ fundamentally in their practice from what is rather hastily assumed to be the only scientific treatment. We maintain in their integrity the following principles, and the results of the treatment based upon these principles may be seen in our hospital, where (with cases of equal gravity) the death-rate is lower than that in any other London hospital—(1) *similia similibus curantur*; (2) always minute and often infinitesimal doses; (3) avoiding mixture of drugs—*i.e.*, administering one drug alone at one time. That these facts should be continually denied is surprising to homœopaths; and it is to be regretted that exceptional circumstances in the case of Dr. Kidd have lent colour to a false and unfounded contention.

I am, Sir, your obedient servant,

ARTHUR G. SANDBERG, Assistant Physician to the London Homœopathic Hospital.

334, Brixton-road, S.W., April 16.

TO THE EDITOR OF THE TIMES.

Sir,—Allow me to reply to one statement concerning myself in the letter from "A Correspondent" in *The Times* of this morning—"but it is a matter for himself alone to reconcile the apparent discrepancy between his

former profession and his admitted practice." My practice and profession for many years past have been precisely as they are at present. The following extracts from my book, "The Laws of Therapeutics," the second edition of which was published last January, will prove this :—

"Remedies seem to vary in their adaptability for cure ; thus most of the uses of bromide of potassium are very distinctly in a relationship of 'contrary' to its effects on the healthy human body, whereas all or most of the uses of arsenics are in the relationship of 'similar.'"

"Twenty-seven years ago I saw that the essential truth of Hahnemann's law was totally independent of his speculations about 'dynamization.' Adopting with great delight the law of '*similia similibus curantur*' as the chief, though not the only, foundation for therapeutics, I learnt for myself that Hahnemann 'sober,' teaching the use of the pure, undiluted tinctures, was a far better guide to heal the sick than Hahnemann 'drunk' with mysticism, calling for the exclusive use of infinitesimal doses. The latter I gradually cast aside *in toto* as untrustworthy and unjust to the sick, whose diseases too often remained stationary under treatment by globules, but were most effectually and quickly cured by tangible doses of the same medicines which failed to cure when given in infinitesimal doses."

"Rejoicing to enlarge the boundaries of knowledge, true science cannot ignore any law, though its sphere of action be limited and not of universal application. Galen's law of '*Contraria contrariis*' has its place, and a very prominent place, still, in the practice of every physician. The therapeutic action of certain medicines seems to lie altogether, or nearly, so, in that direction—such as the bromide of potassium in epilepsy, sleeplessness, with dreaming, nervous excitement, hysteria, spasms. These are symptoms exactly opposite to the drug action, which proves invaluable in such cases, and not to be despised, although it is but a temporary action requiring frequent repetition and long continuance."

I cling with strong purpose of heart and conscience to the law of homœopathy only because I believe it to be true, and find it every day of my life to be the most invaluable help in curing my patients. The infinitesimal dose I reject as not true and not helpful to the cure of disease. The allopathic law of "*Contraria contrariis curantur*" I use every day also, finding it as essential to the cure of one disease as the homœopathic to another.

The two laws are not antagonistic ; they are supplemental, and one supplies the deficiency of the other. Passion and prejudice try to make them look antagonistic. The allopathic doctor's inability to cure many diseases is because he ignores the help of the homœopathic law, of which I am not ashamed. Deprive me of its help, and I should retire from medical practice altogether. I have studied most closely the allopathic system of medicine for 37 years, and I find it "wanting" in one of the greatest aids to the cure of disease, the homœopathic law. I raise my voice in protest at this suicidal policy of "orthodox medicine" scorning and rejecting one of the most precious truths of the rapeutics, in place of trying to extinguish a schism by nobly absorbing to its aid the wonderful help of that great law of "*Similia similibus curantur.*"

I remain, yours faithfully, JOSEPH KIDD, M.D.

15, George-street, Hanover-square, London, W., April 15.

TO THE EDITOR OF THE TIMES.

Sir,—The article in your impression of to-day demands an immediate answer from some one more conversant with the history of medicine during the present century than your correspondent.

"The system called homœopathy" did not "spring into existence at a time when the practice of medicine had been shaken to its foundations by physiological investigations of various kinds, when old methods were being distrusted and new ones tried, and when nearly everything relating to the use of drugs was being re-examined from a more scientific basis than had formerly existed"—whatever that may mean. On the contrary, for many years after Hahnemann commenced his reform (in 1796), the greatest authorities of the dominant medical school continued to treat their unfortunate patients with the well-known farrago of violently acting drugs, with bloodletting, with blisters, setons, issues, the cautery, and other tortures, and it is only within the last 30 or 40 years that such unscientific methods have been abandoned (not entirely, alas !) by the adherents of what they delight to call "scientific medicine." That the great change for the better in ordinary medical practice observable during the last generation is owing to the precepts and example of the homœopathic school is obvious to all impartial inquirers.

The founder of homœopathy, Samuel Hahnemann, so far from having "no pretensions to scientific knowledge," was thoroughly versed in all the medical science of his day and of all former times. His chemical discoveries are well known ; his work on "Arsenical Poisoning," published in 1786, is still quoted by Christison and other eminent toxicologists as a standard work ; he was pronounced by the greatest medical authority of the period—Hufeland—to be "one of the most learned physicians of Germany," and his works are there to show how fully he deserved this character.

The doctrine of similars is not "founded on a mistranslation of one of the maxims of Hippocrates," but is, as every one knows, a practical rule for the employment of drugs deduced from a careful and laborious trial of their effects on the healthy. Calculations respecting the quantity of fluid required to make the decillionth dilution of a drop of laudanum are very much out of place, when the fact is that less than eight ounces of fluid are quite sufficient for the purpose. But I need not dwell on your correspondent's misstatements respecting the technicalities of homœopathy ; those who are curious to know all about them can read them in any of the hundred treatises on homœopathy.

If "regular medicine" has in recent times advanced with "enormous strides," it has only done so in so far as it has discarded its useless and injurious methods and assimilated itself to the scientific specific method of homœopathy. By so doing it has lessened the difference between the practices of the two schools, and I will not deny that concessions have been made to a certain extent by the homœopathic school, inasmuch as it does not make such an exclusive use of minute or so-called "infinitesimal" doses as formerly. While practitioners of the reformed school profit by all the advances made in physiology, hygiene, &c., they still acknowledge the therapeutic rule they owe to Hahnemann, and apply it in every case where they deem it applicable. This, of course, does not prevent them making use of any other method or practice which they may think more adapted to a particular case.

The adherents of the old school, finding their practice assimilating more and more to the homœopathic method, cannot now prosecute the partisans of the reformed school on the ground of unscientific charlatanry, but as they cannot bring themselves to fraternize cordially with those they have reviled for so many years, they allege that the pro-

fessed adherents of homœopathy are guilty of fraud, because, forsooth, in doing what they consider best for their patients they sometimes employ remedies not according to the homœopathic therapeutic rule. The partisans of the reformed system only claim for homœopathy that it is the best rule for the selection of drugs, but they admit that there may be cases for which a homœopathic remedy cannot be found, and where some other means must be had recourse to. As physicians, they are bound to make themselves acquainted with every method and means that may be of use in the treatment of the sick.

Whether Lord Beaconsfield's is one of those cases, I am not able to say. Of this Dr. Kidd is the best judge; but as he has given Dr. Quain a promise in writing to carry out his (Dr. Quain's) prescriptions and directions to the letter—a most unusual promise for any practitioner to make to his consultant—he has thereby renounced all right to apply his homœopathic knowledge to the treatment of the various phases of the malady as they occur, and practically constituted himself the mere executor of Dr. Quain's wishes. Whether this is likely to be of advantage to his patient I leave others to judge.

It is amusing to see from your correspondent's letter that the ethical code of a "regular" doctor is of a very elastic nature, for he tells us that Dr. Quain would be right "on moral grounds" in declining to meet a practitioner of homœopathy "in ordinary cases," but that those "moral grounds" may be quietly ignored when the case is that of an "illustrious" individual.

Your obedient servant, R. E. DUDGEON, M.D.

53, Montagu-square, April 15.

TO THE EDITOR OF THE TIMES.

Sir,—The world must to-day be at a loss which to admire the most—the scornful triumph of the orthodox doctors, or the absolute capitulation of the "homœopathic professor." Dr. Kidd gained his fame as a homœopath; he was connected for many years with the Homœopathic Hospital and Society, and his name still appears in the "Homœopathic Medical Directory." His prescriptions are dispensed, by his authority, by homœopathic chemists. Many years since he treated a large number of fever and famine-stricken patients in Ireland homœopathically with distinguished success; so that, at any rate, it has taken him a long time to discover that the practice followed by him during the better part of his professional life was a mistake and a delusion.

But now, so anxious is Dr. Kidd to recant, that he makes a great sacrifice to propitiate his detractors. Thus, they offer to him and homœopathy the insult of saying that "on reference to the 'Medical Directory' they found that Dr. Kidd was a qualified practitioner." Now, it was simply absurd, in the face of Dr. Kidd's great practice as a physician, to hint such a doubt Dr. Kidd might as well have been surprised at finding from the "Medical Directory" that Dr. Quain was a qualified practitioner. Then it was declared to be "impossible for a practitioner of scientific medicine to meet a person professing homœopathy." So that Dr. Kidd, though only "a person," and one whose legal qualification was doubted till the "Directory" settled the question, was not merely ready to meet his enemies, but to meet them as their humble servant. Let Dr. Kidd speak for himself, in his note to Dr. Quain, written before the latter had even seen the patient:—"I beg to assure you that every direction and prescription of yours will be faithfully carried out by me." Dr. Kidd, in short, disestablished himself not simply from homœopathy, but from the practice of medicine, and offered himself as a nurse to the invalid, under the orders of Dr. Quain.

It is sad to think that a man in Dr. Kidd's position should turn his back upon Hahnemann and homœopathy, in whose service he gained whatever of fame and success he ever possessed. He has reverted to the dark ages of medicine. He has abandoned scientific principle for blind groping in the dark. But for the great revolution effected by homœopathy in the practice of medicine, patients would still be groaning under the barbarous tyranny of wholesale bleeding, leeching, and other "heroic" measures.

In *The Times* of to-day "A Correspondent" has an article on "Physicians and Homœopathy," which bristles with inaccurate statements. I can here only touch upon a few of them. The very title of his letter seems to imply that there are physicians on one side, and unqualified charlatans on the other. Now, it is well known that homœopathic doctors were, almost without exception, educated at allopathic medical colleges, and that they possess the degrees of various Universities, and the diplomas of sundry colleges, just in the same way as their orthodox brethren do, and that their names duly appear in the "Medical Register." Then your correspondent speaks of Hahnemann as a man of "no pretension to scientific knowledge." The very reverse is known to be the fact. Hahnemann won the admiration of the learned Hufeland, and he was characterized by Jean Paul Richter as "that double-headed prodigy of learning." Your correspondent further states that although some persons like homœopathic treatment for trifling ailments, none are so foolish as to trust it for serious maladies, and that in such cases a consultation is sought with an orthodox professor. The converse of this statement is much nearer the mark. In small ailments it does not matter what treatment is used. But in an extensive practice, ranging over 36 years, I have found a general and increasing desire for homœopathy in the most urgent cases among those persons who usually approve the method, and during all that time I have never wished [or been requested to ask the aid of any allopathic physician, having found the practitioners in our own ranks fully able to satisfy every requirement as consultants in all medical cases.

Your correspondent's description of homœopathic treatment at the present day as a mixture of dangerous folly and fraud is too ludicrous an invention to demand a serious reply. Homœopathy still lives and flourishes in the esteem and confidence of millions of our suffering fellow-creatures, who are too wise to be deluded by your correspondent's aspersions out of their belief in homœopathy.

I take care so to sign this letter as to prove that, in spite of my warm attachment to homœopathy, I am nevertheless a fully qualified and registered physician.

NEVILLE WOOD, M.D., Fellow of the Royal College of Physicians of Edinburgh.

10, Onslow-square, April 15.

TO THE EDITOR OF THE TIMES.

Sir,—In *The Times* of June 1, 1877, you published what has since been known in the profession as the Wyld and Richardson letter.

The object of that letter was to show that sectarianism in medicine was as mischievous and unphilosophical as sectarianism in religion, and that all exclusiveness and

narrow-mindedness in the profession were alike injurious to the patient and to the physician.

With these views I subsequently formulated the idea as follows :—"Believing medicine to be a progressive art and science, it is competent for any legally qualified medical man to adopt any theory and practice which he believes to be best for the welfare of his patients. Therefore, the adoption of any theory or practice should not exclude any qualified medical man from the frëest professional intercourse, provided he does not trade on a distinctive name nor unprofessionally advertise his mode of practice."

This rule was agreed to by nearly all the leading homœopathists in Great Britain, and was approved of by a large number of medical men, especially in the northern and midland counties.

The letter and the rule were also widely approved of in America, and the result was that I myself was admitted to professional friendship by the leading physicians and surgeons of London, and a kindlier and more liberal feeling between the various schools of medical belief was the general result.

With reference to the letters in *The Times* of to-day regarding the joint attendance on Lord Beaconsfield of Dr. Kidd and Dr. Quain, it is a great satisfaction to find that it has the approval of the great names of Risdon Bennett, Burrows, Watson, and Paget, and I trust that we may now congratulate the profession that medical sectarianism and the bitterness of winter are passing away and that a genial summer is at hand. Your obedient servant,

GEORGE WYLD, M.D.

12, Great Cumberland-place, Hyde Park, April 14.

THE SOUTH AMERICAN WAR.

Herewith we append a translation of the Decree promulgated upon the 7th of last month by the Commander-in-Chief of the Chilian forces now occupying Lima and Callao, in Peru :

I, Cornelius Saavedra, General of Brigade, and Acting Commander-in-Chief of the Chilian forces in campaign, Decree :

1. That the departments of Lima and Callao shall contribute the sum of $1,000,000 in silver per month, or its equivalent in currency, towards maintaining the army of occupation.

2. That the million corresponding to the month of February shall be paid by the following persons. [Here come the names of fifty private inhabitants of Lima and Callao, each one being called upon to pay $20,000 in silver.]

3. That the persons named in this Decree are allowed eight days from this date wherein to pay the aforementioned sum of twenty thousand silver dollars into the public office established for the purpose of collecting war contributions.

4. That should any of the persons named fail to pay their share within the stipulated time, property of theirs to the extent of at least three tiines the value of their contribution shall forthwith be destroyed, I reserving to myself the right of seizing their persons besides.

5. That my Chief of Staff, Don Pedro Lagos, shall see to the execution of this Decree, and the chief of the office for recovery of war levies will furnish him with a list, on the day the term expires, of those persons who have failed to pay in their contributions in full.

6. That from this date no Peruvian citizen will be allowed to leave Lima or Callao without a passport from the Chief of Staff. Only persons travelling between Lima and Callao will be exempt from this obligation. Any Peruvian citizen infringing this clause will be tried by court-martial.

In order that this Decree may come to the knowledge of all, it is to be printed and placarded in the most prominent parts of Lima and Callao.

Given in the Palace of Government in Lima upon March 7, 1881.

(Signed) CORNELIUS SAAVEDRA.

P.S.—Orders have been delivered to the Municipality and Post Office requiring them to place their funds at the disposal of the Office for the Recovery of War Contributions, as also to the Chief of Police, commanding him to offer no impediment to Don Pedro Lagos, when engaged in carrying out the destruction of property as embodied in this Decree.

ELSEWHERE we publish the translation of a decree promulgated on the 7th of last month by General CORNELIUS SAAVEDRA, the Commander-in-Chief of the Chilian forces now occupying Lima and Callao. After reading the document we might almost fancy ourselves carried back to the days when the Duke of ALVA was torturing the Netherlands on behalf of PHILIP II. of Spain, his tyrannical master, or when the Count of TILLY was carrying fire and sword through the devastated Palatinate. It will be seen that, after demanding the payment of one million dollars in silver per month from Lima and Callao, General SAAVEDRA gives the names of fifty persons resident in the two cities from each of whom he avows his intention of extorting twenty thousand silver dollars within eight days of the date of his infamous decree, and, failing payment upon their part, of destroying property belonging to the defaulter "to the extent of at least three times the value of his contribution." In addition, the wily Chilian soldier, who is, of course, but the mouthpiece of his Government, reserves to himself the right of seizing the defaulter in person. The other clauses of the decree are of a similar character, being, it may be added, of a piece with the high-handed and rapacious manner in which Chili has conducted hostilities since the tide of war turned last year manifestly in her favour. In England we know and have heard nothing of the barbarous sacking and pillaging of Tacna and Arica ; of the wanton destruction of the magnificent sugar plantation commonly called "the Queen of the Desert," which, having once belonged to Señor DERTEANO, a wealthy banker of Lima, is situated near Chimbote, and now lies a desolate waste ; or of the transfer of every valuable article of movable property—such as furniture, libraries, pictures, works of art, costly female dresses and ornaments, carpets,

pianos, machinery, especially that used for coining money at the Mint, and, last of all, even the animals belonging to the Zoological Gardens—from Callao to Valparaiso. These acts smack but of mere rapacity, and attempts to justify, or at any rate to excuse them have been made by urging that, when the Germans held Versailles, a few soldiers, unknown to their commanding officers, sent off some clocks and watches to their own homes. But in the South American War looting and pillage are unblushingly perpetrated by Chilian officers, civilians, and privates alike; and, further, in that clause of General SAAVEDRA's decree which—failing payment of a sum out of all proportion to the means of the designated citizen—consigns to destruction his property to the extent of three times the amount of the contribution demanded from him, a deeper and more far-seeing design is disclosed. The truth is that, on the 7th of March, the victorious Chilians had been for two months in possession of Lima and Callao without being able to find anything like a Peruvian Government with which to negotiate terms of peace. A body of citizens, with some pretence to authority, had therefore to be found, and at last, by applying torture in many ways to the two unresisting cities at their mercy, the Chilians succeeded in establishing what they call a "Provisional Government," which on March 12 was installed by Chilian bayonets at Magdalena, a little village lying two miles away from Lima.

The eight days have long ago passed within which the unhappy citizens whom General SAAVEDRA designated were, upon pain of having three times as much of their property destroyed, called upon to pay up twenty thousand silver dollars each. To put forth a merciless decree is one thing, but even in South America to enforce it during the last quarter of the nineteenth century is another. When the stipulated term had run out General SAAVEDRA did not venture to proceed to the extremities threatened in his decree, for had he done so it is more than probable that the one paramount Power of the Western Hemisphere—the United States—would have made its commanding and irresistible voice heard. In Europe, the South American War has provoked little attention; but in the United States it has been watched with vigilant interest. Mr. BLAINE, the Secretary of State to President GARFIELD, is credited with holding views of a nature to forbid the creation anew of a big Republic anywhere between the Arctic and Antarctic Poles—views in accordance with the "MONROE doctrine," which enjoins that no European nation—and least of all Spain, against which the "MONROE doctrine," originally started by GEORGE CANNING, was specially formulated—shall ever be permitted to attain a position upon the American continent, North or South, such as to threaten the undisputed ascendency of the Anglo-Saxon race. Mr. BLAINE is perfectly well aware of facts which have escaped the notice of the Foreign Offices of London and Paris. The struggle between Chili and Peru, and the causes of its outbreak—which is universally believed in the United States to have been due to Chilian cupidity tempted by Peruvian opulence and indolence—have been reported to North-American journals in all parts of the Union by able and experienced war correspondents; and, indeed, we have seldom read a more graphic letter than one in which the correspondent of a California journal recapitulates the barbarities of which Don ANTONIO LYNCH was guilty, when he applied the torch and the dynamite sausage to the sugar plantation of Señor DERTEANO, near Chimbote, without waiting to allow the son of the owner to receive one hundred thousand silver dollars from his father in Lima. As the majestic vessels of the "South American Steam Navigation Company" run down the coast of Peru from Panama, their captains and officers are never tired of pointing out Señor DERTEANO's ruined sugar plantation to the passengers on board. There is said, indeed, to be but one opinion among the English and North American naval officers serving on the West Coast of South America, and that opinion has become extremely hostile to Chili during the last few months. It is plainly understood that, while professing to hold Peru for the benefit of its fleeced foreign creditors, Chili having got possession of a country flowing with milk and honey, and immeasurably rich in natural resources, means to keep it until the war indemnity claimed is paid to the inexorable conqueror either in meal or in malt. Having this object in view, the Chilian Government, as we learn from their own organ the *Mercurio*, of Valparaiso, declare themselves willing to make peace with the dummy Government which they have set up in Lima, upon certain terms, the most prominent of which are, first the cession to Chili of Antofagasta, Tarapaca, and Tacna, the first of which belongs to Bolivia; secondly, that Peru shall undertake not to fortify her ports for fifty years, nor to acquire a fleet for forty years; and, thirdly, that the extraction of guano from the Peruvian islands shall be carried on for the account of the Chilian Government, the proceeds to be equally divided between Chili,

Peru, and those foreign creditors of the latter who were recognised before January 1, 1879; the part falling to Peru to be retained by Chili until the war indemnity has been paid.

It will be seen from these terms in what spirit Chili is comporting herself to her humbled and helpless foe, and how romantic is the generosity entertained by her towards Peru's foreign creditors. Nevertheless, Chili has—as is quite natural—no lack of able supporters, or, at any rate, of subtle and specious advocates, who chant her praises in English and French journals, and, as is sometimes insinuated, write papers, and even volumes, to order, to show, with what truth may be inferred from our disclosures, that the best hopes of Peru's foreign creditors centre in the permanent administration of Peru's illimitable resources by the "virtuous Chilenos." If the "model Republic of South America" be but left alone, and permitted to retain control of the vast plunder accruing to her from the guano islands and nitrate deposits of her enemy, it is easy to understand why numberless supporters should spring up in England and France to proclaim her virtues and to laud her integrity. In other words, Chili, in possession of Antofagasta, Tarapaca, and the Lobos Islands, will be metamorphosed from "a poor but honest nation," as she is called by Mr. GALLENGA, into one of the most opulent States upon the face of the globe. In that case she will have fat contracts to give away in Europe, and new ironclads to build in England. In a word, Chili will then have means to reward the faithful, and when was there opulent State or opulent individual left destitute of applauding and disinterested friends? Against the aggrandisement of Chili to this prodigious extent must, however, be set, first, the natural suspicion of the United States; and, secondly, the apprehension which she would inspire among her South American neighbours. It is well known that the relations between Chili and the Argentine Republic have long been in a state of tension, and, if wisdom still survives in the intoxicated brains of those in authority at Santiago and Valparaiso, they will do well to watch closely the operations of the Araucanian Indians—who are in scarcely disguised league with the Argentines—upon Chili's southern border. For ourselves, we hardly think it probable that Chili will get safe off with the spoils she has momentarily torn away from Bolivia and Peru. She appears to us—and, what is still more ominous, the United States seem to be of the same mind—to "profess too much" to inspire confidence. That Peru has sufficient resources to pay all her creditors, and any reasonable war indemnity, twenty times over, is abundantly certain; but what good thing can come through the immaculate pillagers of Tacna, Arica, Lima, and Callao; through the devastators of Señor DERTEANO'S splendid plantation; or, finally, through the inspirers of CORNELIUS SAAVEDRA'S indefensible decree?

THE GREAT DISCOVERY OF MUMMIES AT THEBES.

(FROM A CORRESPONDENT.)

CAIRO, AUG. 8.

Of the 39 mummies of Royal and priestly personages which constitute the most striking portion of the grand discovery made a few weeks ago at Deir-el-Báhari, near Thebes, 26 are now accurately known. The remaining 13 require more searching examination and study before they can be identified with absolute certainty. Thanks to the courtesy and assistance of Herr Emil Brugsch, the acting director of the Boulak Museum, I am enabled to furnish you with the following list of the 26 mummies, as to the identity of which all doubt is now removed:—

No. 1.—King Raskenen, one of the later kings of the 17th Dynasty. The mummy, wrapped in the usual shrouds of fine linen, is enclosed in three wooden mummy-cases, each disclosing the form of the body and fitting in one another like a nest of boxes. Upon the lids of the three mummy-cases are carved in high relief the head and arms of the King. The right hand grasps the *crux ansata*, and in the left is the sceptre. The arms rest upon the breast crossed. Above the facial portrait is carved the Royal head-dress, with the *uræi* serpents in gilt. Each of the coffin-cases is literally covered, both inside and outside, with inscriptions and representations in yellow and orange upon olive green ground, probably relating exclusively to the ritual of the dead. The mummy and cases are in perfect preservation.

No. 2.—King Aahmes I. (Amosis), the founder of the 18th Dynasty. The mummy is enclosed in three plain wooden mummy-cases bearing the King's *nomen* and *prænomen*. The face and arms are carved in high relief; arms crossed and resting upon the breast; hands holding the *crux ansata* and sceptre. Above the facial portrait is carved the *pschent*, a crown of Upper and Lower Egypt, with two *uræi* serpents. The upper halves of the cases represent feathered wings. It was Aahmes I. who drove the Shepherd Kings out of Egypt and who suppressed the rebellion in Nubia.

No. 3.—Queen Aahmes Nofert Ari, wife of King Aahmes I. The outside mummy-case is over three mètres in length, and is very remarkable in a technical way. All three mummy-cases are made of fine linen rolled round moulds and glued together until the different layers form a material

not unlike *papier-maché*. The coffin cases disclose the shape of the body, and the queen is represented with the arms crossed upon the breast and grasping the *ankh*, or emblem of eternal life and of stability The inscriptions are in bright colours upon a white ground.

No. 4.—Queen Ar-hótep, daughter of King Aahmes I. The mummy-cases of this queen are, with the exception of the subject-matter of the inscriptions, in every way similar to those of her mother, the Queen Aahmes Nofert Ari. (See No. 3).

No. 5.—Prince Sa Ammon, son of King Aahmes I. The mummy-cases are similar to those of his father. (See No. 2.)

No. 6.—Princess Sat Ammon, daughter of King Aahmes I. The outer mummy-cases have been destroyed. The inside mummy-case is broken open, but the inscriptions are quite legible. There are also hieratic inscriptions written upon the linen shrouds which prove the identity. The mummy itself is in a good state of preservation, and judging from its small size the Princess must have died when quite a young girl. The flesh is dark brown, and the mouth is so contracted as to disclose the teeth. The arms are crossed and rest upon the breast.

No. 7.—King Amenhotep I. (Amenophis), the second King of the 18th Dynasty. It was this sovereign who maintained and enjoyed the fruits of the conquests of Aahmes I. The three mummy-cases are in the most wonderful state of preservation. They are covered inside and outside with the most closely-written and delicately pencilled inscriptions in olive green, yellow, and orange. The colours are as bright and fresh as if the artist's brush had touched them but yesterday. The mummy-cases are varnished with a preparation which gives them that peculiarly rich, glossy appearance produced by the lacquer-work of the Japanese. The mummy itself is wrapped in linen shrouds of the finest imaginable texture, and held in place by cross bands of pink muslin. These shrouds have not yet been unrolled, but upon the outside bands is found a long hieratic inscription, stating that the mummy had been concealed during a foreign invasion of Egypt. Over the face and outside the shrouds is a beautiful *papier-maché* mask, intended to portray the King's features. The eyes of this mask are made of porcelain and are enamelled. The festoons and wreaths of lotus flowers which encircle the mask are in a most marvellous state of preservation. The linen shrouds are also strewn with lotus flowers. One might readily suppose that these flowers had been plucked but a few months ago.

No. 8.—The mummy-case of Thotmes I., the second King of the 18th Dynasty. This mummy-case, which once held the remains of Thotmes I., subsequently served as a mummy-case for King Pinotem, whose body it now contains. (See No. 21.)

No. 9.—King Thotmes II., the third King of the 18th Dynasty. The three mummy-cases are almost exactly similar to those of King Amenhotep I. (See No. 7.) Thotmes II. began the wars in Ethiopia and Palestine, so ably continued by his successor.

No. 10.—King Thotmes III.—Thotmes the Great, the fourth King of the 18th Dynasty. It is most unfortunate that the remains of this the most glorious monarch of Pharaonic history have been desecrated by the hand of some ancient destroyer. The mummy was found in its case in the pit at Deir-el-Báhari, but broken into three separate pieces. The case is also very badly mutilated, but the miniature representations of the gods as well as a portion of the names and titles of Thotmes were left intact. The identity of the mummy is proved beyond any doubt by a long funeral inscription written in most exquisite and distinct characters upon a linen roll, which was found inside the winding-sheets, and which contains the full names and titles of Thotmes III. The text of this linen roll, when fully translated, may prove to be in itself a most important discovery. From the fact that the representations of the gods as well as the most sacred portions of the ritual have been respected by the persons who rifled the mummy of Thotmes the Great, it would seem that the ancient priests must have been implicated in this sacrilege. In this connexion it is worth while to recall the Abbott Papyrus in the British Museum, from which we know that during the reign of Ramses IX. there seems to have been an organized band, not only of robbers of tombs, but of receivers, who resided at Thebes, and gained their livelihood by depredations of this kind. The Abbott Papyrus records this information in the form of a report made by the Commandant of Western Thebes, who, with other officials, inspected the tombs of the "Royal ancestors." Of 39 persons accused by name in the papyrus for having robbed the Royal mummies, seven are priests and eight are sacred scribes.

No. 11.—Queen Hont-ta-mé-hou, a Queen of the 18th Dynasty. State of preservation perfect. The linen shrouds, mask representing the features, festoons, and wreaths of lotus flowers, and the three mummy-cases resemble in general appearance those of King Amenhotep I. (See No. 7.)

No. 12.—Princess Mes-sont-ta-mé-hou, a Princess of the 18th Dynasty. General appearance of the three mummy-cases, &c., similar to those of King Amenhotep I. (See No. 7.)

No. 13.—Queen An, a Queen of the 18th Dynasty. General appearance same as No. 7.

No. 14.—Queen Set-ka, a Queen of the 18th Dynasty. General appearance same as No. 7.

No. 15.—King Ramses I., the founder of the 19th Dynasty. The three mummy-cases resemble those of King Amenhotep, except that they have upon the outside of the lids richly-gilt representations of the features of the king. The colours of the inscriptions are yellow, green, and blue. Ramses I. was the father of Seti I., and grandfather of Ramses II. (the Great), and his tomb at Bibán-el-Molook, or "Gates of the Kings," near Thebes, was among the number of those opened by Belzoni, and is the oldest hitherto discovered in that valley. The granite sarcophagus bearing the name and titles of Ramses I. still remains in the tomb.

No. 16.—King Seti I., the second King of the 19th Dynasty, who regained some of the foreign conquests of Thotmes III. which had been lost by Ramses I. The mummy is in a good state of preservation, but only one of the mummy-cases remains. This mummy-case is inscribed with three longitudinal rows of texts upon a white ground, and bears the facsimile of the King's features, surmounted by the Royal crown and *uræi* serpents. The linen shrouds of the mummy bear hieratic inscriptions, stating that the remains of Seti I. were thus concealed in a pit during the time of a foreign invasion. None who have visited Abydos need to be reminded of the Temple of Seti, where all the gods of the Egyptian pantheon seem to have been worshipped, and where each had his separate shrine. As I mentioned in a previous letter, the sarcophagus of Seti I. was brought to England by Belzoni, and is in Sir J. Soane's Museum. It is carved from a single block of the finest alabaster, and is covered with incised hieroglyphic texts and several hundred figures descriptive of the passage of the sun through the hours of the night.

No. 17.—King Ramses II. The third king of the 19th Dynasty and the Pharaoh of the Jewish captivity. The mummy is in a perfect state of preservation, but of the three mummy-cases in which it once probably reposed only one remains. This mummy-case is of plain sycamore wood, unpainted and unvarnished. It is carved to represent Ramses in the position of Osiris. The crossed arms rest upon the breast. In the right hand is the royal whip, and in the left is the royal hook. The features are most beautifully and delicately carved, and are surmounted by the crown of Upper and Lower Egypt, with the uræus serpent. The mummy-case is a most graceful and animated specimen of sculpture, displaying, in all its purity, the firm and flowing lines of the period of the Egyptian Renaissance. The *nomen* and *prænomen* cartouches of Ramses are written in plain black characters upon the mummy-case, which bears no other text or representations whatever, and in its beautiful simplicity contrasts strangely with the pompous and exaggerated dedications of almost all other inscriptions which mention the name of Ramses the Great. The mummy itself is wrapped in rose-coloured and yellow linen of a texture finer than the finest Indian muslin, upon which lotus flowers are strewn. One of the bands which pass across the shrouds to keep them in place bears a hieratic inscription stating that this, the mummy of Ramses II., was concealed in a pit at a time when a foreign army invaded Egypt.

No. 18.—Queen Nout-jent. A queen of the 21st Dynasty. The mummy-case was once entirely covered with a thin sheet of gold, only isolated bits of which now remain. The cover, with the bas-relief portrait of the queen, is inlaid with coloured glass and stone mosaic. Each hieroglyph is composed of small pieces of stone or glass. This mummy-case is quite different from any that has hitherto been discovered. From the fact that the more sacred portions of the ritual of the dead, as well as the figures of the divinities, are left untouched, it is to be supposed that the mutilation was committed at an ancient period. Another instance of destruction of this kind exists in the Boulak Museum, where a tablet may be seen with all the gold inscriptions scratched away, with the exception of the god Osiris, whose image the ancient destroyers had respected.

No. 19.—The High Priest Pinotem, 21st Dynasty. Three mummy-cases, covered with the closest written texts in yellow, orange, and green, and bearing beautiful golden facial portraits of the High Priest.

No. 20.—Queen Ra-ma-ka and her infant daughter, Mout-em-hat. A queen of the 21st Dynasty. Three mummy-cases, covered inside and outside with texts and representations in green, yellow, and blue characters, upon a dark ground, the whole beautifully varnished. The facial portraits of the queen are heavily gilded and in high relief. The head-dress is most exquisitely carved, and is in the style known as that of the royal Vulture. The head-dress is cobalt blue, with the *uræi* serpents in gold. The cartouches represent the names of the queen and of her daughter, the mummies of both of whom are intact and wrapped in separate winding-sheets. The mummy of the daughter is quite small and is prepared in a sitting posture. She could not have been more than a year old. The largest of the five papyri found at Deir-el-Báhari refers to this queen.

No. 21.—King Pinotem, the third king of the 21st Dynasty. One of the most valuable of the papyri yet discovered bears this king's name. The mummy-case in which King Pinotem reposes once contained the body of Thotmes I. (See No. 8.) The mummy-case is somewhat mutilated, and the gilt inscriptions of King Pinotem have in some places been worn or scratched away, and disclose the cartouches and texts of Thotmes I. The case is broken open at the top, and linen shrouds are torn from the mummy, so as to render the latter visible. The flesh is of a dark, mahogany brown colour; the mouth is open, disclosing the teeth. The nose, cheeks, and ears are intact. The arms are crossed below the waist, and the hands have disappeared. The inside of the mummy-case is covered with texts, and the linen shrouds which remain attached to the body bear hieratic inscriptions which determine the identity beyond any doubt.

No. 22.—Queen Hon-ta-taoui, a daughter of King Pinotem. Three mummy-cases beautifully inscribed and ornamented. Previous to the present discovery a valuable papyrus relating to this queen had already been deposited in the Boulak Museum.

No. 23.—The High Priest Ma-sa-ha-ta, a son or near relative of King Pinotem. Three mummy-cases, well preserved.

No. 24.—Queen Ast-em-jeb, daughter of King Pinotem. Three mummy-cases, in excellent state of preservation, remarkable for the beautiful colouring of the inscriptions.

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No. 25.—Princess Nessi-kon-sou, a daughter of King Pinotem. Three mummy-cases, well preserved.

No. 26.—Prince Jep-ta-a-ouf-anch, son of King Pinotem, and High Priest of Ammon Ra. Three mummy-cases, most beautifully inscribed in orange and olive green. The text inside the innermost mummy-case is very remarkable.

The five papyri which I mentioned in my last letter will not be steamed and unrolled until M. Maspero's return to Cairo in October. These papyri can be unrolled easily for about a mètre of their length—just enough to disclose their beautiful characters and exquisitely-coloured illuminations and illustrations. None of the mummies will be unrolled before M. Maspero's arrival. Moreover, the excavations among the pyramids of the 7th Dynasty at Sakkara are now making rapid progress, and require the unremitting attention of the Museum authorities; consequently no study of a nature to determine the precise archæological value of this grand discovery can as yet be undertaken. The other objects of value, including the magnificent leather tent of King Pinotem and the Canopic Vase, have already been described in my previous letter. The amount of new material that the Boulak Museum will be able to offer to the archæologist during the coming winter is unprecedented, and inaugurates most auspiciously the School of Egyptology which was established here a few months ago by the French Government, and which, together with the Museum, is placed under M. Maspero's direction.

BABYLONIAN EXPLORATIONS.

The spade of the explorer has once more been busy amid the mounds and ruins of Assyria and Babylonia, and a rich harvest of antiquities has resulted from the work. The explorations carried out during 18 months by Mr. Hormuzd Rassam, though affording no such *grands trouvailles* as the bronze gates from Ballawat, have, nevertheless, been rich in discoveries which will be welcomed by all students of history and philology. On more than one occasion we have pointed out the need of a more extended range of operations than has hitherto been adopted by the explorer in the Tigro-Euphrates Valley. The inscriptions have restored to us the names and indicated the sites of numerous cities of historical and religious importance, the discovery of whose ruins would be a boon alike to the historian and the geographer, and beneath whose ruins lie buried valuable records, not only of local but general history.

The recovery of the library of terra-cotta tablets from the palaces of Sennacherib and Assurbanipal has restored to us a vast mass of literature and supplied long lost chapters in the history, mythology, and science of the world. It has also proved to us that valuable as these records are, we have in them but second and third editions of works first compiled by the scribes in the library cities of Babylonia. With all the yearning, therefore, of the modern bibliophile the Assyriologist has waited for the day when from amid the dust-heaps of Babylonia the explorer shall bring to light the *editio prima* of these standard works of religion and science used by the students of Nineveh. Indications have not been wanting that such works would be forthcoming from the buried libraries of the cities of the southern motherland. More than 20 years ago Mr. Loftus recovered from the library of the temple of the Sun-god at Larsa, buried beneath the ruins of Senkereh, a list of the principal deities in the Babylonian drama of creation, a copy of which had been previously recovered by Sir Henry Layard from the ruins of Nineveh. Last year Mr. Rassam obtained from one of the temple libraries of Babylon a small fragment of a tablet, which when perfect contained a Babylonian edition of the famous Deluge legend, and which was found to furnish some variants, thus showing that the version in use among the students of Nineveh had no doubt been submitted to the searching criticism of a revision committee prior to being issued as the authorized version. The discovery of fragments such as these led Assyriologists to hope that the explorer would be able to recover from the ruins of the cities of Chaldea the older versions of the Assyrian texts, and the expedition of 1880-1, which Mr. Rassam has just concluded, has so far met their wishes in that from the ruins of the temples and palaces of Babylon, Borsippa, Sippra, and Cutha he brings records and copies of religious texts, some of which will, no doubt, furnish the required Chaldean versions. Explorations in Babylonia were naturally the outcome of Assyrian decipherment and research. To Babylonia as its origin every branch of the civilization of Assyria points. In art, in religion, in science they were the pupils of the learned men of the schools of Chaldea, and each tablet, each brick brings before us more and more forcibly the fact that "out of that land went forth Assur." It would seem almost as if the cities of Chaldea were jealous of the treasures they held, and had reserved them until discoveries at Nineveh and other cities had secured them a worthy reception at the hands of students. From the earliest days of Mesopotamian travel the spade of the explorer has been applied to the ruins of Babylon. Since the days of Ibn Haukal, A.D. 927, who speaks of Babylon as "a little village," we may mention, among those who have visited the site, John Eldred, the English merchant, in 1583; Pietro della Valle, in 1616; Niebuhr, 1765; Mr. Beauchamp, in 1780. In the 19th century we have many, but among explorers Rich, Layard, Loftus, Rawlinson, Oppert, and lastly, but chiefly, Rassam. Strange as it may seem, although for more than three centuries the ruins have been known and visited, and for centuries the Arab brick merchants have been digging amid its ruins

for bricks, it is only within the last few years that records of importance have been recovered. With the exception of thousands of bricks bearing the names and titles of Nebuchadnezzar, and cylinders inscribed with the records of temples and palaces built or restored by the builder-king and his successors, no record of historical or scientific importance has been recovered from amid the ruins. But the year 1874 began a new era in Babylonian explorations, for from that time on there has been a continuous flow of inscriptions and records from the treasure-house of the city; and we now know much more of the popular life of Babylon and its people than after years of study we have been able to ascertain regarding Nineveh from monuments and records. After the wet season of 1874 the Arab brick diggers of Hillah, who commenced work on the mounds, found exposed to view a number of tablets and inscriptions of all sizes, from one inch to one foot square. The mound in which these records were found is called Jumjuma—"the skull"—and the excavations made by Mr. Rassam have proved that here was the great commercial exchange of Babylon. The tablets found by the Arabs in 1874-75 were purchased by the late George Smith for the trustees of the British Museum, and the subsequent finds made by Mr. Rassam have added some hundreds to this branch of the collection, so that of this class of tablets there are now more than 3,000 examples in the British Museum. These tablets show that for a long period, probably several centuries, the family of the Beni Egibi were the leading commercial firm of Babylon, and to them was confided all the business of the Babylonian Ministry of Finance. The building whose ruins are marked by the mound of Jumjuma was the *chancellerie* of the firm, and from its ruins come the records of every class of monetary transactions. The documents being all most carefully dated and compiled, are of great value to the chronologist and historian; while to the student of Babylonian civilization they are of the highest importance. From the tax receipts we learn how the revenue was raised by duties levied on land, on crops of dates and corn, on cattle, by imposts for the use of the irrigation canals and the use of the public roads. The insight into the component elements of social life, ranging from the king and princes, the priests and soldiers, down to the lowest peasant and slave, is such as is hardly afforded by the records of any other nation. By aid of these records we can almost picture the motley crowd of citizens and countrymen who gathered in the courtyard of the great Babylonian bankers. Then as now in the same land the tax-gatherer was an extortionist; and many a petition was lodged against his claims. One interesting fact which we gather from these records is that of the existence of a large quantity of temple lands, similar to the mosque property *wakf* or mortmain of the Ottoman Empire, and many deeds of mortmain exist among the tablets recovered. It is almost impossible to estimate too highly the importance of such a series of documents as these, dealing with every phase of social life, and coming to us from a city within whose walls were gathered representatives of every "nation, people, and tongue." The inscriptions which Mr. Rassam has recovered are not confined to documents of this class only. It was long feared by Assyriologists that Babylonian history was irretrievably lost, as no historical records were recovered, but from the ruins of the palaces of the kings of Babylon Mr. Rassam has brought fragments of historical inscriptions of Nebuchadnezzar, a valuable *précis* of the history of the last days of the Babylonian Empire, extending from the seventh year of Nabonidus to the fall of the city before the hosts of Cyrus, a royal record of the Persian conqueror, and lastly, an inscribed record of the last great victor who entered Babylon, Alexander of Macedon. These records will afford ample material for the student of the history of the "third Mesopotamian monarchy," and a carefully compiled canon of kings, extending as far back as the Median dynasty, will afford valuable aid in the arrangement of future discoveries.

The scarcity of stone in Babylonia, and the extensive use of bricks, rendered the ruins of Babylonian palaces not fruitful fields for the explorer in search of architectural remains. In the ruins of the Kasr or "palace" mound, Mr. Rassam has found chambers and corridors which formed part of the royal residence of the kings of Babylon. The use of plaster and painted bricks as decoration in these chambers affords strong support to the statements of the Greek writers as to the mode of decorating the royal residences of Babylon. On the extreme north of the ruins of Babylon, and partly without the *enceinte*, is the large mound called by the natives the Babel mound. Excavations made here have brought to light the remains of extensive hydraulic works, wells and conduits lined with stones, and evidently connected with the Euphrates. The discovery of these remains would seem to indicate that here had stood the hanging gardens, built by the Babylonian king for his Median queen, and the supposition receives additional support from the recovery of a small inscribed tablet, which clearly proves the fondness of the Babylonian kings for horticulture. A scribe attached to one of the palace or temple libraries of Babylonia has transmitted to us a list of the gardens or paradises of the Babylonian monarch Merodachbaladan, the contemporary of Sargon, Sennacherib, and Hezekiah. This monarch appears to have been a lavish patron of horticulture, for the list furnishes the names of more than 60 gardens and parks in and about Babylon constructed by the royal order. Leaving Babylon, we now cross the Euphrates and pass south-west to glance at the work which has been carried out on the ruins of the Birs Nimroud, the traditional site of the Tower of Babel, but really the ruins of the seven-staged Ziggurat, or observatory tower of the great temple of Nebo at Borsippa. Excavations in the Birs have brought to light several chambers of the ancient temple, and also afforded much in-

formation regarding the construction of the stage tower. From this site Mr. Rassam has brought some fragments of the great mass of vitrified bricks, which has so long been a puzzle to travellers, and it is to be hoped that some student of science may explain the cause of this vitrifaction. A few yards to the east of the Birs there is a large square mound called Ibraheem El Khaleel, to which Arab tradition points as the site of the burning fiery furnace in which Nimrod placed the patriarch Abraham. The explorations made by Mr. Rassam on this site do not tend in any degree to confirm the Moslem tradition, but the discovery of a series of chambers and corridors indicates that here stood one of the royal edifices erected by Nebuchadnezzar and mentioned by him in the India-house inscription.

Babylon may claim to be the mother of Nineveh and the cities of Assyria, yet among the cities of its own land there were those which could lay claim to far more ancient traditions, and even to being the ancestors of Babylon itself. Berosus, the Chaldean historian, makes no mention of Babylon among the primitive cities of the empire, and it is important to note that in no definitely-established fragment of the legends of Isdubar or Nimrod is the name of the city found. According to the traditions recorded by Berosus and supported by the evidence of the inscriptions, the most ancient cities of the empire were Ur—"the city"—Uruki or Erech, the seat of the kingdom of Isdubar, and Cutha, the city of Istar. More ancient still, and according to Berosus founded before the flood, were the cities of Surippak—"the ark city," the dwelling of Khasis-adra or Xisuthrus, the Chaldean Noah—and "Sippara of the Sun," the sacred city in wl ich by direction of Kronos Xisuthrus buried the records of antediluvian times. All students of history and antiquity will welcome the discovery made by Mr. Rassam of the sites of two of these ancient cities, whose records and traditions carry us far back to the days when, perchance, Babylon was as yet "a little village." While in the neighbourhood of Bagdad, Mr. Rassam heard from the Arabs of some ruins, on the banks of a half-dry canal, called by the Arabs Yusuffieh, where plenty of "written stones were to be found." The mounds to which his attention was directed were called Deyr, and were situated on the north bank of the canal, about 30 miles south-west of Bagdad. The test trenches cut in the mounds did not bring to light any very important remains, only a number of inscribed bricks of the time of Nebuchadnezzar, and no information was afforded as to the site represented by the ruins. But if the mounds of Deyr were drawn blank, a more fruitful spot was awaiting the touch of the explorer's wand to burst forth into a rich harvest of discoveries. While working at Deyr, Mr. Rassam paid a visit to the mounds called by the Arabs Tell Abu Hubba, where his test trenches soon rewarded him for the disappointment of Deyr. The mounds of Abu Hubba are very extensive, covering an area over two miles in circumference, and the position of the walls and citadel are clearly marked by mounds and embankments of *débris*. Like most Babylonian edifices, the buildings at Abbu Hubba are built with the angles to the cardinal points.

The citadel occupies the southern portion of the *enceinte*, and its highest point was on the south-west face, which was once on the banks of a broad canal or a branch of the Euphrates, the bed of which is now represented by the dry channel of the Ruthwaniyeh canal. The trenches excavated soon struck the walls of a building, and by following the face of these walls the outer face of a large square edifice was uncovered. The building as far as can be judged from the one face uncovered was square, and about two thousand yards in circumference, the south-west face being 1,500ft. in length. The architecture of these outer walls was similar to that of the buildings discovered at Warka and Mughier by Mr. Loftus; the walls being broken at equal distances by broad projecting buttresses, decorated with ploughed panels. Trenches and shafts run into the interior showed that the buildings were arranged round a central court, and consisted of a series of long, narrow rooms, with extremely thick brick walls. In the interior of the edifice an interesting pair of rooms were discovered and cleared of *débris* by the fortunate explorer, and it is from records found in these chambers that we have been able to ascertain the name of the city and the nature of the edifice whose ruins are buried beneath the mounds of Abu Hubba. In excavating a trench, following a wall in the central portion of the mound, a doorway was found leading into a large gallery or chamber, 100ft. in length and about 35ft. in width. In this chamber were the remains of a large brick altar nearly 30ft. square, and evidently the great sacrificial altar of the temple. In the wall of this chamber a door was found leading into a smaller room, which, from its construction and position, Mr. Rassam considered to be the record chamber of the edifice. In his explorations at Ballawat, which we fully described some time since, Mr. Rassam found the memorial records of the builder of the great temple of the Assyrian war-god, placed in a stone cist and buried near the altar. The scarcity of stone in Babylonia caused the builders of the temples at Abbu Hubba to enclose the records in a cist made of terra-cotta and to bury this beneath the floor of the chamber. The shaft sunk by the excavators employed by Mr. Rassam brought these precious records to light, and from them we are able to ascertain the name of the city and temple whose ruins have been discovered. The first three lines of the largest of the foundation records bring our speculative thoughts to a focus, and centre our minds on the traditions of one of the most ancient cities of Chaldea:—"To the Sun-god, the great lord, dwelling in Bit-Parra, which is within the city of Sippara." Here, then, we have restored to us the ruins and records of a city whose traditions go back to the days before the Flood, when pious Xisuthrus, by order of his god, "buried in the city of Sippara of the Sun the history of the be-

ginning, progress, and end of all things " antediluvian. And now we recover, 27 centuries after they were buried, the records of the pious restorers of this ancient temple. Such a discovery as this almost makes us inclined to dig on in hopes of finding the most ancient records buried there by the Chaldean Noah.

The history of this treasure trove from the ruins of the great temple of the Babylonian Sun-god is one of interest independent of the valuable information to be gained from the records found in the cist, for it shows the pious regard which the Babylonian kings had for the memorials of their ancestors. In the 31st year of Nabupaliddina, King of Babylon—that is, about the year 852 B.C.—there was placed by the King in this cist a votive tablet in pious gratitude to the Sun-god for aiding him to defeat the invasion of the Sutu, a northern Elamite tribe, headed by their King Simas-sipak. Three centuries after, in about B.C. 550, Nabonidus, King of Babylon, after restoring the shrine of the " Sun-god, his lord," opened the record chest and placed in it terra-cotta cylinders recording his pious works of restoration and endowment.

Nabupaliddina was the contemporary of the Assyrian kings, Assur-nazirpal and Shalmanesar, and the sculptured inscribed memorial of his reign which has been restored to us is certainly one of the most important records that have rewarded the explorer in Babylonia. In the upper part of the tablet, the dimensions of which are two feet long by one foot broad, is a small sculptured panel representing the worship of the Sun-god by Nabupaliddina and attendant priests. The god is represented as seated on a throne beneath a baldacchino, or open canopy shrine. He has long beard and hair, like most conceptions of the Sun-god, and holds in his hand a ring, the emblem of revolving time, and a short stick ; too small for a sceptre, we may, perhaps, see in this the fire stick, which was closely connected with the Sun-god. Before him, on a small table altar, is a large disc, ornamented with four starlike limbs and four sets of wave-like rays. Above this group is cut the inscription—" The Disc of the Sun-god and the rays (of his) eyes." The scene here depicted is clearly indicative of the fact that the priests of Sippara were worshippers of the solar disc and solar rays, and their creed seems to bear a close resemblance to that of the disc-worshippers of the 18th Egyptian dynasty, who, under Amenophis III. and his son Khunaten, for some time held their ground against the priests of Ammon. This heretical creed was introduced into Egypt by Thi, the Asiatic wife of Amenophis III., and its tenets have been made the subject of a special memoir by Sir Charles Nicholson. The discovery of this sculpture and inscription from the ruins of the temple of the Sun-god at Sippara tends very strongly to place the origin of the creed in Babylonia. The inscription on the back and front of this memorial tablet is a valuable record of the religious life and ceremonial of the Babylonian temples, and the list of the solar festivals in the fifth and sixth columns shows how far back into the remote past we must place the rise of Babylonian sun worship. Astronomers will welcome this ancient list of festivals, as it proves very clearly the high character of the astronomical knowledge of the Babylonian priests. The six fixed festivals recorded in this inscription are—

1. Nisan, seventh day, Festival of the Rays (vernal equinox).
2. Airu, tenth day, Festival of the Rays.
3. Ulul, third day, Festival of the Illumination of the Temple.
4. Tasritu, seventh day, Festival of the Illumination of the Palace (autumnal equinox).
5. Marchesvan, 14th day, Festival of the Rays.
6. Adar, 15th day, Festival of the Illumination of the Palace.

The discovery of an important list of solar festivals such as we have here is an important addition to our knowledge of Babylonian astro-theology. The first month of the Babylonian calendar was the " month of sacrifice," or " the altar," and its position was fixed by the vernal equinox, which was in the time of Nabupaliddina, in the sign of Aries—the ram being the chief object of sacrifice. Students of Biblical archæology will find an abundant fund of matter in the carefully compiled rules as to the distribution of the sacrificial victims. " Sheep," " oxen," " rams," " fruits of the earth," were objects of sacrifice, and portions of each offering were set aside for the priests. These offerings were burned on the great altar of the temple discovered by Mr. Rassam in the chamber adjoining the record room. The great central court of this temple seems to have been styled " the court of the Sun-god," and there was also an outer court " called the court of Bel." The value of this record, which tells of ancient Sippara and its temple, is still further enhanced by the fact that we have preserved to us the name of the sculptor who prepared the work. The King commissioned " Nabu-iddina Suma," a priest of the temple, to carve this record ; which, after it was done, he inspected and found its design " pleasing to his eyes " and " excellent before and behind." There are many points of history raised by this inscription, but it will suffice to say that from the earliest days of Babylonian history the city of " Sippara of the Sun " was a prominent centre of social and religious life. The excavations, therefore, at Abu Hubba have restored to us the ruins of the great temple of the Sun-god, " the House of Light " in the Chaldean Heliopolis. The monuments reveal to us the fact that there was a second city of Sippara, whose ruins are probably marked by the mounds of Deyr, and which was dedicated to the goddess Anat or Anunit, and the two cities of Sippara may be identified with the cities of Sepharvaim, mentioned by the Hebrew writer of the Second Book of Kings. This discovery is greatly enhanced by the further discoveries made by Mr. Rassam in another grave mound of Chaldea. The excavations which the explorer made in the mounds of Hubl Ibraheem, some ten miles east of Babylon,

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have restored records which prove that beneath these ruins were the remains of the temples and palaces of the city of Cutha, one of the great theological centres of Babylonia. In the southern portion of the larger of the two mounds at Hubl Ibraheem, Mr. Rassam found extensive remains of buildings, chambers, and corridors, and the inscribed bricks and tablets recovered point to these edifices as being the remains of the great Temple of Nergal and his consort Laz, which was restored by the great temple-builder Nebuchadnezzar. To the biblical scholar the discoveries of these cities, Sepharvaim and Cutha, is a great gain, for from them were brought the men of Sepharvaim and the men of Cutha, who were placed in Samaria by the Assyrian conqueror, Sargon (2 Kings, xvii. 24-31). The descendants of these worshippers of Adrammelech and Anammelech and Nergal, the god of Cutha, are now to be found in the small white-robed congregation who gather round the high priest Yakúb in the synagogue at Nablus. The traveller who visits these last remnants of the seed of Israel may carry his thoughts far back beyond the days of the Captivity, into the azure of the past, to the days when the ancestors of these men made the courts of Bit-Parra echo with hymns of praise to the Sun, the "lord of light and golden rays."

The above is the record of an explorer's short campaign amid the buried cities of Chaldea, and its results are such as lead us to hope for richer discoveries in the future from the land where centre all the traditions of the history and religion of Western Asia. The historian, the philologist, and the student of biblical archæology have, each and all, problems whose only solution is to be found beneath the mounds of Chaldea, and it is to be hoped that the discoveries of this expedition of 1880-81 may urge the authorities of the British Museum to greater and more extended efforts to recover the early chapters of the world's history which lie buried in those deserted plains.

We cannot close this notice of Mr. Rassam's work in the Tigro-Euphrates Valley without pointing out how deep a debt all students of history and science owe him. For more than 30 years he has laboured amid the buried cities of Assyria, Armenia, and Babylonia, and year by year he adds new treasures to our museum. Stimulated by none of the motives of the Assyriologist or decipherer, whose reading of the inscriptions urge him on to fresh researches and greater discoveries, he has by his thorough insight into native character and his great knowledge of Assyrian ruins succeeded in recovering from oblivion the priceless treasures of inscriptions and monuments of art which enrich the Assyrian collection of the British Museum.

VARIEDADES.

LA GENERACION DEL DIABLO.

Segun cuenta la tradicion, al diablo se le ocurrió una vez cometer la más grande de las locuras—contraer matrimonio. Su imperio es bastante dilatado, y aunque no faltarian en el infierno lindas y amables muchachas que pudiesen hacer aun al diablo uno de los séres mas felices, no encontró sin embargo en él, ninguna que le conviniese.

Convencido de que no encontraria allí su novia, resolvió dirigirse a nuestra tierra, y he aquí realizado el antiguo proverbio de la Biblia: "Buscad i encontrareis." Satanás encontró su compañera entre las hijas de los hombres! La afortunada que dió su preciosa mano al principe del infierno, se llamaba la señorita *Impiedad*.

Muchos años vivieron los dos esposos en la más completa felicidad. Un dia impelido por un acceso de nostalgía, el buen padre se decidió a abandonar la tierra y dirigirse a su patria. Como padre amoroso que era, no quiso irse sin dejar colocadas sus hijas (eran doce) de la manera siguiente:

La Ambicion, su hija mayor, la casó con un rico hidalgo.

La Avaricia, con un comerciante.

La Brutalidad, con un campesino.

La Envidia, con un artesano.

La Hipocresia, con un cortesano.

La Locura, con un soldado.

La Pobreza fué la mujer de un maestro de escuela.

La Injusticia fué la fiel compañera de un juez.

La Prodigalidad formó un par con un jóven, heredero de una gran fortuna.

La Crueldad, segun la voluntad de su padre, fué la querida de todo el género humano.

La Vanidad y la Venganza las dejó el diablo al bello sexo, porque no pudo encontrarles marido.

Hasta hoi ninguna de las hijas del diablo ha abandonado a su esposo.—(De *El Ateneo.*)

AN ELASTIC MAN.—"L'Homme Elastique" is the name under which Mr. Farini is exhibiting his latest curiosity at the Royal Aquarium. The elastic man is Herr Heinrich Haag, a Bavarian, whose skin, though apparently similar to other people's, is of so singular a texture that it may be stretched as if it were an indiarubber membrane. Thus, he can pull the skin of the nape of the neck over his head. To physiologists and medical men Herr Haag will no doubt be an object of considerable interest.

THE BRITISH ASSOCIATION.

YORK, AUG. 31.

The practical work of the Association began this afternoon with the usual preliminary meeting of the general committee, which was held in the Museum. At this meeting the retiring president, Mr. A. C. Ramsay, presided. The report of the council, which was read, proposed the appointment of Professor Bonney, M.A., as secretary, and the election to the council of Mr. Warren De La Rue, Mr. A. Vernon Harcourt, Mr. G. W. Hastings, M.P., Mr. J. C. Hawkshaw, and Professor Prestwich, in the room of Mr. Easton, Mr. Newmarch, Professor Roscoe, and Mr. Warrington Smyth, who retire by rotation. These proposals were agreed to. Professor A. W. Williamson presented a statement of accounts, from which it appeared that, including £500 brought over from the Swansea meeting, there had been received £2,095, and that after all necessary disbursements had been made, including grants for research amounting to £476, there remained a sum of £88 in hand. The presidents and vice-presidents of sections were then appointed as follows :—

Mathematical and Physical Science.—President, Professor Sir W. Thomson, ; vice-presidents, Professor J. B. Adams, and Mr. T. Archer, first.

Chemical Science.—President, Professor A. W. Williamson ; vice-presidents, Mr. F. A. Abel and Professor Thorpe.

Geology.—President, Mr. Ramsay ; vice-presidents, Professor Prestwich, and Professor W. C. Williamson.

Biology.—President, Dr. Owen ; vice-presidents, Professor W. H. Flower, and Professor J. S. Burdon Sanderson.

Department of Zoology and Botany.—Dr. Owen.

Department of Anthropology.—Professor W. H. Flower.

Department of Anatomy and Physiology.—Professor J. S. Burdon Sanderson.

Zoography.—President, Sir J. D. Hooker ; vice-presidents, Mr. Francis Galton and Mr. C. Wyville Thomson.

Economic Science and Statistics.—President, Mr. Grant-Duff, M.P. ; vice-presidents, Sir G. Campbell, M.P., and Mr. Heywood.

Mechanical Science.—President, W. G. Armstrong ; vice-presidents, Mr. W. H. Barlow, and Mr. C. W. Siemens.

A vote of thanks to the Chairman concluded the proceedings.

In the evening a brilliant assembly, graced with the presence of many ladies, was held in the large hall of the Exhibition buildings, at which Mr. A. C. Ramsay resigned the presidency, and formally inducted his successor, Sir John Lubbock, into office. The new president was supported, among others, by Sir W. Thomson, Professor Huxley, Professor Owen, Sir J. Hooker, Professor Roscoe, Mr. Herbert Spencer, Professor Flower, and Dr. Allman. To some extent the picturesqueness of the gathering was marred by an unfortunate attempt to light the hall with the electric light. The system employed was the "Brush," but from what appeared to be a deficiency of motive power, the light was painfully unsteady and uncertain.

