

1886.
NEW ZEALAND.

PANAMA CANAL

(CORRESPONDENCE RELATING TO THE CONSTRUCTION OF THE).

Presented to both Houses of the General Assembly by Command of His Excellency.

No. 1.

The AGENT-GENERAL to the PREMIER.

SIR,—

7, Westminster Chambers, London, S.W., 30th July, 1885.

I transmit to you herewith some extracts from the *Times* relating to the progress made in the construction of the Panama Canal.

I have, &c.,

The Hon. the Premier, Wellington.

F. D. BELL.

Enclosure.

[Extract from the *Times*, Tuesday, 28th July, 1885.]

THE PANAMA CANAL.

Paris, 27th July.

THE annual meeting of the Panama Canal Company will be held on Wednesday next. An elaborate report will be read by M. de Lesseps, which gives a highly favourable picture of the progress of the undertaking and of its prospects. Subjoined are some passages from it:—

“The attacks made on your undertaking, and the impression which these manœuvres were calculated to produce, might have led us to the hurried cutting of a narrow canal, to be amplified later on, after the passage of the American Bosphorus had been made by ships, and when consequently the feasibility of our scheme had been demonstrated, especially as it was originally supposed that there would be a larger amount of rock to extract than really exists. The idea then was that a total extraction of about seventy-two million cubic metres would be necessary. To the future would have been left the burden of a heavier expenditure, the promoters gaining a few months and proving more speedily the perfect practicability of the plan of cutting the isthmus.

“These fears have, happily, not been realized. Our shareholders, remembering Suez, have resisted all attacks, and nobody has seriously called in question the possibility of cutting a direct maritime canal between the two oceans across the Colombian Cordilleras. On the other hand, the mercantile marine ready to utilize the canal as soon as it is opened, and the traffic which will result, are such that we ought to finish the canal as completely as possible before it is thrown open. For the Suez Canal a traffic of three million tons was reckoned upon; and a traffic of twenty million tons will have to be provided for in a few years. At Panama the first year's traffic will be of the minimum amount of six million tons already known and ready to pass through; and who will venture to calculate what the traffic between the two great oceans will be a few years after the opening of the new highway so impatiently expected?

“We have, therefore, to complete the maritime canal at one stroke, and, as the sagacity and firmness of our shareholders supported us, we have not hesitated to adopt the programme of our Supreme Consultative Committee of Works—a programme submitted to you on the 23rd of July, 1884. . . . By virtue of one of the clauses of the concession the Colombian Government was called on to estimate the degree of advancement of the works. The declaration of the Government, dated the 26th of December, 1883, was in these terms: ‘The Panama Canal Company is entitled to be adjudged, according to the provisions of the Act of Concession, 150,000 hectares of land, as the equivalent of rather more than one-third of the execution of the work.’

“With the works carried on since this declaration the efforts actually put forth may be considered as more than half the total efforts necessary. This considerable amount of effort, which insures the execution of the work, being undeniable, the opponents of the Panama Canal Company, as formerly those of the Suez Canal Company, resort to puerile discussions, utter absurd criticisms, and, impotent to injure, they do not shrink from calumny or defamation.

“A fresh band of opponents has appeared. You have had hitherto against you certain capitalists concerned to delay as long as possible the inauguration of the new highway, either in the interest of existing modes of transport or in order to attract capital for the problematical execution

of a rival canal. There were also speculators who tried from time to time to influence the Bourse against you. The speculators know well what your resistance has cost them. Unable to do anything against the shareholders, certain persons then turned against the company, and, by newspapers started for the streets, or by letters and pamphlets, an actual campaign of extortion has been organized. We need not say that these speculators of a peculiar kind will find the Panama Canal Company as disdainful and immovable as the shareholders have been."

After a still more pointed passage on this subject, which seems to foreshadow legal proceedings against the offenders, the report explains certain petty attempts at imposition by contractors— attempts promptly repressed; and it goes on to say,—

"Considering that the first excavations are the most difficult to extract, and that our general manager makes a point of attacking the difficult ones first, there is reason to be satisfied with the progression of the amount of the monthly excavations since the beginning of the year. In January this amount was 550,000 cubic mètres; in February, 590,000m.; in March, 627,000m.; in April, 775,000m.; and in May, 798,000m. We had thought that the monthly figure would speedily reach a million mètres. We had included in our calculation the product of the large American dredgers, which on the Colon and Panama sides were to work in land generally soft. We shall explain later on how the American contractors have been delayed. The part to be executed by them being the easiest, this delay will in no way hinder the completion of the canal. On the Colon sides these contractors are already in a position to accomplish their task.

"We must now refer to the political troubles which occurred at Colon and Panama last May. If, owing to a misunderstanding, our building-yard had not suffered some loss, we should not have had occasion to speak of these unfortunate events, now at an end; the people in our employment and our building-yards along the whole line having been kept entirely free from all connection with the conflict. To such an extent was this the case that at Panama throughout the period of hostilities our treasuries remained open, and our pecuniary operations were continued with the most perfect regularity. The fire at Colon destroyed some buildings which we had on the site of the old town, and a dredging-machine which was on the stocks was injured. The destruction of our buildings at Colon caused us only a very limited material injury, a decision being taken to transfer for some months all our operations to the new town called into existence by us at the entrance of the canal—Christophe Colomb. We shall be able to save some parts of the burnt dredging-machine. At Culebra the injury done falls on the contractors. Their workmen, panic-struck, had left the yard. Those in charge having remained steady at their post, the labourers, reassured, have now returned to their work. But these incidents, unfortunate as they have been, have proved how much the neutral enterprise of the universal maritime canal is respected by all.

"And yet these incidents have furnished our adversaries with subjects of accusation which at least are singular. In America it was asserted that the disturbances had been fomented by persons connected with the company to give France a pretext for taking possession of the Isthmus of Panama; while in Europe it was stated that the Americans of the United States would take advantage of the disturbances and of the fire at Colon to take possession of Colombia. The truth is that in the execution of existing treaties the Government of the United States of America was bound to intervene to re-establish order. Our industrial society is and will remain completely foreign to all politics. The respect shown for the agents and the operations of the company during the events of May prove how much we ourselves respect this neutrality.

"The fire at Colon, which has only caused us comparatively unimportant material injury, has, however, by the almost complete destruction of the means of landing and repairing materials, caused difficulties of which we shall note the effects during the second half-year of 1885. With the utmost energy and ready decision our agents at once made up for the insufficiency of the wharves by the employment of floating material. It has been possible to carry out our landing operations in a sufficient manner. We have formed near Panama and Boca del Rio Grande a small tidal harbour, where the work of disembarkment will be carried on by means of lighters. The sending of articles to Panama by Cape Horn will cost more for freight, but transit by railway will be avoided, and the conveyance will be more sure and more expeditious. Provided with three great building-yards—at Christophe Colomb, at La Boca, and at Bas Matachin—we shall hasten our operations in proportion to our requirements. We are preparing barracks for the accommodation of thirty thousand workmen.

