

the Mather Power Company to construct experimental span in Niagara River at Buffalo, N. Y.—to the Committee on Interstate and Foreign Commerce.

Also, resolutions of Jewelers' Association and Board of Trade of New York City, favoring the Ray bankruptcy bill—to the Committee on the Judiciary.

Also, protest of the Pure Oil Company, of Pittsburg, Pa., against the passage of the ship-subsidy bill—to the Committee on the Merchant Marine and Fisheries.

By Mr. SMITH of Kentucky: Papers relating to the claim of Rebecca Spencer for board and attention given to sick soldiers and for feeding soldiers during the civil war—to the Committee on War Claims.

By Mr. STEVENS of Minnesota: Resolution of St. Paul Turnverein, in favor of the South African republics—to the Committee on Foreign Affairs.

By Mr. SUTHERLAND: Petition of D. L. Sprague and other citizens of Utah, in favor of House bills 178 and 179, for the repeal of the tax on distilled spirits—to the Committee on Ways and Means.

By Mr. WRIGHT: Resolutions of Pomona Grange, No. 7, of Susquehanna County, Pa., favoring House bills 3521 and 3575, to enlarge the jurisdiction of the Interstate Commerce Commission—to the Committee on Interstate and Foreign Commerce.

SENATE.

TUESDAY, June 17, 1902.

The Senate met at 11 o'clock a. m.

Prayer by Rev. F. J. PRETTYMAN, of the city of Washington. The Secretary proceeded to read the Journal of yesterday's proceedings, when, on request of Mr. GALLINGER, and by unanimous consent, the further reading was dispensed with.

The PRESIDENT pro tempore, Without objection, the Journal will stand approved.

OKLAHOMA, ARIZONA, AND NEW MEXICO.

Mr. QUAY. Mr. President, I desire to give notice at this time that on Thursday next, after the conclusion of the voting upon the Nicaragua Canal bill, I shall move to discharge the Committee on Territories from the bill (H. R. 12543) to enable the people of Oklahoma, Arizona, and New Mexico to form constitutions and State governments and be admitted into the Union on an equal footing with the original States, and that the Senate shall proceed to the consideration of the bill.

MESSAGE FROM THE HOUSE.

A message from the House of Representatives, by Mr. C. R. MCKENNEY, its enrolling clerk, announced that the House had passed with amendments the following bills; in which it requested the concurrence of the Senate:

A bill (S. 640) to extend the provisions, limitations, and benefits of an act entitled "An act granting pensions to the survivors of the Indian wars of 1832 to 1842, inclusive, known as the Black Hawk war, Creek war, Cherokee disturbances, and Seminole war;"

A bill (S. 4850) to increase the pensions of those who have lost limbs in the military or naval service of the United States or are totally disabled in the same; and

A bill (S. 5269) to provide a commission to secure plans and designs for a monument or memorial to the memory of Abraham Lincoln, late President of the United States.

The message also announced that the House had passed the following bills and joint resolution; in which it requested the concurrence of the Senate:

A bill (H. R. 10933) to provide for the erection, at Fredericksburg, Va., of the monument to the memory of Gen. Hugh Mercer, which it was ordered by Congress, on the 8th day of April, 1777, should be erected;

A bill (H. R. 12141) to amend an act entitled "An act amending section 4708 of the Revised Statutes of the United States, in relation to pensions to remarried widows; and

A joint resolution (H. J. Res. 6) in relation to monument to prison-ship martyrs at Fort Greene, Brooklyn, N. Y.

ENROLLED BILLS SIGNED.

The message further announced that the Speaker of the House had signed the following enrolled bills and joint resolution; and they were thereupon signed by the President pro tempore:

A bill (S. 3057) appropriating the receipts from the sale and disposal of public lands in certain States and Territories to the construction of irrigation works for the reclamation of arid lands;

A bill (S. 3992) granting an increase of pension to David M. McKnight;

A bill (S. 3060) authorizing the Newport Bridge, Belt and Ter-

minal Railway Company to construct a bridge across the White River in Arkansas;

A bill (H. R. 4103) granting a pension to William C. Hickox;

A bill (H. R. 7679) granting an increase of pension to Franklin Snyder;

A bill (H. R. 8794) granting an increase of pension to Henry I. Smith;

A bill (H. R. 9334) to amend an act to prohibit the passage of special or local laws in the Territories, to limit the Territorial indebtedness, and for other purposes;

A bill (H. R. 10545) granting an increase of pension to Solomon P. Brockway;

A bill (H. R. 12420) granting a pension to Wesley Brummett;

A bill (H. R. 12828) granting a pension to Mary E. Culver;

A bill (H. R. 12865) regulating the use of telephone wires in the District of Columbia;

A bill (H. R. 13278) granting an increase of pension to Levi H. Collins; and

A joint resolution (S. R. 105) supplementing and modifying certain provisions of the Indian appropriation act for the year ending June 30, 1903.

PETITIONS AND MEMORIALS.

Mr. PLATT of New York presented resolutions adopted at a mass meeting of citizens of Ticonderoga, N. Y., favoring the purchase by the United States Government of the old forts at Ticonderoga and Crown Point in that State; which were referred to the Committee on Military Affairs.

He also presented a petition of sundry citizens of Brooklyn, N. Y., praying for the enactment of legislation providing that eight hours shall be the maximum work day in all trades and employments; which was referred to the Committee on Education and Labor.

Mr. CULLOM presented a petition of the Illinois State Agency, of Chicago, Ill., praying for the enactment of legislation providing for the final adjustment and settlement of the swamp-land indemnity due the State of Illinois under the act of Congress approved March 3, 1855; which was referred to the Committee on Public Lands.

He also presented a resolution adopted at the Fifth International Congress of Criminal Anthropology, held at Amsterdam, Holland, favoring the establishment of psycho-physical laboratories for the practical application of physiological psychology to sociological and abnormal or pathological data, etc.; which was referred to the Committee on Education and Labor.

He also presented petitions of the International Association of Machinists, American Federation of Labor, of Springfield; of the International Association of Machinists, American Federation of Labor, of East St. Louis, and of the International Association of Machinists, American Federation of Labor, of Batavia, all in the State of Illinois, praying for the passage of the so-called eight-hour bill; which were referred to the Committee on Education and Labor.

Mr. BLACKBURN presented a petition of sundry citizens of Kentucky, praying for the adoption of certain amendments to the internal-revenue law relative to the tax on distilled spirits; which was referred to the Committee on Finance.

Mr. WELLINGTON. I present a memorial of the general assembly of Maryland relative to the use of Maryland granite in the construction of the United States custom-house at Baltimore, in that State. I ask that the memorial be printed in the RECORD and referred to the Committee on Public Buildings and Grounds.

The memorial was referred to the Committee on Public Buildings and Grounds, and ordered to be printed in the RECORD, as follows:

Joint resolution No. 3.—Joint resolution of the general assembly of Maryland, requesting the Secretary of the Treasury of the United States Government to require the use of Maryland granite in the construction of the United States custom-house at Baltimore, Md.

Whereas a new custom-house is to be constructed by the United States Government at Baltimore, Md., and

Whereas the State of Maryland produces as fine and durable a granite as there is produced elsewhere: Be it

Resolved by the general assembly of the State of Maryland, That the Secretary of the Treasury of the United States Government be, and he is hereby, requested to require that in the construction and erection of the United States custom-house at Baltimore, Md., granite stone produced from the quarries of the State of Maryland be used.

Be it further resolved, That the secretary of state be, and he is hereby, authorized to transmit a copy of these resolutions, under the seal of the State, to the said Secretary of the Treasury of the United States, and to each of the Senators and Representatives now in Congress from this State.

Witness our hands February 19, 1902.

NOBLE L. MITCHELL,
Speaker of the House of Delegates.
JOHN HUBNER,
President of the Senate.

THE STATE OF MARYLAND, EXECUTIVE DEPARTMENT.

I, John Walter Smith, governor of the State of Maryland, and having control of the great seal thereof, do hereby certify that the foregoing is a

true copy of joint resolution No. 3, of the general assembly of Maryland of 1902.

Witness my hand and the great seal of Maryland.
Done at the city of Annapolis on the — day of —, in the year of our Lord 1902.

By the governor.
[SEAL.]

JOHN WALTER SMITH.

WILFRED BATEMAN,
Secretary of State.

Mr. WELLINGTON presented resolutions adopted by sundry citizens of Baltimore, Md., at a mass meeting held under the auspices of the Polish National Alliance in that city on May 5, 1902, favoring the erection of a monument to the memory of Brig. Gen. Casimir Pulaski; which were referred to the Committee on the Library.

Mr. DRYDEN presented a petition of the Trades and Labor Federation, of New Brunswick, N. J., praying for the enactment of legislation providing for the irrigation of the arid lands of the West; which was ordered to lie on the table.

He also presented a petition of the Burlington County Retail Liquor Dealers and Hotel Keepers' Protective Association, of Burlington, N. J., praying for the adoption of certain amendments to the internal-revenue law relative to the tax on distilled spirits; which was referred to the Committee on Finance.

He also presented a petition of sundry citizens of Wayland, N. J., praying for the repeal of the duty on beef, veal, mutton, and pork; which was referred to the Committee on Finance.

He also presented petitions of Jersey City Harbor No. 6, American Association of Masters and Pilots of Steam Vessels, of Hoboken, and of Enterprise Harbor No. 2, American Association of Masters and Pilots of Steam Vessels, of Camden, in the State of New Jersey, praying for the enactment of legislation granting pensions to certain officers and men in the Life-Saving Service, etc.; which were referred to the Committee on Pensions.

He also presented a petition of Newark Lodge, No. 240, International Association of Machinists, of Newark, N. J., praying for the passage of the so-called eight-hour law; which was referred to the Committee on Education and Labor.

He also presented petitions of the congregation of the Methodist Episcopal Church of Bordentown, and of the Christian Endeavor Society of the Presbyterian Church of Vineland, in the State of New Jersey, praying for the enactment of a Sunday-rest law for the District of Columbia; which were referred to the Committee on the District of Columbia.

He also presented petitions of Hotel Waiters and Cooks' Local Union No. 337, of Trenton; of the common council of Hoboken; of the board of fire commissioners of Hoboken; of the McKinley Club of Elizabeth; of the Edward L. Brown Post, No. 44, Department of New Jersey, Grand Army of the Republic; of the Lincoln Club, of Paterson; of the board of water commissioners of Hoboken; of Journeymen Barbers' Local Union No. 381, of Hoboken; of the Trades and Labor Federation of New Brunswick, and of Plumbers' Local Union No. 168, of Hoboken, all in the State of New Jersey, praying for the enactment of legislation increasing the compensation of letter carriers; which were referred to the Committee on Post-Offices and Post-Roads.

He also presented petitions of the Woman's Christian Temperance Union of New Jersey; of sundry citizens of Tenafly, Haddon Heights, Atlantic Highlands, Elwood, Closter, Daretown, Elizabeth, Hamburg, Toms River, Paterson, Dover, and Island Heights; of the Woman's Christian Temperance Union of Aron; of the Woman's Christian Temperance Union of Bridgeton, and of the Woman's Christian Temperance Union of Junction, all in the State of New Jersey, praying for the enactment of legislation to prohibit the sale of intoxicating liquors in the Capitol building and at immigrant stations; which were referred to the Committee on Immigration.

Mr. FAIRBANKS presented the petition of John H. McFarland and 52 other citizens of Boundary, Ind., praying for the passage of the so-called immigration bill; which was referred to the Committee on Immigration.

Mr. LODGE. I present a memorial of a committee appointed at a recently held meeting of persons, irrespective of party, interested in the policy pursued by the United States toward the Philippine Islands and the inhabitants thereof, and also the condition of affairs in those islands. I ask that the memorial be printed in the RECORD and referred to the Committee on the Philippines.

There being no objection, the memorial was referred to the Committee on the Philippines, and ordered to be printed in the RECORD, as follows:

The honorable the Senate and the House of Representatives of the United States:

BOSTON, June —, 1902.

The undersigned would respectfully represent that they are a committee appointed at a recently held meeting of persons, irrespective of party, interested in the policy pursued by the United States toward the Philippine Islands and the inhabitants thereof. As such they were instructed to investigate the condition of affairs connected therewith, and take such subsequent action as might seem expedient. Having, to a certain extent, performed this duty they now submit the following

MEMORIAL.

It is not our present purpose to discuss any controverted questions connected with events which have recently taken place in the Philippine Islands, or to call in question the policy which either has been pursued by the United States or which it is proposed to pursue in regard to these islands or the inhabitants thereof. In the performance of the duties imposed upon us these matters have to a greater or less extent engaged our attention, and the results at which we arrive may not improbably be brought to your notice at some future time. Certain facts, however, which seem to us of much import are not open to dispute. To these, and the conclusions to be drawn from them as to the exigency seems great and immediate, we now respectfully invite your attention.

It is apparent that, as an outcome of the policy and course of action hitherto pursued, which may or may not have met the approval of those we represent, certain things have resulted:

The United States, as a nation, has assumed charge of communities of Asiatic descent, occupying many islands of an archipelago at a great distance from our nearest continental possessions. Those communities, numbering millions, are of a race wholly distinct from ourselves, with other traditions and habits, speaking foreign, and, in many cases, unknown tongues. The acquisition of the Philippine Islands and their inhabitants, while imposing on us treaty obligations, has been followed by prolonged warlike operations marked by acts of fierce resistance, not quickly overcome, on the part of the Filipinos, and by military severities on our part of a character unprecedented in our annals. Those islands are now held by us partly under military law and partly under civil authority, but in absolute subjection. In the course of this mixed administration of affairs no inconsiderable degree of friction has existed, and apparently still does exist, between our military and civil representatives. Such could, indeed, hardly be avoided. In the prosecution of military movements the establishment of camps of concentration for the inhabitants of large districts has been thought expedient; and the people of those districts of both sexes and all ages thus gathered from their homes and usual vocations have therein been compelled to live, with sanitary results concerning which only very indefinite information has been received. In the course of military operations also large regions have been devastated, towns have been burned, and the food supply of the country destroyed. It has hence resulted that when the inhabitants have been returned from the camps of concentration to their former places of abode they have found their shelters gone and the means of subsistence greatly impaired or wholly lacking. It is known that the epidemics usually and, indeed, inevitably, incident to such a state of affairs are now raging in the islands, though only very partial statistics as respects mortality are made public, if, indeed, they are in any wise obtainable. Extensive districts inhabited by our dependents have thus been scourged and are now stricken with war, famine, and pestilence.

For the people thus afflicted, whether excusably or otherwise, America stands responsible. That responsibility can not be evaded. Those people have, moreover, no means of communicating directly with us. Removed by the width of an ocean, they are unable to make their situation known, whether to ask for aid and relief or to obtain redress of grievances, if such exist. They have not been invited, perhaps, not even permitted, to speak unless they seemed to approve of our doings. But they are still our subjugated dependents. To us, and to us only, can they look, and from our decision they have no appeal.

Such being, as we understand, the undisputed facts, we desire, respectfully, to represent that the Congress of the United States, as the supreme lawmaking authority, is of necessity the grand inquest of the American people. It alone possesses the power necessary adequately to deal with a situation such as now exists. The inquiry at present being carried on by one of your honorable bodies has unquestionably been productive of valuable results—the far-reaching importance of which, both to the people of this country and to the Filipinos, it would, in our judgment, not be easy to exaggerate. But that inquiry has also demonstrated to us—and we think must have satisfied all careful observers of its course—that no inquiry instituted in this country, and carried on under similar limitations, can possibly meet full present requirements.

It is plain that, at best, only odds and ends of evidence, stray scraps of information not always of unquestioned authenticity, are forthcoming or obtainable; the dependent communities are not represented; one side, in a conflict of races, debarred from testifying, remains, and must remain, substantially unheard, where not in a measure dumb. To reach any satisfactory results inquiry must be made on the spot and among the people concerned—the dependents of the United States, our so-called subject races. Under these circumstances did we ourselves, the undersigned, representing an unrecognized constituency and clad with no official authority, undertake to go out to the Philippine Archipelago, or to send there a committee of our number, we would have no power to gather evidence, to elicit facts, or to prescribe remedies. We could at best appear merely as volunteers, and, as such, would probably be ordered at once to return whence we came. It would be altogether otherwise with those coming from the Congress of the United States, and members of it. Its delegates would represent the full dignity, authority, and power of the American people. To them every source of information would be accessible, while their mere presence would vastly improve the situation.

The facts being thus, we respectfully ask, on behalf of ourselves and those we represent, that the Congress of the United States will forthwith provide for the appointment of a committee of investigation of its own number, to proceed at the earliest practicable moment to the Philippine Archipelago, and there enter upon such an investigation as will cause the people of the United States to feel assured that full information is being elicited, that all grievances will be considered, that any measures necessary to the protection and a reestablished prosperity of our dependents will in due time be instituted, and that, in the light of the fullest possible knowledge of facts and conditions, the American people may form their judgment of the policy so far pursued, as well as that to be adopted for the future.

We further desire to point out a full precedent for the appointment of such a joint Congressional committee of inquiry. In the year 1865, at the close of our civil war, when a state of affairs not altogether dissimilar to that in the Philippine Archipelago existed in the so-called Confederate States, cognizance was taken of the fact, and Congress, by a concurrent resolution of December 13, acting as the grand national inquest, appointed such a committee as is now suggested. Composed of six members on the part of the Senate, and nine members on the part of the House of Representatives, William Pitt Fessenden, of Maine, was chairman on behalf of the former, and Thaddeus Stevens, of Pennsylvania, on behalf of the latter, while among those composing the committee were James W. Grimes, Jacob M. Howard, Reverdy Johnson, E. B. Washburne, Justin F. Morrill, Roscoe Conkling, and George S. Boutwell. The committee thus composed then made, as respects the region which had constituted the so-called Confederacy, an investigation similar in character to that we now ask for as respects the Philippine Archipelago.

We would accordingly petition your honorable bodies that such a joint special committee be now provided, and that it be of sufficient size to command public confidence by containing representatives of both parties and advocates of all different lines of policy, to the end that full information may

be elicited and the greatest possible volume of variant light shed upon the duties and obligations which this people have had forced upon them or voluntarily assumed.

We would further respectfully request that this committee be so constituted as to enable it to cover the entire field of investigation within the limited time at its disposal. To make this possible it should be accompanied by a body of experts, military and civil, representing the medical, sanitary, industrial, and other scientific phases involved in the great and complex problem to be considered, and upon which the committee will be called intelligently to pass.

On the spot, and in this way only, we submit, can the American people be properly and fully advised as to the duties and obligations now imposed upon them. As a portion of the people, realizing those obligations and impressed with a not undue sense of the responsibility which has been incurred, we submit this memorial, and ask for it your early and favorable consideration.

CHARLES FRANCIS ADAMS.
ANDREW CARNEGIE.
By C. F. A.*
C. SCHURZ.
EDWIN BURRITT SMITH.
HERBERT WELSH.

Mr. FRYE presented resolutions adopted by the Maine Medical Association, at Portland, Me., favoring the establishment of a sociological laboratory; which were referred to the Committee on Education and Labor.

He also presented the petition of James Selden Cowdon, praying that all reservoirs in the city of Washington be abolished, and for the location of a filtration plant at a point beyond Cabin John Bridge, Maryland; which was referred to the Committee on the District of Columbia.

He also presented resolutions of the Fifth International Congress of Criminal Anthropology, adopted at Amsterdam, Holland, favoring the establishment of psychological laboratories; which were referred to the Committee on Education and Labor.

REPORTS OF COMMITTEES.

Mr. GALLINGER, from the Committee on Naval Affairs, to whom was referred the bill (S. 5329) authorizing the President to appoint Lieut. Commander William P. Randall, retired, United States Navy, a commander on the retired list, reported it with an amendment, and submitted a report thereon.

He also, from the same committee, to whom was referred the bill (S. 4905) authorizing the President to nominate Lieut. Commander Arthur P. Osborn to be a commander on the retired list of the Navy, reported it with amendments, and submitted a report thereon.

He also, from the Committee on Pensions, to whom was referred the bill (H. R. 11890) granting an increase of pension to James Brown, reported it without amendment, and submitted a report thereon.

He also, from the same committee, to whom was referred the bill (H. R. 6481) granting an increase of pension to Millen McMillen; reported it with an amendment, and submitted a report thereon.

Mr. WELLINGTON, from the Committee on the District of Columbia, to whom was referred the bill (S. 4779) relating to the office of the secretary of the District of Columbia, reported it without amendment, and submitted a report thereon.

He also, from the same committee, to whom was referred the joint resolution (S. R. 85) to amend the highway extension plans of the District of Columbia, submitted an adverse report thereon; which was agreed to, and the joint resolution was postponed indefinitely.

Mr. HANSBROUGH, from the Committee on Public Lands, to whom was referred the bill (S. 6091) extending the time for making final proof in desert-land entries in Yakima County, State of Washington, reported it without amendment, and submitted a report thereon.

He also, from the same committee, to whom was referred the bill (S. 4815) to grant certain lands to the South Platte Canal and Reservoir Company, reported it with amendments, and submitted a report thereon.

Mr. GAMBLE, from the Committee on Public Lands, to whom was referred the bill (S. 6138) to set apart certain lands in the State of South Dakota as a public park, to be known as the Wind Cave National Park, reported it without amendment, and submitted a report thereon.

He also, from the same committee, to whom was referred the bill (H. R. 11062) to amend an act entitled "An act to make certain grants of land to the Territory of New Mexico, and for other purposes," reported it with amendments, and submitted a report thereon.

CONSULAR REPORTS.

Mr. PLATT of New York, from the Committee on Printing, reported the following resolution; which was considered by unanimous consent, and agreed to:

Resolved, That there be printed the usual number of copies of the message from the President of the United States transmitting reports from the consular officers of the United States, giving an account of each consulate and

* Signature authorized by cable.

consular agency, showing the principal industries and exports, the surrounding climatic conditions, the general cost of living, and similar information, in response to Senate resolution 504, Fifty-sixth Congress, second session.

BILLS REFERRED TO COURT OF CLAIMS.

Mr. WARREN, from the Committee on Claims, reported the following resolution; which was considered by unanimous consent, and agreed to:

Resolved, That the Senate bills Nos. 2142, for the relief of the legal representatives of J. J. Abrahams, deceased; 205, for the relief of the Allaire Works, of New York; 6013, for the relief of the Atlantic Works; 204, for the relief of Hannah E. Boardman, administratrix of William Boardman, deceased; 1181, for the relief of the estate of James Brown, deceased; 209, for the relief of the legal representatives of George M. Clapp, of the Washington Iron Works; 1309, for the relief of Everett B. Curtis, administrator of John J. Curtis, deceased; 5, for the relief of the legal representatives of Paul Curtis, deceased; 879, for the relief of the executors of James B. Eads, deceased; 3737, for the relief of the legal representatives of Gardner & Lake; 1671, for the relief of the Globe Works, of Boston, Mass.; 3843, for the relief of the legal representatives of Hillman & Streaker; 6051, for the relief of Amos L. Allen; 3705, for the relief of Harrison Loring; 5008, for the relief of the legal representatives of Edward Lupton, deceased; 906, for the relief of the legal administrators of Daniel McLeod, deceased, of the South Brooklyn Works; 904, for the relief of Anna M. Mershon, administratrix of Daniel S. Mershon, deceased; 1217, for the relief of the legal representatives of Neafie & Levy; 1564, for the relief of Sarah E. E. Perine, widow and administratrix of William Perine, deceased; 347, for the relief of Poole & Hunt; 2633, for the relief of the legal representatives of Pusey, Jones & Co., of Wilmington, Del.; 207, for the relief of George W. Quintard, of the Morgan Iron Works; 1186, for the relief of Kate Beane Zeiss, administratrix of William B. Beane, surviving partner of the firm of Beane, Son & Archbold; 633, for the relief of the legal representatives of John Roach, deceased; 703, for the relief of George T. Sampson; 4104, for the relief of the legal representatives of Jeremiah Simonson, deceased; 3186, for the relief of Thomas Stack; 4972, for the relief of the estate of F. Z. Tucker; 1001, for the relief of the Portland Company, of Portland, Me.; 3738, for the relief of the estate of George W. Lawrence, deceased, and 6043, for the relief of James F. Secor, surviving partner of Secor & Co., be referred to the Court of Claims for findings of fact under the provisions of the act of March 3, 1887 (such findings to include any facts bearing upon the question of the loyalty or disloyalty of claimants during the war; any ascertainment by a board or boards of officers authorized by the Secretary of the Navy of how much the vessels of war and steam machinery mentioned in said bills cost the contractors over and above the contract price and allowance for extra work; what, if any, sums have been paid to claimants on account of such additional cost; what evidence has been filed in said court as to the causes of such increased cost), and report to the Senate in accordance with section 14 of said act.

Mr. WARREN. I have prepared a report in the matter of certain war vessels built in 1862 and 1865 to accompany the resolution just reported by me from the Committee on Claims, referring to the Court of Claims for findings of fact 31 several bills representing claims against the United States on account of the building of certain boats and machinery for the same, including a reprint of the findings of the Selfridge and Marchand boards. I move that the matter be printed as a report coming from the Committee on Claims.

The motion was agreed to.

BILLS INTRODUCED.

Mr. MORGAN introduced a bill (S. 6180) for the relief of the estate of Solomon Smith, deceased; which was read twice by its title, and referred to the Committee on Claims.