Sir John Lubbock, on taking the chair, delivered his presidential address, expressing at the outset the thanks of the Association to the city of York for the welcome it had received and its extreme satisfaction at being able to meet on its 50th anniversary in its mother city. After referring to the circumstances of the founding of the Association, he said that, after much hesitation, he had determined to adopt the suggestion made by Mr. Spottiswoode at Dublin, and to endeavour to sum up in his address the principal scientific results of the last half-century, dwelling especially on those with which the Association was directly concerned. He would take the sections one by one, beginning with the biological, with which he was most intimately associated :—

Fifty years ago it was the general opinion that animals and plants came into existence just as we now see them. We took pleasure in their beauty ; their adaptation to their habits and mode of life in many cases could not be overlooked or misunderstood. Nevertheless the book of Nature was like some richly illuminated missal, written in an unknown tongue ; the graceful forms of the letters, the beauty of the colouring, excited our wonder and admiration ; but of the true meaning little was known to us ; indeed we scarcely realized that there was any meaning to decipher. Now glimpses of the truth are gradually revealing themselves ; we perceive that there is a reason—and in many cases we know what that reason is—for every difference in form, in size, and in colour ; for every bone and every feather, almost for every hair. Moreover, each problem which is solved opens out vistas, as it were, of others perhaps even more interesting. With this great change the name of our illustrious countryman, Darwin, is intimately associated, and the year 1859 will always be memorable in science as having produced his great work on "The Origin of Species." In the previous year he and Wallace had published short papers, in which they clearly state the theory of natural selection, at which they had simultaneously and independently arrived. We cannot wonder that Darwin's views should have at first excited great opposition. Nevertheless from the first they met with powerful support, especially in this country, from Hooker, Huxley, and Herbert Spencer. The theory is based on four axioms—" (1) That no two animals or plants in nature are identical in all respects ; (2) that the offspring tend to inherit the peculiarities of their parents ; (3) that of those which come into existence, only a small number reach maturity ; (4) that those which are, on the whole, best adapted to the circumstances in which they are placed are most likely to leave descendants." Darwin commenced his work by discussing the causes and extent of variability in animals, and the origin of domestic varieties ; he showed the impossibility of distinguishing between varieties and species, and pointed out the wide differences which man has produced in some cases—as, for instance, in our domestic pigeons, all unquestionably descended from a common stock. He dwelt on the struggle for existence (which has since become a household word), and which, inevitably resulting in the survival of the fittest, tends gradually to adapt any race of animals to the conditions in which it occurs. While thus, however, showing the great importance of natural selection, he attributed to it no exclusive influence, but fully admitted that other causes—the use and disuse of organs, sexual selection, &c.—had to be taken into consideration. Passing on to the difficulties of his theory, he accounted for the absence of intermediate varieties between species, to a great extent, by the imperfection of the geological record. But if the geological record be imperfect, it is still very instructive. The further palæontology has progressed the more

it has tended to fill up the gaps between existing groups and species, while the careful study of living forms has brought into prominence the variations dependent on food, climate, habitat, and other conditions, and shown that many species long supposed to be absolutely distinct are so closely linked together by intermediate forms that it is difficult to draw a satisfactory line between them. The principles of classification point also in the same direction, and are based more and more on the theory of descent. Biologists endeavour to arrange animals on what is called the "natural system." No one now places whales among fish, bats among birds, or shrews with mice, notwithstanding their external similarity; and Darwin maintained that "community of descent was the hidden bond which naturalists had been unconsciously seeking." How else, indeed, can we explain the fact that the framework of bones is so similar in the arm of a man, the wing of a bat, the fore-leg of a horse, and the fin of a porpoise—that the neck of a giraffe and that of an elephant contain the same number of vertebræ? Strong evidence is, moreover, afforded by embryology; by the presence of rudimentary organs and transient characters, as, for instance, the existence in the calf of certain teeth which never cut the gums, the shrivelled and useless wings of some beetles, the presence of a series of arteries in the embryos of the higher vertebrata exactly similar to those which supply the gills in fishes, even the spots on the young blackbird, the stripes on the lion's cub; these, and innumerable other facts of the same character, appear to be incompatible with the idea that each species was specially and independently created; and to prove, on the contrary, that the embryonic stages of species show us more or less clearly the structure of their ancestors. Darwin's views, however, are still much misunderstood. I believe there are thousands who consider that according to his theory a sheep might turn into a cow, or a zebra into a horse. No one would more confidently withstand any such hypothesis, his view being, of course, not that the one could be changed into the other, but that both are descended from a common ancestor. No one, at any rate, will question the immense impulse which Darwin has given to the study of natural history, the number of new views he has opened up, and the additional interest which he has aroused in, and contributed to, biology. When we were young we knew that the leopard had spots, the tiger was striped, and the lion tawny; but why this was so it did not occur to us to ask; and if we had asked no one would have answered. Now we see at a glance that the stripes of the tiger have reference to its life among jungle-grasses; the lion is sandy, like the desert; while the markings of the leopard resemble spots of sunshine glancing through the leaves. The science of embryology may almost be said to have been created in the last half century. Fifty years ago it was a very general opinion that animals which are unlike when mature, were dissimilar from the beginning. It is to Von Baer, the discoverer of the mammalian ovum, that we owe the great generalization "that the development of the egg is in the main a progress from the general to the special, —in fact, that embryology is the key to the laws of animal development. Thus the young of existing species resemble in many cases the mature forms which flourished in ancient times. Huxley has traced up the genealogy of the horse to the Miocene Anchitherium. In the same way Gaudry has called attention to the fact that just as the individual stag gradually acquires more and more complex antlers, having at first only a single prong, in the next year two points, in the following three, and so on; so the genus, as a whole, in Middle Miocene times, had two-pronged horns; in the Upper Miocene, three; and that it is not till the Upper Pliocene that we find any species with the magnificent antlers of our modern deer. It seems to be now generally admitted that birds have come down to us through the Dinosaurians, and, as Huxley has shown, the profound break once supposed to exist between birds and reptiles has been bridged over by the discovery of reptilian birds and bird-like reptiles; so that, in fact, birds are modified reptiles. Again, the remarkable genus Peripatus, so well studied by Moseley, tends to connect the annulose and articulate types. Again, the structural resemblances between Amphioxus and the Ascidians had been pointed out by Goodsir; and Kowalevsky in 1866 showed that these were not mere analogies, but indicated a real affinity. These observations, in the words of Allen Thomson, "have produced a change little short of revolutionary in embryological and zoological views, leading as they do to the support of the hypothesis that the Ascidian is an earlier stage in the phylogenetic history of the mammal and other vertebrates." The larval forms which occur in so many groups, and of which the insects afford us the most familiar examples, are, in the words of Quatrefages, embryos, which lead an independent life. In such cases as these external conditions act upon the larvæ as they do upon the mature form; hence we have two classes of changes, adaptational or adaptive, and developmental. These and many other facts must be taken into consideration; nevertheless naturalists are now generally agreed that embryological characters are of high value as guides in classification, and it may, I think, be regarded as well-established that, just as the contents and sequence of rocks teach us the past history of the earth, so is the gradual development of the species indicated by the structure of the embryo and its developmental changes. When the supporters of Darwin are told that his theory is incredible, they may fairly ask why it is impossible that a species in the course of hundreds of thousands of years should have passed through changes which occupy only a few days or weeks in the life-history of each individual? The phenomena of yolk-segmentation, first observed by Prevost and Dumas, are now known to be in some form or other invariably the precursors of embryonic development; while they reproduce, as the first stages in the formation of the higher animals, the main and essential features in the life-history of the lowest forms. The "blastoderm," as it is called, or first germ of the embryo in the egg, divides itself into two layers, corresponding, as Huxley has shown, to the two layers into which the body of the Cœlenterata may be divided. Not only so, but most embryos at an early stage of development have the form of a cup, the walls of which are formed by the two layers of the blastoderm. Kowalevsky was the first to show the prevalence of this embryonic form, and subsequently Lankester and Hæckel put forward the hypothesis that it was the embryonic repetition of an ancestral type, from which all the higher forms are descended. The cavity of the cup is supposed to be the stomach of this simple organism, and the opening of the cup the mouth. The inner layer of the wall of the cup constitutes the digestive membrane, and the outer the skin. To this form Hæckel gave the name Gastræa. It is, perhaps, doubtful whether the theory of Lankester and Hæckel can be accepted in precisely the form they propounded it; but it has had an important influence on the progress of embryology. I cannot quit the science of embryology without alluding to the very admirable work on "Comparative Embryology," by our new general secretary, Mr. Balfour, and also the "Elements of Embryology," which he had previously published in conjunction with Dr. M. Foster. In 1842, Steenstrup published his celebrated work on the "Alternation of Generations," in which he showed that many species are represented by two perfectly distinct types or broods, differing in form, structure, and habits; that in one of them males are entirely wanting, and that the reproduction is effected by fission, or by buds, which, however, are in some cases structurally indistinguishable from eggs. Steenstrup's illustrations were mainly taken from marine or parasitic species, of very great interest, but not generally familiar, excepting to naturalists. It has since been shown that the common cynips, or gallfly, is also a case in point. It had long been known that in some genera belonging to this group males are entirely wanting, and it has now been shown by Bassett, and more thoroughly by Adler, that some of these species are double brooded; the two broods having been considered as distinct genera. Thus, an insect known as Neuroterus lenticularis, of which females

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only occur, produces the familiar oak-spangles so common on the under sides of oak leaves, from which emerge, not Neuroterus lenticularis, but an insect hitherto considered as a distinct species, belonging even to a different genus, Spathegaster baccarum. In Spathegaster both sexes occur; they produce the currant-like galls found on oaks, and from these galls Neuroterus is again developed. So also the King Charles oak-apples produce a species known as Teras terminalis, which descends to the ground, and makes small galls on the roots of the oak. From these emerge an insect known as Biorhiza aptera, which again gives rise to the common oak-apple. It might seem that such inquiries as these could hardly have any practical bearing. Yet it is not improbable that they may lead to very important results. For instance, it would appear that the fluke which produces the rot in sheep passes one phase of its existence in the black slug, and we are not without hopes that the researches, in which our lamented friend Professor Rolleston was engaged at the time of his death, which we all so much deplore, will lead, if not to the extirpation, at any rate, to the diminution, of a pest from which our farmers have so grievously suffered. As regards descriptive biology, by far the greater number of species now recorded have been named and described within the last half century. Dr. Günther has been good enough to make a calculation for me. The numbers, of course, are only approximate, but it appears that while the total number of animals described up to 1831 was not more than 70,000, the number now is at least 320,000. Lastly, to show how large a field still remains for exploration, I may add that Mr. Waterhouse estimates that the British Museum alone contains not fewer than 12,000 species of insects which have not yet been described, while our collections do not probably contain anything like one-half of those actually in existence. Further than this, the anatomy and habits even of those which have been described offer an inexhaustible field for research, and it is not going too far to say that there is not a single species which would not amply repay the devotion of a lifetime. One remarkable feature in the modern progress of biological science has been the application of improved methods of observation and experiment, and the employment in physiological research of the exact measurements employed by the experimental physicist. Our microscopes have been greatly improved. The use of chemical re-agents in microscopical investigations has proved most instructive, and another very important method of investigation has been the power of obtaining very thin slices by imbedding the object to be examined in paraffin or some other soft substance. In this manner we can now obtain, say 50 separate sections of the egg of a beetle, or the brain of a bee. At the close of the last century, Sprengel published a most suggestive work on flowers, in which he pointed out the curious relation existing between these and insects, and showed that the latter carry the pollen from flower to flower. His observations, however, attracted little notice until Darwin called attention to the subject in 1862. It had long been known that the cowslip and primrose exist under two forms, about equally numerous, and differing from one another in the arrangements of their stamens and pistils; the one form having the stamens on the summit of the flower and the stigma half-way down, while in the other the relative positions are reversed, the stigma being at the summit of the tube and the stamens half-way down. This difference had, however, been regarded as a case of mere variability; but Darwin showed it to be a beautiful provision, the result of which is that insects fertilize each flower with pollen brought from a different plant; and he proved that flowers fertilized with pollen from the other form yield more seed than if fertilized with pollen of the same form, even if taken from a different plant. Attention having been thus directed to the question, an astonishing variety of most beautiful contrivances have been observed and described by many botanists, especially Hooker, Axel, Delpino, Hildebrand, Bennett, Fritz Müller, and, above all, Hermann Müller, and Darwin himself. The general result is that to insects, and especially to bees, we owe the beauty of our gardens, the sweetness of our fields. To their beneficent, though unconscious action, flowers owe their scent and colour, their honey—nay, in many cases, even their form. Their present shape and varied arrangements, their brilliant colours, their honey, and their sweet scent are all due to the selection exercised by insects. In these cases the relation between plants and insects is one of mutual advantage. In many species, however, plants present us with complex arrangements adapted to protect them from insects; such, for instance, are in many cases the resinous glands which render leaves unpalatable; the thickets of hairs and other precautions which prevent flowers from being robbed of their honey by ants. Again, more than a century ago, our countryman, Ellis, described an American plant, Dionæa, in which the leaves are somewhat concave, with long lateral spines and a joint in the middle, which close up with a jerk like a rat-trap the moment any unwary insect alights on them. The plant, in fact, actually captures and devours insects. This observation also remained as an isolated fact until within the last few years, when Darwin, Hooker, and others have shown that many other species have curious and very varied contrivances for supplying themselves with animal food.

After referring to the progress of botany in other directions, Sir John Lubbock proceeded :—

Nothing could have appeared less likely than that researches into the theory of spontaneous generation should have led to practical improvement in medical science. Yet such has been the case. Only a few years ago bacteria seemed mere scientific curiosities. It had long been known that an infusion—say, of hay—would, if exposed to the atmosphere, be found after a certain time to teem with living forms. Even those few who still believe that life would be spontaneously generated in such an infusion will admit that these minute organisms are, if not entirely, yet mainly, derived from germs floating in our atmosphere; and if precautions are taken to exclude such germs, as in the careful experiments especially of Pasteur, Tyndall, and Roberts, everyone will grant that in 99 cases out of 100 no such development of life will take place. These facts have led to most important results in surgery. One reason why compound fractures are so dangerous is because, the skin being broken, the air obtains access to the wound, bringing with it innumerable germs, which too often set up putrefying action. Lister first made a practical application of these observations. He set himself to find some substance capable of killing the germs without being itself too potent a caustic, and he found that dilute carbolic acid fulfilled these conditions. This discovery has enabled many operations to be performed which would previously have been almost hopeless. The same idea seems destined to prove as useful in medicine as in surgery. There is great reason to suppose that many diseases, especially those of a zymotic character, have their origin in the germs of special organisms. We know that fevers run a certain definite course. The parasitic organisms are at first few, but gradually multiply at the expense of the patient, and then die out again. Indeed, it seems to be thoroughly established that many diseases are due to the excessive multiplication of microscopic organisms, and we are not without hope that means will be discovered by which, without injury to the patient, these terrible though minute enemies may be destroyed and the disease thus stayed. The interesting researches of Burdon Sanderson, Greenfield, Koch, Pasteur, Toussaint, and others seem to justify the hope that we may be able to modify these and other germs, and then by appropriate inoculation to protect ourselves against fever and other acute diseases. The history of anæsthetics is a most remarkable illustration how long we may be on the very verge of a most important discovery. Ether, which, as we all know, produces perfect insensibility to pain, was discovered as long ago as 1540. The anæsthetic property of nitrous oxide, now so extensively used, was observed in 1800 by Sir H. Davy, who actually experimented on himself, and had one of his teeth painlessly extracted when under its influence. He even suggested that "as nitrous oxide gas seems capable of de-

stroying pain, it could probably be used with advantage in surgical operations." Nay, this property of nitrous oxide was habitually explained and illustrated in the chemical lectures given in hospitals, and yet for 50 years the gas was never used in actual operations. Few branches of science have made more rapid progress in the last half-century than that which deals with the ancient condition of man. When our association was founded it was generally considered that the human race suddenly appeared on the scene about 6,000 years ago, after the disappearance of the extinct mammalia, and when Europe, both as regards physical conditions and the other animals by which it was inhabited, was pretty much in the same condition as in the period covered by Greek and Roman history. Since then the persevering researches of Layard, Rawlinson, Botta, and others have made known to us, not only the statues and palaces of the ancient Assyrian monarchs, but even their libraries; the cuneiform characters have been deciphered, and we can not only see but read in the British Museum the actual contemporary records, on burnt-clay cylinders, of the events recorded in the historical books of the Old Testament and in the pages of Herodotus. The researches in Egypt also seem to have satisfactorily established the fact that the pyramids themselves are at least 6,000 years old, while it is obvious that the Assyrian and Egyptian monarchies cannot suddenly have attained to the wealth and power, the state of social organization and progress in the arts of which we have before us, preserved by the sand of the desert from the ravages of man, such wonderful proofs. In Europe, the writings of the earliest historians and poets indicated that, before iron came into general use, there was a time when bronze was the ordinary material of weapons, axes, and other cutting implements, and though it seemed *à priori* improbable that a compound of copper and tin should have preceded the simple metal iron, nevertheless the researches of archæologists have shown that there really was in Europe a "Bronze Age," which at the dawn of history was just giving way to that of "Iron." The contents of ancient graves, buried in many cases so that their owner might carry some, at least, of his wealth with him to the world of spirits, have proved very instructive. More especially the results obtained by Nilsson in Scandinavia, by Hoare and Borlase, Bateman and Greenwell, in our own country, and the contents of the rich cemetery at Hallstadt, left no room for doubt as to the existence of a Bronze Age; but we get a completer idea of the condition of man at this period from the Swiss lake villages, first made known to us by Keller, and subsequently studied by Morlot, Troyon, Desor, Rütimeyer, Heer, and other Swiss archæologists. Along the shallow edges of the Swiss lakes there flourished, once upon a time, many populous villages or towns, built on platforms supported by piles, exactly as many Malayan villages are now. Under these circumstances innumerable objects were one by one dropped into the water; sometimes whole villages were burnt and their contents submerged; and thus we have been able to recover from the waters of oblivion in which they had rested for more than 2,000 years, not only the arms and tools of this ancient people, the bones of their animals, their pottery and ornaments, but the stuffs they wore, the grain they had stored up for future use, even fruits and cakes of bread. But this bronze-using people were not the earliest occupants of Europe. The contents of ancient tombs give evidence of a time when metal was unknown. This also was confirmed by the evidence then unexpectedly received from the Swiss lakes. By the side of the bronze-age villages were others, not less extensive, in which, while implements of stone and bone were discovered literally by thousands, not a trace of metal was met with. The shell-mounds or refuse heaps accumulated by the ancient fishermen along the shores of Denmark fully confirmed the existence of a Stone Age. No bones of the reindeer, no fragments of any of the extinct mammalia have been found in any of the Swiss lake villages or in any of the thousands of tumuli which have been opened in our own country or in Central and Southern Europe. Yet the contents of caves and of river gravels afford abundant evidence that there was a time when the mammoth and rhinoceros, the musk ox and reindeer, the cave lion and hyena, the great bear and the gigantic Irish elk wandered in our woods and valleys and the hippopotamus floated in our rivers; when England and France were united, and the Thames and the Rhine had a common estuary. This was long supposed to be before the advent of man. At length, however, the discoveries of Boucher de Perthes in the valley of the Somme, supported as they are by the researches of many Continental naturalists, and in our own country of M'Enery and Godwin-Austen, Prestwich and Lyell, Vivian and Pengelly, Christy, Evans, and many more, have proved that man formed a humble part of this strange assembly. Nay, even at this early period there were at least two distinct races of men in Europe, one of them—as Boyd-Dawkins has pointed out—closely resembling the modern Esquimaux in form, in his weapons and implements, probably in his clothing, as well as in so many of the animals with which he was associated. At this stage man appears to have been ignorant of pottery, to have had no knowledge of agriculture, no domestic animals, except, perhaps, the dog. His weapons were the axe, the spear, and the javelin; I do not believe he knew the use of the bow, though he was probably acquainted with the lance. He was, of course, ignorant of metal, and his stone implements, though skilfully formed, were of quite different shapes from those of the second Stone Age and were never ground. This Earlier Stone period, when man co-existed with these extinct mammalia, is known as the Palæolithic, or Early Stone Age, in opposition to the Neolithic, or Newer Stone Age. The remains of the mammalia which co-existed with man in pre-historic times have been most carefully studied by Owen, Lartet, Rütimeyer, Falconer, Busk, Boyd-Dawkins, and others. The presence of the mammoth, the reindeer, and especially of the musk ox indicates a severe, not to say an arctic, climate, the existence of which, moreover, was proved by other considerations; while, on the contrary, the hippopotamus requires considerable warmth. How, then, is this association to be explained? While the climate of the globe is, no doubt, much affected by geographical conditions, the cold of the glacial period was, I believe, mainly due to the eccentricity of the earth's orbit combined with the obliquity of the ecliptic. The result of the latter condition is a period of 21,000 years, during one-half of which the northern hemisphere is warmer than the southern, while during the other 10,500 years the reverse is the case. At present we are in the former phase, and there is, we know, a vast accumulation of ice at the south pole. But when the earth's orbit is nearly circular, as it is at present, the difference between the two hemispheres is not very great; on the contrary, as the eccentricity of the orbit increases, the contrast between them increases also. This eccentricity is continually oscillating within certain limits, which Croll and subsequently Stone have calculated out for the last million years. At present the eccentricity is ·016, and the mean temperature of the coldest month in London is about 40deg. Such has been the state of things for nearly 100,000 years; but before that there was a period, beginning 300,000 years ago, when the eccentricity of the orbit varied from ·26 to ·57. The result of this would be greatly to increase the effect due to the obliquity of the orbit; at certain periods the climate would be much warmer than at present, while at others the number of days in winter would be 20 more, and of summer 20 less than now, while the mean temperature of the coldest month would be lowered 20deg. We thus get something like a date for the last glacial epoch, and we see that it was not simply a period of cold, but rather one of extremes, each beat of the pendulum of temperature lasting for no less than 21,000 years. This explains the fact that, as Morlot showed in 1854, the glacial deposits of Switzerland, and, as we now know, those of Scotland, are not a single uniform layer, but a succession of strata indicating very different conditions. I agree also with Croll and Geikie in thinking that these considerations explain the apparent anomaly of the co-existence in the same gravels of arctic and tropical animals, the former having lived in the cold, while the

latter flourished in the hot periods. It is, I think, now well established that man inhabited Europe during the milder periods of the glacial epoch. Some high authorities, indeed, consider that we have evidence of his presence in pre-glacial and even in miocene times, but I confess that I am not satisfied on this point. Even the more recent period carries back the record of man's existence to a distance so great as altogether to change our views of ancient history. Nor is it only as regards the antiquity and material condition of man in pre-historic times that great progress has been made. If time had permitted I should have been glad to have dwelt on the origin and development of the language, of custom, and of law. On all of these comparison of the various lower races still inhabiting so large a portion of the earth's surface has thrown much light; while even in the most cultivated nations we find survivals, curious fancies, and lingering ideas —the fossil remains, as it were, of former customs and religions embedded in our modern civilization, like the relics of extinct animals in the crust of the earth. In geology, the formation of our association coincided with the appearance of Lyell's "Principles of Geology," the first volume of which was published in 1830 and the second in 1832. At that time the received opinion was that the phenomena of geology could only be explained by violent periodical convulsions, and a high intensity of terrestrial energy culminating in repeated catastrophes. Hutton and Playfair had indeed maintained that such causes as those now in operation would, if only time enough were allowed, account for the geological structure of the earth; nevertheless, the opposite view generally prevailed, until Lyell, with rare sagacity and great eloquence, with a wealth of illustration and most powerful reasoning, convinced geologists that the forces now in action are powerful enough, if only time be given, to produce results quite as stupendous as those which science records. As regards stratigraphical geology, at the time of the first meeting of the British Association at York, the strata between the carboniferous limestone and the chalk had been mainly reduced to order and classified chiefly through the labours of William Smith. But the classification of all the strata lying above the chalk and below the carboniferous limestone respectively remained in a state of the greatest confusion. The year 1831 marks the period of the commencement of the joint labours of Sedgwick and Murchison, which resulted in the establisbment of the Cambrian, Silurian, and Devonian systems. Our pre-Cambrian strata have recently been divided by Hicks into four great groups of immense thickness, and implying, therefore, a great lapse of time, but no fossils have yet been discovered in them. Lyell's classification of the tertiary deposits, the result of the studies which he carried on with the assistance of Deshayes and others, was published in the third volume of the "Principles of Geology" in 1833. The establishment of Lyell's divisions of eocene, miocene, and pliocene was the starting-point of a most important series of investigations by Prestwich and others of these younger deposits, as well as of the post-tertiary, quaternary, or drift-beds, which are of special interest from the light they have thrown on the early history of man. As regards the physical character of the earth, two theories have been held—one, that of a fluid interior covered by a thin crust; the other, of a practically solid sphere. The former is now very generally admitted, both by astronomers and geologists, to be untenable. The prevailing feeling of geologists on this subject has been well expressed by Professor Le Conte, who says, "The whole theory of igneous agencies—which is little less than the whole foundation of theoretic geology—must be reconstructed on the basis of a solid earth." In 1837 Agassiz startled the scientific world by his "Discours sur l'ancienne extension des Glaciers," in which, developing the observation already made by Charpentier and Venetz, that boulders had been transported to great distances, and that rocks far away from or high above existing glaciers are polished and scratched by the action of ice, he boldly asserted the existence of a "glacial period" during which Switzerland and the North of Europe were subjected to great cold and buried under a vast sheet of ice. The ancient poets described certain gifted mortals as privileged to descend into the interior of the earth, and have exercised their imagination in recounting the wonders there revealed. As in other cases, however, the realities of science have proved more varied and surprising than the dreams of fiction. Of the gigantic and extraordinary animals thus revealed to us by far the greater number have been described during the period now under review. For instance, the gigantic Cetiosaurus was described by Owen in 1838, the Dinornis of New Zealand by the same distinguished naturalist in 1839, the Mylodon in the same year, and the Archæopteryx in 1862. In America, a large number of remarkable forms have been described, mainly by Marsh, Leidy, and Cope. Marsh has made known to us the Titanosaurus, of the American (Colorado) Jurassic beds, which is, perhaps, the largest land animal yet known, being a hundred feet in length and at least thirty in height, though it seems possible that even these vast dimensions were exceeded by those of the Atlantosaurus. Nor must I omit the Hesperornis, described by Marsh in 1872 as a carnivorous, swimming ostrich, provided with teeth, which he regards as a character inherited from reptilian ancestors; the Ichthyornis, stranger still, with biconcave vertebræ, like those of fishes, and teeth set in sockets. As giving in a few words an idea of the rapid progress in this department, I may mention that Morris's "Catalogue of British Fossils," published in 1843, contained 5,300 species; while that now in preparation by Mr. Etheridge enumerates 15,000. But if these figures show how rapid our recent progress has been, they also very forcibly illustrate the imperfection of the geological record, and give us, I will not say a measure, but an idea of the imperfection of the geological record. The number of all the described recent species is over 300,000, but certainly not half are yet on our lists, and we may safely take the total number of recent species as being not less than 700,000. But in former times there have been at the very least 12 periods, in each of which by far the greater number of species were distinct. True, the number of species was probably not so large in the earlier periods as at present; but if we make a liberal allowance for this we shall have a total of more than 2,000,000 species, of which about 25,000 only are as yet upon record; and many of these are only represented by a few, some only by a single specimen, or even only by a fragment. The progress of palæontology may also be marked by the extent to which the existence of groups has been, if I may so say, carried back in time. Thus I believe that in 1830 the earliest known quadrupeds were small marsupials belonging to the Stonesfield slates; the most ancient mammal now known is Microlestes antiquus from the Keuper of Würtemberg; the oldest bird known in 1831 belonged to the period of the London clay, the oldest now known is the Archæopteryx of the Solenhofen slates, though it is probable that some at any rate of the footsteps on the Triassic rocks are those of birds. So again the Amphibia have been carried back from the Trias to the coal measures; fish from the old red sandstone to the upper Silurian; reptiles to the Trias; insects from the cretaceous to the Devonian; mollusca and crustacea from the Silurian to the lower Cambrian. The rocks below the Cambrian, though of immense thickness, have afforded no relics of animal life, if we except the problematical Eozoon Canadense, so ably studied by Dawson and Carpenter. But if palæontology as yet throws no light on the original forms of life, we must remember that the simplest and the lowest organisms are so soft and perishable that they would leave "not a wrack behind." Passing to the Science of Geography, Mr. Clements Markham has recently published an excellent summary of what has been accomplished in exploration and mapping during the half century. But the progress in our knowledge of geography is, and has been, by no means confined to the improvement of our maps, or to the discovery and description of new regions of the earth, but has extended to the causes which have led to the present configuration of the surface. To a great extent, indeed, this part of the subject falls rather

within the scope of geology, but I may here refer, in illustration, to the distribution of lakes, the phenomena of glaciers, the formation of volcanic mountains, and the structure and distribution of coral islands. The origin and distribution of lakes is one of the most interesting problems in physical geography. That they are not scattered at random, a glance at the map is sufficient to show. They also and in mountain districts, are comparatively rare in equatorial regions, increasing in number as we go north, so that in Scotland and the northern parts of America they are sown broadcast. Perhaps *a priori* the first explanation of the origin of lakes which would suggest itself would be that they were formed in hollows resulting from a disturbance of the strata, which had thrown them into a basin-shaped form. Lake-basins, however, of this character are, as a matter of fact, very rare; as a general rule, lakes have not the form of basin-shaped synclinal hollows, but, on the contrary, the strike of the strata often runs right across them. My eminent predecessor, Professor Ramsay, divides lakes into three classes :—(1) Those which are due to irregular accumulations of drift, and which are generally quite shallow ; (2) those which are formed by moraines ; and (3) those which occupy true basins scooped by glacier-ice out of the solid rock. To the latter class belong most of the great Swiss and Italian lakes. Professor Ramsay attributes their excavation to glaciers, because it is of course obvious that rivers cannot make basin-shaped hollows surrounded by rock on all sides. Now, the Lake of Geneva, 1,230 feet above the sea is 984 feet deep ; the Lake of Brienz is 1,850 feet above the sea, and 2,000 feet deep, so that its bottom is really below the sea-level. The Italian lakes are even more remarkable. The Lake of Como, 700 feet above the sea, is 1,929 feet deep. Lago Maggiore, 685 feet above the sea, is no less than 2,625 feet deep. It will be observed that these lakes, like many others in mountain regions, those of Scandinavia, for instance, lie in the direct channels of the great old glaciers. If the mind is at first staggered at the magnitude of the scale, we must remember that the ice which scooped out the valley in which the Lake of Geneva now reposes was once at least 2,700 feet thick ; while the moraines were also of gigantic magnitude, that of Ivrea, for instance, being no less than 1,500 feet in height. Professor Ramsay's theory seems, therefore, to account beautifully for a large number of interesting facts. Passing from lakes to mountains, two rival theories with reference to the structure and origin of volcanoes long struggled for supremacy. The more general view was that the sheets of lava and scoriæ which form volcanic cones—such, for instance, as Etna or Vesuvius—were originally nearly horizontal, and that subsequently a force operating from below, and exerting a pressure both upwards and outwards from a central axis towards all points of the compass, uplifted the whole stratified mass and made it assume a conical form, giving rise at the same time, in many cases, to a wide and deep circular opening at the top of the cone, called by the advocates of this hypothesis a "crater of elevation." This theory, though, as it seems to us now, it had already received its death-blow from the admirable memoirs of Scrope, was yet that most generally adopted 50 years ago, because it was considered that compact and crystalline lavas could not have consolidated on a slope exceeding 1deg. or 2deg. In 1858, however, Sir C. Lyell conclusively showed that in fact such lavas could consolidate at a considerable angle, even in some cases at more than 30deg., and it is now generally admitted that though the beds of lava, &c., may have sustained a slight angular elevation since their deposition, still in the main volcanic cones have acquired their form by the accumulations of lava and ashes ejected from one or more craters. The problems presented by glaciers are of very great interest. In 1843 Agassiz and Forbes proved that the centre of a glacier, like that of a river, moves more rapidly than its sides. But how and why do glaciers move at all? Rendu, afterwards Bishop of Annecy, in 1841 endeavoured to explain the facts by supposing that glacier ice enjoys a kind of ductility. The "viscous theory" of glaciers was also adopted, and most ably advocated, by Forbes, who compared the condition of a glacier to that of the contents of a tar-barrel poured into a sloping channel. We have all, however, seen long narrow fissures, a mere fraction of an inch in width, stretching far across glaciers—a condition incompatible with the ordinary idea of viscosity. The phenomenon of regelation was afterwards applied to the explanation of glacier-motion. An observation of Faraday's supplied the clue. He noticed in 1850 that when two pieces of thawing ice are placed together they unite by freezing at the place of contact. Following up this suggestion Tyndall found that if he compressed a block of ice in a mould it could be made to assume any shape he pleased. A straight prism, for instance, placed in a groove and submitted to hydraulic pressure, was bent into a transparent semi-circle of ice. These experiments seem to have proved that a glacial valley is a mould through which the ice is forced, and to which it will accommodate itself ; while, as Tyndall and Huxley also pointed out, the "veined structure of ice" is produced by pressure, in the same manner as the cleavage of slate rocks. It was in the year 1842 that Darwin published his great work on "Coral Islands." The fringing reefs of coral presented no special difficulty. They could be obviously accounted for by an elevation of the land, so that the coral which had originally grown under water, had been raised above the sea-level. The circular or oval shape of so many reefs, however, each having a lagoon in the centre, closely surrounded by a deep ocean, and rising but a few feet above the sea-level had long been a puzzle to the physical geographer. The favourite theory was that these were the summits of submarine volcanoes on which the coral had grown. But as the reef-making coral does not live at greater depths than about 25 fathoms, the immense number of these reefs formed an almost insuperable objection to this theory. The Laccadives and Maldives, for instance—meaning literally the "lac of islands" and the "thousand islands"—are a series of such atolls, and it was impossible to imagine so great a number of craters, all so nearly of the same altitude. Darwin showed, moreover, that so far from the ring of corals resting on a corresponding ridge of rock, the lagoons, on the contrary, now occupy the place which was once the highest land. He pointed out that some lagoons, as, for instance, that of Vanikoro, contain an island in the middle ; while other islands, such as Tahiti, are surrounded by a margin of smooth water, separated from the ocean by a coral reef. Now, if we suppose that Tahiti were to sink slowly, it would gradually approximate to the condition of Vanikoro ; and if Vanikoro gradually sank, the central island would disappear, while on the contrary the growth of the coral might neutralize the subsidence of the reef, so that we should have simply an atoll, with its lagoon. The same considerations explain the origin of the "barrier reefs," such as that which runs, for nearly 1,000 miles, along the north-east coast of Australia. Thus Darwin's theory explained the form and the approximate identity of altitude of these coral islands. But it did more than this, because it showed us that there were great areas in process of subsidence, which, though slow, was of great importance in physical geography.

Sir John Lubbock then referred to the knowledge which has been gained of the abysses of the ocean, particularly through the voyages of the Porcupine and Challenger. Passing on to astronomy, he mentioned the discovery, in 1845, of the planet Neptune, by Adams and Le Verrier simultaneously, and the augmentation in the number of known minor planets from four to 220. Next, he dwelt at some length on the discoveries due to spectrum analysis, first, as to the chemical properties of the heavenly bodies. He continued :—

But it is not merely the chemistry of the heavenly bodies on which light is thrown by the spectroscope ; their physical structure and evolutional history are also illuminated by this wonderful instrument of research. It used to

be supposed that the sun was a dark body enveloped in a luminous atmosphere. The reverse now appears to be the truth. The body of the sun, or photosphere, is intensely brilliant; round it lies the solar atmosphere of comparatively cool gases, which cause the dark lines in the spectrum; thirdly, a chromosphere—a sphere principally of hydrogen, jets of which are said sometimes to reach to a height of 100,000 miles or more, into the outer coating or corona, the nature of which is still very doubtful. Formerly the red flames which represent the higher regions of the chromosphere could be seen only on the rare occasions of a total solar eclipse. Janssen and Lockyer, by the application of the spectroscope, have enabled us to study this region of the sun at all times. It is, moreover, obvious that the powerful engine of investigation afforded us by the spectroscope is by no means confined to the substances which form part of our system. The incandescent body can thus be examined, no matter how great its distance, so long only as the light is strong enough. That this method was theoretically applicable to the light of the stars was indeed obvious, but the practical difficulties were very great. Sirius, the brightest of all, is, in round numbers, a hundred millions of millions of miles from us; and, though as big as 60 of our suns, his light when it reaches us, after a journey of 16 years, is at most one two-thousand-millionth part as bright. Nevertheless, as long ago as 1815, Fraunhofer recognized the fixed lines in the light of four of the stars, and in 1863 Miller and Huggins in our own country, and Rutherford in America, succeeded in determining the dark lines in the spectrum of some of the brighter stars, thus showing that these beautiful and mysterious lights contain many of the material substances with which we are familiar. In Aldebaran, for instance, we may infer the presence of hydrogen, sodium, magnesium, iron, calcium, tellurium, antimony, bismuth, and mercury; some of which are not yet known to occur in the sun. As might have been expected, the composition of the stars is not uniform, and it would appear that they may be arranged in a few well-marked classes, indicating differences of temperature, or, in other words, of age. Some recent photographic spectra of stars obtained by Huggins go very far to justify this view. Thus we can make the stars teach us their own composition with light which started from its source before we were born—light older than our Association itself.

After showing how Huggins had successfully applied the spectroscope to determine the movements of the stars directly towards or away from us, and how Alexander Herschel had examined the spectrum of a shooting star, Sir John proceeded :—

No element has yet been found in any meteorite which was not previously known as existing in the earth, but the phenomena which they exhibit indicate that they must have been formed under conditions very different from those which prevail on the earth's surface. I may mention, for instance, the peculiar form of crystallized silica, called by Maskelyne, asmanite; and the whole class of meteorites, consisting of iron generally alloyed with nickel, which Daubrée terms holosiderites. The interesting discovery, however, by Nordenskiöld, in 1870, at Ovifak, of a number of blocks of iron alloyed with nickel and cobalt, in connexion with basalts containing disseminated iron, has, in the words of Judd, "afforded a very important link, placing the terrestrial and extra-terrestrial rocks in closer relations with one another." We have as yet no sufficient evidence to justify a conclusion as to whether any substances exist in the heavenly bodies which do not occur in our earth, though there are many lines which cannot yet be satisfactorily referred to any terrestrial element. On the other hand, some substances which occur on our earth have not yet been detected in the sun's atmosphere. Such discoveries as these seemed, not long ago, entirely beyond our hopes. M. Comte, indeed, in his "Cours de Philosophie Positive," as recently as 1842, laid it down as an axiom regarding the heavenly bodies, that "Nous concevons la possibilité de déterminer leurs formes, leurs distances, leurs grandeurs et leurs mouvements, tandis que nous ne saurions jamais étudier par aucun moyen leur composition chimique ou leur structure minéralogique." Yet, within a few years this supposed impossibility has been actually accomplished, showing how unsafe it is to limit the possibilities of science. It is hardly necessary to point out that, while the spectrum has taught us so much, we have still even more to learn. Why should some substances give few, and others many lines? Why should the same substance give different lines at different temperatures? What are the relations between the lines and the physical or chemical properties? We may certainly look for much new knowledge of the hidden actions of atoms and molecules from future researches with the spectroscope. It may even, perhaps, teach us to modify our views of the so-called simple substances. Prout long ago, struck by the remarkable fact that nearly all atomic weights are simple multiples of the atomic weight of hydrogen, suggested that hydrogen must be the primordial substance. Brodie's researches also naturally fell in with the supposition that the so-called simple substances are in reality complex, and that their constituents occur separately in the hottest regions of the solar atmosphere. Lockyer considers that his researches lend great probability to this view. The whole subject is one of intense interest, and we may rejoice that it is occupying the attention, not only of such men as Abney, Dewar, Hartley, Liveing, Roscoe, and Shuster in our own country, but also of many foreign observers. When geology so greatly extended our ideas of past time, the continued heat of the sun became a question of greater interest than ever. Helmholtz has shown that, while adopting the nebular hypothesis, we need not assume that the nebulous matter was originally incandescent; but that its present high temperature may be, and probably is, mainly due to gravitation between its parts. It follows that the potential energy of the sun is far from exhausted, and that with continued shrinking it will continue to give out light and heat, with little, if any, diminution for several millions of years. Like the sand of the sea, the stars of heaven have ever been used as effective symbols of number, and the improvements in our methods of observation have added fresh force to our original impressions. We now know that our earth is but a fraction of one out of at least 75,000,000 worlds. But this is not all. In addition to the luminous heavenly bodies, we cannot doubt that there are countless others, invisible to us from their greater distance, smaller size, or feebler light; indeed, we know that there are many dark bodies which now emit no light or comparatively little. Thus in the case of Procyon, the existence of an invisible body is proved by the movement of the visible star. Again, I may refer to the curious phenomena presented by Algol, a bright star in the head of Medusa. This star shines without change for two days and 13 hours; then, in three hours and a-half, dwindles from a star of the second to one of the fourth magnitude; and then, in another three and a-half hours, re-assumes its original brilliancy. These changes seem certainly to indicate the presence of an opaque body, which intercepts at regular intervals a part of the light emitted by Algol. Thus the floor of heaven is not only "thick inlaid with patines of bright gold," but studded also with extinct stars; once probably as brilliant as our own sun, but now dead and cold, as Helmholtz tells us that our sun itself will be, some 17 millions of years hence. The general result of astronomical researches has been thus eloquently summed up by Proctor :—"The sidereal system is altogether more complicated and more varied in structure than has hitherto been supposed; in the same region of the stellar depths coexist stars of many orders of real magnitude; all orders of nebulæ, gaseous or stellar planetary, ring-formed, elliptical, and spiral, exist within the limits of the galaxy; and lastly, the whole system is alive with movements, the laws of which may one day be recognized, though at present they appear too complex to be understood." We can, I think, scarcely claim the establishment of the undulatory theory of light as falling within the last 50 years; for though Brewster, in his "Report on Optics," published in our

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first volume, treats the question as open, and expresses himself still unconvinced, he was, I believe, almost alone in his preference for the emission theory. The phenomena of interference, in fact, left hardly any—if any—room for doubt, and the subject was finally set at rest by Foucault's celebrated experiments in 1850. According to the undulatory theory the velocity of light ought to be greater in air than in water, while, if the emission theory were correct, the reverse would be the case. The velocity of light—186,000 miles in a second—is, however, so great that, to determine its rate in air, as compared with that in water, might seem almost hopeless. The velocity in air was, nevertheless, determined by Fizeau in 1849, by means of a rapidly revolving wheel. In the following year Foucault, by means of a revolving mirror, demonstrated that the velocity of light is greater in air than in water, thus completing the evidence in favour of the undulatory theory of light. The idea is now gaining ground that, as maintained by Clerk-Maxwell, light itself is an electro-magnetic disturbance, the luminiferous ether being the vehicle of both light and electricity. Wünsch, as long ago as 1792, had clearly shown that the three primary colours were red, green, and violet; but his results attracted little notice, and the general view used to be that there were seven principal colours—red, orange, yellow, green, blue, indigo, and violet—four of which—namely, orange, green, indigo, and violet—were considered to arise from mixtures of the other three. Red, yellow, and blue were therefore called the primary colours, and it was supposed that in order to produce white light these three colours must always be present. Helmholtz, however, again showed, in 1852, that a colour to our unaided eyes identical with white was produced by combining yellow with indigo. At that time yellow was considered to be a simple colour, and this, therefore, was regarded as an exception to the general rule that a combination of three simple colours is required to produce white. Again, it was and indeed still is the general impression that a combination of blue and yellow makes green. This, however, is entirely a mistake. Of course we all know that yellow paint and blue paint make green paint; but this results from absorption of light by the semi-transparent solid particles of the pigments, and is not a mere mixture of the colours proceeding unaltered from the yellow and the blue particles; moreover as can easily be shown by two sheets of coloured paper and a piece of window glass, blue and yellow light, when combined, do not give a trace of green, but if pure would produce the effect of white. Green, therefore, is after all not produced by a mixture of blue and yellow. On the other hand, Clerk-Maxwell proved in 1860 that yellow could be produced by a mixture of red and green, which put an end to the pretension of yellow to be considered a primary element of colour. From these and other considerations it would seem, therefore, that the three primary colours—if such an expression be retained—are red, green, and violet. The existence of rays beyond the violet, though almost invisible to our eyes, had long been demonstrated by their chemical action. Stokes, however, showed in 1852 that their existence might be proved in another manner, for that there are certain substances which, when excited by them, emit light visible to our eyes. To this phenomenon he gave the name of fluorescence. At the other end of the spectrum Abney has recently succeeded in photographing a large number of lines in the infra-red portion, the existence of which was first proved by Sir William Herschel. From the rarity, and in many cases the entire absence of reference to blue in ancient literature, Geiger—adopting and extending a suggestion first thrown out by Mr. Gladstone—has maintained that, even as recently as the time of Homer, our ancestors were blue-blind. Though for my part I am unable to adopt this view, it is certainly very remarkable that neither the Rigveda, which consists almost entirely of hymns to heaven, nor the Zendavesta, the Bible of the Parsees or fire-worshippers, nor the Old Testament, nor the Homeric poems, ever allude to the sky as blue. On the other hand, from the dawn of poetry the splendours of the morning and evening skies have excited the admiration of mankind. As Ruskin says, in language almost as brilliant as the sky itself, the whole heaven, "from the zenith to the horizon, becomes one molten, mantling sea of colour and fire; every black bar turns into massy gold, every ripple and wave into unsullied shadowless crimson, and purple, and scarlet, and colours for which there are no words in language, and no ideas in the mind—things which can only be conceived while they are visible; the intense hollow blue of the upper sky melting through it all, showing here deep, and pure, and lightness; there, modulated by the filmy, formless body of the transparent vapour, till it is lost imperceptibly in its crimson and gold." But what is the explanation of these gorgeous colours? Why is the sky blue? And why are the sunrise and sunset crimson and gold? It may be said that the air is blue, but if so, how can the clouds assume their varied tints? Brücke showed that every minute particles suspended in water are blue by reflected light. Tyndall has taught us that the blue of the sky is due to the reflection of the blue rays by the minute particles floating in the atmosphere. Now, if from the white light of the sun the blue rays are thus selected, those which are transmitted will be yellow, orange, and red. Where the distance is short the transmitted light will appear yellowish. But as the sun sinks towards the horizon the atmospheric distance increases and consequently the number of the scattering particles. They weaken in succession the violet, the indigo, the blue, and even disturb the proportions of green. The transmitted light under such circumstances must pass from yellow, through orange to red, and thus, while we at noon are admiring the deep blue of the sky, the same rays, robbed of their blue, are elsewhere lighting up the evening sky with all the glories of sunset.

Sir John Lubbock next referred to the invention of photography, the stereoscope, improvements in lighting, the discovery that the cause of heat is the motion of the invisible particles of bodies, the determination of the mechanical equivalent of heat, the demonstration of the continuity of different states of matter, and the kinetic theory of gases. He then touched on the state of our knowledge of atoms and molecules. The discovery of electricity was next mentioned and its practical applications to inland and submarine telegraphy, recently enhanced by the invention of duplex and quadruplex telegraphy. The President continued:—

Another more recent and perhaps still more wonderful achievement in modern telegraphy is the invention of the telephone and microphone, by means of which the human voice is transmitted through the electric conductor by mechanism that imposes through its extreme simplicity. In this connexion the names of Reiss, Graham Bell, Edison, and Hughes are those chiefly deserving to be recorded. By the electric transmission of power we may hope some day to utilize at a distance such natural sources of energy as the Falls of Niagara, and to work our cranes, lifts, and machinery of every description by means of sources of power arranged at convenient centres. To these applications the brothers Siemens have more recently added the propulsion of trains by currents passing through the rails, the fusion in considerable quantities of highly refractory substances, and the use of electric centres of light in horticulture, as proposed by Werner and William Siemens. By an essential improvement by Faure of the Planté secondary battery the problem of storing electrical energy appears to have received a practical solution, the real importance of which is clearly proved by Sir W. Thomson's recent investigation of the subject. It would be difficult to assign the limits to which this development of electrical energy may not be rendered serviceable for the purposes of man.

Sir John Lubbock then described briefly the progress during the last half-century of mathematics and chemistry, as to which he had been supplied with memoranda by Mr. Spottiswoode and Dr.

Frankland respectively. In the one, the law of the Conservation of Energy occupied a prominent place; in the other, mention was particularly made of the discovery of certain rarer elements, Dumas's law of substitution and Mendelejeff's natural system of the elements. Afterwards the President passed on to describe shortly the remarkable progress made in mechanical science, mentioning particularly the hot blast, Bessemer's steel, Nasmyth's steam hammer, iron bridges, and, lastly, railways and steamers. Sir John Lubbock proceeded :—

If I say little with reference to economic science and statistics it is because time, not materials, is wanting. I scarcely think that in the present state of the question I can be accused of wandering into politics if I observe that the establishment of the doctrine of free trade as a scientific truth falls within the period under review. In education some progress has been made towards a more rational system. When I was at a public school neither science, modern languages, nor arithmetic formed any part of the school system. This is now happily changed. Much, however, still remains to be done. Too little time is still devoted to French and German, and it is much to be regretted that even in some of our best schools they are taught as dead languages. Lastly, with few exceptions, only one or two hours on an average are devoted to science. We have, I am sure, none of us any desire to exclude or discourage literature. What we ask is that, say, six hours a week each should be devoted to mathematics, modern languages, and science, an arrangement which would still leave 20 hours for Latin and Greek. I admit the difficulties which schoolmasters have to contend with ; nevertheless, when we consider what science has done and is doing for us, we cannot but consider that our present system of education is, in the words of the Duke of Devonshire's Commission, little less than a national misfortune.

After mentioning the improvements in agriculture by subsoil drainage, the steam-plough, and mowing and reaping machines, and calling attention to the manner in which distinct branches of science have thrown and are throwing light upon one another, the President expressed his regret that there were almost innumerable researches of great interest and importance during the last 50 years to which he had been unable to refer. He said, in conclusion :—

Though it is difficult, indeed impossible, to measure exactly the extent of the influence exercised by this Association, no one can doubt that it has been very considerable. For my own part, I must acknowledge with gratitude how much the interest of my life has been enhanced by the stimulus of our meetings, by the lectures and memoirs to which I have had the advantage of listening, and, above all, by the many friendships which I owe to this Association. Summing up the principal results which have been attained in the last half-century, we may mention (over and above the accumulation of facts) the theory of evolution, the antiquity of man, and the far greater antiquity of the world itself ; the correlation of physical forces and the conservation of energy ; spectrum analysis and its application to celestial physics ; the higher algebra and the modern geometry ; lastly, the innumerable applications of science to practical life—as, for instance, in photography, the locomotive engine, the electric telegraph, the spectroscope, and, most recently, the electric light and the telephone. To science, again, we owe the idea of progress. "The ancients," says Bagehot, "had no conception of progress ; they did not so much as reject the idea ; they did not even entertain it." It is not, I think, now going too far to say that the true test of the civilization of a nation must be measured by its progress in science. It is often said, however, that great and unexpected as the recent discoveries have been, there are certain ultimate problems which must ever remain unsolved. For my part, I would prefer to abstain from laying down any such limitations. When Park asked the Arabs what became of the sun at night, and whether the sun was always the same or new each day, they replied that such a question was childish and entirely beyond the reach of human investigation. I have already mentioned that, even as lately as 1842, so high an authority as Comte treated as obviously impossible and hopeless any attempt to determine the chemical composition of the heavenly bodies. Doubtless there are questions the solution of which we do not as yet see our way even to attempt ; nevertheless the experience of the past warns us not to limit the possibilities of the future. But, however this may be, though the progress may have been so rapid, and though no similar period in the world's history has been nearly so prolific of great results, yet, on the other hand, the prospects of the future were never more encouraging. We must not, indeed, shut our eyes to the possibility of failure ; the temptation to military ambition, the tendency to over-interference by the State, the spirit of anarchy and Socialism, these and other elements of danger may mar the fair prospects of the future. That they will succeed, however, in doing so, I cannot believe. I cannot but feel confident hope that 50 years hence, when perhaps the City of York may renew its hospitable invitation, my successor in this chair—more competent, I trust, than I have been to do justice to so grand a theme—will have to record a series of discoveries even more unexpected and more brilliant than those which I have, I fear so imperfectly, attempted to bring before you this evening ; for one great lesson which science teaches is, how little we yet know, and how much we have still to learn.

On the motion of the LORD MAYOR of YORK, seconded by Mr. SPOTTISWOODE, a vote of thanks was passed to the President for his address.

The total number of members is 2,264, of whom 17 are foreigners and 494 ladies. Professor Barker, President of the American Association for the Advancement of Science, is present, with the following members from the United States :—Dr. Asa Gray (Harvard), Professor Whitney (Beloit College), Mr. J. B. Eads, C E. (St. Louis), Mr. Woolsey Johnson (Annapolis), Professor Marsh (Yale College), Dr. T. Craig (John Hopkins's University). and Mr. H. A. Rowland (Baltimore).

YORK, SEPT 1.

The Sections assembled to-day for business. In most of them the attendance was good.

MATHEMATICAL AND PHYSICAL SCIENCE.

Sir William Thomson, F.R.S., Professor of Natural Philosophy in the University of Glasgow, President of the Section, delivered an opening address on the sources of energy in nature available to man for the production of mechanical effect. He said :—

During the 50 years' life of the British Association, the advancement of science for which it has lived and worked so well has not been more marked in any department than in one which belongs very decidedly to the Mathematical and Physical Section—the Science of energy. The very name "energy," though first used in its present sense by Dr Thomas Young about the beginning of this century, only came into use practically after the doctrine which defines it had, during the first half of the British Association's life, been raised from a mere formula of mathematical dynamics to the position it now holds of a principle pervading all nature and guiding the investigator in every field of science. We may summarize the natural sources of energy as tides, food, fuel, wind, and rain. Among the

practical sources of energy thus exhaustively enumerated, there is only one not derived from sun-heat—that is, the tides. Consider it first. I have called it practical, because tide-mills exist. But the places where they can work usefully are very rare, and the whole amount of work actually done by them is a drop to the ocean of work done by other motors. A tide of two mètres' rise and fall, if we imagine it utilized to the utmost by means of ideal water-wheels doing with perfect economy the whole work of fill ng and emptying a dock-basin in infinitely short times at the moments of high and low water, would give just one mètre-ton per square mètre of area. This work done four times in the 24 hours amounts to 1-1 620th of the work of a horse-power. Parenthetically, in explanation, I may say that the French metrical equivalent (to which, in all scientific and practical measurements, we are irresistibly drawn, notwithstanding a dense barrier of insular prejudice most detrimental to the islanders)—the French metrical equivalent of James Watt's "horse-power" of 550 foot-pounds per second, or 33,000 foot-pounds per minute, or nearly two million foot-pounds per hour, is 75 mètre-kilogrammes per second, or 4½ mètre-tons per minute, or 270 mètre-tons per hour. The French ton of 1,000 kilogrammes used in this reckoning is 0·984 of the British ton. Returning to the question of utilizing tidal energy, we find a dock area of 162,000 square mètres (which is a little more than 400 mètres square) required for 100-horse power. This, considering the vast costliness of dock construction, is obviously prohibitory of every scheme for economizing tidal energy by means of artificial dock-basins, however near to the ideal perfection might be the realized tide-mill, and however convenient and non-wasteful the accumulator—whether Faure's electric accumulator, or other accumulators of energy hitherto invented or to be invented—which might be used to store up the energy yielded by the tide-mill during its short harvests about the times of high and low water, and to give it out when wanted at other times of the six hours. There may, however, be a dozen places possible in the world where it could be advantageous to build a sea-wall across the mouth of a natural basin or estuary and to utilize the tidal energy of filling it and emptying it by means of sluices and water-wheels. But if so much could be done, it would in many cases take only a little more to keep the water out altogether, and make fertile land of the whole basin. Turning now to sources of energy derived from sun-heat, let us take the wind first. When we look at the register of British shipping and see 40,000 vessels, of which about 10,000 are steamers and 30,000 sailing ships, and when we think how vast an absolute amount of horse-power is developed by the engines of those steamers, and how considerable a proportion it forms of the whole horse-power taken from coal annually in the whole world at the present time, and when we consider the sailing ships of other nations, which must be reckoned in the account, and throw in the little item of windmills, we find that, even in the present days of steam ascendancy, old-fashioned wind still supplies a large part of all the energy used by man. But however much we may regret the time when Hood's young lady, visiting the fens of Lincolnshire at Christmas, and writing to her dearest friend in London, describes the delight of sitting in a bower and looking over the wintry plain, not desolate, because "windmills lend revolving animation to the scene," we cannot shut our eyes to the fact of a lamentable decadence of wind-power. Is this decadence permanent, or may we hope that it is only temporary? The subterranean coal stores of the world are becoming exhausted surely, and not slowly, and the price of coal is upward bound—upward bound on the whole, though no doubt it will have its ups and downs in the future as it has had in the past, and as must be the case in respect to every marketable commodity. When the coal is all burnt, or long before it is all burnt, when there is so little of it left and the coal mines from which that little is to be excavated are so distant and deep and hot that its price to the consumer is greatly higher than at present, it is most probable that windmills or wind-motors, in some form, will again be in the ascendant, and that wind will do man's mechanical work on land, at least, in proportion comparable to its present doing of work at sea. Even now it is not utterly chimerical to think of wind superseding coal in some places for a very important part of its present duty—that of giving light. Indeed, now that we have dynamos and Faure's accumulator, the little wanted to let the thing be done is cheap windmills. A Faure cell containing 20 kilogrammes of lead and minimum charged and employed to excite incandescent vacuum lamps has a light-giving capacity of 60-candle hours (I have found considerably more in experiments made by myself; but I take 60 as a safe estimate). The charging may be done uninjuriously, and with good dynamical economy in any time from six hours to 12, or more. The drawing off of the charge for use may be done safely, but somewhat wastefully, in two hours, and very economically in any time of from five hours to a week, or more. Calms do not last often longer than three or four days at a time. Suppose, then, that a five days' storage capacity suffices (there may be a little steam-engine ready to be set to work at any time after a four days' calm, or the user of the light may have a few candles or oil-lamps in reserve, and be satisfied with them when the wind fails for more than five days). One of the 20 kilogramme cells charged when the windmill works for five or six hours at any time, and left with its 60-candle hours' capacity to be used six hours a day for five days, gives a two-candle light. Thus, 32 such accumulator cells so used would give as much light as four burners of London 16-candle gas. The probable cost of dynamo and accumulator does not seem fatal to the plan, if the windmill could be had for something comparable with the prime cost of a steam-engine capable of working at the same horse-power as the windmill when in good action. But windmills as hitherto made are very costly machines, and it does not seem probable that, without inventions not yet made, wind can be economically used to give light in any considerable class of cases, or to put energy into store for work of other kinds. Consider, lastly, rain power. When it is to be had in places where power is wanted for mills or factories of any kind, water power is thoroughly appreciated. From time immemorial water-motors have been made in large variety for utilizing rain power in the various conditions in which it is presented, whether in rapidly-flowing rivers, in natural waterfalls, or stored at heights in natural lakes or artificial reservoirs. Improvements and fresh inventions of machines of this class still go on, and some of the finest principles of mathematical hydrodynamics have, in the lifetime of the British Association, and, to a considerable degree, with its assistance, been put in requisition for perfecting the theory of hydraulic mechanism and extending its practical applications. A first question occurs—are we necessarily limited to such natural sources of water power as are supplied by rain falling on hill country, or may we look to the collection of rain water in tanks placed artificially at sufficient heights over flat country to supply motive power economically by driving water wheels? To answer it: suppose a height of 100 mètres, which is very large for any practicable building or for columns erected to support tanks; and suppose the annual rainfall to be three-quarters of a mètre (30 inches). The annual yield of energy would be 75 mètre-tons per square mètre of the tank. Now, one horse-power for 365 times 24 hours is 236,500 foot-tons; and, therefore (dividing this by 75), we find 3,153 square mètres as the area of our supposed tank required for a continuous supply of one horse-power. The prime cost of any such structure, not to speak of the value of the land which it would cover, is utterly prohibitory of any such plan for utilizing the motive power of rain. We may or may not look forward hopefully to the time when windmills will again "lend revolving animation" to a dull, flat country; but we certainly need not be afraid that the scene will be marred by forests of iron columns taking the place of natural trees, and gigantic tanks overshadowing the fields and blackening the horizon. To use rain-power economically on any considerable scale we must look to the natural drainage of hill country and take the water where we find it either actually falling or stored up and

ready to fall when a short artificial channel or pipe can be provided for it at moderate cost. The expense of aqueducts, or of underground water pipes, to carry water to any great distance—any distance of more than a few miles or a few hundred yards—is much too great for economy when the yield to be provided for is power; and such works can only be undertaken when the water itself is what is wanted. Incidentally in connection with the water supply of towns some part of the energy due to the head at which it is supplied may be used for power. There are however but few cases (I know of none except Greenock) in which the energy to spare over and above that devoted to bringing the water to where it is wanted, and causing it to flow fast enough for convenience at every opened tap in every house or factory, is enough to make it worth while to make arrangements for letting the water-power be used without wasting the water-substance. The cases in which water-power is taken from a town supply are generally very small, such as working the bellows of an organ, or "hair-brushing by machinery," and involve simply throwing away the used water. The cost of energy thus obtained must be something enormous in proportion to the actual quantity of the energy, and it is only the smallness of the quantity that allows the convenience of having it when wanted at any moment to be so dearly bought. For anything of great work by rain-power, the water-wheels must be in the very place where the water supply with natural fall is found. Such places are generally far from great towns, and the time is not yet come when great towns grow by natural selection beside waterfalls for power, as they grow beside navigable rivers for shipping. Thus hitherto the use of water-power has been confined chiefly to isolated factories which can be conveniently placed and economically worked in the neighbourhood of natural waterfalls. But the splendid suggestion made about three years ago by Mr. Siemens, in his presidential address to the Institution of Mechanical Engineers, that the power of Niagara might be utilized by transmitting it electrically to great distances, has given quite a fresh departure for design in respect to economy of rain-power. From the time of Joule's experimental electro-magnetic engines developing 90 per cent. of the energy of a voltaic battery in the form of weights raised, and the theory of the electro-magnetic transmission of energy completed 30 years ago on the foundation afforded by the train of experimental and theoretical investigations by which he established his dynamical equivalent of heat in mechanical, electric, electro-chemical, chemical, electro-magnetic, and thermo-elastic phenomena, it had been known that potential energy from any available source can be transmitted electro-magnetically by means of an electric current through a wire and directed to raise weights at a distance, with unlimitedly perfect economy. The first large-scale practical application of electro-magnetic machines was proposed by Holmes in 1854, to produce the electric light for lighthouses, and persevered in by him till he proved the availability of his machine to the satisfaction of the Trinity House and the delight of Faraday in trials at Blackwall in April, 1857, and it was applied to light the South Foreland lighthouse on December 8, 1858. This gave the impulse to invention, by which the electro-magnetic machine has been brought from the physical laboratory into the province of engineering, and has sent back to the realm of pure science a beautiful discovery, that of the fundamental principle of the dynamo, made triply and independently, and as nearly as may be simultaneously, in 1867, by Dr. Werner Siemens, Mr. S. A. Varley, and Sir Charles Wheatstone; a discovery which constitutes an electro-magnetic analogue to the fundamental electrostatic principle of Nicholson's revolving doubler, resuscitated by Mr. C. F. Varley in his instrument "for generating electricity," patented in 1860; and by Holtz in his celebrated electric machine; and by myself in my "replenisher" for multiplying and maintaining charges in Leyden jars, for heterostatic electrometers, and in the electrifier for the siphon of my recorder for submarine cables. The dynamos of Gramme and Siemens, invented and made in the course of these 14 years since the discovery of its fundamental principle, give now a ready means of realizing economically on a large scale for many important practical applications, the old thermo-dynamics of Joule in electro-magnetism; and, what particularly concerns us now in connexion with my present subject, they make it possible to transmit electro-magnetically the work of waterfalls through long insulated conducting wires, and use it at distances of fifties or hundreds of miles from the source, with excellent economy—better economy, indeed, in respect to proportion of energy used to energy dissipated than almost anything known in ordinary mechanics and hydraulics for distances of hundreds of yards instead of hundreds of miles. In answer to questions put to me in May, 1879, by the Parliamentary Committee on Electric Lighting, I gave a formula for calculating the amount of energy transmitted, and the amount dissipated by being converted into heat on the way, through an insulated copper conductor of any length, with any given electromotive force applied to produce the current. Taking Niagara as example, and with the idea of bringing its energy usefully to Montreal, Boston, New York, and Philadelphia, I calculated the formula for a distance of 300 British statute miles (which is greater than the distance of any of those four cities from Niagara, and is the radius of a circle covering a large and very important part of the United States and British North America), I found almost to my surprise that, even with so great a distance to be provided for, the conditions are thoroughly practicable with good economy, all aspects of the case carefully considered. The formula itself will be the subject of a technical communication to Section A in the course of the meeting on which we are now entering. I therefore at present restrict myself to a slight statement of results. 1. Apply dynamos driven by Niagara to produce a difference of potential of 80,000 volts between a good earth-connexion and the near end of a solid copper wire of half an inch (1·27 centimètres) diameter, and 300 statute miles (483 kilomètres) length. 2. Let resistance by driven dynamos doing work, or by electric lights, or, as I can now say, by a Faure battery taking in a charge, be applied to keep the remote end of a potential differing by 64,000 volts from a good earth-plate there. 3. The result will be a current of 240 webers through the wire taking energy from the Niagara end at the rate of 26,250-horse power, losing 5,250 (or 20 per cent.) of this by the generation and dissipation of heat through the conductor and 21,000-horse power (or 80 per cent. of the whole) on the recipients at the far end. 4. The elevation of temperature above the surrounding atmosphere, to allow the heat generated in it to escape by radiation and be carried away by convection is only about 20deg.centigrade; the wire being hung freely exposed to air like an ordinary telegraph wire supported on posts. 5. The striking distance between flat metallic surfaces with difference of potentials of 80,000 volts (or 5,000 Daniells) is (Thomson's "Electrostatics and Magnetism," § 340) only 18 millimètres, and therefore there is no difficulty about the insulation. 6. The cost of the copper wire, reckoned at 8d. per lb., is £39,000; the interest on which at 5 per cent. is £1,900 a year. If 5,250-horse power at the Niagara end costs more than £1,900 a year, it would be better economy to put more copper into the conductor; if less, less. I say no more on this point at present, as the economy of copper for electric conduction will be the subject of a special communication to the section. I shall only say, in conclusion, that one great difficulty in the way of economizing the electrical transmitting power to great distances (or even to moderate distances of a few kilomètres) is now overcome by Faure's splendid invention. High potential, as Siemens, I believe, first pointed out, is the essential for good dynamical economy in the electric transmission of power. But what are we to do with 80,000 volts when we have them at the civilized end of the wire? Imagine a domestic servant going to dust an electric lamp with 80,000 volts on one of its metals! Nothing above 200 volts ought on any account ever to be admitted into a house or ship or other place where safeguards against accident cannot be made absolutely and for ever trustworthy against all possibility of accident. In an electric

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workshop 80,000 volts is no more dangerous than a circular saw. Till I learned Faure's invention I could but think of step-down dynamos, at a main receiving station, to take the energy direct from the electric main with its 80,000 volts, and supply it by secondary 200-volt dynamos or 100-volt dynamos, through proper distributing wires, to the houses and factories and shops where it is to be used for electric lighting, and sewing machines, and lathes, and lifts, or whatever other mechanism wants driving power. Now the thing is to be done much more economically, I hope, and certainly with much greater simplicity and regularity by keeping a Faure battery of 40,000 cells always being charged direct from the electric main, and applying a methodical system of removing sets of 50, and placing them on the town supply circuits, while other sets of 50 are being regularly introduced into the great battery that is being charged, so as to keep its number always within 50 of the proper number, which would be about 40,000 if the potential at the emitting end of the main is 80,000 volts.

The usual vote of thanks was awarded to Sir W. Thomson for his address, on the motion of Mr. Spottiswoode, seconded by Lord Reay. SEPT. 2.

MR. W. H. PREECE read a paper "On the Application of Electricity to the Localization of a Bullet in a Wound." The object of the author was to show how an electric current can be made an invisible and immaterial probe, localizing the position of a bullet without touching the human body or inflicting the sensation of pain.