"If you remember the alarming telegrams published on the subject of the disturbances in Panama, if you have read the telegrams announcing our complete desertion by the workmen, the entire suspension of the works, and the collapse of the enterprise, and if you compare the reality of the facts now known with the false news published, you will judge of the good faith of our adversaries, and of the means which they have ventured to employ to procure a temporary satisfaction. But for the temporary incident at Culebra, not one of our building-yards would have been stopped for an instant."

The report then enters in detail into the progress of the works. It points out that the length of the canal is only 75 kilomètres, whereas that of the Suez Canal is 160, and that no widening will be necessary, however great the traffic; it shows that the estimated cost is not being exceeded; and it states, in conclusion, that the French Government has been asked to sanction an issue of 600,000,000*f.* in lottery bonds, as was done in the case of the Suez Canal.

[Extracts from the *Times*, Thursday, 30th July, 1885.]

THE PANAMA CANAL.

Paris, 29th July.

The annual meeting of the Panama Canal Company was held to-day at the Horticultural Society's rooms, and was numerously attended. M. de Lesseps read the report already summarized in the *Times*, and, with his amazing octogenarian juvenility, showed no symptom of exhaustion at the end of an hour's task. The passage stigmatizing newspaper attempts to depreciate the shares or

extort bribes for silence was warmly applauded. A shareholder argued that the canal would cost three milliards, and result in a deficit of 150 millions a year. He was silent, however, when asked why, with such a prospect, he still held shares, and his motion for a committee of inquiry found no seconder. The report was unanimously adopted, and the directors were empowered to take the requisite steps for obtaining Government sanction for the issue of the contemplated 600 million francs' worth of lottery bonds.

THE PANAMA CANAL.

M. DE LESSEPS is never more completely in his proper element than when he is engaged in describing difficulties which have been surmounted or apparent impossibilities which have been overcome. He spoke yesterday on a subject worthy of his genius, and, at least in its probable consequences, vast enough to satisfy his ambition. The canal across the Isthmus of Panama, so long regarded as a dream incapable of fulfilment, seems now to be on the high road to completion; and the company by which the work has been undertaken held yesterday its annual meeting in Paris, and adopted unanimously the report of its founder. The report, the principal portions of which have already appeared in our columns, is altogether jubilant; and the narrative which it contains, when all allowances have been made for the sanguine temperament of the writer, goes far to justify the language which has been employed. In December, 1883, it was officially announced that more than one-third of the work had been completed; and this one-third has now been increased to one-half. The progress of the last five months has been at a constantly accelerating rate; and the monthly excavation, which in January amounted to but 550,000 cubic mètres, reached half as much again in May. Even this amount has not quite realized the expectations which were entertained; but the report explains that the shortcoming has been on the part of the large American dredgers, which, as they have to work in land which is generally soft, will be able to overtake the other portions, and will not, by their temporary failure to accomplish what was intended, at all delay the ultimate completion of the canal. In view of the estimate of six millions of tons of shipping for the first year in which the canal will be open, the company has wisely determined to make it of full width from the first; and has therefore abandoned the original scheme of a somewhat narrow channel, to be afterwards widened as the demands upon it were increased. The experience gained in the Suez Canal could hardly fail to lead to such a decision; for the estimate there was for only three millions of tons, and it is found that twenty millions is a figure certain to be speedily reached. It is, no doubt, far better to delay the opening for a time, in order to construct a passage wide enough to be secure against future interruptions, than to open a comparatively narrow canal at a somewhat earlier period, and to be compelled to close it again for the purpose of enlargement. When once traffic has begun to flow through the new channel, any impediment to it would be felt as a serious interference with the course of business; but as long as the channel is non-existent the ordinary trade routes will suffice.

We express no opinion whatever as to the desirability of Panama Canal shares as an investment. They are held mainly in France, and are the concern of French investors. We are interested in the success of the work because England, as the greatest shipping and mercantile community in the world, must profit most by it. The report speaks with considerable bitterness of endeavours which have been made to throw discredit upon the scheme of the canal, and to cast doubts upon the prospect of its completion. The best antidote to such endeavours is the description of the present position of the undertaking; and it would have been impossible for a joint-stock enterprise of such magnitude to be carried to a conclusion without having to encounter the kind of opposition which is mentioned. The persons with whom this opposition originated may almost feel flattered by the notice taken of them and of their works. They probably had no knowledge or opinion about the actual merits or the engineering difficulties of the project, and only attacked it in the hope that a diminished belief in its prospects would afford them an opportunity of making money without incurring the fatigue of labour. A modern financier, in many instances, looks upon the shares of other people with the sort of feeling which would be entertained for lowland beeves by a highlander of two or three centuries ago—that is, as desirable things, which afford opportunities for the display of dexterity in the art of plunder; and the Panama Canal Company can hardly be surprised, even while they may justly complain, that the greatness of their undertaking has pointed it out as one which is exceptionally calculated to reward the careful employment of the machinery by which various kinds of value are made to undergo fictitious deterioration or exaltation. The fighting which has been going on in the vicinity of the work, and the small amount of damage which this fighting has occasioned, afforded opportunities too tempting to be neglected; but it may be hoped that any mischief which has been done will be rectified by the explicit declarations which the statements of the enemies of the undertaking have now called forth. The assertion of the report that during the whole period of hostilities the treasuries of the company remained open, and the pecuniary transactions were continued with perfect regularity, is alone sufficient to dispel the belief, if it ever were seriously entertained, that political considerations adverse to the canal were in operation; and the subsequent course of events manifestly justifies the assertion that “our industrial society is and will remain completely foreign to all politics.” We are not of the number of those who believe that either education or the increasing number and complexity of international commercial relations will be likely to have any present material influence in preventing war; but we should nevertheless expect the manifest advantages which the proposed canal will offer to the world to be sufficient to secure for it the good will, and even the actual co-operation, of those by whom the course of politics is in great measure controlled.