Mr. McENERY introduced a bill (S. 6181) for the relief of Matilda M. Fairex, administratrix of the estate of Daniel Fairex, deceased; which was read twice by its title, and, with the accompanying papers, referred to the Committee on Claims.

Mr. MILLARD introduced a bill (S. 6182) granting an increase of pension to Lila L. Egbert; which was read twice by its title, and, with the accompanying papers, referred to the Committee on Pensions.

He also introduced a bill (S. 6183) granting an increase of pension to Susanna V. Wells; which was read twice by its title, and, with the accompanying paper, referred to the Committee on Pensions.

Mr. WELLINGTON introduced a bill (S. 6184) granting a pension to Henry J. Hardy; which was read twice by its title, and referred to the Committee on Pensions.

Mr. JONES of Arkansas introduced a bill (S. 6185) for the relief of Thomas D. Ruffin; which was read twice by its title, and referred to the Committee on Claims.

Mr. FAIRBANKS introduced a bill (S. 6186) granting an increase of pension to John F. Wildman; which was read twice by its title, and, with the accompanying paper, referred to the Committee on Pensions.

He also introduced a bill (S. 6187) granting an increase of pension to William H. H. Cain; which was read twice by its title, and, with the accompanying paper, referred to the Committee on Pensions.

AMENDMENT TO DEFICIENCY APPROPRIATION BILL.

Mr. TALLAFERRO submitted an amendment proposing to increase the appropriation to pay the Independent Line Steamers, of Tampa, Fla., in full settlement of all claims against the United States for damages to the steamer *Manatee* from \$624.18 to \$1,344.18, intended to be proposed by him to the general deficiency appropriation bill; which was referred to the Committee on Appropriations, and ordered to be printed.

HOUSE BILLS REFERRED.

The following bill and joint resolution were severally read twice by their titles, and referred to the Committee on the Library:

A bill (H. R. 10993) to provide for the erection, at Fredericksburg, Va., of the monument to the memory of Gen. Hugh Mercer, which it was ordered by Congress on the 8th day of April, 1777, should be erected; and

A joint resolution (H. J. Res. 6) in relation to monument to prison-ship martyrs at Fort Greene, Brooklyn, N. Y.

The bill (H. R. 12141) to amend an act entitled "An act amending section 4708 of the Revised Statutes of the United States, in relation to pensions to remarried widows, was read twice by its title and referred to the Committee on Pensions.

ELIZABETH A. TURNER.

The PRESIDENT pro tempore laid before the Senate the amendment of the House of Representatives to the bill (S. 5856) granting an increase of pension to Elizabeth A. Turner, which was in line 8, before the word "dollars," to strike out "sixteen" and insert "twelve."

Mr. GALLINGER. I move that the Senate disagree to the amendment of the House of Representatives and request a conference on the disagreeing votes of the two Houses thereon.

The motion was agreed to.

By unanimous consent, the President pro tempore was authorized to appoint the conferees on the part of the Senate; and Mr. GALLINGER, Mr. PRITCHARD, and Mr. TALIAFERRO were appointed.

PENSIONS TO SURVIVORS OF INDIAN WARS.

The PRESIDENT pro tempore laid before the Senate the amendments of the House of Representatives to the bill (S. 640) to extend the provisions, limitations, and benefits of an act entitled "An act granting pensions to the survivors of the Indian wars of 1832 to 1842, inclusive, known as the Black Hawk war, Creek war, Cherokee disturbances, and the Seminole war," approved July 27, 1892, which were, on page 3, line 2, after the word "into," to insert "the," and after the word "service" to insert "of the United States."

Mr. GALLINGER. I move that the Senate agree to the amendments made by the House of Representatives.

The motion was agreed to.

MONUMENT TO ABRAHAM LINCOLN.

The PRESIDENT pro tempore laid before the Senate the amendments of the House of Representatives to the bill (S. 5269), entitled "An act to provide a commission to secure plans and designs for a monument or memorial to the memory of Abraham Lincoln, late President of the United States," which were, on page 1, line 5, after the word "State," to strike out "and," and in line 6, after the word "War," to insert "and Representative JAMES D. RICHARDSON."

Mr. WETMORE. I move that the Senate disagree to the amendments of the House of Representatives and request a conference on the disagreeing votes of the two Houses thereon.

The motion was agreed to.

By unanimous consent, the President pro tempore was authorized to appoint the conferees on the part of the Senate; and Mr. WETMORE, Mr. HANSBROUGH, and Mr. VEST were appointed.

INCREASED PENSIONS FOR LOSS OF LIMBS.

The PRESIDENT pro tempore laid before the Senate the amendments of the House of Representatives to the bill (S. 4850) to increase the pensions of those who have lost limbs in the military or naval service of the United States or are totally disabled in the same, which were, on page 1, line 6, after the word "duty," to insert "from wounds, injury, or disease originating prior to August 4, 1886;" in line 8, to strike out "forty-five" and insert "forty;" in line 11, to strike out "fifty" and insert "forty-six;" on page 2, line 1, after the word "joint," to insert "or where the same is in such a condition;" in line 2, to strike out "or are totally disabled in the same;" in line 3, to strike out "sixty" and insert "fifty-five," and in line 6, after the word "month," to insert:

And that all persons who, in like manner, shall have lost both feet shall receive a pension at the rate of \$100 per month: *Provided, however,* That this act shall not be so construed as to reduce any pension under any act, public or private.

SEC. 2. That the pensions of all persons who served one year or more in the Army or Navy of the United States, and who, under the act approved June 27, 1890, and the acts amendatory thereof, are drawing or hereafter shall be entitled to draw a pension at the rate of \$12 per month, and who are or shall become so disabled from injuries or disease as to require the frequent and periodical aid and attendance of another person, shall be increased to \$30 per month from and after the date of the certificate of the examining surgeon or board of examining surgeons showing such degree of disability and made subsequent to the passage of this act.

Mr. GALLINGER. Mr. President, this is a bill which passed the Senate a little while ago increasing the pensions of the maimed soldiers of the country. The other House not only amended it in

the matter of rates, but has made it apply only to soldiers who received their disabilities prior to the Spanish war. The House has likewise attached an amendment to the bill increasing from \$12 to \$30 per month the pensions of soldiers under the act of June 30, 1890, who had one year's service and who required the periodical attendance of another person.

I will say, that it may be understood by Senators and by the soldiers of the country, that the amendments destroy the purpose of the bill and that in all human probability no legislation on this subject will be had at the present session of Congress.

I move the reference of the bill and amendments to the Committee on Pensions.

The motion was agreed to.

PAYMENTS FROM CUBAN FUNDS.

The PRESIDENT pro tempore. The Chair lays before the Senate a resolution coming over from a previous day, which will be read.

The Secretary read the resolution submitted yesterday by Mr. TELLER, as follows:

Whereas it seems impracticable to prepare during this session of Congress an itemized statement showing the collection and disbursement of all funds for the whole period of the military occupation of Cuba; and

Whereas it is important that a statement be now made of the accounts hereafter named: Therefore, be it

Resolved, That the Secretary of War be, and he is hereby, directed to send to the Senate the following:

A full itemized statement of all payments made out of Cuban funds to any persons or corporations, if any, for the purpose of promoting "reciprocity" between the United States and Cuba, at any time during the military occupation of Cuba by the United States, and whether such payments were authorized or approved by the Secretary of War.

Mr. TELLER. The junior Senator from Connecticut [Mr. PLATT], who asked that the resolution might lie over, is not present.

The PRESIDENT pro tempore. Shall it lie on the table, subject to the call of the Senator?

Mr. TELLER. Yes; I suppose that is the course he really wanted to have taken.

The PRESIDENT pro tempore. The Chair hears no objection to the request. The resolution will lie on the table, subject to the call of the Senator from Colorado.

ORDER OF BUSINESS.

Mr. STEWART. Mr. President—

The PRESIDENT pro tempore. For what purpose does the Senator rise?

Mr. STEWART. To speak on the Nicaragua Canal bill.

The PRESIDENT pro tempore. The Senator from California [Mr. PERKINS] was recognized last night and is entitled to the floor.

Mr. STEWART. I had given notice before.

Mr. PERKINS. The notice of the Senator from Nevada upon the Calendar says 2 o'clock.

Mr. STEWART. No; I said immediately after the morning business.

The PRESIDENT pro tempore. The Calendar shows that the Senator gave notice that at 2 o'clock he would address the Senate.

Mr. STEWART. Very well.

UNITED STATES PRISONERS.

Mr. HOAR. I should like, with the leave of the Senator from California, to have a bill passed to which there will be no objection. It is the bill (H. R. 14411) to regulate the commutation for good conduct for United States prisoners. It has passed the House and was drawn in the Attorney-General's Department. I should like to ask the Senate to put it on its passage. It is a humane bill that ought to be acted on.

The PRESIDENT pro tempore. Does the Senator from California yield for that purpose?

Mr. PERKINS. I will yield if the bill does not invite discussion.

Mr. HOAR. If it does I shall withdraw it at once.

The PRESIDENT pro tempore. The bill will be read for the information of the Senate.

The Secretary read the bill; and by unanimous consent the Senate, as in Committee of the Whole, proceeded to its consideration.

The bill was reported to the Senate without amendment, ordered to a third reading, read the third time, and passed.

Mr. HOAR. With the leave of the Senator from California I should like to make one statement about the bill which has just passed.

I received a great many communications from different parts of the country saying that it ought to apply to cases of prisoners sentenced heretofore, and undoubtedly that would be quite desirable, but there was a very serious doubt in the minds of members of the committee of the constitutional power of Congress to pass a bill of that sort which should apply to sentences heretofore

imposed. Therefore the committee thought it unwise to include such a provision.

SALARIES OF POST-OFFICE CLERKS.

Mr. MASON. I ask unanimous consent for the consideration of the bill (S. 4949) to provide for the classification of the salaries of clerks employed in post-offices of the first and second class, simply for the purpose of having an amendment made, and then having the bill reprinted as amended.

There being no objection, the Senate, as in Committee of the Whole, proceeded to consider the bill.

Mr. MASON. I move to amend, in section 1, on page 2, line 4, by striking out the word "may," before the word "be," and inserting "shall;" so as to read:

Who, at the date of July 1, 1902, shall be receiving a salary less than \$1,000 per annum.

The amendment was agreed to.

Mr. MASON. I now ask that the bill may be printed as amended, and I give notice that to-morrow morning I shall ask for its consideration.

The PRESIDING OFFICER (Mr. McCOMAS in the chair). If there be no objection, an order will be made to reprint the bill as amended.

ISTHMIAN CANAL.

The Senate, as in Committee of the Whole, resumed the consideration of the bill (H. R. 3110) to provide for the construction of a canal connecting the waters of the Atlantic and Pacific oceans.

Mr. PERKINS. Mr. President, the Pacific coast States are especially interested in the construction of an isthmiian canal that will connect the waters of the Pacific with those of the Atlantic. For thirty years or more this subject has been uppermost in the minds of the people of the Pacific coast States. They believe the construction of such a canal would place our people and the products of our lands more easily in the markets of the world, thus saving a voyage around Cape Horn of 15,000 miles or a journey across the continent.

The consensus of opinion, I think, has been in favor of the Nicaragua canal. The concessions that have been made by the Nicaraguan Government have been liberal and generous. Those of the Costa Rican Government I never heard questioned until yesterday, when the distinguished Senator from South Dakota [Mr. KITTREDGE] advanced, to my mind, the first view that under the constitution of the Republic of Costa Rica they were prohibited from making a concession for building a canal through their territory. If that is true, Mr. President, the legal minds of our country have been laboring under an erroneous impression. But be that as it may, the remarks that I propose to make this morning are intended to show the advantages, as I understand them, of the Nicaraguan route over that of any other route that is known. It possibly will be shown that the San Blas or Darien route or the Tehuantepec route or some other route has peculiar natural advantages over any other route when there is a probability of a law being enacted that will enable this Government to acquire jurisdiction to construct a canal.

FEW ADVANTAGES IN THE COLOMBIAN TREATY.

If, as the Senator from South Dakota has stated, the constitution of Nicaragua does not give that country a right to make this concession to the United States, certainly the memorandum of the convention that is proposed between the United States and Colombia, which has been sent to Congress by the Secretary of State, does not give us many advantages in Colombia. While the Senator was delivering his very able speech yesterday I took occasion to look over this protocol or draft of a convention which it is proposed to enter into between these Governments. That between the United States and Nicaragua is clear and forcible; there is no ambiguity in it; it is concise and to the point. It says the Republic of Nicaragua leases in perpetuity for all time to the United States the exclusive right to construct, own, and operate a ship canal through the territory of Nicaragua to connect the Atlantic and Pacific oceans. There are no strings tied to that provision. It is clear and concise and to the point. The provision follows that we are to pay a certain sum of money per annum for this privilege for a certain length of time.

What does this suggested treaty with Colombia propose to do? I looked at it yesterday while the distinguished Senator was making his speech. I view it only as a business man. I venture to say if the Senator were my counsel seeking a franchise in my State for the right to build a turnpike road or to construct a ferry or bridge across a river upon which I might collect the tolls, he would say, "You can not accept any such proposition as there is in this memorandum."

SOME OF THE DISADVANTAGES.

What does it do, Mr. President? It goes on, first, to provide that Colombia shall cease to receive \$250,000 per annum for the privileges which we are to inherit of the Panama Railroad Com-

pany. It goes on further to state that we shall pay \$7,000,000. The conditions under which we shall make the payment are clear; there is not any ambiguity in it, but when it comes to fixing the rates for the privilege of a canal through the State of Colombia it is quite a different story.

It impresses me as a business man, as I gave it a cursory reading yesterday, that there is not a lawyer in the Senate who would advise one to accept a franchise and spend any money under the privilege of that franchise, thinking he had something from a county or State that was of value, because there is no limit for the rate of payment. It simply provides that three years before the expiration of the fourteen years they shall fix a reasonable annuity, and there shall be taken into consideration the present price of the usufruct of the railway, as well as the compensation that is to be stipulated for the use of the zones for the additional administrative expenses that the construction of the canal will impose upon Colombia, and also the advance payment of \$7,000,000 and the comparative cost and conditions upon which the United States reasonably would be expected to acquire concessions satisfactory to it in respect of any other canal.

But how does it fix those rates, Mr. President? It goes on to provide that there shall be two representatives from the State of Colombia, two representatives from the United States, and if they can not agree, which of course they would not, then the fifth arbitrator is called in, and it is provided that—

The president of such high commission shall be the president, for the time being, of the International Peace Tribunal of The Hague, and the determination reached by said commission, by a majority vote, concerning such fair and reasonable annuity that is to be paid to Colombia by the United States in conformity with this article, shall be binding upon the contracting parties.

THE HAND OF THE FOREIGNER.

That virtually places the fixing of the rate of compensation per annum that the United States shall pay for its canal, the right of operating it through the State of Colombia, if we acquire the Panama route, at the rental the president of The Hague Peace Conference shall name. He lives 3,000 miles or more away from the United States; he has no common interest with us; and yet by memorandum of the treaty that is to be made he virtually fixes the rate. He can confiscate that railroad or canal and all that we have expended there, and we have no rights whatever in it according to the memorandum of this convention.

If these rates are not satisfactorily adjusted, then Article XXVI provides that—

all the concessions granted by this convention shall be forfeited, and all the works, principal and accessory, machinery, and properties of the canal shall become the property of the Republic of Colombia, and the same Republic shall recover its actual rights over the Panama Railway without any obligation to return any of the sums that it may have received in conformity with this convention.

In any ordinary franchise there is a provision made that the rates of toll shall not be less than to pay a certain sum per annum upon the investment therein made. There is no such limitation here. The rate fixed can be whatever the president of The Hague Peace Conference may name, and we are virtually in his power. As I said, it may result in a confiscation of the property.

I was surprised when I gave a cursory reading to this document yesterday to see that the interests of the United States were in no way protected by this proposed treaty, and I can not, therefore, as a business proposition, seriously consider such a measure. I would not as an individual or as one representing a private company or corporation, and surely as one of the representatives in part of a great State I can not cast my vote in favor of a measure that leaves every dollar invested by the United States there virtually in the hands of the president of The Hague Peace Tribunal, which might amount, as I said before, to a virtual confiscation of every dollar we put in the property.

PANAMA ENTAILS POLITICAL AND FINANCIAL DIFFICULTIES.

But, Mr. President, some canal we are all in favor of. There is no doubt as to the necessity of an isthmiian canal or as to who shall build it. It is to be built, and built only by the United States. The only question remaining to be solved is that relating to the route to be selected. We have hitherto looked only to the route across Nicaragua; but now, unfortunately, that route which all of us formerly looked upon with more than doubt has been brought forward as an alternative, and we are compelled to make choice between Nicaragua and Panama. At first glance it will appear to many, doubtless, that there is not much difference in availability, but I think that a careful study of the problems presented by the Panama scheme which has been proposed by the Isthmiian Commission will result in a decision in favor of the Nicaragua route.

In my opinion, to take hold of the Panama scheme; which has had as its principal characteristic from the beginning fraud of the most gigantic kind, will involve this country in political and financial troubles that may be far-reaching and disastrous. We are asked to give to the French canal company \$40,000,000 for a 50-mile railroad, old machinery, and plans, and for the right

to utilize the excavations which it has made at a cost to the French people of about \$260,000,000 in cash.

It will be noted that the sale of the property and assets of the old company to the new was upon the express condition that the property and rights thus transferred should revert to the estate of the old company in liquidation upon default in the completion of the canal within the time fixed in the concession. It will also be noted that the old company has a claim upon the new of 60 per cent of the surplus income after paying all expenses, charges, and stipulated dividends, the sum thus paid to be properly distributed by the liquidator. It will still further be noted that this agreement, according to the statement of the New Panama Canal Company, in Senate Document No. 188, Fifty-sixth Congress, first session, page 31, was by private contract.

FRENCH PEOPLE HAVE AN INTEREST IN PANAMA.

The persistency with which M. Hutin, president of the New Panama Canal Company, pressed on the Isthmian Commission a claim to a share in the profits of the canal after completion would seem to have in view this obligation. It was only at the last moment that it was dropped.

We could, I believe—

Wrote M. Hutin to Admiral Walker—

continue to maintain that our claim is just and well founded.

But he finally announced that—

we are now prepared to relinquish totally our claim to a share in the eventual profits of the management of the canal, having in mind that this surrender constitutes on our part an act of conciliation, which must be taken into account during the discussion of our other propositions.

This claim of a share of the profits, as well as the provision for the return to the old company of its property and assets, in case the canal was not completed in accordance with the concessions, is in the interests of the stockholders of the old company, who number 600,000 or 700,000 French citizens.

Mr. MITCHELL. Eight hundred thousand.

Mr. PERKINS. I am on the conservative side, and I shall endeavor to be so in all the statements I make.

Mr. MITCHELL. I will say to the Senator that the figure I state is the testimony of the representative.

Mr. PERKINS. The value of the property, assets, etc., can be returned to them through the purchase money given for them by the United States, so their interests are protected as to that, but the price of their consent to this transfer of property to the new company was the 60 per cent interest in the canal earnings, from which they were to partially recoup themselves for the losses they had sustained. I think it may be questioned whether a private contract thus entered into for the benefit of half a million or more Frenchmen can be abrogated by the president of the new canal company. Through this agreement the stockholders of the old company are given an interest in the profits of the completed canal. It is part of the assets of the old company and, it would seem to me, can not be transferred to the United States without furnishing good ground for an action to recover. If such ground exists, it is not improbable that the French Government would be able, by championing the rights of so many of its citizens, to very greatly embarrass the United States in the prosecution of the work of building the canal, even if it did not ultimately enforce its claim of an interest in the undertaking.

LOSS THROUGH THE PANAMA RAILROAD.

The United States must purchase the stock of the Panama Railroad Company, which will require the expenditure of \$7,000,000. All of it must be bought or the United States will have partners in the canal enterprise. At present the new canal company holds all but 1,100 shares, these latter being owned in this country and in Europe. Whether they can be secured by the United States at a reasonable figure is very doubtful. The owners hold the key to a very important position, and will not, it is likely, yield it for a payment of a mere par value. What they would exact from such a rich interested party as the United States can only be conjectured. If they offered to sell, it is sure that they would demand a large sum—far greater than the United States would pay. As it would not be policy to begin work until the shares were secured, negotiations to that end would be continued indefinitely, to the corresponding delay of construction.

Supposing, however, that the United States secured all the shares at par. Their cost would be \$7,000,000, but with them it would also assume obligations as follows: Mortgage bonds, bearing 4½ per cent interest, \$2,504,000; sinking-fund subsidy bonds issued to the Colombian Government, bearing 6 per cent interest, \$996,000. Total, \$3,500,000, less cash assets, \$438,569.33, held January 15, 1902. Supposing the incredible, that these assets should remain practically at that figure when the canal is purchased by the United States, the latter will be under obligations of nominally \$3,000,000. But it will be noted that the bonds bear a very high rate of interest—higher than the holders can obtain in other investments. They will not, therefore, sell at par; they will demand more; they will undoubtedly deem that, to secure the interest they are now

receiving, they must receive as much as, at 3 per cent, will bring them this sum. The sinking-fund subsidy bonds, therefore, will be held for \$1,992,000 and the mortgage bonds at \$3,756,000. This will make the total indebtedness \$5,748,000, bringing up the cost of the Panama Railroad to the United States to \$12,748,000. But there must be a diversion of this railroad, which the Commission estimates will require the expenditure of \$1,267,500. The Panama Railroad, therefore, would actually cost the United States \$14,015,500.

WHERE \$13,000,000 WILL GO.

But the Commission says that the earnings of the railroad during the construction of the canal will be so great that its indebtedness can be easily paid. It is of interest to know, however, who would pay these increased earnings. The increased work, outside of hauling food and clothing for laborers employed, would be that incident to the construction of the canal, and of course the United States would be the one from whom the charges would be collected. If the earnings of the road, which belong to the United States, have to be paid out in settlement of the road's indebtedness, it is clear that this indebtedness is paid by our Government. The Commission's assumption, therefore, that the debts of the road will not have to be paid by the United States is without foundation. The Government must stand ready to pay the whole sum represented by the bonds.

But, says the Commission, "After the completion of the canal its commercial profits will probably cease, but it will have a value incidental to operating the canal." That value can not be more than the cost of constructing 50 miles of railroad, which, at the very liberal estimates of \$40,000 per mile, will amount to \$2,000,000. All the rest of the expenditures on account of the road will be a total loss to the United States, and this loss will aggregate nearly \$13,000,000.

But, assuming for the sake of argument, that there will be no financial or political complications by purchasing the French excavations, the question remains, Is the Panama route preferable to or even as good as that through Nicaragua? It seems to me that there is good evidence that the Panama route is far from the best. The questions presented have been studied by United States engineers and naval officers, and convincing arguments against Panama have been made.

COMPARISON OF THE TWO ROUTES.

In his report of the problems relating to interoceanic communication by way of the American Isthmus, made by Lieut. John T. Sullivan, U. S. N., in 1883, in response to a resolution adopted by the Senate of the United States, adopted at a time, I think, when ex-Senator Chandler was Secretary of the Navy, he reports the following disadvantages of the Panama route. This is not what I say, but what a distinguished naval officer reported to our Government:

- (1) The prevailing calms of Panama Bay.
- (2) Want of materials for the purposes of construction.
- (3) The large annual rainfall.
- (4) Character of some of the swamp lands on certain portions of the line.
- (5) A doubt as to the sufficiency of the water supply at all times.
- (6) The unhealthfulness of the country.
- (7) Greatly increased cost by the necessity for purchasing at a high figure the right of way from the Panama Railroad Company.

Against these disadvantages are placed the advantages of the Nicaragua Canal, as follows:

- (1) It is in a favorable geographical position, being in the region of the trade winds, and is especially favorable to the United States.
- (2) A canal constructed here will cost less than half as much as by any other route.
- (3) It passes through a country rich in resources and already sufficiently developed to sustain the construction force. * * * There is an abundance of good stone, but it is not suitable for dimension stone. It will answer very well for concrete. There is plenty of limestone, and the kilns now in operation produce an excellent quality of lime suitable for hydraulic works. Bamboo, which would be useful in the works connected with the restoration of Greytown Harbor, can also be obtained in the country.
- (4) It offers no engineering difficulties that are not easy of solution at a moderate expense. The difficulties to be encountered are such as are met with and overcome in all engineering works of this kind.
- (5) It is a fresh-water canal, and will perform an important office in cleaning the bottoms and boilers of vessels passing through the canal.
- (6) It offers splendid facilities for dockage and repairs on Lake Nicaragua, and it is not improbable that Patterson's grand scheme of establishing a distributing center for the commerce of the world may find its realization on the shores of Lake Nicaragua.
- (7) All materials needed for the construction of the canal are close at hand.
- (8) All plant can be conveyed by water communication already established and for which no royalty is to be paid. Between the lake and the Pacific several passable roads exist, and whatever other roads might be required over this short distance can be readily made at inconsiderable cost.
- (9) The mean annual rainfall is comparatively small.
- (10) The important physical feature of the route is the existence of Lake Nicaragua. It is not only capable of supplying twenty times the volume of water which the commerce of the world would require in the lockage of vessels, but receiving the drainage of 10,000 square miles of country, distributes the flood waters of that area over its superficies of 2,800 square miles, and thus relieves the San Juan Valley from extensive floods.