Mr. PREECE remarked that electricity had already been used for probing purposes, but only to detect by the ring of a bell the fact that a metallic mass had been probed by the point of the instrument. The operation was performed with all its pain to the wounded sufferer, and electricity was employed only as an agent more sensitive than the touch. The conception of using electricity alone as the tool itself for this purpose occurred to Professor Graham Bell, in Washington. Professor Bell telegraphed to Mr. Preece, requesting him to consult with Professor Hughes as to the use of the induction balance for the purpose. Professor Hughes threw his whole heart into the matter. Full directions were sent out to Professor Bell, who was independently experimenting on the subject with Mr. Tainter. Experiments were made by him upon President Garfield, and there was every reason to believe that the position of the bullet had been unmistakably localized. Mr. Preece gave a brief description of the principle of Professor Hughes's induction balance, by which impurities had been detected in various metals in a way shown by Professor Chandler Roberts at the Association Soirée, held on the previous evening, and which had been utilized in the Mint for the detection of bad coinage. In order to apply the instrument to the localization of a bullet in a wound, Professor Hughes recommended that the exploring coils should be made movable and portable, so that they might be placed over the body of the wounded man. He anticipated that, if the coils were brought within two inches of the bullet, its presence would be detected. The bullet could readily be brought in the line of the axis of the coils by observing the position of *maximum* sound. It remained when that was done to ascertain its depth. This could be effected by moving a similar bullet until neutrality was obtained, then the depth of the trial bullet would be that of the buried one. Zinc might also be employed to obtain neutrality, which would give the depth by calculation. The apparatus admitted of much variation in form, and Mr. Preece had no doubt that Professor Hughes would shortly devise a practical form which could be placed in the hands of any surgeon. Professor Bell and Mr. Sumner Tainter had worked assiduously at the matter, and had modified the instrument, and considerably increased its sensitiveness. They had extended its range to five inches. Professor Bell's report, as follows, to the surgeons in attendance on President Garfield was interesting:—"I beg to submit for your information a brief statement of the results obtained here with the new form of induction balance in the experiments made this morning for the purpose of locating the bullet in the person of the President. The instrument was tested for sensitiveness several times during the course of the experiments, and it was found to respond well to the presentation of a flattened bullet at a distance of about four inches from the coils. When the exploring coils were passed over that part of the abdomen where a sonorous spot was observed in the experiments made on July 26, a feeble tone was perceived but the effect was audible a considerable distance around this spot. The sounds were too feeble to be entirely satisfactory, as I had reason to expect, from the extreme sensitiveness of the instrument, a much more marked effect. In order to ascertain whether similar sounds might not be obtained in other localities I explored the whole right side and back below the point of entrance of the bullet, but no part gave indications of metal, except an area of about two inches in diameter containing within it the spot previously found to be sonorous. The experiments were repeated by Mr. Tainter, who obtained exactly corresponding results. We are, therefore, justified in concluding that the ball is located within the above-named area. In our preliminary experiments we found that a bullet like the one in question in its normal shape produced no audible effects beyond a distance of 2½in., while the same bullet flattened and presented with its face parallel to the plane of the coils gave indications up to a distance of nearly five inches. The same flattened bullet held with its face perpendicular to the plane of the coils produced no sound beyond a distance of nine inches. These facts show that, in ignorance of the actual shape and mode of presentation of the bullet to the exploring instrument, the depth at which the bullet lies beneath the surface cannot be determined from our experiments." Mr. Preece concluded by saying that this showed that much remained to be done to render the instrument practical and useful, but nevertheless there was clear evidence of a new application of electricity which would be beneficial and valuable.

PROFESSOR H. A. ROWLAND, of Baltimore, afterwards made some remarks in explanation of Professor Bell's instrument.

YORK, SEPT. 5.

In the evening a crowded meeting of the Association was held in the Exhibition Hall, Sir J. Lubbock in the chair, to hear a lecture by Mr. Spottiswoode, President of the Royal Society, on the subject of "Electric Discharge: its Forms and Functions." The lecture, which was of a very technical character, was illustrated by various experiments, the gas in the hall being lowered for the purpose. The conclusion, treating of the familiar natural phenomena due to electricity, was as follows:—

We may now fairly ask whether the phenomena which we have been studying have any counterpart in the larger operations of nature which are going on around us, and whether the conclusions to which we have been led afford any explanation of observed facts. Many natural phenomena doubtless fundamentally depend upon electricity; how many we hardly yet know. But there are two in particular—namely, lightning and the aurora—which are unquestionably electrical, and whose correspondence with the spark proper and with the discharge in rarefied gasses respectively has often been noticed. On these I venture to offer a few remarks. To say that both of these phenomena are dependent on the electrical state of the atmosphere is not saying much; both for other reasons, and especially because we do not know upon what atmospheric electricity itself depends. But it is clear that it is to the knowledge of the distribution of such electricity that we must look for a proximate, as well as an approximate, explanation of

the facts. In the thundercloud we have an aggregation of aqueous particles small enough to remain, temporarily at least, suspended in the air. All of these, it would appear, are similarly electrified, and by their mutual repulsion are restrained from further coalescence. By their presence the ground below the cloud becomes inductively electrified in the opposite sense; and as soon as the cloud by its motion comes within sparking distance, or by an increase of its charge attains sufficient tension, a spark discharge takes place, which as we have seen above is a flash of lightning. A similar action may naturally take place between two clouds oppositely electrified. The electrical tension required for a flash of lightning is, of course, enormous. It has been calculated that in order to produce directly from a battery of the most favourable construction a spark of 42in., equal to that given from my great induction coil, from 60,000 to 100,000 cells would be necessary; while for a flash of lightning a mile long not less than 3,500,000 cells would be required. In some interesting experiments on water flowing from a small orifice in a cistern, Lord Rayleigh has found that the breaking of a continuous column into drops is checked by communicating to it a small charge of electricity; but that it is promoted by a large charge. We may imagine, with him, that something of the same kind takes place in the cloud; and that before the flash the aqueous particles are kept apart by mutual repulsion due to their being all highly charged with electricity of the same name; but that after the flash they are left either without charge, or with so slight a charge as to promote their coalescence and their consequent fall in the form of rain. This would be an explanation of the well-known downpour which frequently occurs after a flash of lightning. There is, moreover, another form of lightning to which the discharge in our vacuum tubes offers, to say no more of it, considerable analogy—namely, that commonly known as ball lightning. The appearance of ball lightning is described as that of a luminosity or ball of fire moving generally towards the earth, in a direction more or less oblique, and disappearing in most cases before reaching the ground. In some tubes, the exhaustion of which is very moderate, say, having a pressure of several millimetres of mercury, it happens not only that the blocks of light termed entities by Mr. De La Rue, are formed, but also that these entities travel along the tube from the immediate neighbourhood of the positive terminal to a finite distance in the direction of the negative, and then disappear. It would seem not unreasonable to suppose that ball lightning is due to conditions not dissimilar to those of such tubes—namely, to a discharge occurring in the upper regions of the air, at an elevation of, perhaps, 20 miles, more or less, where the pressure is very moderate—that is to say, greater than that under which an auroral-like display could take place, and yet less than that which would give rise to a true spark or ordinary flash of lightning. And if further we effect the discharge in the tube by the gradual outpouring of electricity from a charged Leyden battery or other condenser through a suitable resistance, or if we use an induction coil, then the condenser, or coil, will represent the charged cloud, or portion of the atmosphere, from which the phenomenom proceeds; and the analogy will perhaps be considered sufficiently close to render further observations in proof or disproof of the theory desirable. Let us now turn to the aurora. Sufficient experiments have been made this evening to show that the discharge in rarefied gases differs from that in gases at higher pressures, and that the difference corresponds exactly to that observed between the diffused, gentle, and flickering play of the aurora and the sudden, crashing spark of a flash of lightning. It is also abundantly clear that at an elevation of 20 or 30 miles above the earth's surface the atmospheric rarefaction must be such as to convert what would be lightning at a lower level into a discharge similar in the main to that in a vacuum tube. Further, it is an ascertained fact that a difference of electrical condition in different portions of the atmosphere often prevails. We have, therefore, not unfrequently present in regions at moderate elevations, say from 20 to 50 miles, all the conditions necessary for the production of an auroral display. And not only so, but our experiments enable us to determine, at all events approximately, some limits of elevation within which this phenomenon can occur, and thereby to check the very divergent estimates of those who have observed it. Estimates of the altitude at which the auroral discharge takes place have been made from simultaneous observations at different points, and these have ranged up to 50 or 60, and even to 281 miles. But even the lowest of these appears to be improbable. The pressure at which the resistance of air is least is a little less than ·4 of a millimètre of mercury; and the corresponding elevation is about 38 miles. A vacuum tube measured by hundred-thousandths of an atmosphere would correspond to an elevation of a little more than 81 miles. Through a hydrogen vacuum at this pressure Mr. De La Rue failed to obtain a discharge with 11,000 cells; and he adds that "it may be assumed that at this height the discharge would be considerably less brilliant than at 38 miles, should such occur." It seems to be a well-ascertained fact that in high latitudes there are fewer thunderstorms and more auroras than in lower latitudes. This fact points to the conclusion that, after a disturbance, the redistribution of atmospheric electricity is effected by one process or by the other, according to, or rather in consequence of the meteorological differences between arctic, temperate, and tropical regions. In colder regions, where the air is generally drier, and, consequently, a better insulator than in warmer, there is less liability to a discharge taking place in the lower and denser strata—that is, there is less liability to lightning. But at higher levels the rarefaction may compensate this and cause an auroral discharge to take place instead. There are other features in which a comparison may be made between the auroral light and vacuum discharges. These discharges, when free to arrange themselves in a magnetic field, follow the lines of force; the auroral streamers appear to run parallel to the dipping needle. The colour of such discharges varies with the exhaustion; that of the aurora varies, like that of an air-vacuum, from red almost to white; and, in the absence of independent observations to the contrary, we may fairly attribute the variety of tint in the aurora partly to a diversity of elevation, and, consequently, of rarefaction in the region where it takes place, but partly also, perhaps, to the electrical conditions present anterior to the passage of the discharge. These and other features of the phenomenon of the aurora, as well as the kindred subjects of earth currents, the disturbances of the magnetic needle, and the connexion of the whole with solar radiation as a predisposing cause, have been brought together under one theoretic view by Professor Stokes, to whom I am indebted for much of what I have here said on the subject. Having thus gone through, so far as circumstances permitted, the experimental and inductive parts of my subject, it might have been very pleasant to have cast aside for a few moments the links which connect strict induction with what may be termed the fixed points of ascertained fact; and, restrained only by the more elastic bonds of scientific imagination, to have indulged in speculations about things still lying on the borders of science and of dreamland. But I must leave each of you to follow out this vein of thought after your own fashion; and, confining myself to a single remark, I will simply indicate the direction in which my own thoughts on the present subject are inclined to turn. The remark is this, if in a search for a solution of the mystery of electricity there be one element more deserving our attention rather than another, it is that of time. We have utilized this element in our experiments with the revolving mirror; and we have touched upon its more subtle influences in our conclusions about the small time quantities in relation to the discharge. All operations of nature take place in time. It is in the time-sequence of phases, often apparently simultaneous, but in reality successive, that we may hope to strike the origin of many complicated phenomena. Time is the ocean beneath whose waves and whose currents the secret fountains of truth are to be sought. Time is the ocean whose mighty stream encircles our life.

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Time is the ocean whose "countless smiles" gave birth to Venus and the Nereids and all the infinite forms of beauty and of brightness which play around our youth. Time is the ocean from whence sprang also the steeds of Neptune, typical of the strength of our more mature years. Time is the ocean in whose loving arms we fall asleep, when the sun sinks low on the horizon, and the shades of night are creeping over the heavens, and all things tell us that our course is run.

Mechanical Science.

Dr. Siemens to this section on Electric Energy, of which a summary appeared in *The Times* last week :—

On the 1st of March, 1880, I communicated to the Royal Society a paper, "On the Influence of Electric Light upon Vegetation, &c.," in which I arrived at the conclusion that electric light was capable of producing upon plants effects comparable to those of solar radiation ; that chlorophyl was produced by it, and that bloom and fruit rich in aroma and colour could be developed by its aid. My experiments also went to prove that plants do not as a rule require a period of rest during the 24 hours of the day, but make increased and vigorous progress if subjected in winter time to solar light during the day and to electric light during the night. During the whole of last winter I continued my experiments on an enlarged scale, and it is my present purpose to give a short account of these experiments and of some further applications of electric energy to farming operations (including the pumping of water, the sawing of timber, and chaff and root cutting) at various distances not exceeding half a mile from the source of power, giving useful employment during the daytime to the power-producing machinery, and thus reducing indirectly the cost of the light during the night-time. The arrangement consists of a high pressure steam engine of 8-horse power nominal, supplied by Messrs. Tangye Brothers, which gives motion to two dynamo machines (Siemens D) connected separately to two electric lamps, each capable of emitting a light of about 4,000 candle power. One of these lamps was placed inside a glasshouse of 2,318 cubic feet capacity, and the other was suspended at a height of 12 to 14 feet over some sunk greenhouses. The waste steam of the engine was condensed in a heater, whence the greenhouses take their circulating supply of hot water, thus saving the fuel that would otherwise be required to heat the stoves. The experiments were commenced on the 23d of October, 1880, and were continued till the 7th of May, 1881. The general plan of operation consisted in lighting the electric lights at first at 6 o'clock and during the short days at 5 o'clock, every evening except Sunday, continuing their action until dawn. The outside light was protected by a clear glass lantern, while the light inside the house was left naked in the earlier experiments, one of my objects being to ascertain the relative effect of the light under these two conditions. The inside light was placed at one side over the entrance into the house, in front of a metallic reflector to save the rays that would otherwise be lost to the plants inside the house. The house was planted in the first place with peas, French beans, wheat, barley, and oats, as well as with cauliflowers, strawberries, raspberries, peaches, tomatoes, vines, and a variety of flowering plants, including roses, rhododendrons, and azaleas. All these plants being of a comparatively hardy character, the temperature in this house was maintained as nearly as possible at 60deg. Fahr. The early effects observed were anything but satisfactory. While under the influence of the light suspended in the open air over the sunk houses the beneficial effects due to the electric light observed during the previous winter reheated themselves, but the plants in the house with the naked electric light soon manifested a withered appearance. Was this result the effect of the naked light, or was it the effect of the chemical products—nitrogenous compounds and carbonic acid—which are produced in the electric arc ? Proceeding on the first-named assumption, and with a view of softening the ray of the electric arc, small jets of steam were introduced into the house through tubes, drawing in atmospheric air with the steam, and producing the effects of clouds interposing themselves in an irregular fashion between the light and the plants. This treatment was decidedly beneficial to the plants, although care had to be taken not to increase the amount of moisture thus introduced beyond certain limits. As regards the chemical products—carbonic acid and nitrogenous compounds—it was thought that these would prove rather beneficial than otherwise in furnishing the very ingredients upon which plant life depends, and, further, that the constant supply of pure carbonic acid resulting from the gradual combustion of the carbon electrodes, might render a diminution in the supply of fresh air possible, and thus lead to economy of fuel. The plants did not, however, take kindly to these innovations in their mode of life, and it was found necessary to put a lantern of clear glass round the light, for the double purpose of discharging the chemical products of the arc and of interposing an effectual screen between the arc and the plants under its influence. The effect of interposing a mere thin sheet of clear glass between the plants and the source of electric light was most striking. On placing such a sheet of clear glass so as to intercept the rays of the electric light from a portion only of a plant—for instance, a tomato plant—it was observed that in the course of a single night the line of demarcation was most distinctly shown upon the leaves. The portion of the plant under the direct influence of the naked electric light, though at a distance from it of nine to ten feet, was distinctly shrivelled, whereas that portion under cover of the clear glass continued to show a healthy appearance, and this line of demarcation was distinctly visible on individual leaves. Not only the leaves, but the young stems of the plants, soon showed signs of destruction when exposed to the naked electric light, and these destructive influences were perceptible, though in a less marked degree, at a distance of 20ft. from the source of light. A question here presents itself that can hardly fail to excite the interest of the physiological botanist. The clear glass does not apparently intercept any of the luminous rays, which cannot therefore be the cause of the destructive action. Professor Stokes has shown, however, in 1853, that the electric arc is particularly rich in highly refrangible invisible rays, and that these are largely absorbed in their passage through clear glass, it therefore appears reasonable to suppose that it is those highly refrangible rays beyond the visible spectrum that work destruction on vegetable cells, thus contrasting with the luminous rays of less refrangibility, which, on the contrary, stimulate their organic action. Being desirous to follow up this inquiry a little further, I sowed a portion of the ground in the experimental conservatory with mustard and other quick-growing seeds, and divided the field into equal radial portions by means of a framework, excluding diffused light, but admitting light at equal distances from the electric arc. The first section was under the action of the naked light, the second was covered with a pane of clear glass, the third with yellow glass, the fourth with red, and the fifth with blue glass. The relative progress of the plants was noted from day to day, and the differences of effect upon the development of the plants were sufficiently striking to justify the following conclusions :—Under the clear glass the largest amount of and most vigorous growth was induced ; the yellow glass came next in order, but the plants, though nearly equal in size, were greatly inferior in colour and thickness of stem to those under the clear glass ; the red glass gives rise to lanky growth and yellowish leaf ; while the blue glass produces still more lanky growth and sickly leaf. The uncovered compartment showed a stunted growth, with a very dark and partly shrivelled leaf. It should be observed that the electric light was kept on from 5 p.m. till 6 a.m. every night except Sundays during the experiment, which took place in January, 1881, but that diffused daylight was not excluded during the intervals ; also that circulation of air through the dividing framework was provided for. These results are confirmatory of those obtained by

Dr. J. W. Draper (see "Scientific Memoirs," by J. W. Draper, M.D., LL.D., Memoir X.) in his valuable researches on plant production in the solar spectrum in 1843, which led him to the conclusion, in opposition to the then prevailing opinion, that the yellow ray, and not the violet ray, was most efficacious in promoting the decomposition of carbonic acid in the vegetable cell. Having in consequence of these preliminary inquiries determined to surround the electric arc with a clear glass lantern, more satisfactory results were soon observable. Thus peas which had been sown at the end of October produced a harvest of ripe fruit on the 16th of February, under the influence, with the exception of Sunday nights, of continuous light. Raspberry stalks put into the house on the 16th of December produced ripe fruit on the 1st of March, and strawberry plants put in about the same time produced ripe fruit of excellent flavour and colour on the 14th of February. Vines which broke on the 26th of December produced ripe grapes of stronger flavour than usual on the 10th of March. Wheat, barley, and oats shot up with extraordinary rapidity under the influence of continuous light, but did not arrive at maturity; their growth having been too rapid for their strength caused them to fall to the ground after having attained the height of about 12 inches. Seeds of wheat, barley, and oats planted in the open air and grown under the influence of the external electric light produced, however, more satisfactory results; having been sown in rows on the 6th of January, they germinated with difficulty on account of frost and snow on the ground, but developed rapidly when milder weather set in, and showed ripe grain by the end of June, having been aided in their growth by the electric light until the beginning of May. Doubts have been expressed by some botanists whether plants grown and brought to maturity under the influence of continuous light would produce fruit capable of reproduction; and in order to test this question, the peas gathered on the 16th of February from the plants which had been grown under almost continuous light action were replanted on the 18th of February. They vegetated in a few days, showing every appearance of healthy growth. Further evidence on the same question will be obtained by Dr. Gilbert, F.R.S., who has undertaken to experiment upon the wheat, barley, and oats grown as above stated, but still more evidence will probably be required before all doubt on the subject can be allayed. I am aware that the great weight of the opinion of Mr. Darwin goes in favour of the view that many plants, if not all of them, require diurnal rest for their normal development, and it is with great diffidence, and without wishing to generalize, that I feel bound to state as the result of all my experiments, extending now over two winters, that although periodic darkness evidently favours growth in the sense of elongating the stalks of plants, the continuous stimulus of light appears favourable for healthy development at a greatly accelerated pace through all the stages of the annual life of the plant, from the early leaf to the ripened fruit. The latter is superior in size, in aroma, and in colour to that produced by alternating light, and the resulting seeds are not, at any rate, devoid of regerminating power. Further experiments are necessary, I am aware, before it would be safe to generalize, nor does this question of diurnal rest in any way bear upon that of annual or winter rest, which probably most plants, that are not so-called annuals, do require. The beneficial influence of the electric light has been very manifest upon a banana palm, which at two periods of its existence—viz., during its early growth and at the time of the fruit development, was placed (in February and March of 1880 and 1881) under the night action of one of the electric lights, set behind glass at a distance not exceeding two yards from the plant. The result was a bunch of fruit weighing 75lb., each banana being of unusual size, and pronounced by competent judges to be unsurpassed in flavour. Melons also remarkable for size and aromatic flavour have been produced under the influence of continuous light in the early spring of 1880 and 1881, and I am confident that still better results may be realized when the best conditions of temperature and of proximity to the electric light have been thoroughly investigated. My object hitherto has rather been to ascertain the general conditions necessary to promote growth by the aid of electric light than the production of quantitative results; but I am disposed to think that the time is not far distant when the electric light will be found a valuable adjunct to the means at the disposal of the horticulturist in making him really independent of climate and season, and furnishing him with a power of producing new varieties. Before electro horticulture can be entertained as a practical process it would be necessary, however, to prove its cost, and my experiments of last winter have been in part directed towards that object. Where water-power is available the electric light can be produced at an extremely moderate cost, comprising carbon electrodes, and wear and tear of and interest upon apparatus and machinery employed, which experience elsewhere has already shown to amount to 6d. per hour for a light of 5,000 candles. The personal current attention requisite in that case consists simply in replacing the carbon electrodes every six or eight hours, which can be done without appreciable expense by the under gardener in charge of the fires of the greenhouses. In my case no natural source of power was available, and a steam-engine had to be resorted to. The engine, of six nominal horse power, which I employ to work the two electric lights of 5,000 candle-power each consumes 56lb. of coal per hour (the engine being of the ordinary high-pressure type), which, taken at 20s. a ton, would amount to 6d. or to 3d. per light of 5,000 candles. But against this expenditure has to be placed the saving of fuel effected in suppressing the stoves for heating the greenhouses, the amount of which I have not been able to ascertain accurately, but it may safely be taken at two-thirds of the cost of coal for the engine, thus reducing the cost of the fuel per light to 1d. per hour; the total cost per light of 5,000 candles will thus amount to 6d. plus 1d., equal to 7d. per hour. This calculation would hold good if the electric light and engine power were required during, say, 12 hours per diem, but inasmuch as the light is not required during the daytime, and the firing of the boiler has nevertheless to be kept up in order to supply heat to the greenhouses, it appears that during the daytime an amount of motive power is lost equal to that employed during the night. In order to utilize this power I have devised means of working the dynamo-machine also during the daytime, and of transmitting the electric energy thus produced by means of wires to different points of the farm where such operations as chaff cutting, swede slicing, timber sawing, and water pumping have to be performed. These objects are accomplished by means of small dynamo-machines, placed at the points where power is required for these various purposes, and which are in metallic connexion with the current-generating dynamo-machine near the engine. The connecting wires employed consist each of a naked strand of copper wire, supported on wooden poles, or on trees, without the use of insulators, while the return circuit is effected through the park railing or wire fencing of the place, which is connected with both transmitting and working machines, by means of short pieces of connecting wire. In order to insure the metallic continuity of the wire fencing, care has to be taken wherever there are gates to solder a piece of wire buried below the gate to the wire fencing on either side. As regards pumping the water, a three-horse power steam engine was originally used, working two force-pumps, of 3½-inch diameter, making 36 double strokes per minute. The same pumps are still employed, being now worked by a dynamo-machine weighing 4cwt. When the cisterns at the house, the gardens, and the farm require filling, the pumps are started by simply turning the commutator at the engine station, and in like manner the mechanical operations of the farm already referred to are accomplished by one and the same prime mover. It would be difficult in this instance to state accurately the percentage of power actually received at the distant station, but in trying the same machines under similar circumstances of resistance with the aid of dynamometers as much as 60 per cent. has been realized. In conclusion I have pleasure to state that the working of the electric light and transmission of power for the various

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operations just named are entirely under the charge of my head gardener, Mr. Buchanan, assisted by the ordinary staff of under gardeners and field labourers, who probably never before heard of the power of electricity. Electric transmission of power may eventually be applied also to thrashing, reaping, and ploughing. These objects are at the present time accomplished to a large extent by means of portable steam engines, a class of engine which has attained a high degree of perfection, but the electric motor presents the great advantage of lightness, its weight per horse power being only 2cwt., while the weight of a portable engine with its boiler filled with water may be taken at 15cwt. per horse power. Moreover, the portable engine requires a continuous supply of water and fuel, and involves skilled labour in the field, while the electrical engine receives its food through the wire (or a light rail upon which it may be made to move about) from the central station, where power can be produced at a cheaper rate of expenditure for fuel and labour than in the field. The use of secondary batteries may also be resorted to with advantage to store electrical energy when it cannot be utilized. In thus accomplishing the work of a farm from a central power station, considerable savings of plant and labour may be effected, the engine power will be chiefly required for day work, and its night work, for the purposes of electro-horticulture, will be a secondary utilization of the establishment involving little extra expense. At the same time the means are provided of lighting the hall and shrubberies in the most perfect manner, and of producing effects in landscape gardening that are strikingly beautiful.

Physical Science.

This section was presided over by Sir William Thomson, and, unlike the others, was very largely attended.

Professor A. S. Herschel read the report of the committee on luminous meteors, in the course of which he referred to the aerolite which fell near Middlesbrough last year and embedded itself to a considerable depth in the earth. It was estimated that it struck the earth with a velocity of 402ft. per second. There was no doubt it fell at least 40 miles. The committee recommended that, as the information they had received was of such a miscellaneous character, they should not make any further reports for a few years.

Sir William Thomson said the great majority of meteoric stones, instead of falling to the earth in a solid mass like the one produced, generally got shivered to pieces in the air through becoming so intensely hot.

Professor Herschel observed that the stone in question had not been exposed to any great heat.

Sir William Thomson observed that in all probability some of the vegetation existing was of meteoric ancestry. There was no possibility that the stone in question was on the earth a quarter of an hour before it was picked up, for it was certain that it came from outside the earth.

In answer to a question afterwards put as to whether evidence existed as to organic matter in any other part of the universe than our own, and whether we had any evidence of organic matter in meteorites, Sir William Thomson said we had no such evidence yet before us. There was a general consensus of sentimental belief that in many other bodies in the universe there was something like the life on this earth, but that was not a scientific belief. The late Sir David Brewster held, with an intensity of conviction comparable almost with that of religious belief, that there was life in myriads of other bodies besides this earth. As had been already indicated, however, science was in what might be called a sceptical condition. Life elsewhere was a possibility, and science only went the length of saying that life elsewhere was not impossible. At the same time, Sir William did not say that the sentimental belief might not be as well founded as any scientific belief, but all he could say at present was that such a belief was not founded on scientific grounds.

Professor Herschel next read the report of the committee on the conductivity of rocks for heat. They had succeeded in showing that a very large number of measurements which had been made were in strict accordance with each other, and in remarkable harmony with frequent measurements which had been made by other observers and computers in other parts of the world.

Zoology and Botany.

This section, which was under the presidency of Professor A. Newton, was crowded, the attraction being a paper by Sir J. Lubbock, on "The Sense of Colour among some of the Lower Animals." The paper dealt, in the first place, with some elaborate experiments which the author had made on a species of daphnia, a small fresh water crustacean, with the spectrum, the general result of which was that, in opposition to the opinion of M. Paul Bert, while the limits of vision of those animals at the red end were the same as ours, at the violet end they perceived light which produced no impression on our eyes. Sir J. Lubbock then proceeded to explain some experiments he had made with bees, in order to determine whether, and, if so, how, they were affected by different colours. He said :—

The consideration of the causes which have led to the structure and colouring of flowers is one of the most fascinating parts of natural history. Most botanists are now agreed that insects, especially bees, have played a very important part in the development of flowers. While in many plants, almost invariably with inconspicuous blossoms, the pollen is carried from flower to flower by the wind, in the case of almost all large and brightly-coloured flowers this is effected by the agency of insects. In such flowers, the colour, scent, and honey serve to attract insects, while the size and form are arranged in such a manner that the insects fertilize them with pollen brought from another plant. Nevertheless, these views have not escaped criticism. M. Bonnier, for instance, has attempted to show that they are in many respects untenable. I do not propose on the present occasion to follow his general argument, but merely that portion of it relating to colour. In order to test whether and how bees are affected by different colours, I tried the following experiment. I took slips of glass of the size generally used for slides for the microscope—viz., 3in. by 1in.—and pasted on them slips of paper, coloured respectively blue, green, orange, red, white, and yellow. I then put them on a lawn in a row about a foot apart, and on each put a second slip of glass, with a drop of honey. I also put with them a slip of plain glass with a similar drop of honey. I had previously trained a bee to come to the spot for honey. My plan then was, when the bee returned and had sipped for about a quarter of a minute, to remove the honey when she flew to another slip. This, then, I took away, when she went to a third, and so on. In this way I induced her to visit all the drops of honey successively. When she had returned to the nest, I transposed all the upper glasses with the honey, and also moved the coloured glasses. Thus, as the drop of honey was changed each time, and also the position of the glasses, neither of these could influence the selection by the bee. In recording the results I marked down successively the order in which the bee went to the different coloured glasses. For instance, in the first journey from the nest the bee lit first on the blue, which, accordingly, I marked one ; when disturbed from the blue, she flew about a little and then lit on the white ; when the white was removed, she settled on the green ; and so successively on the orange, yellow, plain, and red. I repeated the experiment 100 times, using two different hives, and spreading the observations over some time, so as to experiment with different bees and under varied circumstances. The precautions taken seem to me to have placed the different colours on an equal footing ; while the number of experiments appears sufficient to give a fair

average. It will be observed also that the different series agree well among themselves. The difference between the numbers is certainly striking. Adding together 1, 2, 3, 4, 5, 6, and 7, we get 28 as the total number given by each journey; 100 journeys therefore give, as the table shows, a total of 2,800, which, divided by seven, would, of course, if no preference were shown, give 400 for each colour. The numbers, however, are—for the blue, only 275; for the white, 349; yellow, 405; red, 413; green, 427; orange, 440; and plain glass, as many as 491. A second mode of testing the result is to take the percentage in which the bees went respectively to each colour—first, second, third, and so on. It is found that out of a hundred rounds the bees took blue as one of the first three in 74 cases, and one of the last four only in 26 cases; while, on the contrary, they selected the plain as one of the first three only in 25 cases, and one of the last four in 75 cases. On the whole, then, it seems clear that bees are affected by colour, and that their favourite colour is blue. Sir John ended by some remarks on the paucity of blue flowers, and expressed the opinion that almost all, if not all, blue flowers are descended from white or yellow ancestors.

PROFESSOR W. C. WILLIAMSON suggested that experiments should be made with bees upon the Indian plant called *Gloriosa superba*, which was in turn green, yellow, and red.

PROFESSOR FORBES remarked that experiments might be made with water beetles and ants.

PROFESSOR WRIGLETSON thought the warm or chemical rays of light might have influenced the daphnia rather than their supposed perception of colour.

ANTHROPOLOGY.

Professor W. H. Flower, who presided in this section, delivered an address as follows :—

It is impossible for us to commence the work of this section of the Association without having vividly brought to our minds the loss which has befallen us since our last meeting—the loss of one who was our most characteristic representative of the complex science of anthropology—one who had for many years conducted with extraordinary energy, amidst multifarious other avocations, a series of researches into the history, customs, and physical characters of the early inhabitants of our island, for which he was so especially fitted by his archæological, historical, and literary as well as his anatomical knowledge, and who was also the most popular and brilliant expositor to assemblies such as meet together on these occasions of the results of those researches. I need scarcely say that I refer to Professor Rolleston. After referring in terms of high praise to the anthropology of Mr. E. B. Tylor, Professor Flower continued :—In one of the estimates of the character and opinions of the very remarkable man and eminent statesman, whose death the country was mourning last spring it was stated,—"Lord Beaconsfield had a deep-rooted conviction of the vast importance of race as determining the relative dominance both of societies and of individuals;" and with regard to the question of what he meant by "race," we have a key in the last published work of the same acute observer of mankind :—"Language and religion do not make a race—there is only one thing which makes a race, and that is blood." Now, "blood" used in this sense is defined as "kindred; relation by natural descent from a common ancestor; consanguinity." The study of the true relationship of the different races of men is, then, not only interesting from a scientific point of view, but of great importance to statesmanship in such a country as this, embracing subjects representing almost every known modification of the human species, whose varied and often conflicting interests have to be regulated and provided for. It is to want of appreciation of its importance that many of the inconsistencies and shortcomings of the government of our dependencies and colonies are due, especially the great inconsistency between a favourite English theory and a too common English practice—the former being that all men are morally and intellectually alike, the latter being that all are equally inferior to himself in all respects, both propositions egregiously fallacious. The study of race is at a low ebb indeed, when we hear the same contemptuous epithet of "nigger" applied indiscriminately by the Englishman abroad to the blacks of the West Coast of Africa, the Caffres of Natal, the Lascars of Bombay, the Hindoos of Calcutta, the aborigines of Australia, and even the Maoris of New Zealand. But how is he to know better? Where in this country is any instruction to be had? Where are the books to which he may turn for trustworthy information? The subject, as I have said, is but slightly touched upon in the last published treatise on anthropology in our language. The great work of Pritchard, a compendium of all that was known at the time it was written, is now almost entirely out of date. In not a single University or public institution through the three kingdoms is there any kind of systematic teaching, either of physical or of any other branch of anthropology, except so far as comparative philology may be considered as bearing upon the subject. The one society of which it is the special business to promote the study of these questions, the Anthropological Institute of Great Britain and Ireland, is, I regret to say, far from flourishing. An anthropological museum, in the proper sense of the word, either public or private, does not exist in this country. Professor Flower then drew a comparison between this country and others, showing that in France, in Germany, and in America, the opportunities for the study of man afforded by public institutions and by associations were largely increasing. But though, he continued, the study of man's origin and the earliest appearances upon the earth, and that the structural modifications to which in course of time he has arrived, or the study of races, are ultimately related, and will ultimately throw light upon one another, I venture to think that the latter is the more pressing of the two, as it is certainly the more practically important; and hence the necessity for greater attention to physical anthropology. In seeking for a criterion upon which to base our study of races, in looking for essential proofs of consanguinity of descent from common ancestors in different groups of men, I have no hesitation in saying that we must first look to their physical or anatomical characters, next to their moral and intellectual characters—for our purpose more difficult of apprehension and comparison—and, lastly, as affording hints, often valuable in aid of our researches, but rarely to be depended upon, unless corroborated from other sources, to language, religion, and social customs. The study of the physical or anatomical character of the rates of man is unfortunately a subject beset with innumerable difficulties. It can only be approached with full advantage by one already acquainted with the ordinary facts of human anatomy, and with a certain amount of zoological training. The methods used by the zoologist in discriminating species and varieties of animals, and the practice acquired in detecting minute resemblances and differences that an ordinary observer might overlook, are just what are required in the physical anthropologist. As the great problem which is at the root of all zoology is to discover a natural classification of animals, so the aim of zoological anthropology is to discover a natural classification of man. A natural classification is an expression of our knowledge of real relationship, of consanguinity—of "blood," as the author of "Endymion" expresses it. When we can satisfactorily prove that any two of the known groups of mankind are descended from the same common stock, a point is gained. The more such points we have acquired, the more nearly shall we be able to picture to ourselves, not only the present, but the past distribution of the races of man upon the earth, and the mode and order in which they have been derived from one another. The difficulties in the way of applying zoological principles to the classification of man are vastly greater than in the case of most animals, the problem being, as we shall see, one of much greater complexity. When groups of animals become so far differentiated from each

other as to represent separate species, they remain isolated; they may break up into further sub-divisions—in fact, it is only by further sub-division that new species can be formed; but it is of the very essence of species, as now universally understood by naturalists, that they cannot recombine, and so give rise to new forms. With the varieties of man it is otherwise. They have never so far separated as to answer to the physiological definition of species. All races are fertile one with another, though perhaps in different degrees. Hence new varieties have constantly been formed, not only by the segmentation, as it were, of a portion of one of the old stocks, but also by various combinations of those already established. Neither of the old conceptions of the history of man, which pervaded the thought, and form the foundation of the works of all ethnological writers up to the last few years, rests on any solid basis, or account of the phenomena of the present condition and distribution of the species. The one view—that of the monogenist—was that all races, as we see them now, are the descendants of a single pair who, in a comparatively short period of time, spread over the world from one common centre of origin, and became modified by degrees in consequence of changes of climate and other external conditions. The other—that of the polygenist—is that a certain number of varieties or species (no agreement has been arrived at as to the number, which is estimated by different authorities at from three to 20 or more) have been independently created in different parts of the world, and have perpetuated the distinctive characters as well as the geographical position with which they were originally endowed. The view which appears best to accord with what is now known of the characters and distribution of the races of man, and with the general phenomena of nature, may be described as a modification of the former of these hypotheses. Without entering into the difficult question of the method of man's first appearance upon the world, we must assume for it a vast antiquity, at all events, as measured by any historical standard. Of this there is now ample proof. During the long time he existed in the savage state—a time compared to which the dawn of our historical period was as yesterday—he was influenced by the operation of those natural laws which have produced the variations seen in other regions of organic nature. The first men may very probably have been all alike; but when spread over the face of the earth and become subject to all kinds of diverse external conditions—climate, food, competition with members of their own species or with wild animals—racial differences began slowly to be developed through the potency of various kinds of selection acting upon the slight variations which appeared in individuals in obedience to the tendency implanted in all living things. Geographical position must have been one of the main elements in determining the formation and the permanence of races. Groups of men isolated from their fellows for long periods, such as those living on small islands, to which their ancestors may have been accidentallly drifted, would naturally, in course of time, develop a new type of features, of skull, of complexion or hair. A slight set in one direction in any of these characters would constantly tend to intensify itself, and so new races would be formed. In the same way different intellectual or moral qualities would be gradually developed and transmitted in different groups of men. The longer a race thus formed remained isolated, the more strongly impressed and the more permanent would its characteristics become, and less liable to be changed or lost, when the surrounding circumstances were altered, or under a moderate amount of intermixture from other races—the more "true," in fact, would it be. On the other hand, on large continental tracts, where no "mountains interposed make enemies of nations," or other natural barriers form obstacles to free intercourse between tribe and tribe, there would always be a tendency towards uniformity, from the amalgamation of races brought into close relation by war or by commerce. Smaller or feebler races have been destroyed or absorbed by others impelled by superabundant population or other causes to spread beyond their original limits; or sometimes the conquering race has itself disappeared by absorption into the conquered. Thus, for untold ages, the history of man has presented a shifting kaleidoscopic scene; new races gradually becoming differentiated out of the old elements, and, after dwelling awhile upon the earth, either becoming suddenly annihilated or gradually merged into new combinations; a constant destruction and reconstruction; a constant tendency to separation and differentiation, and a tendency to combine again into a common uniformity—the two tendencies acting against and modifying each other. The history of these processes in former times, except in so far as they may be inferred from the present state of things, is a difficult study, owing to the scarcity of evidence. If we had any approach to a complete palæontological record, the history of man could be reconstructed; but nothing of the kind is forthcoming. Evidences of the anatomical characters of man, as he lived on the earth during the time when the great racial characteristics were being developed, during the long ante-historic period in which the negro, the Mongolian, and the Caucasian were being gradually fashioned into their respective types, is entirely wanting, or, if any exists, it is at present safely buried in the earth, perhaps to be revealed at some unexpected time, and in some unforeseen manner. It will be observed, and perhaps observed with perplexity by some, that no definition has as yet been given of the oft-recurring word "race." The sketch just drawn of the past history of man must be sufficient to show that any theory implying that the different individuals composing the human species can be parcelled out into certain definite groups, each with its well-marked and permanent limits separating it from all others, has no scientific foundation; but that, in reality, these individuals are aggregated into a number of groups of very different value in a zoological sense, with characters more or less strongly marked and permanent, and often passing insensibly into one another. The great groups are split up into minor subdivisions, and filling up the gaps between them all are intermediate or intecalary forms, derived either from the survival of individuals retaining the generalized or ancestral characters of a race from which two branches have separated and taken opposite lines of modification, or from the reunion of members of such branches in recent times. If we could follow those authors who can classify mankind into such divisions as trunks, branches, races, and sub-races, each having its definite and equivalent meaning, our work would appear to be greatly simplified, although, perhaps, we should not be so near the truth we are seeking. But being not yet in a position to define what amount of modification is necessary to constitute distinction of race, I am compelled to use the word vaguely for any considerable group of men who resemble each other in certain common characters transmitted from generation to generation. In approaching the question of the classification of the races of man from a physical point of view, we must bestow great care upon the characters upon which we rely in distinguishing one group from another. It is well known in zoology that the modifications of a single organ or system may be of great value, or may be quite useless, according as such modifications are correlated with others in different organs or systems, or are mere isolated examples of variation in the economy of the animal without structural changes elsewhere. The older ornithologists associated in one order all the birds with webbed feet, and the order thus constituted, *Natatores* or *Palmipedes*, which received the great sanction of Cuvier, still stands in many zoological compilations. Recent investigations into the anatomy of birds have shown that the species thus associated together show no other sign of natural affinity, and no evidence of being derived from the same stock. In fact, there is tolerably good proof that the webbing of the feet is a merely adaptive character, developed or lost, present or absent, irrespective of other structural modifications. In the same way, when anthropology was less advanced than it is now, it was thought that the distinction between long and short headed, dolichocephalic and brachycephalic people, pointed out by Retzius, indicated a primary division of the human species; but it was after-

wards discovered that, although the character was useful otherwise, it was one of only secondary importance, as the long-headed as well as the short-headed group both included races otherwise of the strongest dissimilarity. Pointing out that the point to be first ascertained in classification is the plan of construction, and referring to the changes and improvements that are being made yearly in instruments and methods, the Professor said,—To take an example from what is perhaps the most important of the anatomical characters by which man is distinguished from the lower animals, the superior from the inferior races of man—the smaller or greater projection forwards of the lower part of the face in relation to the skull proper, to that which contains the brain. From the time when Camper drew his facial angle to the present day the readiest and truest method of estimating this projection has occupied the attention of anatomists and anthropologists, and we are still far from any general agreement. Every country, every school, has its own system, so different that comparison with one another is well-nigh impossible. This is undoubtedly an evil; but the question is whether we should all agree to adopt one of the confessedly defective systems now in vogue, or whether we should not rather continue to hope for, and endeavour to find, one which may not be subject to the well-known objections urged against all.

In the evening a crowded meeting was held in the Exhibition-hall, under the presidency of Sir John Lubbock, to hear the following address by Professor Huxley on the rise and progress of palæontology :—

That application of the sciences of biology and geology which is commonly known as palæontology took its origin in the mind of the first person who, finding something like a shell or a bone naturally embedded in gravel or in rock, indulged in speculations upon the nature of this thing which he had dug out—this "fossil"—and upon the causes which had brought it into such a position. In this rudimentary form a high antiquity may safely be ascribed to palæontology, inasmuch as we know that 500 years before the Christian era the philosophic doctrines of Xenophanes were influenced by his observations upon the fossil remains exposed in the quarries of Syracuse. From this time forth, not only the philosophers, but the poets, the historians, the geographers of antiquity occasionally refer to fossils; and after the revival of learning lively controversies arose respecting their real nature. But hardly more than two centuries have elapsed since this fundamental problem was first exhaustively treated, it was only in the last century that the archæological value of fossils—their importance, I mean, as records of the history of the earth—was fully recognized; the first adequate investigation of the fossil remains of any large group of vertebrated animals is to be found in Cuvier's "Recherches sur les Ossemens Fossiles," completed in 1822; and so modern is stratigraphical palæontology that its founder, William Smith, lived to receive the just recognition of his services in the award of the first Wollaston Medal in 1831. But, although palæontology is a comparatively youthful scientific speciality, the mass of materials with which it has to deal is already prodigious. In the last 50 years the number of known fossil remains of invertebrated animals has been trebled or quadrupled. The work of interpretation of vertebrate fossils, the foundations of which were so solidly laid by Cuvier, has been carried on with wonderful vigour and success by Agassiz, in Switzerland, by Von Meyer, in Germany, and last, but not least, by Owen in this country, and by a multitude of later workers. In many groups of the animal kingdom the number of fossil forms already known is as great as that of the existing species. In some cases it is much greater, and there are entire orders of animals of the existence of which we should know nothing except for the evidence afforded by fossil remains. With all this it may be safely assumed that, at the present moment, we are not acquainted with a tithe of the fossils which will sooner or later be discovered. If we may judge by the profusion yielded within the last few years by the Tertiary formations of North America, there seems to be no limit to the multitude of Mammalian remains to be expected from that continent, and analogy leads us to expect similar riches in Eastern Asia whenever the Tertiary formations of that region are as carefully explored. Again, we have as yet almost everything to learn respecting the terrestrial population of the Mesozoic epoch—and it seems as if the western Territories of the United States were about to prove as instructive in regard to this point as they have in respect of tertiary life. My friend Professor Marsh informs me that within two years remains of more than 160 distinct individuals of mammals, belonging to 20 species and nine genera, have been found in a space not larger than the floor of a good-sized room; while beds of the same age have yielded 300 reptiles, varying in size from a length of 60ft. or 80ft. to the dimensions of a rabbit. The task which I have set myself to-night is to endeavour to lay before you, as briefly as possible, a sketch of the successive steps by which our present knowledge of the facts of palæontology and of those conclusions from them which are indisputable has been attained; and I beg leave to remind you at the outset that in attempting to sketch the progress of a branch of knowledge to which innumerable workers have contributed, my business is rather with generalizations than with details. It is my object to mark the epochs of palæontology, not to recount all the events of its history. That which I just now called the fundamental problem of palæontology, the question which has to be settled before any other can be profitably discussed, is this,—What is the nature of fossils? Are they, as the healthy common sense of the ancient Greeks appears to have led them to assume without hesitation, the remains of animals and plants? Or are they, as was so generally maintained in the 15th, 16th, and 17th centuries, mere figured stones, portions of mineral matter which have assumed the forms of leaves and shells and bones, just as those portions of mineral matter which we call crystals take on the form of regular geometrical solids? Or, again, are they, as others thought, the products of the germs of animals and the seed of plants which have lost their way, as it were, in the bowels of the earth, and have achieved only an imperfect and abortive development? It is easy to sneer at our ancestors for being disposed to reject the first in favour of one or other of the last two hypotheses; but it is much more profitable to try to discover why they, who were really not one whit less sensible persons than our excellent selves, should have been led to entertain views which strike us as absurd. The belief in what is erroneously called spontaneous generation—that is to say, in the development of living matter out of mineral matter, apart from the agency of the pre-existing living matter, as an ordinary occurrence at the present day—which is still held by some of us, was universally accepted as an obvious truth by them. They could point to the arborescent forms assumed by hoar-frost and by sundry metallic minerals as evidence of the existence in nature of a plastic force competent to enable inorganic matter to assume the form of organized bodies. Then, as every one who is familiar with fossils knows, they present innumerable gradations, from shells and bones which exactly resemble the recent objects to masses of mere stone which, however accurately they repeat the outward form of the organic body, have nothing else in common with it, and thence to mere traces and faint impressions in the continuous substance of the rock. What we now know to be the results of the chemical changes which take place in the course of fossilization, by which mineral is substituted for organic substance, might, in the absence of such knowledge, be fairly interpreted as the expression of a process of development in the opposite direction—from the mineral to the organic. Moreover, in an age when it would have seemed the most absurd of paradoxes to suggest that the general level of the sea is constant, while that of the solid land fluctuates up and down through thousands of feet in a secular ground swell, it may well have appeared far less hazardous to conceive

that fossils are sports of nature than to accept the necessary alternative that all the inland regions and highlands in the rocks of which marine shells had been found had once been covered by the ocean. It is not so surprising, therefore, as it may at first seem that although such men as Leonardo da Vinci and Bernard Palissy took just views of the nature of fossils, the opinion of the majority of their contemporaries set strongly the other way; nor even that error maintained itself long after the scientific grounds of the true interpretation of fossils had been stated in a manner that left nothing to be desired, in the latter half of the 17th century. The person who rendered this good service to palæontology was Nicholas Steno, professor of anatomy in Florence, though a Dane by birth. Collectors of fossils at that day were familiar with certain bodies termed glossopetræ, and speculation was rife as to their nature. In the first half of the 17th century, Fabio Colonna had tried to convince his colleagues of the famous Accademia dei Lincei that the glossopetræ were merely fossil sharks' teeth, but his arguments made no impression. Fifty years later Steno reopened the question, and, by dissecting the head of a shark and pointing out the very exact correspondence of its teeth with the glossopetræ, left no rational doubt as to the origin of the latter. Thus far the work of Steno went little further than that of Colonna, but it fortunately occurred to him to think out the whole subject of the interpretation of fossils, and the result of his meditations was the publication, in 1669, of a little treatise with the very quaint title of "De Solido intra Solidum naturaliter contento." The general course of Steno's argument may be stated in a few words. Fossils are solid bodies which by some natural process have come to be contained within other solid bodies—namely, the rocks in which they are imbedded; and the fundamental problem of palæontology, stated generally, is this—"Given a body endowed with a certain shape and produced in accordance with natural laws, to find in that body itself the evidence of the place and manner of its production." ("De Solido intra Solidum," p. 5—"Dato corpore certâ figurâ prædito et juxta leges naturæ producto, in ipso corpore argumenta invenire locum et modum productionis detegentia.") The only way of solving this problem is by the application of the axiom that "like effects imply like causes," or as Steno puts it, in reference to this particular case, that "bodies which are altogether similar have been produced in the same way." ("Corpora sibi invicem omnino similia simili etiam modo producta sunt.") Hence, since the glossopetræ are altogether similar to sharks' teeth, they must have been produced by shark-like fishes; and since many fossil shells correspond, down to the minutest detail of structure, with the shells of existing marine or fresh-water animals, they must have been produced by similar animals; and the like reasoning is applied to the fossil bones of vertebrated animals, whether aquatic or terrestrial. To the obvious objection that many fossils are not altogether similar to their living analogues, differing in substance while agreeing in form, or being mere hollows or impressions, the surfaces of which are figured in the same way as those of animal or vegetable organisms, Steno replies by pointing out the changes which take place in organic remains imbedded in the earth, and how their solid substance may be dissolved away entirely, or replaced by mineral matter, until nothing is left of the original but a cast, an impression, or a mere trace of its contours. The principles of investigation thus excellently stated and illustrated by Steno in 1669, are those which have, consciously, or unconsciously, guided the researches of palæontologists ever since. Even that feat of palæontology which has so powerfully impressed the popular imagination, the reconstruction of an extinct animal from a tooth or a bone, is based upon the simplest imaginable application of the logic of Steno. A moment's consideration will show, in fact, that Steno's conclusion that the glossopetræ are sharks' teeth implies the reconstruction of an animal from its tooth. It is equivalent to the assertion that the animal of which the glossopetræ are relics had the form and organization of a shark; that it had a skull, a vertebral column, and limbs similar to those which are characteristic of this group of fishes; that its heart, gills, and intestines presented the peculiarities which those of all sharks exhibit; nay, even that any hard parts which its integument contained were of a totally different character from the scales of ordinary fishes. These conclusions are as certain as any based upon probable reasonings can be. And they are so simply because a very large experience justifies us in believing that teeth of this particular form and structure are invariably associated with the peculiar organization of sharks, and are never found in connexion with other organisms. Why this should be we are not at present in a position even to imagine—we must take the fact as an empirical law of animal morphology—the reason of which may possibly be one day found in the history of the evolution of the shark tribe, but for which it is hopeless to seek for an explanation in ordinary physiological reasonings. Everyone practically acquainted with palæontology is aware that it is not every tooth nor every bone which enables us to form a judgment of the character of the animal to which it belonged, and that it is possible to possess many teeth, and even a large portion of the skeleton of an extinct animal, and yet be unable to reconstruct its skull or its limbs. It is only when the tooth or bone presents peculiarities which we know by previous experience to be characteristic of a certain group that we can safely predict that the fossil belonged to an animal of the same group. Any one who finds a cow's grinder may be perfectly sure that it belonged to an animal which had two complete toes on each foot, and ruminated; any one who finds a horse's grinder may be as sure that it had one complete toe on each foot and did not ruminate; but if ruminants and horses were extinct animals of which nothing but three grinders had ever been discovered no amount of physiological reasoning could have enabled us to reconstruct either animal, still less to have divined the wide difference between the two. Cuvier in the "Discours sur les Révolutions" strangely credits himself, and has ever since been credited by others, with the invention of a new method of palæontological research. But if you will turn to the "Recherches sur les Ossemens Fossiles" and watch Cuvier, not speculating but working, you will find that his method is neither more nor less than that of Steno. If he was able to make his famous prophecy from the jaw which lay upon the surface of a block of stone to the pelvis of the same animal which lay hidden in it, it was not because either he or any one else knew or knows why a certain form of jaw is as a rule constantly accompanied by the presence of marsupial bones—but simply because experience has shown that these two structures are co-ordinated. The settlement of the nature of fossils led at once to the next advance of palæontology—viz., its application to the deciphering of the history of the earth. When it was admitted that fossils are remains of animals and plants, it followed that in so far as they resemble terrestial or freshwater animals and plants, they are evidences of the existence of land and fresh water, and in so far as they resemble marine organisms, they are evidences of the existence of the sea at the time at which they were parts of actually living animals and plants. Moreover, in the absence of evidence to the contrary, it must be admitted that the terrestial or the marine organisms implied the existence of land or sea at the place in which they were found, while they were yet living. In fact, such conclusions were immediately drawn by everybody from the time of Xenophanes downwards, who believed that fossils were really organic remains. Steno discusses their value as evidence of repeated alteration of marine and terrestial conditions upon the soil of Tuscany, in a manner worthy of a modern geologist. The speculations of De Maillet in the beginning of the 18th century turn upon fossils, and Buffon follows him very closely in those two remarkable works the "Théorie de la Terre" and the "Époque de la Nature," with which he commenced and ended his career as a naturalist. The opening sentences of the "Époque de la Nature" show us how fully Buffon recognized the analogy of geological with archæological inquiries. "As in civil history we consult deeds, seek for coins, or decipher antique inscriptions in order to determine the epochs of

human revolutions and fix the date of moral events, so in natural history we must search the archives of the world, recover old monuments from the bowels of the earth, collect their fragmentary remains, and gather into one body of evidence all the signs of physical change which may enable us to look back upon the different ages of nature. It is our only means of fixing some points in the immensity of space and of setting a certain number of waymarks along the eternal path of time." Buffon enumerates five classes of these monuments of the past history of the earth, and they are all facts of palæontology. In the first place, he says shells and other marine productions are found all over the surface and in the interior of the dry land, and all calcareous rocks are made up of their remains. Secondly, a great many of these shells which are found in Europe are not now to be met with in the adjacent seas; and in the slates and other deep-seated deposits there are remains of fishes and of plants of which no species now exist in our latitudes, and which are either extinct or exist only in more northern climates. Thirdly, in Siberia and in other northern regions of Europe and of Asia bones and teeth of elephants, rhinoceroses, and hippopotamuses occur in such numbers that these animals must once have lived and multiplied in those regions, although at the present day they are confined to southern climates. The deposits in which these remains are found are superficial, while those which contain shells and other marine remains lie much deeper. Fourthly, tusks and bones of elephants and hippopotamuses are found not only in the northern regions of the old world, but also in those of the new world, although, at present, neither elephants nor hippopotamuses occur in America. Fifthly, in the middle of the continents, in regions most remote from the sea, we find an infinite number of shells, of which the most part belong to animals of those kinds which still exist in southern seas, but of which many others have no living analogues; so that these species appear to be lost and destroyed by some unknown cause. It is needless to inquire how far these statements are strictly accurate; they are sufficiently so to justify Buffon's conclusions that the dry land was once beneath the sea; that the formation of the fossiliferous rocks must have occupied a vastly greater lapse of time than that traditionally ascribed to the age of the earth; that fossil remains indicate different climatal conditions to have obtained in former times, and especially that the polar regions were once warmer; that many species of animals and plants have become extinct, and that geological change has had something to do with geological distribution. But these propositions almost constitute the framework of palæontology. In order to complete it but one addition was needed, and that was made in the last year of the 18th century by William Smith, whose work comes so near our own times that many living men may have been personally acquainted with him. This modest land surveyor, whose business took him into many parts of England, profited by the peculiarly favourable conditions offered by the arrangement of our secondary strata to make a careful examination and comparison of their fossil contents at different points of the large area over which they extend. The result of his accurate and widely-extended observations was to establish the important truth that each stratum contained certain fossils which are peculiar to it, and that the order in which the strata characterized by these fossils are superimposed on the other is always the same. This most important generalization was rapidly verified and extended to all parts of the world accessible to geologists, and now it rests upon such an immense mass of observations as to be one of the best established truths of natural science. To the geologist this discovery was of infinite importance, as it enabled him to identify rocks of the same relative age, however their continuity might be interrupted or their composition altered. But to the biologist it had a still deeper meaning, for it demonstrated that throughout the prodigious duration of time registered by the fossiliferous rocks, the living population of the earth had undergone continual changes, not merely by the extinction of a certain number of the species which at first existed, but by the continual generation of new species and the no less constant extinction of old ones. Now, the broad outlines of palæontology, in so far as it is the common property of both the geologist and biologist, were marked out at the close of the last century. In tracing its subsequent progress I must confine myself chiefly to the province of biology, and, indeed, to morphology. For, the succession of the species of animals and plants in time being established, the first question which the zoologist or the botanist had to ask himself was, what is the relation of these successive species one to another? And it is a curious circumstance that the most important event in the history of palæontology which immediately succeeded William Smith's generalization was a discovery which, could it have been rightly appreciated at the time, would have gone far towards suggesting the answer, which was in fact delayed for more than half a century. I refer to Cuvier's investigation of the mammalian fossils yielded by the quarries in the older tertiary rocks of Montmartre, among the chief results of which was the bringing to light of two genera of extinct hoofed quadrupeds, the *Anoplotherium* and the *Palæotherium*. The rich materials at Cuvier's disposition enabled him to obtain a full knowledge of the osteology and of the dentition of these two forms, and consequently to compare their structure critically with that of existing hoofed animals. The effect of this comparison was to prove that the *Anoplotherium*, though it presented many points of resemblance with the pigs on the one hand, and with the ruminants on the other, differed from both to such an extent that it could find a place in neither group. In fact, it held in some respects an intermediate place, tending to bridge over the interval between these two groups, which in the existing fauna are so distinct. In the same way the *Palæotherium* tended to connect forms so different as the tapir, the rhinoceros, and the horse. Subsequent investigations have brought to light a variety of facts of the same order, the most curious and striking of which are those which prove the existence in the mesozoic epoch of a series of forms intermediate between birds and reptiles—two classes of vertebrate animals which at present appear to be more widely separated than any others. Yet at present the interval between them is completely filled by birds which have reptilian characters on the one side and reptiles which have ornithic characters on the other. So, again, while the group of fishes termed ganoids is at the present time so distinct from that of the dipnoi, or mudfishes, that they have been reckoned as distinct orders, the Devonian strata presents us with forms of which it is impossible to say with certainty whether they are dipnoi or whether they are ganoids. Agassiz's long and elaborate researches upon fossil fishes, published between 1833 and 1842, led him to suggest the existence of another kind of relation between ancient and modern forms of life. He observed that the oldest fishes presented many characters which recall the embryonic conditions of existing fishes, and that not only among fishes but in several groups of the invertebrata which have a long palæontological history, the latest forms are more modified, more specialized, than the earlier. The fact that the dentition of the older tertiary ungulate and carnivorous mammals is always complete, noticed by Professor Owen, illustrated the same generalization. Another no less suggestive observation was made by Mr. Darwin, whose personal investigations during the voyage of the Beagle led him to remark upon the singular fact, that the fauna which immediately precedes that at present existing in any geographical province of distribution presents the same peculiarity as its successor. Thus, in South America and in Australia the later tertiary or quaternary fossils show that the fauna which immediately preceded that of the present day was in the one case as much characterized by edentates and in the other by marsupials as it is now, although the species of the older are largely different from those of the newer fauna. However clearly these indications might point in one direction, the question of the exact relation of the successive forms of animal and vegetable

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life could be satisfactorily settled only in one way—namely, by comparing stage by stage the series of forms presented by one and the same type throughout a long space of time. Within the last few years this has been done fully in the case of the horse, less completely in the case of the other principal types of the ungulata and of the carnivora, and all these investigations tend to one general result—namely, that in any given series the successive members of that series present a gradually increasing specialization of structure. That is to say, if any such mammal at present existing has specially modified and reduced limbs or dentition and complicated brain, its predecessors in time show less and less modification and reduction in limbs and teeth and a less highly developed brain. The labours of Gaudry, Marsh, and Cope furnish abundant illustrations of this law from the marvellous fossil wealth of Pikermi and the vast uninterrupted series of tertiary rocks in the territories of North America. I will now sum up the results of this sketch of the rise and progress of palæontology. The whole fabric of palæontology is based upon two propositions: the first is that fossils are the remains of animals and plants, and the second is that the stratified rocks in which they are found are sedimentary deposits; and each of these propositions is founded upon the same axiom that like effects imply like causes. If there is any cause competent to produce a fossil stem or shell, or bone, except a living being, then palæontology has no foundation; if the stratification of the rocks is not the effect of such causes as at present produce stratification, we have no means of judging of the duration of past time or of the order in which the forms of life have succeeded one another. But if these two propositions are granted there is no escape, as it appears to me, from three very important conclusions. The first is that living matter has existed upon the earth for a vast length of time, certainly for millions of years. The second is that during this lapse of time the forms of living matter have undergone repeated changes, the effect of which has been that the animal and vegetable population at any one period of the earth's history contains species which did not exist at some antecedent period, and which ceased to exist at some subsequent period. The third is that in the case of many groups of mammals and some of reptiles, in which one type can be followed through a considerable extent of geological time the series of different forms by which the type is represented at successive intervals of this time is exactly such as it would be if they had been produced by the gradual modification of the earliest form of the series. These are facts of the history of the earth guaranteed by as good evidence as any facts in civil history. Hitherto I have kept carefully clear of all the hypotheses to which men have at various times endeavoured to fit the facts of palæontology, or by which they have endeavoured to connect as many of their facts as they happened to be acquainted with. I do not think it would be a profitable employment of our time to discuss conceptions which doubtless have had their justification and even their use, but which are now obviously incompatible with the well-ascertained truths of palæontology. At present these truths leave room for only two hypotheses. The first is that in the course of the history of the earth innumerable species of animals and plants have come into existence independently of one another innumerable times. This, of course, implies either that spontaneous generation on the most astounding scale, and of animals such as horses and elephants, has been going on as a natural process through all the time recorded by the fossiliferous rocks; or it necessitates the belief in innumerable acts of creation repeated innumerable times. The other hypothesis is that the successive species of animals and plants have arisen, the later by the gradual modification of the earlier. This is the hypothesis of evolution, and the palæontological discoveries of the last decade are so completely in accordance with the requirements of this hypothesis that if it had not existed the palæontologist would have had to invent it. I have always had a certain horror of presuming to set a limit upon the possibilities of things. Therefore, I will not venture to say that it is impossible that the multitudinous species of animals and plants may have been produced separately one from the other by spontaneous generation, nor that it is impossible that they should have been independently originated by an endless succession of miraculous creative acts. But I must confess that both these hypotheses strike me as so astoundingly improbable, so devoid of a shred of either scientific or traditional support, that even if there were no other evidence than that of palæontology in its favour I should feel compelled to adopt the hypothesis of evolution. Happily, the future of palæontology is independent of all hypothetical considerations. Fifty years hence, whoever undertakes to record the progress of palæontology will note the present time as the epoch in which the law of succession of the forms of the higher animals was determined by the observation of palæontological facts. He will point out that just as Steno and as Cuvier were enabled from their knowledge of the empirical laws of co-existence of the parts of animals to conclude from a part to the whole, so the knowledge of the law of succession of forms enabled their successors to conclude from one or two terms of such a succession to the whole series, and thus to divine the existence of forms of life, of which, perhaps, no trace remains, at epochs of inconceivable remoteness in the past.

LONDON, SATURDAY, SEPTEMBER 3, 1881.