The report does not state definitely when the canal is likely to be open for traffic; but it would seem from the history actually given that this event cannot now be very long delayed. The progress made is held to be sufficient to justify an application to the French Government to authorize the issue of lottery bonds to the extent of six hundred millions of francs; and, as the whole length

of the canal is only 75 kilomètres, or, in round numbers, fifty miles, more than half of which is completed, the completion of the whole is manifestly brought within a measurable distance of time. Of the six million tons of shipping which are expected to pass through the canal in its first year it may probably be assumed that four or five millions will be English; and we shall have a repetition of the curious spectacle which has already been afforded by the Suez Canal, of an enormous undertaking, first put into practical shape by a French engineer, carried out by a company having a French domicile, and largely supported by French investors, which nevertheless must look for its profits almost wholly to the advantages which it will afford to English shipping, and which, but for the custom expected from this country, could never have obtained the funds necessary for its creation. For all traffic to the western side of the great American continent the canal will permit an enormous saving of time and of the various charges which loss of time implies; and it will probably prove a formidable competitor to the great lines of railway which now bring the products of the Western States to the Atlantic seaboard. All experience, however, shows that the tendency of traffic is always to outgrow the increasing facilities which enterprise affords for it, and that, however fast we may multiply railways or steamers or other means of communication, whether ocean or inland, the demands upon them will increase in a still greater proportion. Hypothetically, of course, there must be a limit; but practically it seems never to be reached. We shall be quite prepared to see the actual tonnage conveyed through the Panama Canal exceed the present estimate as much as the original estimate has been exceeded at Suez; and the greater the traffic, the greater will be the prosperity of all the regions which are brought nearer together by its means. We trust that the expectations of the illustrious founder of the work will be speedily and fully realized, and that he may live to witness a success which will raise him to a still higher pinnacle of engineering renown than that which he has already attained. His career is in many respects almost without parallel; and the completion of his second interoceanic canal will render it altogether unexampled.

No. 2.

The AGENT-GENERAL to the PREMIER.

SIR,—

7, Westminster Chambers, London, S.W., 15th January, 1886.

In continuation of previous advices, I now transmit herewith an extract from the *Times* relating to the Panama and Suez Canals.

I have, &c.,

The Hon. the Premier, Wellington.

F. D. BELL.

Enclosure.

[Extract from the *Times*, Thursday, 7th January, 1886.]

THE PANAMA AND SUEZ CANALS.

Paris, 6th January.

In accordance with the announcement which I made a few days ago, M. Charles de Lesseps started last night for St. Nazaire, and M. Ferdinand de Lesseps will follow him in a few weeks. Their absence will last several months; and, after indicating the important matters which lead them to take this voyage, I will speak of an incident which connects that voyage with vital interests of the Suez Canal Company, and with English interests concerned therein.

It is already known that some months ago unforeseen difficulties encountered by the Panama Company, and due, I believe, to the engineer then at the head of the works, caused a considerable reaction against the canal in French public opinion. This reaction was the more remarkable considering the immense and just popularity enjoyed by M. de Lesseps among his countrymen, and considering that he had taken the enterprise under his patronage, that he had vigorously commenced its execution, and that the French public had already embarked considerable capital in it. A general meeting of the shareholders was held about that time, when M. de Lesseps, with his usual persuasiveness, explained the state of affairs in Panama. It was acknowledged that the enterprise presented difficulties which must be faced by fresh efforts; and, there being a dislike to the policy of appealing again to French investors without holding out a special inducement, an issue of 600,000,000*f.* in lottery bonds was decided upon. This, however, required the consent of the Government, which did not seem very ready to give it. It was alleged that one of the chief opponents of the issue was M. Christophle, the eminent Governor of the *Crédit Foncier*, which has a kind of privilege of issuing lottery bonds, and he was said to object to that privilege being conceded to another enterprise, especially that of the Panama Canal.

The truth is that M. Christophle (who has shown great ability in the management of the *Crédit Foncier*, and who, having lost his seat in the Chamber, has just received the Legion of Honour—which would long ago have been conferred upon him had he not as a Deputy been ineligible—and whose absence from the Chamber, like that of M. Germain, will be greatly felt in financial discussions) did not positively object to the Panama Company being allowed to issue lottery bonds. He even felt that so important and popular a man as M. de Lesseps, who reflects credit on France at home and abroad, could not be treated as an ordinary projector, but that the Government was bound to support him, and that an enterprise undertaken by him became thereby a national one. He therefore thought the Government bound to give M. de Lesseps all the encouragement and assistance in its power, but on condition of its being shown that the construction of the Panama Canal was not impracticable, and that the capital to be embarked in it through the proposed issue would not be hopelessly sunk.

After these observations, and at the request of the company itself, the Government resolved on sending an engineer to Panama to examine the works, and see whether the enterprise could be completed. It made choice of M. Rousseau, one of the most distinguished French engineers, after

whose report a decision would be arrived at. Many persons objected, and still object, to this step being taken by the Government. One of two things, they say, must happen. Either M. Rousseau's report will be adverse—in which case the enterprise will be literally annihilated, the responsibility of this collapse falling on the Government—or it will be favourable—in which case the Government, on the report of its official adviser, will sanction the loan, thus becoming seemingly responsible for the success of the affair, and being necessarily involved in international difficulties should any arise.

To these objections it was forcibly replied that M. Rousseau, like other leading engineers, was a man of undoubted competency and probity; that if his report were adverse, the consequences for the company might certainly be disastrous, and the capital embarked might be seriously jeopardized; but this would be rendering a service to French capital, if not by saving what was already embarked, at least by preventing any more from being sunk. As to the Government being involved in case of international difficulties, it was urged that, whether M. Rousseau went out or not, the enterprise, owing to the presidency of M. de Lesseps, and to the capital being almost exclusively French, was virtually a French one, so that if international difficulties arose the Government could not in any case be unconcerned. As to the responsibility devolving on the Government towards capitalists making further investments on the faith of M. Rousseau's report, his ability and honesty were so undoubted that the Government could not hesitate to accept the responsibility of a report in favour of continuing the works.

His mission, moreover, does not consist in deciding whether the enterprise will be lucrative or remunerative. He will not report on the financial prospects of the canal, but will simply state whether with fresh efforts the canal can be completed. This point settled, the capital embarked, like that in any other concern, must take its chance of success or failure according as the traffic has been well or ill calculated; but on this point no engineer, and, indeed, nobody else, can speak with certainty. At the outset nobody supposed that the traffic of the Suez Canal would so rapidly assume its present proportions; and scarcely eight years ago the English Government bought at 500*f.* shares from the Khedive which some years afterwards were quoted at 3,000*f.* Thus, even years after the canal was in working order, it was impossible fully to foresee the growth of the traffic. Much less is it possible to foresee the financial results of a canal not yet completed; and M. Rousseau will simply have to say whether by certain sacrifices the canal can be made available for shipping. This mission, however, is a very important one, for until he reports the completion of the canal will be considered uncertain.

But the voyage of Messrs. de Lesseps also affects the Suez Canal, and in this way: It will be remembered that, in pursuance of an agreement between the Suez Canal Company and the English shipowners, the shareholders resolved that the canal should be considerably deepened and widened, at a cost of £8,000,000, so as to accommodate the present traffic and provide for a steady increase. These improvements are to accelerate the transit, and involve periodical reductions of the dues; thus doubly benefiting shipping, four-fifths of which are English. A loan of eight millions, to be gradually laid out according to the exigencies of the case, was sanctioned by the shareholders, one condition being that the interest should be met out of the loan itself, so as not to reduce the share-dividends during the progress of the works until the moment when such dividend reached 18 per cent., or 90*f.* per share. Any surplus after this 18 per cent. was to be chargeable with the interest upon the new loan.