THE PANAMA ROUTE CAN NOT BE USED BY SAILING VESSELS.

These are some of the economic advantages of the Nicaragua Canal, as set forth by an impartial officer of the United States

Navy. From a strictly maritime point of view, the advantages of Nicaragua are made equally plain.

Lieut. Frederick Collins, U. S. N., made, in 1880, before the Select Committee of the House of Representatives on the Oceanic Canal, the following statement relative to the winds and their relation to sailing vessels to and from the termini of the proposed Nicaragua and Panama canals:

No less person than Lieutenant Maury, "the father of the Physical Geography of the Sea," is said to have proclaimed that even if the Isthmus of Panama were to be divided by a convulsion of nature, it could never become a highway for sailing vessels on account of these unfavorable winds, calms, and currents.

It is certainly true that the prevailing meteorological conditions and oceanic currents in the vicinity of the west coast of the Isthmus of Panama are exceedingly unfavorable for either the approach or departure of sailing vessels.

In 1872 I had occasion, under directions from the Bureau of Navigation, to make a close examination of this subject, the results of which were published in Commander Selfridge's report of his surveys on the Isthmus. As a result of these investigations I was led to conclude that, comparatively speaking, no great difficulty need be experienced in getting from the vicinity of the Bay of Panama to a place where good winds might be found. A considerable detour from the most direct route would be necessary in most cases, it is true, but a careful computation gave only ten days as the average time that would be consumed in getting a sufficient offing to secure good winds, provided the correct route was pursued.

Now, ten days can hardly be considered a sufficiently formidable loss of time to preclude the use of the Isthmus route by sailing vessels, were it open. Indeed, in comparison of the time that would be saved on most voyages, ten days are a bagatelle. But if ten days can be saved by one Isthmus route that must be lost by another, then it becomes a matter of vital interest. And if in the comparison of two routes it can be demonstrated that one of them will bring our east and west coasts nearer by ten days than another, it appears to me that this fact alone would be sufficient to decide us in our choice.

I propose now to demonstrate beyond the possibility of denial, by a consideration of the winds and currents of the Pacific Ocean, that the Nicaragua route will give even a greater gain than that as compared with Panama or any route south of Panama on a voyage from New York or New Orleans to San Francisco.

LIEUTENANT MAURY'S SAILING DIRECTIONS.

Lieutenant Maury made an extensive examination of the subject and found that, in leaving the Bay of Panama for the North Pacific coast, a sailing ship must either proceed directly west, if the most favorable wind is found, but usually must shape her course south and make her westing south of the equator. In his sailing directions he says:

If he can get west here with a good breeze, he should crack on, and when his good wind fails him steer south again. * * * Therefore, in coming out of the Bay of Panama, and after crossing 5° north in any season, make a southwest course if the wind will allow. If the wind be southwest, brace up on the starboard tack; if it be south-southwest, stand west if it be a good working breeze. But if it be light and baffling, with rain, know that you are in the doldrums, and the quickest way to get clear of them is by making all you can on a due south course.

DIFFERENCE IN TIME IN FAVOR OF NICARAGUA.

Lieutenant Collins then explained to the committee the courses that must be taken by sailing vessels from the western termini of the Panama and Nicaragua canals to reach San Francisco. Comparing the distances and times, the result as given by him is as follows:

	Miles.	Days.
Panama to San Francisco.....	5,350	37
Nicaragua to San Francisco.....	3,240	23
Difference in favor of Nicaragua.....	2,110	14

On the return the difference in favor of Nicaragua is not so marked, but varies from five to six days. Lieutenant Collins then says:

The foregoing figures speak for themselves. They show that a canal at Nicaragua will bring New York or New Orleans nearer to San Francisco by nineteen days than will a canal at Panama or any of the proposed routes south of Panama. What other argument can be necessary to show the direction in which American interest lies?

A comparison of routes to other ports of the Pacific, while perhaps of less importance, is so interesting that I will ask your patience while I state briefly the results, without going into details.

To China, Manila, or Japan the difference in favor of the route from Nicaragua over that from Panama is 800 miles and five to six days.

To the Sandwich Islands the difference in favor of Nicaragua is 1,100 miles and seven to eight days.

To India, Batavia, Australia, and New Zealand the difference in favor of Nicaragua is 400 miles and two to three days.

Returning from China, Manila, Japan, or the Sandwich Islands the difference in favor of Nicaragua is 600 miles and four to five days.

Coming, now, to a comparison of routes to ports on the west coast of South America, we might naturally suppose that here the Nicaraguan route would be at a marked disadvantage as compared with Panama; but, curiously enough, such is not the case. A comparison shows that even to Valparaiso or Callao there is a difference of 200 miles and one to two days in favor of the route from Nicaragua over that from Panama. On the return from these places we find the sole instance in which the route to or from Nicaragua appears at a disadvantage, the difference being about 500 miles and four days, this time in favor of Panama.

All the foregoing distances are given in nautical miles, which contain 6,080 feet each, while the ordinary or statute mile contains but 5,280.

The foregoing results have reference to sailing ships, and the saving for steamers will not be nearly as large, amounting, in fact, only to the direct distance between the two Pacific termini. This is about 650 miles, and as it would be gained both ways, it would amount in the round trip to San Francisco to a saving of 1,300 miles, which in a 10-knot steamer would be a matter of five days.

AN EMPHATIC STATEMENT.

In a letter to Captain Pim, royal navy, Lieutenant Maury has this to say as to the comparative merits of the Panama and Nicaragua canals, still quoting Lieutenant Collins:

"The great importance of one or more good commercial highways across Central America being admitted, the whole question of route resolves itself pretty much into a question of cost of construction and facility of ingress and egress by sea to and from the opposite termini: the latter is an affair of winds and currents, and their influence is powerful. Panama has the advantage of land transit; Nicaragua has the advantage in winds, terminal ports, and climate. The first is obvious, but to place the latter in a clear light some little explanation is necessary. * * * I have spoken of the calm belt about the equator. Panama is within its range. * * * It is difficult to convey to any one who has never experienced these calms an idea of the obstinacy with which they vex navigation. We are all familiar with calms at sea which last for a few hours, or even a day, but here they last for days and weeks at a time. I have known vessels going to or from Panama to be detained by them for months at a time. * * * On one occasion the British Admiralty, wishing to send one of their vessels into the Arctic Ocean from Panama in time to save the season, had her towed by a steamer through this calm belt and carried 700 miles out to sea before she could find a breeze.

"These remarks apply to the approach and departure by sea to or from the Pacific termini of any route across the Isthmus of Panama or Darien, and even with greater force to the Atrato and others on the South American side of Panama. In short, the result of my investigations into the winds and currents of the sea, and their influence upon the routes of commerce, authorize the opinion which I have expressed before and which I repeat, namely: If nature, by one of her convulsions, should rend the Continent of America in twain and make a channel across the Isthmus of Panama or Darien as deep, as wide, and as free as the Straits of Dover, it would never become a commercial thoroughfare for sailing vessels, saving the outward bound and those that could reach it with leading winds. * * *

"We come now to the Nicaragua routes. * * * It is to this part of the Isthmus that we must look for a route that shall best fulfill the present requirements of commerce. * * * Vessels under canvass would in the main do the fetching and carrying for the Nicaragua route, which for reasons already stated they can not do for Panama. The aggregate amount of this trade is immense, and it is neither accommodated for Panama nor Panama for it. * * * You will observe at a glance that the Isthmus of Panama or Darien is, on account of these winds and calms, in a purely commercial point of view, the most out-of-the-way place of any part of the Pacific coast of intertropical America."

"The foregoing quotations from this eminent authority," says Lieutenant Collins, "certainly substantiate fully the deductions that I have already drawn from my own investigations. Better than that, they prove that my prejudice in favor of Nicaragua, if I have any, has not led me to overstate the case in its favor, but that, on the contrary, in my desire to keep within indisputably safe bounds I have greatly understated it."

WHY SAILING VESSELS DO NOT USE THE SUEZ CANAL.

It has been claimed by some critics that sailing tonnage would not figure appreciably in the traffic of an isthmian canal, and that in consequence the matter of winds may be disregarded in selecting the best location. This assertion is based, in the first place, on the fact that no sailing vessels, practically, have used the Suez Canal. If they will not use the canal at Suez, it is urged, they will not use an isthmian. It is a fact that no sailing vessels have passed through the Suez Canal since 1874, except during the time of the Turko-Russian war, in 1877-78, when a few sailing ships came through from Calcutta with Indian troops. But it appears from the report of United States Consul-General Long at Cairo that there is a very good reason why sailing vessels will not use the Suez Canal. He says:

The absence of sailing vessels in the canal is explained by the difficulties of navigation in the Red Sea. The extraordinary number of sailing vessels lost in the Red Sea (which is full of dangerous reefs and shoals) during the years 1872-73 seems to have effectually discouraged further attempts.

Thus it is evident that dangers to navigation in the Red Sea prevent sailing ships from using the short cut to the Orient, and not any disadvantages presented by the canal itself. Were it not for the difficulties of approach to and departure from the canal, it would be used as universally as it is by steam vessels.

So it would be in the case of a canal at Panama. The difficulties and dangers that would be experienced by sailing ships in the Gulf of Panama would prevent them from ever using a canal through the Isthmus at that point. So this class of tonnage would have to be eliminated from the consideration of the earnings of the enterprise. And that the loss in earnings would be very great there can be no doubt, when we consider how great a proportion of the trade of the Pacific to and from the Atlantic States and Europe is now carried in sailing ships. For the port of San Francisco alone the arrivals and departures of ocean-going sailing vessels equal or exceed those of steam vessels in the same trade.

SAILING TONNAGE OF SAN FRANCISCO.

In 1898 there were 494 arrivals of sailing ships, aggregating 530,092 tons, against 330 steam vessels, aggregating 592,865 tons; while the clearances were 419 sailing vessels, of 464,153 tons, against 331 steam vessels, aggregating 567,547 tons. In previous years the proportion of sailing vessels and tonnage is the same or greater, so that it is safe to say that for this port (and the same can be asserted for the other Pacific ports of the United States) the sailing tonnage in foreign trade equals the steam tonnage. In the grain-carrying trade of this port alone over 200 sailing vessels are employed each year, and there is no likelihood that the number will be diminished, for the sailing vessel is the most economical carrier of this kind of freight. And as wheat is carried from the Pacific coast almost exclusively to Europe, it will

be at once seen that a canal at Panama would prevent its use to fully 500,000 tons of shipping in the wheat trade alone, which would only too readily take the short cut through a canal at Nicaragua. Taking account of other than the grain trade, it is probable that the selection of the Panama route would prevent fully 1,000,000 tons of sailing ships from using the isthmian canal. Not only would the canal lose yearly a very large amount in tolls, but a very considerable commerce of the world would not be benefited by the canal. Its object would be only half accomplished.

When the great resources of our Pacific States, from Mexico to Alaska, are more fully developed; when, as in the case of California, instead of nine persons to the square mile, as we have now, the number shall have increased, as it will increase in the next decade, to twenty or thirty persons to the square mile, our products for export will double or quadruple in value, and so in that proportion will the demand for vessels to transport our surplus to foreign countries be increased.

WHY THE SAILING VESSEL WILL STAY.

But it is sometimes argued, and it has been so argued upon this floor again and again, that the sailing ship is going out of use, and so need not be given much consideration. But those who are interested in maritime affairs know that the day of the sailing vessel is not yet closed, and will not be while the free winds from heaven blow to fill her sails. The ports of the world, especially those of the Pacific, are filled with the tall masts of sailing fleets. There are trades and routes from which they can not be driven, and new designs, and such class of ships, barks, and five and six masted schooners, are contributing to the maintenance of the sailing tonnage of the world. By means of these new designs the cost of operation is being constantly reduced and an element of economy introduced into the ocean carrying trade. With a canal through Nicaragua which could be used by such vessels, an impetus would be given to this class of ocean carriers, especially to those engaged in trade between the Atlantic and Pacific coasts of North, South, and Central America. The result would be a lower average of ocean freight rates than would be the case were the Panama Canal built, excluding from this trade vessels moved by wind power, the very cheapest motive power known in the world. Commerce, therefore, would be benefited more by the Nicaragua than by the Panama route.

GREAT LOSS IF SAILING VESSELS CAN NOT USE THE CANAL.

Prof. Lewis Haupt, a member of the Isthmian Canal Commission, is distinctly and emphatically of the opinion above set forth. Professor Haupt not only gave this phase of the question particular attention as his part of the work of the Commission, but came to it with the great advantage of having served on two previous commissions which studied the problems involved in an isthmian canal. He has been over both routes. Although he signed the report of the Isthmian Canal Commission which gave a verdict in favor of Panama, he did so for these reasons, as stated to the Senate Committee:

I beg leave to say that while conceding to the wishes of the majority and signing a report in order to make it unanimous, and so, if possible, to secure legislation at this session, I still feel and did then that there were certain economic, physical, engineering, sanitary, and commercial advantages inherent to the Nicaragua route which gave it a decided preference over the Panama route.

In this, of course, I do not consider the cost of the concessions, nor especially the cost of constructing the canal, but I think the others are of so preponderating weight as to overbalance any difference in the latter two items. The economic advantage is, a priori, the most important factor in the operation and utility of an interoceanic waterway, and that is briefly summed up in the report of the Commission by the statement that the Nicaragua Canal possesses an advantage between home ports of one day for all north-bound commerce—that is, whether it be of European or American origin, or whether it has its destination in the Orient or North Pacific ports—and for all Gulf ports it would save about two days.

I have made an estimate of that saving, based upon the average cost of moving vessels of about 3,000 tons capacity, which I have figured at about \$250 a day. Some of these vessels have cost as high as \$1,000 a day to operate and maintain, and some of them as low as \$100 a day; but taking it at that average and estimating on a basis of 10,000,000 tons, of which, say, 75 per cent is north bound, the economy on that basis would amount to about \$50,000 a year on steam alone. But as a large percentage would be carried by sail if this route be opened, the economy would probably be 50 per cent more, or about \$1,000,000.

PANAMA AWAY FROM THE PATH OF COMMERCE.

Professor Haupt further testified that the Panama route is directly away from the path of commerce, or nearly at right angles to it, so that every mile of the canal is a detour from the direct line of traffic, which is—

a violation of a sound engineering and economic principle, while every mile of the Nicaragua route is in the line of or is near the line of traffic as it is possible to place it. So that the difference in the length of the route which is urged as an objection to the Nicaragua route is in reality no objection whatever.

The only fault that I find with Professor Haupt is that he signed the majority report of the Isthmian Canal Commission. If I had a conviction, as I have, that the Nicaragua Canal route is the best and the most economical route I would do just what I am doing to-day. I would give the best reasons I could why we should

adopt it. I would be consistent, as I was when I first espoused it twenty or thirty years ago, when I was president of the Chamber of Commerce of San Francisco. My course would be north-east until I was satisfied that some other course was the proper one to steer. I think the Professor has permitted the opportunity for a good bargain to influence him, if I may say so. He is like Mrs. Toodles, who could not go into a store without buying something if it was cheap. So I think the Professor was fascinated with the apparently cheap price at which the Panama Canal, which had cost so much money, although the work which had been done is of no practical value, could be purchased. He thought it was a great bargain, and so he permitted his convictions that the Nicaragua route was the best to be influenced by the chance of a good bargain, and he joined with the majority of the Commission in recommending its purchase because it had cost so much and we could get it so cheaply.

Mr. FAIRBANKS. If the Senator will permit me, does he think that the testimony of a man who holds such unstable opinions would be of any value upon this subject?

Mr. STEWART. I should like to inquire, if that be so, why spend so much money on such a project as that of the Panama Canal?

Mr. FAIRBANKS. We are not proposing to spend this money upon his present opinion.

TONNAGE EQUALLY DIVIDED BETWEEN SAIL AND STEAM.

Mr. PERKINS. In answer to my friend from Indiana, I would say if nature has not given us in the Nicaragua route all these great advantages, why is it that my friend from Indiana and so many of his associates try to raise so many objections against it and urge us to buy the Panama Canal route, a scheme which was conceived in iniquity? As to the work that has been done there, it is of no practical benefit whatever, so far as the construction of a canal is concerned. I will show later on, I think, if figures amount to anything, that it is an impracticable thing to build a dam there. We can damn the proposition, but whether we can dam the Chagres successfully and have a lake that will remain there during the dry season and will not wash away in the wet season is a question.

As to the total tonnage of the United States, Professor Haupt states that it is about equally divided between sail and steam, so that to benefit ocean commerce to the greatest extent the canal must be suited to the use of both kinds of ocean transportation. He confirms the opinion given above that the sailing ship will hold its own because of the greater economy in operating them, and instances as proof of this the rapid increase of large six and seven masted vessels of schooner rig.

I want to say to my distinguished friend from Indiana that to a layman—and I only speak from a layman's standpoint—his conclusions remind me very much of decisions I have heard rendered in courts. The judges reasoned splendidly; their arguments were all on my side of the case, but when they drew their conclusions they decided against me. Their arguments were good, but they decided differently from the way they reasoned. So it seems to me with Professor Haupt in this case. He reasons splendidly for the Nicaragua route, but he signs, with the majority of the Commission, on the other side.

THE ROUTE OF A SAILING VESSEL FROM PANAMA.

The Atlantic Refining Company, of Philadelphia, proposes to carry its oil in sailing vessels. Coal and all cheap material needed in manufactures are carried in this way, and will doubtless always be. For all of this traffic the Panama Canal would be prohibitory, for the reasons before set forth. In discussing this phase of the question Professor Haupt called attention to the fact that a sailing vessel going out of Panama Bay in order to make the best time to San Francisco would have to sail south to or near the Gallapagos Islands, on the equator, then west 1,500 miles in order to take advantage of winds and currents.

I want to say to my friend from Indiana that I have been becalmed in the doldrums about 5° south of the equator for six weeks, when there was not wind enough there to fill the sails, and we brailed them up in their gaskets to the mast. For six weeks we remained there in the doldrums, as I have said, with hardly a breath of air, certainly with not enough wind to create what we call a cat's-paw, with the water as smooth as glass.

It has been stated to me by residents of Panama—

Professor Haupt testified, confirmed by the consular reports, in which it is printed—

that vessels have been longer in getting out of the bay and reaching their port of destination—Valparaiso or San Francisco—than the time required to sail from New York via Cape Horn.

He said the usual time is two or three weeks getting out of the bay, and he related an experience of the captain of the Pacific Mail steamer *Golden Eagle*, who, on leaving Panama, passed a sailing vessel 40 miles from that port, bound in, and after making the round trip to San Francisco and back, found the same vessel, on his return, still 10 miles from Panama, and still bound in.

HUNDREDS OF MILES OF TOWING PROPOSED.

Towing would not bring with it any advantage, for even to tow a sailing vessel outside of Panama Bay would require twice the towage needed through the Nicaragua Canal, and then she would not be in a position to catch favoring tides and currents. If such vessel were towed 130 or 150 miles from Panama, making the length of towage equal to that through the Nicaragua Canal, it was asked by Senator HARRIS if this extra towing would not be sufficient to get the vessel out to sea, to which Professor Haupt replied:

That is true in part, and yet when the vessel gets 130 to 150 miles out she has not got as good winds or as favorable currents as if she were at Brito, some 300 or 400 miles farther, because all the time that she is being towed she is moving southwardly or away from the line of her traffic and must sail back if northbound. The geographic position is such that it is a detour which ought to be avoided, and this is possible by the other route. I think that covers the question raised by Senator HARRIS as to the physical conditions with this closing remark: that inasmuch as we are building a canal for all classes of vessels, that the factor of using sail ought to be very carefully considered, and in that respect I believe firmly that the Nicaragua Canal is greatly preferable to one at Panama.

Under such conditions of navigation, it can readily be seen by those least experienced in nautical affairs that no sailing ship would venture the passage by the Panama Canal. The Bay of Panama would kill this traffic for the canal as surely as the Red Sea has killed it for the canal at Suez. I submit that there is no economic consideration which has been or can be raised in connection with the choice of routes for an isthmian canal which would justify the Congress of the United States in deliberately choosing a route which would drive from it nearly one-half of the traffic which is waiting to take advantage of a canal, and which could and would use the alternative route.

THE ENGINEERING PROBLEM.

Considering the two canal routes from the point of view of the engineering problems presented and the manner in which it is proposed to solve them, the conclusion is inevitable that the Nicaragua route should be selected by the United States. Where grave doubt exists as to the efficacy of the plans adopted for one route, while there is acknowledged to be absolute certainty in the case of the other, there can, it seems to me, be no hesitation in choosing the route from which the element of doubt is eliminated.

It is acknowledged that the Bohio Dam is the vital point of the Panama Canal. It is absolutely necessary in order to obtain a supply of water for navigation. It therefore should be constructed in such a manner as to render it safe beyond the shadow of a doubt, and to do this considerations of economy should not be too closely regarded. It is evident that in the case of the Conchuda Dam of the Nicaragua route the Commission has not done so. The dam there proposed is built of stone on a rock foundation and firmly anchored by running it 200 feet or more into the hills on each side. The site selected by the Nicaragua Canal Commissioners at Boca San Carlos was condemned by the Isthmian Commission for the reason that at that site the greatest depth of rock upon which the dam foundation must be laid was 120 feet. At the Conchuda Dam the greatest depth is 82 feet. "This question of depth of foundation," says the Isthmian Commission, "is very important, because the foundations will probably have to be placed by the pneumatic process, and the depth (82 feet) is well within that at which the foundations of many bridge piers have been built by the same method." I think that this dam, constructed as planned by the Isthmian Commission, will be exposed to no danger of injury from any cause; but I do not think the Bohio Dam can be so considered.

THE BOHIO DAM.

In the first place, the Commission says that "for reasons of economy" an earth dam has been selected for Bohio. As it is even more vitally necessary to Panama than the Conchuda Dam is to Nicaragua, from the fact that it collects the necessary water, while the Conchuda Dam simply regulates an already inexhaustible supply, it is hard to see why economy should be exercised in its case and not in the other, unless for the purpose of making a favorable showing for the Panama route. The Bohio Dam is twice as long as that at Nicaragua and 85 per cent higher, making its vertical section 3.70 times as large. If the Panama Dam were constructed of the same material as that at Nicaragua, it would cost \$15,000,000, even if the dam itself were no thicker. Being higher and longer, safety would demand thicker masonry, and its cost would thereby be increased. If it were made only 20 per cent thicker, the total cost would be \$18,000,000, which would wipe out the difference in cost in favor of the Panama route and make the cost of the Nicaragua Canal less than that of Panama by a round \$6,000,000.

But an earth dam having been determined upon, let us see whether it is as satisfactory as its importance in connection with the canal demands.

The Technical Commission, which made exhaustive studies of the problem for the New Panama Canal Company, and the In-

ternational Commission, composed of 14 engineers of world-wide reputation from France, Germany, England, Russia, Colombia, and the United States, agreed upon a plan for the formation of a lake at Bohio. This lake was to be made by the construction of an earthen dam 1,286 feet long and a maximum height above the surface of the river of 67 feet, impounding a lake of 21½ square miles. The extreme height from the bottom of the foundation was fixed at 93½ feet. In this plan it was proposed to have a second dam at a higher level at Alhajuela, to serve as a first regulator of the Chagres floods, and to prevent them from entering Bohio Lake furiously, as the "total volume of the freshets would certainly produce currents detrimental and dangerous to navigation."

WHAT EMINENT ENGINEERS THINK.

The omission of the dam at Alhajuela would necessitate the— increase of several meters more in height [of the Bohio Dam], a scheme unanimously looked upon as overbold.

Again, in another part of the report, the commissioners state that— this solution [of a second dam] is the only one meeting the conditions for regulating the freshets without giving the Bohio Dam such proportions as are considered too bold.

And again:

Considering the importance of that structure in relation to the safety of the canal itself, it was deemed that here, more than anywhere else, it was necessary to be very cautious, and consequently the maximum elevation of 20 meters (65.5 feet) was fixed upon as that of the level of the lake to be formed by the building of the Bohio Dam. * * * Such is the result to which we are led in considering direct feeding through the Chagres if we do not wish, in determining the proportions to be given to the main structure of that plan, to deviate from the prudent rules which the commission consider as absolute.

In the light of this report of 14 of the most eminent engineers of Europe and America, can not the plan of the United States Isthmian Canal Commission be considered too bold? Is there not room to question the soundness of their decision and an opportunity given for the entrance of doubt as to the stability of the dam proposed by it at Bohio, and its efficacy at all times should it stand?

THE BOHIO DAM TOO BOLD A SCHEME.

In the first place, the United States Commission has increased the length of the dam from 1,286 feet to 2,546 feet, has raised its crest from 67 feet to 100 feet, and its total height from the bottom of the foundation from 93½ feet to 228 feet, while the pressure of water against it is raised from about 65 feet to 92 feet. Here is a structure which indeed the commission of engineers would undoubtedly condemn as far "too bold." Not only is the limit of perfect safety in height above river level, as established by them, exceeded by 49 per cent and the depth of water by 37 per cent, but the length of dam is doubled, making the pressure of water against it 2.74 times as great. And to retain this great lake an earthen dam is proposed of proportions which eminent engineers condemn as "too bold," while at Conchuda a solid stone dam, firmly anchored in abutting hills, is required to hold in check simply a pool less than a third as wide and not so deep. Besides this, in the case of the Bohio Dam 310 feet of the core must be laid by the pneumatic process at a depth of 128 feet below the sea level, a depth not hitherto attempted, I am informed. There is thus a doubt as to the ability to lay at this depth a structure of such a character as to meet all the requirements of the case.