The British Association is taking pains to falsify the assertions of those prophets of evil who have lately been declaring that it had done its work and would speedily disappear. There is no sign of senility and decay in the utterances that reach us from York. On the contrary, the institution was never richer in all the elements of vigorous life than in this its jubilee year. Never have the sectional papers been more varied in interest or of better quality. Never, certainly, has there been a higher general level of excellence in the addresses given by the leading men. The two on which we have already commented—those of SIR JOHN LUBBOCK and SIR WILLIAM THOMSON—have been of the first order of interest; PROFESSOR WILLIAMSON on the Atomic Theory, MR. RAMSAY on British Geology, and MR. FLOWER on Anthropology have thrown together masterly summaries of the history of their respective studies. The jubilee, though it has suggested a certain similarity of treatment, which is perhaps hardly a drawback, has inspired them all with the enthusiasm that the votary of science always feels when he is driven to think of the past and the future of his study. To the scientific eye, accustomed to contemplate vast stretches of time, fifty years are but as yesterday; and yet what have they not done for science? What may not be done by the next fifty—by the next five hundred? What will mankind not know, to what power over the forces of nature will it not have attained? The thought of the vast increase of power on the threshold of which we are standing is the dominant thought of such addresses as that of SIR WILLIAM THOMSON; and

the thought of the address which PROFESSOR HUXLEY delivered last night is akin to it, though not quite the same. It is the thought of the vast stride towards certainty, in the region of knowledge which is of all knowledge the most important to man, that the human race is now in the act of taking. To the ordinary man there is an unreality, a remoteness from human interests, in the science called palæontology ; that is, the science which deals with the most ancient forms of life. "Can these dry bones live ?" he asks ; "can "these fossils, dug from the rock, tell me anything "fruitful about myself or what concerns me ?" If he will listen to PROFESSOR HUXLEY, he will learn that from no single study is so much to be expected towards the settlement of the profoundest and the most anxious questions as from "that application of the sciences of geology and "biology which is commonly known as palæonto-"logy." It is in this that we can read, as in a book, the history of the world and of all the myriad forms of life that have crowded its surface ; here are the "monuments from the bowels of the earth" of which BUFFON spoke, and in which, if anywhere, we are to decipher the answer to the problems that have vexed humanity ever since thought began.

The survey which PROFESSOR HUXLEY takes of the history of opinion as to fossils is a curious illustration of the difficulty which men feel in believing anything that seems to contradict their everyday experience. Just as any theory of the heavens was for a long time preferred to that which implied the motion of this solid earth, so any theory of fossils was preferred to one which must imply that the sea had once covered the mountains. The lecturer does not, indeed, quote VOLTAIRE'S humorous explanation of the shells on the hill-tops—that they fell from the hats of pilgrims returning from the Holy Land—but he deals with two other theories, which have been very widely held and which are scarcely nearer the truth. Fossils are mere figured stones, say one party, which have taken the form of leaves and shells just as crystals take the form of geometrical figures. They are the product, say another, of "the germs of animals and plants which have "lost their way in the bowels of the earth, and "have achieved only an imperfect and abortive "development." How mankind gradually came to adopt the remaining alternative, which is now familiar to every child, is told at length in PROFESSOR HUXLEY'S address ; and human conceit is not gratified at discovering that this obvious truth, this truism as we think it, was not fully realized till a very recent age. When once grasped, however, there was no limit to the light it threw on the history of the earth. It is pleasant to see that science is, in this matter, doing justice to the much-decried BUFFON, who, whatever were his faults, almost deserves to be called the father of modern palæontology. But it was an Englishman, a "modest land surveyor" named WILLIAM SMITH (the teacher of PHILLIPS and of many of the last generation of scientific men), who, in 1799, put the coping stone to the science by the discovery of the great law that each stratum has its peculiar fossils, and that the order of these fossiliferous strata is always the same. From the moment that this truth was realized, the history of the creatures that had lived upon the earth became plain. The co-ordinating principle was known ; it only remained to collect the facts to illustrate it. What the industry of palæontologists has done up to this time is notorious ; but, as PROFESSOR HUXLEY says, and as the PRESIDENT said before him, it is but little in comparison with what remains for them to do. In fifty years the number of known invertebrate fossils has trebled or quadrupled ; but "it may "be safely assumed that, at the present moment, "we are not acquainted with a tithe of the fossils "which will sooner or later be discovered." Eastern Asia is as yet unexplored, though it promises untold riches ; and no man can say what may not be gathered from North America, where discoveries of the highest importance are beginning to be made with extraordinary rapidity. Any day something may be found which will settle a scientific problem till now insoluble.

Of course, the real interest of all this lies deeper than the details. What the mass of reasoning men care about in these matters is, not the discoveries themselves, but the evidence which they supply in favour of this or that hypothesis. It need hardly be said that, in PROFESSOR HUXLEY'S hands, the hypothesis which the facts are made irresistibly to support is the hypothesis of evolution. If fossils are the remains of living things ; if the strata in which they are found are sedimentary strata, what follows ? First, that living matter has existed on the earth for untold ages. Secondly, that during these ages vast changes have occurred in the forms of living matter, and many species which have not existed before have come into existence and again passed away. Thirdly, that the history of each group of animals in which a single type can be traced shows a gradual modification of the type. Either, then, evolution is to be accepted as the explanation, or we must accept one of two other alternatives—the alternative of spontaneous generation "on the most astounding scale, and of

"animals such as horses and elephants," or of "innumerable acts of creation, repeated innume-"rable times." As to the hypothesis of evolution, says MR. HUXLEY, with singular neatness, "the "palæontological discoveries of the last decade "are so completely in harmony with the require-"ments of this hypothesis, that if it had not "existed the palæontologist would have had to "invent it." For the special help that palæontology gives to the theory of evolution is in that very discovery of missing types which it alone, from the nature of the case, can supply. The biologist may note similarities between the pig and the ruminants, or between the tapir and the rhinoceros; but he may fail to trace them to common ancestors or to fix the points at which the first divergence must have occurred. But when CUVIER discovered in the rocks of Montmartre two unknown genera of hoofed quadrupeds, the link between the tapir and the rhinoceros and between the pig and the ruminants was found. CUVIER, and after him AGASSIZ, trembled on the verge of the Darwinian hypothesis, but they failed to take the decisive step that it was reserved to our great countryman to take. It has been taken; and the past twenty years, with their wonderful record of activity, of labour, of world-wide research, have brought multitudes of facts to its support. In the sphere of physical science no one of any consideration disputes the theory any longer. The question that is now of interest is, what are its limits? Has it any limit? Is there any phenomenon external to man or peculiar to him that it will not explain? It is this question that is the philosophic battle-ground of the present; and no one who watches the currents of modern thought and their relation to action can doubt that it will be the practical battle-ground of the near future.

SOME EFFECTS OF HEAT AND LIGHT ON VEGETATION.—A curious modification of the normal structure of plant stems has been observed by M. Prillieux on making the temperature of the ground about the plant higher than that of the air above. Beans and pumpkins gave the best results. The seeds were placed in earth in a large dish, in which was inserted part of a brass rod bent at a right angle and having a gas flame applied to its horizontal end. The chamber was moist and cold. The seeds germinated well; but on coming above ground the plants acquired a peculiar shape, they grew but little in length and became unusually thick, the latter growth involving much tension in the surface layers, so that deep rifts before long appeared (mostly transverse) and made further growth impossible. M. Prillieux found the enlargement traceable mainly to an increase, not of the number, but of the volume of cells in the interior (cells of the cortical tissue and the pith). The excessive growth of these cells occurred not only in the cell wall, but in the nucleus, which was often multiplied. The excess of temperature of the ground over the air was about 10deg. Again, the view adopted by the older botanists that light is either without effect on germination, or has an adverse effect, fails to harmonize with some results lately arrived at by Herr Stebler, in the case of many seeds of agricultural importance, such as varieties of meadow grass (*poa*), the germination of which he finds to be favoured considerably more by light than by heat. Thus, with two groups of 400 seeds each of *Poa memoralis*, in one experiment, there germinated in light 62 per cent., and in darkness 3 per cent. Similarly with *Poa pratensis*—in light, 59 per cent.; in darkness, 7 per cent., and so on. Sunlight being a very variable force difficult of determination, experiments were further made with gaslight, and with the same result—that light favours the germination of certain seeds, especially grasses, and that these germinate either not at all, or very scantily, in darkness. The fact was verified by Herr Stebler in quite a series of seeds, *Festuca*, *Cynosurus*, *Alopecurus*, &c. In the case of seeds that germinate quickly and easily, such as clover, beans, or peas, he thinks light is probably not advantageous.

*MR. DARWIN ON WORMS.**

Two books from Mr. Darwin in the course of a year are a gift to be grateful for. A year ago he gave us the strange results of a long series of observations on the movements of plants, and now he has even stranger things to tell us as to the work of worms on our earth. It must not, however, be thought that Mr. Darwin's new work is the product of a single year; it really embodies the results of something like half-a-century's observations and experiments. No better example could be adduced of the truth of Carlyle's definition of genius—an infinite capacity for taking trouble; and nearly every page abounds with instances of the importance in scientific investigation of what most people would consider trifles. Mr. Darwin's method of work may well be regarded as modelled on that method of nature herself with which his name is so intimately associated. Beginning with a nucleus of fact, he develops it by innumerable little additions from all sides, modifies his growing scheme in accordance with whatever new conditions may arise, and only asks us to behold his work when all its parts have been so fitly framed together and raised upon so solid and wide a foundation of facts as to compel our admiration and approval. Mr. Darwin has shed new and true light over great regions of nature, and the total result of his labours has been to revolutionize the methods of science in many of its departments, and to readjust the standpoint from which we look at nature's multifarious handiwork. He has led us to suspect that probably nothing exists in the universe without a meaning and a service; that many creatures and parts of creatures that seem useless and cumbersome are really ingenious adaptations to the performance of the most essential functions; that nature is never wasteful and accomplishes the most stupendous ends by means that would seem to the untrained observer contemptible and hopelessly inadequate for the purpose. Mr. Darwin

* "The Formation of Vegetable Mould through the Action of Worms, with Observations on their Habits." By Charles Darwin, LL.D., F.R.S. With Illustrations. London: Murray. 1881.

has given us reason to believe that probably nothing walks this earth "with aimless feet"; that even "unintelligent" plants have something astoundingly analogous to a brain, and that their tiniest movements are all directed to a well-defined end. And now in the volume before us he has taught us to be cautious in calling anything common or unclean. If in his work on "The Descent of Man" he "put down the mighty from their seats," in that just published he has certainly "exalted them of low degree."

No subject for investigation could, at first sight, seem more unsavoury than worms. For centuries and centuries they have furnished moralists, poets, and ascetics with similes for all that is abject and grovelling and useless; humility itself cannot exult in a lower epithet than "worm of the dust." We all know what Cowper meant when he declared that he would not count him among the list of his friends "who wilfully would tread on a worm"; the results of Mr. Darwin's investigations have put an entirely new meaning into the lines. In the mouth of a farmer, after reading Mr. Darwin's book, they would have a significance undreamed of before. For, although doubtless worms may do some little damage to seeds and roots the benefits they annually confer upon humanity infinitely outweigh it. "It may be doubted," Mr. Darwin concludes, "whether there are many other animals which have played so important a part in the history of the world as have these lowly organized creatures." Indeed, Mr. Darwin declares that these despised creatures are among the greatest benefactors of humanity. They are nature's ploughmen; and had it not been for the work they have done through long ages, in many parts of the world, there would have been nothing for the plough to work upon. Mr. Darwin, as usual, wastes no words. He tells us at once what he means to do, and is never for one sentence diverted from his purpose. "The share," he tells us in the first sentence of his book, "which worms have taken in the formation of the layer of vegetable mould which covers the whole surface of the land in every moderately humid country is the subject of the present volume." The first paper which Mr. Darwin wrote on the subject was read so long ago as 1837. It contained the results of several years' observations, and these have been continued ever since. Not only has he himself, aided by his sons, carried on a long series of observations and experiments, but he has obtained information bearing on his inquiries from observers in all parts of the world. Other inquirers have been working at the same subject in recent years, and some of them have published their observations. Mr. Darwin utilizes the results of other inquirers, and gives them all credit; but he waits patiently till his own work is complete before he gives it to the world. He gives us first of all a clear account of the structure of the worm, which is much more elaborate and beautiful than it seems. It has no eyes and no ears, but has a digestive system of some little complexity, including something very like a gizzard. Everyone knows the difficulty of pulling a worm out of its hole; it will rather break than yield, and this is owing to a multitude of tiny bristles that fix themselves against the sides of the hole. Worms may have a sense of smell, and certainly have one of taste, as is proved over and over again by their preference for certain kinds of food. Where they can get them, their staple food seems to be leaves, though they are specially partial to onions. These leaves they drag down into their holes, not only for food, but to line the mouths of their holes with, probably for the sake of keeping their bodies from the cold earth. And in the methods followed by the worms in dragging leaves thus down through their narrow holes, Mr. Darwin discovers clear traces of intelligence, of a faculty for adapting means to an end. The holes themselves exhibit workmanship of some elaboration, they are carefully lined often with a thin layer of fine, dark-coloured earth, which, when carefully smoothed, makes the holes fit easily, but perfectly, to the body of the worm. Often their holes are covered with a tiny heap of small stones, and sometimes they are plugged up by the stalks of leaves that have apparently been on purpose placed in proper position. But these and many other details as to the structure of worms and their habits are all preliminary to the great purpose of the work, which is to show that what is generally called "vegetable" mould is almost solely the work of these worms, and is, therefore, more animal than vegetable. They are constantly swallowing earth and tiny stones, and passing them through their bodies to the surface in a finely triturated and fertilized condition; in fact, they may be said to manure the earth inside their own bodies. By means of this process the entire earthy surface of a country is constantly in a state of change. The whole earth underneath our feet all over the world is swarming with worms; probably all over there are in every acre of land from 35,000 to 50,000 worms. Everyone is familiar with the casts of worms, which themselves look like worms of earth. With so many worms at work, then, it is not difficult to imagine what will be the effect of a constant accumulation of such casts. In some cases, if spread over the ground, they would measure one-fifth of an inch in depth per year, equal to one inch of earth brought up from below, passed through the bodies of worms, and deposited on the surface in five years. In one instance given by Mr. Darwin 12oz. of castings were thrown up in a year on a square foot, or 6·75lb. on the square yard, equal to 14½ tons of so-called fertile "vegetable" mould over an acre in one year. Leaves and stones and lime and other substance spread over a field, and left untouched, have been found in a very few years several inches below the surface in a uniform layer. This, there can be no doubt, from the multitude of *data* supplied by Mr. Darwin, is all the work of worms. The millions of leaves and other vegetable matter dragged by the

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persevering creatures underneath the soil, whether passed through their bodies or not, form a splendid natural manure. Not only so, but "the bones of dead animals, the harder parts of insects, the shells of land molluses are before long all buried beneath the accumulated castings of worms, and are thus brought in a more or less decayed state within reach of the roots of plants." The worm burrows generally do not go beyond a few inches beneath the surface, though not unfrequently they have been found at the depth of several feet, and thus, it is supposed, materially aid the drainage and allow the air to penetrate deeply into the ground. They are even a powerful factor in geology, performing a great part in the disintegration of rocks, not simply by direct action on the softer kinds, but by the indirect action of the acids which get mingled in their bodies with whatever they swallow, and which will have a slow, but ultimately powerful effect on even hard rocks. Not only the farmer, but the archæologist ought to be grateful to the worm for the work it has done. Mr. Darwin shows that large stones, and even paved walks, when left undisturbed, have in the course of a few years been completely buried beneath the casts of worms. To this cause we owe the preservation of part of the floor of Beaulieu Abbey, and the recumbent huge stones of Stonehenge have sunk partly underground owing to similar action. Not only so, but Mr. Darwin shows that there is the greatest probability that whole towns, like the old Roman towns of Silchester and Uriconium, owe their preservation for the inspection of modern archæologists to a large extent to the ceaseless work of generations of these lowly creatures, showing the stupendous effects of a continually recurring cause, even when it seems almost infinitesimally small. No one can rise from the study of Mr. Darwin's new work, which is one of the most interesting he has written, without thenceforth feeling something like tenderness and respect for the hitherto loathed worm, even if he hesitates to credit it with all the stupendous feats which its advocate attributes to it. Mr. Darwin has elevated the creature from a cumberer of the ground to the rank of a benefactor of our race, and has by his researches thrown another fresh flood of light upon the workings of nature. As usual, there is little theorizing in his book; it consists mainly of an accumulation of authenticated instances, from which the reader may draw his own conclusions; and, as usual also, Mr. Darwin points out any weaknesses in the line of his argument, and suggests objections as candidly as if he were on the other side. But the weight of the multitude of facts he brings forward is too powerful to be resisted.

DEUDA É INGRESOS DE INGLATERRA

Inglaterra, despues de Francia, es el Estado que tiene mayor deuda. La deuda nacional inglesa ascendia á fin de 1879 á £ 778.078,830, en números redondos (19,500.000,000 de fr.) El pago de intereses y los gravámenes de todas clases que ella impone á los presupuestos se eleva, segun las evaluaciones del ejercicio de 1881, á 31.470,000 £ (780 millones de francos.) El servicio de esta anualidad absorbe por sí solo más de 3/8 de los impuestos cobrados por el Tesoro, que, en 1881, se calculan en 85 millones de £. Las rentas no se componen solamente de estos 85 millones de £ que figuran en los presupuestos del Estado. Un gran número de gastos muy considerables, que en Francia corren por cuenta de la administracion y son cubiertos con los ingresos del Tesoro, en Inglaterra corren á cargo de los municipios y condados, por medio de impuestos locales, distintos del impuesto propiamente dicho.

Los capitales de los cuales se toma esta renta son enormes. El *Banker's Magazine* ha publicado el mes último la evaluacion de los valores moviliarios que posee Inglaterra. Su total se eleva á 87,000.000,000 millones de francos, que producen 4,000.000,000 de francos próximamente. Si se añade á esta suma el producto de las tierras y los beneficios industriales y comerciales de todas clases, no puede estimarse en ménos de 20,000.000,000 de francos los rendimientos anuales del pais.

La deuda inglesa ha sido más considerable todavía; pero los ingleses nunca han perdido de vista la aplicacion del principio de amortizacion, y con él han obtenido excelentes resultados.

El fondo de amortizacion era en tiempo de Pitt de un millon de £, y sucesivamente ha ido aumentando. En 1875 una ley del Parlamento lo ha completado por una medida que ha favorecido mucho á los presupuestos.

Se toma de los fondos del Tesoro una suma anual de 25 millones de £, y, una vez efectuado el pago de intereses de los bonos del *Exchequer* y otros gastos anuales especificados, los comisarios de la Deuda pública son llamados á

MARINA DE GUERRA DEL PERU
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aplicar el sobrante, denominado nuevo fondo de amortizacion, al reembolso de cierta parte de la Deuda publica.

Gracias á estas combinaciones, el gobierno ingles ha podido reembolsar íntegramente todos los empréstitos que ha contratado desde 1815, y disminuir en 87 millones de £ (2,200 millones de francos) la deuda anterior. En efecto, la deuda era de 865 millones de £ despues de las guerras del Imperio, y hoy es de 778 millones de £. Esto se debe á perseverancia en la amortizacion.

THE REVENUE.

I.—An ABSTRACT of the GROSS PRODUCE of the REVENUE of the UNITED KINGDOM in the undermentioned periods, ended Sept. 30, 1881, compared with the corresponding periods of the preceding year.

	Quarters ended				Year ended Sept. 30, 1881.	Quarters ended				Year ended Sept. 30, 1880.
	Dec. 31, 1880.	March 31, 1881.	June 30, 1881.	Sept. 30, 1881.		Dec. 31, 1879.	March 31, 1880.	June 30, 1880.	Sept. 30, 1880.	
CUSTOMS	£5,376,000	£4,771,000	£4,587,000	£4,706,000	19,440,000	£5,356,000	£4,855,000	£4,461,000	£4,568,000	19,248,000
EXCISE	6,700,000	6,880,000	6,865,000	6,295,000	25,740,000	6,460,000	7,350,000	6,290,000	5,430,000	25,630,000
STAMPS	3,105,000	3,105,000	3,015,000	2,940,000	12,165,000	2,725,000	3,130,000	2,915,000	2,815,000	11,585,000
TAXES	35,000	2,080,000	520,000	115,000	2,750,000	126,000	2,059,000	500,000	125,000	2,710,000
PROPERTY ...	680,000	7,670,000	2,005,000	775,000	11,110,000	486,000	6,515,000	1,620,000	700,000	9,321,000
POST OFFICE.	1,677,000	1,705,000	1,760,000	1,670,000	6,812,000	1,630,000	1,575,000	1,748,000	1,570,000	6,523,000
TELEGRAPH .	395,000	375,000	405,000	450,000	1,625,000	385,000	345,000	410,000	420,000	1,540,000
CROWN LNDS.	135,000	95,000	80,000	65,000	375,000	135,000	95,000	80,000	80,000	390,000
INT. ON ADV.	403,666	244,193	364,240	234,048	1,246,147	325,520	333,400	362,751	237,102	1,268,773
MISCELANOS.	1,052,998	943,931	1,157,728	884,479	4,039,136	1,109,037	660,828	1,212,307	1,080,340	4,261,510
TOTALS ...	19,539,664	27,869,124	19,758,968	18,134,527	85,302,283	18,616,557	27,118,228	19,619,058	17,013,442	82,367,283

II.—An ACCOUNT SHOWING the REVENUE and OTHER RECEIPTS in the Quarter ended Sept. 30, 1881, the Issues out of the same, the Charges on the Consolidated Fund at that date, and the Surplus or Deficiency of the Balance in the Exchequer on Sept. 30, 1881, in respect of such Charges.

Income received, as shown in Account I...		£18,134,527	
Amount raised on account of Loans for Local Purposes by Treasury Bills (to replace Bills paid off).....		4,451,000	
Amount raised by Exchequer Bills, issued to replace Bills paid off in money		337,000	
Amount received in repayment of Advances for Public Works, &c.....		484,281	
Amount received in repayment of advances for Greenwich Hospital and School		61,008	
		£23,467,816	
Excess of the sums charged on the Consolidated Fund on the 30th Sept., 1881, payable in Dec. Quarter, 1881, above the Balance in the Exchequer on Sept. 30, 1881, viz.:			
Excess of Charge in Great Britain...	£4,277,340		
Surplus over Charge in Ireland	695,954		
Net Deficiency		*3,581,386	
Charge on 30th Sept., 1881 (as on the other side)		£11,391,588	
Paid out of Growing Produce in Sept. Quarter, 1881	5,820,786		
Portion of the Charge payable in Dec. Quarter, 1881	£5,570,781		
To meet which there was in the Exchequer on 30th Sept., 1881.	1,989,395		
*Net Deficiency, as above.....	£3,581,386		
		£27,049,202	

Net Deficiency of the Balance in the Exchequer to meet the charge on the 30th June, 1881, as per last account		£2,331,003
Amount applied out of the Income to Supply Services		13,261,631
Amount advanced for Greenwich Hospital and School.....		75,000
Charge of the Consolidated Fund on 30th Sept 1881, viz. :		
Permanent Charge of Debt—		
Interest of the Permanent Debt £4,548,651		
Terminable Annuities ... 1,108,247		
Interest of Exchequer Bills, &c..... 21,955		
	£5,678,853	
Interest, &c., on Loans for Local Purposes	136,643	
Interest, &c., on Suez Canal Bonds...	99,940	
Principal of Treasury Bills	4,456,000	
Principal of Exchequer Bills	99,000	
Advances for Public Works, &c.	520,578	
Other Consolidated Fund Charges—		
The Civil List £101,791		
Other Charges 298,763		
	400,554	
		11,391,588
		£27,049,202

TREASURY, SEPT. 30, 1881.

MARINA MERCANTE DE VAPOR

En las estadísticas del *Bureau Veritas* encontramos interesantes y fidedignos datos acerca del material marítimo de vapor de las diversas naciones en 1880, y á continuacion reproducimos el extracto de las principales cifras, seguido de algunas líneas con que lo comenta el *Semaphore* de Marsella:

BANDERAS.	Buques.	TONELAJE. Bruto.	Neto.
Inglesa	3,787	4.265,619	2.773,002
Americana	584	634,292	389,037
Francesa	335	423,787	277,781
Alemana	277	289,429	203,022
Española	226	205,498	135,814
Rusa	166	128,729	82.834
Holandesa	111	118,260	80,632
Italiana	103	107,070	72,813
Sueca	158	98,009	69,292
Austriaca	182	93,142	62,114
Dinamarquesa	109	94,987	47,844
Noruega	148	67,636	49,636
Belga	40	64,773	44,747
Sud-Americana	87	61,198	40,404
Asiática	33	38,984	24,212
Egipcia	18	18,212	11,850
Portuguesa	17	16,253	10,949
Griega	20	14,237	9,527
Turca	10	8,868	5,576
Americana central	10	4,572	2,809
Tunecina	1	1,067	723
Rumana	1	166	116
Diversas	5	9,552	6,301
Total	6,302	6.475,198	4.401,751

En el año anterior (1879), se fijaba el material naval de todo el globo en 5,807 buques, con 6,179,835 toneladas brutas. Y por lo tanto, de un año á otro resulta un aumento de 495 vapores y de 565,263 toneladas. De este aumento, la parte de Inglaterra ha sido 245 vapores y 331,553 toneladas; la de los Estados Unidos, 29 barcos y 33,000; la de Francia, 43 con 67,151. Francia ocupa el tercer lugar en la marina mercante de vapor; pero su material ha aumentado el año último en mayor proporcion que los Estados Unidos, resultado muy digno de consignarse.

La potencia que, despues de Francia, cubre con su pabellon mayor número de barcos es Alemania, que el año último aumentó su flota de vapor con 24,046 toneladas. En cuanto á Italia, que ocupa el octavo lugar, despues de España, Rusia y Holanda, tiene sólo dos vapores más y 7,000 toneladas brutas.

Entre las pequeñas marinas, aquella cuyo aumento (tratándose siempre de barcos de vapor) debe mencionarse es la de Grecia: en 1875 la marina griega contaba 9 vapores, con 5,329 toneladas; en 1878, 12 vapores y 7,721 toneladas; en 1879, 13 vapores y 8,870 toneladas; en 1880, tenia 20 buques y 14,237 toneladas. Este aumento, guardando la debida proporcion, es muy rápido y merece llamar la atencion.

RAMESES II. OR RAMESES XII.

TO THE EDITOR OF THE TIMES.

Sir,—Knowing with what interest the public has followed every detail of the recent discoveries at Thebes, I hasten to announce through *The Times* the solution of an important and much-disputed problem—namely, the identity of the mummy contained in a case bearing the names of Rameses Mer-Amen Sotep-en-Ra. Of this mummy, it will be remembered, Professor Maspero wrote as follows in his memoir addressed to the Orientalist Congress at Berlin, *vide The Times* September 19 :—

"It is this personage whom it has been sought to identify with Rameses II. I see many difficulties in the way of such identification, the chief being that the mummy case, which is of very fine workmanship, bears every characteristic of the 20th Dynasty, as, for instance, in the orthography of the cartouches, in which we find the special form of N, which was in favour at that time. The face of the effigy, in which it was invariably sought to present a likeness of the deceased, in no wise resembles the aquiline and well-known features of Rameses II. In the absence of further evidence, this mummy may, therefore, be accepted as that of Rameses XII., of the 20th Dynasty, the namesake of Rameses II., and the Pharaoh of the Stela of Bakhtan."

Since writing the above, Professor Maspero has returned to Egypt, and for the last three weeks has been hard at work at Boulak examining the newly-acquired treasures and unbandaging the more important mummies. Among the latter he has removed from the Rameses mummy those wrappings of rose-coloured muslin described by your Cairo Correspondent. On removing one of the last folds of these outer wrappings (which would seem to have been a pious addition of later date) Professor Maspero found the mummy swathed in its original bandages, and on its breast an inscription showing it to be indeed Rameses II., surnamed the Great, and formally registering the circumstances of its removal to the vault at Dayr-el Baharee. This document, described by M. Maspero as the "*procès verbal*," goes on to say that the ancient coffin had been destroyed, and was consequently replaced at the time of removal by a new coffin of the date and workmanship of the 20th Dynasty. Hence the misleading character of the orthography, and the unlikeness of the outer effigy.

I should add that at the time of writing his memoir for the Orientalist Congress, Professor Maspero had seen only a photograph of the mummy case. I have the above particulars direct from Professor Maspero in a letter bearing date Cairo, the 12th inst.

I am, Sir, &c.,
AMELIA B. EDWARDS.

Westbury-on-Trym, Gloucestershire, Oct. 27.

A CURIOUS story of the effects of adulteration comes from France. Some time ago Monsignor JUSTIN, Archbishop of Besançon, received from a wine merchant a present of a cask of truly excellent red wine. It was pure, and astonishingly cheap. The merchant in offering a sample barrel to the prelate described it as wine suitable to be used at Mass, and begged that if Monsignor was satisfied with it he would deign to recommend it to the clergy of his diocese. Archbishop JUSTIN, who had but lately been appointed to the see of Besançon, and was unaccustomed to the ways of the place, being struck by the quality of the wine, and by its low price, recommended it without scruple to his clergy. The vendor consequently received many orders; but the wine which he proceeded to distribute among the lesser clergy was of a very different quality to that with which he had supplied the Archbishop. Yet it was a wine that tasted well, and the majority of country curés who used it had no suspicion that it was anything but pure unadulterated juice of the grape, such as the rubric enjoins shall be drunk by priests when saying Mass. One priest, however, more experienced than the rest went to the expense of having the wine analysed, and then it was found that this extraordinary beverage did not contain a single drop of grape juice. It was a compound fabricated by some new process, cheaper (to the manufacturer) than the common processes used at Cette, where sham wines are made in such large quantities for home and foreign consumption. Great was the scandal which resulted upon this discovery, and the consequences were most painful to religious people, for the Archbishop of BESANCON was obliged to order that all the Masses in which the spurious wine had been used should be annulled. This decision was announced in the pulpits of about a hundred churches, with the effect that all the Masses which had been vitiated had to be said over again. The poor priests who had been victimised have, of course, been the chief sufferers, for Masses whether offered up for the living or for the souls of the dead are generally paid for. It was impossible, however, for the Archbishop to act otherwise than he did, for no compromise could be admitted in a matter touching the sanctity of the Mass. The wine merchant has found it expedient to decamp from Besançon without leaving his address. He may consider himself lucky that he did not live a hundred years ago, when sacrilege was a hanging matter. Daily News - Nov. 5/81

SIR JOHN LUBBOCK has added another delightful revelation to the many which he has given us about the habits and characters of the Insect-people. Relieving dry duties of politics and finance with patient studies of the inner life of ants, wasps, and bees, the accomplished baronet has come to know these small folk of Nature with a new and special knowledge, which he communicates with admirable clearness. Thanks to his untiring investigations, our intimacy with ants has advanced far beyond what might be called a "speaking acquaintance," beyond even the wonderful bygone researches of HUBER and SMITH. As for Sir JOHN himself, he may be described as the confidant and particular friend of the Ant-folk. He has individuals under his roof who have lived with him for upwards of seven years, and who are just as well known to him personally as Members of the House of Commons or the Stock Exchange. The learned baronet, moreover, has quite restored the moral reputation of the wasp, which under his hands turns out to be an industrious, peaceable, and virtuous, if somewhat quick-tempered creature. Bees, however, have been the special subject of his most recent experiments, and the results of these formed the topic of a fascinating paper read at the last meeting of the Linnæan Society. Sir JOHN had been meditating on the well-known connection between the structure and the colour of flowers and the insects which most largely fertilise them. All people of intelligence understand by this time what the view of botanists is as to the explanation of the various forms and hues of blossoms. A large majority of plants can only be profitably fertilised by having the pollen of one flower brushed against the pistil of another of the same species, and to this end all their modifications through many ages have been directed. They want to keep away noxious insects and to attract useful ones, and marvellous in complexity and contrivance are the methods towards these ends which Evolution has established. "Sometimes the mouth of the flower is tightly closed, so that only the favoured insect can open it; sometimes the honey is hidden in the recess of a long spur, on the Æsopian

principle of the fox and the crane; sometimes, again, it is curled up in a twisted tube which one bee or beetle alone can unroll." Occasionally spots and lines direct the visiting bee, like so many sign-posts, to the nectary. Ingenious brushes and velvety mats are spread to oblige the visitor to "rub his shoes," so to speak, in the right place; cunning springs and trap-doors are arranged to exclude the wrong creature and utilise the right one. There is hardly any end to the mechanical and artistic inventions which natural selection has produced in the vegetable world by this universal desire to attract the pollen-transmitting bee or beetle or butterfly. Plants like the thistle, with inconspicuous flowerets, club them up together into a splendid cone of colour in order to allure the passing insect. For colour is, after all, the great attraction upon which most plants depend. The beautiful bouquet which the bride carries to church, or the prima donna picks up before the footlights, is the outcome of a perpetual "besoin de vivre" on the part of innumerable vegetables. Those lovely tints, those delicate perfumes, that exquisite finish of petal and calyx which shames satin for texture and outdoes "SOLOMON in all his glory," have come in long ages from the close interdependence of the flower and the bee. They are each and all anxious and earnest coquetries on the part of the plants, addressed to the little winged creatures whose only care is to obtain honey or wax and daily food. In gathering these the beetles, flies, and bees also unconsciously discharge the duty of fertilising the plants; so that the inconspicuous or flowerless species, and those whose seeds are wafted by the wind, can alone afford to neglect such arts of shape and colour. Colour is, we repeat, the great attraction, this is what most of all induces bees to alight, and Sir JOHN LUBBOCK has been seeking to find out and to tell us which colour of all in FLORA's garden the bees most prefer.

It is not everybody who would know how to go about this investigation. If even we could ask bees, they would perhaps find themselves as puzzled as a débutante to decide whether the red of a rose, or the yellow of a cowslip, or the blue of a forget-me-not, was the loveliest tint, viewed in the abstract. Practically, however, it stands to reason that these creatures must have a clear and strong preference for some one colour, because they only connect flower-tints with honey-hunting, and honey is the serious business of all their senses. Sir JOHN had previously proved that bees do possess a sense of colour—thus much was certain. Which of all the flower-hues, then, do they regard as most promising, most favoured, most attractive? The baronet put the question to his winged little friends in the following ingenious manner. Having first accustomed certain well-known bees to come to a fixed spot for food, he placed drops of honey there on small pieces of paper tinted with red, blue, green, yellow, purple, pink, orange, and all the usual hues of blossoms. These pieces of paper were fairly and equally disposed on the surface of a grass lawn, but so mixed up that the bees at a glance could see them and choose. When a bee came the experimentalist allowed her to feed for a quarter of a minute, and next removed the paper dish. She then flew to a second colour, which was in turn taken away; then to a third, which was removed; and so it was noted in what order the visitor favoured all the colours. Again the honey-papers were spread, and a second bee's conduct was observed in choosing one after another, the order of choice being carefully recorded. Dozens of bees were in this way put through what may be called the menu of honey-tints, the selection in each case being faithfully noted until a large series of observations had been obtained, and a pretty positive opinion could be pronounced as to the colour which bees like best. This, strange to say, is blue. Nobody familiar with flowers and bees would have expected such a decision. Such a bee-vote, in point of fact, is as puzzling to naturalists as the Stafford election seems to have proved to politicians. First of all, there are fewer blue flowers in England than there are of white, red, or yellow, and this in a marked degree. Next, though bees are very fond of Canterbury bells, gentian, monk's-hood, and other cerulean-tinted blossoms, they are quite as fond apparently of many white, red, and yellow blooms, and there is nothing which grows blue, in sheets and acres, like the red and white clover, the purple heather or the golden furze. The white clover and the humble-bee are actually inseparable—the former cannot continue to live without the latter. A good authority has written: "For many years common English clover had been sown annually in New Zealand from imported seed; but the plants had never set any seed of their own, and the cost of importation was a serious item to the sheep-farmers. Mr. DARWIN had already pointed out, however, that clover is entirely fertilised by humble-bees, which do not exist in New Zealand; and some seasons since a small cargo of humble-bees was shipped to the colony, where they established themselves as readily as all European plants and animals almost invariably do there. The clover has since begun to show itself." How is it, then, that the bees who really make—so to

speak—the red and white and yellow flowers so plentiful, should give their suffrages on Sir JOHN LUBBOCK's lawn for blue? It might have been supposed that if this were their favourite colour they would have rendered it more prevalent in gardens by the constant process of visiting most the blue-hued blossoms. It is as if we had a Conservative at the top of the poll in Birmingham, the bees voting blue, while Nature goes on producing reds and yellows. Sir JOHN LUBBOCK thinks, with some plausibility, that all flowers were originally green, being developed leaves, and that those which are now blue have passed to that colour through white or yellow, and perhaps red. The bees, therefore, as we understand him, either see blue as green, or see all the colours in blue; but the report of his observations is deficient upon this point, and, if he does not quite comprehend what the bees mean, we must await further explanations on their part.

One thing must, however, be borne in mind, which is that we know very little of the senses of insects. It does not follow that because we see blue in a flower or on a tinted piece of paper that bees discern the same colour. Certain beetles and flies have the cornea of their eyes cut in facets like a diamond, and who can tell what the world looks like to a creature wearing such manifold "glasses"? The cornea and lens of a bee's eye lie so related that the insect is very long-sighted, but almost purblind at close quarters; so that it will come flying straight for the hive, and yet stumble and grope like a blind man at the door. Ants, again, have little or no sense of sight, but feel or sniff their busy way about the world by means of their antennæ, which Dr. HAUSER has discovered to be marvellously delicate and complex organs of a sense quicker than touch and finer than smell. The dragon-fly, on the other hand, with eyes like railway-lamps, possesses poorly developed olfactory tubes; but bees have both gifts, being long-sighted to notice masses of bloom, and keen in scent to detect honey. Sir JOHN LUBBOCK has himself demonstrated the wonderful quickness with which bees will smell their food through perforated surfaces. It is just possible, therefore, that something in the surface of the coloured paper, different from the perfect texture of floral petals, presented to the eyes of the Lubbockian bees quite another sensation than blue. Perhaps they blundered about among the coloured papers, smelling the adjacent honey, rather than selecting any, and fresh experiments might give other results. We wish that Sir JOHN had deposited the honey drops on actual leaves of flowers; but, after all, he is so good and careful an experimentalist that we doubt not his bees will justify him, however often the blossom ballot be taken. The bees have some good reason or other for their choice, if we only knew it. Meanwhile, such questioning of the intelligences which we call "lower" leads to a wonderful expansion of our ideas of sentient life. The ants keep cattle, like Suffolk milk farmers, make slaves like African kings, and migrate in colonies like the Anglo-Saxon. They know the pupæ of the slave sort from those of the fighting kind—which are just like them to our eyes—and carry one away while shunning the other. If this be all instinct, what a miracle is the little grey speck of brain into which the antenna nerve of the ant and bee runs! If it be reason in its humbler grades, then what is to limit the future development of bees and ants? And yet the fossil scorpions found lately in Eskdale are precisely like those now existing, even in the minutest point!

Thursday Nov. 24

SPORTING INTELLIGENCE.

Robert the Devil has been purchased by the owner of the Beenham Stud for 8,000 guineas, and has left the post for the paddock.

THE DAILY TELEGRAPH

It is not a little remarkable that, for all the information which reaches them from the vast, opulent, and volcanic continent of South America, England and the rest of Europe should be satisfied to depend upon occasional letters and articles published in the journals of the United States. Yet it would be hard to estimate the amount of English money which the South American Republics and the Empire of Brazil have swallowed up. Mr. FREDERICK MARTIN tells us, in his "Statesman's Handbook for 1880," that the foreign debts, due almost exclusively to Great Britain, for which eight South American States are responsible, amount to the enormous aggregate of about one hundred and ten millions of pounds sterling. The eight States in question are the Argentine Confederation, Bolivia, Brazil, Chili, Paraguay, Peru, Uruguay, and Venezuela; nor will we harrow the feelings of English contributors to the loans raised by them severally in this country by reminding them upon how large a portion of this stupendous sum no dividends have been paid for years. But at least it does not become Englishmen and their Government to forget that one South American Republic—that of Peru—has a foreign debt of nearly fifty millions sterling, and that all her resources for

paying either interest on capital have, since the 17th of last January, when Lima, her capital, fell into the hands of Chili, been entirely at the mercy of her conqueror. Peru, under an honest and capable Government, and with her territory unimpaired, would be abundantly able to pay the war indemnity claimed by Chili, and also to clear off her debt to European creditors. Many years of costly experience have taught us, however, to believe that even in times of peace an honest and efficient Government is not to be expected in Peru. There is a beautiful Spanish legend which relates that just before the death of King FERDINAND III., commonly called St. FERDINAND, the Virgin appeared to him. Deeply penetrated by the devout zeal for the Church which the expiring Monarch had displayed upon earth, his celestial visitor asked him what favours he desired for his beloved country. His petitions for corn, oil, and wine, for sunny skies, brave men, and lovely women, for relics, bulls, garlic, pomegranates, and what not, were promptly conceded; but when he prayed finally for a good Government. "That," rejoined the Virgin, "can I never grant, for, were it bestowed, Heaven itself could not keep one solitary angel out of such a paradise as Spain." Peru, in the estimation of many English and American writers, such as PRESCOTT, HUTCHINSON, and CLEMENTS MARKHAM, who have described its natural charms, its boundless resources, and its fascinating scenery, is yet more prodigally endowed than the mother country in Europe from which the Republic sprang. All that Peru has received from the bountiful hands of Nature has, however, been negatived and made of no account by cupidity, sloth, fulness, war, and anarchy. Its guano deposits have been so maladministered as to make their early exhaustion certain, and if Chili be permitted to retain the southernmost province of Peru, called Tarapaca, which contains beds of nitrate of soda illimitable in extent and priceless in value, the dismembered Republic will be reduced at a stroke from one of the naturally wealthiest to one of the poorest countries upon earth.

Complaints are often made by English merchants that they can obtain no assistance or support in commercial matters from the Ministers and Ambassadors who represent this country at foreign capitals, and that everywhere they come into competition with American rivals, whom the diplomatic Envoys of the United States are always ready to take by the hand and endorse. It seems that something of a similar kind is not unlikely to take place in South America. The last advices from Washington report that General HURLBUT, the American Minister in Peru, has addressed a letter to Admiral LYNCH, who is in command of the Chilian forces now in possession of Lima—a letter which presages that the United States may possibly intervene in the quarrel between Chili and Peru—insisting that peace shall be made without any surrender of territory by the defeated, pillaged, and prostrate Republic. The letter in question is dated the 25th of last August, but it was not made public until the Lima correspondent of the *New York Herald* sent it to that journal on the 28th of September. If General HURLBUT has not exceeded the instructions confided to him before he left Washington for Lima, it is obvious that the war between the two great Spanish Republics of the West Coast of South America may shortly enter into a new phase. War it may still be called, for, although active hostilities have ceased since January last, when all armed resistance on the part of Peru was practically extinguished, the victorious Republic has never been able as yet to extort a peace from its crushed and humbled antagonist. In vain was a dummy Peruvian Government, with President GARCIA CALDERON at its head, set up by Chilian bayonets to make peace; but down to the present time CALDERON and his associates have been deterred by public opinion in Peru from accepting the conditions inexorably exacted by the victor—the terms being that the province of Tarapaca shall cease to be Peruvian and be ceded to Chili. In England we know less than nothing as to the value of Tarapaca, which belonged at the commencement of the war to Peru, or of the adjoining province of Atacama, which belonged to Bolivia. Many commentators on the war which Chili, while feigning to be drawn into it, really forced upon Peru and Bolivia, are of opinion, however, that from the outset her main purpose was to get hold of these two provinces, the value of which is incalculable. It will readily be understood that the language addressed by the American Envoy to the Commander-in-Chief of the Chilian forces now stationed in Lima has excited considerable comment upon the other side of the Atlantic. This language is of a sort by no means usually employed by diplomacy, and, were General HURLBUT to be sustained by the powerful Government which he represents at Lima, there would be little doubt that Chili is about to find a new and far more formidable adversary in the United States.

General HURLBUT commences his letter to Admiral LYNCH by remarking that, in the opinion of the United States Government, all the legitimate objects of the war between Chili and Peru were attained when the Peruvian

armies were annihilated, when all her vessels were captured or destroyed, and her capital and coast were occupied by the Chilians. "When all formidable and organised resistance has disappeared," he continues, "the state of war should cease. The victory of Chili is so complete that peace is a necessity for the national existence of Peru, and it is the interest of both countries to adjust a peace as soon as possible. Commerce and the rights of neutrals have suffered enough, and the large interests owned in Peru by foreigners, many of whom are Americans, should no longer be exposed to an unnecessary prolongation of the war." General HURLBUT adds that the United States Government, while recognising all the rights acquired by the conqueror in accordance with the rules of war, disapproves of war which has in view territorial aggrandisement or the violent dismemberment of a country. The right of Chili to claim a war indemnity and security for its payment is admitted by General HURLBUT, but she is menaced with "the most decided disapprobation on the part of the United States" if she attempts, without first giving her vanquished enemy an opportunity of offering terms for the payment of the cost of the war, "to incorporate into Chilian jurisdiction territory which is undoubtedly Peruvian." The American Envoy concludes by saying that the United States desire, above all things, that peace should be re-established between the South American Republics, and hints not indistinctly that, unless some attempt be made at once to bring the war to a close, the Washington Government will intervene. It must not be forgotten that when General HURLBUT received the instructions—if ever he received them at all—which have led him to write this bold letter, President GARFIELD had not been struck down by GUITEAU'S bullet. Possibly Mr. BLAINE and the Cabinet at Washington may, prior to the 2nd of July, when President GARFIELD was wounded, have contemplated a more vigorous policy in South America than subsequent events may now dispose them to undertake. In the meanwhile, we await the confirmation or the repudiation of General HURLBUT'S words by the Government in whose name he assumes to speak. We observe that the latest telegram from Santiago intimates that General KILPATRICK, the American Envoy to Chili, holds very different language from that employed by his colleague at Lima. Be this as it may, the whole world, and England above all other nations that it contains, are interested in the early adjustment of the ruinous quarrel between the South American belligerents. The danger lest the war should extend beyond the confines of Peru is so obvious that, considering the immense amount of English money at stake, there would be a general sense of relief in this country if the bold utterances of General HURLBUT were avowed as their own by the Washington Government. Without foreign intervention there is little probability of peace being restored upon a continent which has already been the grave of European capital to an indefinite extent.

NOV 9.

THE UNITED STATES AND CHILI.

SEIZURE OF PRESIDENT CALDERON.

Nov 22

(FROM OUR CORRESPONDENT.)

NEW YORK, TUESDAY NIGHT.

Scarcely a week after Mr. Blaine's instructions to Mr. Hurlbut to continue to recognise President Calderon, the latter has been seized by the Chilians, placed on board an ironclad, and it is believed that he has been taken to Santiago.

I am also informed on the best authority that it is only the want of ironclads which prevents a notification being made by the United States Government to Chili that Señor Calderon must be placed in a position to resume Executive functions. Thus practically the United States are compelled temporarily to submit to a virtual insult from a third-rate Power.

Nothing is likely to be done before the meeting of Congress, when it is probable that a American Protectorate of Peru will be proposed for the sake of the safety of American investments in that country. The initiative will, not improbably, be given by a memorial from Señor Calderon.

I am further informed that Mr. Blaine's policy, of which *The Standard* has hitherto had the exclusive information, is merely the continuance of Secretary Evarts's policy during this administration. England, France, Germany, and Italy, I understand, combined to force a conclusion to the disastrous South American war, and the United States were asked to make a fifth. Mr. Evarts replied that the United States could not enter such a combination, as they believed themselves entitled to the sole right of intervention. Hence Mr. Blaine believed that he inherited rather than originated the spirit of the instructions to Mr. Hurlbut. Those instructions were similar to General Kilpatrick's, but not identical, and on close reading they reveal a meaning not apparent on the surface.

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There is no truth in the current rumour that Mr. Hurlbut has received private instructions in addition to the formal and official ones. I repeat my belief that Mr. Hurlbut will be able to justify himself in respect to everything reported up to the present time. There is a rumour that the cable despatches to him were not accidentally delayed in transit. I know that urgent representations were made to President Arthur on the subject by interested capitalists.

There is good reason to believe that this will be one of the subjects to be prominently discussed in the forthcoming Message to Congress. No unfortunate collision is, however, immediately anticipated, for the additional reason that new negotiations between Chili and Peru have begun within these few days, and some progress has already been made on a basis which I am at present unable to indicate. The United States are, however, less helpless than appears to be the case, for, my informant states, the negotiations for the purchase of European ironclads are in a state of forwardness which would admit of immediate conclusion.

ARREST OF THE PRESIDENT OF PERU.

[REUTER'S TELEGRAM.]

WASHINGTON, Nov. 23.—The Peruvian Minister here stated to-day, in reply to some interrogations, that he had received a despatch from Paris announcing that Señor Calderon, the President of Peru, and Señor Galvez, his Minister for Foreign Affairs, were arrested about Nov. 9 by the Chilians, and taken to Santiago, and that Mr. Hurlbut, the United States Minister, would probably recognise Vice-President Montero as Señor Calderon's constitutional successor, as he was instructed by the State Department in Washington on Nov. 1 to continue to recognise President Calderon's Government. The Chilian Minister here, in reply to inquiries, says he is unaware that President Calderon is under the patronage of the United States. He has no official news of the seizure of the President of Peru, but he hears from good private sources that he was arrested by the Chilian General Lynch for persisting in the exercise of his functions after General Lynch had issued an order superseding him. The Minister is uncertain whether President Calderon has been sent to Santiago or detained at Callao on board a Chilian man-of-war. The State Department refuses to make any statement with regard to the news of President Calderon's arrest or as to the United States Government's position in reference to the affair.

The telegram from our New York correspondent this morning, on the relations between the United States and Chili, [illegible] read without a feeling of uneasiness. The key of Mr. BLAINE's policy, as to be that of President ARTHUR's Government, that at the very moment when the political horizon seems to be clear the United States are entering on a career of foreign adventure from which grave consequences must be apprehended. In recently commenting on the unsettled condition of affairs arising out of the war between Peru and Chili we took occasion to refer to the inclination on the part of the Washington authorities to play the *rôle* of Dictator in this unfortunate business. Mr. HURLBUT, speaking in the name of the United States, was reported to have affirmed their determination to recognise no Treaty which did not make a point of preserving the nationality of Peru, or which in general terms declined to admit of such a wide extension of the MONROE doctrine as to entitle the great Northern Republic to act as the final arbiter of the destinies of the American Continent, with its Empire, Dominion, and numerous Republics and European Colonies. It was reasonably open to doubt whether a doctrine so presumptuous and one so closely affecting the independence of not only the Sovereign States of South America, but of those European Powers who had Colonies in the New World long before the Declaration of Independence was dreamt of, could have been entertained by any responsible States-man. Accordingly, in spite of the policy being so much at one with that enunciated in Mr. BLAINE'S Despatch, protesting against any Foreign Powers guaranteeing the neutrality of the Panama Canal, we were not surprised to find General KIRKPATRICK, the United States Representative in Chili, denying that his colleague in Lima had rightly interpreted the intentions or views of his Government, and that in brief there would be no departure from the principle of permitting the recent combatants to patch up a peace after their own minds. General KIRKPATRICK quoted [illegible] in support of this assertion, but [illegible] while not denying that such might have been the purport of Mr. BLAINE'S views some time ago, was ready to [illegible] later date, in support of the [illegible] made regarding the intention of the Government by whom he was [illegible] matters are pertinent [illegible] believed that Mr. HURLBUT [illegible] understood the policy of the [illegible]

for [illegible] the information supplied by our Correspondent, that "The United States Minister was ordered to recognise President CALDERON as the legitimate Ruler of Peru. The Chilian General refused to acknowledge his authority." We now learn that matters have taken a new turn by the victors seizing the [illegible] President, and despatching him as a prisoner to Santiago, thus treating Mr. BLAINE with [illegible] scant, that it is impossible to believe we have heard the last of the affair.

Meantime, the United States cannot stir, even if it were inclined to resent the slight. The American Navy, if not a "phantom fleet," would certainly find it difficult to compete successfully with the fleet of Chili. It possesses few ironclads, and these are of a rather antique build, so that, until the swift cruisers of which the Advisers of the Government counsel the construction are ready, Mr. BLAINE must be content to nurse his wrath. For this reason—and this only—it is the belief of the Washington group, he has delayed the issue of a notification to the Chilians to reinstate President CALDERON. There are, indeed, rumours of ironclads being purchased in Europe and of other warlike preparations in support of Mr. BLAINE'S Ukase. How much truth there is in these reports we cannot say. It is always difficult in such cases to separate fact from fiction. It may, however, be safely affirmed that all this diplomatic fuss is not without a solid foundation of reality. Mr. BLAINE does not profess to be the originator of the new departure; all he claims is to have inherited a policy from Mr. EVARTS, and the credit of having discovered a fitting opportunity for carrying it into execution. To Mr. EVARTS must be awarded the distinction of having been the first to declare that for two independent Republics two thousand nine hundred miles south of Washington to make peace without the permission of the United States would be a serious infringement of a doctrine in the formulating of which they had no share, and their recognition of which is not to be found in any Treaty or other International instrument. It is, indeed, an open secret, on which we have already commented, that when England, France, Germany and Italy offered to intervene in the war between Peru and Chili, Mr. EVARTS declined to make a third party to the compact, on the ground that the United States alone had a right to play the mediator. The proposal accordingly fell through, and the unnatural struggle continued. This is probably a fairly accurate statement of the case. How the latest extension of the Monroe doctrine—"America for the Americans," so long as by Americans are meant those of the North, and not those of the South. Otherwise, it is hard to see how the Latin Republics have not as perfect a right to regulate their own affairs as the Anglo-Saxon one has to dictate how their Treaties should be worded. However, whatever may be the result of this altogether unwarrantable proceeding, nothing can be done until Congress meets, when it is expected that, unless Peru and Chili anticipate the action of the United States, their affairs will occupy a large, and perhaps not the most agreeable, portion of President ARTHUR'S Message.

But, even allowing the rumours in circulation to accurately interpret Mr. BLAINE'S intentions, there is, we think, little cause for alarm. We question very much whether he has any idea of advancing beyond the limits of a wordy declaration; or, if even he had that he would be permitted to do so. Mr. BLAINE is a "politician," and as such is well aware how easy it is to secure votes by means of some cheap rhodomontade of the spread-eagle order. He may not be troubled by any scruples about International rights. But the people of the United States are far too prudent to risk the disturbance of their peace for the sake of ventilating any such idea as that promulgated by Mr. EVARTS or Mr. BLAINE, and are actuated by too sound a sense of justice not to see how utterly unjustifiable is the whole proposal. To go no further than the South American Republics, they are the lineal descendants of a settlement on the American Continent which long preceded that of the English people, and they wrested their freedom from Spain without the help of the United States. There is, therefore, nothing more certain than that the development of an intention to dictate their internal or external policy will be the signal for a confederation of the different Sovereignties, either under or in union with Brazil, to resist such an interference with their liberties. Nor can it be doubted that this union would receive the countenance of the European Powers, and more especially of those who possess Colonies in America, and are therefore entitled to regulate their affairs accordingly to suit their own convenience. The objection to the neutrality of the Panama Canal being guaranteed by the Maritime Powers is on a par with the new departure to which we have referred, and it is satisfactory to learn that the Minister of Colombia has expressed his reasons for disagreeing with Mr. BLAINE'S Note, in words almost iden-

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tical with our own. Señor AROSEMENA, whilst allowing that the United States must have an opportunity for protecting both their Pacific and Atlantic Coasts, reminds the Washington Authorities that Great Britain, Mexico, and Central America are in the same position, and that, therefore, they cannot be refused the right to participate in a joint guarantee for their common protection. This reasonable view will, we are convinced, be the one which, in the end, will prevail. Doubtless there are adventurers and speculators who are ready to back up any policy which seems likely to secure their ends, regardless of either its justice to the States attacked or its discredit to the State attacking. But in America, as in all civilised countries, there is a power far greater than those temporarily in authority, and this power, unless we are much mistaken, will never support such a course of action as that which seems to be foreshadowed by the present proceedings of Mr. BLAINE.

THE DAILY TELEGRAPH.

IN one of the most powerful speeches ever delivered by DANIEL WEBSTER at Washington, he impressed upon his hearers with singular earnestness and force that they, or their successors, would be running incalculable risks if, in time of peace, they omitted to prepare their country against attack or menace in time of war. The United States might, he added, be trusted to expand in area, and to grow in wealth and population, without artificial assistance of any kind, seeing that the natural advantages of their position, and the amazing resources of the North American continent, could hardly fail to build up a mighty nation, be the legislation of their Senators and Members of Congress what it might. Yet, said the eloquent American statesman, it is impossible in a few weeks or months to create a navy, which is "the right arm of a maritime nation's power, and the active and aggressive element of its defence. In the absence of a navy, what can our regular army, or our volunteer militia, achieve against the enemy's line-of-battle ships and steamers, falling without notice upon our coast? What will guard our cities from tribute, our merchant vessels and our navy yards from conflagration? Our war navy can never be large enough to defend by its presence at home all the ports and harbours scattered over five thousand miles of coast. But the cost of fortifying all important points on our Atlantic coast will not exceed the amount just spent by the French nation upon the fortifications of Paris." It had been well if the compatriots of Mr. WEBSTER had remembered his impressive warnings sufficiently to perceive the danger incurred by a first-rate Power which possesses no war navy worthy of the name. In a recent report the American Secretary of the Navy mentioned with shame that at this moment the whole coast of the United States is at the mercy of a single foreign ironclad, and that, in point of fact, the mosquito fleet of gunboats which China has lately purchased from England is more than a match for any flotilla that the Great Republic could send to sea. In confirmation of these words, the latest advices from New York report that, through want of ironclads, the American Government are unable to enforce the demands made by their diplomatic representative at Lima, in Peru, upon the victorious Chilians, who since January last have held the capital city of their humbled enemy in their uncontrolled possession. According to rumour, Señor CALDERON, the nominal President of the Peruvian Republic, has been taken by the Washington Government under its protection, with the proviso added that the United States will permit no peace to be concluded between Chili and Peru in which the latter Power has to submit to any sacrifice of territory; and Europe at large, and this country in particular, has awaited with impatience the confirmation or the repudiation by the Washington Government of the message delivered by General HURLBUT, the American Envoy accredited to Peru, to the Chilian commander in possession of Lima. The indications now are that General HURLBUT will be sustained from Washington in the bold position assumed by him last August, and that an end will shortly be put to the exhausting occupation of Peruvian territory by the exacting and triumphant forces of the Chilian Republic.

Such, at least, is the inference to be drawn from the tidings that Admiral LYNCH, the Chilian Commander at Lima, has just seized the Peruvian President, Señor CALDERON, and placed him on board a Chilian ironclad with the intention of transporting him to Santiago, the capital of Chili, if, indeed, he has not already been carried thither. Assuming this report to be true, and also that General HURLBUT is sustained to the utmost from Washington, it is impossible to believe

that such a powerful and sensitive nation as the United States will tamely submit to the insult inflicted upon them by the Chilian Government. It is alleged that, conscious of their inability to send any ironclads to Lima capable of coping with the powerful war navy of the Chilians, the United States have for some time past been actively engaged, through their Government, in negotiating for the purchase of European armoured vessels which would enable them to enforce respect for the Stars and Stripes upon the western coast of South America. Be this as it may, it is, as we have pointed out on many previous occasions, a scandal to civilisation that the ruinous war which Chili and Peru have for nearly three years been carrying on should not be brought to an immediate conclusion. If rumour may be credited, Mr. EVARTS, who was Secretary of State—or, as we should say, Foreign Secretary—at Washington during the whole of the Presidential term of Mr. HAYES, has himself alone to thank for the state of war and anarchy which has so long prevailed in Peru. At the commencement of last year four of the great European Powers—England, France, Germany, and Italy—made a joint proposition to Mr. EVARTS that the United States should combine with them in putting a stop to the disastrous war in South America. Mr. EVARTS, however, declined to admit any European interference in the Western Hemisphere, basing his refusal, we believe, on the tenets of what is called the MONROE doctrine, in conformity with which the United States claim absolute control over the American Continent from the Arctic to the Antarctic Pole. Mr. EVARTS is not the first North American statesman who has made similar pretensions, forgetting that an English Minister, Mr. CANNING, was the suggestor of the MONROE doctrine, which laid down—as may be seen from the message of President MONROE to Congress in the Session of 1823-24—that "the United States would consider any attempt on the part of European Powers to extend their system to any part of this hemisphere as dangerous to our peace and safety. With the existing colonies or dependencies of any European Power we have not interfered, and shall not interfere. But in the case of Governments which have declared their independence, and maintained it, we could not view any European interposition for the purpose of oppressing them, or controlling their destiny, in any other light than as the manifestation of an unfriendly disposition to the United States." Mr. EVARTS, whose policy is understood to have been followed by his successor, Secretary BLAINE, is but repeating and enforcing the lines quoted with great effect by the late Mr. SEWARD, when he was a Presidential candidate in 1860:

"No pent-up Utica confines our powers,
But the whole boundless continent is ours."

Now it would be the height of Quixotism for the American Government to pretend that, in wishing to put a stop to the war between Chili and Peru, any European Power has the faintest desire to "extend its system"—or, in other words, substitute a Monarchical for a Republican polity—to any portion either of North or of South America. The United States are not alone among the nations of the world in the material interest which they take in South America. Great Britain, for instance, has lent more than one hundred million pounds to the various Republics of South America and to the Empire of Brazil, and she has at least an equal right with the United States to let her voice be heard in the quarrel between Peru and Chili. The Washington Government is supposed to justify the menacing language employed by its representative at Lima, General HURLBUT, by pleading that United States citizens have made large investments in South America, and cannot submit to the spoliation of Peru by Chili without demanding that American interests should be respected. It is, however, abundantly certain that English subjects have more money invested upon the western coast of South America than the citizens of the United States, and it would, to our thinking, have been politic and prudent if Mr. EVARTS and Mr. BLAINE had recognised that a joint message, issuing from four of the great European Powers and from the United States acting in concert with them, could not have failed to command immediate respect from the Republic of Chili. Still we rejoice that, according to all appearances, the United States have at last resolved to interfere actively between Chili and her prostrate enemy. There is little probability that Chili, although intoxicated by her great successes, and by the immunity with which she has hitherto been allowed to turn them to unlimited advantage, will venture to defy the United States, if they are really in earnest. Already it is rumoured that new negotiations for peace have been entered into within the last few days between Chili and Peru, which are far more likely to lead to peace than was the case when no foreign Government appeared to take any interest in the destinies of the two South American belligerents. In the meanwhile it must not be forgotten that, as one of the results of the defeat which they have inflicted upon Peru, the Chilians are in possession of a more formidable war navy than any other Power either in North or South America. Chili

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began the war with a navy consisting of ten small steamers and two large and powerful ironclads, constructed at Hull, and during the war she has captured all the ironclads of Peru, consisting, among others, of the Huascar and the Atahualpa. It is of more vital interest to the United States that they should be surpassed in strength upon the ocean by an insignificant South American Republic than that the MONROE doctrine should be enforced at the expense of European Powers which have no sort of desire "to control the destinies" of any State in the Western Hemisphere. The time, however, has obviously come when the interests of civilisation demand, in General HURLBUT'S words, that peace should be restored between Chili and Peru. "Commerce," he adds, "and the rights of neutrals have already suffered enough, and the large interests in Peru owned by foreigners require that they should no longer be exposed to the unnecessary prolongation of a devastating war." England has even better reasons than the United States for desiring that peace should be concluded without the acquisition of Peruvian territory by her victorious and high-handed adversary; and, in point of fact, it is hardly to the credit of the British Foreign Office that such a length of time should have been permitted to elapse without some determined attempt being made to carry out these views.

THE UNITED STATES.

PHILADELPHIA, DEC. 12.

The Secretary of State, with the approval of the President, has made public so much of the instructions given to the American Ministers to Chili and Peru as was issued during General Garfield's administration. The Minister at Lima, Mr. Christiancy, was instructed on May 9 to recognize the Calderon Government of Peru, which he did on June 26, before the arrival of the present Minister, Mr. Hurlbut, at Lima. Secretary Blaine, on June 15, sent to Mr. Hurlbut the following despatch :—

"Sir,—The deplorable condition of Pern, the disorganization of its Government, the absence of precise and trustworthy information as to the state of affairs now existing in that unhappy co untry, render it impossible to give you instructions as full and definite as I would desire. Judging from the most recent despatches from our Ministers, you will probaby find on the part of the Chilian authorities in possession of Peru a willingness to facilitate the establishment of the Provisional Government which has been attempted by Señor Calderon. If so, you will do all you properly can to encourage the Peruvians to accept any reasonable conditions and limitations with which the concession may be accompanied. It is virtally important to Peru that she should be allowed to resume the functions of a native orderly Government, both for the purposes of international administration and the negoti tion of peace. To obtain this end it would be far better to accept conditions which may be hard and unwelcome than, by demanding too much, force a continuance of the military control of Chili. It is hoped that you will, in your necessary association with the Chilian authorities, impress upon them that the more liberal and considerate their policy the surer it will be to obtain a lasting and satisfactory settlement. The Peruvians are certainly aware of the sympathy and interest of the people of the United States and will, I feel confident, be prepared to give your representations the consideration to which the friendly anxiety of this Government entitles them. The United States cannot refuse to recognize the rights which the Chilian Government has acquired by the successes of the war, and it may be that a cession of territory will be the necessary price paid for peace. It would seem injudicious for Peru to declare that under no circumstances could the loss of territory be accepted as a result of the negotiation. The great objects of the provisional authorities of Peru would seem to be to secure the establishment of a Constitutional Government, and, next, to succeed in opening negotiations for peace without a declaration of preliminary conditions, as an *ultimatum*, on either side. It will be difficult, perhaps, to obtain this from Chili, but as the Chilian Government has distinctly repudiated the idea that this was a war of conquest, the Government of Peru may fairly claim the opportunity to make propositions of an indemnity guarantee before submitting to the cession of territory. As far as the influence of the United States will go in Chili, it will be exerted to induce the Chilian Government to consent that the question of a cession of territory should be a subject of negotiation, and not a condition precedent upon which alone negotiations shall commence. If you can aid Peru in securing such a result you will have rendered a service which seems to be most pressing. Whether it is in the power of the Peruvian Government to make any arrangements, at home or abroad, singly or with the assistance of friendly Powers, which will furnish the necessary indemnity, or supply the required guarantee, you will be better able to advise me after you have reached your post. As you are aware, more than one proposition has been submitted to the consideration of this Government, looking to friendly intervention, by which Peru might be enabled to meet the conditions which would probably be imposed. Circumstances do not seem at present opportune for such action. But if from a full knowledge of the condition of Peru you can inform this Government that Peru can devise and carry into practical effect a plan by which all reasonable conditions of Chili can be met with-

out sacrificing the integrity of the Peruvian territory, the United States would be willing to tender its good offices towards the execution of such a project. As a strictly confidential communication, I enclose a copy of instructions sent to the United States Minister at Santiago. You will thus be advised of the position which this Government assumes towards all parties of this lamentable conflict. It is the desire of the United States to act in a spirit of the sincerest friendship to the Republics, and to use its influence solely in the interest of an honourable and lasting peace.—JAMES G. BLAINE."