Now, there is a stipulation in the treaty regulating the financial management of the Suez Canal Company that all interest should be met out of revenue, and not from any other source. One payment of interest on the new loan out of capital thus implies a modification of this treaty; and the company accordingly applied to the Egyptian Government for its consent to such modification. The directors, however, regarded this application as simply an act of deference towards the Government of the country traversed by the canal, and their stupefaction may be imagined when the Egyptian Government refused its consent. The company hastened to explain that it had simply shown deference in asking approval of a temporary modification, and that the refusal argued some misconception: the Egyptian Government possibly imagined that new concessions of land were required for effecting the improvements in the canal, and might have declined to consent without knowing beforehand what these concessions would be; but the fact was that the company had no intention to ask for concessions of land, for the improvements would be effected within the limits already assigned to it. The rejoinder of the Egyptian Government was that the concession originally granted to M. de Lesseps provided that the canal should be forty-four mètres wide, and that a projected width of sixty-six mètres was a deviation from the concession, to which it refused to agree.

As will be easily imagined, this singular explanation increased the amazement of the company. It seems, indeed, incomprehensible that a Government, having made a concession to a company bound by the last convention—that of 1869—to work the canal and improve it, should object to an improvement as being in excess of the stipulations of the original concession. The canal, moreover, it was pointed out, had been only twenty-two mètres wide; so that the Government, if disposed to complain of non-observance of the concession, should have objected to its narrowness, whereas it had been altogether silent: yet now it objected to improvements which on the expiration of the concession would insure it a property much more valuable than was originally contemplated. The objection, indeed, is just as though a man taking a building-lease on condition of erecting a one-story house, and finding his family increase, should propose to add a second story, but should encounter a refusal from the lessor, albeit the latter would benefit when the lease fell in.

This refusal would appear absurd if it did not cloak an intention of obtaining a sum of money from the company in return for the sanction. The theory of the opponents of the canal in Egypt is well known to be that the canal has been one of the causes of the financial ruin of Egypt. But this reasoning will not bear examination. If, indeed, the Egyptian Government had retained its share in the canal assigned to it in exchange for its co-operation, it would now possess a capital of

from £8,000,000 to £10,000,000 beyond the original value; and it is not the company's fault if the Government has alienated that interest, which would otherwise have been one of the most fortunate enterprises ever undertaken by a Government. The idea of exacting payment for the authorization is monstrous, especially when it is considered that this loan of £8,000,000 to improve the canal is a veritable sacrifice by the shareholders for the sake of a good understanding with English ship-owners, who will be the chief gainers by the accelerated transit and reduced dues. The English Government will also, as a shareholder, eventually benefit by the improvements.

The objection of the Egyptian Government is the more strange inasmuch as all its acts are supposed to be prompted by England; and amazement will certainly be felt on learning that England, the chief gainer by the sacrifice agreed to by the shareholders, is the obstacle to the carrying-out of the improvements except on condition of a pecuniary indemnity. The Egyptian Government proposes, indeed, to refer the matter to the tribunals; but the Suez Canal Company, with the greatest confidence in the impartiality of the tribunals, naturally objects to refer to them an application to the Government for a *pro forma* consent to the modification of an insignificant clause. A mere statement of the facts is enough to show that the difficulties raised by the Egyptian Government are devoid of sincerity and are a mere pretext for an unwarrantable claim to be indemnified in an affair where everything is to its own advantage and where the sacrifices are to fall on the company, and are chiefly to profit those regarded as the prompters of the Egyptian Government.

The result is, however, that nine months have already elapsed since the loan was decided upon without the company being able to issue it; and, as Messrs. de Lesseps will now be absent for some months, the whole year is likely to be lost by the English shipowners, at whose instance and in whose favour the works were projected. To draw the attention of the English public to this state of things will certainly be enough to invoke a strong condemnation of the cavilling of the Egyptian Government; and this condemnation, it may be hoped, will be so emphatic as to induce that Government to renounce its strange pretensions, and to give an assent which it cannot refuse except with deliberate injustice.

No. 3.

The AGENT-GENERAL to the PREMIER.

SIR,—

7, Westminster Chambers, London, S.W., 8th February, 1886.

I transmit to you herewith extracts from the *Times* and the *Pall Mall Gazette* relating to the progress being made in the construction of the Panama Canal; from which you will perceive what great difficulties are said to exist in the way of that enterprise at the present time.

I have just procured from Paris a copy of a book by M. Lucien Wyse, entitled "Canal de Panama," which contains information respecting the canal which I think you will read with much interest. The book will go to you in the next mail-box.

I have, &c.,

The Hon. the Premier, Wellington.

F. D. BELL.

Enclosure.

[Extract from the *Times*, Thursday, 28th January, 1886.]

THE PANAMA CANAL.

(From a correspondent.)

ON the 26th day of July, 1698, the whole City of Edinburgh poured down to Leith to see twelve hundred of their countrymen depart for the Isthmus of Darien. For the purpose of establishing the company by whom this expedition was promoted a sum of £400,000, being about one-half of all the money then stated to be in the country, had just before that event been subscribed in Scotland. The chief promoter of the expedition, the ill-starred Paterson, had fired the enthusiasm and excited the cupidity of those who took part in it by the representations which he made as to the natural wealth of the country for which the expedition was bound, as to the ease with which transport could be effected from the Atlantic to the Pacific by such means as then existed, as to the natural harbours that lay along the coast, and as to the favourable character of the trade-winds which could there be depended on for the purposes of navigation, and which seemed to point to the Isthmus of Darien as a common centre, designed by its natural position to connect together the commerce and intercourse of the world at large.

It is from this point that the interest of England in the Isthmus of Darien begins to take an active form. The unfortunate results of the Darien expedition are a matter of history. From that epoch, however, many schemes have been put forward, and many attempts have been made to carry out, in one direction or another, the project of the old Darien expedition—namely, "a great road from sea to sea, a deep canal for ships, the working of gold-mines, and extensive colonization on the shores of the Pacific." Between Porto Bello or Chagres and Panama there has been a regular line of communication since 1532—that is, since twenty-three years after the first settlement in America. So far back as 1843 M. Garella made a report to the French Government as to the facilities that this part of the isthmus offered for the construction of a ship-canal. M. Garella proposed to follow the valleys of the Bernardino and Caimito on the southern descent, and those of the Quebrado and Chagres on the northern. On this route the highest hill-ranges are 459ft. above the level of the sea, and it was proposed to tunnel the hill at about 324ft. below its highest point, to establish a summit level for a distance of 25,361ft. at an elevation of 135ft. above high water from the Pacific Ocean, and to descend thence to the Pacific by means of seventeen locks, and to the Atlantic by eighteen locks. The Commission of the "Ponts et Chaussées," appointed to report on M. Garella's project, declared the feasibility of his proposals; but, as of the whole length of the summit level 17,550ft.

were subterranean, the Commission observed that this feature of the scheme would not only be inconvenient to vessels, but would involve great cost, since the tunnel must be high enough to allow of vessels passing through with their lower masts standing. It was further objected by the Commission that M. Garella had not made sufficient provision for feeding the proposed canal; while exception was likewise taken to the harbours which he suggested—Navy Bay on the Atlantic side, and Vaca del Monte Bay on the Pacific side—as being ill-adapted for the purposes in view without a serious outlay in improvements. M. Garella's scheme, for these and other reasons, came to nothing; but at this time of day it is highly interesting, not only as being the first well-considered scheme for a ship-canal across the isthmus, but as a plan suggested by a countryman of the intrepid engineer who has now fairly undertaken the work of connecting the two oceans by a kindred enterprise.