And more than this. It is very doubtful whether the Bohio Dam, as planned by the Isthmian Commission, will, even if satisfactory as to strength and durability, accomplished what is expected of it. It will be remembered that the commission of engineers made a second dam at Alhajuela a necessary part of the plan of a lake at Bohio. In this, says the commission— would be stored the volume of water necessary for the water supply and operations of the canal during periods of deficiency in the natural output of the Chagres, and that portion of the excess of the freshets which must be retained in order to restrict the oscillations of Bohio Lake to its strictly necessary limit, and thus avoid too great fluctuations of its surface.

A SECOND RESERVOIR NECESSARY.

The United States Isthmian Canal Commission, while omitting the second reservoir from its plan, has in view its contingency, and acknowledges that it will be necessary when the traffic of the canal exceeds 10,000,000 tons per year. Even our own Commission, therefore, states that at some time this second big dam must be built at Alhajuela, while the European and American experts contend that it must be constructed at the same time as the Bohio Dam, in order to insure unimpeded navigation of the canal. That it must be built, therefore, is certain, the only question being that of date. Its cost, in consequence, must be taken into account in estimating the total cost of the canal to the United States. No estimate is given by the Isthmian Commission, but as that body advises a stone dam it is probable that its cost will be at least that of the structure at Conchuda, or over \$4,000,000. By that sum, then, must the cost of the canal to the United States be increased, and still further augmented by the cost of a railroad to the site of the dam, which, at \$75,000 per mile, would cost \$750,000, or a total of \$5,000,000 for the additional water supply.

Added to this must be the cost of additional lands required for the Bohio Dam and spillway, which the Isthmian Commission in its report of January 18 says are necessary. The estimated cost of these lands is not given, but will of necessity be considerable and must be added to the cost of the Panama Canal as given by the Commission.

Mr. President, I might go on and give my own views and experience in the construction of dams for the storage of waters, for I have had some very considerable experience in that line, but I deem it much better to offer the testimony of these experts, who have given this subject-matter their personal and careful consideration, than to criticize their mode of constructing a dam and discuss the probability of its being able to withstand the great freshets and the great fall of water from the heavens in that country.

MEMBERS OF THE COMMISSION UNCERTAIN AS TO THE FEASIBILITY OF THE BOHIO DAM.

The opinion as to the uncertainty attending the construction of the Bohio Dam is borne out by the testimony of the members of the Isthmian Canal Commission before the Senate Committee on Inter-oceanic Canals. Admiral Walker gave evidence that everything, so far as a canal is concerned, depends on the stability and efficiency of that dam. Here is an extract from the testimony on that point:

Senator HARRIS. Mr. Morison not only objects to the cost, but he has some apprehension with regard to the construction of the dam [at Bohio]. He says it involves "novel and untried features." Few engineers even among those who feel that they could construct it would be ready to say in advance how the work would be done. The difficulties taken in connection with the climate and other surroundings are enormous.

Admiral WALKER. Yes; it will be a difficult work.

Senator HARRIS. He also speaks in another place in this article of the extreme difficulty of getting the work of the caissons at the bottom and making the foundation water-tight. In fact, he says here, "The design involves the extension of pneumatic work to unprecedented depths, involving special details in making the joints between the caissons," and it is owing to his doubt, apparently, of the success of the work that he strongly recommends the other plan.

Admiral WALKER. I think he agreed that the work could be done, but he thought there would be a large saving of money in building a different style of dam, and that the style of dam which he advocated would be a sufficiently good one. It was a question of seepage—of how much water would go under the earth dam which was proposed by the French engineers and that which is proposed by Mr. Morrison, whether enough would go under to make it dangerous.

Senator HARRIS. The fact is with regard to the Bohio dam that the future of that is just as much an unknown quantity as the future of the dam at Conchuda?

Admiral WALKER. I should say it was more of an uncertain feature. It is a greater work and a more difficult work to build. The Conchuda dam I look upon as practically settled.

Senator HARRIS. So that we know no more about the possibilities and contingencies at Bohio than we do at Conchuda; in fact, less?

Admiral WALKER. We know less about the contingencies at Bohio, but that is the only point in the whole line about which we are at all uncertain.

Senator HARRIS. But that is the vital point.

Admiral WALKER. That is the vital point. Yes, it is vital to the canal, because the safety of the canal depends on the integrity of the dam in both cases. * * * I know of nothing along the Panama line which is not well within engineering precedents with the exception of the dam at Bohio, which is a very large work and would have to be carefully considered.

THE CONCHUDA DAM IS SAFE AND PRACTICABLE.

From this evidence before the committee it thus appears that Admiral Walker considers the Conchuda Dam, on the Nicaragua route, as practically settled. No question regarding its safety or efficacy can be raised. But it is wholly different in the case of the one vital point on the Panama route—the Bohio Dam. Engineer Morrison, a member of the Commission, intimates that few engineers feel that they could construct it, but that if undertaken the difficulties would be enormous. As an alternative he proposed a dam of a type which the Commission regarded unsafe. So these two advocates of the Panama route can not agree on a practicable and safe dam for that route.

And here another member of the Commission testified as to the difficulties if not impracticability of the Bohio Dam. Professor Haupt, before the Senate committee, emphasized the importance of this dam to the canal, stating that the integrity of the entire line depends on the ability to build and maintain it. But he had grave doubts as to the possibility of doing so, pointing out the fact that the experience in sinking caissons in bridge work 110 feet, which it is claimed has been done, gave no ground for belief that a concrete wall could be laid at a depth of 128 feet. The character of the work to be done is entirely different, as he thus explained before the Senate committee:

CHARACTER OF WORK AT BOHIO.

Mr. HAUPT. A bridge pier is usually composed of only one isolated structure placed upon bed rock or other suitable material, whereas in this case there are a series of those structures which must be placed in juxtaposition, and then the space between them outside of this bell or caisson must be filled in and made impermeable. Otherwise the dam will leak at the bottom under the pressure, and that is the serious part of this question.

These caissons are supposed to be placed as nearly contiguous as possible, and then the spaces between them are filled in by "fillers," or what might be called dowels, set in grooves between the caissons. If the grooves do not come exactly opposite, there is difficulty in getting those spaces closed, and the whole space between the ends of the abutting caissons must be filled thoroughly with concrete or impermeable material, although concrete is not entirely impermeable. * * *

In the drawings shown for the Bohio Dam, in studying it critically recently, I noticed the caissons are not shown as going entirely to rock through their whole base, but one edge of them only rests upon the rock and the other edge on sand.

Senator HAWLEY. When you speak of rock do you mean granite?

Mr. HAUPT. It is the kind of rock met at that particular place; the borings show hard rock. I do not remember the character of it. It may be a hard limestone. The caissons must be sunk farther really than the depth to the surface of the rock, because if one edge touches on the edge of a sloping rock that must be excavated and the whole bed be leveled off for the entire length of each of the caissons.

Senator HARRIS. Do you mean to say that the Commission did not provide for an excavation to level bearings of each caisson?

Mr. HAUPT. That is what the drawings show. I was surprised to find it so. In the case of the Panama Dam it is not, as it is in this case at Nicaragua, where the caissons are shown as penetrating the line of rock throughout their whole lengths; but at Bohio the print shows that the bottom line is half in rock and half in earth. Of course that would be a failure, and it is probably an oversight on the part of the draftsmen which has escaped the criticism of the committee having it in charge. I presume, however, that the estimates are based upon the sinking of those caissons into the rock and the leveling off of the bed for a bearing.

Senator FOSTER. Are there any such unknown or uncertain elements entering into the construction of the Nicaragua route?

Mr. HAUPT. No; there are not.

Senator HARRIS. There really is no point along the entire Nicaragua route—no question which is not well within the limitation of ordinary, you may say, engineering experience?

Mr. HAUPT. That is correct; yes, sir. There are three possible dam sites, either of which would be better than that one, on the Nicaragua route. Each dam site is better than that. The San Carlos dam site is better, and so is that at Ochoa; so is the present Conchuda, and it is possible by further boring that we may find a still better site.

INSUFFICIENT DATA AT BOHIO.

Professor Haupt read to the committee the final report of the Commission, a description of the borings made at Bohio, which shows that sufficient data was not secured as to the physical conditions of the foundation on which the dam must rest, lack of which data introduces an element of uncertainty that, added to the defective structure of the core-wall foundation, will condemn the Commission's plan in the eyes of any impartial engineer.

It is essential—

Says Professor Haupt—

that the gorge be absolutely sealed by this core wall, and that involves the fundamental idea that the foundations shall be so placed on solid rock as to prevent seepage.

This fundamental idea has been carried out at Conchuda, but not at Bohio.

Mr. Morison, in his testimony before the Senate committee, acknowledged that there were uncertainties in regard to the practicability of the Bohio Dam as planned by the Commission.

If—

He said—

you come right to the facts, I do not consider that the solution of the dam given by the Commission was the wisest one.

NEW AND UNTRIED PROBLEMS.

Colonel Hains, in his testimony, speaking of the Bohio Dam, in answer to the question whether he thought the dam as planned by the Commission a safe one, said:

I do not think that the question of the best type of dam for that place has been definitely settled. * * * You see these borings came in very late, and we got up that plan for that dam; but before any dam is built down there I suppose the engineer that undertakes it would want to take a thousand more borings.

Senator HARRIS. I have one more general question that I wish to ask you. Is there any engineering work on the Nicaragua line that is not easily within the limits of present engineering experience and knowledge?

Colonel HAINS. On the Nicaragua?

Senator HARRIS. Yes.

Colonel HAINS. I think not.

Senator HARRIS. There is no work there, either in the way of dams or locks or cuts, that involves any new and untried problems?

Colonel HAINS. No, sir.

Senator KITTREDGE. Is there on the Panama?

Colonel HAINS. I don't think there is in Panama unless it is this dam.

Senator HARRIS. Well, I thought we had discussed that, and I will put the additional question and refer to what Mr. Morison says. Mr. Morison thought it involved "new and untried problems," the construction at this dam.

Colonel HAINS. Yes.

Senator HARRIS. And you agree with that?

Colonel HAINS. Yes; I agree with that.

Colonel Ernst, in his testimony, said that the Conchuda Dam as planned by the Commission "is a much easier dam to build and a better dam than the Bohio Dam."

General Abbott testified that the plan of the Commission for the Bohio Dam "approaches the limits of uncertainty."

Whatever more evidence there may be as to the uncertainty surrounding the practicability of the Bohio Dam as planned by the Commission, it seems to me that sufficient evidence has been adduced from members of the Commission itself to render it certain that the Congress of the United States should not adopt the Commission's recommendation. On the other hand, there can be found, I think, no word of criticism of the plan proposed for the Conchuda Dam. It is practicable and safe, presenting no engineering work that is not within the experience of engineers. With this evidence before the Senate I do not see how it can select the Panama route. Common prudence will forbid it from investing nearly \$200,000,000 of the people's money in an undertaking

where the vital part of the work presents so much uncertainty and fails even to inspire confidence in those who planned it.

STEAMSHIPS CAN GO THROUGH THE NICARAGUA CANAL UNDER THEIR OWN STEAM.

An effort has been made to show that the Nicaragua Canal as planned would be less available for shipping than that at Panama on account of more curves and sharper curvatures. But Admiral Walker, when questioned by the Senate committee, testified that there would be no difference between the routes in this respect. Vessels can pass through both canals without difficulty, as appears from the following testimony:

Senator HANNA. Do you think that any large ship—the maximum-sized ship—operating in this canal could go around these bends without the aid of a tug? I mean steamship or otherwise.

Admiral WALKER. I think they would go without a tug by both canals.

Senator HANNA. Could they make all the turns?

Admiral WALKER. I think so.

Senator HANNA. Suppose the wind was blowing pretty hard?

Admiral WALKER. If there was a strong breeze, it might occasionally cause some trouble. By the Nicaragua line there would at times be a considerable current from the lake to the Conchuda Dam; with a strong wind blowing and a strong current they might have difficulty without a tug, but under ordinary circumstances I think they would go through without difficulty.

Senator HARRIS. Did not the Commission work out this question of curvature in detail in such a manner as to show clearly that no curvature is estimated in this work which would involve any difficulty in a vessel passing through there?

Admiral WALKER. I think there are no curves that would involve any particular difficulty ordinarily. Of course, with a strong wind blowing or with a strong current, a large ship might get into some trouble.

Senator HARRIS. That might happen anywhere on either route.

Admiral WALKER. Yes; but both routes are practically good enough for steamers to pass through with their own power.

DIFFERENCES OF CURVATURE IN THE CANALS.

Although in the matter of curvatures there is a considerable difference in favor of Panama, this difference is equalized on the Nicaragua route by making the canal wider at the turns. Admiral Walker testified that this widening was made in every case. He also stated that there is one curve on the Panama route that is sharper than any on the Nicaragua route. But as planned, according to the Isthmian Commission, a vessel can go through the Nicaragua Canal as safely and as easily as it can through that at Panama. On this score there can be no choice between the two routes. This is the opinion of the Commission. In this connection it must be remembered that on the Nicaragua route there are only 73.78 miles of canalization against 36.41 at Panama, the rest of the route being slack-water river navigation for 39.37 miles and 70.51 miles of lake navigation. The slack water of the river, whose channel is straightened by cutting through points of land, is really an arm of the lake through which there is discharged 76,000 to 63,000 cubic feet of water per second against an average annual discharge of only 3,200 cubic feet per second for the Panama Canal. With twenty times as much water over the San Juan arm of the lake as is available for the Panama Canal, and with unlimited water in the lake itself, it is easily seen that the navigation of 110 miles of the Nicaragua route will be virtually only a part of the voyage, and that comparison with Panama is possible—only 73.78 miles against 36.41 miles for Panama—considering the 13 miles through Lake Bohio as lake navigation. But, as before stated, the Commission is of the opinion that there is no ground for choice between the two routes on this score.

SOME MISLEADING DATA.

There have been introduced as an argument in favor of the Panama route the replies of navigators to a set of questions purporting to give conditions to be met with in navigating the two canals as planned. When we consider the nature of the data on which the questions were based, not much wonder may be felt at the character of the answers, for the data in the two most important cases were misleading, unintentionally no doubt, but still misleading. These ship captains were asked concerning the difficulties of navigating the Nicaragua Canal, with "over ten curves more than twice as sharp as those on the Panama route." Now, a curve that is twice as sharp as another is one which has only one-half the radius, which is a very serious matter, and it can not occasion surprise if the ship captains chose the ten curves with twice the radius of the short ones. But the fact is that the shortest curves on the Nicaragua route are not by any means twice as sharp as the sharpest on the Panama line, leaving out of consideration the curve from the harbor at Colon, which is by far the sharpest on either line.

Leaving this out of the case, then, the shortest curve on the Panama route is found to be of 6,243 feet radius, while the shortest on the Nicaragua route is 4,045 feet, approximately two-thirds of the radius of the Panama curve. The sharpness of the curves thus stand to each other in the proportion of three-thirds for Panama to two-thirds for Nicaragua, which makes the Nicaragua curve just one-third sharper than the Panama instead of twice as sharp. Thus, the actual curvature being in the proportion of four-sixths instead of three-sixths, the captains were questioned

upon the basis of a curvature just 25 per cent sharper than actually exists.

Now, there are nine more curves of under 6,000 feet radius, running from 4,175 to 5,927 feet on the Nicaragua route, all of greater radius than that referred to above, to be compared with this short curve on the Panama route, so that the error of data becomes progressively more flagrant as we proceed through the canal. In fact, the proposition placed before the captains is so widely misleading that the answers that they gave on the comparative difficulties of navigation have no material bearing on the conditions as they will exist when the canal is constructed.

WHY THE EVIDENCE OF CERTAIN NAVIGATORS IS NOT CONCLUSIVE.

On another very important point the data placed before them was equally misleading. Here is the question that was asked them:

Consider both canals open and yourself bound from New York to San Francisco in a sailing ship, using the Nicaragua Canal you would have to be towed through the entire length—187 miles.

Through the Panama Canal you would also be towed 47 miles. By keeping your tug which would take you through the Panama Canal and letting it tow you straight out to sea 140 miles, you are out of the calm belt and have wind, having towed the same distance only as you would to have gotten through the Nicaragua Canal.

In view of all the conditions, winds, curves, calms, etc., governing each route, which canal would you use.

The answers are unanimously for Panama.

But are the conditions fairly stated here? I respectfully submit that the evidence is that when you get 140 miles away from Panama you are no more likely to catch a breeze than you are at Panama itself, where, in the days of the stampede to the California gold diggings, passengers on sailing ships in Panama harbor saw steamers leave on the run to San Francisco and return therefrom before they could find wind enough to start on their journey to the land of gold. Lieutenant Maury states, regarding the calms within whose range Panama lies, that he has known vessels going to or from Panama to be detained by them for months at a time. He says, as previously stated:

On one occasion the British Admiralty, wishing to send one of their vessels into the Arctic Ocean from Panama in time to save the season, had her towed by a steamer through this calm belt and carried 700 miles out to sea before she could find a breeze.

It is evident that the captains, in answering the above questions, assumed when it was erroneously said that they would find "wind" 140 miles out that a fair wind up the coast was meant. This, however, is practically never found. As will be seen from Lieutenant Maury's sailing directions, the only two courses open are to sail south—usually to the equator—about 600 miles, and then work westward for about a thousand more. Under such circumstances it is easy for even a landsman to see that there is no ground whatever to choose the Panama instead of the Nicaragua route, as from Brito a sailing ship is almost sure to at once catch a breeze and bear away on her course. You know, Mr. President, that there the trade winds prevail, and in this longitude, for certain seasons of the year, those winds blow continuously, and the vessel at that point receives the trade winds. The answers of the captains, therefore, to these hypothetical questions must be taken with as many grains of salt as exist in the element on which they make their living.

Mr. HARRIS. Will the Senator from California allow me?

Mr. PERKINS. Certainly.

Mr. HARRIS. I will state that the chart submitted by the Hydrographic Bureau shows clearly the state of facts which the Senator from California suggests, that the hundred and forty miles towage would practically amount to nothing in reaching the trade winds.

Mr. PERKINS. I will say to the Senator that before he came into the Senate I read the sailing directions which were given by Lieutenant Maury, author of the theory of winds and currents of the ocean and a world-wide acknowledged authority upon the subject-matter. I think, as the Senator has stated, there can be no question as to the correctness of the position which he takes.

HEALTHFULNESS OF THE TWO ROUTES.

As to the healthfulness of the two routes there seems to be no room to question the very great superiority of Nicaragua. In its report the Commission did not indicate a preference, contenting itself with calling attention to the fact that during work on the maritime canal in Nicaragua the health of the working force was good, while the mortality at Panama was notorious. Colonel Hains testified that in regard to sanitary conditions the advantages are decidedly in favor of Nicaragua. Mr. Noble also thought that the advantages would be on the side of Nicaragua. Admiral Walker said that people would be more likely to contract sickness on the Panama line because the Isthmus has been a highway for hundreds of years, while on the Nicaragua route there have been practically no inhabitants. The consensus of opinion on this point is clearly and emphatically in favor of Nicaragua, and, as has been testified by engineers, the question of healthfulness of climate has a very important bearing on the cost of the work. There can be no question about the fact that

because of the health conditions the canal at Panama will cost from 25 to 50 per cent more than at Nicaragua.

In respect to military advantages I do not think there can be any question as to the superiority of the Nicaragua route. This is acknowledged by Colonel Hains, who points out the fact that it is the shorter line between the two coasts of the United States.

In industrial and commercial value Colonel Hains is also of the opinion that Nicaragua has the advantage. In this opinion I think everyone will concur, for it is well known that there is an opportunity for development of a large and rich adjacent country, under favorable climatic conditions, whereas the condition of the Isthmus of Panama, after the years during which it has been a highway of travel, is practically no better developed than when it was a possession of Spain.

THE QUESTION OF TIME OF CONSTRUCTION.

Another advantage of the Nicaragua route, as planned, is the time necessary for construction—only eight years against ten for Panama—with the chances in favor of reducing the time on the former route and none on the latter, where the conditions to be met are as fully known as is possible in advance of further actual work. The Commission has figured very closely on Panama, but very liberally on Nicaragua. The chances of a reduction of time for the latter are far greater than for the former. In fact, all the greatest difficulties of the Nicaragua route are known, but it is doubtful if, in spite of all the work done at Panama, all difficulties of that route have been realized. This is a point which has been raised by Mr. Lyman E. Cooley, the eminent engineer who constructed the Chicago drainage canal, and who has personally examined both isthmian routes. He puts the situation very tersely. I consider Mr. Lyman E. Cooley one of the best engineering authorities in this or any other country. The Chicago drainage canal, to my mind, is one of the great achievements of this generation. The work has gone along quietly, with no display, with no talk, and yet the economy with which it has been done and the stability with which the canal has been constructed confer the highest encomiums upon those who have directed its work. Mr. Cooley says:

And there is another element of doubt also as to whether the Frenchmen have not been up against a real problem as to whether it really was all steel and all incompetence, and whether Americans are at least twice as honest and twice as competent, or three times as honest and three times as competent, or somewhere in that ratio. It depends on where you draw the line as to honesty and competency between Americans and Frenchmen.

If, in the aggregate, an American in honesty and competency be worth six Frenchmen, then the last estimate stands. If he is only worth four, you have got to add 50 per cent [to time and cost].

MORE OF NICARAGUA'S ADVANTAGES.

Another advantage of the Nicaragua route is the greater likelihood that material reductions in cost of construction can be made there than on the Panama route, owing to the extremely liberal estimates which the Commission has made and the greater number of points where in future reduced expenditures may on further examination be found possible.

Still another advantage of the Nicaragua route is the lower lift of the locks, the highest on this route being 37 feet against 45 at Panama, the latter being not only beyond engineering precedents, according to Professor Haupt, but exposed to greater deterioration if constructed. Besides this, two 45-foot locks in a flight, making a practically continuous lift of 90 feet, would be far more liable to injury from earthquakes than the single lower lifts on the Nicaragua route.

The Commission estimates that the cost of maintenance of the Nicaragua Canal will be \$1,300,000 per year more than that of Panama. But with this estimate Professor Haupt does not agree. He testified before the Senate committee that the difference would not exceed \$900,000. But it is probable that this excess can be materially reduced, as it would undoubtedly be found necessary to add to the expenses incident to the Panama route the interest on an entirely new set of hospital buildings, as it is not probable that competent American physicians and surgeons would consent to place new patients in the existing structures, which are, and for years have been, infected with yellow and pernicious malarial fever. The extravagance of the police department is obvious. This is placed at \$508,300 per annum at Nicaragua and \$251,000 at Panama, a difference in favor of Panama of \$257,300, or more than one-half. All the figures given are increased by a 20 per cent contingency. Adding this to the Nicaragua estimate of \$508,300, we have for police at Nicaragua \$609,960 annually. In the Philippines each United States soldier (including officers) is estimated to cost \$1,500 per annum, and the cost at Nicaragua should be rather smaller than greater. On this cost the Nicaragua route will need 406 police force! An energetic man would guarantee, I think, an efficient service with 75 men—50 on eastern and 25 on western division—in time of peace. In war time an army might be needed to aid at either route.

THE ARGUMENT BASED ON COST OF MAINTENANCE.

This, I think, is a fair sample of, to say the least, the very liberal estimates of the Commission as to the cost of maintenance.

That they are liberal, indeed, for the Nicaragua Canal is evident from the letter of Mr. Cooley, which was read here the other day by Senator TURNER. Mr. Cooley states—and the statistics given by him are convincing—that the cost of maintenance would, on a liberal estimate, vary from \$1,100,000 to \$1,500,000 per year, or less than one-half the Commission's estimates.

But even assuming that the difference in maintenance is \$1,300,000 in favor of Panama, should it be considered an argument in favor of that route? I think not, for the reason that from the Panama route are barred all sailing vessels, which could and would use the Nicaragua route. What this means is clearly set forth by Mr. Cooley in his testimony before the Senate committee. He there said:

We will assume that a vessel can steam 3,000 miles for a dollar a ton. That is about the way of reckoning it when rates are running normally. On long routes it is something better than that. On a sailing route between San Francisco and Liverpool or Portland and Liverpool on wheat it is, say, a third of a mill per ton per mile. If you can save 500 miles, you save a sixth of a dollar on every ton of freight that is going through there. If it is 7,000,000 tons, that is \$1,200,000 a year. Now, you have got \$10,000,000 capital to your credit on account of saving this 500 miles, and you have got \$1,200,000 a year in saving on the total traffic on the cost of running it by the shorter route. This is an offset against the excessive estimates for cost of operation and maintenance.

It is perfectly clear that the extra tonnage gained through sailing vessels would, in tolls, more than make up for the difference in maintenance of the Nicaragua Canal, while the direct gain to commerce would be immense. The low rate by sailing vessel via Nicaragua would develop to an enormous extent the trade in coal, lumber, cotton, iron, and all bulky and cheap commodities, leading, in turn, to the rapid increase in the number of sailing ships. The trade in oil alone, which, as has been pointed out, is being transferred from steamships to sailing vessels, would be a very important feature of the Nicaragua traffic. All the wheat and flour shipments to Europe would go via Nicaragua by sail. In fact, the possibilities of the Nicaragua route and their relation to commerce far outnumber those of a canal by the Panama route, compared with which the less cost of maintenance of the Panama Canal would be a mere bagatelle.