The following is the despatch sent on June 15 to Mr. Kilpatrick, the Minister at Chili :—

"Sir,—The unfortunate condition of the relations between Chili and Peru makes the mission upon which you are entering one of grave responsibility and great delicacy. Difficult as would be any intervention of the United States under ordinary circumstances, our position is further embarrassed by the failure of the conference at Arica, undertaken at our suggestion. It is evident from the protocols of the conference that Chili was prepared to dictate and not to discuss the terms of peace ; that the arbitration of the United States upon any questions of difference with Peru and Bolivia was not acceptable and would not be accepted by the Chilian Government. Since that time the war has closed in the complete success of Chili, and in what can scarcely be considered less than a conquest of Peru and Bolivia. This Government cannot, therefore, anticipate that the offer of friendly intervention in the settlement of the very serious questions now pending would be agreeable to the Government of Chili. It would scarcely comport with its self-respect that such an offer should be refused. It would be of no benefit to Peru and Bolivia that it should be offered and declined ; but I am sure that the Chilian Government will appreciate the natural and deep interest which the United States feel in the termination of a condition so calamitous in its consequences to the best interests of all the South American republics. It should also know that if at any time the interposition of the good offices of this Government can contribute to the restoration of friendly relations between the belligerent Powers, they will, upon proper intimation, be promptly offered. While, therefore, no instructions are given you to tender officially any advice to the Government of Chili which is unsought, you will, on such opportunities as occur, govern your conduct and representations by the considerations to which I now call attention. Without entering upon any discussion as to the causes of the late war, this Government recognizes the right which the successful conduct of that war conferred upon Chili. In doing so I will not undertake to estimate the extent to which the Chilian Government has a right to carry its calculation of indemnities to which it is entitled for security for the future, which its interests may seem to require, but if the Chilian Government, as its representatives declared, seeks only a guarantee of future peace, it would seem to be natural that Peru and Bolivia should be allowed to offer such an indemnity guarantee before the annexation of their territory, which is the right of conquest, as insisted upon. If these Powers fail to offer what is a reasonably sufficient indemnity guarantee, then it becomes a fair subject of consideration whether such a territory may not be exacted as the necessary price of peace. But at the conclusion of a war avowedly not one of conquest, but for the solution of differences which diplomacy failed to settle, to make the acquisition of territory a *sine qua non* of peace, is calculated to cast suspicion on the professions with which war was originally declared. It may well be that at the termination of such a contest the changed condition and relation of all parties thereto may make a readjustment of boundaries or territorial changes wise as well as necessary, but this, when a war is not one of conquest, should be the result of negotiation and not an absolute preliminary condition on which alone the victor consents to negotiate. At this day, when the right of peoples to govern themselves on the fundamental basis of Republican institutions is so widely recognized, there is nothing more difficult or more dangerous than a forced transfer of territory, carrying with it an indignant and hostile population. Nothing but necessity proved before the world can justify it. It is not a case in which a Power, desiring territory, can be accepted as a safe and impartial judge. While the United States Government does not pretend to express an opinion whether or not such an annexation of territory is necessary in consequence of this war, it believes it would be more honourable to the Chilian Government, more conducive to a permanent peace, and more in consonance with the principles professed by all the Republics of America that such territorial changes be avoided as far as possible, that they should never be the result of mere force, but, if necessary, should be decided and tempered by a full and equal discussion between all the Powers whose people and national interests are involved. At the present moment the completeness of the victory of Chili seems to render such a diplomatic discussion impossible. The result of the conflict has been not only the defeat of the allied armies, but the dissolution of all responsible government in Peru. Its soil is occupied ; the collection of the revenues has been transferred to the conqueror ; its executive, legislative, and judicial functions are in abeyance ; it can neither enforce order within nor assure peace without. An effort, apparently a very earnest and honest one, has been made to create a Provisional Government which would gradually restore order and the reign of law, but it is obvious that for such a Government to succeed in obtaining the confidence either of its own people or of foreign Powers it must be allowed freedom and force of action, which cannot be exercised while Chili holds absolute possession and governs by military authority. This Government, therefore, has been glad to learn from its Minister in Chili, whom you suc-

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ceed, that the Chilian authorities have decided to give support to the efforts of Señor Calderon to establish on a steady footing a Provisional Government in Peru. You will, as far as propriety without officious intrusion permits, approve and encourage this disposition on the part of the Chilian Government. This Department will be gratified if your influence as the representative of the United States be instrumental in inducing Chili to give her aid and support to the restoration of a regular and constitutional Government in Peru, and postpone the settlement of the questions of territorial annexation to diplom tic negotiations, which can then be resumed with certainty of a just, friendly, and satisfactory conclusion. In any representation you may make you will say that the hope of the United States is that the negotiations for peace will be conducted and the final settlement between the two countries determined without either side invoking the aid or intervention of any European Power. The Government of the United States seeks only to perform the office of a friend to all parties in this unhappy conflict between the South American Republics. It will regret to be compelled to consider how far that feeling might be affected if a more active interposition were forced upon it by any attempted complication of this question with European politics. If at any time you judge it expedient or advantageous to read this despatch to the Minister of Foreign Affairs you are authorized to do so.—JAMES G. BLAINE."

No subsequent despatches have been made public, though much anxiety is felt to learn the instructions sent to Commissioner Trescott, now *en route* to Peru and Chili.

The President has nominated Mr. Frederick T. Frelinghuysen, Secretary of State, succeeding Mr. Blaine, resigned.

PHILADELPHIA, DEC. 13.

In the American treatment of Chili and Peru a change was made after General Arthur became President and Minister Hurlbut's action at Lima became known. Secretary Blaine on November 22 sent the following despatch to Minister Hurlbut :—

"Sir,—Your despatches have been received. I learn with regret that a construction has been put upon your language and conduct indicating a policy of active intervention on the part of this Government beyond the scope of your instructions. As these instructions were clear and explicit, and as this Departmentis not in possession of information which would seem to require the withdrawal of the confidence reposed in you, I must consider this interpretation of your words and acts as the result of some strange, perhaps prejudiced, misconception. My only material for forming this opinion consists of your memorandum to Admiral Lynch, your letter to Señor Garcia, Secretary of General Pierola, and your convention with President Calderon, ceding a naval station to the United States. I would have preferred that you should hold no communication with Admiral Lynch on any questions of a diplomatic character. He was present as military commander of the Chilian forces when you were accredited to Peru. Nor do I conceive that Admiral Lynch, as commander of the Chilian army of occupation, had any right to ask or receive a formal assurance from you as to the opinions of your Government. The United States was represented in Chili by a properly-accredited Minister, and from his own Government the Admiral could and ought to have received any information which it was important for him to have. It was to be expected, even desired that frank and friendly relations should exist between you ; but I cannot consider such a confidential communication as justifying a formal appeal to your colleague in Chili for correction or criticism of your conduct. If there was anything in your proceedings in Peru to which Chili could properly take exception, direct representation to this Government, through the Chilian Minister here, was due both to the Government and yourself. Having said this, I must add that the language of the memorandum was capable of a not unnatural misconstruction. While you said nothing that may not fairly be considered warranted by your instructions, you omitted to say with equal emphasis some things which the instructions supplied, and which would, perhaps, have relieved the sensitive apprehensions of the Chilian authorities. While the United States would unquestionably regard with disfavour the imperious annexation of Peruvian territory as a right of conquest, you were distinctly informed that this Government could not refuse to recognize that such an annexation might become a necessary condition in the final treaty of peace, and the main purpose of your effort was expected to be, not so much a protest against a possible annexation as an attempt by friendly and unofficial communication with the Chilian authorities, with whom you have duly associated, to induce them to support the policy of giving Peru, without the imposition of harsh and absolute conditions precedent, an opportunity to show that the rights and interests of Chili could be satisfied without annexation. There is enough in your memorandum, if carefully considered, to indicate this purpose. I only regret that you did not state it with distinctness and, if necessary, with repetition, which would have made impossible anything but most wilful misconception. As at present advised, I must express my disapproval of your letter to Señor Garcia, secretary of General Pierola. I think that your proper course in reference to Señor Garcia's communication would have been either to entirely ignore it, as claiming an official character which you could not recognize, or, if you deemed that courtesy required you to reply, to state that you were accredited to the Calderon Government and could, therefore, know of no other, and that any communication which General Pierola thought it his duty and interest to make must be made directly to the Government at Washington. You

had no responsibility in the matter. It was injudicious to assume any. The recognition of the Calderon Government had been duly considered and decided by your own Government. You were neither instructed nor expected to furnish General Pierola nor the Peruvian public with a reason for that action. The following language in your letter to Señor Garcia might well be misunderstood :—'Chili desires to ask for Tarapaca, and will recognize the Government which agrees to its concession. The Calderon Government will not cede it. It remains to be seen whether that of Pierola will prove more pliable.' It might easily be supposed by the excited public opinion on either side that such language was intended to imply that the United States had recognized the Calderon Government because of its resolution not to cede Peruvian territory. No such motive has ever been declared by this Government. The Calderon Government was recognized because we believe that it was to the interest of both Chili and Peru that some respectable authority should be established which could restore internal order and initiate responsible negotiations for peace. We desired that the Peruvian Government should have a fair opportunity to obtain the best terms it could. We hoped that it would be able to satisfy the just demands of Chili without any painful sacrifice of national territory, but we did not make, and never intended to make, any special result of the peace negotiations a basis of a recognition of the Calderon Government. What was best and what was possible for Peru to do we were anxious to promote to the extent of our powers, and by the use of whatever influence or consideration we enjoyed with Chili. Further than that, the United States has yet expressed neither an opinion nor intention. I must also express my dissatisfaction at your telegram to the Minister of the United States to the Argentine Confederation, suggesting that a Minister should be sent by that Government to Peru. This would have been clearly without the sphere of your proper official action at any time, but as there then existed serious differences between Chili and the Argentine Confederation, you might naturally have anticipated that such a recommendation would be considered by Chili as an effort to effect a political combination against her. The United States was not in search of alliances to support a hostile demonstration against Chili. Such anxiety might well be deemed inconsistent with the progress of impartial mediation. As to the Convention with regard to a naval station in the Bay of Chimbote, I am of opinion that, although it is desirable that such an arrangement should be made, yet the time is not opportune. I would be unwilling to ask such a concession under the circumstances, which would almost seem to impose upon Peru the necessity of compliance with our request. I have no doubt that whenever Peru is relieved from her present embarrassment she would grant the facilities which our naval and commercial interests might require. Not in the present excited condition of public opinion in Chili would I willingly afford evil-disposed persons an opportunity to insinuate that the United States contemplates the establishment of a naval rendezvous in the neighbourhood of Peru and Chili. The natural and innocent convenience we require might be misunderstood or misapprehended. As our sole purpose is to be allowed, in a spirit of the most impartial friendship, to act as a mediator between these two Powers, I would prefer at the present to ask no favours of one or to excite no possible apprehensions of the other. Having thus stated with frankness the impression made upon this Department by the information you have furnished, it becomes my duty to add that the Government is unable to understand the abolition of the Calderon Government, the arrest of President Calderon by the Chilian authorities, or, I suppose, I ought to say, by the Chilian Government, as the Secretary for Foreign Affairs of that Government has in a formal communication to General Kilpatrick declared that the Calderon Government was at an end. As we recognized that Government in supposed conformity with the wishes of Chili, and as no reason for its destruction has been given to us, you will still consider yourself accredited to it if a legitimate representative exists in the place of President Calderon ; if none such exist, you will remain in Lima until you receive further instructions, confining your communications with the Chilian authorities to such a limit as your personal convenience and the maintenance of the rights and privileges of your Legation may require in the complicated condition of affairs resulting from the action of the Chilian Government and the time required for communication between the Legations of Chili and Peru and this Department. The unfortunate notoriety which the serious differences between yourself and your colleague in Chili has attracted has, in the opinion of the President, imposed upon him the necessity of a special mission. This mission will be charged with the duty of expressing the views of the President upon the grave condition of affairs which your despatches describe, and, if possible, with due consideration of the rights, interests, and responsibilities of both nations, to promote a settlement which shall restore to the suffering people of Peru the benefits of a well-ordered Government, deliver both countries from the miseries and burdens of a protracted war, and place their future relations upon foundations that will prove stable because they are just and honourable. "JAMES G. BLAINE."

Secretary Blaine, on November 22, wrote to Minister Kilpatrick at Santiago, since deceased, disapproving his course of action. Mr. Blaine says that Mr. Hurlbut's speeches, letters, and reports were not subjects upon which General Kilpatrick was called upon to pass judgment, nor upon which he should have been interrogated by the Chilian Government.

Mr. Trescott and Mr. Walker Blaine, who are on a special mission to Chili and Peru, have

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arrived at Panama, and will leave on Wednesday by the United States steamer Lackawanna for Callao.

THE STANDARD.

LONDON, TUESDAY, DECEMBER 13.

The instructions which, so far back as June last, Mr. BLAINE sent to the Ministers of the United States at Lima and at Santiago have now been communicated to Congress, and we publish extracts from them in another column. These documents show clearly enough how correct was the information given by our New York Correspondent on the subject. The declaration made by Mr. HURLBUT to the Chilian Admiral was so extravagant in its terms, and so contrary to the accepted doctrines of International Law, that even in the United States sensible people preferred to believe, either that the report of Mr. HURLBUT's doings was inaccurate, or that he was acting without the sanction of his Government. But it now appears that in all he said he was strictly within the spirit, if not the very letter, of his instructions. The situation in South America two months ago was, no doubt, one all but unprecedented in countries which claim to be civilised. The Chilians had triumphed in the war; their troops held what had been the seat of the Peruvian Government, and their Admiral Don PATRICIO LYNCH, had not only declared martial law throughout the territory occupied by the Chilian troops, but by this means was in some sort governing the country. The Peruvian "Dictator," Don NICHOLAS DE PIEROLA, meanwhile was far away in the mountains, exercising little authority save of the brigand kind, but claiming, nevertheless, to represent the legitimate Government of the Republic. Face to face, however, with the Chilian Army of Occupation, was Don F. GARCIA CALDERON, who, calling himself President of Peru, but admitting that he had no material force at his command, yet pretended to exercise by moral suasion an authority which he tried to make out was not incompatible with Admiral LYNCH's *régime* of martial law. These were the delicate elements with which Mr. HURLBUT had to deal. He had been lately appointed Minister at Lima as a reward for political services, and we may well excuse the Americans who first ascribed to his "political" temperament the extravagances which we now know were suggested—if not absolutely authorised—by the instructions he had received from the State Department. He declared formally that it was "a principle of public right that a war indemnity should be agreed upon by the parties, or determined by disinterested arbitration," and that "civilised nations cannot take an enemy's territory as a war indemnity without having previously proved the incapacity or unwillingness of the enemy to provide the indemnity in some other form." In other words, he virtually interposed the veto of the United States on the attempt of the Chilians to exact their own terms.

To ask whether Mr. HURLBUT's views on International Law were rational or not would be mere waste of time. The question for debate was whether he was authorised by his Government to act as he did. Appeal being made by the excited Chilians to the American Minister at Santiago, that functionary answered that his instructions were to the effect that the United States regarded the war as ended, and the opportunity for friendly intervention passed, and that he was under no circumstances to offer advice unsolicited to the Chilian Government. The publication of the June Despatches enables us now to judge between Mr. HURLBUT and General KILPATRICK. In the first place, the United States had recognised the CALDERON Government as a Provisional Government. Then Mr. HURLBUT was instructed to urge on it the prudence of accepting hard conditions of peace, rather than by demanding too much to force a continuance of Chilian control. A cession of territory might ultimately prove to be reasonable, but this, it is said specifically and repeatedly, should not be admitted as a preliminary basis for negotiation. Nay, "as the Chilian Government has distinctly repudiated the idea that the war was one of conquest, Peru may fairly claim the opportunity to make propositions of indemnity and guarantees before submitting to any cession of territory. The influence of the United States"—it is added significantly—"will be exerted to induce Chili to consent thereto." These are the instructions to Mr. HURLBUT; but, plain as they are, they are absolutely without emphasis compared with those sent to General KILPATRICK. He is told that the good offices of the United States are, when occasion suits, to be "promptly offered." Chili is to be informed that any undue haste to exact territorial compensation would—regard being had to her professions—be in the highest degree unseemly. If there is to be a readjustment of boundaries, this should be the result of negotiations. Negotia-

tions between whom? The answer is forthcoming and is, indeed, the essential point of the Despatch. "It is only a case in which a Power desiring territory can be accepted as a safe judge." The United States Government, deprecating territorial change in principle, believes that, if necessary, it should be decided and tempered by a full and equal discussion between all the Powers whose people and whose national interests are involved." And so, as a first step to this discussion, the Chilian Government is to be urged to "support the restoration of Constitutional Government in Peru," that is to recognise the CALDERON Government, as the United States had done. The Powers and people interested, says Mr. BLAINE, are all to be parties to the discussion of the terms of peace. Well and good. The trade of Peru is almost wholly with Europe, and chiefly with Great Britain. With the United States it is infinitesimal. The Public Debt of Peru is nearly all held in Europe. Indeed, some years ago a scheme for controlling Peru in the interest of the European Bondholders, much as Egypt is controlled, was seriously entertained. Manifestly, therefore, the Powers to be consulted are the European Powers. The difference is too obvious to escape Mr. BLAINE, who, sacrificing logic to patriotic effect, puts his foot on his own suggestion in the grandest style of the State Department. "The United States Government seeks only to perform the office of a friend to all parties"—this is the moral tone—"and would regret to be compelled to consider how far that feeling might be affected"—this is the diplomatic tone—"and a more active interposition forced upon it"—this is the candid, Chauvinist tone—"by any attempted complication of this question with European politics."

Here, at last, is the whole truth frankly told. The MONROE doctrine, which has received some curious extensions already, is to receive extensions more remarkable still. Not only are the United States resolved to compel Colombia to accept their exclusive guarantee for a Canal to be mainly constructed by European enterprise and capital, but even in South America nothing is to be done without a licence from Washington. It may seem absurd, but it is only carrying this doctrine to its legitimate conclusion to assume that by and bye we shall see Representatives despatched from Washington to control the relations of the Emperor of BRAZIL with the European Powers, and the savages of Patagonia invoking the aid of a United States' Commissioner to compose their differences. We now know officially what the temper of the Washington Cabinet was in June last. What it is at the present moment we can only infer from the growth of Chauvinist sentiment which has confused the discussion of the Canal Question. As to Peru, it is not wholly, perhaps, a matter of sentiment. Mr. HURLBUT, we have said, is a politician—subject to the influences that dominate politicians—and the Peruvian Company, with claims amounting to one thousand million of dollars on the CALDERON Government, has, as our Correspondent has taken pains from time to time to note—been very busy of late at Washington. It is true that Mr. BLAINE has resigned office, and Americans will no longer have to admire the glowing periods in which he has maintained the pretensions of his country. But the spirit of American diplomacy is uniform, and will be much the same whether Despatches be penned by Mr. FRELINGHUYSEN or Mr. BLAINE. "Diplomatic intercourse through separate Ministers," said the PRESIDENT'S Message, "being subject to temporary misunderstanding, it has been deemed judicious to send a Special Envoy to each Power—Chili and Peru—with instructions which, I trust, will bring them into friendly relation." The Envoys are at this moment on their way, and though the Chilian Admiral has too hastily deported President CALDERON from the land he claimed to govern, it is not improbable that Mr. ARTHUR may soon have to announce that peace has been restored, and a new Protectorate of the United States established.



LONDON, WEDNESDAY, DECEMBER 14, 1881.

The retirement of MR. BLAINE from the office of Secretary of State in PRESIDENT ARTHUR'S Cabinet has been long since announced, and the actual transfer of the charge of that important department to MR. FRELINGHUYSEN cannot be said to have any special significance. Nevertheless, the change of Ministers affords a favourable opportunity for the modification of policy, should it be considered expedient to evacuate the positions perhaps too hastily assumed by MR. BLAINE in his correspondence with the American Ministers at

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the Chilian and Peruvian capitals. We published yesterday the full text of the two important despatches addressed in June last by the SECRETARY of STATE at Washington, a couple of weeks before GUITEAU's attack on PRESIDENT GARFIELD, to MR. HURLBUT at Lima and MR. KILPATRICK at Santiago, and our American Correspondent sends us this morning the sequel and interpretation of that remarkable story. For some time past public opinion in the United States has been excited, and to some extent divided, by the reports of a curious episode in the diplomatic world, revealing an apparent disagreement between the American representatives accredited severally to the Chilian and Peruvian Governments. Peru lies prostrate at the feet of the victorious Chilians, and the only executive authority which is able to secure obedience over the greater part of the Peruvian territory is wielded by the commander of the Chilian fleet. A Peruvian Government is in existence, though it does not govern, and has, indeed, been practically suppressed by the Chilians, and under the protection of the American Minister it has entered a protest against the measures of annexation believed to be contemplated by Chili. MR. HURLBUT took it upon him to warn the Chilian Commander at Lima that the annexation of territory in lieu of the exaction of an indemnity was in opposition to some "principles of "public right" hitherto unknown to jurists and diplomatists. The Chilians appealed to MR. KILPATRICK, who promptly and emphatically contradicted his colleague, assuring Chili that the United States had neither the intention nor the desire to interfere, previous efforts to mediate amicably having failed. This strange situation was naturally discussed with warmth. Some politicians and public writers contended that MR. HURLBUT was pursuing the true "American "policy" and giving a legitimate extension to the "MONROE doctrine." Others pointed out that it could not be to the credit and advantage of the United States to put forward claims inconsistent with international law and comity. It was admitted on all hands that the dispute between MR. HURLBUT and MR. KILPATRICK, both Ministers representing the United States and accredited to independent Powers, was a diplomatic scandal. MR. BLAINE was loudly called upon to publish the instructions he had given the contentious diplomatists, and the delay in responding to the appeal did not tend to allay public uneasiness or to put an end to a mischievous controversy.

At length, on the eve of MR. BLAINE'S retirement from office, the despatches have been made public. The instructions given to MR. HURLBUT and MR. KILPATRICK were adopted, as we have said, while GENERAL GARFIELD was still at the head of affairs, but a new complexion has been given to the policy of the State Department by a despatch addressed to MR. HURLBUT on the 22d ult., and therefore to be regarded as embodying MR. ARTHUR'S personal views. In this MR. BLAINE administers to MR. HURLBUT a most severe rebuke, censuring the conduct and the language of the American Minister accredited to the CALDERON Government at Lima, and labouring to meet and explain away the misconstructions to which MR. HURLBUT'S proceedings had given rise. In another despatch of the same date, MR. KILPATRICK, since deceased, was similarly taken to task. We cannot doubt that it was PRESIDENT ARTHUR'S object to qualify the inferences which seemed to be suggested by the tone of MR. BLAINE'S former despatches, and which, he may have foreseen, would attract much attention in Europe. The censure passed upon MR. HURLBUT and MR. KILPATRICK must involve MR. BLAINE himself, to a certain extent, in discredit. Both the Ministers engaged in these squabbles and intrigues were appointed—avowedly for political services during the political campaign of last year—immediately after the accession of GENERAL GARFIELD to the Presidency; and, whatever their other merits, it cannot be said that they have shown any striking fitness for the diplomatic career. It is, of course, satisfactory that MR. HURLBUT'S eccentricities have been reproved and restrained by the State Department at Washington, and that no sanction is given by his superiors to his odd conceptions of international law. But the general scope of the instructions which MR. HURLBUT and MR. KILPATRICK received in June last remains to be considered. It must be observed that for some time past the discussion of the "MONROE doctrine" in the United States has been revived, not, indeed, because there has been any difference of opinion among the great majority of Americans as to the validity of that famous declaration of policy, but because many Americans are desirous of extending it further, and of procuring the recognition of it, with all its developments, by all foreign Governments. It is from this point of view, rather than with reference to any practical and immediate interests in which the United States are concerned, that American politicians have been busy with the discussion of the Panama Canal question and of the war between Chili and Peru.

The "MONROE doctrine" was a protest against

the establishment of the monarchical system of Europe in the New World. It was opposed to the forcible foundation of any new monarchy in America, such as the short-lived Empire of Mexico, or of new colonies by the European Powers within the territory claimed by independent American States. It has lately been contended in the *North American Review* by MR. KASSON, lately in the diplomatic service of the American Government, that the acquirement of any rights of sovereignty by the European Powers, even by treaty or as the result of war, ought to be declared inadmissible by the United States on general grounds of policy. This counsel is significantly coincident with an appeal to Congress "to seize opportunities for the wider "distribution of American manufactures." While the subject is thus debated, MR. BLAINE'S despatches come to light, and show the Government at Washington extraordinarily eager to intervene in the struggle between Chili and Peru, and at the same time expressing a jealous dislike of any other intervention, even for the object of restoring peace and prosperity on the West Coast of South America. We cannot doubt that the Government of the United States is sincere in its desire to reconcile the victors and the vanquished, and to promote such a settlement as may not leave behind it any rankling memories. It is, no doubt, true that MR. HURLBUT and MR. KILPATRICK were unskilful in their efforts to give practical effect to MR. BLAINE'S instructions. The appearance of dictation and partisanship may be explained by the unfitness of the instruments chosen by the SECRETARY of STATE. Nor is it necessary to take an alarmist view of MR. BLAINE'S protest against the suppression of the CALDERON Government at Lima by the Chilian authorities. The point which still requires elucidation, and which is the only one of much interest for us, is contained in the following sentences from the instructions addressed to GENERAL KILPATRICK :—"The Government of the United States "seeks only to perform the office of a friend to all "parties in this unhappy conflict between the "South American Republics. It will regret to be "compelled to consider how far that feeling may "be affected if a more active interposition were "forced upon it by any attempted complication of "this question with European politics." The "intervention of any European Power" is declared to be inadmissible. We do not suppose it is likely that this country, or, indeed, any other European State, will be tempted to meddle or make in the affairs of the South American Republics; but it is quite conceivable that such intervention might be rendered necessary if European interests were to be injuriously affected in South American wars. It must not be imagined that the European Powers can acquiesce in the very wide extension of the "MONROE doctrine" implied in MR. BLAINE'S despatches. Intervention for the protection of European interests is as rightfully claimed by European Powers in South America as it is by the United States for the protection of American interests in China and Japan. It is to be remembered that the trade of Great Britain with Peru is fully ten times as great as that of the United States, and that the Peruvian debt has been contracted exclusively in Europe. It may be that MR. FRELINGHUYSEN will take the pains to show that MR. BLAINE'S far-reaching propositions do not really cover any novel and objectionable pretensions. At the same time, the section of the Republican party which has most influence over MR. ARTHUR was not remarkable, during GENERAL GRANT'S administration, for the avoidance of "spread-eagleism" in foreign policy, though it must be added that the effervescence caused by the Cuban and San Domingo questions subsided without doing much harm.



LONDON, THURSDAY, December 15.

IT is satisfactory to find the spread-eagleism of Mr. BLAINE disavowed by the American Press and people. The telegram from our New York Correspondent which we publish this morning declares that public opinion is unmistakably against the late Secretary of State. Mr. BLAINE, it is said, announced on his assumption of office that it was his intention to pursue a vigorous foreign policy. Substitute the word spirited for vigorous, and the phrase becomes identical with one of the most memorable declarations of Lord BEACONSFIELD. "The great majority of Ameri-"cans," our Correspondent says, "is opposed "to anything of the kind. They believe in the "policy of minding their own business, both in

"Europe and on this (the American) continent. "They regard Mr. BLAINE's policy as simply "meddling with other people's affairs." It is possible that the reaction of sound sense and right feeling which in England placed Mr. GLADSTONE in power, and sactioned his policy, has had the effect of good example in the United States as well as in France. Whatever may be the personal inclinations of President ARTHUR, he will probably be influenced in the foreign policy which he adopts by the very timely manifestation of national sentiment which the publication of Mr. BLAINE's despatches in reference to Chili and Peru has elicited. It is said that there are disclosures yet to be made which will affect Mr. BLAINE personally as well as politically; and that the Despatches, as published, differ, in one instance at least by the insertion of a new paragraph, from the Despatches as written and received. Europe, however, is less interested in the personal aspect of the question than in the bearing which it has upon international law and policy. Mr. BLAINE originally counselled the United States Ministers at Lima and Santiago to adopt a line of conduct amounting to an affirmation of the "MONROE doctrine" in a new and widely extended sense; shortly before his resignation he addressed them afresh in much milder language. Some months ago in his remarks on the relations of the United States to the Isthmus of Panama, he used language to which even his South American despatches were mild, and apparently ignored altogether the existence of a formal treaty with Great Britain which cut at the roots of his own contention. Quite recently President ARTHUR has personally acknowledged the existence of the CLAYTON-BULWER Treaty, of which his late Secretary was apparently ignorant. Yet the pretensions put forward in the earlier documents have been in no way formally retracted, and it is therefore necessary to take account of them.

It is probable that both in America and in Europe the "MONROE doctrine" is constantly spoken of and referred to without any very clear idea of its actual meaning, and in the former case at least without any comprehension of its actual status in diplomatic history. The actual words of President MONROE in his Message of December, 1823, were that "any attempt on the "part of the European Powers to extend their "system to any portion of this hemisphere would "be regarded by the United States as dangerous "to their peace and safety." This doctrine, whether it be sound and legitimate or the reverse, has never been formally adopted by the United States. Still less has it in any sense, either wide or restricted, received the slightest assent on the part of any European Power, and it therefore has no force of any kind as a position to which to appeal. It is at most an unadmitted pretension, and as such is no more obligatory in any way on any European Power in 1881 than it was in 1823. But the circumstances of its original promulgation are worth considering, as throwing light on the meaning which it had even in the minds of its original promoters. It was announced, it is almost needless to say, at the time of the revolt of the Spanish colonies from the mother country. This being the case, its circumstances, no less than its actual words, require that the term "system" should be construed strictly. The system of that day, be it remembered, in Europe was the system of the Holy Alliance by which the various European Powers acted — until they quarrelled — as policemen for each other. It was this system, and the possible doing for the Spanish colonies of what the French restoration did for Spain itself, which President MONROE must be supposed as a reasonable person to have contemplated. The doctrine might without extravagance go further, and present itself as a kind of counterpoise and protest to CANNING's famous piece of rhetoric. The United States were not desirous of having a new world called into existence to redress the balance of the old, or for any such purpose, but of letting the old world balance itself without their interference, and receiving permission for the new to do the same. It has also been understood as a contention that the two American Continents (for President MONROE's "hemisphere" is a mere piece of spread-eagleism, and probably even Mr. BLAINE would not seriously use it) were no longer ground for European Powers to "discover," and colonise, but *terra cognita* in the fullest sense. In all these meanings the MONROE doctrine, though, except perhaps in the last, not one to which European Powers could be expected to hamper themselves by a formal assent, was a doctrine which, whether admissible or not, could not be called extravagant.

In Mr. BLAINE's despatch to the Minister in Chili and in that to Mr. LOWELL concerning the Panama Canal no such conception of the

Monroe doctrine will cover the pretensions advanced? No Power was even to guarantee the neutrality of the Canal, though how such a guarantee could be called in any possible sense an extension of the European system it is impossible to see. Not merely did the United States take upon themselves to lay down pretty distinctly what Chili might and might not do to Peru, but, speaking through Mr. Blaine, they were made to assert that dreadful things would happen if there was "any "complication of the Peruvian question with "European politics." A complication of the Peruvian question with European politics would naturally seem to an ordinary student of diplomacy to mean the entanglement of the dispute between Chili and Peru with some dispute between two or more European Powers—with the Eastern Question, for instance, or the grudge between France and Germany. But no; "the intervention of any European "Power" was in Mr. Blaine's eyes a complication with European politics. The European Power might be one which, like England, has preponderant commercial interests and no political interests whatever; it might be one which, like Germany or Italy, has large resident colonies of emigrants in South America; the intervention might be of the most strictly mediatorial character, without in any way affecting the "balance of the old world" or introducing a foreign element into the balance of the new. It will not matter; the United States would not allow it. Now this we believe all sensible men in America will agree is simply the Monroe doctrine gone mad. The same dazzling of the eyes which made Mr. Blaine see in the future banks of the canal a portion of the coast line of the United States apparently makes him see in Peru an outlying part of their dominion, something like the scattered bits of the county of Cromarty which decorate a map of Scotland. It is evident, however, that Mr. Blaine does not speak the mind of his countrymen. His despatches are what Mr. Carlyle used to call mere protocolling, perhaps also electioneering. It is certain that in the sense of these Blaine despatches the Monroe doctrine is never likely to be admitted by any European Power until the Republic actually stretches to Cape Horn—which is not likely to happen just yet. But if there is no chance of its being admitted, and no intention of enforcing it against resistance, it does not seem to be a very dignified course for the spokesmen of a great nation to flourish it idly in the face of an amused world. This the people of the United States appear to feel as strongly as any European nation can do. They are ashamed of Mr. Blaine and angry with him. Nobody wants to interfere in Peru, though most reasonable people would be glad to see the settlement which Mr. Blaine certainly did very little to accelerate by allowing and almost encouraging a subordinate to bully the Chilians. Nobody wants to interfere in Panama, but only to give a pledge of abstinence from interference. The Monroe doctrine is therefore as little in place as it is in the sense attempted to be given to it intrinsically preposterous. It may also be suggested that the actual establishment of that "legitimate influence" of the principal State of North America with the chief States of the other continent is not at all likely to be furthered by such an assertion of it. For the assertion goes very near to an assertion of something like suzerainty, and this we doubt very much whether Chilians, Argentines, or Brazilians have the least disposition to admit.

The Daily News

PEACE BETWEEN CHILI AND BOLIVIA.

(THROUGH REUTER'S AGENCY.)

BUENOS AYRES, JAN. 17.

A despatch from Valparaiso announces the conclusion of a treaty of peace between Bolivia and Chili. The conditions are reported to be that Bolivia shall surrender her territory along the coast and break off relations with Peru.

LONDON, THURSDAY, January 19.

A DESPATCH from Buenos Ayres, with the further date of Valparaiso announces what, if it is confirmed, is the beginning of the end of the curious complication which for the last three or four years has been disturbing the western coast of South America. Peace, it is said, is concluded between Bolivia and Chili on the terms of the cession of the

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coast territory of the former country, and the breaking off on her part of all relations with Peru. This no doubt is in its way a gain for Chili, for it puts in her power the coveted salt deserts of the Atacama and half a dozen ports along the coast between the present Chilian frontier and Iquique. What the breaking off of all relations with Peru may mean is of course not very easy to say. Considering that the only easy access which Bolivia has to the outer world is through Peruvian territory by way of Arica and Tacna, and that in default of this way she remains utterly shut off unless some adventurous person manages to clear a way through the forests at the back of her great plateau and down the cataract-broken stream of the Madeira, the terms may seem at first sight rather hard, though Bolivia had no earthly business in the quarrel which has ended so badly for her. But it is quite possible that the Chilians have not satisfied their earth hunger with the nitre of the Atacama and that they mean to go on annexing up to Lake Titicaca in the interior, and to the neighbourhood of Arequipa on the coast. In this case the road would be once more open, though of course Chili would be master of it. But it may also remembered that Bolivia, though nominally nked among the civilized States of the world, olds very nearly the lowest place among them. ast as her territory is it is thinly peopled nd almost entirely undeveloped. Her people, ven her governing classes, are for the most art almost pure blooded Indians or half-breeds, with an exceedingly small half of European strain in them. The difficulties of working her mineral treasures are great, and the country generally is not likely to suffer much from any isolation that may be inflicted on it. If Bolivia is to be opened up at all, it is much more likely to be opened when the keys of it are in the hands of a business-like and not unenterprising race, with at least some notion of keeping political order, like the Chilians, than when they are in the hands of Peru, which may be described in almost exactly opposite terms.

The interest, however, of the precise arrangements come to or to be come to between Chili and Bolivia is very small compared to that of the arrangement still to be completed of the main question, that between Chili and Peru. In this latter luckless country there is by all accounts at the present moment something like an absolute absence of any government, except that of the invaders. It is many months now since the collapse of the Peruvian arms, and during that time no one has succeeded in organizing any kind of provisional government worthy of the name. PIEROLA, who is better known in England than most Peruvian statesmen owing to one of his opposition movements before the war—the escapade of the Huascar—tried his hand for a time, but is said to have given up the game. Others have done the same; and though there is said to be a kind of Peruvian HOFER somewhere in the mountains, he can pretend to no more formidable existence than that of a guerrilla. As a guerrilla the fastnesses of the Cordilleras and the untrodden wilds of the Montana on the Brazilian frontier will afford a refuge for him and for anybody for many a long day without the slightest danger of interference. But all the civilized part of the country, that is to say, all the coast, is in the hands of the Chilians, who appear to be administering it with considerably greater attention to their own interests than to that of either natives or foreigners—a bad but not unusual habit of conquerors. What they intend to do with the country is as yet uncertain. Peru is rather too large a country to annex bodily, and such a proceeding might get Chili into difficulties from which her undoubted luck and pluck would hardly suffice to extricate her. Besides, if the intelligence just commented on in reference to Bolivia is correct, the idea of an absolute extinction of Peruvian independence would hardly seem to be entertained in Chili. There would be no sense in prohibiting Bolivia from continuing or entering into relations with a country which was about to cease to exist. At present the Chilians are no doubt making a tolerably good thing out of the occupation of Peru, and they have for the continuance of that occupation the plausible excuse that there is nobody with whom to treat for putting an end to it. They may be longing to retire, but obviously the best-intentioned conquerors are entitled to remain on the field they have won until some responsible person makes overtures to them.

An indefinite continuance of the present state of things, however, and still more any high-handed action on the part of Chili would be deplorable for more reasons than one. The first is not fair to the peaceable inhabitants of Peru, or to the foreigners who only want to pursue their lawful business under an orderly

and regular Government of some kind or other. No country can prosper in such a condition, and except that nobody has any particular reason for interfering, it would hardly have been allowed to continue as long as it actually has. The complete suppression of Peru would probably give the United States the very handle which a portion (no large portion, we believe, but a noisy and not uninfluential one) of their population appears to desire. Mr. BLAINE is indeed out of office, and the maladroit Ministers in the Southern Continent who said what he told them to say in not quite the right way had been rebuked even before he left it. But the diplomacy of Washington is still busy about this South American quarrel, and may even find something to say about the pacification with Bolivia which affects "our coast." For it is not generally known that according to the Neo-Monrovians the whole periphery of the two American continents, including the banks of any communication between the oceans, is part of the seaboard of the United States. Putting these absurdities aside, however—absurdities which there is every reason for thinking are regretted quite as heartily by sensible men in New York as by sensible men in London—and also putting aside such ebullitions as that in which an important American journal has just indulged about the CLAYTON-BULWER Treaty—it is for every reason to be desired that Chili should come to a speedy and a moderate settlement of her quarrel. Modern opinion is in Europe, on the whole, against annexations of territory. But the conditions of war in South America are not quite the same as in Europe. There is no question of races to consider, or at least none of importance, and the delimitations of territory are recent and arbitrary. Besides, Chili is fairly entitled to some kind of indemnity for the losses experienced in a quarrel for which she is certainly not most to blame, if she was to blame at all. It would be very hard to get any indemnity of the money kind out of Peru, and what cannot be taken in money may perhaps, according to received ideas which the Chilians are not likely to transcend, fairly be taken in land. But then the Chilians must "have a conscience," and it would be well that they should have it speedily. The occupation of other people's territory is according to history rather a demoralising occupation, especially when it is combined, as the Chilian occupation of Lima and other towns is said to be, with administration of local affairs, *vice* the local authorities superseded without leave asked. The dream of a Chilian coast from the Straits of Magellan to the Gulf of Guayaquil is grandiose no doubt, but it may be questioned whether its fulfilment would be altogether beneficial to Chili. She is a very young nation, and young nations should not go too fast.

THE TIMES

LONDON, WEDNESDAY, FEBRUARY 1, 1882.

MR. ROBINSON, of Brooklyn, has cause to reproach fate for having postponed his birth to too late an epoch. Thirty years ago, or even twenty, his denunciations of barbarous and perfidious Britain would have been entirely in order. At present they are received by the House of Representatives at Washington with derision and laughter. Eloquence overrides argument; it is animated by the anger of an audience; contempt and mockery are an atmosphere in which it cannot breathe. If the American people generally be surprised at all by the conduct the British Government has pursued towards Irish disorder, the wonder has been excited by the moderation and long-suffering. Irish politicians are not so popular in the United States for their method of dealing with domestic affairs that Irish grievances against England are likely to rouse any active sympathy. Americans know very well how they would have treated attacks upon the rights of property among themselves of the kind made across the ocean by organized Land Leaguers. There have been times in the history of the two countries when absence of love for the Irish element in the American nationality might have been supplied by the presence of dislike or jealousy against the United Kingdom. This is not such a period. Americans and Englishmen are so closely knit together by the sense of a kindred origin and kindred tendencies that the bond even stands the test of the reaction to be anticipated after the extraordinary emotion of universal compassion for the murdered PRESIDENT. Anxiety was naturally felt by all thoughtful minds on either side of the Atlantic lest the tension of eager pity and grief for GENERAL GARFIELD might have been

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relieved by a fit of international coldness or mistrust. MR. ROBINSON, of Brooklyn, and MR. COX, of New York, may have relied on that propensity when they declaimed on the woes of foreign agitators. Probably they did not expect that an expedition would forthwith be equipped to lay London in ashes, or even that the House of Representatives would declare MR. GLADSTONE to have placed himself outside the pale of humanity. But a chorus of mockery and jeers is not commonly respectful.

The disapproval expressed by most American organs of opinion of MR. BLAINE'S threats directly against Chili and indirectly against Great Britain is still more satisfactory evidence of the indisposition of the people to fabricate causes of international offence. MR. BLAINE, once Speaker of the House of Representatives, lately Secretary of State, twice a candidate for the Presidency, and a very possible President hereafter, is a different personage to MR. ROBINSON and MR. COX. He, if any professional politician, might have been presumed able to feel the pulse of the national judgment. From his own account, as contained in our Philadelphia Correspondence yesterday, of the motives which prompted his amazing instructions to MR. COMMISSIONER TRESCOTT, he appears to have perceived in the prostration of Peru before Chili an opportunity for a stroke of business in favour of American commerce. To accept his own apology for his Peruvian partisanship as justified by English partisanship on the side of Chili would be to do an injustice to his clearness of political vision. Nobody knows better than MR. BLAINE that Chilian successes are not due to English backing. MR. BLAINE has no sort of testimony to produce for his allegation that Peru feels the heavy hand of England upon her at every turn. British shipbuilders manufacture ironclads for Peru as gladly as for Chili. So would American shipbuilders, if there were any competent for the undertaking. British trade has suffered, not gained, by the deplorable civil war which has desolated Peru. British traders and investors would be delighted by any pacification which should leave Peru able to follow the path of independent and vigorous progress. MR. BLAINE pays more honour to British diplomacy than Englishmen are prone to render when he envies and extols it as always bold, energetic, and vigilant in spreading the commercial power of England. He pays its ceaseless activity and dexterity more honour when out of office than he ever showed himself to entertain for it when he guided the policy of the United States at Washington. No statesman who had respected foreign statesmanship would ever have penned either the instructions to MR. TRESCOTT or the despatches to LORD GRANVILLE. Unfortunately for his own reputation, he committed the mistake of misapprehending, not merely the character of British statesmanship, but the temper of his own countrymen. The position of Great Britain is definite in these matters. Great Britain does not use her national power to push her commerce, as MR. BLAINE affects to believe. She seeks no political favour for her trade in South America or elsewhere. She does not speculate on possible political complications arising from the projected Panama Canal. If anything, she is more inclined to be careless of the future than to prepare warily for remote contingencies.—In opposing an unargumentative negative to MR. BLAINE'S recent summons to surrender an absolute patronage of the international relations of South and Central America to the Government at Washington, the British Foreign Office simply acted on the prosaic British method of following facts. Great Britain cannot pretend that she is not concerned in South and Central American affairs, when notoriously, both as the leading commercial Power of the world and as a great American Power, she has a most intimate concern in them. MR. BLAINE himself urges her excessive interest in them as his patriotic ground for endeavouring to introduce an American counterpoise. In negotiating, or trying to negotiate, with LORD GRANVILLE on the subject of the Isthmus, he asked LORD GRANVILLE to affirm the existence of a monopoly by the United States of an interest in them. No American monopoly exists; LORD GRANVILLE'S reference of MR. BLAINE to the surviving sanctions of the CLAYTON-BULWER Treaty is but a way of stating the fact. The disappointment to MR. BLAINE will have been less that the British Foreign Office should have exhibited its usual dull habit of seeing things just as they are than that the native commerce he sought to benefit should have been equally obtuse. Peru, if lifted on its feet by an exercise of exceptionally benevolent neutrality, might conceivably, though South American gratitude is short-lived, have repaid the kindness by commercial privileges. An equivalent impulse of fear might have led to similar effects with Chili. Public opinion in the Union has stolidly asked the price of these highly speculative advantages. It has found it in some curious allusions, in MR. BLAINE'S despatches, to the military force at the command of Washington. LORD GRANVILLE is reminded of the hundreds of thousands of soldiers who saved the Union from disruption. American

citizens feel no call to challenge Europe to witness how gaily they would water the banks of M. DE LESSEPS' new canal with their blood. They are even dismayed at a State manifesto which reads like an invitation to consolidate with it the loose sand of South American Republicanism in the faint hope of replacing English manufactures with Pennsylvanian iron and Massachusetts cottons.

MR. BLAINE'S despatches, it has been suggested by American authorities, may not impossibly be remembered when the next Presidential contest comes within sight. Nothing is an impossible weapon in the agony of an American struggle for office. It is allowable, however, in view of the utter dearth of welcome accorded to the documents, to trust that future United States Governments, even though MR. BLAINE be a member of them, will respect both themselves and foreigners too much to confound electioneering and diplomacy. A question of more importance now is the efficacy of the amended intervention between Chili and Peru which is about to be attempted. PRESIDENT ARTHUR cannot be severely censured, in the difficult circumstances of his accession to power, for adopting the policy of the Cabinet bequeathed to him by his predecessor. He can only be commended for perceiving so speedily, with the help of the cool judgment of his new SECRETARY of STATE, that the policy he had temporarily assented to was not of a nature to be either creditable or successful. MR. BLAINE has avowed the selfish basis on which it rested. Chili would certainly have refused to bow to it, unless under the pressure of a force which has yet to be created. A mediation, such as MR. SECRETARY FRELINGHUYSEN has commissioned MR. TRESCOTT to undertake, is tainted with no designs of private profit for the arbitrators except that which peace must bring to them and all. It does not presuppose an imaginary equality between the opponents who are to be reconciled. Chili has her foot on the neck of Peru. She is determined to tear territory from Peru as well as dollars. The resolve to insist on a permanent annexation of Peruvian soil may be accounted a folly in Chili. MR. BLAINE was right in urging the Chilian people to abandon a claim which renders a cordial friendship between itself and its neighbour hopeless. But Chili has the right of war to refuse peace without a rectification of boundaries; and Chili is bent upon refusing it. On the other hand, it is not a cheap and pleasant thing for a conqueror to have to keep his foot indefinitely on the head of the conquered. Peru, though she suffers death daily until peace be made, has the victim's power of withholding a submission which will relieve her victress. The dilemma can be solved only in one of two ways: it might be ended by the practical extinction of all Peruvian vitality; it might be ended better by the consent of the belligerents to ascertain, through the agency of a Power strong and honest and friendly to both, the least which the superior will take and the most which the inferior can sacrifice. If the Washington Cabinet can induce Chili to forget the unlucky episode of MR. BLAINE'S double-edged effort to benefit at once Peru and the United States shipping interest, Chili and Peru and the United States may all three alike gain by such an interposition. At the risk of provoking MR. BLAINE to condemn the movement as unpatriotic on the part of his official successor, Englishmen, too, must be permitted to regard the attempt with as sincere good will as if it had been devised on their especial behalf.

COLOUR-BLINDNESS.

(FROM OUR AMERICAN CORRESPONDENT.)

PHILADELPHIA, Nov. 14.

The English Board of Trade has recently sent to Captain Clipperton, Her Majesty's Consul at Philadelphia, an instruction to procure one of the instruments employed by Dr. William Thomson in the examinations made of the *employés* of the Pennsylvania Railway to detect colour-blindness. The instrument has been obtained and forwarded to England, where it is to be hoped that the system which it represents will be as effective in detecting this grave optical defect as it has been upon the Pennsylvania Railway, where it is now in use.

Dr. William Thomson is a distinguished oculist of Philadelphia, and Professor of Ophthalmology in the Jefferson Medical College. We have no laws in the United States, outside of New England, requiring any examinations for colour-blindness; but the management of the Pennsylvania Railway ome time ago determined that a system ought to be put in operation on its lines to detect this defect among the *employés*, and Dr. Thomson was requested to aid the company in having the *employés* examined. After considerable experimenting, he devised an instrument based on the system of Professor Holmgren, of Sweden, which would enable the proper tests to be applied without the presence of any medical man, and the facts to be recorded for reference. This was necessary, because it was requisite to ascertain the colour-sense, the acuteness, range, and field of vision of all the *employés*, numbering about 35,000, and scattered over thousands of miles of railway, and there could not possibly be obtained a sufficient number of ophthalmic surgeons to make the examinations and decisions. A general system has been perfected in connexion with this instrument, and has already been used for over 2,000

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examinations, by which any intelligent non-medical person conducting the test can place upon a blank all the requisite facts for a decision.

To describe the instrument it is necessary first to briefly explain wherein colour-blindness consists. On the Pennsylvania Railway the important orders are transmitted by colour-signals—white signifying safety, green caution, and red danger. The *employé* whose duty it is to obey these signals, and yet who cannot distinguish them, is liable to produce a terrible disaster, and the examinations made show that four men out of every 100 cannot distinguish the red and green signals. With the most perfect sharpness of sight for "form," these men are found unable to distinguish between two colours as pronounced as bright red and pure green, the one looking to their eyes practically the same as the other. There is no actual blindness, all the coloured objects are seen, but the colours are not recognized as the normal-eyed person sees them. The colour-blind, perhaps, see with normal perception the yellow and the violet or blue, but they are unable to detect any marked contrast between the green and red, and perhaps would match a green with a red colour. The colour-blind are often ignorant of the defect. They see coloured objects and distinguish them by the same names that others not colour-blind do, so that the defect cannot be ascertained by asking them to give names for colours. The tests, therefore, are based upon their inability to select colours to match those submitted as the standards. In analyzing the defect, it is found that the "red blind" man sees all objects of this colour of a darker hue than they are; and the same may be said of the "green blind" man as to green. Both of these confound red and green with each other and with gray. A mixture of white and black in the proportions required to represent the luminosity of any shade of red or green will give the colour-blind the same optical sensation as that shade. It is a curious fact, however, that this defect is confined almost entirely to men. While one man out of every 25 is colour-blind, the proportion among women is only one in 4,000.

Professor Holmgren's system is based upon the power of the normal eyes to select from many colours offered them those which match a given test colour. He has a collection of skeins of ordinary worsted yarn, about 150 altogether, including shades of every colour, from white through the tints of the spectrum to black. With these are compared three large test skeins, one pure green, light in tint, two rose or purple, a mixture of red and blue, and three pure red. These colours are mingled together, and the person examined is told to select the tints resembling the test skein. He is given first the pure green test. Where the normal eye selects only the green tints, the colour-blind hesitatingly picks out light or dark gray, light brown, or even red as matching the green. The second test skein, rose or purple, composed of red and blue, is seen by the "red blind" only as blue, and they match it only with blues, while the "green blind" select greens. The third test, the pure red skein, the colour-blind match with browns, sages, or greens, and they betray their defect, not only by the failure to match, but also by the fact that they overlook or reject colours which do match. The tints selected by the colour-blind to match the test skeins are called "confusion colours," and they become well known to any examiner who uses this method. Briefly stated, those who with the green test select grays, light browns, tan-colours, light reds, or pinks are colour-blind. It is desired, however, to know whether they are to be classed as "red blind" or "green blind," and for that reason the second (rose or purple) test is made. Those who select blue and violet tints for rose are "red blind," while those who select gray or green tints are "green blind." It is not, of course, necessary to decide whether the defect be red or green blindness, but, to finally convince the doubters, the third (or red) test is made, wherein the "red blind" choose as red the shades darker than red, and the "green blind" the shades lighter than red. Both show inability, however, to distinguish between green and red, the two important colours in land and marine signals.

Dr. Thomson, for the Pennsylvania Railroad examinations, has ingeniously made Holmgren's system available in an instrument of the greatest simplicity and effectiveness. He has two flat narrow sticks, each about two feet long, hinged together at one end. To one of these sticks he hangs 40 worsted skeins attached to little buttons hung upon hooks, so arranged that the buttons can be readily unhooked. The buttons are numbered from 1 to 40, and the other stick is shut down over the buttons so as to conceal the numbers and keep them in their places. When presented to the person examined, it appears simply as 40 skeins of different coloured worsted yarn hanging from a stick. He arranges the 40 skeins upon a theory which experience has taught him, that it is only necessary to use the genuine tints of the three test colours—green, rose, and red—and the "confusion colours." Thus he is able to reduce Holmgren's 150 skeins to 40, and, so far, simplify and shorten the examination. Beginning at the left hand, he devotes the first 20 numbers, or one-half the skeins, to the green test. The ten odd numbers are shades of green; the ten even numbers are "confusion colours," such as grays, tans, light browns, &c., and this half of the stick is for the diagnosis of colour-blindness. The skeins from 21 to 30 have rose or purple tints on the odd numbers, and blue tints on the even numbers. The remaining skeins from 31 to 40 have red tints on the odd numbers, and the "confusion colours" for red on the even numbers, such as browns, sages, and dark olives. A man placed before the instrument is first told to select ten skeins to match the green test skein which is shown him. If his eyes are normal he quickly throws the ten green skeins over the stick, and a clerk recording the result will examine

the buttons and put down the series of odd numbers from 1 to 19, as the entry upon the blank report. The normal eye will select only the odd-numbered green tints from the first half of the stick, while the colour-blind will hesitatingly select at random odd and even numbers all along the stick. Thus the clerk can readily separate the 24 men whose eyes are normal from the one who is colour-blind, and the intervention of the ophthalmic surgeon is only necessary to finally decide upon the latter. The blanks, properly filled up and sent to head quarters, tell the result in the case of each *employé* by the odd or even numbers, and the supervising authority thus can confide to subordinates on any part of the railway the labour of selecting the colour-blind for further tests, if necessary. No great skill or professional knowledge, it will thus be seen, is necessary to make the original examination and record. This instrument has made the examination entirely feasible on the Pennsylvania Railway in the hands of several non-professional examiners on different parts of the lines Their reports, carefully scrutinized, have uniformly developed the fact above-stated that slightly over 4 per cent. of the men are colour-blind—the exact percentage is 4·2. The instrument has also been put in experimental practice upon several other American railways, chiefly in New England.

The examinations made also include the acuteness, range, and field of vision, as well as colour-blindness, but it is the latter that absorbs the chief interest. When the man who is colour-blind is placed under examination, his hesitancy in selecting the skeins from the instrument quickly betrays his defect. Beginning with the green test, he looks again and again at the test-skein and selects slowly one of the hanging green skeins, then pushes aside the other greens, and selects a gray or tan skein, then another green. His movements are marked by hesitancy and doubt in sharp contrast with the promptness and celerity of the man whose sight is normal. Then he is given the rose skein to match and he selects either purple or blue, for he is red blind and cannot see the red colour in the mixture of red and blue that makes the purple of the test skein. If he had been more green than red blind, he would have picked out some green and gray tints to match the rose. By this time no one can doubt his inability to recognize colours. Then he is given the final test—the red skein—and he selects probably half his skeins of red and the other dark brown. The clerk records simply the numbers of the skeins selected, and the liberal selection of even numbers among the 40 on the stick shows the man to be colour-blind, and he is turned over to the ophthalmic surgeon for further and closer examination. The system is excellent and most simple, and its adoption will be only a matter of time on both railways and vessels in the United States.

CANONISATION OF SAINTS IN ROME.

IMPOSING CEREMONY.

ROME, Dec. 8.

This morning his Holiness Leo XIII., in the great Hall of the Benediction above the vestibule of St. Peter's, splendidly decorated and illuminated for the occasion, celebrated the rite of canonization, by which the beatified Giovanni Battista de Rossi, Lorenzo di Brindisi, Giuseppe Labre, and Clara di Montefalco have been raised, as it is termed, to the honours of the altar. The ceremonial was performed with all the splendour of ecclesiastical pomp practicable in so circumscbed a space. At the last canonization, in 1867, the procession made the entire circuit of Bernini's grand portico before entering the Basilica. This morning it was necessarily limited to the area of the great halls. The ceremonial was to commence, or, rather, the Pope was to leave his apartments at 9 o'clock, but before 7 carriages were hurrying from all directions to the Vatican. Within the Porta di Bronzo, the great silk red, white, and yellow flag of the Swiss Guards, with the Pope's arms upon it, was floating in sight of every one outside. At the foot of the Scala Regia a line of Guards was drawn across, and there, as in former days, a great crowd of ladies and gentlemen, whose tickets had been closely scrutinized at the gate and who stood pushing and squeezing against each other, extended halfway down the long corridor. At 8 o'clock the Guards were withdrawn, and just such a tremendous rush followed as one used to see up the staircase to the Sistine Chapel on *Miserere* days in Holy Week. In the Sala Regia the *Guardie Nobili*, among whom was the Pope's nephew, Count Pecci, were pacing up and down, foreign Ambassadors and Envoys, with their suites *en grande tenue*, passing on to their places, and ladies and gentlemen still flocking in until 9 o'clock, when the doors were closed. Shortly afterwards the Pope descended and the procession began to form in the Sala Ducale. First came the various monastic orders, the chapter of the great Basilicas, and other ecclesiastical bodies, who formed a large contingent of former processions, but on this occasion were each perforce represented by one or two persons only, or the procession could not have moved. Then came the postulants of the four new saints; the Sixtine Choir, chanting the "Ave Maris Stella"; 150 bishops, walking two and two, in cloth-of-silver copes, each

carrying a lighted wax candle ; the 33 cardinals now in Rome followed with their suites, also carrying candles ; and, lastly, the Pope, wearing his mitre, and carrying a lighted candle in his hand, was borne aloft on the *Sedia Gestatoria*, the great cloth of silver canopy carried above him, the *flabelli* on each side, the members of the Pontifical Court walking around him, and the Noble Guard marching before and after. The archbishops and cardinals, followed by the Pope, having made the circuit of the Sala Regia, went into the Sixtine Chapel to adore the Sacrament, and then the Pope, having changed his mitre for the tiara, again took his seat in the *Sedia Gestatoria*, and the procession, crossing the Sala Regia, went on into the Hall of the Canonization, as it is now to be called.

The scene in the hall was brilliant in the extreme. It was illuminated by thousands of wax candles. The cloth of gold hangings glittering in their light, the crowd of ladies in black veils on one side and the gentlemen in full dress on the other, the Diplomatic Corps, the Roman Princesses, and other distinguished persons in the Tribunes, and the splendid procession of the bishops, archbishops, and cardinals, followed by the Pope, passing slowly al ng, and extending from one end of the hall to the other, the choir chanting as they went, presented a *coup d'œil* of such splendour as it is impossible to reflect. To describe the ceremonial, which lasted from 10 in the morning till 3 in the afternoon, is impracticable in this letter, but some details I may mention. The Sixtine Choir well sustained its reputation. The "Te Deum" was most impressive, taken up as it was by all present, and for the first time since 1870 the silver trumpets, which used to sound from the dome of St. Peter's as the Pope elevated the Host, were heard again from somewhere above the cornice in all their clear, sweet solemnity. Every breath was hushed, and the effect was magical. While the ceremonial was proceeding, the adjoining Pauline Chapel was a point of great attraction to those who knew what it contained. There, on four large tables, were ranged the oblations to be offered to the Pope by the postulants or proposers for canonization of each saint. The offerings on each table consisted of two loaves of bread, one gilt, the other silvered, on handsome salvers ; two small barrels of wine, one gilt and the other silvered ; five splendidly painted wax candles of great size and weight ; and three beautifully wrought birdcages, one containing two doves, the second two pigeons, and the third a number of goldfinches and other small birds ; and at the proper time these were carried in procession to the throne, three Cardinals accompanying the oblations for each of those canonized. This ceremony is a continuation of the primitive custom of the Church when its members laid their offerings at the feet of the Apostles. After the Gospel the Pope delivered the customary homily, in which he incidentally lamented that in these unhappy times he had been unable to celebrate the ceremony with all its ancient splendour in the majestic amplitude of the Vatican Basilica ; but beyond that he made no assertion of temporal power, nor did he, as announced by the Ministerial *Diritto*, fulminate excommunications.

This has been the first occasion on which Leo XIII. has exercised his Papal authority at a high altar as his predecessors in St. Peter's have done, and he observed the ritual in its fullest extent and pomp, even including the silver trumpets, as I have mentioned. The pomp with which the Ambassadors and Ministers accredited to the Holy See, and especially those of Spain and Austria, went to the Vatican on this occasion was very noticeable. During the ceremony Cardinal Mertel, who had been indisposed, had to be led from the hall.

THE NEW SAINTS.—A Roman *padre*, writing about the consistorium, which was held in Rome on Thursday, gives the following account of the new saints :—"The blessed Chiara of Montefalco was a very pious nun, who, like St. Theresa, was subject to visions, and particularly devoted to the Holy Trinity. She died in the odour of sanctity. When the post mortem examination was made, the operators, to their great wonder, found near the heart three small fleshy balls, which altogether weighed as much as one of them, and each single one as much as all the three together. It is a symbol of the one and indivisible Trinity. This is certainly a miracle. The blessed Labro and De Rossi, the one a Frenchman, the other a Roman, were really virtuous and charitable men, who lived in Rome at the end of the last century. They were remembered in popular tradition for their many good works and for a disinterestedness which, in De Rossi, was noble. The blessed Labro never washed, never changed his linen, generally slept under the arches of the Colosseum, and prayed for hours together in the church of the orphanage, where there is a tablet to his memory. The fourth and last new saint, the blessed Lorenzo of Brindisi, was a Capuchin monk worthy of his times. It is calculated that the postulates—that is, the representatives of the faithful—who are interested in the canonisation of these four persons, have spent no less than four million scudi since it was first proposed. This is no exaggeration, for they pay all the expenses, which are infinite. Among these expenses are the rich dresses which the Pope wears at the solemn functions, taxes, donations, and expenses without number. Every saint makes his fortune, as the person who proposed him for everything that person spends is doubly repaid by the postulate."