Between the Panama line and the Province of Choco three other routes for a ship-canal have been at different times suggested—the first, from the Chepo or Bayanos River to San Blas or Mandinga (sometimes called Manzanilla) Bay; the second, from the Gulf of San Miguel to Caledonia Bay; and the third, from the same gulf to the southern part of the Gulf of Urabiá or Darien. The narrowest part of the isthmus has generally been believed to be that between Chepo and San Blas. It is stated that the Indians were formerly in the habit of hauling their canoes on wooden slides across the Cordilleras from the Mandinga River, and launching them in the waters of the Bayanos. Numerous attempts were made by Englishmen half a century ago to cross the isthmus at this point, but they were generally driven back by the aborigines. One of the first, if not the first, really comprehensive surveys made of the Chepo and San Blas route was carried out in 1864 by Mr. F. M. Kelley, of New York, who reported that the whole length of the route from ocean to ocean was only thirty miles; that on the north, San Blas furnished a safe, deep, and spacious harbour; and that on the south, the channel leading into the Bay of Panama had not less than 18ft. of water at mean low tide, while the ordinary rise of the tide was 16ft. Nothing further came of Kelley's survey, which was not a Governmental, but a private enterprise—probably, for one reason, because he, like Garella, suggested a considerable amount of tunnelling, the limits of which were not then so well understood as they now are. The San Miguel and Caledonia Bay route has been explored at different times by the Governments of the United States, France, and Great Britain; but without leading to any more definite results than an inconsiderable accession to our geographical knowledge of the country.

The social and commercial advantages of the Panama Canal have been clearly understood and expressed by the various writers on the subject from Paterson's time to our own. That remarkable man, in one of his letters to the Darien Company, written close on two centuries ago, remarked that "the time and expense of navigation to China, Japan, and the Spice Islands, and the greater part of the East Indies, will be lessened more than one-half, and the consumption of European commodities and manufactures will be more than doubled;" and again, "Thus, this door of the seas and key of the universe, with anything of a reasonable management, will of course enable its proprietors to give laws to both oceans, and become arbitrators of the commercial world."

A report made some years ago to the Secretary of the United States Navy stated that the construction of a canal across the Isthmus of Panama would lead to the following savings of distance over the Cape Horn route between New York and the places specified:—

From New York to	Distance <i>viâ</i> Cape Horn.	Distance <i>viâ</i> Isthmus of Panama.	Saving in Distance over Cape Horn Route.
	Miles.	Miles.	Miles.
Shanghai	22,000	10,400	11,600
Valparaiso	12,900	4,800	8,100
Callao	13,500	3,500	10,000
Guayaquil	14,300	2,800	11,500
Panama	16,000	2,000	14,000
San Francisco	19,000	5,000	14,000
Canton	21,500	10,600	10,900
Calcutta... ..	23,000	13,400	9,600

The Government of the United States has frequently shown its high appreciation of the advantages that were to be anticipated from piercing the isthmus. A resolution of the American Senate, dated the 19th March, 1866, instructed the Secretary of the Navy to "furnish the summit levels and distances by survey of the various proposed lines for interoceanic canals and railroads between the waters of the Atlantic and the Pacific Oceans; as also their relative merits as practicable lines for the construction of a ship-canal, and especially as relates to Honduras, Tehuantepec, Nicaragua, Panama, and Atrato lines." A very elaborate report was presented to the Senate in consequence of this resolution, accompanied by charts, plans, lines of levels, &c.; but no further action of a practical character was taken upon such report, although it was set forth that the country that embraced the American isthmus had good ports on both oceans, great agricultural resources, embraced valleys traversed by noble rivers, table-lands at different elevations that afforded a variety of climate and productions, with "mountains in which still lies buried an incalculable amount of mineral wealth, and at the foot of which the native Indian, with the rudest means and appliances, collects in a few hours gold enough to enable him to pass weeks or months in indolence and diversion."

The facts that have just been stated explain approximately the condition of the Panama Canal project up to the time when it was espoused by M. de Lesseps aided and abetted by a Committee of the Académie des Sciences and other French authorities, some six or seven years ago. According to a report made in 1880 by the Académie des Sciences, the narrowest part of the Isthmus of Panama is thirty miles and a half from the town of that name between the mouth of the Bayano and the Bay of San Blas, on the Atlantic, but the diversions rendered necessary by the configuration of the ground will add about sixteen miles to that distance in the total length of the canal. The floor of the canal, elsewhere than in the Culebra cutting, is 72ft. wide, being the same as that of the Suez Canal. The depth of water is from 26ft. to 29ft. In the cutting through the Cordilleras the sides of the rock are at a slope of 1 in 4 $\frac{1}{4}$, the width at the bottom is 78 $\frac{3}{4}$ ft., and the depth of water is 29 $\frac{1}{4}$ ft., for additional margin of security in the cutting. The total quantity of cutting is estimated at 100,000,000 cubic yards, of which nearly one-half is in rock. The rise and fall of the tide at the north varies from 7 $\frac{1}{2}$ in. to 19in., and at the south from 8ft. to 21 $\frac{1}{2}$ ft. The Technical Commission appointed to examine into the subject estimated the total cost of the works at about £34,000,000 sterling; but MM. Couvreux and Hersent, the contractors, have calculated that the cost will not exceed £20,500,000 sterling. From an engineering point of view, the most serious problem to be solved in the construction of the Panama Canal is the control of the floods of the River Chagres, so as to prevent the canal from being damaged during the rainy season. For this purpose a dam 131ft. high is being made at Gamboa, near Cruces, and this structure, damming the valley through which the river flows, will be the means of retaining a vast lake of over 1,000,000,000 cubic metres capacity, which M. de Lesseps has stated to be much above the amount furnished by the greatest floods. The problem otherwise, as stated by M. de Lesseps himself, is "reduced to these terms—the utilization on the Atlantic side of the Valley of the Chagres, and on the Pacific side of the Valley of the Rio Grande, the beds of both rivers consisting of alluvium, easily removed by excavation." A ridge of high ground, eight miles and three-quarters across and 147ft. in altitude, separates the two valleys, and this the canal has to traverse. The principal cutting will thus be carried over about nine miles of distance to a depth of nearly 150ft.