NEARER TO ASIA BY NICARAGUA.

Not the least of the benefits which the Nicaragua route would confer upon Atlantic coast commerce would be the fact that it would place our Atlantic ports from 377 to 579 miles farther within the Asiatic zone of competition with Europe than would the Panama route. In the sharp competition which we shall have from Europe in Asiatic markets this 500 miles more or less is important. How important may be realized from the fact that when China buys from the world's markets as much per head as does Japan now—about \$3—she will buy products worth \$1,200,000,000. Every mile saved in transportation will give us a larger share of the vast trade which the Orient is about to develop. If we have no canal at all, we shall have little share, comparatively, in Oriental commerce.

AN EMINENT ENGINEER'S OPINION.

I do not think that the case can be more concisely summed up than it is in a letter to me by the distinguished engineer of the Chicago drainage canal, Mr. Lyman J. Cooley, who not only has had more practical experience in canal construction than any American engineer, but who has critically examined both the Panama and Nicaragua routes. He writes:

1. As planned, I consider the Nicaragua Canal to be the safest. It has no tandem locks, the Conchuda Dam is less formidable than the one at Bohio, and the cuttings are less menacing on account of length and depth.

2. The estimates are more closely figured for Panama. The Commission in effect so states.

3. The actual cost (including purchase price) is more likely to exceed the estimates for Panama on account of health conditions. The work in Nicaragua can be done for the estimate by a syndicate on its own plans, as I have outlined in my testimony. What the cost will be under a different organization can not be judged until the programme and the men who are to execute it are known.

4 and 5. The water supply at Nicaragua can not be questioned. The discussion of the matter has arisen through an endeavor to regulate the lake level too closely. The supply provided at Panama is admitted to be inadequate for a large traffic, and is to be supplemented at a future time by a dam or dams in the upper Chagres basin. The water supply at Panama can probably be made sufficient for all future needs, though I am unable to say what would be the results of an extremely dry year. I do not regard the water supply for Panama as at all comparable to that for Nicaragua.

6. As designed, the Bohio Dam is not as safe as the Conchuda Dam. (See testimony as to dams.)

7. There is more money in the canal at Nicaragua for the contractor at the figures of the Commission. This would be especially true if the contractor can substitute an equivalent canal at Nicaragua; no material change can be made at Panama.

You will note that I refer to an equivalent canal. I believe the eastern division at Nicaragua can be treated differently and thus facilitate construction, shorten time of passage, and reduce the cost of operation and maintenance.

Aside from technical questions, I believe that the Nicaragua route is greatly superior, for the following reasons:

1. It is much shorter to 75 to 90 per cent of the trade in which we are interested.

2. The healthfulness is greatly superior, both for construction and for operation and maintenance.

3. The country has large natural resources, and is capable of inhabitation by white men, as much so as the Gulf coast of the United States.

4. Military security is insured by a population of our own citizens rather than by fleets and fortifications.

5. It is available for sailing ships, for which the Panama route is practically prohibitive.

6. It is most nearly an extension of our coast line, and no foreign nation can hereafter construct a canal within these limits, as they might if we built at Panama.

7. The Panama route is tainted by scandals and queered by failures, which make it a disheartening enterprise from engineering and contracting standpoint.

8. The Nicaragua route has been accepted and advocated on its merits for twenty-six years before the American people, and has always been admitted as superior for a lock, even by the Frenchmen prior to their failure.

9. It is a diplomatic mistake to now assume that the recent French project is really the meritorious plan and then proceed to force a distasteful bargain on the French shareholders and virtually the French people.

10. The dignity of the United States requires that it abide by the uniform determination of its engineers ever since the Commission of 1878.

I trust that the foregoing covers sufficiently the points which you have raised. You are at liberty to make such use of this letter as you may see fit in the interest of the common welfare.

THE VOLCANO QUESTION.

The only argument which at this time can, it seems to me, receive any consideration whatever, is that which makes use of the fear inspired by the recent volcanic disturbances at Martinique and St. Vincent. Those terrible manifestations of volcanic energy are used by the friends of the Panama route to excite the imagination to picture the destruction of Nicaragua. Attention is called to the fact that there are volcanoes in Nicaragua and Costa Rica, and it is therefore asserted that a canal located there would be liable to be overtaken by the fate which befell St. Pierre. They are dotted all over the maps here [indicating], showing us that at any moment the slumbering volcano may belch forth and destroy this canal if it is constructed. Those volcanoes have increased and come into active operation to an alarming extent within the past few months, while this canal bill has been under consideration, and calculated to excite the fear of those who have read of the frightful occurrences in the island of Martinique.

But attention is not called to the fact that the volcano nearest to the line of the canal is 16 miles distant, and that whatever destructive results might follow an eruption could be only through accompanying earthquakes. And this subject of earthquakes was exhaustively studied by the Isthmian Canal Commission, which, in its report, states that—

The entire Isthmus between North and South America (including Panama) is a volcanic region. * * * No portion is exempt from earthquake.

The Commission found for points on the line of the Nicaragua Canal a record of 14 earthquakes, only one of which, in 1844, caused serious injury. At that time Rivas, 4 miles from the canal line, was almost destroyed and damage was done at Greytown. The volcano nearest to the line of the canal is 16 miles from Rivas. The other volcanic cones vary from 40 to 200 miles distant.

THE HISTORY OF THE CITY OF RIVAS.

But, the Commission points out, Rivas has had a continuous existence since a period antedating the conquest. At Panama the Commission found a record of 28 earthquakes—twice as many as along the whole Nicaragua route. Of these, 12 occurred in the years 1882, 1883, and 1884. The most destructive one occurred in 1621, when Panama was destroyed. The next in severity was in 1882, when the front of the cathedral at Panama was thrown down, the canal headquarters building cracked, the track and roadbed of the railroad thrown out of line, and the masonry of three or four bridges and culverts damaged. At Las Cruces the church was thrown down; at Colon some lives were lost and crevasses were opened, while the Jamaica telegraph cable was broken. The Commission then goes on to say:

The effect of the undulations of the earth's surface upon any structure increases with the height of the structure above the ground. A force which would leave the foundation intact might throw down a high wall.

The works of the canal will nearly all of them be underground. Even the dams are low compared with the general surface of the country, and with their broad and massive foundations may be said to form part of the ground itself, as they are intended to do. The locks will all be founded upon rock. It does not seem probable that works of this kind are in any serious danger of destruction by earthquakes in a country where lofty churches of masonry have escaped with a few minor injuries.

It is possible and even probable that the more accurately fitting portions of the canal, such as the lock gates, may at times be distorted by earthquakes, and some inconvenience may result therefrom. That contingency may be classed with the accidental collision of ships with the gates and is to be provided for in the same way, by duplicate gates.

It is possible also that a fissure might open which would drain the canal, and if it remained open might destroy it. This possibility should not be erected by the fancy into a threatening danger. If a timorous imagination is to be the guide, no great work can be undertaken anywhere. This risk may be classed with that of a great conflagration in a city like that of Chicago, in 1871, or Boston, in 1872.

It is the opinion of the Commission that such danger as exists from earthquakes is essentially the same for both the Nicaragua and Panama routes, and that in neither case is it sufficient to prevent the construction of the canal.

On this point Professor Haupt, in his testimony before the Senate committee, said:

As to the question of seismic disturbances I would only add that it has been shown by students of seismology that the presence of active volcanoes act as a safety valve for internal disturbances, and the number of craters

along through Nicaragua and Costa Rica being quite large, it affords a vent for any internal stress of the earth, and therefore there are fewer injurious earthquakes in that section of the world than at Panama or elsewhere, and I was very much surprised, in studying that subject, to find that the percentage of earthquakes was lower in Nicaragua than in almost any other portion of the world. Now, we have had some earthquakes in this country recently, one in St. Louis and one in Oregon, and many in California, so that, so far as that goes, it shows that there need be little anticipation of trouble from that source.

A SCIENTIST'S EVIDENCE AS TO SEISMIC DISTURBANCES.

Prof. H. Pittier, a resident of Costa Rica, who has given the subject most careful study, made a report to the United States Canal Board in 1895 concerning earthquakes in Costa Rica and Nicaragua, in which he says:

Although the whole of the main mountain range which runs from the shores of the lake of Nicaragua to the southern boundary of Costa Rica is probably of igneous origin, it may be asserted that the volcanic phenomena are in their latest period of activity, as seems to be generally the case all throughout Central America. Instead of the 20 volcanoes given for Costa Rica by Montessus de Ballore in his work, Tremblements de terre et éruptions volcaniques au Centrale-Amérique (Dijon, Eugène Tobar, 1888), there are in reality only four peaks or small mountain groups still showing signs of activity, viz, Miravalles, Poas, Irazú, and Turrialba. There is not a single active crater south of a line going along the railway and main road from Limón to Puntarenas. I do not know of any record of an eruption of the Miravalles since the times prior to the conquista. The Poas is a geyser subject to great variations in the intensity of its manifestations. The last eruption of Irazú, which took place in 1888-89, was altogether insignificant. Turrialba is probably the most recent and most lively of our fire mountains. From May, 1884, to the end of February, 1893, it kept throwing at intervals an enormous amount of cinders or volcanic sand, which was carried as far as the Pacific coast by the trade wind. When I visited Turrialba, in 1879, I only found a large chimney opened in the wall of an old crater, and through which escaped continuously a hissing column of sulphurous steam. But all through the surrounding region there were scattered evidences of far more active phenomena.

Since the foundation of our meteorological observatory good series of seismic observations have been taken at San José, and it is well to note here that, according to them, most of the shocks seem to be propagated in an undulatory way and in such a direction as to allow it to be supposed that they derive their origin in the volcanoes of Poas and Irazú. However, in the actual state of our knowledge concerning the Costa Rican seismology, it would not be prudent to draw any positive conclusion as to that point.

As to the geological age of our volcanoes it can be asserted that the more ancient among them are posterior to the middle of the secondary period and that their greater activity took place posterior to the Pliocene epoch. * * *

I took every pains to find an instance of shocks having been felt at Limón or in the settlements along the Sarapiquí and San Carlos rivers during that period, but persons of sound judgment and perfect honesty, most of them foreigners, who lived for years in those places could not refer to even a single case. Therefore, I consider it a safe conclusion to say that these seismic disturbances were almost invariably limited to the Cordillera and its immediate vicinity. * * *

Considered by themselves only earthquakes can not, in my opinion, be taken as a serious obstacle to the building of canals or railways in these countries. But it is not so when they occur in connection with the copious rains which characterize our climate. In itself the rain is a dangerous element, which penetrates the soil, loosens the clay or argillaceous strata, and very often produces considerable landslides. The soil may be soaked with water without giving way, but a sudden seismic shock can easily bring on a catastrophe. However, the general topography of the zone crossed by the western division of the canal, as far as my knowledge of the region allows me to state, does not seem to admit the possibility of easy movements of the superficial strata, and, moreover, the rain is much less in the Isthmus between Lake Nicaragua and the Pacific Ocean than on the eastern slope, as may easily be seen in the last paper of Professor Harrington on Central American Rainfall.

NO GROUND FOR CHOICE.

The recent report that there has been, within a few months, activity of Nicaraguan volcanoes and destruction of property by earthquakes at the upper end of Lake Managua, of which great use has been made by the friends of the Panama route, proves to have been without the slightest foundation. President Zelaya, of Nicaragua, telegraphed, under date of June 1, to Minister Luis F. Corea that "the news published about recent eruptions of volcanoes and earthquakes in Nicaragua are entirely false." And letters from United States Minister Merry, at San José de Costa Rica, recently received, state that there have been no earthquake shocks whatever along the line of the Nicaragua route for the past two months, while there have been several along the line of the Panama Canal. This information is confirmatory of the observations of the Isthmian Canal Commission, that earthquakes are more frequent at Panama than in Nicaragua. That danger from seismic disturbances are no greater at Nicaragua than at Panama may, I submit, be accepted as proved, as far as it is possible to bring proof to bear upon this subject.

The Commission is decided in its opinion that there is no choice between the two routes on account of danger from earthquakes, which, should they occur, would, in its opinion, be likely to inflict little if any damage to a canal. And this view of the matter is strengthened, rather than weakened, by the experience of Martinique and St. Vincent, where a canal situated 16 miles from Mount Pelee or La Soufrière would have met with no serious injury, if, indeed, it received any. Direct injury from an eruption, such as was occasioned at St. Pierre, which is only a few miles distant from the summit of Mount Pelee, is impossible at any point on the line of the Nicaragua Canal, for, as before stated, the nearest volcano is at least 16 miles away. Martinique and St. Vincent leave the canal question just where it was before. There is, therefore, no valid reason for the Commission to change its views on this subject. Whatever danger

there might be to a canal in either location is from an earthquake, and, in the opinion of the Commission, there is in this respect no choice in routes.

THE FRAUDULENT CHARACTER OF THE PANAMA SCHEME.

The Panama scheme was conceived in fraud, and fraud has marked every succeeding step in its development. Should the United States, through misguided action of Congress, purchase what remains of an enterprise which has been a financial and moral curse to France, it will be found that the people of this country have been the latest victims of a swindle of gigantic proportions, whose inception preceded the famous International Canal Congress held in Paris in 1879. I think it is important at this time to go back to the beginning and to show what were the first moves in this great financial game.

After the completion of the Suez Canal its success caused French enthusiasts to turn their attention to that other great need of commerce—a canal to join the Atlantic and Pacific. All schemes proposed were submitted to De Lesseps, and all were encouraged. But it was not until men with prominent names came forward that he gave his sympathy and cooperation. Who these men were, why they proposed the scheme, and how it was adopted by the Paris congress is thus told in a report made in 1880 by W. E. Johnston, delegate of the American Geographical Society to that congress:

These men were Messrs. Wyse, Turr, and Bixio. Lieutenant Wyse, of the French navy, is a son of a former English minister at Athens, and his mother was a Princess Bonaparte, of the Roman branch of the family. General Turr is a Hungarian, and married Lieutenant Wyse's second sister. M. Bixio was a brother of the Minister Bixio of the provisional government of 1848. He died of fever on the Isthmus.

These gentlemen, backed by some bankers and personal friends, made their first visit to the Isthmus three years ago and examined one of the Atrato routes. They came back sick, reported unfavorably, and after some months' consultation, in which M. de Lesseps took a large part, it was decided that Lieutenant Wyse should return to the Isthmus and look at the Panama route, with the view of making that the affair on which they were finally to settle and as the affair to which the public in France would be most likely to subscribe.

The survey was made—how imperfectly was afterwards shown in the congress by the abandonment of all the figures, and of even the plan—the party returned to Paris, and last winter the plan of campaign of putting through the Wyse scheme was organized.

An international congress was to be called, so as to give authority to the scheme; M. de Lesseps was to preside at the congress and issue the invitations, and as the President had the right to constitute the congress as he saw fit, enough French members of the right sort were invited to counterbalance any opposition that might manifest itself. So far as Lieutenant Wyse and party were concerned, they sought first to reimburse themselves for the losses already sustained and for which they were responsible to certain bankers and friends, and this they hoped to do by forming a new company which would assume the responsibilities they had incurred.

This was the origin of the famous congress. It was not, as you see, a very high-toned affair; it was not intended that it should be. The object was to get out of an old debt by creating a new one, to be shouldered by some one else. The digging of a Panama canal was a very distant and very problematic affair.

But it turned out that the congress became a very serious and very grave affair. As eminent engineers from foreign countries began to arrive the hope of carrying out the prepared programme diminished. The great satisfaction which was at first manifested at the prospect of having a large and respectable gathering soon gave place to sad reflections and sad surmises. The arrival of the two eminent American authorities, Messrs. Ammen and Menocal, was a death blow to their hopes, and although those two gentlemen were treated with the greatest consideration, it was felt by the leaders that their coming was a disaster and that a new base of operations would have to be adopted.

There is nothing, in fact, more curious in the history of caucuses than the evolutions of this congress.

Not only was the president of the congress named in advance, but so also were the officers and the committees, and even the work the committees were to perform. Nothing, it was intended, was to be left to hazard. At the first meeting, at which were present the 136 members and above 300 spectators interested in the subject, nothing was done or allowed to be done but the reading of the names of the members, the names of the committees and their presidents, and an indication of the work they were to do.

The first meeting did not last an hour. No one had a word to say but the president and secretary, and this very summary way of treating the distinguished guests who had come a long way to the "study" of the interoceanic canal project was climaxed at the end by the president hastily adjourning the meeting with the remark: "Gentlemen, we are going to rush this thing à l'Américaine; we shall get through by next Tuesday."

Thus not only was the congress packed and manipulated so as to run through hastily and without fail the imperfect and impossible scheme of Lieutenant Wyse, but the most distinguished and honorable experts from all parts of the world were invited to give the scheme their aid and to cover it with their responsibility.

It was hardly dignified, therefore, for men holding the high rank of government delegates to take their seat in a congress which had been gotten up for a certain limited and well-defined object, and in which no proposition outside the programme stood the least chance of adoption.

THE CANAL CONGRESS OF 1879.

Mr. Johnston then states that the facts and figures given by Admiral Ammen and Mr. Menocal were a revelation to the congress, which was thereupon compelled to take some serious consideration of the question. During the discussion which followed, one of the delegates, M. Spement, declared that if De Lesseps's plan of a sea-level canal was impossible, "we must go to Nicaragua." Mr. Johnston then continues:

We were now brought face to face with the singular spectacle of a congress which had become serious and honest, and which saw its way clear to the truth, and yet which was obliged to remain dishonest and carry out the original plan, no matter by what means.

The reason of this singular anomaly is easily understood. M. de Lesseps, Lieutenant Wyse, and the bankers behind them, were pledged to the Panama

route, and could not adopt another. That was the French route. They had been long manufacturing enthusiasm for that route. The bankers and the public would not give a cent to any route that was not patronized by M. de Lesseps and Lieutenant Wyse. So that to abandon that route was to abandon entirely for France the glory of cutting the interoceanic canal, and that was not to be thought of for a moment.

They have been claiming, as I have already told you, for years the monopoly of this question; they claimed all the knowledge on the subject, and to back out now would be to lose all the money they had engaged in the scheme, all the money they expected to gain, which was a mountain, and to lose their popularity besides. The congress would have been dissolved without a decision rather than to have adopted another than the French route.

But how was this accomplished? M. de Lesseps's galloping congress was adjourned for several days; we heard no more of rushing the thing through à l'Américaine; they had to stop to change their base. Lieutenant Wyse, with such of the engineers as were pledged to this scheme, went to work in secret committee and labored night and day till they elaborated a new plan to cover, as they thought, the objections of Mr. Menocal, and with, of course, a much higher figure of costs. The committee having in charge the estimates on the probable receipts and expenditures of the canal were instructed by the president to try and make the receipts cover the new estimate of costs, which they did with the greatest ease.

Again the American engineers, backed this time by overwhelming arguments of Sir John Hawkshaw, showed that the plan was still defective; and again the congress was adjourned to give time to the Wyse secret committee to get up new figures and a new plan. The congress, which started off on a gallop, had first dropped into a trot, and was now at a walk. And all to allow Lieutenant Wyse to prepare estimates on difficult details which he had never studied on the ground, and which, therefore, were only theoretical.

The majority of the engineers lost their interest in the proceedings from this moment, and became simple lookers-on, while the meeting relapsed back into its original character of a congress for the benefit of Lieutenant Wyse and his party.

The assembly was now in a crisis. On the one side were the engineers; on the other the business men and the spectators. It looked at one time as if the Congress if called upon would have voted for the plan of Mr. Menocal by Nicaragua. The charter of Mr. Wyse from the Colombian Government exacts the building of the canal by the most economical route, and to build it by the dearest route is a violation and a forfeiture of the charter. But these difficulties, which were pointed out to the Congress, no longer stopped the proceedings. The Wyse party had now offered their ultimatum, which was an open cut without locks and with diversions, or side canals, the whole to cost \$250,000,000 and to pay in receipts \$18,000,000 a year. At this point M. de Lesseps made a long speech. * * *

The effect of this speech was enormous. The American engineers had shown that the Panama route, principally on account of the annual fall of 12 feet of rain, was impossible; that it never could be finished if commenced, nor made to pay a dividend if finished. It was all to no purpose. Lieutenant Wyse and his committee had but to retire to their consultation room to find at once in their own heads the figures necessary to head off Mr. Menocal's estimates. It was the game of "I see you and go you one better," played by men who had no cards, but plenty of money.

HOW THE BAIT WAS TAKEN.

Mr. SPOONER. What game is that?

Mr. PERKINS. This is the language of the representative from the Geographical and Geological Society at the convention in Paris. It is an enigma to me. I have a slight knowledge of French. His report is made in English. The explanation of the game of cards I leave to some one who has made a study of that branch of science, of which Mr. Johnston was evidently an expert.

Mr. Johnston then describes the plan of voting by which measures were taken to secure a decision in favor of the scheme. The result of this vote was 74 ayes to 62 nays and refusals to vote, out of a total of 136 registered delegates. Commenting on this, Mr. Johnston says:

An analysis of the final vote will show that the able engineers who came to the congress with their minds free from prejudice and with a desire to arrive at the truth are either to be found among the absentees or among those who abstained from voting.

Thus, as the majority for the Wyse scheme was small, as the neutral experts were opposed to it, and as the congress from beginning to end was manipulated in the interest of that scheme, it may be said that, in an international point of view, the decision of the congress was no decision at all and that it is without force and not binding.

A SCHEME TO PAY PRIVATE DEBTS.

Thus was this vast undertaking inaugurated for the purpose of enabling several prominent Frenchmen to pay their debts to French bankers. Its result is well known. A company was organized, and realized from the sale of stocks and bonds \$260,000,000. The items of receipt and expenditure, now a matter of court record, show that there was actually expended by the old company on the Isthmus \$156,400,000.

But after the expenditure of this vast sum on the Isthmus itself, and the dissipation of \$100,000,000 more in various ways with which the promoters of the scheme were doubtless well satisfied, it was found that the actual work of constructing a canal had only really begun.

Mr. MCOMAS. Mr. President—

The PRESIDENT pro tempore. Does the Senator from California yield to the Senator from Maryland?

Mr. PERKINS. Certainly.

Mr. MCOMAS. Was that 156,000,000 francs or dollars?

Mr. PERKINS. I reduced it to dollars, as we are more familiar with dollars, although all know the commercial value of the French franc. When, therefore, more money was needed, it was not forthcoming, and the company had to go into insolvency. This ended the first step in this stupendous scheme.

A NEW PHASE OF THE SCHEME.

But there were 600,000 or more Frenchmen who had contributed the vast sums that had so rapidly disappeared, and a clamor

arose. The only thing to do was to form a new company, raise more money, and, if possible, complete the work. A new company was formed, to which the receiver of the old company, on its behalf, was a party, subscribing thereto, as did also, under compulsion, a considerable number of persons who were charged with having secured in a manner not too honest a considerable part of the \$260,000,000 contributed by the French people, who were to have 60 per cent of the net profits of the canal. The sum of \$18,000,000 in cash was secured by the new company, principally from those who had been charged with swindling the old one, and work was again begun on the Isthmus in accordance with new plans based on fresh surveys and examination of the ground. With the new company a new survey of the route became necessary, as it had been developed that practically nothing was known of the engineering difficulties.

A technical commission was appointed, composed of the most eminent engineers of Europe and the United States. The sea-level plan was at once abandoned, and surveys made for a canal with locks. It is reasonable to suppose, in view of the exigencies of the case and the absolute necessity for a report assuring construction at a not exorbitant cost, that the difficulties were minimized to the limit of safety under the need of a low cost of construction to induce subscriptions to the enterprise. It is these surveys which our own commission has practically adopted, with the exception of the Bohio Dam, in which case it has made plans which far exceed the limits of safety imposed by the technical commission. For the data obtained under such conditions, I will say parenthetically, the commission advises the United States to pay \$2,000,000. But the difficulties developed proved to be so great that no more funds could be raised, and work had to be stopped. There was here a loss to the subscribers of questionable financial reputation and to bankers who backed them, and it became a question as to how to recoup themselves.

THE UNITED STATES TO BE DRAGGED IN.

Nothing having a chance of success presented itself, except a sale of the whole unsavory mess to the United States. No other scheme has been proposed; no other plan could be devised whereby they could recoup themselves from a financial point of view, except selling this gigantic fraud to the United States. We all know how their offer was reduced from \$109,000,000 to \$40,000,000, and how, in order to secure the latter sum, the rights of the hundreds of thousands of Frenchmen who originally contributed, were sacrificed as far as an expression of willingness to do so can effect that result—not an expression by the people themselves who had put their money into it and who have subscribed to the stock, but by their trusted agents who were engineering the scheme. If the scheme proposed be successful, the suspected swindlers of the old company will get back the money they were compelled to subscribe to the new, and the United States will be brought face to face with half a million or so of Frenchmen who clearly have some rights in the matter, with an undertaking on our hands to complete for \$144,000,000 a work on which the actual expenditure of more than \$156,000,000 has made but a good beginning. This is the Panama scheme, pure and simple, and it means just this: Adopt the Panama route, and, in my opinion, no isthmian canal will be constructed by the United States.