SENTENCIA DICTADA CONTRA JESUCRISTO

"El año XIX de Tiberio César, emperador romano de todo el mundo, monarca invencible en la Olimpiada CXXII y en la Eliada XXIV, y de la creación del mundo, según el número y computamiento de los hebreos, cuatro veces mil ciento ochenta y siete y de la progénie del romano imperio del año LXXIII y de la liberación de la gran cautividad de Babilonia el año MLCVII; siendo gobernador de la Judea Quinto Servio, so el regimiento y gobierno de la ciudad de Hierusalem, presidente gratísimo, Poncio Pilato; regente de la Galilea Herodes Antipa; pontífice del sumo sacerdocio, Caiphas; Alis Almaelmagni del templo, Robán Anchubel, Franchino Centurio, consules romanos, y de la ciudad de Hierusalem, Quinto Cornelio Sublima y Sexto Pompilio Brito, en el mes de Marzo, el dia 25 de él, yo Poncio Pilato, aquí presidente del imperio romano, dentro del palacio del archi-residencia, juzgo, condeno y sentencio á muerte á Jesu, llamado de la plebe Cristo Nazareno, y de patria galileo, hombre sedicioso de la ley mosenia, contrario al grande emperador Tiberio César. Determino y pronuncio por esta que su muerte sea en cruz fijado con clavos á usanza de reos, porque aquí congregando y juntando muchos hombres ricos y pobres, no ha cesado en remover tumultos por toda la Judea, haciéndose hijo de Dios rey de Israel, con amenazarles la ruina de Hierusalem y del sacro templo, negando el tributo á César, habiendo tenido aun atrevimiento de entrar con ramos y triunfo, y con parte de la plebe dentro de la ciudad de Hierusalem y en el sacro templo. Y mando que se lleve por la ciudad de Hierusalem á Jesucristo ligado y azotado, y que sea vestido de purpura, y coronado de algunas espinas, con la propia cruz en los hombros para que sea ejemplo á todos los malhechores; y con él quiero sean llevados dos ladrones homicidas, y saldrán por la puerta Yargada, ahora Antoniana, y que le lleven á Jesus al público monte de Justicia, llamado Calvario, donde él, crucificado y muerto, quede el cuerpo en la cruz como espectaculo á todos los malvados, y que sobre la cruz sea puesto el título en tres lenguas: hebrea, griega y latina (*Jesús Nazarenus, Rex Judeorum*).

"Mando asimismo que ninguno de cualquier estado ó calidad se atreva temerariamente á impedir la tal justicia por mi mandada, administrada y ejecutada con todo rigor según los decretos y leyes romanas y hebreas, so pena de rebelion al imperio romano. Testigos de nuestra sentencia: Por las doce tribus de Israel Rabbaim Daniel, Rabbaim Joannim, Bonicar, Barbam Talji Petaculani. Por los fariseos: Bullia, Simeon, Rondis, Rabbani, Mondaani, Boncurat. Por los hebreos: Nitamberta. Por el imperio y presidente de Roma: Lucio Sextilo, Amasio Julio."

Este notable documento, del que existe cópia en el archivo de la Real Academia de la Historia, fué hallado escrito en pergamino en 1580, en la ciudad de Aquila en el reino de Nápoles.

DIAMONDS.—The most valuable diamonds are those which are entirely colourless. Those with a blue tinge, though still more rare, are not so highly valued, as the actual beauty of the pure ones outweighs the rarity of the blue variety. One of the finest of the blue variety is, we believe, in the collection of Mr. Beresford-Hope. Diamonds of a red tinge take still a good place; green diamonds are tolerably numerous, and rank lower; yellow ones are very common, and the least esteemed. The estimation of the value of a diamond is made according to a regular system of appraisement. It will surprise many of those who are not conversant with the subject to learn what a large proportion of a diamond is often ground away to dust in cutting it so as to make the most of its brilliancy. The greatest diamond in the French Treasury, the Regent, weighed, we are told, 410 carats before cutting, and 136½ after cutting, which seems an immense loss in size; but we presume it really increased the marketable value of the gem. Of course, the diamond dust taken off in cutting is not alllowed to be lost, but it is useful chiefly for practical purposes, in forming in its turn the means of grinding down the faces of other diamonds; for this superb stone will yield to no tool but one from its own substance.—*Builder*.

THE PORTER RHODES DIAMOND.—On Saturday night one of the great diamonds of the world, the largest, according to Mr. Edwin Streeter, which has been found this century, was exhibited at 18, New Bond-street. It was discovered in the claim of Mr. Porter Rhodes in the Kimberley Mine, South Africa, and by its remarkable whiteness completely disposes of the charge against Africa of being the nurse of tawny diamonds. The surface diamonds had, indeed, a yellow hue, but now that the miners have gone below the trap, they find in Jagersfontein and other famous regions of the Griqua diamond-fields the clearest blue-white stones. The Porter Rhodes diamond was brought to light on February 12, 1880; and before it left the diamond fields £500 (which was placed to the credit of the local hospital) had been paid by spectators admitted to see it, and £60,000 had been offered for it in vain by a syndicate of London jewellers. It weighs 150 carats, is still uncut, but is so cloven that the "table" and one of the "steps" are already formed, and it will lose less than most diamonds in the cutting, being expected to produce a net weight of about 100 carats, when it assumes the form of a brilliant. Its great purity of colour and compactness of shape make it a beautiful object, even in its present rough state. Mr. Streeter shows near it models of other famous diamonds, the Koh-i-Noor (106 1-16 carats) with which Mr. Rhodes has been enabled, by the Queen's permission, to compare it at Windsor, the Star of the South (the great Brazilian stone), the Dresden Drop, &c., together with the unique jewel, the Mackel diamond, in which a smaller stone has been embedded by some freak of nature. Here also is the red diamond, like the ruby, but shooting back the rays of the electric light with a directness characteristic of the diamond; the green diamond, with the stone of Ceylon, smaller stones carried for years in a pith-box behind a negro's ear, great milk-white pearls, and the lustrous shells from which they have been taken, pink pearls, and the topazes which display a luminous star blazing in different quarters of their convex hemisphere as the lights fall on them differently. It was interesting to compare with these gems the more valuable jewel from South Africa, and the comparison was enjoyed on Saturday by a numerous company, among whom were many members of the *Corps Diplomatique*, Mr. Childers, Lord E. Churchill, and others. The diamond was shown to the Queen and to Princess Beatrice and the Duke of Albany at Osborne in January of this year, and Her Majesty presented Mr. Rhodes on that occasion with a watch which he showed on Saturday with as much pride as his big diamond.

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PETTICOAT-LANE.

TO THE EDITOR OF THE DAILY NEWS.

SIR,—The fact that the great majority of the reading public must be ignorant of the actual condition of things existing in the heart of this metropolis has urged me to beg of you the space for a few lines, in order to draw attention to the state of lawlessness, and, consequently, of misery, degradation, and vice, in which thousands of this City are plunged. A state of things such as I shall endeavour to describe could not exist in this country at least if it were, as it undoubtedly ought to be, generally known. Public opinion would rise against it. Now it cries aloud for immediate remedy. Having made a point of personally inspecting a notoriously bad quarter, the centre of which is a thoroughfare with the official name of Middlesex-street, but which official name has become illegible by reason of the dirt which hides it, and the whole street is better known as Petticoat-lane, or simply The Lane, I will confine my remarks to this quarter in particular, and, in doing so, I may claim to speak from recent and actual experience. The thoroughfare leads directly from Bishopsgate-street Without into Commercial-road, is narrow and squalid at the extremities, but wideus and improves somewhat towards the centre. It is, however, of the moral, rather than the physical, aspect of the Lane, that I would speak. Urged to the spot by reports most incredible, I can only say that my horror of the state of things as reported to me, is very fearfully enhanced by my knowledge now of the state of things as it is. Grossly are we misled by those who tell us that such places are perceptibly improved since Charles Dickens wrote about them. The universality of the evil is diminished, no doubt, but to our shame be it spoken, the living proof is before our eyes that the evil still exists, in defined districts, in as dark colours as it ever did. Dickens, describing those "foul and frowsy dens where vice is closely packed, and lacks the room to turn; the haunts of hunger and disease, and rags that scarce hold together," has not overdrawn the picture, which is open gratis and at any time, to any inquiring observer. No true thought of religion, be it from a Christian's, or from a Jew's, or from any other point of view, seems ever to have budded there. Although Sunday morning, and during church hours, it was a high fair in "The Lane." Goods of every description freely bought and sold—shops, such as they are, open; and drinking places crowded by men and women, drinking and drunken. Literature of the vilest character, photographs and prints the most obscene offered in broad day for sale, these latter, in many cases, by children three and four years of age. I suppose that nowhere can the world reproduce such a terrible-looking crowd as that which surged around me at this Sunday fair. The following are among the distinctly illegal practices which came directly under my notice:—1. The public sale of intoxicating liquors during church hours; 2. The sale of articles which, it cannot be doubted, are stolen goods; 3. The sale of forged coin; 4. The exposure for sale of obscene literature and prints; 5. The unrestricted use of brutal and indecent language; and 6. Unrestrained acts of brutal violence. Of course the public have heard tell of stories such as these before; but that these illegal practices do actually proceed unchecked is a proof, surely sufficient, that they have never yet been realised as facts. I said the proof is before our eyes. The time has come when the miserable confession of impotence with which it has been the custom, as it has doubtless been found most convenient, to meet the question of this criminal state of things has become to be nothing short of cowardly acquiescence in its existence; when a determined effort and promptitude of action must take the place of what is little else than a cowering before the evil, as if it were irremediable. The public have a right, I would affirm it to be a positive duty, to demand an inquiry into the circumstances attending so disgraceful a blot on our national honour. There is no need for going to Ireland to find the law in abeyance. The law is a dead letter here. The police are powerless to enforce it; they stand in little knots together, it would seem, for mutual protection, but no sooner does some drunken fray arise than they vanish most magically. They dare not interfere. Shall such things be? Shall not the law of the land be enforced in our capital, and shall not Jews residing in this country be amenable to its laws? I will not be misunderstood. In my regard for the Jewish people I will yield to no one. I think all admiration is due to the heroism so richly displayed in their history; to their patience, their perseverance, and their strong sense of duty, often so conspicuous in their character. It is, indeed, more especially to the Jews themselves that I would appeal, and the country has a right, in the first place, to look for the initiation of reforms in these low Jewish quarters. As, till lately, in parts of Ireland, so here almost in our midst, the law of the land is a dead letter and the unwritten law all powerful. No man, whether Christian or Jew, dare act contrary to it. Should a Christian, and there are Christians in this quarter, open his shop on a Saturday, his trade is gone, probably his windows broken in; no one buys, or is allowed to buy, of him; he is, in fact, Boycotted! Then if he obeys the law, and closes on Sunday too, whilst his neighbours are open and doing the best trade of any day of the week, he loses another and, for the neighbourhood, most important day. He is almost forced to break the law and perjure himself as Christian; and the children learn of the parent. I need scarcely point out that this is a question of the utmost social importance, not only to our community, but to the country at large, and, indeed, the whole world. It is pretty well known where thieves are bred. I am assured there is no large town in the world of which the lowest classes and the acting police, of whatever nationality, are not familiar with the name of "The Lane." There is no difficulty whatever in finding this thoroughfare, any policeman, however profoundly ignorant of most directions, will be able to direct the seeker there. There is no lack of police reports pointing to the fact that there are thieves who regard it as their headquarters, as it has very probably been their alma mater. We may look upon it as the great capital of thiefdom, and the training college whence the younger recruits for the predatory class issue. In the last few days we have been shocked by a tragedy, the full horror of which has come home to every member of our community. And why? Because each feels himself nearer than he thought for to the assassin's grasp, and his eyes are opened to the danger lurking near him in the proximity to him of places where the law has no power. Are such things as these to be tolerated in our midst for ever? I think not. I have enough confidence in the public spirit of the country to be sure that these hideous monstrosities cannot be known far and wide and not have a speedy termination. I wish to call attention not so much to the religious part of this question—the clergy are dealing ably and faithfully with that—but I do think that offences against the law committed in open day and under the very eyes of the police ought not to go unpunished. If the number of police stationed in the neighbourhood is inadequate to grapple with this evil, they should be reinforced; if sufficient number, then the authorities should see that they do their duty. It is, I believe, well known that there are places to which the police scarcely dare, and singly never do venture, to penetrate, but where the patient clergyman may be found working bravely on. Far be it from me to think to find a substitute for such work as this, that would be impossible; but I would seek to strengthen the hands of such labourers by the restoration of law and order, and thereby to mitigate the evils by which these dismally

packed crowds of human beings are beset. At least we are bound to make the attempt on behalf of the children. The Executive Government are responsible for the enforcement of the law. The Prime Minister has stated over and over again that the first duty of a Government is the maintenance of the law as it stands. No doubt the evil is of old standing, but scarcely, I venture to presume, older than that attacked by Lord Dalhousie's Bill during the present session. Whether this question also has become ripe for special legislation will be for Parliament ultimately to decide; but first, it is for the public to pronounce upon and deal with. The events which led to the publication by Mr. Gladstone of his pamphlet on the Bulgarian atrocities are notorious, and, whatever may be our individual opinion regarding that pamphlet, there can be no denying the fact that the sympathy thereby awakened on behalf of those heathen sufferers spread far and wide through the land. And shall not the fate of thousands of children, born in our boasted England, claim at least an equal sympathy in every English heart? Can there be a doubt as to the response which the public will give to an appeal from any of the many who are powerful to move public opinion, and who may be found willing to exert their influence in this matter? Can there be any but one answer to the question, Were not those Bulgarian children pictured by Mr. Gladstone, whose severed heads raised upon poles became the insignia of their ruthless murderers, thrice happy in their fate compared with those that are born and bred in such dens of utter degradation and vice and lawlessness as may be found heaped together in and about Petticoat-lane?—Your obedient servant,

Belsize-park. ARTHUR KLEIN.

MOONLIGHT ON THE ROGUES'-WALK.

(BY AN EYE-WITNESS.)

At ten o'clock the Rogues'-walk—that broad ribbon of pavement stretching from Piccadilly-circus past the Criterion Theatre and Restaurant to the top of the Haymarket—resembles more nearly the scene of a recent riot than a thoroughfare in the heart of London. It is almost desolate so far as wayfarers are concerned, gaslight and moonlight fully illuminating the white side-walk, dotted just now by the dark figures of the police. An hour or an hour and a half later more policemen are visible, and passengers hurry along, the majority of these being persons who have been to the play or to the music-hall opposite, or to other places of amusement. The theatres in the Haymarket, in Panton-street, and in Leicester-square contribute immediately, and those in the Strand and Dean-street, Drury-lane, and Bow-street indirectly, to swell the number of decent and fairly well-behaved persons who debouch into Coventry-street and on to the Rogues'-walk. But these passers-by are not the promenaders who have earned the place its unenviable notoriety. They are sober husbands and fathers who with wife and family are hoping to catch an omnibus at the Circus, and have nothing in common with the revellers who make the Rogues'-walk and Lower Regent-street their own for at least two hours past midnight. These only begin to arrive towards the stroke of twelve, and are easily distinguished in several ways. To begin with, they come to an obvious rendezvous: they do not merely pass through. And they come after the fashion of March, like a lion. They arrive with noise and fuss and clatter. Stylishly, too stylishly, dressed girls, some of extreme youth, drive up with a rattle and a bang in "headlong hansoms." The ultra-stylish ones halt at the glove shop while yet it is open, and don new gloves. Their next proceeding is to light cigars—not cigarettes, but manly cigars, corresponding in masculine tone with the bowler-hats, male all-round collars, and "brown Newmarkets" worn by the majority. Other hansoms now drive up furiously, and disgorge the division of male humanity attracting or attracted by the brown Newmarkets aforesaid or other sirens in sealskin. Many greetings are exchanged, boisterous and otherwise, and there appears to be a general anxiety on the part of all present to get as much to drink before half-past twelve as possible. Probably the business and pleasure of the Rogues'-walk require a great deal of alcoholic stimulant; but, however this may be, there is plenty of drinking at the last moment. Then, as the clock strikes the hour of closing public-houses, a flood of noisy women and raffish men pours over the Rogues'-walk and inundates Lower Regent-street.

The shops are closed now, except perhaps a few tobacconists', and there is less gaslight on the pavement, thickly crowded with roysterers of both sexes, who walk here by moonlight, because they have nowhere else to go. It is true that they might go home to bed, but this solution hardly commends itself to women who have just come out in all their flaunting finery to display their attractions under the lamps. The scene is extraordinary, and completely unlike anything else in the world. Girls arm-in-arm three abreast, not one of whom can be more than eighteen years old at the utmost, come rollicking along, all smoking, swaying backwards and forwards, and making observations which will not bear repetition. Not only blasphemy, not mere suggestiveness, but downright obscenity enters into every other sentence. It must not be imagined that all this coarse and sometimes loathsome talk is carried on in an undertone. The last drain of ardent spirits and the fumes of tobacco seem to have completely taken away from the hundreds of girls assembled the last vestige of shame; and brutal obscenity speaks aloud in every tone of the human voice. Perhaps the most saddening feature of the ghastly scene is the youth of the great majority of the girls. They are not, at least I do not see any, of the tender age sometimes spoken of, but they seem to range from fourteen to about eighteen or twenty, the younger greatly preponderating. This is the peculiar character of the crowd on the Rogues'-walk. It is mainly young English-

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women who crowd the pavement immediately after the Criterion and other places of refreshment have been closed. The thin cheeks however coarsely raddled, the painted eyes, and even the sharp and vulgar voice schreeching filthy oaths, cannot conceal the fact that these hardened, debauched creatures are in their teens. And they shriek louder as the night, or rather the morning, wears on.

The men are a strange sample of London humanity. First of all they include among them the rabble which in former times lurked among the purlieus of Panton-street and the Haymarket, the keepers and door-openers of late grog shops and supper-houses, the sham touts and betting men, the prize-fighters who never fought anybody fairly, but were passing clever at beating and stripping a drunken fool of watch and chain and ready cash. The person described on the police-sheet as a "labourer," does not appear on the Rogues'-walk, the company there being altogether too rough and reckless to give him any chance of showing off his own proclivities. I have remarked that the genus "swell" is almost absent. A few specimens push their way through the crowd to get to the United or the Raleigh Clubs, and one or two ancient bucks, greyheaded and very well dressed, pass to and fro, saluted with remarks addressed to "Daddy" and "Old 'un;" but beside the Haymarket residuum already mentioned the crowd appears to be made up of dissipated clerks and young tradesmen, the sons perhaps of opulent fathers. The young men are not shabbily dressed, far from it. On the contrary some are made up in strict imitation of the orthodox crutch-and-toothpick type, but the imitation is obvious. Mr. Rogueswalker is a descendant, with perhaps some addition of vice, of Albert Smith's immortal Bricksywicksy. He is a noisy demonstrative young blackguard upon whom the police cannot lay a too-heavy hand. Dull-witted and half-drunken, this is the precise type of person to listen by the hour to the "lion comique," the Jovial Splash, the Great Macbray, and other drearinesses of the music-hall. The ranks of Mr. Rogueswalker are, it cannot be denied, largely recruited from other towns than London. He is not always a cockney, for, as there is a difference between an alligator and a crocodile, so is there between town and country 'Arry. The latter is broader in his grotesque idiocy than even the London-bred imbecile.

So far as my own eyesight assures me, the police have a very good grip of the mob if they choose to exercise it. Within the last few days it has perceptibly tightened. One fertile cause of disturbance, the accumulation of cabs in Lower Regent-street, Charles-street, and St. James's-square, has been brought to an end. Not long ago it appeared to require so much energy to deal with cabby that none was left for cabby's employers. But this is altered now, and Regent-street is kept clear. Consequently the police are free to look after the crowd, and it must be admitted that they try to do their best. No sooner is a screech-owl cry heard from one of the women, or a roar of maniacal laughter, followed by a wild rush on the part of the men, than a sharp "Pass on, pass on," is heard, and a couple of policemen restore something like order. It is still, however, difficult to keep the women from making unseemly noises, to the torture of the peaceable inhabitants, whose rest is broken by the yells arising from the Rogues walk, sometimes till nearly three in the morning. All I can say is that up to two o'clock on Tuesday morning the noise was very great, but that at that hour the crowd had almost entirely dispersed, only a few belated and tired loiterers remaining.

The wildest time is undoubtedly between half-past twelve and half-past one. Towards the latter hour those who esteem themselves the more fortunate have gone home; but there is still a large and noisy residue. With a few more men the police would, it seems to me, be quite able to put a stop to the frantic skylarking and horseplay which exhibit a tendency to break out at every minute. It must be admitted that the police do their spiriting very gently; but the case is hardly one requiring more than average firmness. Nobody who has seen wretched girls marched off to the police station would wish to witness that spectacle again. But probably the police know accurately the limit of their authority, and my own conviction is that with a sufficient force any riotous proceedings would be impossible. Kate Hackabout and Molly Seagrim know in their own phraseology "a trick worth two" of quarrelling with the police, and drunken, racketty, and troublesome Mr. Rogueswalker can be dealt with straitly if the constables see fit. There seems a disposition to let him get up rows with cabmen and other people with impunity, and it seems to me that persons who arrive already drunk and noisy at the saddest of trysting places should be packed off homewards or locked up at once. The raffish "young man from the country" is an especial sinner in this direction, and requires the warning of a few more of those efficient sentences with which Mr. Newton consistently visits offences of this kind, and which strengthen the police so much.

Towards two o'clock there is a noteworthy thinning of the mob. Mr. Rogueswalker is finding it dull without anything to drink. An hour and a half strolling in the night air has also had the effect of partially sobering him, an operation which by no means increases either his good temper or his disposition to listen to the voice of the charmer. She, poor wretch, is getting desperate at the prospect of a long hungry walk home in the nipping and eager air. Not one who has the money to ride

will walk, but many start nevertheless, along Piccadilly, up Regent-street, and so forth. What a walk must that be to the place she calls her home for Kate Hackabout. And by what expedients of borrowing or selling will she carry on till she again appears on the Rogues'-walk? But, failing death or the hospital, thither she will certainly come again. Freshly gloved and with a cigar between her artificially reddened lips she will surely appear at the hour of High Change on the Mart of Shame, a scene disreputable to London and disgraceful to England, but above all saddening and sorrowful beyond measure.

THE FOOD WE EAT.

The nutritive value of various foods is a subject that has long been a favourite topic with chemists, and many analyses and investigations have been made. These have been collected together by Professor Atwater, of the Agricultural College for the State of Connecticut, who has prepared from them a table showing the nutritive values of different foods. As a basis, he has taken medium (neither over fat nor over lean) beef as having a nutritive value of 100. The following table shows the nutritive values of meat, game, and fowl :—

Meat, Game, and Fowl.	Nutritive Value.	Meat, Game, and Fowl.	Nutritive Value.
Beef (lean)	91·3	Smoked Beef	146·0
Beef (medium)	100·0	Smoked Ham	157·0
Beef (fat)	112·0	Venison	88·8
Veal (fat)	92·4	Hen	93·9
Mutton (medium)	86·6	Duck	104·0
Pork (fat)	116·0		

From the above it will be seen that the most nutritive of all meats, with the exception of smoked beef or ham, by which the moisture also is evaporated, and the tissues more compressed, is the fat pork so common and popular a food among our rural labouring population. The high nutritive values of cured meats also are deserving of notice. In the next group we have various kinds of animal produce—milk and its manufactures and eggs. These are as follows: —

Animal Produce.	Nutritive Value.	Animal Produce.	Nutritive Value.
Cow's Milk (normal) ..	23·8	Cheese (from skimmed milk)	159·0
Cow's Milk (skimmed) ..	18·5	Cheese (from milk with cream added)	103·0
Cream from Cow's Milk ..	56·0	Hen's Eggs	72·2
Butter	124·1		
Cheese (from whole milk)	151·0		

It may be observed here that the skimmed cheese, another food largely used by our rural labourers, has the highest nutritive value of any food, this arising from its being compressed into a smaller space, and the hardness of the sample. The nutritive value of the eggs is based upon several hundreds of analyses, which, however, only showed a variation of from 71·0deg. to 73·5deg. Turning to fish, the Professor has here given the percentage of edible solids, *i.e.*, the actual amount of nutritive materials in the samples analysed, as well as the nutritive value. Several of the fishes named also are common to America only. The following are the details :—

Fish (Fresh).	Per Cent. of Edible Solids.	Nutritive Value.
Halibut	21·45	87·9
Flounder	5·97	82·4
Cod	11·45	68·2
Haddock	8·83	74·9
"Alewives"	11·95	36·8
Eels	22·50	95·6
Shad	16·29	98·2
Striped Bass	8·94	80·4
Yellow Pike Perch	8·48	80·9
Black Bass	9·57	86·5
Mackerel	15·48	90·9
Bluefish	10·96	85·4
Salmon	32·99	107·9
Salmon Trout	14·38	95·7
Brook Trout	10·77	84·2
White Fish	13·69	104·5
"Porgy"	9·76	85·2
Blackfish	10·72	93·9
Red Snapper	10·10	90·7
Smelt	12·51	73·8
Spanish Mackerel	20·65	105·9
White Perch	9·41	89·2
Mascallonge	12·52	91·3
Herring	11·52	100·4
Sheepshead	11·99	96·9
Turbot	15·61	84·4

On these we would note that, after the breeding time, the waste with old salmon is much greater than that here given, and the same is also the case with land-locked salmon, the percentage of edible solids being then only a little over 10 per cent. of the entire weight of the flesh. The nutritive values in all these cases is only of the fish after bones and non-edible parts have been removed. Thus white fish is said to have a nutritive value of 104·5, but this only means for 13·69 per cent. of the whole fish, so that as a food it would be far inferior to duck, which has the same numerical nutritive value.

We next have prepared fish and invertebrates, on which we have the following :—

Prepared Fish and Invertebrates.	Per Cent. of Edible Solids.	Nutritive Value.
Boned cod	30·91	106·9
Salted cod	20·45	102·5
Smoked halibut	31·63	102·2
Smoked herring	28·66	163·2
Canned salmon	29·95	107·2
Salt mackerel	30·97	111·1
Lobsters	7·98	50·3
Scallops	17·47	68·8
Oysters	—	21·8

One of the most striking facts in connexion with this table is the high nutritive values of the very cheapest foods, and the smaller values of the high-priced luxuries now so fashionable. Probably few are aware of the very low value of the "strengthening" oyster—less, in fact, than its own weight in milk. In fact the cheaper foods of our rural population are a good example of the survival of the fittest.

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THE BRITISH ASSOCIATION.

SOUTHAMPTON, AUG. 24.

ANTHROPOLOGY.

PROFESSOR W. BOYD DAWKINS chose as the subject of his address "The Present Phase of the Antiquity of Man." He said,—In taking the chair in this department of the biological section of the British Association, two courses lie open before me. I might give an address which should be a history of the progress of anthropology during the last year, or I might devote myself to some special branch. The swift development of our young and rapidly growing science, which embraces within its scope all that is known, not merely about man, but about his environment, in present and past times, renders the first and more ambitious course peculiarly difficult to one, like myself, labouring under the pressure of many avocations. I am therefore driven to adopt the second and the easier, by choosing a subject with which I am familiar, and which appears to me to be appropriate in this place of meeting. I propose to place before you the present phase of the inquiry into the antiquity of man, and to point out what we know of the conditions of life—though our knowledge of them is imperfect and fragmentary—under which man has appeared in the Old and in the New Worlds. The rudely chipped implements left by the primeval hunters in the beds of gravel of Hampshire and Wiltshire, and along the shores of Southampton Water and elsewhere, are eloquent of the presence of man in this district at a time when there was no Southampton Water, and the elephant and the reindeer wandered over the site of this busy mart for ships; when the Isle of Wight was not an island, and the River-drift hunter could walk across from Portsmouth to Cowes, with no obstacle except that offered by the rivers and morasses. I propose to enter upon the labours of Prestwich, Evans, Stevens and Blackmore, Codrington, Read, Brown, and other investigators in this country, and to combine the results of their inquiries with those in other countries, and with some observations of my own, which I was able to make in 1880, during my visit to the United States. The most striking feature in the study of the Tertiary period is the gradual and orderly succession of higher types of mammalia, so well-defined and so orderly, that I have used it as a basis for the classification of the Tertiary period. We find the placental mammals becoming more and more specialized as we approach the frontier of history. The living orders appear in the Eocene, the living genera in the Miocene, a few living species in the Pliocene, and the rest in the Pleistocene. The characteristics of this evolution of living forms may be summed up as follows:—VI. Historic—in which the events are recorded in history. Events included in history. Founded on discoveries, documents, refuse-heaps, caves, tombs. V. Prehistoric—in which domestic animals and cultivated fruits appear. Man abundant; domestic animals, cultivated fruits, spinning, weaving, pottery making, mining, commerce; the neolithic, bronze, and iron stages of culture. Camps, habitations, tombs, refuse-heaps, surface accumulation, caves, alluvia, peat bogs, submarine forests, raised beaches. IV. Pleistocene—in which living species of placental mammals are more abundant than the extinct. Man appears; *anthropidæ*; the palæolithic hunter; living species abundant. Refuse-heaps, contents of caves, river deposits, submarine forests, boulder clay, moraines, marine sands, and shingle. III. Pliocene—in which living species of placental mammals appear. Living species appear; apes, *simiadæ*, in Southern Europe. Fresh-water and marine strata; volcanic *débris* (Auvergne). II. Miocene—in which the alliance between living and placental mammals is more close than before. Living genera appear; apes, *simiadæ*, in Europe and North America. Fresh-water and marine strata; volcanic *débris* (Auvergne); lignites. I. Eocene—in which the placental mammals now on earth were represented by allied forms belonging to existing orders and families. Living orders and families appear; lemurs (*lemuridæ*) in Europe and North America. Fresh-water and marine strata; lignites. The orders, families, genera, and species in the above summary, when traced forward in time, fall into the shape of a genealogical tree, with its trunk hidden in the secondary period, and its branchlets (the living species) passing upwards from the Pliocene, a tree of life, with living mammalia for its fruit and foliage. Were the extinct species taken into account, it would be seen that they fill up the intervals separating one living form from another, and that they too grow more and more like the living forms as they approach nearer to the present day. It must be remembered that in the above definitions the fossil marsupials are purposely ignored, because they began their specialization in the secondary period, and had arrived in the Eocene at the stage which is marked by the presence of a living genus—the opossum (*Didelphys*). It will be seen that our inquiry into the antiquity of man is limited to the last four of the divisions. The most specialized of all animals cannot be looked for until the higher mammalia by which he is now surrounded were alive. We cannot imagine him in the Eocene age, at a time when animal life was not sufficiently differentiated to present us with any living genera of placental mammals. Nor is there any probability of his having appeared on the earth in the Miocene, because of the absence of higher placental mammals belonging to living species. It is most unlikely that man should have belonged to a fauna in which no other living species of mammal was present. He belongs to a more advanced stage of evolution that the mid-Miocene of Thenay. Up to this time the evolution of the animal kingdom had advanced no further than the Simiadæ in the direction of man, and the apes then haunting the forests of Italy, France, and Germany represent the highest type of those on the earth. We may also look at the question from another point of view. If man were upon the earth in the Miocene age, it is incredible that he should not have become something else in the long lapse of ages, and during the changes in the conditions of life by which all the Miocene land mammalia have been so profoundly affected, that they have been either exterminated, or have assumed new forms. It is impossible to believe that man should have been an exception to the law of change, to which all the higher mammalia have been subjected since the Miocene age. Nor in the succeeding Pliocene age can we expect to find man upon the earth, because of the very few living species of placental mammals then alive. The evidence brought forward by Professor Capellini, in favour of Pliocene man in Italy, seems both to me and to Dr. Evans unsatisfactory, and that advanced by Professor Whitney in support of the existence of Pliocene man in North America cannot, in my opinion, be maintained. It is not until we arrive at the succeeding stage, or the Pleistocene, when living species of mammalia begin to abound, that we meet with indisputable traces of the presence of man on the earth. As a preliminary to our inquiry we must first of all define what is meant by the Pleistocene Period. It is the equivalent of the Quaternary of the French, and the Post-pliocene of the older works of Lyell, and it includes all the phenomena known in latitudes outside the Arctic Circle, where ice no longer is to be found, under the name of glacial and inter-glacial. It is characterized in Europe, as I have pointed out in my work on "Early Man in Britain,"

by the arrival of living species, which may be conveniently divided into five groups, according to their present habitats. The first consists of those now found in the temperate zones of Europe, Asia, and North America. It includes the following animals :—Mole, musk shrew, common shrew, mouse, beaver, hare, pika, pouched marmot, water vole, red field vole, short-tailed field-vole, continental field vole, lynx, wild cat, wolf, fox, marten, ermine, stoat, otter, brown bear, grisly bear, badger, horse, bison, urus, saiga antelope, stag, roe, fallow-deer, wild boar. The second consists of animals of arctic habit :—Russian vole, Norwegian lemming, Arctic lemming, varying hare, musk sheep, reindeer, Arctic fox, glutton. The third is composed of those which enjoy the cold climate of mountains :—The snowy vole, Alpine marmot, chamois, and ibex. These animals invaded Europe from Asia, and as the cold increased the temperate group found their way into Southern Europe and Northern Africa, while the Arctic division pushed as far south as the Alps and Pyrenees. The fourth group of invading forms is represented by animals now only found in warm countries :—Porcupine, lion, panther, African lynx, Caffre cat, spotted hyena, striped hyena, and African elephant. This group of animals is found as far to the north as Yorkshire and as far to the west as Ireland. Among the southern animals, too, must be reckoned the hippopotamus, which lived as far north as Britain in the Pliocene age, and in the Pliocene occurs in caves and river deposits, in intimate association with some arctic species, such as the reindeer. The fifth group is composed of extinct species, hitherto unknown in Europe in the Pleistocene age, such as the straight-tusked elephant, mammoth, the pigmy elephants, woolly and small-nosed rhinoceroses, the Irish elk, pigmy hippopotamus, and the cave bear. The question as to which of these groups the River-drift man belongs must be deferred till we can take a survey of the evidence elsewhere. The early Pleistocene division is characterized by the presence of the temperate and southern species in Britain ; the middle stage by the presence of the arctic but not in full force ; and the late Pleistocene by the abundance of arctic animals, not only in Britain, but on the Continent as far as the Alps and Pyrenees, and the lower valley of the Danube. The first view which we get of the Pleistocene mammalia in this country is offered by the accumulations associated with the buried forest of East Anglia. It extends for more than 40 miles along the shores of Norfolk and Suffolk, from Cromer to Kessingland, passing into the cliff on the one hand and beneath the sea on the other. The forest was mainly composed of sombre Scotch firs and dark clustering yews, relieved in the summer by the lighter tinted foliage of the spruce and the oak, and in the winter by the silvery gleam of the birches, that clustered thickly with the alders in the marshes and stood out from a dense undergrowth of sloes and hazels. Among the animals living in this forest of the North Sea were species which haunted the valleys of the upper Seine at the time, such as the southern elephant, the Etruscan rhinoceros, the deer of Carnutes, extinct horses, and the large extinct beaver. There were in addition the shaggy-maned mammoth, the straight-tusked elephant, and the big-nosed rhinoceros. The stag, the roe, the Irish elk, were in the glades, Sedgwick's deer, with its many-pointed antlers, the verticorn deer, and the gigantic urus. The undergrowth formed a covert for the wild boar, and for beasts of prey, many in species and formidable in numbers. The cave bear, the hugest of its kind, the sabre-toothed lion, the wolf, the fox, and the wolverine. Among the smaller animals were to be noted the musk shrew, the common shrew, and a vole In the trees were squirrels. Under foot the moles raised their hillocks of earth, and from between the lofty fronds of the Osmund royal beavers were to be seen building their lodges, and the hippopotamus as he emerged from the water and disappeared in the forest. Out of the 30 species identified, no less than 17 are living in some part of the world, and we have there obviously the stag in the evolution of mammalian life when the living species were becoming more abundant than the extinct. We may note, too, the absence of arctic animals in this fauna, more particularly of the reindeer. The presence of these animals in Norfolk and Suffolk implies that at this time Britain was united to the Continent, and the presence of fossil species found in France indicates a southern extension of land in the direction of the Straits of Dover. The forest covered a large portion of the area of the North Sea, and in all probability the Atlantic seaboard was then at the 100-fathom line of the west coast of Ireland. No traces of man have as yet been discovered in these deposits, although the large percentage of living species of higher mammalia indicates that the geological clock had struck the hour when he may be looked for. The living species in the forest bed are to be looked upon as an advanced guard of a great migration of Asiatic and African specie, finding their way into North-western Europe, over the plains of Russia, and over barriers of land connecting Northern Africa with Spain by way of Gibraltar, and with Italy by way of Malta and Sicily. In the course of time other living species followed, and the extinct species became more rare. In the deposits, for instance, of the ancient Thames, at Ilford and Grays Thurrock, in Essex, and at Erith and Crayford, in Kent, out of 26 species, six only belong to extinct forms—the new comers, comprising the lion, wild cat, spotted hyena, and otter, the bison, and the musk sheep. A flint flake, discovered by the Rev. Osmund Fisher, at Crayford, a second discovered by Messrs. Cheadle and Woodward at Erith, prove that man was present in the valley of the Thames at this time ; while the more recent discoveries of Mr. Flaxman Spurrell indicate the very spots where the palæolithic hunter made his implements, and proved that he used implements of the River-drift type, so widely distributed over the surface of the earth. The arctic animals at this time were present, but not in full force, in Southern Britain, and the innumerable reindeer which characterize the later deposits of the Pleistocene age had not, so far as we know, taken possession of the valley of the Thames. To what stage in the Pleistocene period are we to refer these traces of the River-drift hunter ? The only answer which I am able to give is that the associated animals are intermediate between the Forest-bed group and that which characterizes the late Pleistocene division in the region extending from the Alps and the Pyrenees as far north as Yorkshire. Nor am I able to form an opinion about their relation to the submergence of Middle or Northern Britain under the waves of the glacial sea. They are quite as likely to be pre- as post- glacial. The rudely chipped implements of the River-drift hunter lie scattered through the late Pleistocene river deposits in Southern and Eastern England in enormous abundance, and as a rule in association with the remains of animals of arctic and of warm habit as well as some or other of the extinct species of reindeer and hippopotamus along with mammoth and woolly rhinoceros. What is their relation to the submergence of the land and the lowness of the temperature which combined together have resulted in the local phenomena known as glacial and inter-glacial ? The geographical change in Northern Europe at the close of the Forest-bed age was very great. The forest of the North Sea sank beneath the waves and Britain was depressed to a depth of no less than 2,300 feet in the Welsh mountains, and was reduced to an archipelago of islands, composed of what are now the higher lands. The area of the English Channel also was depressed, and the " silver streak " was wider than it is now, as is proved by the raised beach at Brighton, at Bracklesham, and elsewhere, which marks the sea line of the largest island of the Archipelago, the Southern Island, as it may be termed, the northern shores of which extended along a line passing from Bristol to London. The northern shore of the Continent at this time extended eastwards from Abbeville north of the Erzgebirge, through Saxony and Poland, into the middle of Russia, Scandinavia being an island from which the glaciers descended into the sea. This geographical change was accompanied by a corresponding change in climate. Glaciers descended from the higher mountains to the sea level, and icebergs, melting as they passed southwards,

deposited their burdens of clay, sand, and erratics, which occupy such a wide area in the portions then submerged of Britain and the Continent. This depression was followed by a re-elevation, by which the British Isles, a part of the Continent, and all the large tract of country within the 100-fathom line again became the feeding-grounds of the late Pleistocene mammalia. An appeal to the animals associated with the River drift implements will not help us to fix the exact relation of man to these changes, because they were in Britain before, as well as after, the submergence, and were living throughout in those parts of Europe which were not submerged. It can only be done in areas where the submergence is clearly defined. At Salisbury, for instance, the River-drift hunter may have lived either before, during, or after the southern counties became an island. When however, he hunted the woolly and leptorhine rhinoceros, the mammoth, and the horse in the neighbourhood of Brighton, he looked down upon a broad expanse of sea, in the spring flecked with small icebergs such as those which dropped their burdens in Bracklesham Bay. At Abbeville, too, he hunted the mammoth, reindeer, and horse down to the mouth of the Somme on the shore of the glacial sea. The evidence is equally clear that the River-drift hunter followed the chase in Britain after it had emerged from beneath the waters of the glacial sea, from the fact that the river deposits in which his implements occur either rest upon the glacial clays, or are composed of fragments derived from them, as in the oft-quoted cases of Hoxne and Bedford. Further, it is very probable that he may have wandered close up to the edges of the glaciers then covering the higher hills of Wales and the Pennine chain. The severity of the climate in winter at this time in Britain is proved, not merely by the presence of the arctic animals, but by the numerous ice-borne blocks in the river gravels dropped in the spring after the break-up of the frosts. The River-drift man is proved, by the implements which he left behind, to have wandered over the whole of France, and to have hunted the same animals in the valley of the Loire and the Garonne, as in the valley of the Thames. In the Iberian peninsula he was a contemporary of the African elephant, the mammoth, and the straight tusked elephant, and he occupied the neighbourhood both of Madrid and Lisbon. He also ranged over Italy, leaving traces of his presence in the Abruzzo, and in Greece he was a contemporary of the extinct pigmy hippopotamus (*H. Pentlandi*.) South of the Mediterranean his implements have been met with in Oran, and near Kolea in Algeria and in Egypt in several localities. At Luxor they have been discovered by General Pitt-Rivers in the breccia, out of which are hewn the tombs of the kings. In Palestine they have been obtained by the Abbé Richard between Mount Tabor and the sea of Tiberias, and by Mr. Stopes between Jerusalem and Bethlehem. Throughout this wide area the implements, for the most part of flint or of quartzite, are of the same rude types, and there is no difference to be noted between the *haches* found in the caves of Creswell in Derbyshire, and those of Thebes, or between those of the valley of the Somme and those of Palestine. Nor is our survey yet ended. The researches of Foote, King, Medlicott, Hacket, and Ball, establish the fact that the River-drift hunter ranged over the Indian peninsula from Madras as far north as the valley of the Nerbudda. Here we find him forming part of a fauna in which there are species now living in India, such as the Indian rhinoceros and the arnee, and extinct types of oxen and elephants. There were two extinct hippopotami in the rivers, and living gavials, turtles, and tortoises. It is plain, therefore, that at this time the fauna of India stood in the same relation to the present fauna as the European fauna of the late Pleistocene does to that now living in Europe. In both there was a familiar association of extinct and living forms, from both the genus *Hippopotamus* has disappeared in the lapse of time, and in both man forms the central figure. We are led from the region of tropical India to the banks of the Delaware, in New Jersey, by the recent discoveries of Dr. C. C. Abbott, in the neighbourhood of Trenton. After a study of his collections in the Peabody Museum in Cambridge, Massachusetts, I have had the opportunity of examining all the specimens found up to that time, and of visiting the locality in company with Dr. Abbott and Professors Haynes and Lewis. The implements are of the same type as those of the river gravels of Europe, and occur under exactly the same conditions as those of France and Britain. They are found in a plateau of river gravel forming a terrace overlooking the river, and composed of materials washed down from the old terminal moraine which strikes across the State of New Jersey to the westward. The large blocks of stone and the general character of the gravel point out that during the time of its accumulation there were ice-rafts floating down the Delaware in the spring, as in the Thames, the Seine, and the Somme. According to Professor Lewis it was formed during the time when the glacier of the Delaware was retreating, (" late glacial "), or at a later period (" post-glacial "). The physical evidence is clear that it belongs to the same age as deposits with similar remains in Britain. The animal remains also point to the same conclusion. A tusk of mastodon is in Dr. Cooke's collection at Brunswick, New Jersey, obtained from the gravel, and Dr. Abbott records the tooth of a reindeer and the bones of a bison from Trenton. Here, too, living and extinct species are found side by side. Thus in our survey of the group of animals surrounding man when he first appeared in Europe, India, and North America, we see that in all three regions, so widely removed from each other, the animal life was in the same stage of evolution, and " the old order" was yielding "place unto the new." The River-drift man is proved by his surroundings to belong to the Pleistocene age in all three. The evidence of Palæolithic man in South Africa seems to me unsatisfactory, because as yet the age of the deposits in which the implements are found has not been decided. It remains now for us to sum up the results of this inquiry, in which we have been led very far afield. The identity of the implements of the River-drift hunter proves that he was in the same rude state of civilization, if it can be called civilization, in the old and new worlds, when the hands of the geological clock pointed to the same hour. It is not a little strange that his mode of life should have been the same in the forests to the north and south of the Mediterranean, in Palestine, in the tropical forests of India, and on the western shores of the Atlantic. The hunter of the reindeer in the valley of the Delaware was to all intents and purposes the same sort of savage as the hunter of the reindeer on the banks of the Wiley or of the Solent. It does not, however, follow that this identity of implements implies that the same race of men were spread over this vast tract. It points rather to a primeval condition of savagery from which mankind has emerged in the long ages which separate it from our own time. It may further be inferred, from his widespread range, that the River-drift man (assuming that mankingd sprang from one centre) must have inhabited the earth for a long time, and that his dispersal took place before the glacial submergence and the lowering of the temperature in Northern Europe, Asia, and America. It is not reasonable to suppose that the Straits of Behring would have offered a free passage, either to the River-drift man from Asia to America, or to American animals from America to Europe, or *vice versâ*, while there was a vast barrier of ice or of sea, or of both, in the high northern latitudes. I therefore feel inclined to view the River-drift man as having invaded Europe in pre-glacial time along with the other living species which then appeared. The evidence, as I have already pointed out, is conclusive that he was also glacial and post-glacial. In all probability the birthplace of man was in a warm if not a tropical region of Asia, in " a garden of Eden " and from this the River-drift man found his way into those regions where his implements occur. In India he was a member of a tropical fauna, and his distribution in Europe and along the shores of the Mediterranean prove him to have belonged either to the temperate or the southern fauna in those regions. It will naturally be asked, to what race can the River-drift man

be referred? The question, in my opinion, cannot be answered in the present stage of the inquiry, because the few fragments of human bones discovered along with the implements are too imperfect to afford any clue. Nor can we measure the interval in terms of years which separates the River-drift man from the present day, either by assuming that the glacial period was due to astronomical causes, and then proceeding to calculate the time necessary for them to produce their result, or by an appeal to the erosion of valleys or the retrocession of waterfalls. The interval must, however, have been very great to allow of the changes in geography and climate, and the distribution of animals which has taken place—the succession of races, and the development of civilization before history began. Standing before the rock-hewn tombs of the kings at Luxor, we may realize the impossibility of fixing the time when the River-drift hunter lived in the site of ancient Thebes, or of measuring the lapse of time between his days and the splendour of the civilization of Egypt. In this inquiry, which is all too long, I fear, for my audience, and all too short, I know, for my subject, I have purposely omitted all reference to the successor of the River-drift man in Europe—the Cave man, who was in a higher stage of the hunter civilization. In the course of my remarks you will have seen that the story told by the rudely chipped implements found at our very door in this place, forms a part of the wider story of the first appearance of man, and of his distribution on the earth—a story which is to my mind not unfitting as an introduction to the work of the Anthropological Section at this meeting of the British Association.

PROFESSOR J. EVANS moved, and ADMIRAL OMMANEY seconded, a vote of thanks to the President, who, in responding, appealed to the members to support the Anthropological Institute.

GEOGRAPHY.

In the evening Sir W. Thomson delivered a discourse on the tides at a general meeting held in the Skating Rink. The wall behind the platform was covered with large diagrams.

The learned PROFESSOR showed his simplified form of tide guage. He explained his tidal harmonic analyzer by diagrams, and his tide predictor by a working instrument of the newest type. These instruments serve to predict the tide for any port for which sufficient *data* have been obtained by the harmonic analysis, and by gauge records for at least a year. The magnitude of each tidal constituent as determined by the harmonic analysis is mechanically realized by means of cranks turning in the proper periods for the several constituents. The chief of these is the lunar semi-diurnal tide, whose period is 12 lunar hours. The next in importance is the solar semi-diurnal tide, whose period is 12 ordinary hours. There are other constituents whose periods are approximately 24 hours, which are of great importance in the India and China seas, and in the Pacific, though of comparatively small importance on the Atlantic coast of Europe. When the machine is properly set all that is necessary to produce on paper a curve representing the height of the tide for every moment of the year is to turn a handle and in about 20 minutes the tide of a whole year can be predicted. Sir W. Thomson, in the course of his address, announced that the Committee of Recommendation had determined to recommend the continuance of the tidal harmonic analysis with a view to a more accurate valuation of the long period tides than has been hitherto obtained. The most interesting in some theoretical aspects of this prospective work is the determination of the lunar fortnightly and electric tides, by which it is hoped to get an estimate of their rigidity as a whole. From calculations which Mr. Darwin has already made it seems that the earth's rigidity may be about the same as that of an ideal globe of homogenous steel of the same dimensions. A much more accurate valuation is expected from the labours of the committee. The solar semi-annual and annual tides, which are of high importance, will also be investigated. The learned Professor described the difficulty he felt in answering the question, What is meant by the tide? They were motions of water on the earth due to the attraction of sun and moon. There were places where lunar tides vanished altogether, and where there was only a rise and a fall once in the solar day, or twice in the solar day. There are places where the water rises and falls according to the sun, and not according to the moon, but such rises and falls may depend on other causes than those which we now know to be essential to the lunar tide. We have winds depending on the sun and changes of temperature depending on the sun. The barometer has regular diurnal periods of change. It is a little higher in the forenoon somewhere about 10 o'clock, a little higher again about 10 o'clock at night, a little lower about 4 in the afternoon and about 4 in the morning. We must be ready then to expect rises and falls in the water depending on the heating power of the sun, either directly or indirectly. It is necessary to separate these motions of the waters from others. He had to explain, and in doing this to consider variations of sea level at different times of the year, and to remember the existence of monsoons and trade winds. We have certain regular annual rises and falls of water depending on the winds, which change with the seasons of the year. These he excluded, but one very interesting point in the theory of tides proper is a solar annual tide and again a solar semi-annual tide. The earth being nearer to the sun in January than in July, the action of the sun will operate more powerfully on the waters of the earth in our winter than in our summer. We wish to find by observation how much this effect of the sun's attraction is. The results of observation are utterly inexplicable on the theory of gravitation. We are forced then to look to the meteorological influence—the great discrepancies between the result of observation upon the average sea level from day to day throughout the year, and what we should expect from a purely gravitation theory of the rise and fall of the sea. But meteorological rises and falls he excluded from the denomination of tides; they were disturbing influences baffling inquiry. They did not affect the lunar influence. But did not the weather change with the moon? Careful observations with the barometer, thermometer, and anemometer at the times of new moon, full moon, and half-moon have failed to establish any relation whatever, and have proved on the contrary that if there is any dependence of the weather on the phases of the moon it is only to a degree quite imperceptible to ordinary observation. The discoverer of gravitation failed to reap the fruit of his discovery in explaining rises and falls of the waters of the sea; it was reserved to Newton to explain them on dynamical principles, and he left his successors to work out his theory of tide-generating force. This the learned Professor fully explained and applied. Conformably with Newton's view the theory of the tides was that the mutual action between the moon and the earth is not a force between two distinct beings, as it were, not individual forces between two individuals, but a compound of the forces between every particle of the moon and every particle of the earth. In considering the attraction of the moon on a particle on the earth's surface the law of masses must be worked, the different parts of the earth at different distances from the moon. This nearly completed the theory of tide-generating force. The first rough view of the case was that the moon attracted the waters of the earth towards herself, and heaped them up on this side of the earth. That was not so; it would be so if the earth and the moon were stuck on the two ends of a strong bar and put at rest in space, but there was no such rigid bar. Why did not the moon fall towards the earth? According to Newton's theory, the

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moon is always doing so. Newton compared the fall of the moon with the fall of a stone at the earth's surface. Why did it not come down? Could it be always falling and never come down. That seemed impossible. It was always falling, but it had a motion perpendicular to the direction in which it was falling, and the result of the continual falling was simply a change of direction of its motion. That was simply the dynamical theory of centrifugal force. If a stone were thrown horizontally it descended in a parabola, the stone falling away from the line in which it was thrown; so it was with the moon. It was seen always to be falling from the present direction and from the further altered line, and so it might be always falling and never coming down. The parts of the moon nearest to the earth were falling most rapidly, the parts further from the earth least rapidly. In this circle each was falling away; but while the moon was always falling towards the earth, the earth was always falling towards the moon, and each preserved a constant distance, or very nearly a constant distance, from the common centre of gravity of the two. The earth experienced according to its mass a force depending on the average distance. The result clearly was, then, a tendency towards the moon and from the moon, and thus, in a necessarily imperfect manner, he had explained to them how it was that the waters were not heaped upon the side next the moon, but were drawn up towards the moon, and fell away from the moon, so as to tend to form an oval figure. The result of calculations founded upon those principles might be illustrated by an exceedingly delicate spring balance having a piece of lead, iron, or brass upon it. It would be found that when the moon was overhead the weight would be diminished by a six-millionth part Again, when the moon was under foot at lunar midnight there would be an apparently increased heaviness. Thus the moon's attraction made a variation in the apparent heaviness of bodies amounting to one six-millionth part above and below the mean value. The same result might be attained by a plummet which would be found to be drawn aside by one 12-millionth part of its length, when the moon was off the vertical. Such observations gave the answer to very important questions regarding the condition of the earth. When the moon was in quarters, as it was called, its influence was greater than that of the sun. Why? Because it was 400 times as near, though enormously less massive. Calculating the moon's mass and the sun's mass, the lunar influence was 2 1-10th times that of the sun in respect of solar tides. The lunar tide generating force was thus more than double the solar. The sun and moon acted conjointly, and when they produced opposite effects the tide generating force was their difference. Another question arose, Would not the whole earth yield under the influence of these forces? Would not the sixth millionth part of the whole force of gravity operating in different directions squeeze the earth out of shape? It would be so were it not for the enormous rigidity of the earth. That consideration sufficiently disposed of the theory that the earth was a mere crust 40 or 50 miles thick and filled with molten lava. The inference was that the earth had, on the whole, a rigidity greater than that of a globe of steel of the same dimensions. The phenomena of underground temperature which led geologists to that assumption had another explanation. Recurring to the tides, Sir W. Thomson observed that the results of the theory which he had been setting forth coincided with the actual observation of the tides. Tides were considerably greater when the moon was nearest the earth and less when she was furthest from the earth. The variations on the tides due to the difference of distance of the moon from the earthwere called lunar ecliptic tides, the expression "tide" being used for any of the constituents of the mean action. There was the mean solar tide, in the first place, and the mean lunar tide in the second. The sum of the effects of the sun and the moon was a compound luni-solar tide. To take an illustration from the wind there was what he might call spring and neap sounds, ultimately loud and soft. When the two produced their effect together there was a spring tide, as it were of sound; when the two were going in opposite directions there was a neap or scanty effect of sound. If the two influences—that of the sun and that of the moon—were equally loud, the alternation would be from loud sound to silence; but if one was twice the amplitude of the other we should have a phenomenon comparable with the spring and neap tides. The alternation would not be from loudest to least loud, but from loudest to silence. He might then mention the important experiments carried on by Mr. George and Mr. Horace Darwin in a pendulum so delicately hung as to be sensible of the very smallest effect. They found incessant variations, which went to prove that the palpitation of the earth was traceable to local disturbances, such as the traffic of a town. These palpitations were in effect minute and unceasing earthquake tremors, which completely masked the delicate regular periodical variation which their pendulum would have shown had the earth been worthy of its name of *terra firma*. The lecturer sat down amid much applause.

THE TIDES.

TO THE EDITOR OF THE TIMES.

Sir,—The word "electric" has been substituted for "elliptic," an error little to be wondered at, in the telegraphic report of my lecture on the tides which appeared in *The Times* of Saturday. I shall be obliged by your noting the correction; for "lunar fortnightly and electric tides" read "lunar fortnightly declinational and monthly elliptic tides."

I may add, by way of explanation, that the "fortnightly declinational tide" is a slight heaping up of the water round the equator and lowering at the poles once a fortnight when the moon is crossing the earth's equator, alternating with lowering round the equator and heaping up at the poles when she attains her extreme of north or south declination, and that the "monthly elliptic tide" is a similar variation in the water level, due to the moon being alternately nearer to and farther from the earth by a difference of 26,000 miles (or a little more than one-tenth of her average distance) in the monthly period of revolution in her elliptic orbit.

The chief interest which these fortnightly and monthly tides have for us at present is that because of the longness of their periods they are nearly free from the wave-action described in your article as complicating the theory of the lunar and solar diurnal and lunar and solar semi-diurnal tides, and, therefore, in the present state of science, while it is impossible to compare the observed with the theoretical magnitudes of the diurnal and semi-diurnal tides, the comparison is practicable for the fortnightly and monthly tides. It is by this comparison that Mr. George Darwin has arrived at the provisional estimate of the earth's rigidity, referred to in your article, according to which the earth yields elastically about as much to the shape-changeing influence of the lunar attraction as would a homogeneous globe of steel of the same dimensions. This estimate is, however, given with much reservation, and Mr. Darwin is continuing the investigation by which we may expect, after great labour in reducing tidal observations made in all seas during the last 30 years, to obtain sure knowledge regarding the earth's rigidity as a whole.

I remain, your obedient servant,

WILLIAM THOMSON.

British Association, Southampton, August 28.

fessor Langley their indebtedness for his communication, and a vote of thanks was passed to him.

amo machine which he exhibited on Friday was by Baron de Meritens, obtained from Paris.

GEOLOGY.

This section was again presided over by Mr. R. Meridge.

PROFESSOR J. PRESTWICH read a paper on the equivalents in England of the Sables de Bracheux. There was *primâ facie* evidence that the Woolwich series of the Sables de Bracheux formed one zone, though they had been accumulated under different conditions. What was now needed was a careful examination of the fossils in the new light thrown upon them by the researches of French and German geologists; and from the more freshwater condition prevailing in this country they could not hope to find the rich marine fauna discovered abroad, but much might yet be done in adding to the species in East Kent.

Mr. E. TAWNEY, in the course of a paper on the outcrop of the Brockenhurst beds, near Lyndhurst, announced the discovery of the fresh water Upper Headon beds in the Roydon brickyard by Mr. H. Keeping.

Dr. CHARLES RICKETTS, in a paper on subsidence as the effect of accumulation, stated that the carboniferous series above the limestone afforded most satisfactory evidence that the amount of subsidence coincided with that of deposition, the surface of the limestone and the beds of coal furnishing sufficiently correct base lines for determining the question. The cause of this was the weight of the accumulated material pressing down the crust of the earth and forcing out a fluid sub-stratum. Elevation followed the removal of pressure. Concurrent phenomena of accumulation and subsidence and their converse demanded serious and careful investigation, especially as in them might be found the great moving power upon which depended the greater number of geological changes.

Mr. J. S. GARDNER read a paper on the same subject, in which he arrived at the same conclusions as those expressed by Dr. Ricketts.

The section then adjourned.

MATHEMATICAL AND PHYSICAL SCIENCE.

This section met under the presidency of Lord Rayleigh.

PROFESSOR EVERETT presented the report of the council of the Committee on Underground Temperature. In the statement of the work done during the year it was mentioned that the first time there had been obtained readings of the thermometer below the sea was at the Croft Pit, near Whitehaven. A summary was also presented of the observations made in 14 previous years. The results of these went to show that the increase of temperature varied in its rate of increase downwards from one degree Fahrenheit per 130ft. at the Bootle Waterworks, Liverpool, 1,392ft. deep, to 1deg. Fahrenheit every 64ft. At the Slitt Mine, Weardale, Northumberland, depth 660ft., the mean increase of temperature per foot is found to be ·01563, or about 1-64th of a square per foot, or 1deg. Fahrenheit in 64ft. This was a lower radius than had been generally assumed, but it had been fairly deduced from the evidence contained in the committee's reports.

Reference was made to the experiments on the conductivity of a variety of rocks made by Sir W. Thomson and Professor Herschell to ascertain the escape of heat. The results gave for the flow of heat through a square centimètre of the earth's surface in a year 41·4 Gramme degrees.

In a paper by PROFESSOR SCHWEDOFE on the origin of hail, some extraordinary instances were given of the falling of large hailstones. Mention was made of one 26 inches in diameter, and of another which was large as an elephant and took three days to melt. The writer advanced novel and startling views on the formation of hailstones. He contended that hail, exhibiting a regular

Christendom, which bestows the laurels of conquerors only on the deliverers and restorers of oppressed nations. The

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on our globe suggest naturally the belief of their being recently dried-up sea-bottoms, an impression enhanced by the presence of salt efflorescences and shells of still existing molluscs. It is, therefore, not surprising that the two largest deserts of the world—namely, the Sahara in Africa and the Gobi in Asia, have been, or are even sometimes now, considered as representatives of recently raised-up sea-basins. But the latest explorations tend to prove the contrary, at least as far as the Sahara is concerned, and the little we know of the great Asiatic deserts seem to lead to a similar result. His intention, therefore, was to submit a few considerations on the geological age of the following three deserts—the Sahara (the Libyan desert included), the deserts situated in Turkestan between the Yaxartes and the Caspian Sea, and the Gobi of Central Asia. By the name of Sahara, he meant only the more or less explored regions, adding that what we know of them is most probably applicable to the unknown or little known tracts, the more so since they are almost exclusively composed of sand accumulation, the origin and formation of which we are able to study in the Algerian and Libyan deserts. Since Algeria (which he visited two years ago) has been annexed to France, our knowledge of this country has made very rapid progress, so that the ideas which were formerly entertained of the Saharian desert have at present undergone an entire change. It has been ascertained that those sand deposits, which hide completely the solid framework of the country, are comparatively local phenomena, and that in the greatest part of the Sahara-Libyan Desert the subjacent strata are perfectly conspicuous, either by cropping out through the superficial deposits, or by rising as mountains and hills, which almost all belong to the cretaceous formation, and cover an immense tract of this part of Africa. The regions of Sahara not occupied by cretaceous mountains and hills consist in large surfaces, more or less horizontal, composed either of loose sands or diluvial (quarternary) deposits. Those last seem to have formed so many gulfs which, after the emergence of the cretaceous masses, remained covered by the sea, and were filled up in a comparatively recent epoch, for they contain shells of molluscs belonging to still living species. As for the rocks which underlie the sandy deposits, what we know of them is due to the numerous wells sunk by the Frenchmen all along the northern boundaries of the Sahara, particularly in the province of Constantine. The learned engineer, M. Jus, who during 20 years has directed those admirable works, ranges in the pliocene formation the different rocks (limestone, sandstone, marls, gypsum, &c.), crossed by the soundings, as well as the impermeable water-bearing clay which forms the bottoms of the wells. This clay presents the most astonishing discrepancies in its level, being sometimes many hundred feet under the surface of the soil, and sometimes approaching it very near. So, for instance, in the region Ued-Rir, two wells named Aïn-Kerma and Un-el-Thiur, are distant one from the other about 40 miles, and still the depth of the first is only 44ft., and that of the second 321ft. In the country of Honda, the well named Nemechdib is 10ft. deep, whereas the well Barika, almost close to it, is 117ft. Again, at Batna and at Biskra, the soundings have been pushed through more than 540ft., without reaching any subterranean water, so that the works were abandoned, most unfortunately for those two cities, which are suffering from the want of good water. The same thing happened at Tahin-Bacu, where at the depth of 300ft. no water could be reached. We must consequently admit that the pliocene impermeable clay, before having been covered

crystalline form, and not unfrequently falling from all points of the atmosphere, was not of atmospheric origin, generated from moisture suddenly in aerial storms, but that the stones came from ultra-terrestrial regions, and were, in short, a species of meteor of cosmic origin. Sometimes meteors were an accompaniment of hailstorms.

PROFESSOR S. P. THOMPSON, who had made a translation of Professor Schwedoff's paper, also read a communication of his own, criticizing the theory and supporting it as worthy of investigation, and the only one sufficiently accounting for the phenomena and the variety of forms in hailstones. He had endeavoured to test the theory of hail showers being periodic and associated with meteor showers, the dates of which are fixed, but Professor Herschell's replies were not reassuring.

SIR W. THOMSON thought Professor Schwedoff's theory might be put forward as a joke, but could not be accepted as a serious proposition. A particle of Professor Schwedoff's meteoric hail falling through the atmosphere with meteoric velocity would perform 13,000 times as much work as would raise water one degree centigrade, and if that would not melt the hailstones he did not know what would. (Laughter.)

Objections were made to the theory by Dr. GLADSTONE, Mr. MANN, and others, and one gentleman expressed opinions somewhat in favour of it.

At the close of the discussion SIR W. THOMSON reiterated his belief in the possibility of germs reaching the earth in meteors.

PROFESSOR SCHUSTER read the report of the Committee on Meteoric Dust. M. Tissandier, he stated, had found in meteoric dust small particles of iron in a perfectly spherical form, and some dust sent to him from the Sahara desert contained similar particles, which must have been at one time in a state of fusion. The particles also contained small quantities of cobalt and nickel. The reason why these particles are unoxidized was probably accounted for by the absence of oxygen in the upper regions of the atmosphere.

CAPTAIN ABNEY read a paper on the light of the sky at high altitudes, based upon observations made in the Alps, on the Riffel, at a height of 8,500 feet. His investigations proved that in high altitudes the light of the sky diminishes very much, so as to make photography difficult, and that it is only a tenth or a twentieth of that which is found on the surface of the earth. There was a remarkable absence of the rain-band spectrum. On the Riffel he only saw it once, and that was during a shower. The solar spectrum was the same on the Riffel as in London. He did not believe that aqueous vapour was present in the upper regions, at all events in the form in which it exists below. In the red part of the spectrum he found that the benzine and alcohol which had been found to exist in the atmosphere actually increased in strength in the higher regions, and he could only suppose that benzine and alcohol are not of terrestrial formation, but come to us from space.

The CHAIRMAN observed that those who doubted the diffusion of alcohol throughout the universe might be glad of an opportunity to refute it.

Dr. GLAISHER said he had never failed up to five miles in getting a deposition of vapour, and there was no part of the earth's atmospbere probably in which there was no aqueous vapour. At a height of seven miles in a balloon he had seen cirrus clouds still higher, and there was a great difference between the state of the atmosphere in a free balloon and on a mountain side.