The port of entry of the canal at Colon, on the Atlantic coast, is being excavated at Fox River, where a temporary port has been established for the reception and storage of material. From this point the canal, skirting the morass of Mindi, passes into the valley of the Chagres at Gatun, whence the line follows the valley to San Pablo, between the railway and the river, on the left side, cutting the river at several points, and crossing the railway at San Pablo. Thence the line of the canal passes to Matachin, cutting many bends of the river *en route*, and following generally the right bank, which is quitted at Matachin, where the canal enters the valley of the Obispo. The river at Matachin, at low water, is 44ft. above the level of the sea. The average fall of the bed of the river is only 1 in 3,300. In the valley of the Obispo the surface is very irregular until Emperador is reached, at 200ft. above sea-level, and two miles and a quarter from Matachin. The line through this cutting has been laid out with curves of about one mile radius. The canal has a total length of forty-six miles.

That real progress has been made with the canal works is admitted by those who have the best opportunities of judging from actual observations on the spot. Operations have actively been commenced on twenty-one sections of the undertaking, which are under four divisional engineers, three of them French, and one a Swiss. Up to the middle of 1884 the Canal Company had expended between £6,000,000 and £7,000,000 sterling, of which £4,000,000 were represented by plant, £300,000 by house property, and £40,000 by land, not, however, including the 120,000 acres conceded to the company by the State of Colombia. Since 1884 the expenditure incurred on the canal works has been considerably increased, six dredges of the Slaven type having been purchased at a cost of £25,000 each; and it is not without interest to note that these have been made in Philadelphia. Many thousands of negro, Chinese, and other labourers are now, and have for some years been, employed on the canal works, and at both Colon and Panama there are evidences of great prosperity. A great drawback is the unhealthy character of the climate, which is such that Europeans readily fall victims to malignant typhus and yellow fever. Attempts are now being made to effect sanitary improvements all along the line of route.

It does not seem as if M. de Lesseps and his friends had reason to hope for much support or sympathy from American commercial circles in their great work. The latest report of the New York Chamber of Commerce states that "the progress so far made in the construction of the canal across the Isthmus of Panama by the French company has been so insignificant, and the expenditures already made are so large, that there exists no longer any prospect of seeing that work finished within a reasonable time, while there is a great probability of that company being obliged to suspend operations for lack of funds long before the work can be half completed." It is also declared to be probable that "the enormous expenditure required to complete that work would render it impossible for that company to establish tolls for the use of their canal low enough to render it practically useful to the commerce of the world." Holding such opinions, the United States Government has been led to conclude a convention with the Nicaraguan Government, securing for a certain period the right of constructing a canal across that part of the isthmus. Herein they checkmated the company of which M. de Lesseps is the head, seeing that it was part of their scheme to endeavour to obtain from the Nicaraguan Government a transit concession which would prevent the competition of any other country or company across Nicaraguan territory.

It is, of course, the United States of North America and the countries on the Pacific seaboard of South and Central America that are likely to be most profited by the Panama Canal. The trade between those countries has of late years very greatly increased, as the following figures, collated from the official returns of the United States External Commerce, will show:—

Countries.	Value of Total Imports and Exports in	
	1857. (1=\$1,000)	1884. (1=\$1,000)
Chili	6,645	3,773
Peru	716	3,120
China	12,752	20,242
British East Indies	11,744	14,261
Australia	4,728	13,598
Mexico (half of trade only)	4,800	10,050
Central America	425	9,225
Japan	—	13,791
Dutch East Indies	904	5,617
Totals	42,724	93,677

Besides this great volume of traffic with foreign countries, the United States would be likely to greatly profit by having communication opened *via* the Panama Canal with their own territories on the Pacific Slope. Until the year 1869, the commerce between the Pacific Coast and the States east of the Rocky Mountains was carried on either in sailing-vessels, that followed the Cape Horn route, or by the Panama route, formed by the steamer line from New York to Aspinwall, the railway line across the Isthmus of Panama, and the steamer line from Panama to San Francisco. But since the Union and the Central Pacific lines were united on the 10th of May, 1869, traffic has been deflected from the Panama route. Meanwhile the Compagnie Universelle du Canal Inter-oceanique—which means M. de Lesseps and his friends—have succeeded in acquiring a controlling interest in the Panama Railway. Opened in 1855, this interoceanic line has since become a great commercial highway between the nations on the coast of Western Europe and Eastern Asia, as well as between San Francisco and New York. The length of the railway, from Aspinwall on the Atlantic to Panama on the Pacific, is forty-seven miles and a half, or just about the same mileage as the canal. Since 1877 the number of passengers annually carried by this line has increased from 22,110 to 304,000, and there has been a great increase in the merchandise carried over the same period; while for canal purposes it has been invaluable.

So far as the United States alone are concerned, it is probable that the necessity for the canal is not by any means so urgent now as it was some years ago. Since the 8th of March, 1884, there has been continuous railway communication between the United States and the City of Mexico, the main line of the Mexican National Railway from Paso del Norte to the capital of the Mexican Republic, a distance of 1,225 miles, having then been opened. The commerce between Mexico and the United States is now very considerable, the imports from Mexico for 1884 having been upwards of \$22,000,000, while the exports to Mexico amounted to over \$13,000,000. It is regarded as probable that the greater part of this trade will now in any case be transported by rail. The same remark applies to the commerce between the Atlantic and the Pacific States. Within the last few years the reductions of freight on both the Union and the Central Pacific lines have been such as to encourage traders to make much more extensive use of these lines, and hence it appears that the classified freight forwarded over the former railway in 1883 amounted to no less than 5,166,500,000lb.—an increase of 963,000,000lb. on the quantity carried during the preceding year. It may be doubted whether any railway in the world carries freight at so low a cost as this one. Between Pittsburg and California, a distance of 2,876 miles, the rates of freight had been greatly reduced in 1882 as compared with 1874. In the former year the rates charged over the Union Pacific Railway for heavy traffic were probably the lowest in the world, and certainly much below any rates known in this country. As examples, it may be stated, on the authority of the official report on the internal commerce of the United States for 1884, that bar and rod iron was only charged 0.52 cents, nails and spikes in kegs 0.45 cents, and grain 0.60 cents per ton per mile, the rate being in these and many other cases about or a trifle over a farthing per ton per mile. On the same authority we learn that, while the average rate for the transport of wool from San Francisco to New York, a distance of 3,320 miles, was 0.91 cents per ton per mile, or about \$29 for the whole distance, the through rate charged by the Pacific Mail Steamship Company for the transport of the same commodity from San Francisco to New York *via* Panama was not less than \$50, or about 70 per cent. more. This is perhaps a somewhat extreme case, as rags were carried by the same company over the same distance for \$17½, lead for \$14 and barley for \$20; but the fact remains that there have been no reductions of rates in steamship transport corresponding to those that have happened in railway carriage, and hence the latter have been getting the better of the former.