Mr. STEWART obtained the floor.

Mr. MITCHELL. Mr. President—

The PRESIDING OFFICER (Mr. McCOMAS in the chair). Does the Senator from Nevada yield to the Senator from Oregon?

Mr. STEWART. I do.

Mr. MITCHELL. I suggest the absence of a quorum.

The PRESIDING OFFICER. The absence of a quorum being suggested, the Secretary will call the roll.

The Secretary called the roll, and the following Senators answered to their names:

Aldrich,	Deboe,	Kean,	Perkins,
Allison,	Dillingham,	Kittredge,	Pettus,
Bacon,	Dolliver,	McComas,	Platt, N. Y.
Bard,	Dryden,	McCumber,	Pritchard,
Bate,	Fairbanks,	McEnery,	Quarles,
Berry,	Foraker,	McLaurin, Miss.	Scott,
Blackburn,	Foster, Wash.	McLaurin, S. C.	Spooner,
Burnham,	Frye,	McMillan,	Stewart,
Burrows,	Galling,	Mallory,	Teller,
Burton,	Gamble,	Mason,	Warren,
Cockrell,	Harris,	Millard,	Wellington,
Cullom,	Hawley,	Mitchell,	Wetmore.
Daniel,	Jones, Ark.	Morgan,	

The PRESIDING OFFICER. Fifty-one Senators have answered to their names. A quorum is present, and the Senator from Nevada will proceed.

Mr. STEWART. Mr. President—

Mr. MORGAN. Will the Senator from Nevada allow me to offer some papers?

Mr. STEWART. In connection with the pending matter?

Mr. MORGAN. Yes.

Mr. STEWART. I yield to the Senator for that purpose.

Mr. MORGAN. I have here an extract from the works of Mr.

Calvo on Costa Rica, and a communication from Mr. Corea, the minister of Nicaragua, on subjects relating to this debate, which I ask to have read at the desk.

The PRESIDING OFFICER. The Secretary will read as requested.

The Secretary read as follows:

COSTA RICA.

Religion.—There was a concordat between Costa Rica and the Holy See, but the same was declared inconvenient for the nation and denounced in 1885.

The great majority of Costa Ricans being of Catholic faith, the Government protects that religion and contributes to its support with sums from the national treasury.

The constitution only establishes tolerance of other religions, but deep in the hearts of all Costa Ricans are implanted the principles of liberty in matters of conscience, in which each one should be guided by his own idea of right.

Religious freedom advanced considerably from the year 1842, not only as to laws, but as to tolerance in all classes of people. In that year cemeteries were provided for non-Catholics, and in 1847 a Protestant congregation was in existence. The present tolerance for other beliefs is obvious in the fact that the first church built in Central America, consecrated to a religion different from that of the country, stands to-day in San Jose, Costa Rica, no more than 125 yards from the great Catholic cathedral.

Public instruction.—The constitution provides that elementary instruction of both sexes is obligatory, free, and provided for by the Government. The immediate supervision shall be for the municipality, the supreme inspection for the executive.

Every Costa Rican or foreigner is free to give or receive instruction in institutions which are not maintained at public expense.

The instruction given at public schools is laic.

The efforts have been great and sustained to advance education, and it is to be remarked that all those in office, through the different administrations that have come one after another, have constantly shown the greatest and most laudable interest in the matter, and always maintaining a system in harmony with modern ideas.

Laus.—Costa Rica was the first of the Central American Republics to effect complete emancipation from the Spanish and colonial laws and one of the first countries of Latin America to provide herself with laws in harmony with new mode of political being and with the progress of civilization.

In the penal code, in effect since 1880, the death penalty is abolished, as well as other humiliating and cruel punishments, and in 1886 there was promulgated a new civil code, in which are prominent the civil marriage, divorce, and civil liberty of woman.

Matrimony is perpetual, and has for its objects procreation and mutual support. It corresponds to the civil authority alone to act and decide on any demands relative to divorce and separation, as well as nullity or any other question relative to matrimony.

The rights of faith and property are strictly observed and have never been infringed upon in Costa Rica, nor have retroactive laws been framed.

The sacredness of correspondence, the right to meet in bodies and to petition, the right of habeas corpus, the liberty of the press, all are guaranteed by the constitution.

Foreigners enjoy every civil right without being admitted to citizenship or being compelled to contribute heavy sums. Admission to citizenship may be applied at any time and will be granted on same principles as in most civilized countries, after one year's residence. Settlers are not obliged to become naturalized citizens nor to pay forced contributions. They can carry on business and manufacture, possess real estate, buy and sell, navigate the rivers and coasts, and, subject to the laws, may exercise freely their religious creeds, marry, and dispose of their property by will.

Facts.—Costa Rica has always been distinguished by her strenuous efforts in the pursuits toward modern progress and by the unity of race and love of peace and labor which are characteristic traits of her patriotic children.

As a natural cause of all what precedes, it is a fact, well known, that Costa Rica has not to-day, nor ever had at any time, claims presented to her for damages or injuries caused by arbitrary acts or measures on the part of her judicial or military authorities against the citizens of other nations. Far from it, she opens her gates to them and freely gives them full liberty to enjoy and secure for themselves the treasures of her soil. (From J. B. Calvo's works on Costa Rica.)

LEGACION DE NICARAGUA,

Washington, D. C., June 17, 1902.

HON. JOHN T. MORGAN,
United States Senate.

DEAR SENATOR MORGAN: I have just received your letter of the 16th instant in which you ask me for an official statement concerning the truth of the assertion "that the Government of Nicaragua has been making sales or grants of public lands within a zone of 6 miles—3 miles of the center line of the canal route located by the Isthmian Canal Commission—and that such lands have been so disposed of since the date of the agreement between Nicaragua and the United States, dated December 1, 1900."

In answer I may say that there is no foundation in truth for such an assertion. Under the agrarian laws of Nicaragua the Government to dispose of public lands must first issue a decree, and the only decree issued by President Zelaya after December 1, 1900, is the one dated September 27, 1901, a copy of which I inclose. This, no doubt, is the one that has been misquoted, because it mentions the Atlantic coast.

In article 5 of this same decree you will see that the officers who are affected by it are the governor of Bluefields, capital of the department of Zelaya, otherwise known in time past as the Mosquito Territory, and the governor of the Comarca de Cabo de Gracias a Dios, which lies along the extreme north-eastern coast of Nicaragua and north of the department of Zelaya.

The proposed route of the canal runs through the Comarca de San Juan del Norte and the department of Chontales on the Atlantic side and the department of Rivas on the Pacific side. The shortest distance between any point along the proposed route and any point within the department of Zelaya, which lies closest, is 40 to 50 miles.

Therefore no decree has been issued by President Zelaya since December 1, 1900, affecting the public lands within the 6-mile zone, and consequently no land has been sold or granted by the Government within the said zone.

You are at liberty, as you request, to make such public use of this information as you may deem proper.

I have the honor to remain, with sincere respect, yours, etc.

LUIS F. COREA.

Mr. MORGAN. There is also a translation taken from the Diario Oficial, Managua, which I ask to have printed without reading.

The PRESIDING OFFICER. That order will be made, in the absence of objection.

The paper referred to is as follows:

[Translation. Taken from the *Diario Oficial*, Managua, September 27, 1901. Department of finance and public credit.]

The President of the Republic, considering that in the tract of lands which are not denounceable in the Atlantic littoral there exist numerous farmed lands which the Government is in duty bound to advance and protect for the security of landed property and to facilitate the acquisition of the right of possession of these lots of land, in conformity with the decree of July 6, 1893, resolves:

ARTICLE 1. To allow the actual possessors of public lands in the tract which has not been denounced in the eastern coast of the Republic to acquire the right of property of the lots which they may have cultivated or marked off.

ART. 2. The petition shall be filed before the governors of Bluefields or of Cabo de Gracias á Dios, according to the jurisdiction in which the land may be located, within precisely three months from the date of the publication of the present resolution; the petitioner being obliged to express in his petition the boundaries, the kind of agricultural pursuits in which he has engaged, and the number of manzanas cultivated.

ART. 3. The officials referred to will secure information from two suitable witnesses to prove whether the land has really been cultivated or marked off, and when this information is complete they will order it to be published by proclamations, inserting one in the newspaper of Bluefields. In case that there has been no opposition, after twenty days have elapsed they will award the land to the party interested, who must previously deposit its value in the corresponding treasury within the eight following days, complying with everything else relating to the agrarian law in force until they obtained the grant of the title.

ART. 4. After the term referred to in article 2 has elapsed, or the eight days to which the foregoing article makes reference, and the deposit has not been made, the possessors will be considered as lessees, and will pay annually in advance the rent hereinafter expressed.

ART. 5. The governors of Bluefields and of Cabo de Gracias shall appoint engineers who will form the registry of the survey of lands, which in future may be possessed by lease according to this enactment; the expense of measurement and marking off of each lot being payable by the interested parties.

ART. 6. While the measure is being made said officials shall procure information, by means of witnesses, to ascertain which lots of cultivated or marked off land have not been procured by right or title according to article 2, and the approximate extent of each one of them. Having obtained full information in regard to this matter they shall notify the possessors that they are considered as lessees, cautioning them in the same act that they have to deposit the value of their lease within fifteen days.

When a possessor of public lands be considered as lessee because he has not paid the deposit within eight days referred to in article 3, the term for the payment of the lease will be reckoned from the following day after the expiration of the eight days.

ART. 7. If after the measure has been made it is ascertained that the number of manzanas is in excess of that which has served as base to fix the rent, the parties interested shall pay the difference in the corresponding treasury; and in case of excess it shall be discounted in the following payments.

ART. 8. If, after the possessors have been notified that they are lessees, any one of them contends right of property or any other real right to the land and appeals or brings up opposition without presenting a title in due form and registered, he is obliged to accompany a certification of the deposit of the value of the rent to get a hearing.

ART. 9. The price of each manzana will be the following:

If it is suitable for breeding live stock.....	\$5.00
If it is suitable for agriculture.....	8.00
If for agriculture besides being comprised in a zone of 2,000 varas broad along the margins of navigable rivers for large vessels.....	10.00

For each manzana of irrigable land \$2 in excess will be paid.

ART. 10. The value of the lease will be:

For each manzana of land suitable for grazing live stock.....	1.50
For each manzana of land suitable for raising live stock or for agriculture.....	2.50
For each manzana of land suitable for raising live stock, if it is comprised in a zone of 2,000 varas broad along the margins of navigable rivers for large vessels.....	3.00

ART. 11. The governors of Bluefields and of Cabo de Gracias á Dios will notify at once the department of finance each time that a petition is filed before them, according to article 2, and of the acts they may issue considering as lessees the actual possessors of land, according to article 6, expressing in either case the limits, the kind of agricultural pursuit, and the number of manzanas of the lot.

Be it communicated. Managua, September 20, 1901. Zelaya. The minister of finance—Zelaya, R.

Mr. STEWART. Mr. President, the climate of Panama is practically prohibitory of a canal at that locality if any regard is to be paid to human life. I have heard it asserted in this debate that the climate of Panama is as good as that of Nicaragua. Of course those who have made that assertion are ignorant of the facts. Climates in the Tropics are comparatively healthful where they have a sea breeze. Some of the tropical islands are as healthful as any part of the world; but in places in the Tropics where there is no wind there must be disease.

The doldrums of Panama Bay are known to all navigators. I myself saw in the winter of 1849-50 vessels lying in Panama Bay which had been there for months. After my arrival in California I met persons who left New York and sailed around the Horn and arrived there before the passengers in the ships I left at Panama reached San Francisco. Vessels were frequently compelled to remain at Panama for six or eight months at a time before they could sail away. That bay is so situated that during certain seasons of the year they have no winds. Besides, vessels are compelled to sail as much as a thousand or fifteen hundred miles before they can get out of the bay and strike the trade winds to enable them to go either north or south.

It is only during the few months of the year that a favorable breeze prevails. During the rest of the time there is no breeze in Panama and no wind at all. Sometimes they have tremendous

rains there, but it is during only certain seasons of the year that they have any breeze whatever.

I knew something about Panama before the railroad was built. I crossed the Isthmus first in 1849. I went up the Chagres River in a canoe, and I have seen that river a good many times. The chief surgeon of the company which built the Panama Railroad was a friend of mine, an old schoolmate, by the name of Stephen Rogers. My friend Rogers was chief surgeon during the whole construction of the road. Of the first party of men who went down there from New York he told me not one was able to do two weeks' work.

A very large number died, and the balance were taken back to New York. The company then got Chinamen, thinking they could stand any climate. The Chinamen died almost as rapidly as the white people. It was perfectly shocking to hear of the number of Chinamen who died there, according to his account. The company then took natives of the Isthmus and tried to get them to work, but they could not stand digging up the soil. They were poisoned by it and had to quit, and the railroad company was almost in despair.

Then they tried negroes from Jamaica, who were in the habit of working in tropical soil, and they served pretty well. They built the railroad. I saw them upon the Isthmus after the road was built. They were great big, fine fellows physically. They did pretty much all of the work that has been done on the Panama Railroad and on the Panama Canal. White men can not live and work there. Any man living there has death staring him in the face all the time, and the reason why it is worse at Panama than in any other tropical place on earth is because there is less wind there during a long season of the year. There is nothing to carry away the malaria. There is nothing to give the inhabitants fresh air. The most dismal place on earth is Panama during the six or eight months when there is no wind blowing. I verily believe we will sacrifice more lives than the canal is worth if we build the canal at Panama.

After I came into the Senate, Senator Conness, of California, offered a resolution, directing the Secretary of the Navy to furnish a report of surveys across the Isthmus. In response to this demand, Rear-Admiral C. H. Davis reported, in July, 1866:

There does not exist in the libraries of the world the means of determining, even approximately, the most practicable route for a ship canal across the Isthmus.

That was the short report he made.

Nothing further was done in the matter until General Grant was elected President, and called Commodore Ammen to Washington and placed him at the head of the Bureau of Navigation.

I recollect that circumstance very well. President Grant sent for Mr. Conness and myself, who were interested in it before he did this, and discussed the matter. He was very much interested. He had been over the Isthmus.

Congress had voted the money for the surveys and a commission was appointed in 1872 to report upon the several results of the different expeditions that had already been or were to be sent out at the expense of the Government.

Previous to the election of President Grant there had been sporadic examinations under governmental authority of different routes extending over a period of many years.

The following is a list of the canal lines and of the work done upon them by the American naval officers:

1. Capt. R. W. Shufeldt made an instrumental reconnaissance of the Isthmus of Tehuantepec in 1852.
2. Commander Chester Hatfield, in 1872, and Commander E. P. Lull, in 1872 and 1873, made an examination, survey, and definite instrumental location of an interoceanic canal from the vicinity of Greytown, or San Juan del Nicaragua, via Lake Nicaragua, and thence via the Rio del Medio and Rio Grande to Brito.
3. Commander E. P. Lull made an examination, survey, and definite instrumental location for a canal from Navy Bay to Panama in 1875.
4. Commander T. O. Selfridge in 1870 examined and surveyed a route from the Gulf of San Blas toward the river Chepo; and Commander E. P. Lull in 1875 made further reconnaissances from the waters of the Chepo toward the Gulf of San Blas.
5. Commander T. O. Selfridge in 1871 drew several tentative lines from Caledonia Bay to the waters of the Secubti and Morti, which are tributaries to the Chiriquique.
6. Commander Selfridge examined the Du Puydt line between Tuyra and Atrato via the Tancala River.
7. Commander Selfridge examined the Gogorza route via Atrato, Cacarcia, Tuyra, and Cue rivers in 1871.
8. Lieut. Frederick Collins in 1875 examined and located a route by way of the Napipi and Dognado rivers.

Besides the above there was—

9. An inspection of the Nicaragua and Atrato routes, made in 1874 at the request of the Secretary of Navy, by Maj. W. McFarland and Capt. W. H. Heuer, both of the United States Corps of Engineers; Prof. H. Mitchell, United States Coast Survey; Gen. Jacob Ammen, and Mr. D. S. Walton, civil engineer.

The different reports of these expeditions, covering a period of five years, are to be found in several thick volumes. The report of Commander Shufeldt, on Tehuantepec, is printed as Senate Executive Document No. 6, Forty-second Congress, second session.

The report upon the survey of Darien, by Commander Selfridge, was published in 1874 by the Navy Department.

The result of the Hatfield and Lull explorations were printed as Senate Executive Document No. 57, Forty-third Congress, first session.

The reports of explorations and surveys for the location of canals through

the Isthmus of Panama, or by the valley of the Nippi River, by Commanders E. P. Lull and F. Collins, were published conjointly in Washington in 1875.

Finally, the reports of Major McFarland, General Ammen, and Professor Mitchell, of the commission of reinspection of 1874, were sent to the Senate by President Hayes in April, 1879; but, with the exception of that of Professor Mitchell, which will be found in the annual report of the Coast Survey for 1874, Appendix 13, they have not been printed in full.

All these reports are exhaustively reviewed by Admiral Ammen, in his most important work entitled "The American Inter-oceanic Ship-Canal Question," 1880; and also by Lieut. J. T. Sullivan, in his Problem of Inter-oceanic Communication, published by order of the Bureau of Navigation, Washington, 1883, to both of which works we are much indebted.

The Commission was composed of Andrew A. Humphreys, brigadier-general and Chief of Engineers of the United States Army, etc.; C. P. Patterson, Superintendent United States Coast Survey; and Daniel Ammen, commodore and Chief of the Bureau of Navigation.

This Commission was an abler commission than any other that was ever organized to investigate the interoceanic route across the Isthmus. It is not any disparagement of the present Commission to say that the Commission composed of these men was abler than any other. These men were conspicuous during the war.

They had been over the route and knew something about it. General Grant felt a deep interest in it. These men made actual surveys and did a great work. I have talked with them about the hardships of contending against the terrible jungles through which they had to cut their way. They cut their way across all these routes, making but a few rods a day. There is not one of the routes named through which the officers of the Army and Navy have not plowed their way with accurate surveys.

This Commission was appointed in 1872. The survey began before that. As soon as Grant was inaugurated he had the surveys commenced. He appointed a Commission to follow it up. Here is the report of the Commission; it is very short; it was sent to Congress by President Hayes April 18, 1879 (Senate Executive Document No. 15, Forty-sixth Congress, first session), but the surveys had been continued all through Grant's Administration:

WASHINGTON CITY, February 7, 1876.

THE PRESIDENT OF THE UNITED STATES:

The Commission appointed by you to consider the subject of communication by canal between the waters of the Atlantic and Pacific oceans, across, over, or near the Isthmus connecting North and South America, have the honor, after a long and careful and minute study of the several surveys of the various routes across the continent, unanimously to report:

1. That the route known as the "Nicaragua route," beginning on the Atlantic side at or near Greytown; running by canal to the San Juan River; thence following its left bank to the mouth of the San Carlos River, at which point navigation of the San Juan River begins, and by the aid of three short canals of an aggregate length of 3.5 miles reaches Lake Nicaragua; from thence across the lake and through the valleys of the Rio del Medio and the Rio Grande to what is known as the port of Brito, on the Pacific coast, possesses, both for the construction and maintenance of a canal, greater advantages and offers fewer difficulties, from engineering, commercial, and economic points of view, than any one of the other routes shown to be practicable by surveys sufficiently in detail to enable a judgment to be formed of their relative merits, as will be briefly presented in the appended memorandum.

The data for the conclusions of the Commission will be found in the reports of the various surveys and examinations made under the direction and auspices of the Navy Department, copies of which are transmitted herewith.

A statement relating to these surveys and examinations, with a brief account of the characteristic features of the routes, will be found in the accompanying memorandum prepared by the Commission.

We have the honor to be, with high respect, your obedient servants,

ANDREW A. HUMPHREYS,
Brigadier-General, Chief of Engineers, U. S. A., etc.
C. P. PATTERSON,
Superintendent United States Coast Survey.
DANL. AMMEN,
Commodore and Chief of Bureau of Navigation.

Three greater names for purposes of this kind can not be found in this or the former generation. They were men of high character, very cautious, very learned, who had given this subject very careful examination. In this memorandum they give a description of the Nicaragua route and the Panama route. Their description of the Nicaragua route is found on pages 4 and 5 of the above-named document, which I will insert in my remarks without reading:

THE NICARAGUA ROUTE.

Commander E. P. Lull, United States Navy, with a corps of junior officers and Civil Engineer A. G. Menocal, made the survey of this route. The summit level is designed to be 107.62 feet above the two oceans, the surface of Lake Nicaragua being maintained at the highest water mark by a dam at Castillo.

Two harbors must be constructed, one at or near Greytown, the other at Brito, on the Pacific.

The eastern division is 108.5 miles long, of which 42 miles is canal, extending from the proposed harbor on the eastern coast to and along the San Juan River to the mouth of the river San Carlos, at which point slack-water navigation of the San Juan begins, and, by the aid of three short canals, having an aggregate length of 3.5 miles, around the proposed dams in the San Juan (four in number), reaches to Lake Nicaragua, a distance of 63 miles of slack-water navigation.

The four dams alluded to are located as follows, with dimensions as given:

- No. 1. Castillo, 940 feet long, 21 feet high.
- No. 2. Balas, 1,196 feet long, 31.9 feet high.
- No. 3. Machuca, 824 feet long, 84 feet high.
- No. 4. San Carlos, 1,000 feet long, 31 feet high.

Ten lift locks are required, of an average lift of 10.76 feet each. They are

all located on hard ground, and only at one location are two locks placed together.

Different parts of the San Juan River, utilized by means of dams for slack-water navigation, must be deepened by dredging, and to a small extent excavated in rock.

Owing to the great extent of Lake Nicaragua (2,800 superficial miles, to be further increased through the Castillo dam), which receives the silt of the watersheds that drain into it, the flow of water in the river is nearly equalized throughout the year, so as effectually to prevent floods or freshets. This is an important consideration in its bearing upon the construction and the maintenance of the interoceanic canal works. The watersheds, too, bordering on the upper San Juan, by reason of the trends of the San Carlos and other rivers, are shown to be of limited extent, and do not seriously affect the rise of the San Juan. The water supply is sufficient for any possible contingency.

A later reconnaissance shows that a shorter and better location of the lower portion of the eastern division can undoubtedly be found.

The middle division comprises the lake navigation, a distance of 56.5 miles, with channels of approach at either end requiring dredging and other work.

The western division, extending from Lake Nicaragua to Brito, is 16.93 miles long, and requires 10 lift locks, 1 tide lock, and a new channel for a part of the Rio Grande.

The deepest cutting is through a mere crest, 730 feet in height, and the excavations are not of extraordinary magnitude on this division.

The Commission has derived much advantage from the reports of Maj. Walter McFarland, Corps of Engineers, United States Army, Gen. Jacob Ammen, and Prof. Henry Mitchell, of the United States Coast Survey; reports based upon reliable information and personal observation in their inspection of the country and of various points on the line as located.

Whatever differences may exist between the reports of Civil Engineer Menocal and those of the gentlemen referred to, it is conceded that the surveys are sufficient to make an approximate estimate of the amount and character of the work necessary to construct the canal.

The questions relating to the enlargement of the works deemed necessary by Major McFarland, the construction of more extensive harbors, the relative cost of labor and material there as compared with the rates in our country, as well as the determination of the best location possible, will doubtless engage the careful attention of those concerned in its construction.

Respecting the magnitude of the harbors, it is to be remarked that on the west coast the port of San Juan del Sur would serve as a convenient port to await entrance to the canal, the actual distance apart being about 5 miles.

The sea is usually so smooth and bad weather so unusual that vessels can anchor off Brito itself, in the open sea, to await the opportunity of entering the canal. Gales of wind are almost, if not wholly, unknown in that region, and squalls are off the land, in no degree endangering the safety of a vessel at anchor off the coast. Nevertheless a heavy ocean swell rolls in, rendering ample breakwaters necessary to secure smooth water at the entrance to the canal.

More difficulties exist on the eastern coast, and a smooth anchorage would be desirable for vessels awaiting transit. But even there the anchorage, although disagreeable without shelter, would be regarded as safe. Here, as on the west coast, it is requisite that the entrance to the canal should have smooth water, which can only be secured by the construction of ample breakwaters.

Respecting the length of locks proposed (400 feet), the canal should be built for the class of vessels best adapted to extended navigation, which class would in general follow the routes of prevailing winds. Extreme length should be discouraged as well for a true economy as for safety of passengers. Vessels of exceptional length can go, as now, through the Straits of Magellan.

No doubt exists as to the entire practicability of constructing an inter-oceanic ship canal via Lake Nicaragua. If the work were conducted with ability and honesty, it could be completed within a moderate period of time and at a cost that would prove commercially profitable by the payment of tolls, moderate when compared with the loss of time, wear and tear, deterioration of cargo, insurance, etc., that belong to voyages via Cape Horn or the Straits of Magellan. The cost of construction of the canal and harbors, with all their necessary adjuncts—locks 400 feet in length and 26 feet depth of water—may be set down as at least \$100,000,000.

They dispose of the Panama route in a short paragraph, which I will read:

THE PANAMA ROUTE.

At the request of the Commission, for reasons previously stated, the honorable Secretary of the Navy caused a careful instrumental survey of this route to be made in the vicinity of the line of the Panama Railroad.