PROFESSOR S. P. LANGLEY, of the United States, in a paper on the distribution of energy in the solar spectrum, stated that he had investigated the infra-red spectrum at a height of 13,000ft. in a very dry region, and found that it extends very much further than had been mapped heretofore. The wave lengths of the visible part of the red end of the spectrum are only one-fourth of those in the infra-spectrum, so that three-fourths of the energy were invisible. His observations proved the existence of great gaps in the spectrum, and he was inclined to support Abney's conclusions on the existence of benzine and alcohol in space.

[illegible] and Dr SIEMENS expressed to Pro-

first by different rocks, and finally by sand, has been exposed to some powerful agents which caused its surface to undergo the most varied changes, so as to produce more or less deep excavations in some places, and to leave others (often quite near the first) in the shape of high conical masses, with hollowed basin-like tops. Another curious phenomenon which the sinking of the Algerian wells has revealed is the discovery of fishes, crabs, and fresh-water molluscs, at considerable depths. This interesting fact has been ascertained in the artesian well called Mezer, situated in the desert of Ued-Rir, quite near one of the brackish lakes (Chott or Sobka of the Arabs), which are so numerous in the region between Biskra and Tuggurt. When the sounding-line brought those creatures from a depth of 230ft., they were perfectly alive, and M. Jus even boiled a crab, and found it of excellent taste. The fishes were covered with sand and mud, but the shell of the crabs was quite bright and glittering, a proof that they inhabited pure water. M. Jus showed him all those animals, preserved in spirit, and adorning his rich collections of Batna. The wells constructed by the French engineers numbered at his last visit (1879) in the province of Constantine alone (and there are many elsewhere) more than 155; and as the works begun in 1856 have never been interrupted, and are rapidly advancing into the interior of the desert, the time may not be far off when all those regions, now so barren and so dry, will be copiously irrigated, an advantage which they certainly enjoyed once, seeing that the numerous oases spread over the Sahara and the Libyan desert contain many remnants of Greek and Roman constructions; a proof that once they were populated and consequently provided with water. This was most probably got by means of the same so-called artesian wells, which our modern times presume to consider as their own invention, whereas they were undoubtedly known to the ancients, and were even constructed in the very Desert of Sahara, as it is ascertained by Olympiodoros, a historian whose writings have perished, with the exception of a few fragments quoted by the learned Greek patriarch Photius, one of which contains the following important passage:—"In the oasis of Sahara the inhabitants used to scoop out excavations 100ft. and 250ft. deep, from which jets of pure water rise in high columns." But it was not in the Sahara alone that the ancients sunk artesian wells, they multiplied them almost everywhere; and to those artificial irrigations was due the once flourishing state of the plain now so arid, which is covered by the ruins of Balbek (the ancient *Heliopolis*) and Palmyra. The English travellers, Wood and Darwins, discovered under those heaps of ruins numerous traces of ancient artesian wells; and such traces are so frequent in the Arabian desert crossed by the Hebrews under the leadership of Moses, that several modern authors, among others M. Joberd, are of opinion that the miracle attributed to the celebrated Hebrew legislator of having called forth a jet of water from a rock he struck with his staff may be explained by the presence of an artesian well previously known to him. Since the invasion of the destructive Ottoman race all those monuments of ancient civilisation have disappeared, and it is the glorious task of France to make them revive once more in Algeria. Her exertions have been crowned with success, and, without mentioning any of the numerous improvements which this country has received, and which really have transformed it in a most marvellous way, the creation of the admirable network of artesian wells established on a line of about 500 miles of length, and penetrating every day deeper in the desert, would be quite sufficient to secure to France a prominent place in the history of civilisation, infinitely superior to that occupied by her most splendid conquerors. No doubt the annexation of Algeria is one of those events which philosophers and philanthropists must hail with joy; to them it matters very little if countries extorted from the iron hands of barbarity and restored to civilisation may be called Cyprus, Algiers, Tunis, Herat, Alexandria, &c., or if the resurrection of such countries is promoted by a Latin, German, or Slavonian race; all those petty national distinctions and susceptibilities vanish before the eternal tribunal of [illegible]

CAPTAIN ABNEY and DR. SIEMENS expressed to Professor Langley their indebtedness for his communication, and a vote of thanks was passed to him.

PROFESSOR BALFOUR STEWART read a paper on a comparison of magnetical and meteorological weather.

CHEMICAL SCIENCE.

Professor Liveing again presided.

The PRESIDENT read a paper on the reversal of the spectral lines of metals. A great number of observations made and the methods employed were minutely described. The president said their object in investigating the reversals of the lines of terrestrial elements had been to trace the parallel between the conditions of the elements as they exist in the sun and those in which we can place them on earth, with a view to illustrate more fully the problems of solar chemistry. A knowledge of the reversible lines might also help us to distinguish those rays which are directly due to the variations communicated to the luminiferous ether by the molecules themselves from those which are produced by superposition of waves. It was not enough to merely interpose the vapour of the metal to be examined between the slit of the spectroscope and some bright light, because the relative strength of the emissive and absorptive powers of a vapour for particular rays often varies considerably where the temperature is changed. Other less general modes were also described, as also the results obtained of metals submitted to high temperature by means of the electric arc.

A paper was read by PROFESSOR HUNTINGTON on the electric furnace and experiments made by Dr. C. W. Siemens and himself. He said that the great advantage which the electric furnace possessed was that the temperature attainable was practically unlimited, plumbago crucibles had been used in the experiments, the clay crucibles fusing in a few minutes. Among other experiments made was the fusing of wrought iron. Six pounds was kept under the action of the arc for 20 minutes, and was rendered quite unforgeable. It had been supposed that this result when previously obtained was due to the presence of oxygen, but in this experiment it was clear it was not due to oxygen. Steel fused in the furnace had a very spongy and crystalline fracture. White iron fused with coke remained unaltered, and they found that coke was not a satisfactory material for causing carbonization. One pound of copper was put into the furnace with a view to ascertain whether carbon could be introduced into copper at any temperature. On opening the furnace only 900 grains of copper remained, the rest having been volatilized.

Dr. SIEMENS was not prepared to say whether Professor Huntington was right in saying that the temperature to be obtained by the electric furnace was unlimited, but they certainly did not know where the limit existed. They could obtain intense heats under very advantageous circumstances, inasmuch as the crucible was chemically the coolest part of the arrangement and the metal or other substance to be acted upon was subjected to the highest temperature. The experiments they had made amounted to a promise of interesting results in certain practical directions. The furnace had shown its wonderful capacity for converting substances into their natural or gaseous condition, and he believed it would be found extremely useful to chemists and metallurgists.

GEOGRAPHY.

In this section Sir R. Temple presided, and was supported by the president, Dr. Siemens. There was a large attendance during the two first communications.

Mr. P. DE TCHIHATCHEF, member of the Academies of Sciences of Paris, Berlin, Munich, St. Petersburg, &c., read a paper on "The Deserts of Africa and Asia." He said.—The large sandy surfaces which occupy immense tracts [illegible] Christendom, which bestows the laurels of conqueror only on the deliverers and restorers of oppressed nations. The artesian wells of Algeria suggest still many other scientific considerations, but I am afraid to trespass too much upon your valuable time. He would limit himself to a few words upon the probable origin of the subterranean waters which feed these wells, and of the enormous sand accumulations which cover the deserts. In the Libyan desert, which is only the eastern continuation of the Sahara, Dr. Zittel is of opinoin that between the oasis of Siwah (the seat of the famous temple of Jupiter Ammon, visited by Alexander the Great) and the Nile there is a large subterranean depression excavated in the impermeable clays and marls which compose the underground of the great part of the desert; the strata of the northern side of the depression dip to the south. Such natural subterranean water reservoir may exist equally in the Sahara, but so far nothing of that kind has been yet ascertained there, so that in the present state of our knowledge we are reduced to the supposition that the large subterranean watersheds are chiefly produced by the rains in the mountainous country forming the northern boundary of the Sahara, and among which the Aurès range plays an important part. Most probably the water furnished by those mountains (for in the Sahara itself rain is very rare) ooze through the different open crevices, joints, vaults, &c., and penetrate into the impermeable argillaceous strata. At any rate, the above-mentioned presence of fishes and crabs in the well of Mezer prove that a communication between the atmosphere and the subterranean waters must exist, otherwise no aminal (at least of the higher classes) could live without air. The last, but not the least, important geological element of the Sahara-Libyan desert, is the sand which contains no organic remnant, except at places where it is intermingled with underlying older diluvial deposits. Those enormous sandy accumulations doubtless are not of marine but of subærial origin. Still their vast proportions render it difficult to decide the question whence they came and how they have been formed. Dr. Zittel, to whom we owe valuable observations on the Libyan desert, thinks that those accumulations of sand are on too large a scale to be explained by Baron Richthofen's theory of the formation of the Löss in China, though he concedes to the action of winds an important part in the African deserts also. In consequence, Dr. Zittel admits that those sands have been transported, not only by atmospheric movements, but also by water-floods. And as the desert sands consist of quartz which could not have been furnished by the limestone and marly rocks prevailing in the desert, he supposes that it may have been derived from the so-called Nubian sandstone which composes the mountainous range situated in the southern part of the Libyan desert. Dr. Zittel thinks that the disintegration of this sandstone has been produced by water, the erosive power of which has left in the desert so many conspicuous traces, as, for instance, the high and steep sides of the oasis, the deep impressions, and particularly the isolated rocks he calls "insular mountains," considering them as the scattered remnants of once connected masses, so that, according to the German geologist, such gigantic denudations and oblations can only be the work of violent freshwater floods coming from the south and carrying the large quantity of petrified tree-trunks so frequent in the Libyan desert. Several objections arise against this theory, at least as far as the Sahara is concerned, the southern boundaries of which are not composed, as in the Libyan desert, of sandstone, but chiefly of limestone, marls, and clay, and consequently could not furnish the quartz grains yielded by the Nubian sandstone. Moreover, the violent freshwater floods proceeding from the south, which, according to Dr. Zittel, caused in the Libyan desert the above-mentioned denudations and erosions, suppose an extraordinary change in the climate of that

Fiscner [illegible] elephant excludes the camel, and *vice versâ*, so that in the [illegible] of the Nile where the Turkestan deserts, compared [illegible] must offer great difference, but here also this difference is [illegible] than it ought to be, taking particularly

country ; for, however Dr. Zittel admits that in Egypt, and consequently in the neighbouring countries, the atmospheric humidity was, at a comparatively recent epoch, much greater than now, such powerful floods could only be produced by rains unknown in the most rainy regions of our globe. At all events, M. Rolland thinks that, as far as the Sahara is concerned, the quaternary and alluvial sandstones which the desert contains are sufficient for the production of sand-accumulations, which, according to him, are derived from actual atmospheric agencies—namely, first, by disintegration, and then by the winds scattering the grains over the surface of the desert. The hypothesis of the subaerial origin of those sands receives a strong support, as well from the facts ascertained in reference to the large distances to which such sands may be carried as from the comparative study of atmospheric sands fallen in different countries. Now, even in the twelfth century the celebrated Arab geographer Edrisi spoke with astonishment of the clouds of red dust and dry fog which frequently obscured the sky of the Atlantic between the Green Cape and South America, a tract which Edrisi qualified for that reason as the Dark Sea (*Bar el-Mecdolin*), and, after him, the authors of the middle ages as *Mare tenebrosum*. This phenomenon, which has occupied for a long time the physicists and naturalists, whose opinions on that account were as contradictory as unsatisfactory, has been recently studied by Dr. Gustav Helleman. The critical analysis of these numerous materials has suggested to the Prussian philosopher, on the origin of this curious phenomenon, conclusions thoroughly opposite to those hitherto deduced by all his predecessors, including the learned Ehrenberg. These conclusions are—that the above mentioned clouds of dust proceed from the Western Sahara, and even partly from the French Sahara, for Dr. Helleman informs us that, having consulted the meteorological registers kept in the French stations of Laguat, Tuggurt, Uargla, &c., he ascertained numerous days marked in those registers as particularly characterized by sirocco winds, accompanied by an atmosphere rendered dusty by sand. Another observation in reference to the composition of sands transported by winds from various countries yielded equally remarkable results to Gustav Tissandier. Examining microscopically the dust which fell on the 9th of October, 1879, at Boulogne-sur-Mer, and comparing it with the sand of the Sahara, he found that both were exactly of the same composition, only the last was of a coarser grain, whereas the fragments of cryptogamic plants were in both indentical. Moreover, the French physicist ascertained that, sand got from the deserts of Sahara and Gobi being thrown into water, only the coarser bodies fell to the bottom, whereas the water remained turbid in consequence of a certain quantity of thin mud swimming in it ; this last, having been microscopically examined, turned out to be very like certain earthy particles contained in rain-water, which sometimes is so rich in organic substances that such rains have been qualified as "manure rains." The consequence which M. Tissandier deduces from repeated experiments is that "the winds bring about a real selection of the smallest and lightest bodies of the desert, upraising in the air only the minutest particles, among which are the vegetable remnants, so that the atmospheric movements may convey a dust very rich in organic substances, even when they have been borrowed from a sand containing little of them, and that only because the selection has been applied to large masses." The sandy superficial deposits form the last chapter of the geological history of the Sahara, for no well-ascertained traces of the glacial period have been discovered either in Algeria or in the Sahara-Libyan desert, so that the absence of the glacial period in those parts of Africa furnishes an additional proof of the local and comparatively limited character of this important phenomenon. But, if after the formation of the superficial sandy masses the Sahara had acquired the most prominent features of her present physiognomy, still, since that time, not only the hydrographic and climatic, but also some topographic conditions of that country have undergone very important modifications, as may be [illegible]

practised the work of destruction. But if nature destroys she equally creates, and in a topographical sense Asia Minor offers, on that account, the most striking example. During the ten years I devoted to the exploration of this magnificent country I was able—the ancient geographers and historians in my hand—to ascertain the modifications which the surface of this country has undergone, only since the Christian era. Those modifications are so considerable that, taking into account the increase of solid land, produced only by the formation of large river deltas and the filling up of seas and gulfs, it can be said, without exaggeration, that the surface of Asia Minor has conquered, during this comparatively short time, the amount of a little province ; a kind of conquest which is still rapidly continuing, so that one day may be realized the prophecy of Strabo, who, 18 centuries ago, declared that the time shall come when the shores of Cilicia may reach the island of Cyprus—an event likely to give great trouble to diplomatists, if such functionaries are then still existing. (Laughter.) Some botanical modifications, which probably took place after the formation of the Mediterranean Sea, are considered by several naturalists as comparatively recent. The fact is that the two shores of this sea present a great difference in the amount and the distribution of certain vegetable families, a difference which climatic conditions are not sufficient to explain. Algeria has hardly nine species of oak, but Spain, 19 species ; France, 12 ; Greece, probably beyond 15 ; whereas Asia Minor, where this kind seems to have acquired its *maximum* of development, has 52 species, of which 20 are peculiar to the Anatolian peninsula. As for the family of coniferæ, the cedar presents a striking example of localization, for on the whole Mediterranean coast-line there are only four points where this beautiful tree grows truly wild—viz., the Lebanon (Syria), Algeria, Cilicia (southern Asia Minor), and Cyprus ; the existence of the cedar in that last island having been recently ascertained by Sir Samuel Baker. The Lebanon had been considered as the cradle of the cedar, before North Africa was known to contain large forests of a variety of this species (*cedrus Libani, var. atlantica*), but the Austrian botanist, Kotschy, and he were so fortunate as to discover in Cilicia a new station of this fine tree, much more important than any one known previously. The two instances of curious localization which I have just alluded to are sufficient to prove that such phenomena took place after the formation of the Mediterranean Sea ; for had the cedar been spread out on the continent which once united Europe to Africa, this tree must have remained, after the separation of the two continents, on many points of the northern shores of the Mediterranean, as, for instance, on the mountains of Greece, on the Apennines, the Pyrenees, &c., where the conditions of climate and soil are as favourable to the cedar as they are in North Africa, Asia Minor, or on the Lebanon ; whereas, if we admit that the cedar appeared on its present stations, after the formation of the Mediterranean, the impediments opposed by the sea to the diffusion of the tree on both sides of the Mediterranean account sufficiently for its localization. A similar reasoning may be applied to the absence of monkeys on the northern shores of the Mediterranean, and their abundance on the southern. It is known that the only point in Europe inhabited by wild monkeys is the rock of Gibraltar ; still they are there by no means indigenous, but most probably have been imported by the Arabs during their long domination of Spain, so that had this interesting colony not been artificially maintained, there would be nowadays not a single monkey on this rock ; the fact is that in 1856 they had almost entirely disappeared, when Sir William Codrington caused a new importation to be made from northern Africa. Just as the cedar, the monkeys of Gibraltar (belonging to the same species of *macacus inuus* of Algeria) would be found now as spontaneous inhabitants on many shores of Greece, Italy, Spain, &c., had they existed before the separation of Europe from Africa. An additional proof of the recent immigration of the monkey in Africa is, that the quaternary fauna of the caves of Gibraltar, so carefully studied by

not only the hydrographic and climatic, but also some topographic conditions of that country have undergone very important modifications, as may be deduced from many facts. M. Rolland sums up the conclusions derived from a great number of similar facts in the following words :—"The climate of Algeria must have suffered a considerable deterioration since the times of the Romans." M. Clavé is of the same opinion. He mentions with astonishment the quantity of fragments of arrows made of polished flint scattered on the whole space between Biskra and Uargla ; and what is still more significant, he has observed in the neighbourhood of Oglu-el-Kassi those fragments covered by a coating 16in. (5 décimètres) thick of gypsum, evidently deposited by sources of which all traces have vanished. "Those flint-fragments invested by gypsous incrustations," says M. Clavé, "are most probably the oldest known witnesses of human industry." Now, the Libyan desert yields to Dr. Zittel exactly similar conclusions. The learned German geologist observes that between the oasis Chargeh and the valley of the Nile the basaltic tufa includes leaves of plants, among others of the evergreen oak (*Quercus ilex*), which no longer exist either on the oasis or in Upper Egypt. "The caves bristling with stalactites in a country perfectly devoid of water," says Dr. Zittel, "but particularly the polished and well-worked flints accumulated on different points of the now thoroughly dry and empty desert, speak distinctly of a much more favourable climate than the present one. No doubt such climatic changes ascertained in the Sahara-Libyan desert must suppose similar changes in the countries surrounding the Mediterranean basin, as, among others, Egypt, Syria, Asia Minor, &c. And that is really the fact, the arguments supporting it being as numerous as convincing. In his remarkable work on the climate of the Mediterranean countries, Theobold Fischer, after having studied the changes which they have undergone on that account during the historical periods, comes to the conclusion that such changes have not been very conspicuous in the regions of the northern shores of the basin, where the climatic modifications pointed out in Asia Minor are considered by him as only local and exceptional phenomena, but that it is quite different in the regions situate on the southern shores of the Mediterranean, to the south of the 34th parallel, where rains, even in their normal state, are so inconsiderable that the smallest reduction of their amount is sufficient to alter the climate. Among the countries liable to such reductions, Theobald Fischer quotes Syria and Palestine, countries full of traces of ancient rivers and artificial irrigation, indicating a region once thickly populated, but which now is transformed into a dry desert, not only by the fault of men, but also in consequence of a complete change in the atmospheric conditions. Theobald Fischer points out equally the numerous deeply excavated *oeadi* in the whole of Africa, which doubtless represent so many beds of ancient rivers, in a time when rains were much more frequent than now. This important fact has been (many years before the publication of Fischer's work) elucidated and discussed in a masterly way by David Livingstone. According to Theobald Fischer, the increase of the atmospheric dryness in North Africa is equally proved by the disappearance of the large mammals and the late introduction of the camel in those regions. This animal, for all communications now quite indispensable, seems to have been unknown in Africa almost until the Christian era, for no figure of it has hitherto been discovered on the monuments of Egypt and Meroë, and Polybius, speaking of the Carthaginian cavalry, mentions elephants, but never camels. In historical times North Africa was inhabited by the elephants and the rhinoceros, and what is still more significant, by crocodiles ; for those amphibians suppose the existence of rivers not liable to be dried up. It is impossible to attribute the disappearance of all those animals only to the action of man ; the less so as the countries where they have been mentioned were infinitely more populated than they actually are, and therefore offered to wild beasts a less favourable abode than now. We are consequently compelled to admit an alteration in the climatic conditions of the country—namely an increase of atmospheric dryness, which may

fauna of the caves of Gibraltar, so carefully studied by English geologists (Busk, Smith, Leith Adam, &c.), has not yielded any remains of quadrumana ; and Russel Wallace admits that even at the miocene epoch, monkeys did not inhabit Africa, into which they migrated at a comparatively recent time. The important scheme of the creation of an inland sea in the Sahara has been proposed to the French Government by Commander Roudaire. The chief point on which the success of the whole enterprise depends is the question, whether the prevailing winds in this part of the Sahara are really from the south ; for if not, the winds, instead of carrying the aqueous vapours to the north, would push them in the opposite direction—to the Sahara—without submitting those vapours to the condensation produced by the Aurès mountains, so that the creation of the large mass of vapours would be of no benefit at all to the country. Unfortunately, this most important meteorological question is still very far from being decided. The most prominent features of the geological history of the Sahara-Libyan desert were as follow :—1. The records of this history are very old, for the southern regions of the present Sahara were represented during the Devonian period by a certain number of isolated masses of limestone, gneiss, and micaschiste, the limestone containing Devonian fossils. Those masses conserved through all the succeeding ages their insular position, and never sunk again under the sea. 2. It was during the cretaceous epoch that a large portion of the present Sahara was upraised under the shape of variously ramified masses, so that the sea of the following geological periods could penetrate into their interior, forming numerous gulfs and bays. 3. The Sahara was represented until the quaternary epoch chiefly by those cretaceous masses which since their upheaval have never been covered by the sea. During the quaternary period, among the gulfs which washed the shores of the cretaceous land, the largest occupied the present country of Jgharghar ; the northern extremity of that gulf reached the place of Biskra, and the southern the cretaceous plateaux of Tademayt and Tinghert ; the town Uargla occupies almost the central part of the gulf. As from the north, the last was entirely secluded from any communication with the sea, the littoral part of Algeria having been upraised a long time before, and consisting then, as now, in more or less high mountains, the large quaternary gulf could not find any other way in the interior of the Saharian cretaceous continent than through the present gulf of Gabè ; and what proves that here was really the entrance of the quaternary gulf, is the narrow strip of diluvial deposits which, surrounded by cretaceous rocks, extends from Gabès until the salt lake of El-Fedjedj (Tritonis lacus). This geological fact is important in reference to the question, so long discussed, of the ancient communication between the lake and the sea ; it confirms the hypothesis of Commander Roudaire, and I am not aware that this argument, which I consider as the strongest of all, has ever been urged in his favour. The upheaval of the quaternary large gulf (and of many other smaller ones) was the last marine phasis which the Sahara underwent. 4. Once entirely raised up in all its parts, the Sahara had still to undergo a subærial operation which consisted in the formation and accumulation of sands. It closes the fourth and last stage of her long geological history, without speaking of the different climatic and topographical modifications of quite recent times. This history, as it has been shown, proves that there can be no longer question of a recent emersion of the whole Sahara from the bottom of the sea. It is true the Libyan desert is probably somewhat younger than her Saharian sister, for tertiary uncovered deposits (eocene and miocene) have there a larger development than the cretaceous ones ; but, even admitting that the Libyan desert has been upraised after the Miocene period, it cannot be called recent. The two largest deserts of Turkestan are situated between the Syr Daria (Yaxartes) and the Caspian Sea, in the average, under the 45th and 48th degrees of northern latitude, and consequently under the parallel of North Italy and Switzerland. In general, the climatic contrasts

namely, ... late introduction of the camel in North account for the ... Minor, as well as for the disappearance of ... In support of this opinion, Theobald Fischer reminds us that both in Asia and Africa the elephant excludes the camel, and *vice versâ*, so that in the superior part of the valley of the Nile, where the elephant prospers, the camel thrives with difficulty. Dr. Oscar Fraas, the learned German geologist, who had the merit of discovering, near Jerusalem nummulites in *tertiary* deposits, quotes equally the absence on the Egyptian monuments of any figure of the camel, and that not only in the famous ruined city Sagara, the walls of which are covered with pictorial representations of different animals, but also in Thebes, founded 3,000 years after Sagara. This fact proves that at that time the desert did not exist; the presence of which is, moreover, excluded by the numerous splendid monuments, which certainly their constructors would not have built in the midst of inhospitable solitudes, no more than the Emperor Adrian would have erected near Rome the famous villa Adriana amidst marshes, had they existed then as now. Oscar Fraas is of opinion that in Egypt the climatic conditions were quite different from the present ones even in the time of the Greeks, when Alexandria was the brilliant focus of science and art, radiating her light on the whole world then known. He believes that the extraordinary intellectual activity which animated this city supposes another climate, a less dry air. "On the present soil of the Nile," says Oscar Fraas, "no philosophical system will be born, and no human power shall be able to erect there universities capable to cope with those of Europe." The conclusions suggested by Egypt are applicable in a still higher degree to the neighbouring peninsula of Sinai. When we consider that in this perfectly arid, waterless peninsula the people of Israel, counting 60,000 fighting men, remained, after the exodus from Egypt, several years, it becomes quite impossible not to admit that in those times Sinai was a fertile Alpine region, provided with rich pasture grounds and irrigated by copious sources; in no respect could such a country have the slightest resemblance to the barren desert it is now. The few instances reported are sufficient to prove that the climate of the Sahara-Libyan desert, as well as that of the countries surrounding the Mediterranean, have really undergone important alterations, even during historical times. Now, there are proofs that similar changes in the level of the ground and in the vegetation of these regions have equally taken place at a comparatively recent epoch. Gerhard Rohlfs, the well-known African explorer, has ascertained the sinking of the whole shore of Tripoli to the Gulf of Great Syrte; and, according to him, this sinking is so conspicuous that he was perfectly able to appreciate it during his repeated visits to the country. He quotes very remarkable instances of this phenomenon, and says:—"I do not think that anywhere on our globe such a rapid sinking of the soil has ever been observed." A quite opposite movement of the soil occurs on the neighbouring Tunisian shores. The bay of Porto Farina two centuries ago was considered as an excellent port, 30 to 50 feet deep, so that in the year 1655 Admiral Blake could very comfortably anchor there with his naval force, composed of nine men-of-war. At present the Porto Farina has hardly a depth of 2ft., and the time is not far off when the whole bay will be joined to the continent. Again, the celebrated city of Utica, which, under the Carthaginians, possessed a splendid port, is now converted into a large sandy plain, whereas the ruins of the once littoral city are more than 12 miles distant from the sea. There are few places in the world which offer a more melancholy contrast between the present and the past than this sandy, perfectly shadeless plain, which I crossed under the scorching African June sun, without meeting a single living creature of any kind. And still I became familiarized with similar impressions in the classic regions of Asia Minor, where not only men, but also nature, have for so many centuries

between the Turkestan deserts and the French Sahara are much stronger than the differences between their respective latitudes ought to make expect it. It is evident that, with such climatic discrepancies, the vegetation of the Turkestan deserts, compared with that of the Sahara, must offer great difference, but here also this difference is much stronger than it ought to be, taking particularly into account the high temperature of the Turkestan summers; and still there is not a single species common to the Turkestan deserts and the Sahara. The flora of Kara-Kum seems to be so poor that, compared with that of the Sahara, the Algerian desert appears sometimes like a flourishing garden. The desert of Gobi, the largest in the world after the Sahara, begins almost immediately at the southern foot of the Siberian mountain range, extending from north to south about 1,800 miles, and about 4,000 miles from east to west. Though under the latitude of Italy, but about 40 degrees more to the east, the Gobi offers the strongest contrasts between the seasons: the summer reminding of the tropical heat, and the winter of the cold of the polar regions, and that not only on account of its intensity, but also its duration. In the numerous publications of travels, nothing is mentioned except the immense sand-accumulation, without the least hint in reference to the solid rocks on which those sands repose, or to any organic remains. But Colonel Prchewalski, who crossed more than once the mountains of the south-eastern part of this boundary, mentions, as the chief rocks composing them, granite, syenite, granulite, porphyry, diorite, mica-schist, clay-slate (*Thonschiefer*), chloritic schist and coal deposits. Those are the geological elements which, according to Colonel Prchewalski, constitute many of the marginal mountain ranges which he visited between Kalgan and the lake Kuku-Nor. He mentions very extensive coal deposits in the mountains of Alachan, rising beyond 10,000ft., as well as in the mountains which in Northern Tibet form the eastern boundary of the Kuku-Nor. Those facts prove that the mountain ranges representing the south-eastern boundary of the Gobi (from Kalgan to the Kuku-Nor) are composed of rocks which very likely belong to ancient geological formations. A similar conclusion may be equally applied, with great probability, to the long chain of Chingan, which can be considered as the eastern boundary of the Gobi, and separates Mongolia from Manchuria. We are, consequently, in no lack of arguments in favour of a very ancient formation of the Gobi, and we can admit that at the time when the mountains which surround the desert were upraised the immense space included in the interior precinct remained much lower, but still sufficiently high to form one of the loftiest table-lands of the world, the average height of which Colonel Prchewalski estimates to be near 4,000ft. (1,285 mètres), with local depressions sinking to about 3,000ft. It is therefore probable that after its upheaval this large surface has never been overflooded by the sea, as little as the Sahara-Libyan desert since the cretaceous and tertiary periods, or the Turkestan deserts since the palæozoic epoch. Once more, in the Gobi, as in the other two deserts, the sand-accumulations had nothing to do with marine deposits; they were chiefly produced by atmospheric agencies, and, as far as the Gobi is concerned, the frequent silicious rocks, as granite, syenite, gneiss, &c., were particularly apt to yield sufficient materials to the formation of quartz sands. It is superfluous to add that the upheaval of those deserts did not take place at once, but successively, as we have seen in the Sahara-Libyan desert, where the cretaceous and tertiary rocks appeared, the one after the other, leaving still large tracts occupied by sea or fresh water basins, which were filled up only during the quaternary epoch, or even in a more recent one. Therefore it is highly probable that, like the Sahara-Libyan desert, the Asiatic deserts were also crossed, long after the upheaval of their chief portions, by gulfs, or contained numerous fresh-water basins—a supposition which,

in reference to the Gobi, is supported by the interesting considerations of E. Regel on the character of the flora of Central Asia. The learned director of the Botanical Garden of St. Petersburg says :—"The salt steppes and sand deserts of the inferior regions of Central Asia suggest the conclusion that, even at the beginning of the present epoch, consequently during the diluvial period, Central Asia was covered by a large fresh-water lake, through which the mountains rose as so many islands, until the time when the waters cut their way through the mountains, and were conveyed to the sea by the river Obi, and perhaps the Amur, having left behind them large dry salt and sand steppes, which contain now a uniform flora." The still unknown part of the Gobi desert, belonging to the most important regions of Central Asia, is so large that all geographers and natural philosophers must hail with joy any undertaking capable of unveiling this *terra incognita*. Colonel Prchewalski is sufficiently known to all geographers ; but what is, perhaps, not generally known, and what enhances greatly the merit of this distinguished man, is the fact that one of the most remarkable explorations of modern times has been carried out, with means the exiguity of which would appear quite fabulous had he not himself mentioned them. Colonel Prchewalski informs us that the whole amount of money he received from the Russian Government in order to meet all the expenses of three years of explorations in unknown and barbarous countries was only 9,500 roubles, or about £1,100. With this scanty support he and his companion, Lieutenant Pyzhoff, crossed (from November 17, 1870, to September 1873) nearly 18,000 miles, of which he mapped almost [illegible] miles. (Cheers.) He had no means to take more than two Cossacks. They were frequently exposed to hunger whenever guns did not procure a dinner. The energetic appearance of these four men, supported by their revolvers and breech-loaders, never seen before in those countries, produced a deep sensation and terror among the Mongols, who considered them at least as supernatural creatures, having unlimited power, and being invincible by numbers. This kind of worship went so far that when Prchewalski entered the town of Dulan-kit crowds of people ran to see what they called the famous *chybilgan* (holy man), and all knelt at his passage. Thus the poor colonel, instead of being insulted as a helpless foreigner and checked in his progress, was greeted as a divine, irresistible magician, to whom everybody had to submit. We really cannot refuse our deepest admiration to a man who, almost single-handed, explored, during three years, unknown countries, among fanatic and predatory populations, and brought with him enormous collections, of which he gives us an enumeration, without spending much more than £1,000. (Cheers.) At all events let us hope that such travellers may be found in the future, for then we may be sure that the still unknown regions of our globe will be rapidly discovered, and that such noble victories may at last replace the blood-stained conquests of ambitious warriors. (Cheers.)

Mr. W. T. BLANDFORD made a few remarks about the deserts of Western Asia, the peculiarity of which was that they were isolated basins without outlets, so that the denudation of the surrounding mountains would involve the gradual formation of deposits. The question of transport by wind or by rain was receiving attention.

[illegible] was prescribed.

Mr. HYDE CLARKE addressed the section on the names Britannia and Hibernia with their Ibernian relations, contending that these names connect us with the East as does so much otherwise in anthropology. It was much more probable that Britannia was better known in Babylon and in Jerusalem than it was in Rome in the early ages of the republic ; we must give up the Celtic interpretation, because the Celts came into this country at a much later period. Tables were given of parallel names of mountains, islands, and rivers ; thus the names of Britannia and Hibernia and other allied names were found to signify "mountain," "land," "island." Taking Britannia and Hibernia together, they were found to be nar[illegible] co[illegible] given

tute of natural advantages. Though it has several deep depressions of surface, yet its general elevation is very considerable, and some of its large districts are the most elevated in the globe. It is walled in from the outer world and excluded from the benign influences of the sea by mountain chains. Its climate then is very severe on the whole, more distinguished for cold than for heat, but often displaying extremes of temperature high as well as low. It offers from the character of its contour, extraordinary obstacles to communication by land or water. Though seldom inaccessible to courageous explorers, it is generally hard of access, and in several respects very inhospitable. In the progress of civilization it is, with reference to its historic past, excessively backward. Its capacities for the production of wealth have been but little developed. Its population is scanty, scattered, and uncultured. Its agriculture comprises only a few areas widely segregated from each other, and many of its largest districts are amazingly desolate. Nevertheless this plateau has eminent claims on the attention of geographers, for several reasons, which may be summarised thus :—1. A mountain system which dominates the greater part of Asia, and includes stupendous ranges with the loftiest peaks yet discovered in the world. 2. A series of heights and depressions almost like the steps of a staircase within the mountainous circumvallation of the plateau. 3. The sources and the permanent supply of rivers which, passing from the plateau, flow through densely populated regions, and help to sustain the most numerous families of the human race. 4. A lacustrine system, comprising lakes of which some are saline while others have fresh water, and of which many are situated at great altitudes. 5. The home of conquering races, whence warrior hordes poured during several centuries over nearly all Asia and a large part of Europe. 6. Natural products of value, variety, or interest, and pastoral resources susceptible of indefinite development. 7. An enormous field for scientific research, with many regions which, though not wholly undiscovered, yet need much further discovery. 8. An imperial jurisdiction offering many problems for the consideration of social inquirers. I shall now offer a brief explanation regarding each of the eight points stated above. In the first place it will be seen from the diagram that the plateau, in shape somewhat of an irregular rhomboid, is completely enclosed by six grand ranges of mountains, namely, the Himalayas looking south towards India, the Pamir looking west towards Central Asia, the Altai looking north towards Siberia, the Yablonoi looking north-east towards Eastern Siberia, the Yun-ling and the Inshan (inclusive of the Khingan), looking towards China. These several ranges preserve generally a considerable altitude varying from 6,000 to 25,000 feet above sea-level, and reaching in the Himalayas to more than 29,000ft. The tallest of these summits have been accurately measured by the Great Trigonometrical Survey of India. Their altitude is about double that of the highest mountains in Europe, and surpasses any altitude yet observed in any quarter of the globe. But as a great part of these several ranges is as yet unsurveyed by trigonometry, it is possible that still greater heights may be discovered, and that "excelsior" may be the proud answer rendered by the everlasting hills to human investigation. Regarding these and the other chains yet to be mentioned, it must be borne in mind that there are many cross ranges and

nes of pairs of islands. Other examples were given. A similar practice prevails in Japan, where in a pair the larger island is marked by the male prefix and the smaller by the female prefix. Mr. Clarke concluded that our islands were named by the Iberians on a common system of geographical nomenclature, and that Thule must have been an island known to the earliest Iberian navigators, and most likely Iceland. Our islands must have been named in the early epoch of the foundation of the first empire. He considered it was possible that Albion was another name for Britannia, belonging to the same class.

SIR RAWSON RAWSON mentioned that some years ago a friend of his was in county Waterford with a native of Morocco, and on market day, in one of the towns, to which a number of women had come from the mountains of the interior. The Morocco gentleman, hearing these people speak, asked who they were. He then declared that he could detect in their language a similarity to the Arabic, and particularly to the dialect of a district in the interior of Africa to which, when a young man, he had been accustomed to go as supercargo.

Mr. PARK HARRISON observed that it was curious that French anthropologists were discovering a connexion between Berbers and the Basque people. He agreed that the Celts came to this country later than the old race which was spoken of, but as to which the full facts had not yet been obtained.

A paper on the scene of man's evolutions and the prospects of proving the same by palæontological discovery was read by Mr. W. STEWART DUNCAN. The object of the paper was to recall attention to the department of Anthropology, which concerns itself with fossils which seemed to point to the evolution of man at a former period. The author advanced a series of arguments in favour of the region of the South of Europe and Asia as the probable scene and as a likely field of successful explorations. Assuming that man was evolved from a small-brained quadrumanious creature, he must have been evolved in common with ape allies in the old world. Palæontological evidence existed to prove that the monkeys and apes of the old world became dispersed to their present region between Western and tropical Africa and Malaya in the Middle Tertiary times. Driven south by increasing cold from the north, they would be arrested by geographical barriers; those that succeeded in passing these barriers remained unimproved, while those that remained in the north had to contend with cold and natural enemies, and, in short, their evolution into man would then begin by the constant pressure of the struggle for existence. The brain would enlarge as a mere result. Implements wherewith to secure food, weapons to defend life, would first be extemporized and then designedly constructed, caves would be used and pit shelters excavated, and all the marks of developing man would be evolved. The Miocene and Pliocene implements and cut bones might be the work of pithecoid man.

PROFESSOR BALL mentioned as a fact within his own knowledge that he had seen monkeys on an island where trees were sparse and fruit scarce that had learned to go down to the shore and live on oysters.

Several members expressed doubts as to whether we could be descended fom any type of monkey now existing.

Mr. DUNCAN, in reply, said it was not necessary to derive man fom an existing ape, but if it could be proved that man did walk on all fours, and was otherwise very low in the scale, then practically man was an ape.

Dr. G. HARRIS read a paper on ebb and flow in mental endowment.

GEOLOGY.

The Geological Section was again presided over by Mr. R. Etheridge.

After a paper by Mr. W. Pengelly, on the Post-Miocene Deposits of the Bovey Basin, South Devon,

Mr. E. WETHERED descanted on the origin of the deposits in the carboniferous limestone of South Wales, contending that the so-called "pockets" of hematite which occurred in the carboniferous limestone were caverns and fissures into which the ore had been introduced by the percolation of water through overlying strata highly charged with oxides of iron, after the consolidation of the strata comprising the Trias rocks.

The PRESIDENT agreed with the reader of the paper as

transverse lines of mountains. Even the chains, too, often consist of detached groups separated by deep valleys. It is by observing the position of the groups relatively to one another that the tendency of the chain can be discerned. Such being the outer barriers of our plateau, there are within it two great ranges mainly parallel and running from west to east, namely the Kuen-lun and the Thian Shan. While the Himalayas form the southern flank of the great Tibetan upland, the Kuen-lun constitutes the northern. The modicum of knowledge possessed by us regarding the Kuen-lun, a most important factor in the geography of our plateau is largely due to the praiseworthy travels of the Russian Prejevalsky. This range may be said in a certain sense to overlook the Tarim basin ending in Lake Lob, though the mountains are actually distant more than 100 miles from that lake. It forms the southern boundary of the Tarim basin, which contains some of the few beautiful tracts in our plateau. If there be such a thing as a backbone to these regions, or anything like a dorsal ridge, it consists of the Kuen-lun. The Thian Shan starts from the Pamir, and runs westward for full 1,500 miles, till it joins with some of its spurs the uplands of Mongolia proper, or touches with others the dreary desert of Gobi. As the Kuen-lun forms the southern boundary of the Tarim basin, so the Thian Shan constitutes the northern. Connected with the north-western part of the Himalayas is another range which some regard as an offshoot, but which others treat separately under the name of Karakuram. Together with the Himalayas it joins the Pamir. Thus three of the greatest mountain ranges in Asia converge upon the Pamir, or according to some are there interlaced; namely, the Himalayas, the Kuen-lun, and the Thian Shan; to which perhaps two others might be added, namely, the Karakuram just mentioned and the Altai. But it may be more accurately said that the outer border of our plateau north of the Pamir is formed by the terminal spurs of the Thian Shan. It is to be remembered also that the Indian Caucasus—which does not concern our plateau directly enough to fall within this address—probably joins the Pamir. In general terms, the convergence of mountain ranges on the Pamir renders it geographically the most important position in Asia. The uninstructed Asiatics have evinced a hazy admiration of its grandeur by calling it "the roof of the world." The comparatively instructed Europeans have revered it as the source of the classic Oxus, and as fraught with political considerations. Unless further discoveries shall alter existing information, we may expect that completely informed geographers will consider that this Pamir is the mother of mountains, that other ranges are to it as the branches are to the root, and that here, if anywhere, is the true boss of the Asiatic shield. In the second place, the vast surface of our plateau, though almost uninterruptedly environed by its rocky walls, presents an extraordinary series of elevations and depressions. In the heart of the plateau there is the depression known to geographers as the Western Gobi, sometimes called the Tarim basin. Within this there is the Lob Lake or Lob Nor, truly an inland sea into which the waters of several rivers ultimately flow, finding no vent towards the ocean. The total length of the Tarim river with its affluents debouching into Lob Nor, cannot be less than 800 miles This curious and interesting lake is not more than 2,000ft. above sea-level, and forms almost the lowest dip in our plateau. It is like the bottom of a vast platter or the centre in the hollow of a mighty hand. Around this depression there are on all sides uplands of various heights like gradations in the Asiatic terrace terminating in the intermediate ranges, or in the outer circumvallation of mountains already described. On the east of it there is the tract called Eastern Gobi, partly desert, and Mongolia, averaging 4,000ft. above sea-level; on the north the Altai uplands exceeding 5,000ft. On the west the Pamir rises abruptly, exceeding 13,000ft.; on the south Thibet, with equal abruptness, having an average altitude of 15,000ft. above sea-level, thus being the loftiest expanse in the world; and on the south-east the tract around the Kuku Nor Lake, 10,000ft. Further, there is a detached depression known as the Zungarian strait, extending to the northern confine of our plateau,

to the origin or formation of the hematites.

PROFESSOR J. MILNE followed with a report on the earthquake phenomena of Japan.

PROFESSOR W. J. SOLLAS read a preliminary report on the conditions under which ordinary sedimentary materials may be converted into metamorphic rocks.

Mr. C. E. DE RAWE read the report of a committee appointed for the purpose of investigating the circulation of the underground waters in the permeable formations of England, and the quality and quantity of the water supplied to various towns and districts from those formations, to which was added an appendix, written by Mr. Edward Wethered, on the density and porosity of rocks in relation to the water supply, in which the author set out by averring that a knowledge of the porosity of rocks was important as regarded the water supply, the suitability of stone for building purposes, and in accounting for some of the lithological changes often observed in the earth's strata. Though the matter had not escaped investigation, the vast volume of water stored in the rocks had not been fully realized. The density of the old red sandstone was 2·61, the volume of water absorbed by a cubic foot being 0·707 gallon, and by a square mile, 3ft. thick, 59,000,000 gallons. The conglomerate beds of the same formation were still more absorbent, being capable of taking in 0·805 per cubic foot, or 67,000,000 gallons to the square mile 3ft. thick. The mill-stone grit which lay at the base of the coal measures varied much in different localities, that found in the Forest of Dean being the most porous, absorbing 66,000,000 gallons to the square mile 3ft. thick. Some of the coal-measure grits also stored large volumes of water. The Pennant rock, about 900ft. thick in the Bristol coalfield and extensively developed in Somersetshire, as also around Swansea, was capable of absorbing 12,000,000 gallons in a square mile, 3ft. thick, and specimens of magnesian limestone taken from the neighbourhood of Bristol showed a porosity of 86,000,000 gallons, but the carboniferous limestone was quite the reverse, and only absorbed three and-a-half millions. Oolites held vast stores of water, and the rock was much used for building. Mr. Wethered then referred to the relation of specific gravity to porosity, and proceeded to say that shallow well water had been classed by the Rivers Pollution Commissioners as dangerous, and the deep as wholesome, and there must, therefore, be a purifying process going on during the percolation into the earth. From an analysis of rocks, it was clear that nothing in the chemical composition of the rock could purify the water, and in order to get rid of organic contamination there must be oxidation and they must, therefore, look to another source for the oxidizing agent which, he thought, existed in the air absorbed by water, and in the air contained in the intertices of the rock.

Other papers followed and E Section adjourned.

GEOGRAPHY.

There was a large gathering in this Section to hear the address of Sir R. Temple, the President, dealing with the central plateau of Asia.

SIR R. TEMPLE said,—The subject chosen for this address is the Plateau of Mid-Asia. This area, which is one of the most wonderful on the surface of the earth, contains nearly 3,000,000 of English square miles, and is equal to three-fourths of Europe. Its limits, its exterior configuration, its central and commanding situation in the Asiatic continent, will be clearly perceived from the large diagram of Asia which is exhibited here. As compared with some of the more favoured regions, it is singularly destitute between the Thian Shan and the Altai ranges. This strait, hardly exceeding 2,000 feet above sea-level, is as low as, perhaps even lower than, any part of our plateau, and is very near breaking its continuity, which may be considered as being just saved by the comparatively humble altitude above mentioned. The depression is geographically important as forming the only broad pass between our plateau and the world without. It runs from Mongolia, the most important tract within our plateau, to Siberia outside. Great value was, in early times, attached by the Chinese to it, as being the only natural highway on a large scale between Northern and Central Asia. The existence of this and the other depressions above described has led to interesting speculations among geologists as to there having been in primeval times within our plateau at least one inland sea as large as the Mediterranean of Europe. Be that as it may, there is no doubt that a process of desiccation has been going on within our plateau during historic ages, whereby the climate is considerably affected, and many signs or evidences show that this process is still in operation. On most of its sides our plateau is extraordinarily inaccessible, the passes being steep in the extreme, and culminating in ridges 18,000 to 20,000ft. above sea-level. Towards Siberia the Altai passes are easier, and on the north-east, between Mongolia and China, there are several passes that have witnessed the historic outpourings of the Mongol hordes, and which are ominously remembered by the Chinese as the openings through which their invaders rushed like the great river in flood, or the landslip from the mountain side, or the avalanche sweeping along the boulders and *débris* to the destruction of the valleys beneath. The great desert of Eastern Gobi occupies the eastern portion of our plateau. With its accumulating forces of sand and powdered earth it has a tendency to incroach, and is regarded by man with a vague awe. Its present extent is enormous, being not less than half a million of square miles. Nor does it exist alone within our plateau, for between the Tarim basin and the Kuen-lun spurs there is a lesser desert called Takla-makan with 100,000 square miles of area. It may probably be found that these two deserts join or are otherwise connected. In the third place, we have noted that, while the prevailing characteristics of our plateau are wildness, ruggedness, or desolation, yet, within it are the sources of several great rivers which sustain the most teeming peoples on the face of the earth. The monarch, as it were, of all these noble waters is the Yang-tse-kiang. Though its head streams have been but imperfectly explored, yet its true source is known to be in the Kuen-lun mountains already mentioned. After quitting our plateau and passing out of its prison-house in the mountains through natural gates of the utmost magnificence, it permeates the most thickly-peopled provinces of China—provinces inhabited by about 120 millions of souls. It sustains the life of this enormous population by supplying the necessary moisture, and by affording the means of irrigation and of water traffic. No river has ever in ancient or modern times played so important a part in the increase of the human race as the Yang-tse-kiang. Its supply of water is immense and unfailing, and this most essential characteristic is caused by its connexion with the snow-clad and ice-bound regions of our plateau within which it has a course of 700 miles before entering China Proper. Amid the same Kuen-lun range the Hoang-ho rises from unexplored springs, which the Chinese figure to themselves as "the starry sea." After bursting through several watersheds, making wondrous bends from its main direction near the base of our plateau, and changing its course more than once to the confusion of comparative geography, it traverses Northern China and confers agricultural prosperity on some 70 millions of souls. It also has a course of some 400 miles within our plateau, in

understand how the sturdy mountaineer, the daring hunter, the practised archer becomes the able soldier. In Mongolia, however, the local speciality was this, that the practically boundless extent of the pasturage, and the nutritious richness of its quality, induced the people to maintain countless horses, cows, buffaloes, sheep, goats, and camels, neglecting the tillage of the soil, never building houses, but living in tents made of warm felt, accumulating a certain sort of rude wealth, still roving and roaming about at some seasons incessantly from one encampment or one grazing-ground to another, dragging with them their families and their effects by means of the pack animals and the roomy wagons drawn by many oxen yoked abreast. Thus was a truly nomadic existence practised on the largest scale ever known. Mongol armies, better drilled, armed, accoutred, and equipped than any forces then known in the civilized world, would emerge from our plateau into the inhabited plains around, and would observe houses and towns for the first time. It is even alleged that some of them had never seen cultivated crops before. In this state of existence the temptations to depredation of all sorts were excessive, and the danger from the climate, the savagery of nature, and the wild beasts was always imminent. Consequently the Mongols were obliged to hold themselves together by the cohesion of families, clans, and tribes. Thus by the force of circumstances a social organization was established which proved the foundation of a military discipline suitable to the genius of the people, almost self-acting, and unfailing even in the remotest expeditions. The horses, too, upon which the Mongol warriors mainly depended, naturally fell into the training; being always turned out to graze in herds, they habitually kept together, and the field manœuvre fixed habits which had been already acquired. It used to be remarked that a line of Mongol cavalry was like a rope or a chain—perfectly flexible but never parted. The Mongolian food included little of cereals or vegetables, but consisted mainly of cheese and meat. For stimulating drink there was the fermented mare's milk. The name "koumis" or "prepared milk," apparently much esteemed medically now-a-days, is a Mongolian word. Manifestly, men thus nurtured could live in the saddle day and night, carrying with them their sustenance in the smallest compass, and scarcely halting to eat or drink. Thus the hardihood evinced on protracted marches, which would otherwise be incredible, can be accounted for. It is probable that this diet, while sustaining vivacity, produced also a violence of disposition. Certainly, ruthlessness, cruelty, indifference to suffering characterized the Mongols and marred the effect of their grand qualities. Massacres, holocausts, conflagrations marked their warlike operations. Even famines and epidemics have hardly done more for depopulation than the Mongol conquests. A Mongolian chief would say that the keenest enjoyment in life was to stamp upon a beaten enemy, to seize his family, and despoil his encampment. It is not the purpose of this address to describe the policy of the Mongols or the institutions which they founded in conquered countries. A few salient points only have been indicated in reference to the geography of our plateau. It is here, near what is now known as the upper region of the Amur, that the Onon, the Orkhon, and the Kerulen, classic streams in Mongol story, take their source. Here is the site of Kara Koron, the emperor's head-quarter encampment. Here the Kurultai assemblies were held to decide the fate of nationalities. Here were the camps, the Urts, and Urdus, rude names at first unpronounceable in the civilized world, but soon to become terribly familiar. Here were the hordes mustered under their banners, each standard having its distinctive colour, the supreme ensign being,

once productive. The pastoral [illegible]

diet and exercises, the tribal organization, are in kind the same as of yore, though perhaps modified in extent or degree. The short-lived heat may perhaps be gaining strength as the ages advance; but the winters must be nearly as long and hard as ever. Thus the same physical and climatic conditions which once caused the Mongolian nation to become one of the mightiest engines ever directed by man are still surrounding the politically degenerate Mongols of to-day, who are best represented by the tribe of Khalkas. Once audaciously ambitious, the Mongols are now sluggish and narrow-minded; once passionately fond of an independence as free as their mountain air, they are now submissive to the domination of races formerly despised by them as inferior; once proud of a tribal organization and a voluntary discipline that wrought world-renowned wonders, they are now split up into factions like a faggot of sticks that has been unbound. A man who, though the feeblest of pedestrians, grips with his bowed legs the saddle of the most restive horse as with a vice, is all that remains of the historic Mongol. It is for the social inquirer to determine what have been the circumstances counteracting the climatic and local causes which made this nation potential in moulding mediæval history. Here too may be observed the tendencies of Paganism, Buddhism, and Mahomedanism respectively. Of all regions our plateau offers the best means of studying Buddhism, which still counts more adherents than any other faith. Though the mid-Ganges Valley was the birthplace of this widespread religion, and was for ages regarded by pious Buddhists as their holy land, yet during recent centuries the active centre of the faith has been in Tibet. Of the four incarnations of Buddha now held to exist three are within our plateau—namely, two in Tibet near Lhassa and at Teshu Lumbo, and one in Mongolia at Urga, near the spot where mounds attest the burial of heaps of slain after one of Chinghiz Khan's earliest battles. In Tibet may be seen to the best advantage those religious ceremonies, the sight of which has always attracted the observation of Roman Catholic missionaries. In conclusion, this brief summary of our geographical knowledge regarding the plateau of mid-Asia is provisional only, for it avowedly deals with regions most unsurveyed and seld m even explored completely. Further exploration or discovery therefore may reverse some of our specific conclusions, or may modify the current of our topographical ideas. It is probable indeed that there will be such changes, inasmuch as almost every investigation within this vast area has revealed something unimagined before, or has caused disbelief of something previously believed. This address, then, is limited to a *résumé* of things imperfectly known, with a view of bringing into strong relief two matters which are unquestionable—namely, the importance of our plateau and the grand field it offers for research. If the public consideration of these matters shall induce inquirers to direct their enterprise towards this grand region, we may hope that by degrees the errors in our facts may be removed, the misdirection of our conclusions remedied, the vagueness of our notions made definite. At present the physical obstacles in the path of such inquiries are so grave as to be almost deterring. But they do not finally deter those who after forethought decide to brave peril, distress, sickness, suffering, in order to enlarge the bounds of knowledge. Each inquirer, however, has the consolation of reflecting that he makes the rough ways smoother for those who shall come after him. Every journey that is accomplished must facilitate successive discovery in the same line of country. Probably as fast as

apparently consists of the dregs of an inland sea that is mostly dried up, and is, as it were, kept alive only by the Tarim river, which has its sources in the everlasting snows of the Pamir. Despite the proximity of saline tracts, the lake has fresh water. Near it is a great desert, of which the soil, though now arid and friable, owing to the gradual desiccation, was once more or less productive, and where a population has probably become extinct or has disappeared by migration. The Pamir, then, is a water-parting for two inland seas, one the Aral, beyond our plateau, the other Lob Nor within it—both saved from speedy desiccation only by the influx of rivers from the snow-line. Again in contrast is the Kuku Nor, a sheet of water 10,000ft. above sea-level, in the eastern section of the Kuen-lun mountains, near the source of the Hoang-ho. Its waters, profound and saline, have a dark azure hue, which is compared by the natives to that of the exquisite silks in China. It is in the Tangut region, mentioned by Marco Polo in his "Itinerary." In respect to the lakes in this region, and especially the morasses of Tsaidam, there are geological speculations as to another Asiatic Mediterranean besides that already mentioned, long since dried up, whereof there are a few widely-scattered remnants, among which the Kuku Nor is one. Lastly, a word of passing notice may be devoted to two among the Tibetan lakes, that of Tengri, near Lhassa, on the shore of which stands a venerated Buddhist convent, and the Bul-tso, from which have been obtained quantities of the best borax. In the fifth place, the north-eastern part of our plateau was during remote ages beyond the ken of history the home of hardy and aggressive Tartars. These Tartar races, dwelling among the uplands in the lee of the mountains, used for many centuries to emerge and harry the fertile Chinese plains lying between the mountains and the Pacific Ocean. It was to ward off these incursions that the Great Wall was constructed, winding like a vast serpent of stone along the ridges of mountains for 2,000 miles from the Pacific coast to the Siberian confines. The cost and labour expended on this amazing work attest the dread with which the Tartar highlanders had inspired the Chinese lowlanders. Some centuries after the building of the Wall, the most warlike among the Tartar tribes, in the council of their national assembly, acclaimed Temujin as their king, in the year 1206 A.D. He took a title which is translated by Europeans as Chinghiz Khan, a title which for two centuries or more was the best known name in the whole world. At the head of his Tartar adherents, he first subdued the other kindred tribes of our plateau. Then he organized and disciplined the whole Tartar manhood into an army of horsemen. This is the most wonderful instance of military mobilization known to history, ancient or modern. Its results too were equally appalling. In mediæval times the marches of the Arabs and the Saracens, in modern times the expeditions of Napoleon, have dazzled Asia or Europe. These were hardly, however, equal to the distant conquests of Alexander the Great in ancient times. But even the wars of Alexander were perhaps surpassed by the ravages of Chinghiz Khan and the Tartars of our plateau. The countries of China, India, Afghanistan, Bactria, Persia, the Aral-Caspian basin, Siberia, Asia Minor, Russia, were overrun within a hundred years by Chinghiz Khan, his lieutenants, and his immediate descendants. Thus, through the hordes of our plateau there was established a dominion stretching from Cape Comorin, near the equator, to the Arctic Ocean, and from the Pacific shores to the banks of the Vistula in Poland. The latest historian of the Mongols considers that nothing but the unexpected death of the Tartar sovereign, and the political combinations arising in consequence within this very plateau of ours, prevented the Tartar invasion from spreading even to Western Europe. Though it is often held that these terrific events have been overruled by Providence for the progress of mankind, still at the time they caused what Gibbon truly calls a shipwreck of nations. Notwithstanding this, the Tartars won, in a certain sense, an unparalleled success, which is attributable to the geographical circumstances of our plateau. The influence of the precipices, the forests, the prairies, the wild sports in forming the national character is so obvious that it need not be specified. We readily

the Altai and Tian Shan mountains, have brought us to the verge of half-discovered or undiscovered countries. The greatest unexplored region in all Asia—namely, the Kuen-lun range, lies in the very heart of our platean. It is remarkable, too, that if the principal geographical problems awaiting solution in Asia be specified, such as the true and ultimate sources of the Hoang-ho, the Irrawaddy, the Salwin, the Mekhong, the relation of the San-po with the Brahmapootra, the connecting links between the Kuen-lun and the Chinese mountain chains, they will be found to concern our plateau. At a few points only has our plateau been penetrated by geological surveys—namely, in some parts of the Altai and at the western end of the Thian Shan; and these surveys are Russian. But the formations, the strata, the upheavals, the denudations, the fluvial action, awaiting scientific examination, are indescribably great. A notion of some of the questions inviting inquiry from the geologist and palæontologist may be gathered from what has been already said under previous headings in respect to the general desiccation and the subsidence or evaporation of the primeval waters. To the naturalist few regions present more surprising opportunities for the observation of the coming, the resting, the departing of migratory birds. To meteorologists many of the natural phenomena must prove highly interesting—the causation of the wondrous dryness, the effects produced on animal comfort by the rarefication of the air, the mummified bodies dried up without undergoing putrefaction, the clouds of salt particles driven along by furious gusts and filling the atmosphere, the fires in the parched vegetation of the desert, the spontaneous ignition of coal-beds, the caves emitting sulphurous gases, the rock girdle of syenite bounding the Gobi desert, the gradual contraction of the glaciers, the ordinarily rainless zones sometimes invaded by rain-storms with a downpour like that of the tropics. In the eighth place, our plateau is now under one imperial jurisdiction, and offers many problems for social inquirers. It belongs entirely to the Chinese empire with the exception of one small tract where the Russian authorities have crossed the mountain border. The geographical features for the most part favour national defence and territorial consolidation. The old Chinese Wall is still suitable to the political geography of to-day. In the Zungarian strait, however, in the Ili valley near Kulja, perhaps, also, in the line of the Black Irtish, near Zaisan, the Chinese empire, in its contact with Russia, has weak points strategically, or chinks in its armour. Though the plateau was originally under Chinese suzerainty, it became, under the Mongolian emperor Chinghiz Khan and his successors, the mistress of China, as, indeed, of all Asia and of Eastern Europe. As the Mongol power, however, shrunk and withered, the Chinese re-asserted themselves. At length, under a dynasty from Manchuria outside the mountain border, the Chinese became lords over our plateau. The Zungarian tribe of Eleuths rose, and after severe military operations were suppressed. The Mahomadan inhabitants of the Tarim basin rebelled against the Chinese Government, and for a while maintained an independent principality for Islam. It was during this time that the British sovereign sent an envoy to Yarkand to conclude a commercial treaty, in 1873. Subsequently the Chinese broke down this rising independence, and the whole region of the Tarim receives its orders from the emperor at Pekin. The decline and fall of the Mongol empire, the disruption of the wide-spread dominion, like the breaking up of the ice on its own frozen rivers, are historical themes beyond the scope of this address. But the changes which have gradually come over the national character of Mongolians are cognate to the studies of geographers. As already seen, the annals of the Mongols reveal one of the many examples of the theory of causation, explaining how geographical surroundings mould or affect the human character. There remain the mountains, the sea of undulating uplands, which are still among the few important regions not essentially modified by human action. The pine forests, though hardly intact, have not been extensively cleared. There is the dread desert — where to the ears of superstitious Mongols the roll of the mustering drums and the shouts of victorious battle are audible—and which has engulfed in sandy waves additional tracts the nomadic

consequence of which its water supply is perennially snow-fed Again, the Irrawaddy and the Mekhong, the former watering Burmah and the latter watering Cambodia, rise in the off-shoots of the Kuen-lun. That region, then, in respect of the parentage of important rivers stands in the first rank. This beneficent circumstance rises from the direction of subsidiary ranges which admit to this part of our plateau some of the moisture-laden breezes from the Pacific Ocean. Similarly, the two Indian rivers, the Brahmapootra and the Indus with its affluent the Sutlej, have their origin at a great distance within our plateau, and their water supply is indefinitely augmented in consequence. Notwithstanding the vast volume of their waters, these rivers play an economic part, which, though great, is much less than that of the main Chinese rivers. The Brahmapootra above its junction with the Megna, cannot be said to sustain more than 15 millions of people, and the Indus, together with the Sutlej may support 12 millions. The Ganges and Jumna issuing from masses of snow on the southern scarp of our plateau sustain before their junction at Allahabad, a population of 30 millions—quite irrespective of the deltaic population of the Lower Ganges, for whom moisture is supplied from other sources. Of these Indian rivers, the waters perpetually snow-fed, are largely drawn away for canals of irrigation on a grand scale. Taken all in all, despite defects, the Ganges canal is the most imposing example of hydraulic engineering that has yet been seen. From the glaciers of the Pamir and the western terminus of the Thian Shan there spring the head streams of the Oxus, the Jaxartes, and other rivers ending in the inland sea of Aral. To these, in Persian phrase, the epithet of "gold-scatterer" or "wealth dispenser" is felicitously applied by the natives. Of the rivers rising in the northern section of our plateau, the Amur has possibilities of which the future may see the development. But the great rivers of Siberia, such as the Obi, the Yenisei, and the Lena, though flowing through rich soils and affording marvellous facilities for several systems of inland navigation to be connected with each other, yet have their long estuaries in the permanently frost-bound lands of the Tundra, and their mouths in the arctic waters frozen during most months of the year. Therefore, they can never, in economic importance, vie with the rivers above mentioned which flow into the Pacific and Indian Oceans. In the fourth place, the lacustrine system, though not comparable to that of North America, or that of Central Africa, and not approaching in beauty or interest that of Southern Europe, is yet very considerable. It is not, however, the only one in Asia, and from it must be excluded the three great Siberian lakes of Issykkul, of Baikal, and of Balkash, which, though connected with our plateau, are beyond its actual limits. Exclusive of these, however, the lakes, great and small, within our plateau, are extraordinarily numerous. Not less than a hundred of them may be counted on the maps of this region. Of these lakes, however, some are insignificant, being little more than saline swamps. Others, again, as the Pangong, though romantically beautiful—reposing at an altitude equal to that of the highest European mountains, and reflecting the perennial snow of surrounding peaks—do not illustrate specially any geographical problem, nor produce any economic result. But some may be selected as having a scientific interest, irrespective of beauty or of strangeness. The Lake Victoria, discovered by Wood in 1838, rests in the heart of the Pamir, already mentioned, at an elevation of 14,000ft. above sea-level. It is frozen over during the greater part of the year, and lies with a glistening and polished surface in the midst of a snow-whitened waste. In that state it powerfully affects the imagination of the spectator who reaches it as the final goal, after a protracted and toilsome ascent from the barren or deserted plains of Ariana. It is the source of the Oxus, and is near the point of contact between the British and the Russian political systems in Asia. In the sharpest contrast to the highly-placed Pamir lake is the lowly Lake Lob, already mentioned. Shallow water, sedgy morass, dreary sands, parched forests, the monotone of desolation, are reported to be its characteristics. It apparently consists of the dregs of an inland [illegible]

however, the yak's tail raised aloft. Hither, also, the corpse of Chinghiz Khan was borne in a cumbrous catafalque, dragged through the deep loam by oxen yoked 20 abreast, while his henchmen chanted a dirge which was a pathetic effusion from the heart of a valiant nation, and was full of poetic images drawn from the Mongolian surroundings. In the sixth place, though our plateau has possessed, and still possesses, some patches of fine cultivation, such as those in the Upper Tarim basin, near Yarkand and Kashgar, and some near Lhassa in Tibet, still it has comparatively but little of agriculture, of trade, or of industry. Nevertheless it has many natural resources of value and interest, while its pastoral resources have proved astonishing. Its breed of horses, though by no means the finest, has yet been quite the largest ever known. These horses have never displayed the beauty of the Arabian or the size of the Turcoman breed. They are middle-sized, and do not attain the speed of thoroughbreds. But in nimbleness amid rugged ground, in endurance over lengthened distances, and in preserving their condition with scanty nourishment, they are unrivalled. Their numbers too may well exercise the imagination of modern breeders. For many years the Tartar emperors maintained in the field at least 500,000 cavalry, for which the horses were drawn chiefly from our plateau. This enormous cavalry force was engaged in fighting over an area of many thousand miles in length and breadth, during which operations much desperate resistance was encountered. It was occupied in steep ascents and descents, in traversing deserts, in crossing frozen lakes, in swimming rapid rivers. How vastly numerous, then, must have been the casualties among the horses, and how immense the breeding studs. The pasturage too was so potent in nutritive qualities that ordinarily there was risk of animals suffering from repletion, and emaciated creatures rapidly gained flesh and strength. In other respects, too, the fauna are noteworthy—the sheep and goats, with wool or down of the softest texture—the buffalo herds and the yaks inured to the sharpest cold—the gazelles careering in thousands the untamable camel of the desert having a speed and agility unknown in other species—the wild asses and the white wolves—the waterfowl at times like clouds darkening the air. The flora too, though less abundant, has its specialities—the pointed grasses sharp enough to pierce leather, the gigantic rhubarb, the magnificent holly, the branching juniper. The mineral resources of the Kuen-lun are certainly enormous; nobody yet knows how great they may prove. Indeed, our plateau is remarkable for the antimony, the sulphur, the saltpetre, the borax, the gold-washings, the turquoise, and the classic jadestone. In the seventh place, the field offered by our plateau for scientific research will be apparent from even a cursory consideration of the stage to which our knowledge has reached. From the second of the two diagrams, which shows in deep pink those portions of Asia that have been professionally surveyed, in light pink those that have been roughly surveyed, in lighter pink those that have been explored only, and in white those that are unexplored—it will be seen that almost the whole of our plateau is unsurveyed, and that while much of it has been explored more or less, some portions yet await exploration. For some time, however, it has been the sphere chosen by many among the most skilful, enduring, and intrepid travellers of Europe. The journeys of the Russian Prejevalsky in the Tarim basin and Mongolia, of Potanin and Rafailoff in the same region, of Malussovski near Kobdo, of the French missionaries Gabet and Huc in Mongolia, of the Bishop Desgodins in Tibet, of the German Schlagintweit in Turkestan, of the Englishmen Forsyth, Trotter, Johnson, Shaw, Hayward in the Tarim basin, of Wood in the Pamir, of Ney Elias in Mongolia, of Delmar Morgan in Kulja, of Bogle and Manning in Tibet, while teaching us very much, have yet left our minds dazed with a sense of what remains to be learnt. Even the trigonometrical determination of the Himalayan summits by the English Surveyors-General—namely, Everest, Waugh, and Walker, the researches of Basevi, Stoliczka, Godwin-Austen, Thomson, Biddulph, in the same quarter, and the Siberian surveys by the Russians among

one line is made good geographically fresh lines may present themselves, and new vistas will be opened to the astonished gaze of geographers. At length, with all the constancy and courage which arduous travel never fails to inspire, the inquirers of the future will doubtless explore this plateau till it becomes as well known as the Alpine regions of Europe.