To the shipping and commerce of the United Kingdom the canal across the Isthmus of Panama is perhaps not so important as to those of the United States; but it is nevertheless a matter of real concern, and is likely to be so in an increasing degree. If such a canal were immediately available, it would be likely to be used by us for practically all our commerce with the Pacific States of North America—and our trade with these is now represented by the respectable tonnage of over seven hundred thousand tons a year, and by a value of nearly nine millions sterling; it would be used for about one-half of our trade with Mexico, which employs 180,000 tons of shipping annually, and has a declared value of about two millions and a half; and it would absorb

practically the whole of our trade with Chili and Peru, which gives employment to between five and six hundred thousand tons of shipping, and is officially valued as worth about nine millions sterling per annum. But this, after all, is not its chief advantage to Great Britain. The many unsettled problems that still surround the question of the Suez Canal administration may at any time make it worth the while of England to possess yet another alternative route to her Australian colonies and the Chinese Empire. But for the existence of the Suez Canal, the Panama Canal route would be a much more convenient one than any other to these countries, and so long as the Suez Canal is conducted in such a way as to make it congenial to British shipping to give it a preference, it is perhaps too much to expect that vessels bound for the Australias would be likely to adopt the Panama route.

But the Suez Canal has not been administered in such a way as to give entire satisfaction to British shipping. The traffic is very frequently so seriously congested that vessels take as many days to pass through as they should take hours if the passage were perfectly free. Worse than this, the dues are very heavy, and in the recent depressed state of the freight market have been almost prohibitory. Of the total cost of transport to India, amounting to, say, £1 2s. 6d. per ton, no less than 9s. 6d. per net ton, or about 40 per cent. of the total freight, has to be paid in canal dues. Under these circumstances it is perhaps not a matter of surprise that not much more than 50 per cent. of our total imports from Asia and our Australian Colonies, and not more than about 70 per cent. of our exports to those countries, pass through the canal. The remainder is still taken by the Cape route, thus avoiding the heavy canal charges, and the dangers and inconveniences of the frequent delays that are entailed by the congestion of traffic already referred to. The present value of our trade with our Australian Colonies, including both imports and exports, is about fifty to fifty-three millions sterling per annum. The Australian trade is our most rapidly-increasing one, and the most hopeful and encouraging as regards the future, and it is consequently of the utmost possible consequence that it should be afforded every possible facility for development. It is, of course, by no means certain that, apart from differences of distance, greater facilities would be likely to be afforded by the one route than by the other. On the contrary, it might appear as if the fact that M. de Lesseps is the controlling spirit in both cases should lead us to expect in the Panama route a repetition of our experience in that *via* the Isthmus of Suez; but it is absolutely certain that our shipping interests would be benefited by a choice of routes, no matter how controlled, and it is not too much to expect that in this, as in most other cases of rival claimants for support, competition would effect a remedy for evils that conciliation has hitherto failed to cure.

[Extract from the *Pall Mall Gazette*, 29th January, 1886.]

COLD WATER ON THE PANAMA CANAL.—BY ONE WHO HAS BEEN THERE.

M. DE LESSEPS, after being entertained at luncheon by the Mayor of Southampton, left that port yesterday for the Panama Canal. On such an occasion confidence and congratulation were the natural notes; but it is important that the public should know that there are two sides to M. de Lesseps's new scheme. The following article is written by one who probably knows as much about the subject as anybody, M. de Lesseps himself alone excepted:—

Once more M. Ferdinand de Lesseps is on his way to Panama in order to patch up the fortunes of his canal scheme. In December, 1879, when he sailed from St. Nazaire on board the "Lafayette," after having met with a serious repulse from the French people, to whom he had applied for funds for the Panama Canal, he took with him to Panama a dozen friends whom he pompously called the "International Technical Committee," charged, he said, with verifying the Wyse-Reclus surveys—which, by the way, were made in eighteen days. The verification actually lasted forty days, which, considering that the young men belonging to the committee enjoyed themselves with hunting and fishing, with public bull-teasing in Panama, with balls and dinners, and also considering that the canal line is forty-seven miles in length, was a grand stroke of expeditious work. In July, 1880, M. de Lesseps was—strictly in accordance with his programme—announcing that £44,000,000 for the supposed cost of the canal, as the Paris Congress had suggested, was ridiculously too high, and that Messrs. Hersent and Couvreur, the celebrated contractors (who, let it be said, had made considerable advances of money to the scheme), would willingly undertake to cut a sea-level canal for £20,480,000, so that, including all accessories, the total cost would never exceed £28,000,000. Of course, Messrs. Hersent and Couvreur never made such contract in any shape, and much less took it *à forfait*, as M. de Lesseps declared in his prospectus they were about doing. The committee of forty days found that, instead of the 46,000,000 cubic metres, which the Congress had estimated to cost £44,000,000, there were really 75,000,000 metres. And thus, while the amount of excavation was found to be greater by 63 per cent., the total cost was reduced by 36 per cent. But all these bagatelles did not prevent the Lesseps "boom" from bearing all that he had been manœuvring for. The French people brought him eagerly their *petite épargne*. The number of the lucky subscribers who were allotted twenty shares and less exceeded a hundred thousand. You might try and argue with a staunch Catholic about the transubstantiation more readily than show a French peasant that M. de Lesseps could not do the work for the money, or that the work had not been properly studied. That happened but a little over five years ago. What has M. de Lesseps been doing in the meanwhile? And, secondly, what is the strong motive that takes him now, in the eighty-first year of his age, to the inhospitable climate of the isthmus? Let us see.

To begin with, he has used an immense sum of money. Besides the £6,000,000 from the shareholders, to whom he promised never to make another call on their shares, he has raised by debentures £24,600,000—altogether £30,600,000, or, deducting discounts, £23,227,000 net. Of that sum he has hardly £10,000 left, and was obliged to call 25 per cent. more on the shares, or £3,000,000, which will be soon followed by another and last call of a further sum of £3,000,000; so that the shareholders are greatly disappointed with themselves for trusting M. de Lesseps's promise, which led them to take more shares than they would otherwise have done. The £6,000,000, added to the

£30,600,000, make £36,600,000. That is already £8,600,000 beyond M. de Lesseps's estimated cost, and the supposed offer of his friends, Messrs. Couvreur. But he himself has already acknowledged that that total would be insufficient to open the maritime canal; and how to raise the £24,000,000 more that he says he should command has greatly exercised his ingenuity. The shares are at 20 per cent. discount, and the 500-franc debentures of 5, 4, and 3 per cent. are respectively at 368, 333, and 285 francs. The public, then, would not take his paper, and he thus reached the conclusion that the only way to get the £24,000,000 of money would be by an issue of debentures with lottery prizes, which is in itself an admission that the condition of his company is desperate. But no such issue can be made without leave from the Government, and the Government at first refused it. M. Brisson, however, was soon shown that if no official aid were extended to the Panama Canal Company it would collapse, and the people who had invested their savings in it—110,000 shareholders and as many more debenture-holders—would never pardon the Republic for that. It has therefore been decided by the Government to send an engineer, M. Rousseau, to examine the works and report on their condition, so that the Government might feel justified in granting the concession asked for. Of course, the opinion of M. Rousseau, however honourable one may believe him to be, cannot have much weight. He is bound to report conformably with M. de Lesseps's desires if he reports at all; for should he report against those desires there will be a disaster, and what the Government wishes to avoid is a disaster. An adverse report would leave M. de Lesseps free to throw the responsibility on the Government; and thousands will always continue to believe in him rather than in Rousseau. On the other side, if he reports favourably, and the issue of the lottery is authorized, the Government is only deferring for the future the breaking-up of the storm; and as the latter is the easier of the two horns of the dilemma, the Government will undoubtedly take it.