The proposed route is 41.7 miles long; has a summit level of 123.7 feet (surface of canal above the ocean); requires a dam and feeder 10.5 miles long; a retained dam at Obispo station; an aqueduct across the Chagres River; a deep cut at the summit level 4.81 miles long, with a mean depth of 102 feet and greatest depth of 197 feet; the construction of the lift locks necessary to overcome the summit level, and, what is common to all of the routes, the construction of harbors on each coast. The deep cut would probably be subject to landslides, from which the Panama Railroad has suffered seriously, and the canal would be exposed to serious injury from flood. The excavation of the deep cut, involving the handling and transport of millions of cubic yards of materials, is of itself a very great undertaking, especially in such climate as that of the Isthmus.

The cost of the whole work, including that necessary in the harbor of Panama and at Aspinwall, is estimated to exceed by nearly 50 per cent that of the Nicaragua route.

They proposed to construct a canal, the only possible one, with a cut less than 200 feet deep. They said that was difficult on account of the sliding character of the land. Anybody can see that who has seen the soapstone slipping the railroad down and the amount of work they have to do to keep up the railroad. But they did not propose to go down with a cut 300 feet by any means. They did not propose to build a dam down there and raise the water. They propose to go high up on the river, build a dam, run a tunnel through the mountain, and bring the water in that way. That kind of a canal would be possible. But it would have to be at a greater elevation than at Nicaragua, and it would cost a great deal more.

Such a canal would be possible at Panama, but it would not answer the demands of an interoceanic canal. A cut 7 miles long and 300 feet deep, as is now proposed, must be a failure. No power on earth could prevent the slide of land on both sides from closing up the canal unless it was arched all the way. The

kind of rock met with in constructing the Panama Railroad showed how a canal would be affected.

But the greatest obstacle, which I will discuss further on, is to control the Chagres River by means of the proposed Bohio Dam. The surveys and explorations upon which the report of the Commission above quoted was based were made by engineers of the very highest character and with more care and diligence than any other interoceanic survey. There have been no such examinations made since Commodore Ammen's work was done. Other people of more or less reputation and more or less industry have made some surveys, but no complete surveys have been made under Government authority since Grant's Administration.

Mr. MORGAN. The Senator from Nevada means the Lull surveys?

Mr. STEWART. The surveys made by Lull, Menocal, and others whose names appear in the list I have given.

After the Government of the United States had examined all the routes and officially determined that Nicaragua was the best route, a Frenchman by the name of M. Lucien Napoleon Bonaparte Wyse went to Panama and obtained from the Colombian Government a concession to build the Panama Canal. There was no study or investigation of the route previous to the concession. One M. Reclus had spent on the isthmus fourteen days in April, 1878, between the 2d and 16th of that month. These were all the surveys required for the De Lesseps great enterprise, or, more properly speaking, great swindle.

Before organizing or attempting to float a company De Lesseps called what he denominated a congress to meet in Paris to determine the best route. He fixed the number of delegates and stocked the congress in advance. De Lesseps himself made several orations, and among other things he said:

I will not enter into the scientific question. I will only ask the technical commission to tell us precisely what would be the expense of a canal à niveau (sea level); what estimates can be made of that expense, and especially what the cost will be in future (after construction) for canals à niveau (sea level) or for those with locks. Governments can encourage such enterprises; they can not execute them. It is the public, then, on whom we must call; and when you come before them they will ask of you (if it is a canal with locks) what will be the expense in the future.

I will express my opinion. I consider that a canal with locks would retard navigation. From the experience we have had at Suez, a ship must not now be delayed. There are a thousand Philistines there who can load a ship of 400 tons in an hour. It is to be remembered also that it cost a ship of a thousand tons 2,000 francs for every day's delay. I have often been consulted on this subject. I have always replied by dispatch that ships must not be delayed in their passage. They are informed that it will be well for them to wait the rise of the tide when they can not be sure of their being able to steer satisfactorily. (The Panama Canal, Rodrigues.)

Don Manuel M. Peralta asked the following question:

The American scientific commission decided on the Nicaragua route, since it was demonstrated that the Panama route was impossible. Is there no ground for taking its decision into consideration?

M. DE LESSEPS. The Government declared that there was no impossibility for a canal with locks, and that it could not assert that a canal à niveau (sea level) was impossible. The Government, in its fairness, was absorbed in one idea only.

De Lesseps would not consider a canal with locks. He wanted a sea-level canal for his swindling purposes. A man who would advocate a sea-level canal across the Isthmus without ever having visited that part of the world or having a survey made by anyone else ought not to be trusted. He wanted a sea-level canal for the purpose of getting money from the public, as he acknowledges in the speech above quoted.

The appointment of the committee to select a route discloses the scheme of De Lesseps. Persons who had never seen the Isthmus served his purpose better than intelligent engineers who had examined it. He wanted a favorable report for a sea-level canal at Panama and he took means to secure it.

The vast sums which De Lesseps robbed the people of in floating his new scheme show why he wanted a report for a sea-level canal with which to deceive the people. Rodrigues gives us the expenses of the formation of the Panama Company as follows:

As to the "expenses which M. Ferdinand de Lesseps has been forced to incur in order to arrive at the formation of your company," the commissioners reported as follows:

"In the first place there are the expenses for the first issue made in 1879; for the propaganda which preceded the formation of the syndicate of that subscription; the outlay made on account of the different expeditions sent to the Isthmus, and finally the expense with the recent issue of 500,000 shares, including placarding, advertising, postage, the transportation and the centralizing of funds, the expenses with the personnel, as well as all commissions due to the bankers, intermediaries, and promoters, not only in France, but abroad. The total under this head amounts to 10,801,577 francs 50c., which represent 1.8 per cent of the total capital necessary for building the canal.

"To that sum * * * we must add the remuneration stipulated as profit for the members of the international syndicate which was kind enough to make advances of considerable funds necessary for the formation of your company, sums which would have been lost by them had the public failed to respond to their appeal. That remuneration amounts to 11,800,000 francs. * * *

"There is still an agreement made with the American financial group which has charged itself with the task of representing the company's interest in the United States. * * * Such agreement brings us a liability of six annual payments, as follows: 3,100,000 francs soon after the organization of the company; 1,400,000 francs payable one year after; and five payments of 1,500,000 francs at the end of each of the five following years. Such expenses should appear in your annual budgets."

Such was the report of the first finance committee of the Panama Canal Company.

Mr. PLATT of Connecticut. How many in all?

Mr. STEWART. In another place it is summed up here.

Mr. ALDRICH. What is the Senator reading from?

Mr. STEWART. I am reading from Rodrigues's History of the Panama Canal, which is said to be authentic. He copies it from the company's reports. There is no doubt about this being accurate, because it is taken from the public reports:

Such was the report of the first finance committee of the Panama Canal Company. The poor 16,000 women and other shareholders were called upon, not only to pay \$400,000 for the concession—

But also to defray the expenses of the first fiasco of M. de Lesseps and the "propaganda that preceded" it—that is to say, the "international congress," the lecturing tour of M. de Lesseps, the bribing of newspapers, the "technical commission," and travels of M. de Lesseps to the Isthmus and to America, and commissions due to intermediaries of all classes. Then besides that there were commissions due to the "international syndicate"—greedy and useless middlemen. As to the American syndicate, it is one of the most shameful corruption funds ever recorded in the history of financial enterprises.

Imagine this expenditure of \$480,000, so that a few men in New York might represent the company in America and cooperate with it when requested. To that fund is due the success which attended M. de Lesseps' invitation to the then Secretary of the Navy of the United States to accept the presidency of the syndicate, and no respectable bankers should ever have participated in that costly fraud upon the shareholders of the Panama Canal Company, as three firms in New York did. These men are challenged to show that they ever did anything for the company except lend their names, so that here in Europe M. de Lesseps might say that "America was all right." The three houses deserve the hearty reprobation that will be visited some day upon all who have intrigued and plotted to obtain the money from the poor French people. The corruption fund is in New York still; it is doing its work of bribery and of systematic chicanery; and the Americans, who are considered so shrewd, whose press claims to throw light on all the dark corners of finance, have been bearing this insult to their good sense with singular equanimity.

This was written some time ago. It was not written since this matter came up.

Imagine now a company in England formed on the basis of the Panama Canal, paying \$904,000 for preliminary expenses, besides \$480,000 for an American corruption fund, altogether \$1,384,000, not including \$400,000 for the concession! The total amount called on the shares up to this time has been \$5,000,000, and yet out of that sum nearly \$1,800,000, or 30 per cent, was spent at once on, or set aside for, the concession and preliminary expenses!

Mr. PLATT of Connecticut. When was that written?

Mr. STEWART. This book was written in 1885, when the matter was fresh. It was not written for this purpose.

Of course the whole scheme, the pretended international conference, was gotten up to determine which was the best route, when our surveyors and engineers in this country had already determined it and everybody knew which was the best route.

The concession was obtained by Wyse, who was a friend of De Lesseps, and was undoubtedly either his agent or his partner. One million eight hundred thousand pounds, or nearly \$9,000,000, paid for a concession that cost nothing, and preliminary expenses incurred to deceive the people, stamp De Lesseps as a high-class criminal. He certainly can not be styled a petit thief.

Who will contend that De Lesseps was acting in good faith? If he was acting in good faith, why would he not examine the route before he entered upon the enterprise? If he thought he had an honest enterprise, why did he take from the people \$9,000,000 to advertise it and deceive his victims? He made his congress decide in favor of a sea-level canal. For what purpose was this done? He himself stated:

In order to get the money of the people.

The outcome of this miserable business was a miserable failure. The money spent for propaganda and that spent on the canal did no good. Why should it be contended that the miserable swindlers who are convicted of the Panama deal are more worthy of confidence as to which is the best route than the Commission appointed by President Grant, which made its report based upon actual surveys, and which Commission was composed of the ablest and best men in the Navy? The Walker Commission was the most comfortable one that ever visited the Isthmus of Darien. It spent over a month in Paris and fifteen days at Panama. It tells us in its report:

On the 9th of August, 1899, the Commission left New York for Paris, where the New Panama Canal Company opened to its members its records, maps, plans, and profiles, and the results of the surveys made and the data collected by it and the old Panama Canal Company. Mr. Maurice Hutin, the director-general, Mr. L. Choron, the chief engineer, and other officers of the company received the commissioners with great courtesy and were ready at all times to assist them in making a study of this route in all its aspects. A special meeting of the Comité Technique was also called to give the Commissioners such oral explanations as they might desire, some of its members coming from distant parts of Europe for the purpose.

While in Europe the Commission also visited and examined the Kiel Canal in Germany, the North Sea Canal in Holland, and the Manchester Canal and Liverpool docks in England, and returned to New York on the 29th of September.

They were gone fifty days, and they spent about a month in Paris. What did they go there to get? What results? The results of a failure. When we already had surveys that were accurate and were made by disinterested parties, why did the Commission go to Paris to get information from the Panama Company of its failure. They presented no plan. Our commissioners would not accept Panama, although they were there. Let us see how much time they spent at Panama.

As the disturbed conditions in Colombia rendered it inadvisable for the Commission to attempt to meet the President at Bogota, the State Department, at the request of this Commission, communicated with the Colombian authorities through the United States minister there, and asked that a representative of the Government be appointed to meet the commissioners when they reached the country and give them such information and assistance relative to their mission as he conveniently could. In accordance with this request, Mr. J. T. Ford, the consulting engineer of the Republic in technical matters connected with the Panama Canal, was assigned to this duty. He met them in his official capacity on their arrival at Panama, courteously expressed an entire willingness to aid them in their investigations, and accompanied them from day to day upon their visits to different points upon the canal line and elsewhere during their stay upon the Isthmus.

Fifteen days were spent in the department of Panama, during which an investigation of the route from sea to sea was made, as had been done in Nicaragua. The work was greatly facilitated by the local officers of the New Panama Canal Company, who placed two houses in Colon at the service of the commissioners, furnished a special train each day to take them from point to point as the work progressed, permitted them to use their maps and plans, informed them as to the work then going on, accompanied them in their inspection of the line, and exhibited to them the plant and materials purchased by the old canal company for construction purposes, much of which was stored in sheds and warehouses at different points on the Isthmus. During this period the commissioners went over the entire line of the canal from Colon to Panama, and examined the sites for the different auxiliary works. This included a trip to the upper waters of the Chagres, in the Alajuela region, and they returned in boats, so as to have an opportunity of seeing the river.

Now, this is the investigation they made. It was just a junketing tour, and they were entertained at both ends. It has been suggested that that could not possibly influence them. Why did the officials of the company entertain them and treat them if they could not influence them? There was nobody to entertain them on the Nicaragua route, but they were nicely entertained on the Panama route. It may not have had any influence, but why have these entertainments and give them wine to drink and nice things to eat and all that kind of thing if it did not mean anything? I know that is often done. Members of Congress and others get those attentions when their influence is desired.

These entertainments may not have influenced our commissioners. I hope they did not. Something appeared to have unsettled their understanding, for they were first in favor of the Nicaragua and subsequently in favor of the French. If their reasons for the change satisfy them, I do not think the public will enjoy much of that satisfaction. Although they were unable to state with certainty that a canal can be built at Panama on the plan they propose, still they advise the Government of the United States to make an effort to place itself in the position of the New Panama Company. The new company has a contract with the old to build a canal in ten years and give the old company 60 per cent of the proceeds. Instead of building the canal and carrying out its contract with the old company, the new company proposes to sell to the United States for \$40,000,000. It is too absurd for argument to contend that the new company has any power to sell anything unless the United States is willing to be substituted for the new company, build the canal, and give the old company 60 per cent of the proceeds after it is built. No legal quibbling can satisfy plain men that the new company can sell out the old.

But, to make it appear plausible, it is proposed to turn the negotiations over to the President. If he can find any person or corporation who can make title to the United States, he is required to buy out the assets of the De Lesseps swindle and proceed to spend the money of the United States in an effort to construct a canal at Panama. No doubt the President, with unlimited command of money, could buy out the thousands of French victims. He could undoubtedly buy out the knowing ones at his own price if he could satisfy them that they could get no more; but the thousands of ignorant victims, whose hopes have been excited by the glowing promises of the new company, will be harder to deal with, and it would undoubtedly take him years to perfect the title.

But if he will take time enough to satisfy all parties in interest that \$40,000,000, or half that sum, is all the United States will pay, he can get the title at his own price, and it might be possible to commence the doubtful, if not impossible, undertaking of building a canal at Panama within the next six or seven years.

The criticism of the title of the Nicaragua Canal is hardly worth discussing. Both Costa Rica and Nicaragua want the canal, and there is no danger of any failure on their part in making title to the United States sufficient for the purposes of the canal for a moderate subsidy in money.

The Hepburn bill providing for the construction of the canal at Nicaragua has passed the House twice in response to a strong popular demand. The passage of that bill by the Senate would end the matter, and the construction of the canal would be commenced at once. It seems unfortunate, after the United States at great expense has ascertained that the Nicaragua route is the best route, that the work of the commission appointed by Grant and the numerous surveys made during his eight years in the White House should be turned down and held for naught, and that the casual observations of the Frenchmen Wyse and M. Reclus for fourteen days should be treated as a demonstration of

the superiority of the Panama route over all others, for that was the only investigation made by De Lesseps previous to proclaiming to the world the feasibility of a sea-level canal at Panama. Am I harsh in my conclusion that a sea-level canal was not De Lesseps's paramount object, when it is shown by the record of the Panama swindle that he and his coconspirators pocketed the sum of nine millions in launching the enterprise? How much more they took unto themselves while the work was progressing on the canal must be left to the imagination.

But suppose the President succeeds in buying the French title. He will have the Colombian Government to deal with. Does anybody suppose that that Government will not find ways and means to extort money from the United States when it is ascertained that the French title has been bought and the President is compelled to comply with any demands that Colombia may make?

The United States has for the last hundred years felt a lively interest in an isthmian canal, and it has been asserted over and over again that this Government must exercise a controlling influence over any canal, whoever might build it.

Why did not the United States protest effectively against the De Lesseps canal? There were two obvious reasons:

1. From the surveys and explorations made during Grant's Administration it was not believed that it was practical to build a canal at Panama. The possible canal at that point suggested by Grant's commission, if it could be built, would be of doubtful utility.

2. Because the reckless and blind extravagance of the De Lesseps Company, proceeding as it did to spend money without an adequate examination, or without any examination at all, soon disclosed the fact that there was no bona fide intention on the part of the manipulators to construct a canal at Panama.

It is conceded that whatever route is adopted for a lock canal there must be a lake or reservoir to supply the same with water. Nicaragua has a natural water supply. The Walker Commission says, on page 257 of their report:

The investigations made in connection with the regulations of Lake Nicaragua have demonstrated that that lake affords an inexhaustible water supply for the canal by that route.

Speaking of Panama in the same connection and on the same page, I quote as follows from the report:

The initial proposition, on the other hand, for the Panama route is to form Lake Bohio so as to yield a water supply for a traffic of 10,000,000 tons, which can be supplemented when needed by an amount sufficient for more than four times that traffic, by means of the Alajuela reservoir. For all practical purposes this may be considered an unlimited supply for the Panama route. So far as the practical operation of a ship canal is concerned, therefore, the water-supply features on both lines are satisfactory.

The Bohio Dam is not yet constructed, and the testimony before the committee shows that nobody now living knows positively whether it can be constructed or not. It is proposed to sink caissons 130 feet below sea level. When this shall have been accomplished the race of men furnishing the laborers will be largely diminished. If it is possible for a human being to stand the air pressure 130 feet below the sea level at Panama, everybody doubts it, and no member of the Commission was able to find reasons to remove his own doubts.

I do not remember the exact height of the proposed Bohio dam. I ask the Senator from Alabama what is the whole height of that dam? I know how far they have got to go down to put in their caisson.

Mr. MORGAN. It is 190 feet.

Mr. PLATT of Connecticut. From the ground up?

Mr. STEWART. To the bedrock it is about 130 feet.

Mr. MORGAN. One hundred and twenty-seven feet.

Mr. STEWART. It is pretty near 130 feet. I have seen the Chagres River when it was mad, and it is the most terrible stream I ever saw. Right at the Isthmus, in the doldrums there, the rain comes down like a cloudburst, and the river rises with such rapidity that you are compelled to run to get out of the way of it. I climbed up on the crags quite a distance to get away from it. I was afraid it would catch me. It was rising so fast that you could see it rising as the flood came down. When the flood commences you have at once to seek shelter in order to get away from it. I have never seen anything in my life like the rainfall in that country. It is now proposed to build a dam there, where you have to contend with the disadvantages of such a river and such a climate.

Our engineers—Ammen, Humphreys, and Patterson—did not propose to build a dam at the point the Walker Commission now recommend. The Grant Commission proposed to sink a cut less than 200 feet deep instead of 300, as proposed by the Walker Commission, and to carry the canal over the Chagres River instead of damming that river. The Grant Commission proposed to supply the canal with water by going up the Chagres River and constructing lakes or reservoirs and taking the water therefrom through a tunnel—an aqueduct into the proposed canal. Even then the Grant Commission suggested that it would be very

difficult to maintain a cut of the depth proposed by that Commission on account of the sliding character of the material through which the cut must be constructed.

I am aware that it is argued that there has been a great advance in engineering since the Grant commission made their report, but the engineers who testified before the committee admitted that engineering had not yet advanced far enough to furnish examples or parallels of the proposed Bohio dam. I have seen no satisfactory solution of the difficulty suggested by the Grant commission of preventing slides filling the cut, which has to be at least 300 feet deep. There is nothing in the evidence or the report of the Walker commission to show that a cut 300 feet deep in the sliding material on the Panama route can be kept open. Science has not sufficiently advanced to solve that problem, unless it is proposed to make a cut several miles in width. It does not appear that there is anything in the surveys or maps of the bankrupt French company so far in advance of modern discoveries in science as to demonstrate the feasibility of either the cut or the Bohio dam. The Walker commission must have an idea that there is some occult knowledge in the refuse of the Panama failure or they would not suggest the payment of \$2,000,000 for surveys and plans which nobody proposes to follow.

If there was nothing else objectionable in the negotiations of the Walker commission but the proposition to pay \$2,000,000 for the French surveys, a prudent man would hardly employ that commission to negotiate for rat traps, much less to act as agents of the United States in transactions involving millions.

The great lake at Nicaragua, which the committee say contains an inexhaustible supply of water, already exists. It has about 800 square miles of watersheds and 200 square miles of lake surface. All the reports show that the water supply is abundant. There is a lake which is already made; it requires no impossible dam to create it.

There is no engineering proposition connected with the Nicaragua route the like of which has not been heretofore accomplished. Some of the work may be difficult, but all of the work to be done has a parallel elsewhere. Everybody knows that a canal can be built there.

At Panama you would have to make a water supply by the construction of a dam, the possibilities of which are an unknown quantity. It is suggested that a temporary dam must be built while the principal dam is being constructed. No one has demonstrated that there is time enough in the dry season to construct even a temporary dam. When the floods come, whether the design be for a temporary dam or a permanent structure, if it is not completed, it will go with the first flood. It never occurred to the Grant Commission, after years of careful surveys and investigation, to build a dam at Bohio, but they regarded the plan suggested by them as even doubtful by reason of the sliding character of the material through which the cut they proposed must have been constructed. No one contends that there is no possibility of failure of the Walker Commission plan either in keeping open the cut or constructing the Bohio dam. Still Senators insist that the Nicaragua route must be abandoned, where no untried engineering difficulties exist, and the Panama route adopted, where no one can state with certainty that a canal is possible. Certainly what is proposed by the Walker Commission is far beyond engineering experience.

I am unwilling to surrender a certainty for an uncertainty. I do not believe that a canal at Panama will ever be built. I fear the effect of the amendment. I do not charge anyone with such intention, but I very much fear that if the amendment is adopted it will defeat any canal during the present generation, and perhaps for all time.

Mr. PLATT of Connecticut. Why?

Mr. STEWART. Because if you abandon the Nicaragua route and adopt the other, before you proceed very far with the work you will find that it will have to be abandoned, and there will be no canal.

The people have looked for the building of a canal at Nicaragua for many years. After the examinations which were made under the direction of General Grant were published throughout the United States the people settled down to the conviction that the Nicaragua route is the one that should be selected for a canal. That has been understood; and every year in the platforms of both political parties the building of a Nicaraguan canal has been advocated.

The people do not speak of any other canal, and if you should now select this other route it will be regarded by the people as an abandonment of an isthmian canal. They know what the effect will be. They know that Panama is a pest hole and the worst place on earth. They know there is no wind there to blow away the miasmatic poisons engendered there, and they know that Americans can not live there. The people of the West, and particularly of California, who have passed over the Panama route know what a terrible place it is. They know that nobody

can go there and live. On the contrary, at Nicaragua a breeze nearly always prevails, and it is a healthy country. Americans will go there and cities will be built. There is no climate on earth as bad as the particular spot where it is proposed to locate the Panama Canal. This results not only because it is in the Tropics, but because there is no air stirring, and the want of air is death to the navigation of sailing vessels. But that is not the worst of it—it is death to human life. Where you can have a breeze in the tropics there you can have health, but you can not have it without air. It is worse than a dungeon as far as air is concerned. It has been said that Panama is so sickly because so many people have crossed it and it has been used so long. There are many places that have been used a good while that are not sickly. I do not think the use of land or the use of a country makes it sickly.

In the agreements concerning Panama we are to take care of the sanitary conditions. We have not money enough to make Panama healthy. It can not be done. If you would go there in the seasons when the wind does not blow, you would see what a condition the people are in and how they suffer, and you would appreciate the terrors of living in such a place. I do not wonder that France wants to get rid of the Panama Canal. Of course these fellows want to make money out of it; but do you believe if it had been a practical scheme and could be developed under French engineers that the canal would not have been built by France, even after the French people had been robbed of \$10,000,000 in floating the company? Even after all that occurred, if the French engineers had said, "Here is a perfectly practical scheme; we can build this canal and you can get your money back," the French Government would have proceeded with the building of that canal. Do you believe that France, which is a strong nation, would ever have abandoned that work if the French Government had believed it feasible? No; it is only because they got reports from their engineers that it was an impossible thing that the French Government abandoned the enterprise.

Mr. PLATT of Connecticut. Will the Senator permit me?

Mr. STEWART. Yes.

Mr. PLATT of Connecticut. The Senator seems to think \$40,000,000 is a great deal more than the Panama Canal is worth.

Mr. STEWART. I do not think it is worth a cent.

Mr. PLATT of Connecticut. Then, why will the stockholders in France have a right to complain if they are getting this immense price for the work already done there?

Mr. STEWART. Because they will not get any of it. These fellows are going to sell them out. I think, as a principal, I would have the right to complain if my servant sold my horse and took the money himself.

Mr. PLATT of Connecticut. Will not the liquidator protect the stockholders?

Mr. STEWART. No; I do not think the liquidator has agreed to do that. This company is going to get \$40,000,000 for a contract they have to build a canal; and, if they build it, they will have 40 per cent interest, and somebody is going to get swindled. If you could see how crooked that company has been from the beginning, how much swindling has been committed, and read the criminal records and see how many have gone to jail, you would not want the United States subrogated to any rights in that canal. The United States ought not to be subrogated to any of the rascality connected with that canal. The company had ten millions to start with, nearly five hundred thousand of which was spent in this country, and there has been great scandal about the expenditure. Why was it spent here? Why was \$10,000,000 spent for the purpose of a propaganda? I tell you that the thing is too rotten for us to negotiate with, particularly when we are to get something we do not want and get something that has been condemned by our engineers.