On the invitation of the PRESIDENT,

Mr. JOHN BALL, F.R.S., gave an interesting account of the observations he had made on points of physical geography during a recent tour round South America. The principal feature of the account was the marvellous contrasts between the east and the west sides. On one side Brazil boasted that it could feed the whole human race; on the other were waterless regions, spots which had never produced anything green, and where every stone remained as angular as it was thousands of years ago.

Mr. JAMES THOMSON, who was introduced by the President as one of the most promising pioneers of British enterprise in Southern Africa, read a paper illustrated by a large map on the geographical evolution of the Tanganyika Lake. He said that in a recent lecture of Dr. Archibald Geikie to the Royal Geographical Society he pointed out that the days are now over in which the scientific geographer was content with the simple description of the superficial aspects of the various regions of the globe; he must also know how they came to be, and what they had been in the past. This line of inquiry Mr. Thomson applied to the lake regions of Central Africa, but more particularly to the Tanganyika Basin. In the first place he presented a bird's-eye view of the lake regions from the Indian to the Atlantic Ocean, bringing into relief only the most prominent features of the geography, but describing more in detail the aspect of the Tanganyika Basin, round which the chief interest centres. From a description of these purely superficial matters he proceeded to describe what these have been in the remote past, and the manner in which they have been evolved, being, of course, compelled to call in the assistance of the sister science geology. The conclusions he arrived at as to the primary origin of the region are, from purely hypothetical considerations, based on the theory of a shrinking nucleus, and the necessary effects on the earth's crust arising therefrom. At a later stage, however, he appealed to the rocks themselves as to the aboriginal conditions of the African continent south of the Equator. These, according to Mr. Thomson, prove the existence of an immense central sea cut off from the ocean by the elevation of the continent, and which was almost coterminous with the present drainage area of the Congo. An elevated ridge was upheaved along the eastern boundary of this sea, the origin of the trough of Tanganyika, by the collapse of the centre of this ridge and the central sea, subsequently drained away to the west, leaving Tanganyika isolated. Mr. Thomson then proceeded to describe how its secondary characters arose, and its scenery was moulded, by the action of the sub-aerial denudation on rocks of different powers of resisting the decomposing and eroding agents, and explained the curious marine-like type of its shells, the origin of its outlet, the Lukuga, the freshening of the water of the lake, and finally the curious intermittency of the outflow. The various stages in the evolution of the Tanganyika Basin were summarized as follows:—"The first appearance of the future continent, we have been led to believe from various theoretical considerations, was the appearance of a fold of the earth's crust bounded by two lines of weakness converging towards the south, which fold gradually rose till it appeared above the ocean, first along these two lines of weakness, in the form of a series of islands, which finally join, enclosing in their centre a large part of the ocean. This enclosed water area formed a great central sea, and the enclosing and along the lines of weakness is now indicated by the east and west coast ranges. In the second stage the continent of Africa south of 5 N. latitude presented the outline of the continent of to-day. The third stage shows the central plateau with the great central sea very much diminished in size and almost coinciding with the present Congo Basin. There is as yet no evidence of the existence of Tanganyika. After an enormous period of undisturbed deposition of sand in the sea, the fourth stage is ushered in by a period of great continental convulsions. On the line of the future Tanganyika a huge boss of rock is intruded into the throbbing crust, and the surrounding region elevated to a considerable extent, followed by the subsequent collapse of the body of the elevated area originating the great abyss of Tanganyika. The fifth great stage is marked by the formation of a channel through the western coast mountain, causing the draining of the great central sea, which immediately becomes the inner drainage area of the Congo. The sixth stage then sees Tanganyika isolated as a lake by itself, from which time dates the moulding of its present scenery, the formation of an outlet, the freshening of its waters, and the lowering of its level; and, finally, we have seen that the intermittency of the lake's outflow is explained by the probable fact that the rainfall and evaporation nearly balance each other in ordinary seasons."

COMMANDER CAMERON said he differed entirely from Mr. Thomson. He did not believe in the great risings and falls of the lake, but while the water was to a certain extent dammed back, there would be a temporary rise in the surface of the lake. He did not believe in the rainfall and evaporation balancing each other, but he believed that the lake was practically drained by the river Lukugo and that water flowed under the "sud" or bank of vegetation formed at the commencement of the river, this "sud" itself being sometimes washed away when the lake was high. He had dug into it as he had into an Irish bog.

Mr. THOMSON replied that such banks grew in slow streams, but not in mountain torrents. No bribe he could offer would induce his men to take the canoe to the centre of the river. In reply to a question, he said the depth of the lake was very great, but it had not been sounded and we had no idea what the depth was.

One speaker expressed the opinion that the conflicting views of Mr. Thomson and Commander Cameron could be reconciled on the supposition that the bank was occasionally washed away.

Mr. TRELAWNEY SAUNDERS said the paper was one for the geological section; and

Mr. GEIKIE maintained that Mr. Thompson had made the best use of such features as he could observe.

Mr. Thomson received the thanks of the section with the expression of good wishes in the further explorations he is about to undertake on account of the Geographical Society.

Mr. E. G. RAVENSTEIN gave some account of the Royal Geographical Society's map of Eastern Equatorial Africa. The map, the construction of which had been intrusted to him by the Council of the Royal Geographical Society, was intended to embody in a tangible manner all the information that had been collected up to the time of publication. Large as had been the number of African explorers, much yet remained to be done before our knowledge even of the more accessible parts of Africa could be looked upon as satisfactory. Apart from the line of coast, where the minute surveys of Captain Wharton and others afforded an excellent base, there were but a few isolated localities which had been determined in a trustworthy manner by astronomical observations. On the Upper Zambesi, Livingstone, Mohr, and Serpo Pinto differed in their results to a very serious extent. Between Zanzibar and Tanganyika the only point satisfactorily determined was the capital of Unyanyembe (where Speke observed), while the delineation of the lake depended upon Captain Cambier's determination of Karema. Von der Decken's expedition had supplied trustworthy information as regarded the position of Kilimanyaro and other points nearer the coast. In Southern Abyssinia, M. d'Abbadie's network of triangles, supplemented as it had been recently by Cecchi and Chiarini, afforded an excellent basis for mapping a wide

stretch of country. The exact determination of the course of the Upper Nile we owe to Captain Watson, R E., who was fortunate enough to observe a transit of Venus while at Gondokoro, in 1872. It resulted from this observation that Khartum lay eight miles to the east of the position assigned to it by Captain Bizemoot, a change sanctioned by the careful surveys made between El Fa hr, Khartum, and Dongola by the English engineers working under Mr. Fowler. Good longitudes were few and far between, but latitudes were fortunately very numerous. As to altitudes the results were most discordant, and differences of 1,000ft. in a total altitude of 5,000ft. were by no means rare. The establishment of permanent stations by the French and German African Associations would, no doubt, render future observations for height more trustworthy. For the present, he thought, we were safe in assigning to Tanganyika a height of 2,700ft., while the Victoria Nyanza lay probably at an elevation of 4,000ft. After a rapid examination of the principal explorations which had yielded materials for the map, the vast region stretching along the eastern margin of the Victoria Nyanza righ away to Southern Abyssinia and Harar was pointed out as the vastest and most promising field of exploration in Eastern Africa.

Some discussion followed as to the expediency of further exploring the mountain Kilima Njaro.

Mr. RAVENSTEIN said we knew nothing of one side of the mountain, and a naturalist ought to be sent out there with Mr. Thomson. It might be some consolation to Jumbo if the money we had received for him were spent in increasing our knowledge of the land of his birth. (Laughter.)

COMMANDER CAMERON gave some account of his observations on the Senegal, the Gambia, and the Gold Coast. He stated that the mud brought down by the rivers on the West Coast rendered the charts made some years ago almost useless, and the lighthouses in many instances were scarcely worth the name. He spoke of Sierra Leone as capable of vast production and great trade, and yet producing next to nothing. He gave many interesting particulars indicative of the material and social condition of the people along the coast.

ANATOMY AND PHYSIOLOGY.

Dr. GAMGEE presided in the Department of Biology.

Dr. COBBOLD read a paper "On the Filaria Sanguinis Hominis." The discovery of the parasite was due to the successive researches independently carried on by several observers. Many years ago he had himself observed the filaria in human excreta. A similar observation had been made by a foreign physician, but their presence in the blood had not at that time been discovered. The crowning discovery was that of Dr. Manson, of China, who not only found that myriads of those parasites existed in the blood, but that they passed in and out of the blood at regular intervals. It was found that as many as 37,000,000 of these creatures existed in the blood of one person. Dr. Manson and Dr. Myers of Formosa had carried on minute experiments with young natives, who had heroically submitted to vivisection in the cause of science. These natives allowed their fingers to be pricked, in one case, every quarter of an hour for one or two days, and in the other, every three hours for two months. It was by those experiments established that the parasites became fewer and fewer till they at last disappeared during waking hours, whereas in the evening they gradually returned. The experiment was then made of changing the hours of sleep to the daytime. At first the filariæ were taken by surprise, but gradually they made a similar change in their periods of migration, going away at night and returning in the morning. Dr. Mortimer Granville, who had investigated the phenomena of sleep, associated the presence of the filariæ with the conditions present in sleep. It was found too, that mosquitoes fished in the human blood for these parasites, which were also conveyed in water into the human system. Similar parasites were found in the blood of dogs and other animals, but there was in these a much less regular periodicity than in what might be called the human variety. In the case of filariæ, which found their way into the blood through drinking water, highly developed larval forms were very speedily assumed.

Dr. GAMGEE thought it was more probable that the presence or absence of the filariæ was connected with the taking of food, and with lymph streams to the blood.

Dr. COBBOLD admitted that the return of the parasites began gradually some hours before sleep in the early evening. The case of dog parasites led to the same conclusion, as dogs did not take their food so regularly as man. He explained that the filariæ were absorbed from the blood into different parts of the system, from which at the regular period they re-entered the blood.

A paper by Dr. MANSON on the same subject was also partially read.

Dr. MACLEAN testified to the existence of filariæ in a disease, known as chylous urine, in India. They were supposed to be the cause of the disease.

Dr. COBBOLD, in reply to various questions, said further information was still needed as to what became of the filariæ which remained in the water where they were deposited by the mosquito, but he conjectured that they perished if they were not drunk with the water by man. Powerful drugs administered to the young men who were suffering from filariæ did not affect the parasites. The mosquito did not go to the human frame for blood for food, but for another purpose. The blood, in fact, heated the ova of the mosquito. There was no doubt that lymphoid affections hitherto supposed to be due to miasma were really due to the existence of these parasites in the blood.



Anthropology is the newest of the sciences, just as man is the latest product of evolution. Only a few years ago it had no place in the programme of the British Association, and even after it was admitted it was regarded for some time with jealousy and dislike. But the "chipped flints" of Abbeville, which a bellicose theologian once derisively contemned as unworthy of serious attention, as he now contemns uncial manuscripts of the Greek Testament, have won their way to recognition, and have proved the clue to a wide and deeply interesting field of research. The question of when man first made his appearance in the regions of the earth now inhabited by him is one which science is as much entitled to ask as any other, and it must be answered by precisely the same methods of investigation as those which have already determined the geological history of the globe. It cannot as yet be answered chronologically. We cannot say how many thousands or hundreds of thousands of years have elapsed since the "river-drift "hunter" fashioned flints for his pursuit after the same pattern and for the same purposes in places so

widely distant from each other as England and the Valley of the Nile, India and North America. All that we can say is that this the earliest age of man revealed by anthropological research belongs to what may be called the latest period of geological time—to the Pleistocene period, as geologists and palæontologists call it, when the fauna of the world was beginning to assume the characteristics which it still exhibits in the main, though its geographical distribution was widely different from what it is at present. This result, at any rate, may be taken as firmly established. The evidence accumulates daily, and its interpretation becomes continually more certain. For the nature of the evidence, and the conclusions to be drawn from it, we may refer our readers to the address delivered yesterday by PROFESSOR BOYD DAWKINS as President of the Anthropological Section of the British Association. As long ago as 1859, the subject of the flint implements found in the drift at Abbeville was brought before the British Association at Aberdeen by SIR CHARLES LYELL. Shortly afterwards it gave rise to a lively discussion both in England and France, and the matter was warmly debated on grounds not exclusively scientific. In his work on the "Antiquity of Man" SIR CHARLES LYELL quotes, in reference to the history of this question, the now well-known saying of AGASSIZ, "that whenever a new and star-"tling fact is brought to light in science, people "first say 'it is not true,' then that 'it is con-"'trary to religion,' and, lastly, that 'everybody "'knew it before.'" Years have elapsed, and the whole question has passed even beyond the latest of these stages. It certainly cannot be said that every one knew before all that PROFESSOR DAWKINS has to tell them, but it is nevertheless the fact that the fresh and abundant evidence which he adduces will be accepted without demur, as merely corroborating and illustrating a view of the antiquity of man which no one now seriously thinks of disputing.

The earliest traces of man's existence and industry are found, as is now well known, in certain rudely fashioned flint implements imbedded in river drift—that is, in the deposits of sand and gravel which once occupied the beds of ancient rivers. These implements point to a time when the working of metals was entirely unknown, and when even the flints which men picked up in their wanderings could only be rudely chipped to a cutting edge, and were never wrought to a smooth surface. The majority of them certainly, and probably the totality of them, belong to the Pleistocene period of geology, the zoological characteristic of which is that in it the living species of placental mammals are more abundant than the extinct. The evidence adduced for the existence of man in the Pliocene, or immediately preceding period, is rejected by PROFESSOR DAWKINS, and his scepticism is reinforced by the general consideration that the occurrence of man, the most highly specialized mammal, at a time when very few species of existing mammals were alive is antecedently improbable. But the restriction of man to the Pleistocene period, and very probably to the later portions of it, still leaves a great many questions unanswered. The earliest flint implements are found associated with a very complicated fauna and flora. The Pleistocene period includes within its range geological conditions of widely different character. It is certain that at one time the British Islands formed a portion of the mainland of Europe, occupying the greater part of the North Sea, with the exception of a narrow belt or gulf surrounding Scandinavia, and extending from the Iberian peninsula, outside the west coast of Ireland, along the present hundred-fathom line of the Atlantic. At that time the rivers of Northern Europe reached the sea at a point north-east of the Shetlands, and received the eastern rivers of England and Scotland as their tributaries. The northern rivers of France reached the Atlantic through what is now the mouth of the Channel, and the Severn took a parallel course, receiving the southern rivers of Ireland. Abundant traces of this period are found in the forest-bed which extends for more than forty miles along the shores of Norfolk and Suffolk, passing into the cliff on the one hand, and beneath the sea on the other. PROFESSOR DAWKINS gives a graphic description of this forest and its inhabitants. It affords, however, no direct evidence of the existence of the river-drift man, and general palæontological considerations seem to point to his appearance at a somewhat later date. The forest-bed period was followed, at how great an interval cannot be exactly determined, by the so-called glacial period, when, owing to causes variously assigned by different authorities, a great portion of the British Isles was submerged beneath the ocean, leaving an archipelago of mountainous islands covered with glaciers which ended in the surrounding sea. This glacial depression was followed by a subsequent re-elevation, "by which the "British Isles, a part of the Continent, and all the "large tracts of country within the hundred-fathom "line, again became the feeding grounds of the late "Pleistocene mammalia." At what period during these several changes the river-drift man first made

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his appearance the Professor hesitates to determine. The evidence afforded by the association of flint implements with mammalian remains is inconclusive, because the associated animals "were in Britain before as well as after the sub-"mergence, and were living throughout in those "parts of Europe which were not submerged." But an examination of the evidence gathered from a wider area of observation tends to sustain the inference that the race, or races, of men whose identical traces are found in India, in North Africa, throughout Europe, and in North America invaded Europe in pre-glacial times, along with the other living species which then appeared. It is certain that they existed in glacial times and survived into the post-glacial period. The cradle of the race is placed by the Professor in a warm if not a tropical region of Asia, in "a garden of Eden" in fact, and from thence it spread radially into those regions, so wide asunder, where identical implements, pointing to identical occupation and evolution, if not to identical origin, are still to be found.

The river-drift man was evidently a hunter, and nothing more. He lived by prey, like the animals which surrounded him; and his supremacy over his formidable foes—the lion, the panther, the hyena, the elephant, the mammoth, the rhinoceros, the elk, and the bear—was established by his contriving brain and by the associated power of his hand to fashion the rude weapons with which he slew his prey. The great mystery of all, perhaps, is his survival in the midst of such an environment. The Greek poet, living in the midst of a civilization which had produced PHIDIAS and his works, was naturally prompted to exclaim that of all wondrous things nothing was so wondrous as man; but it may be doubted whether among the marvellous works ascribed to man by SOPHOCLES there is anything more marvellous than his primordial power to survive and advance, to contrive, invent, and accomplish in the midst of the terrible fauna of the later Pleistocene world. Between the Greek poet and the hunter of the river-drift the difference is so vast as to be almost immeasurable, but it may not, after all, be greater than that which separates the first fashioner of a flint hatchet from his own primordial ancestors. Men are almost apt to lose the sense of time in gazing at the rock-hewn tombs of Egyptian kings at Luxor. But that incalculable vista of the past is at once reduced to insignificance by the reflection that the very material out of which the tombs are hewn contains specimens of the implements which were common to all mankind at a period immeasurably more remote, and yet so far removed from the beginning that the race had already spread, and carried its arts and habits with it, over a continent extending from India to North America, from the Hebrides to the upper valley of the Nile. The lucid summary of the extant evidence furnished by PROFESSOR DAWKINS tells of the existence, within the Pleistocene period, of a rudimentary human civilization, if such it can be called, extending throughout this wide area. But it answers no question concerning the origin of man, it leaves his antiquity almost an open question, and it suggests quite as many problems as it solves. All that we can say is that races of men existed, and possessed contrivances rude in themselves but immeasurably removed from the unprogressive instincts of animals, at a time long anterior to the latest geological changes in the conformation of the earth's surface. Beyond the earliest palæolithic period itself, which attests the spread of mankind throughout the northern hemisphere of the earth, there stretches the incalculable and irrecoverable past of the human species. Were there several races spreading from separate centres, each marching in its own way towards the common goal of civilization exhibited in the Pleistocene period, or was the Pleistocene earth peopled from a single stock? These are speculative questions to which science as yet can afford no answer whatever. All that we know is that the "celt," or flint implement, of Luxor is practically identical with the "celt" of the Kentish drift, and that India furnishes implements hardly distinguishable from those of North America. Like causes may produce like effects at widely distant intervals of time and space, and thus the identity of implements is as consistent in itself with a diversity of races and of centres of dispersion as it is with the gradual dispersion of mankind from a single centre. Mere speculation, however, on points such as these is idle and misleading; we must be content to remain in ignorance until science can enlighten us, and where the record cannot be recovered the problem must be regarded as insoluble. The river-drift man, like the man of the present day, is, as CARLYLE would have said, the meeting point of two immensities. Behind him is the lost record of a limitless past, during which his ancestors or congeners peopled the earth and began to subdue it; before him is the promise and potency of all that civilization has done, and all that it has still to do in a future as measureless as the past. If any one wishes for an exercise in the scientific uses of the imagination, he need do little more than picture to himself in all its completeness the condition of the earth and its inhabitants in the

Pleistocene period, and seek for an adequate explanation of man's supremacy and survival.

The promised discourse on Tides, by SIR WILLIAM THOMSON, has been looked forward to as one of the attractions of the Southampton meeting, and its delivery on Friday did not disappoint the expectation which had been aroused. Few subjects can be more interesting than the laws which govern the movements of the mighty mass of water which surges, twice a day, against ocean shores, and recedes again as soon as its appointed limit has been reached; and such is the grandeur of the phenomenon that even familiarity has failed to produce indifference to it. Of late years, moreover, there has been a growing hope that the tidal force might be utilized as a motor, and that its services to mankind would no longer be limited to facilitating the navigation of estuaries and rivers. At least one projector has declared that the tides around the shores of this country might be employed as sources of electricity, from which, in their turn, all necessary heat, light, and mechanical motion would be developed; so that the daily recurrence of the flux and reflux of water would enable our posterity to regard the exhaustion of the coalfields without anxiety. SIR WILLIAM'S paper lent no direct support to this suggestion, but it described what might be at least one step in the direction of its fulfilment, in the shape of an instrument by which, after certain *data* had been obtained by observation, the variations of the tide at any place could be predicted for the future, so that the amount of the flow of water available, and the time of its arrival, would be accurately known beforehand. The instrument appears to be a sort of calculating machine, the rotations of the various connected parts of which issue in the delineation of a curve varying with their adjustments; and thus it solves the complicated and ever-changing problems to which it is intended to be applied. For the tide wave, although the genius of NEWTON gave form and shape to the observation of the ancients touching its dependence upon lunar changes is not a bare consequence of the action of gravitation, but is so much modified by circumstances, some general and some local, that there are scarcely two places in which the results are alike. Roughly speaking, of course, tides are motions of water on the earth due to the attraction of the sun and moon; but SIR WILLIAM THOMSON, in giving this formula as an answer to the question, "What is a tide?" admitted that to frame any answer was difficult. The accepted notion is that the tide is an elevation of water due to the aforesaid attractions, greatest when they are coincident, and least when they are in opposition; but the actual facts of the case cannot be stated in a manner so concise as this. NEWTON laid down the principle that the attraction was not to be regarded as a simple one, between a certain mass of water and the heavenly body, but as one of an exceedingly compound character, between every particle of the sun or moon and every particle of which the mass of water was composed; and by this enunciation he did scarcely more than provide the basis on which further investigations might be founded. His work was taken up by MACLAURIN, BERNOUILLI, and EULER, as the result of a prize offered by the Paris Academy; and additional *data* for deciding the conditions of tides in mid-ocean, apart from the friction and other impediments occasioned by shore formation, were obtained by the researches of DR. MASKELYNE, in 1764, at Barbadoes and St. Helena. Since that time but little additional knowledge has been gained upon the subject; and it is, therefore, a matter for much congratulation that the investigation should be resumed by a natural philosopher of SIR WILLIAM THOMSON'S position and attainments, who is also a practical seaman of known skill and experience.

It will afford some notion of the various conditions which must be taken into account before anything like a complete knowledge of tidal action can be obtained, if we remember that in the open ocean the rise or fall nowhere exceeds a foot or two; while at Mount St. Michael the rise is eighty or ninety feet; in the Bay of Fundy, particularly at Annapolis, it sometimes amounts to a hundred feet; and about the Morea there is no change at all. On our own coasts the rise varies from thirty to forty feet, at some parts of the West of England, to be *nil* at a point in the German Ocean north of the Straits of Dover, where a flow transmitted through the Straits encounters an ebb transmitted round the North of Scotland, so that an equilibrium is maintained. The actual movement due to attraction, moreover, whatever it may be, requires time for its full development, and still more time for its propagation; the latter requirement being greatest where movement is impeded by shore friction, and thus reaching its *maximum* where the friction is due to the beds and winding channels of rivers, along which, consequently, the tidal elevation passes as a wave, succeeded by the depression of the ebb, and this again by a flow. If it be high water at the mouth of the Thames at noon, the full flow will not reach London-bridge until midnight, by which time it will again be

high water at the Nore. In the meanwhile, there has been low water at the Nore, and high water about half-way to London; and while the high water is proceeding to London it is ebbing at this intermediate place, and is low water there when it is high water at London and at the Nore. Where the river is of such magnitude as to afford a sufficient distance for the full development of the phenomena successive tides produce successive but co-existing elevations, separated by corresponding depressions; and in the river Amazon, between Para, at the mouth of the river, and the confluence of the Madera, there are no less than seven co-existent high waters, with as many low waters between them. The same kind of thing occurs in all arms of the sea, or in all gulfs or bays which are open to the main ocean on a single aspect; the successive tides sweeping along their shores to reach different places in succession, and this at a rate of speed which is greatly determined by the sinuosities and other characters of the coast line. That the tide should to the fullest extent be rendered available for the service of man, the phenomena which it will present at any given place must be carefully studied; and SIR WILLIAM THOMSON has provided the means of doing this with an accuracy and completeness which were not previously attainable. Besides the daily and monthly variations with which all are familiar, there are many others which must be taken into account; and SIR WILLIAM enumerated, in addition to the lunar and solar semi-diurnal tides, certain others which have periods approximately of 24 hours and are of great importance in the Pacific and in the India and China seas, and also the lunar fortnightly and electric tides, and the solar annual and semi-annual tides. He referred to the recent researches of MR. DARWIN, who has simplified one element in the necessary calculations by his disproof of the hypothesis that the crust of the earth itself is modified in shape to a considerable degree by solar and lunar attraction, and has thus eliminated the idea of there being a solid tide, so to speak, in addition to the liquid one. These researches justify the belief that the rigidity of the earth is about equal to that of a globe of homogeneous steel of the same dimensions, and hence that no important modifications of its outline can occur.

Besides considering tides as phenomena which may be rendered useful to man, we have often to consider them as enemies which call for the energetic employment of means of self-defence. A correspondent has lately warned us that the highest tide of the present year is to be expected upon the south coast of England on the evening of Wednesday next, passing on to the more northerly coasts in the course of Wednesday night and Thursday morning; and that the two preceding and succeeding tides will also be of unusual magnitude. The actual elevation of the water will greatly depend upon whether it is aided or resisted by the wind; but in any case this elevation is certain to be considerable. It has now become a familiar experience that a high tide in the Thames may mean the extensive inundation of low-lying districts on the south bank of the river, and great loss of property, and even of life, among the poor inhabitants. Much has been said, but probably little has been done, about the raising of embankments and other means of protection; and it is possible that Wednesday or Thursday may witness a renewal of former disasters from inundation. If this should happen, there will in due course be an appeal to the charitable for pecuniary help; and benevolent ladies and clergymen will be active in their endeavours to repair the losses which water has occasioned. Being forewarned, why should not these kindly people be forearmed? It would be wise to constitute some organization beforehand, to inform the poor dwellers in the localities liable to inundation of the danger to which they will be exposed, and to give those who live in cellars or on ground floors help, if help be needed, to put themselves and their belongings into safety until the period of high tides has passed away. Not only would such a course be wiser than waiting for the mischief to be accomplished; but it would also be far more philanthropic. The harm done by a flood cannot be measured by the destruction of property, and always includes, either directly or indirectly, the sacrifice of life. Poor children cannot be half-drowned in their beds, and rescued drenched and shivering, with no adequate clothing to shelter them and no food or warmth immediately accessible, without much illness being the result; and there can be no doubt that those who officiated as almoners after the tidal floods of [illegible] years could furnish many illustrations of the fact. It ought to be rendered impossible for the calamities of the past to be fully reproduced; and, until our engineers are permitted to deal with the cause of the evil, it is not too much to say that local authorities and local charity ought to be active in the work of endeavouring to minimize its effects.

THE BRITISH ASSOCIATION.

The following is a report of the more important proceedings in the various sections during the past week :—

SOUTHPORT, SEPT. 20.

BIOLOGY.

Professor E. Ray Lankester advocated the endowment of research, especially in biology, urging that in the past it had produced discoveries of the greatest service to humanity, and that it was retarded by the want of means to prosecute it, and he propounded a scheme for the establishment of institutes such as exist in Germany, claiming to use the funds which were left 250 years ago by Sir Thomas Gresham for the establishment of laboratories, and which are now represented by property worth three millions, put to other uses a century ago by the City Corporation and the Mercers' Company. He said :—

Those Englishmen who take an interest in the progress of science are apt to suppose that, in some way which they have never clearly understood, the pursuit of scientific truth is not only its own reward, but also a sufficient source of food, drink, and clothing. While they are interested and amused by the remarkable discoveries of scientific men, they are astonished whenever a proposal is mentioned to assign salaries to a few such persons, sufficient to enable them to live decently while devoting their time and strength to investigation. The public are becoming more and more anxious to have the opinion or report of scientific men upon matters of commercial importance, or in relation to the public health; and yet in ninety-nine cases out of a hundred they expect to have that opinion for the asking, although accustomed to pay other professional men handsomely for similar service. Such mistaken views ought to be dispelled. It is in part owing to the fact that the real state of the case is not known, that no attempt is made in this country to raise scientific research, and especially biological research, from the condition of destitution and neglect under which it suffers—a condition which is far below that of these same interests in France and Germany, and even in Holland, Belgium, Italy, and Russia, and is discreditable to England in proportion as she is richer than other States. We know that knowledge is languishing, that able men are drawn off from scientific research into other careers, that important discoveries are approached and their final grasp relinquished, that great men depart and leave no disciples or successors, simply for want of that which is largely given in other countries, of that which is most abundant in this country, and is so lavishly expended on armies and navies, or the development of commercial resources, on a hundred injurious or meaningless charities—viz., money. I need hardly remind this audience of the almost romantic history of some of the great discoveries which have been made in reference to the nature and history of living things during the past century. The microscope, which was a drawing-room toy a hundred years ago, has, in the hands of devoted and gifted students of nature, been the means of giving us knowledge which, on the one hand, has saved thousands of surgical patients from terrible pain and death, and, on the other hand, has laid the foundation of that new philosophy with which the name of Darwin will for ever be associated. When Ehrenberg, and later, Dujardin described and figured the various forms of monas, bibrio, spirillum, and bacterium which their microscopes revealed to them, no one could predict that fifty years later these organisms would be recognised as the cause of that dangerous suppuration of wounds which so often defeated the beneficient efforts of the surgeon, and made an operation in a hospital ward as dangerous to the patient as residence in a plague-stricken city. Yet this is the result which the assiduous studies of the biologists, provided with laboratories and maintenance by Continental States, have in due time brought to light. Theodore Schwann, Professor at Liège, first showed that these bacteria are the cause of the putrefaction of organic substances, and subsequently the French chemist Pasteur, professor in the École Normale of Paris, confirmed and extended Schwann's discovery, so as to establish the belief that all putrefactive changes are due to such minute organisms, and that if these organisms can be kept at bay no putrefaction can occur in any given substance. It was reserved for our countryman, Joseph Lister, to apply this result to the treatment of wounds, and by his famous antiseptic method to destroy by means of special poisons the putrefactive organisms which necessarily find their way into the neighbourhood of a wound, or of the surgeon's knife and dressings, and to ward off by similar means the access of such organisms to the wounded surface. The amount of death, not to speak of the suffering short of death, which the knowledge of bacteria gained by the microscope has thus averted is incalculable. Yet, further, the discoveries of Ehrenberg, Schwann, and Pasteur are bearing fruit of a similar kind in other directions. It seems in the highest degree probable that the terrible scourge known as tubercular consumption or phthisis is due to a parasitic bacterium (bacillus), discovered two years since by Koch of Berlin, as the immediate result of investigations which he was commissioned to carry on at the public expense in the specially erected Laboratory of Public Health by the German Imperial Government. The diseases known as erysipelas and glanders or farcy have similarly, within the past few months, in German State supported laboratories, been shown to be due to the attacks of special kinds of bacteria. At present this knowledge has not led to a successful method of combating those diseases, but we can hardly doubt that it will ultimately do so. We are warranted in this belief by the fact that the disease known as "splenic fever" in cattle and "malignant pustule" or anthrax in man has likewise been shown to be due to the action of a special kind of bacterium, and that this knowledge has, in the hands of MM. Toussaint and Pasteur, led to a treatment in relation to this disease similar to that of vaccination in relation to smallpox. By cultivation a modified growth of the anthrax parasite is obtained, which is then used in order to inoculate cattle and sheep with a mild form of the disease, such inoculation having the result of rendering the cattle and sheep free from the attacks of the severe form of disease, just as vaccination or inoculation with cowpox protects man from the attack of the deadly smallpox. One other case I may call to mind in which knowledge of the presence of bacteria as the cause of disease has led to successful curative treatment. A not uncommon affliction is inflammation of the bladder, accompanied by ammoniacal decomposition of the urine. Microscopical investigation has shown that this ammoniacal decomposition is entirely due to the activity of a bacterium. Fortunately this bacterium is at once killed by weak solutions of quinine, which can be injected into the bladder without causing any injury or irritation. This example appears to have great importance, because it is the fact that many kinds of bacteria are not killed by solutions of quinine, but require other and much more irritant poisons to destroy their life, which could not be injected into the bladder without causing disastrous effects. Since some bacteria are killed by one poison and some by another, it becomes a matter of the keenest interest to find out all such poisons, and possibly among them may be some which can be applied so as to kill the bacteria which produce phthisis, erysipelas, glanders, anthrax, and other scourges of humanity, while not acting injuriously upon the body of the victim in which these infinitesimal parasites are doing their deadly work.

In such ways as this biology has turned the toy "magnifying glass" of the last century into a saver of life and health. No less has the same agency revolutionized the thoughts of men in every branch of philosophy and speculation. The knowledge of the growth of the chick from the egg and of other organisms from similarly constituted beginnings has been slowly and continuously gained by prodigious labour, extending over generation after generation of students who have occupied the laboratories and lived on the stipends provided by the Governments of European States—not English, but chiefly German. It is this history of the development of the individual animal and plant from a simple homogeneous beginning to a complex heterogeneous adult which has furnished a starting-point for the wide-reaching doctrine of evolution. It is this knowledge, coupled with the knowledge of the myriad details of structure of all kinds of animals and plants which the faithful occupants of laboratories and the guardians of biological collections have in the past 100 years laboriously searched out and recorded—it is this which enabled Darwin to propound, to test, and to firmly establish his theory of the origin of species by natural selection, and finally to bring the origin, development, and progress of man also into the area of physical science.

SOUTHPORT, SEPT. 22.

ANTHROPOLOGY.

Mr. J. Park Harrison, M.A., read the report of the Committee appointed for the purpose of defining the Facial Characteristics of the Races and Principal Crosses in the British Isles.

The Secretary, Mr. G. W. BLOXAM, read the report of the Anthropometric Committee, which had been drawn up by Mr. C. Roberts and Sir Rawson Rawson. The committee was appointed in 1875, and has made five previous reports. It has received and expended grants to the amount of £280. Its object has been to collect, analyze, and tabulate observations upon the physical character of the inhabitants of the British Isles. The committee has availed itself of the large body of observations on stature, weight, complexion, and chest-girth previously collected by Dr. Beddoe and Mr. Roberts, and has thus been able to deal with a total number of observations on about 53,000 individuals, of both sexes and of all ages, on which to construct its tables and to base its conclusions. The statistics are unique in range and numbers; have been obtained from a large number of independent observers in different parts of the kingdom, who were generally ignorant of the use to be made of them; and have been tabulated impartially, and irrespective of any preconceived opinions. A table, which is illustrated by five maps, shows the stature, weight, and complexion of the population in the several counties of Great Britain and in the four provinces of Ireland, and shows that the variations that exist in different parts of the country are chiefly due to differences of racial origin. The descendants of the several invading nations, who are known to have been people of great stature, retain more or less their pre-eminence. On the other hand, the aborigines of Britain, who were of low or moderate stature, have bequeathed that peculiarity to their descendants.

BRITISH CALIBRE.

The popular conception of the British Association is that of an annual gathering of the devotees of science for talk, excursions, and *soirées*. Many suppose, we have no doubt, that these wise men of the West seclude themselves in their studies, laboratories, dissecting rooms, and professorial chairs all the year round till the time for the annual festival arrives, when they burst their bonds, swoop down on some unfortunate town, talk a week and return to their dull retreats for another 51 weeks. Few outsiders ever dream that the Association exists for any purpose beyond its annual meetings. True, those who glance at the reports of the yearly proceedings must notice that among the presidential addresses delivered and the papers read in the sections numerous "reports" are intercalated; but probably the ordinary reader never stops to think what may be the difference between a "report" and a paper. The truth is, however, that these reports are significant of the main purpose for which the British Association was originally founded—the advancement of science. It was not merely intended that English followers of science should meet each year for social intercourse and the reading of papers. Out of the funds which the Association had to dispose of it meant to encourage research—to take upon itself, indeed, those functions which Professor Ray Lankester maintains ought to be discharged by the State. From its first start the Association has spent each year a considerable sum in the endowment of individuals and committees to carry out special researches of a kind which could never "pay," but which were indispensable to the real advancement of science. Every year a series of grants is made for this purpose, and at every meeting the committees so endowed present their reports to the proper sections. Most of these reports have but little interest for the general public, however vital may be their bearing in the development of scientific knowledge. A vast amount of real service has thus been done to science by the Association, and some of these reports are often referred to in scientific treatises as of standard and permanent value. The record we print to-day of the proceedings shows that the final report of the Anthropometric Committee was read on Saturday. The report is one that will appeal to everyone, and is a fine illustration of the real work which is being carried on by the Association, the results of which are only briefly told at the annual meetings. In itself it is a striking illustration of the application of rigidly scientific method to the most ordinary and commonplace operations, and of the vast amount of research into apparently trivial points which the real scientific worker must institute before he is able to discover a few apparently simple facts.

The Anthropometric Committee have been at work for some years, and have produced annual reports. The report of the present year is their final one, though they admit that they are only on the threshold of their research and have merely provided a solid *point d'appui* for further operations. As the title of the committee shows, the object of its appointment was for the measurement of men—the people, in fact, of these islands. "The committee was appointed for the purpose of collecting observations in the systematic examination of the height, weight, and other physical characters of the inhabitants of the British Isles." The fact is that all sorts of measurements were taken of people of all classes, of all ages, of both sexes, living in all parts of Great Britain, but only to a small extent in Ireland. Not only have the committee been taking our heights and weights, but the dimensions of our chests and heads and of all our limbs, our

heights sitting and standing, the stretch of our arms, the colour of our hair and eyes and their various combinations (complexion, in short), our strength as measured by power to pull an ingenious spring apparatus, rate of growth of children, and many other points.

Probably the first and main object in view in the appointment of this committee was ethnological; to discover whether the various elements that have contributed to the formation of this nation have left any marked racial characteristics upon the present population. We know pretty well what have been the leading racial elements that have contributed to the population of these islands. We know that before a Celt sighted the cliffs of Dover Britain was occupied by a people quite unlike either Celt or Saxon—a short, long-headed, dark curly-haired race, whose remains have been abundantly found in the long barrows. And even they, in all probability, were not the first occupants of our islands, for the caves and river-drifts have revealed the remains of a people of quite different type and more civilization, though to what extent they have contributed to the population may probably never be discovered. When the Celts appeared it is likely enough that they treated the curly-haired race pretty much as the Saxons treated themselves, and drove them back into the remote and inaccessible parts of the islands; though, to judge from the mixed features almost everywhere found, there must have been considerable mixture of the two races. But that the Celts, in their two types, Gael and Cymri, in the end spread themselves over nearly the whole of the islands there is little reason to doubt. And so the Romans found them on their arrival. The latter appear to have made but little impression on the racial features of the population, and it remained for the Saxons to introduce a new element which told powerfully on the ethnological characteristics of the islands. We know the directions in which they spread. We know that the Celts were driven westwards and northwards, towards the same regions in which their predecessors had in the main collected. Wales and Strathclyde—*i.e.*, North-West England and South-West Scotland—formed a refuge for the Cymri; while Northern Scotland remained the home of the Picts, to whichever branch of the Celts they belonged. Ireland remained largely Gaelic; and sent its hordes into Western Scotland to establish there, after four centuries, a Gaelic kingdom. All over Southern, Eastern, and Central England, and Southern and North-Eastern Scotland, we should expect to find the fair-haired, blue-eyed, large-limbed Teutonic element, only slightly modified subsequently in some of the East Coast regions and the extreme North and North-West of Scotland by the Scandinavian intrusions. The Norman invasion did not materially change the ethnological position; it only to a very small extent ousted the existing population, contenting itself with giving us a dynasty and an aristocracy. How, then, are we to discover whether the characteristics which we know marked these various elements still survive in the districts which were finally peopled by them? The Anthropometric Committee have sought to solve the problem by taking a large series of minute measurements and observations of the leading features that go to make up the physical character of men, and comparing them with what we know were the racial characteristics of the various swarms that formed the original elements of the population. The results are of the greatest interest. Another Committee are collecting photographs from the various districts of the kingdom, and when their labours are complete, the comparison of the results obtained by the two Committees must be very curious.

The following, then, are the 12 points to which the Anthropometric Committee have mainly directed their attention:—Stature, weight, girth of chest, colour of eyes and hair (complexion), breathing capacity, strength of arm, sight, span of arms, size and shape of head, length of lower limbs as shown by the difference between the sitting and standing positions, girth, length and breadth of other parts of the body. As might be expected, the Committee found some difficulty in obtaining complete answers to all their inquiries; but quite enough has been obtained to justify them in coming to provisional conclusions. With their own observations they have combined those previously obtained by Dr. Beddoes and Mr. Roberts, so that for the leading points of their inquiry they have had observations on about 53,000 individuals of both sexes and all ages. We need scarcely say the Committee have taken the greatest precautions in collecting their information, and have tabulated and compared the results with complete indifference as to what might be the final conclusions. Into their carefully devised methods we cannot enter, but must content ourselves with a brief *résumé* of the results. As the observations made on Irishmen were mainly on those living in England, the conclusions as to that country cannot be regarded as quite so satisfactory as those with reference to England and Scotland.

The first observations discussed are those relating to the stature, weight, chest-girth, and strength of 8,585 adult males (ages from 23 to 50) of the population of the United Kingdom, arranged according to place of birth. The general results of these observations are summarized as follows:—In height the Scotch stand first (68·61 inches), the Irish second (67·90 inches), the English third (67·36 inches), and the Welsh last (66·66 inches), the average of the whole being 67·66 inches. In weight the Scotch take the first place (165·3lb.), the Welsh second (158·3lb.), the English the third (155lb.), and the Irish the fourth (154·1lb.), the average weight of the whole being 158·2lb. Thus the Scotch are the tallest and the heaviest, the English take the third place in both tables, while the position of the Welsh and Irish is reversed; the Irish, occupying the second place in stature, come last in weight, and the Welsh, though lowest in stature, stand second in weight. For each inch of stature a Scotchman weighs 2·406lb., a Welshman 2·375lb., an Englishman 2·301lb., and an Irishman 2·270lb. Thus, then, so far as height and weight are concerned, the Scotchman bears the

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palm; but he will look upon the discovery of the British Association Committee as simply giving the hall-mark of science to his own instinctive conviction that he is a much better man in all respects than the "fause southron." The Committee make the important practical remark on the above results that if each country is to furnish its quota of soldiers, it is obvious that the *minimum* standard for Welsh recruits should be two inches lower, and for English and Irish recruits one inch lower, than for Scotch recruits. Unfortunately, the chest measurements taken in the above-mentioned group are almost entirely those of Englishmen, as also the figures for strength. These measurements show that an adult Englishman of typical proportions has a stature of 5ft. 7½in., a chest girth of 36½in., a weight of 10st. 10lb., and is able to draw, as in drawing a bow, a weight of 77½lb. On the diagram in which all these observations have been embodied, the curve of the English very nearly corresponds with that of the average of the whole kingdom, so that, in these respects at least, the Englishman is the typical Briton.

Another series of observations refer to the relative stature, weight, and strength of adult males and females in England. The average stature of adult males is 67·36in. and of females 62·65in. showing a difference of 4·71in. The average weight of males is 155lb. and that of females 122·8lb., showing an excess of 32·2lb., or about 2 1-3 stone, on the side of males. Although the observations as to strength were not so comprehensive as they might have been, still they may be regarded as an approximation to the average. The difference of strength, then, was found to be 35lb., the females being little more than half as strong as the males. Thus the weaker sex have a very long leeway to make up before they can consider themselves on such a footing of equality with the stronger sex as the advocates for their "rights" maintain they ought to have.

One of the most interesting features of the report is a series of shaded maps, which present at once to the eye the relative distribution of the stature, weight, and complexion of the adult male population in the several counties of Great Britain and in each province of Ireland. The results, the Committee candidly point out, must be accepted with a certain amount of reservation, though they tally wonderfully with what might be expected as the result of the original distribution of the racial elements of our nation. We all know how persistent through generations are family features, and no less persistant are the leading characteristics of a tribe or a race, often in spite of extensive intermixture. It is only since the very recent introduction of railways that free intermixture of the various sections of the population has begun to take place; and in spite of that the great bulk of the people probably still continue to occupy the localities, within narrow limits, in which their remote ancestors found themselves after the invasions and the disturbances consequent thereon ceased. From these maps, then, we find, in the first place, that the very tallest men (average stature 5ft. 9½in. and upwards) are found in the Scotch counties of Kirkcudbright, Ayr, and Wigton on the one side, and the three Lothians and Berwickshire on the other. The next stage in height, 69in. to 69½in., is found to prevail also in Scotch counties —Sutherland, Ross and Cromarty, Skye, Perth, Stirling, Dumbarton, Fife, Kinross, and Clackmannan; to which, however, must be added the North and East Ridings of Yorkshire. All the other Scotch counties are embraced in the heights between 67½in. and 69in., only Shetland and the Western Hebrides coming so low as 67½in. to 68in. Northumberland and the Irish provinces of Connaught and Munster have for their average heights 68½in. to 69in. Ulster and Leinster have for their average 68in. to 68½in., in which category also are embraced the English counties of Cumberland, Westmoreland, Lincoln, and Norfolk. The average of 67½in. to 68in. is distributed over the English counties of Durham, Lancashire, Derby, Stafford, Suffolk, Essex, Kent, Berks, and Cornwall; 67in. to 67½in. is found in Nottingham, Leicester, Rutland, Northampton, Bedford, Warwick, Worcester, Flint, Denbigh, Sussex, Hants, Dorset, and Devon. The London average is given separately—66·92in. In the West Riding, Chester, Carnarvon, Anglesea, Merioneth, Montgomery, Cardigan, Brecon, Radnor, Cambridge, Huntingdon, Bucks, and Oxford, the average is found to be 66½in. to 67in.; and the lowest average, 66in. to 66½in., belongs to Herts, Middlesex (ex-metropolitan), Surrey (ex-metropolitan), Shropshire, Hereford, Monmouth, Gloucester, Wilts, Somerset, Glamorgan, Carmarthen, and Pembroke.

The second map, on which the distribution of weight is marked, shows that weight and height do not invariably go together. In respect of weight the Lothians and Argyllshire bear the palm, the average in these districts being from 175lb. to 180lb. South-West Scotland and Perthshire come in the second line with an average of from 170lb. to 175lb., while the whole of Northern Scotland comes into the third rank, with weights from 165lb. to 170lb. With the exception of the coal and iron districts along the middle and lower course of the Clyde, no other parts of Scotland come below the fourth standard, 160lb. to 165lb.; in these districts, however, the standard of weight is the second lowest, 155lb. to 160lb. The highest standard found in England is No. 4, from 160lb. to 165lb., in Northumberland, Central and East Yorkshire, Lincoln, Norfolk and Suffolk, Cornwall, Stafford, and North Wales. The bulk of England—the north-west counties, a great part of the centre and east—Derby, Leicester, Northampton, Worcester, Beds, Cambridge and Hunts, Essex, with Worcester, South Wales, the South Thames counties (except Surrey), Kent, and the South Coast counties, with South Wales, Ulster in Ireland, the West Riding of York, Lancashire, Cheshire, Notts, Durham, Oxford and Bucks, Hereford and Monmouth, Herts and Middlesex, with Connaught and Munster, all come within Standard 6—150lb. to 155lb. London has for its

standard, weight 152·9lb. Surrey, Warwick, Shropshire, Gloucester, and Somerset, with Ulster, fall to the lowest standard, 145lb. to 150lb.

Other three maps are devoted to the distribution of the leading complexions—(1), fair—*i.e.*, light eyes and light hair; (2), dark—dark eyes and dark hair; (3), fair eyes and dark hair. From a purely ethnological point of view these three maps are perhaps the most interesting. Over all, there seems no doubt, the lighter complexions prevail, though there is a large percentage of dark complexions, stretching in a band across the centre of England and Wales, running south-east into Essex, and in Kent, Sussex, and Hants.

The ethnological results of the inquiry are well stated by Dr. Beddoe, the Committee expressing the opinion that the variations in the various features appear to be chiefly due to difference of racial origin, the influence predominating over all the others. Dr. Beddoe says:—

"We have reason to believe, from historical and antiquarian researches, that the ancient Caledonii, the Belgæ and Cimbri, and the Saxons and Frisians, as well as the Danes and Normans, were all people of great stature. On the other hand, the prehistoric (neolithic) race or races in Britain appear to have been of low or moderate stature. Accordingly the higher statures are found in the Pictish or Cimbro-British districts of Galloway; in the Anglo-Danish ones of North and East Yorkshire, Westmoreland and Lincolnshire, and in Cumberland, whose people are ethnologically intermediate between the two. Lothian and Berwickshire are mainly Anglian, while the Perthshire Highlanders are the most clearly identified as the descendants of the Caledonii. The high position of Norfolk in the list is due to a large admixture of Danish blood on the coast. There is a fringe of moderately high stature all round the coast from Norfolk to Cornwall, while the inland people, retaining more of the ancient British blood, yield lower averages. Middlesex and Hertfordshire, which stand very low, were later and less perfectly colonized by the Anglo-Saxon than the surrounding counties, and nearly the same may be said of the counties around the Severn estuary and the Welsh border. Cornwall stands higher than the surrounding counties, and this is probably due to its having become the refuge of the military class of Southern Britain, in the main of Belgic origin. Flint and Denbigh owe their superiority to the other Welsh counties to the immigration of the Cumbrian and Strathclyde Britons."

Again the Committee say:—

"The racial elements of the British population are best demonstrated by separating a few of the counties where there has been the least admixture of foreign blood, and comparing these together, thus:—

Race.	District.	Stature	Weight
Early British	Cardigan, Radnor, and Brecon ..	66·59	169·3
Saxon ..	Sussex, Berkshire, and Oxfordshire	67·22	155·8
Anglian ..	Lothians, Northumberland, & Norfolk	68·73	166·7
Scandinavian	Shetland, Caithness, North & East Yorkshire, and Lincolnshire ..	68·22	162·7

These, then, are the leading ethnological results of the Committee's labours, and they are solid and interesting enough to justify its appointment. But there are other issues which render this report of many-sided importance and of immense practical value from a hygienic and sanitary point of view. We can only and very briefly allude to a few of these side results. With regard to geographical distribution, for example, it has been found that the inhabitants of the more elevated districts possess a greater stature than those of the alluvial plains, and the inhabitants of the northern and colder districts than those of the southern and warmer parts of the island; those of the north-eastern and drier regions are taller than those of the south-western and damper climates. A special table is devoted to a comparison of the average stature of adult males in the United Kingdom with that of adult males of American and European origin who were examined for admission to the United States Army in 1863-4, the result being to show, not that the Anglo-Saxon race in America reaches a higher stature than in England, as has been maintained by some American writers, but that there is a close correspondence between the two groups. A still more interesting table compares British stature with that of all other nationalities, from Polynesians to Bushmen. The result is that, with the exception of a few imperfectly observed South Sea Islanders, the English professional class head the long list, and that the Anglo-Saxon race takes the chief place in it among the civilized communities, although it is possible it might stand second to the Scandinavian countries if a fair sample of their population were obtained. The Polynesians lead the way with an average stature of 5ft. 9·33in., closely followed by the English professional class with 5ft. 9·14in. of average stature. Next come the Patagonians. 5ft. 9in.; the Angamis of the Naga Hills, 5ft. 9in.; negroes of the Congo, 5ft. 8·95in.; and after these the Scotch of all classes, 5ft. 8·71in. At the bottom of the list stand the Bushmen, with an average height of 4ft. 4·78in. The difference between the tallest and shortest races is 1ft. 4·55in., and the average height of man, according to this table, is 5ft. 5¼in.

Among other special subjects of inquiry by the Committee were the physical difference of (*a*) persons engaged in different occupations, (*b*) persons bred or living in towns and country, (*c*) natives of parts of the British Isles differing ethnologically, geologically, or in climate, (*d*) boys and men whose intellect and industry are above or below the average, (*e*) the general characteristics of men noted for their athletic powers, (*f*) the rate of growth in persons of both sexes in town and country, and engaged in different occupations. It comes out very clearly that an open-air country life is much more favourable to height and weight than a sedentary town life, and that favourable hygienic and sanitary conditions have a marked influence on growth and weight. At the top in this respect are the Scotch agricultural population of Galloway, with average height 5ft. 10¼in. and weight 173·6lb., closely followed by the Metropolitan Police, a carefully-selected body of men, with average height 5ft. 10·1in. and weight 165·7lb. In Galloway the influence of race may prevail, as we find the lead miners of Wanlockhead, in the same district, notwithstanding their unhealthy occupation for generations, reaching an average height of 5ft. 8·43in. and weight 163·9lb., while the Welsh lead miners have an average height less by 2·13in. and weight less by 8·7lb.

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If the results of the Committee's inquiries as to criminals and lunatics can be altogether accepted, they may prove suggestive to those practically interested in the improvement of both classes. When compared with the general population, lunatics show a deficiency of stature of 1·96in. and of weight 10·3lb.; and criminals of 2·06in. and 17·8lb., indicating, according to the Committee, a deficiency of physical as well as mental stamina in both these unfortunate classes of society. The average stature of athletes exceeds that of the general population by 0·68in., while their average weight falls short of that standard by 14·5lb. Thus, a trained athlete whose stature is 5ft. 7in. should weigh 10st., while an untrained man of the same height should weigh 11st. The result of the inquiry into the influence of age, sex, nurture, occupation, and sanitary surroundings on the physical development of the British population deserves the serious attention of all interested in the improvement of our race. The most obvious facts which the figures disclose are the check which growth receives as we descend lower and lower in the social scale, and that a difference of 5in. exists between the average statures of the best and worst nurtured classes of children of corresponding ages, and of 3½in. in adults. One very curious remark is suggested with regard to the observations on the size and weight of new-born infants. It would appear, according to the Committee, that the physical (and most probably the mental) proportions of a race, and their uniformity within certain limits, are largely dependent on the size of the female pelvis, which acts as a gauge, as it were, of the race, and eliminates the largest infants, especially those with large heads (and presumably more brains), by preventing their survival at birth. This, however, must be regarded as simply a conjecture, but the point is worthy of precise investigation. A long series of tables and curves is summed up as follows:— (1.) Growth is most rapid during the first five years of life; the observations, however, at those ages are not sufficient in number or variety to give a trustworthy average. (2.) From birth to the age of five years the rate of growth is the same in both sexes, girls being a little shorter in stature and lighter in weight than boys. (3.) From five to ten years boys grow a little more rapidly than girls the difference being apparently due to a check in the growth of girls at these ages. (4.) From 10 to 15 years girls grow more rapidly than boys, and at the ages of 11½ to 14½ are actually taller, and from 12½ to 15½ years actually heavier than boys. This difference appears to be due to a check in the growth of boys as well as to an acceleration in the growth of girls incident on the accession of puberty. (5.) From 15 to 20 years boys again take the lead, and grow at first rapidly, and gradually slower, and complete their growth at about 23 years. After 15, girls grow very slowly, and attain their full stature about the 20th year. (6.) The tracings and tables show a slow but steady increase in stature up to the 50th year, and a more rapid increase in weight up to the 60th year in males, but the statistics of females are too few after the age of 23 to determine the stature and weight of that sex at the more advanced periods of life. (7.) The curve of the chest-girth in males shows an increase at a rate similar to that of the weight up to the age of 50 years, but it appears to have no definite relation to the curve of stature. (8.) The strength of males increases rapidly from 12 to 19 years, and at a rate similar to that of the weight; more slowly and regularly up to 30 years, after which it declines at an increasing rate to the age of 60 years. The strength of females increases at a more uniform rate from nine to 19 years, more slowly to 30, after which it falls off in a manner similar to that of males. The curves of strength for the two sexes are not parallel; at 11 years females are weaker than males by 22lb., at 20 years of age by 36lb. The fact that man continues to grow in stature up to his 50th year goes right in the face of all popular notions on the subject, according to which he has ceased to grow before he reaches half that age.

Only one other point can we refer to. The supposed degeneracy of the population of our manufacturing towns is frequently lamented; but the Committee, by comparing their own with previous observations, have come to the conclusion that in spite of their unfavourable surroundings, these classes are not degenerating, but that on the contrary, a slight but uniform increase in stature and a very large increase in weight is observable.

Such then are the leading points or conclusions of this most suggestive inquiry. We have been weighed and measured and have not been found wanting; in spite of many drawbacks in the surroundings of large sections of our population we, on the whole, keep the lead of all civilized nations in height and weight, lung capacity, and strength of arm. The exact influence in inches and pounds of the special surroundings which affect different classes have been tabulated by the Committee; the results are at least worthy of the study of all interested in sanitary science and practice. The whole investigation is creditable in the highest degree to the Committee, and especially to Mr. C. Roberts and Sir Rawson Rawson, who have drawn up the report. So long as the British Association spends its money in endowing committees to carry on investigations of this kind it will have a sufficient *raison d'être*. To quote one of the concluding sentences of the report:—

"The Committee believes that it has laid a substantial foundation for a further and more exhaustive study of the physical condition of a people by anthropometric methods, and that its action will prove it has been useful as an example to other scientific societies and to individuals in stimulating them, as well as directing them, in the methods of making statistical inquiries relative to social questions."

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ARTIFICIAL OYSTER CULTURE.—Professor Brown Goode, the Commissioner of the United States to the International Fisheries Exhibition, has just received a telegram from Professor Baird, the United States Commissioner of Fish and Fisheries, to the effect that Mr. Ryder, the embryologist of the Fish Commission, has finally solved the problem of the culture of oysters from artificially-impregnated eggs, and that on the 4th inst. at the Government station at Stockton, Maryland, there were many millions of young oysters three-quarters of an inch in diameter which had been hatched from eggs artificially impregnated 46 days before. This fact is of great importance to oyster culturists throughout the world, as from a single oyster several millions of eggs can be obtained by the planting of the artificially reared spat. Thus oysters may be produced in practically unlimited quantities in any sheltered estuary in temperate climates, and localities in which oysters do not grow can with great ease be stocked by seed transplanted in bulk while very small. It may be added that oysters were artificially impregnated in America by Dr. Brooks, of Baltimore, in 1879, but the difficulty hitherto met with in hatching them has been to prevent the young oysters from escaping and being lost immediately after they are hatched, since the spat pass through the meshes of most finely-woven fabrics, such as flannel.

COMPARATIVE WEALTH OF GREAT BRITAIN AND THE UNITED STATES.—Statisticians have pronounced the United States to be not only potentially, but actually, richer than the United Kingdom. Counting the houses, furniture, manufactures, railways, shipping, bullion, lands, cattle, crops, investments, and roads, it is estimated that there is a grand total in the United States of $49,770,000,000. Great Britain is credited with something less than $40,000,000,000, or nearly $10,000,000,000 less than the United States. The wealth per inhabitant in Great Britain is estimated at $1,160, and in the United States at $995. With regard to the remuneration of labour, assuming the produce of labour to be 100, in Great Britain 56 parts go to the labourer, 21 to capital, and 23 to government. In France 41 parts go to labour, 36 to capital, and 23 to government. In the United States 72 parts go to labour, 23 to capital, and five to government.

THE PUBLIC HEALTH.—The Registrar-General's weekly return shows that the annual rate of mortality last week in 28 of the largest English towns averaged 22·7 per 1,000 of their aggregate population, which is estimated at 8,469,571 persons in the middle of this year. The six healthiest places were Derby, Bristol, Halifax, London, Birkenhead, and Brighton. In London 2,554 births and 1,401 deaths were registered. Allowing for increase of population, the births were three and the deaths 91 below the average numbers in the corresponding week of the last 10 years. The annual death-rate from all causes, which had slowly but steadily increased in the five preceeding weeks from 17·7 to 20·5 per 1,000, declined again last week to 18·8. During the first eight weeks of the current quarter the death-rate averaged only 18·6 per 1,000, against 21·4 and 22·9 in the corresponding periods of 1880 and 1881. The 1,401 deaths included one from smallpox, 27 from measles, 36 from scarlet fever, 18 from diphtheria, 40 from whooping-cough, one from typhus fever, 14 from enteric fever, one from an ill-defined form of continued fever, 158 from diarrhœa and dysentery, and six from simple cholera. Thus 302 deaths were referred to these diseases, being 77 below the corrected average number in the corresponding week of the last 10 years. Different forms of violence caused 48 deaths; 42 were the result of negligence or accident, among which were 20 from fractures and contusions, 11 from drowning, 2 from poison, and 4 of infants under one year of age from suffocation. The 20 deaths from fractures and contusions were thus caused:—a male, aged 40 years, fell from brougham; males 1, 4, 4, run over by van; male 6, crushed by van; male 27, run over by wagon; male 8, crushed by wagon; female 4, run over by tram-car; male 42, run over on London and South-Western Railway; female 2, fell from perambulator; male 2 and female 58, fell down stairs; male 35, fell from ladder; female 8, fell from window; female 92, fell out of bed; male 13, fell while at play; male 55 and female 45, by fall; male 25, crushed by machinery; and female 10, by blow of stone. An inquest was held in each of these 20 cases. Three cases of suicide were registered. In greater London 3,245 births and 1,760 deaths were registered, equal to annual rates of 34·6 and 18·8 per 1,000 of the population. In the outer ring the 55 fatal cases of diarrhœa corresponded with the number in the previous week, and included 20 in West Ham District. Of the 8 deaths from scarlet fever, 4 occurred in West Ham, and 3 in Tottenham sub-districts.