But, as I said, the additional £24,000,000 will not help M. de Lesseps much. He will have, net, from it, at most, £16,000,000, which, with the £6,000,000 now to be called on the shares, will make £22,000,000, and it is absurdity itself to say that that sum will suffice to finish the canal, supposing that it can ever be finished.

The semi-hard sections now on hand are excavated at 8f. per cubic mètre. Even at that price, and admitting that there are only 104,000,000 cubic mètres yet to be taken away in the whole extent of the canal, that item of excavation alone would absorb £33,280,000. And where is the money with which to pay interest and amortization on the capital during construction? And how about the administration and other expenses, such as those with the deviation of the mighty River Chagres, which intercepts the canal some thirty times, and, when high, runs 100ft. above the canal where it first intercepts it at Gamboa? M. de Lesseps, of course, makes light of all such trifles. The other day he assured us that the canal would be ready in 1888, and would cost but £24,000,000. Now he wants £24,000,000 beyond the £30,600,000 already raised, and the £6,000,000 more to be raised on the shares, of which half is due in a few days. That would be £60,600,000 instead of £24,000,000; and yet I have shown from a single item how utterly inadequate that total would be. Interest during construction alone will absorb £15,000,000, supposing the canal to be feasible and to be finished in ten years.

But let me now show what M. de Lesseps has accomplished in the isthmus with the £30,600,000. Besides the Panama Railway he has acquired a vast amount of material. Much of this material cannot, however, be used, for it has been badly selected. Any traveller in the isthmus may have seen new locomotives turned over on the side of the road and covered with detritus. Many excavators cannot work at all. There has been untold extravagance and waste. Who has lately made that charge and proved it is no less a personage than M. Bonaparte-Wyse, one of the *fondeurs* of the company, in his "Le Canal de Panama," illustrated, just published in Paris by Hachette. He accuses the company of wasting two years, in which only in interest there has been a loss of £4,000,000, and of wasting moreover some £14,000,000 "en travaux inutiles ou trop payés et en contrats absurdes," and also with over-payment for the Panama Railway. He says that long carriage-roads have been made at great expense for the pleasure of the officers of the company, who enjoy riding and driving. The hospitals, ambulances, and residences of the employés were put up in a most lavish manner. That, I repeat, is what M. Wyse thinks of the "extravagance and unskilfulness" of M. de Lesseps's trusted friends in Panama and Paris.

The actual work in canal-digging is but very meagre indeed. M. Wyse himself, in his exploration of eighteen days, found that 46,000,000 cubic mètres would have to be removed, and no more. M. de Lesseps, in his forty days' verification, found the total to be 75,000,000. Now he admits that it will be 120,000,000, and the work is hardly begun. Taking that total for granted, it is astonishing that £30,600,000 have been raised and spent (£23,000,000 in cash), and yet only 16,000,000 cubic mètres have been excavated, and that, too, from the easiest section, nearer to the Atlantic, where there are hardly any rocks. So that, according to M. de Lesseps himself, there are still 104,000,000 mètres to be dealt with; and, as he is still saying that the canal will be ready in 1888, he needs to take, say, about 34,000,000 per annum, which is 4,000,000 for each of the nine months in which the rains do not stop the work.

Three years ago M. de Lesseps promised that from 1884 henceforth the average excavation would be at the monthly rate of 2,000,000 cubic mètres. The number of the *Économiste Français* for last Saturday states that in November, 1885, it was still 687,000 cubic mètres. I may add that it has never reached even 850,000 in a single month, much less 2,000,000, and still less 4,000,000. But, excavation or no excavation, a much more serious matter is the control of the Chagres by means of the proposed dam or barrage. This is a most difficult problem, and M. de Lesseps has simply given it up. M. Wyse, an unsuspected witness, says that for the last three years its solution "has made no progress whatever." If the canal could be open and the barrage undertaken nobody can tell whether at the first rainy season, or even during its construction, the whole canal would not be destroyed in a couple of hours. The whole thing is an unknown quantity in the many difficulties of the canal by Panama.

Little, therefore, has been accomplished by M. de Lesseps; and no wonder that his declining credit and the critical condition of his company should take him to Panama in order to show the way to M. Rousseau. The evident purpose of the present trip is, as in the first trip six years ago, a huge *réclame*. The shareholders, who are called upon to pay up £3,000,000 between the 1st and the 5th of February, will hear that M. de Lesseps is affronting the displeasure of crossing the ocean at this season, and they will be comforted.

M. de Lesseps takes with him, and at the expense of the Panama Canal Company, several delegates of French Chambers of Commerce. These provincial gentlemen are expected to report what they will be shown by their brilliant and kindly host. But that is not all. At the meeting of the Academy of Sciences, in Paris, held on Monday evening, M. de Lesseps made a formal declaration that he was going to Panama, "accompanied by the delegates of several Governments and Chambers of Commerce whose competence and character will place above any doubt the judgment that they shall pronounce. As for me," he added, "I am sure that in sixty days I shall repeat to you with all authority that the canal work will be ready, at latest, during 1889."

It is almost incredible and painful that this respected octogenarian should have become so reckless. But such statements are believed in France, and, what is worse, are propagated as facts by those on whom it is incumbent to verify them. Thus, for instance, the Paris correspondent of the *Times* announced some days ago that M. de Lesseps would be accompanied by representatives of the Governments of France, England, Germany, and Holland. Who are such delegates? Who are the English ones? Can anybody tell their names?

Some time ago France had two great men, each of whom the world might truly call "grand Français"—V. Hugo and F. de Lesseps. One is dead. The other is worse than dead: he is trying hard to thrust himself from the high pedestal on which his genius has been consecrated by the veneration of mankind. It is a pitiful spectacle indeed, and a terrible lesson as well.

[Approximate Cost of Paper.—Preparation, nil; printing (1,350 copies), £8 Os. 6d.]

By Authority: GEORGE DIDSBURY, Government Printer, Wellington.—1886.