No man dare say that Ammen, Patterson, and Humphreys, who reported on the various interoceanic canal routes, were not eminent engineers and that they acted on ample information secured by many careful, practical engineers of the highest character. President Grant was an enthusiastic advocate of an interoceanic canal. Abundant appropriations were made, and the investigation of the various routes occupied nearly all of his eight years in the White House. I watched the progress of these surveys, and, as I passed over the Isthmus frequently, I had some personal knowledge of the conditions and know that the Nicaragua route was selected, not from any personal interest or prejudices, but because it was demonstrated by the surveys and investigations made during General Grant's Presidency that it was the best, if not the only practical route. The report of Grant's Commission established that fact and the American people accepted it as final.

It is not shown that the Walker Commission have made an adequate survey of the Panama route. They have made no report and show no plan which will convince anyone that the cut of 300 feet they propose can be kept open. They show no plan of a dam which they dare say is practicable. Their statements about

the climatic conditions are wide of the mark. Anyone need not visit the Isthmus to know that Panama must always be an unhealthy place when they are informed by all navigators and by the inhabitants of the Isthmus that there is no breeze in the Bay of Panama for months together that will fill a sail. When the sun comes out after one of the rains, or rather cloudbursts, that occur, the steam goes up from the land and the whole Isthmus is a cauldron of poisonous vapor. On the other hand, the reason why Nicaragua is a healthy place is because they have constant breezes from either ocean, which purify the atmosphere and make it a most healthful and delightful place of residence.

After De Lesseps had decided without examination to build a sea-level canal for the purpose of robbing the subscribers, he visited this country to corroborate on his return what he had said while he knew nothing of the subject. No attention was paid to him in this country except what was bought with the \$2,400,000 spent in New York to manipulate public opinion in this country and to prevent opposition. He called on the President and was told that whenever a canal was built across the Isthmus the United States expected to have a controlling interest in it.

If the De Lesseps scheme had been regarded as practicable, it would have required more than \$2,400,000 to have bought the silence of the United States. The attempt to build the canal by extravagant expenditures on an impossible route did not materially interest this Government. How different the attitude of the United States when the question of the Nicaragua Canal was under consideration. Men in the Senate went so far as to intimate a willingness to involve this country in war with England to protect that route. Why were the American people so zealous that they would fight England for the Nicaragua route, while they were indifferent to the proceedings of the French on the Panama route? The reason was that the Grant Commission, who had examined all the routes, pronounced the Nicaragua route the best, and in fact the only practical route. And the same commission had condemned the Panama route.

I met people almost every day on the Pacific coast or in New York who had passed over the Panama Railroad while the De Lesseps company was engaged in wasting the money of the victims of that colossal swindle, and they invariably gave it as their opinion that the French would never build the canal and did not believe that they had any serious intention of doing so.

When the bubble burst and thousands of poor Frenchmen who had lost their money were forced to realize the great swindle, Americans looked on in pity rather than in anger. The French courts of justice considered every extenuating circumstance, but were compelled to condemn and imprison the leading characters in the swindle.

But we are told that the Walker Commission has settled everything. It is no disparagement to the Walker Commission to say that in character, learning, and ability it was not equal to the Grant Commission composed of Humphreys, Patterson, and Ammen. Besides, the Walker Commission got its information in fifteen days on the Isthmus, riding in Pullman cars and dining sumptuously in houses provided by the new company who were offering a canal they did not own for sale for many millions of dollars. Who would put such an examination under such circumstances against the examination of the commission appointed by Grant which was occupied for years in surveys and explorations? Nothing has been offered by the Walker Commission to shake the conclusions of the Grant Commission. But the Walker Commission, with nothing showing the practicability of the Panama route to offer, asks the United States to pay \$2,000,000 for the discarded maps and surveys of the De Lesseps swindle.

I appeal to Senators before they decide that Panama is to the extent of \$40,000,000 the better route to compare the reports of the two commissions and the character of the men. I beg leave to again read the report of the Grant Commission as to which is the better route:

WASHINGTON CITY, February 7, 1876.

THE PRESIDENT OF THE UNITED STATES

The Commission appointed by you to consider the subject of communication by canal between the waters of the Atlantic and Pacific oceans across, over, or near the Isthmus connecting North and South America, have the honor, after a long, careful, and minute study of the several surveys of the various routes across the continent, unanimously to report:

1. That the route known as the "Nicaragua route," beginning on the Atlantic side at or near Greytown, running by canal to the San Juan River; thence following its left bank to the mouth of the San Carlos River, at which point navigation of the San Juan River begins, and by the aid of three short canals of an aggregate length of 3.5 miles reaches Lake Nicaragua; from thence across the lake and through the valleys of the Rio del Medio and the Rio Grande to what is known as the port of Brito, on the Pacific coast, possesses, both for the construction and maintenance of a canal, greater advantages and offers fewer difficulties from engineering, commercial, and economic points of view than any one of the other routes shown to be practicable by surveys sufficient in detail to enable a judgment to be formed of their relative merits, as will be briefly presented in the appended memorandum.

The data for the conclusion of the Commission will be found in the reports of the various surveys and examinations made under the direction and auspices of the Navy Department, copies of which are transmitted herewith.

A statement relating to these surveys and examinations, with a brief ac-

count of the characteristic features of the routes, will be found in the accompanying memorandum prepared by the Commission.

We have the honor to be, with high respect, your obedient servants,
 ANDREW A. HUMPHREYS,
 Brigadier-General, Chief of Engineers, U. S. A., etc.
 C. P. PATTERSON,
 Superintendent United States Coast Survey.
 DANL. AMMEN,
 Commodore and Chief of Bureau of Navigation.

I was familiar with most of the officers making these surveys. In addition to their written reports they frequently described to me the great difficulties and hardships they experienced in getting through the jungles on the various routes. Their task was no easy one. It was the most difficult and arduous labor ever imposed upon officers of the Government, but the task was well performed, on foot, making actual surveys; not in palace cars with luxuriant lodgings, in palaces built with French money, or in social dinings and winings in the gorgeous saloons of Paris.

The people of the United States, whether for good or evil, desire the Nicaragua Canal. They are satisfied with the reports made on that route. They are satisfied with the Nicaragua route, more particularly because no adverse report has ever been made by any engineer of respectability. Even the Walker commission, with all its French surroundings and leanings, tell us that the Nicaragua route is perfectly practicable, and that there is no engineering difficulty the like of which has not been overcome. Their doubts all relate to the construction of a canal on the route that they advise the United States to purchase for \$40,000,000.

I would not grieve over the \$40,000,000 wasted if I did not believe that the turning down of the Nicaragua route will delay, if not permanently prevent, the construction of any canal.

Mr. GALLINGER. I will say to the Senator that if he will examine the platform of the last Republican convention he will notice that its recommendation is for an interoceanic canal.

Mr. STEWART. Yes; but I hope at that time the Republican convention was not anticipating Walker's report.

Mr. GALLINGER. Possibly they were anticipating what is going to happen.

Mr. STEWART. Yes; the Nicaragua Canal bill which has passed the House at two sessions may be sidetracked for the abandoned scheme of the French swindlers. When the people of the United States ask for a canal on a feasible route in a delightful climate and country they may be given the opportunity to buy an impossible route with \$40,000,000 in a climate as destructive to human life as the Black Hole of Calcutta.

Mr. GALLINGER. If the Senator from Wisconsin wishes to go on at the present time, it is rather immaterial to me whether I speak on this bill now or not—

Mr. SPOONER. I yield with pleasure to the Senator.

Mr. GALLINGER. I will speak very briefly, if at all.

Mr. SPOONER. I can speak at another time.

Mr. GALLINGER. Mr. President, for many years I have believed that a canal connecting the waters of the Atlantic and Pacific oceans was a commercial necessity, and I have been equally impressed heretofore with the belief that the Nicaragua route was preferable to any other. That belief was strengthened when the Isthmian Canal Commission, in its preliminary reports, favored Nicaragua, but when the same Commission, after a careful reconsideration and review of the case, including the amended offer of the New Panama Canal Company, expressed a preference for the Panama route, my views were sufficiently changed to lead me to carefully investigate the matter, which I have done, with the result that I am now thoroughly of opinion that the Panama route is the one that ought to be selected.

My impression is, Mr. President, that the people of New Hampshire have reached the same conclusion, at least I infer so from letters received on that subject, three of which I will read, two of them being from accomplished engineers.

The first letter is from Mr. E. R. Brown, president of the Stratford Savings Bank, of Dover, N. H. He is an educated gentleman of large business experience, whose views are entitled to serious consideration.

Mr. Brown says:

STRAFFORD SAVINGS BANK,
 Dover, N. H., January 6, 1902.

DEAR SIR: I sincerely hope that the Senate will give the Panama route for the canal full consideration. I am in favor of this route for the following reasons: It has fewer locks and requires less time in transit, and may be made a sea-level canal. The annual cost of maintenance is much less. It has good harbors. It is not in the earthquake region. These are only a few among many reasons why it should be preferred over the Nicaragua route, but my main reason is that if the Panama route is selected there will never be a second canal cut to trouble us, or at least for many years, while if the Nicaragua route is taken the Panama Canal will be completed before many years by some company or nation.

Very truly, yours,

E. R. BROWN.

HON. JACOB H. GALLINGER,
 United States Senate, Washington, D. C.

The next letter is from an old gentleman in the State of New Hampshire, Mr. Samuel Webber, of Charlestown, who in his

early years was engaged in engineering projects. He is now retired from active service, and notwithstanding he is advanced in years he keeps abreast of the times and has taken great interest in the matter of an interoceanic canal. I give the part of his letter which refers to that project:

CHARLESTOWN, N. H., June 9, 1902.

MY DEAR DR. GALLINGER: I wrote you some two years since to "go slow" on the isthmian canal, and the time is now coming for a move. From an engineer's view of the matter, I decidedly favor Panama. We can see pretty plainly what is to be done there, but we can not see bottom on the Nicaragua project, and I think it would be as likely to cost four hundred millions as not.

The objection to a dam at Bohio, on the Panama route, are not half those to the one at Ochoa, on the Nicaragua plan, judging from the reports you have sent me, and the shorter route and less time in transit dispel the climatic objections which are urged. I am decidedly in favor of Mr. HOAR'S bill, if the financial arrangements with the French and Colombian interests can be made satisfactory and secure. I speak as a hydraulic engineer of some experience.

Yours, very truly,

SAML. WEBBER.

The third letter is from Prof. Robert Fletcher, who is the director of the Thayer School of Civil Engineering at Dartmouth College, a gentleman of remarkable attainments and of a very wide knowledge on matters of civil engineering. He says:

HANOVER, N. H., January 7, 1902.

HON. J. H. GALLINGER,
United States Senator from New Hampshire.

MY DEAR SIR: Allow me to address you on a matter of large public interest, on which you will probably have to take action before long as a member of the Senate. Hoping that this may not appear impertinent, it is proper to give the reason for venturing this expression of opinion.

The question is that of the isthmian canal. It is proper to state that I have been a close student of this question for some fifteen years; that the late president of the Maritime Canal Company, Hon. Hiram Hitchcock, was a friend and fellow-townsmen; that a number of graduates of this institution were engaged for some years on the surveys prosecuted in Nicaragua by that company; that a lamented colleague was a member of one of the engineering commissions which made a review of the plans of the aforesaid company; that I have carefully studied the reports of the various commissions that have investigated the Nicaragua Canal scheme, having received copies of the published atlases and documents from both sides, and that on the basis of this prolonged investigation it appears to me that, as an engineering proposition, the Nicaragua Canal scheme should receive little consideration, in view of the accomplished results and the favorable conditions and possibilities at Panama.

It is easy to see by a careful perusal of the recent report of the last Commission that consideration of the engineering features alone would have compelled a report in favor of Panama; but that political considerations, questions of concessions, etc., rendered it inexpedient to allow questions of construction purely to determine the decision. Now, without assuming to be able to weigh these other considerations, it would appear that ultimately the question must be viewed in the light of common sense, and as to all conditions and contingencies from the engineering standpoint.

In view, then, of all the advantages and assured results gained at Panama, the reliable estimates for the future, based on perfected plans, and the large amount of the world's resources already sunk there, it would appear not much less than a stupendous folly to abandon all that and to begin at a new point on a route nearly four times as long, with higher summit levels, nearly double the amount of lockage, three times the amount of curvature, and a confessedly much greater cost of operation ultimately, with problems of unknown magnitude to be worked out, involving probably unsuspected additions to the cost. After weighing all these facts it would appear to an unprejudiced observer that some way must be found to do away with all political and legal obstacles and objections, and reduce the question to its lowest terms as a strictly engineering proposition.

Permit me to say that this expression, which you may judge obtrusive, is not prompted by any person or any interest whatsoever, but by the simple desire of an impartial student to see the great enterprise of piercing this continental barrier accomplished in the best way and along the line of least resistance.

Yours, very respectfully,

ROBERT FLETCHER,
Director Thayer School of Civil Engineering.

Mr. President, I do not propose to take the time of the Senate in discussing many matters connected with this subject which have already received careful attention by Senators on both sides of the question. Suffice it for me to say that my investigations have fully persuaded me that there is much greater danger from earthquakes and volcanoes on the Nicaragua than on the Panama route. A country that prints a picture of a volcano on its postage stamps must not find fault with us if we conclude that there is danger from seismic disturbances in that latitude.

NICARAGUA MORE EXPENSIVE.

Again, I am persuaded that the Nicaragua route will be much more expensive, including the cost of maintenance, than the Panama. If it be true, as the Commission asserts and as has been alleged over and over again in this debate, that it will cost \$1,350,000 more annually to operate the Nicaragua than the Panama Canal, it follows that the real difference in cost in favor of Panama will be \$72,500,000 instead of \$5,000,000, an item that is certainly worth saving.

GREATER CURVES ON NICARAGUA.

That the curves on the Nicaragua are more numerous and troublesome than on the Panama route is admitted by all, and it is a very serious question whether the navigation of the Nicaragua Canal will be at all possible in the night. My investigations on that point leave me in doubt, which no one has seemed able to clear up. Mr. Morison, admittedly one of the leading engineers of the world, gives it as his opinion that night transit for large ships will not be possible on the Nicaragua line.

THE QUESTION OF TIME.

As to the matter of time, I do not find that the contention of the advocates of the Nicaragua route is sustained, even assuming that transit through both canals is placed on an equality; that is, that no advantage shall be claimed for Panama in the matter of night transit. The total length of the Nicaragua Canal, as shown by the report of the Isthmian Canal Commission, is 183.66 miles, and of the Panama Canal 49.99 miles. On the Nicaragua route ships will float in deep water on Lake Nicaragua for a distance of 41.78 miles, and on the Panama route the same advantage will be had for a distance of 7 miles on Lake Bohio. This will leave 141.88 miles of canal navigation on the Nicaragua line and 41.09 miles on the Panama route.

A careful calculation by experts gives the average time for a ship to pass through the Nicaragua Canal as sixty-four and one-half hours, and for the Panama Canal twenty-one hours, being forty-three and one-half hours in favor of Panama.

The Isthmian Canal Commission gives the distance from the termini of the Panama route to New York and San Francisco, respectively, as 498 nautical miles in excess of that by the Nicaragua route.

A calculation will show that any steamer having a speed of 11½ miles per hour will cover that extra distance in the time gained by passing through the Panama Canal, and it is equally certain that Panama is the shorter route to New York and San Francisco for all steamers having a speed of over 11½ knots.

The distance between the Gulf ports and San Francisco to the termini of the Panama route is fixed by the Canal Commission as 700 miles greater by Panama than by Nicaragua. That means that a steamer will have to make 16.1 knots per hour to overcome the increased distance in the forty-three and one-half hours that Panama gains in the transit of the canal.

It follows that from the North Pacific to New Orleans the Panama route is longer for slow steamers, about the same for medium-speed steamers, and shorter for fast steamers. From the North Pacific to New York the Panama route is about the same for slow steamers; it has the advantage for medium-speed steamers and a decided advantage for fast steamers. From the South Pacific to New Orleans and New York the Panama route seems to have the advantage for all kinds of vessels.

Thus it will be seen, Mr. President, that the bugbear as to the increased time of the Panama route vanishes when the additional time required to pass through the Nicaragua Canal is taken into account.

HEALTH CONDITIONS.

But, Mr. President, I did not intend to go into a general discussion of the subject, and will not do so, preferring to leave that to other Senators. My chief purpose in participating in the debate at all is to endeavor to point out that the allegations made against the Panama route on the point of unhealthfulness are not borne out by the record. I do not mean to say that the country which will be traversed by the proposed Panama Canal is a healthy country, but I do wish to be understood as saying that many of the statements made on that point in this debate are contradicted by testimony of the highest possible character.

As an illustration of the extreme statements made, I will cite one that was repeated by the usually accurate Senator from Kansas, when speaking in behalf of the Nicaragua route, which was that every tie on the Panama Railroad represented a human life. That statement has done service for many years as an argument in behalf of the Nicaragua Canal, but evidently no one has taken the trouble to investigate its correctness.

Why, Mr. President, the absurdity of the statement is found in the fact that if every laborer employed on that railroad had died, the number would have fallen 50 per cent short of the ties that were laid. So we will pass that by as a bit of extravagance that has gained credence because of its frequent repetition.

The Senator from Alabama, in a lengthy speech delivered in this Chamber on the 17th of April last, devoted much time to a consideration of the climatic and health conditions of the Isthmus of Panama. He searched both ancient and modern history for material, and I am bound to confess that he presented quite an array of statements to sustain his contention. The Senator also has placed in the RECORD extracts from a book by Wolfred Nelson, entitled "Five Years at Panama," which extracts deal largely with the unhealthfulness of that country.

The Senator from Alabama quoted Mr. Colné as saying that the sum of \$680,000 was expended for medicine from 1881 to 1890. As the Senator has denounced with eloquence and vigor the robberies and frauds committed by those who expended the money of the old Panama Canal Company, I wonder he did not assume that very likely these figures were greatly in excess of the real expenditure for medicines. Certain it is, Mr. President, that if that amount of money was spent for medicine the unusual mortality can in part be accounted for on other grounds than that of climatic conditions.

The Senator from Alabama also quoted from the testimony of General Abbot as to the large mortality among the Chinese coolies, but I note in the extract taken from General Abbot's testimony that he says:

The excessive death rate was due, doubtless, not only to the climate, but also to the conditions and to the various races that were tried. It was not then known that the heavy work should be done by negroes. I have no idea—

Said General Abbot—

that anything like the mortality then encountered will be repeated on any isthmian line.

Commander Lucien Young's deposition was also used by the Senator from Alabama. Commander Young was very emphatic in his condemnation of the health conditions of the Isthmus of Panama, and to fortify his position he declared that—

So far as yellow fever is concerned, I would rather be in Havana than in Panama.

I wonder that it did not occur to the distinguished Senator from Alabama, when he introduced that testimony into his speech of two months ago, to call attention to the fact that in a few months yellow fever was stamped out in Havana by simple methods well known to the medical profession of the present day, which methods are as applicable to Panama or Colon as to Havana or any other city where yellow fever has heretofore found a habitat.

The simple, plain truth is that the Panama Railroad was built and the construction of the Panama Canal commenced without any adequate means having been provided to safeguard the health of the people. The soil was disturbed and innumerable disease germs were thus set free, precisely as they will be if the Nicaragua Canal shall be built; but it is safe to predict that if either canal is constructed the health authorities of this country will see to it that every known scientific expedient is put in operation to protect the workmen from contracting disease, and that every possible hygienic and sanitary law will be invoked in their behalf, and that means an entirely different condition of things from what prevailed when the Panama Railroad was constructed.

THE OTHER SIDE OF THE STORY.

Now, Mr. President, I propose to give the other side of the story, which has not, as yet, figured in this discussion.

It has been my privilege to intimately know two men who spent many years on the Isthmus, and with whom I have frequently talked about the climatic and health conditions. Those men have frequently assured me that there is no more danger there from epidemic or contagious diseases than in any other tropical climate, and they asserted that there was very little danger, if proper precautions were exercised. Sustaining this view, I chanced to see in the Washington Post a short time ago the following:

"There is nothing in all this talk about the bad climate of Panama," said Mr. F. Mutis Duran, of that city, at the Shoreham last night. "It is true that many deaths from fever occurred when the first canal company was at work in Panama, but the deaths were the result of the carelessness of the men. Frenchmen came to a tropical climate and thought they could live there just as they were accustomed to live in Paris. They stayed out in the night air, and paid no attention to the laws of health. If they had done the same thing in any other tropical country they would have died."

I have lived in Panama sixteen years, and know what I am talking about. All my life has been spent in tropical countries, and I know that the climate of Panama is as good as the climate of Cuba. There are fevers in the Tropics which must be guarded against all the time. If the United States decides to build the Panama Canal, it will be found that a little care will be all that is necessary to protect workmen against the maladies peculiar to the Tropics.

That seems to be good testimony, which I commend to those who have found nothing but disease and death in the climate of Panama.

Indeed, Mr. President, this very day a citizen of New Hampshire who is thoroughly familiar with conditions on the Isthmus assured me that the soil along the line of the Panama Canal has almost entirely been removed, thus minimizing future dangers from disease necessarily engendered by soil disturbance, and the same gentleman assured me that there are 10,000 well-acclimated laborers immediately available for work on the canal—men who are practically immune to the climatic diseases of the Isthmus.

Mr. President, medical men know that there will be sickness and death in the construction of an interoceanic canal no matter which route is adopted, but in my opinion there will be little difference between Panama and Nicaragua. I have in my hand an interesting book entitled "Notes on the Nicaragua Canal," by Henry Isaac Sheldon. It is an able plea for a canal by the Nicaragua route, and every possible argument is presented in behalf of the author's views, yet in an addenda to his book he is forced to modify his statements regarding climatic diseases as follows:

Some objections have been offered to the views contained in the first edition of this volume as to the favorable climatic conditions in Nicaragua which in fairness should now be mentioned. In discussing the subject with me, men of experience, conversant with the effects of excavation in Alabama and other Southern States, when extensive local construction was in progress, have insisted that it will be impossible to conduct canal construction in Central America without encountering a great deal of malarial fever. I give also the comments of Sir Leader Williams, made in London in July, 1897:

"Your views about the health of the men when working in Nicaragua are too cheerful. Wherever earth has been made by decaying vegetation, and you turn that earth up to the sunlight, fever germs will escape, and you will

have malaria. These germs hold their life indefinitely, like the grains of wheat for centuries in the hands of the mummy in Egypt. I had fever among the men when digging the Manchester Canal, and that was in the heart of England. Your engineers and your contractors must expect sickness in the construction camps in Nicaragua, and suitable allowance for it should be made in all the estimates and contracts."

Mr. President, the Senator from Alabama introduced some extracts from the testimony of Gen. Henry L. Abbot, which I beg to supplement with other statements made by that same distinguished gentleman. In his testimony before the Senate Committee on Interoceanic Canals, March 4, 1902, General Abbot said:

There are two other subjects which I think are worthy of the attention of the committee—the health question and the river Chagres.

Nobody claims that the climate of Panama or of any tropical region is conducive to health for natives of more northern climes, but the dangers and difficulties at Panama have been enormously exaggerated, and I thought it might be interesting for the committee to have some absolute statistics on which they could depend. When I was at the Isthmus I visited Dr. Lacroisade, who is the medical director of the new canal company hospital at Panama, an admirable hospital built on a high hill back of the city, with fine buildings, and with the Sisters of St. Vincent de Paul as nurses.

We saw Dr. Lacroisade and we got from him, in tabular form, a statement covering the whole subject, so far as the canal records go. These statistics are printed in France, but probably they are not known in this country, and I brought them and should like to make them a part of my testimony.

These statistics begin in 1881, when the old company began the work, and extend from that time down to June 30, 1898, when Dr. Lacroisade made the report for us. Since that date I have taken the figures from the annual reports of the board of directors to the general meeting of the company, so that everything I offer is strictly official.

I ask unanimous consent to place the table in the RECORD without reading. It is a very interesting table and I trust Senators will examine it.

The PRESIDENT pro tempore. The Chair hears no objection, and the table will be printed in the RECORD.

The table is as follows:

Official health statistics of the Panama Canal.

Year.	Effective force employed.	Percentage of disease.			Percentage of mortality.		
		Diseases of Europe.	Diseases due to climate.	Total.	Diseases of Europe.	Diseases due to climate.	Total.
1881	928	21.02	42.02	63.04	1.94	4.74	6.68
1882	1,910	18.85	47.64	66.49	2.21	4.39	6.60
1883	6,287	23.24	42.62	65.86	2.20	4.46	6.66
1884	17,615	27.58	36.95	64.57	2.58	4.08	6.66
1885	15,215	11.93	49.14	61.07	1.73	3.79	5.52
1886	14,935	14.01	42.88	57.89	1.67	3.43	5.10
1887	16,217	21.82	39.25	61.07	2.22	3.99	6.21
1888	13,725	12.17	40.46	52.63	1.81	2.54	4.35
Means	10,854	18.83	42.75	61.58	2.05	3.92	5.97
1889	1,826						
1892	* 800						
Means	971			49.68			2.88
1895	1,225			49.95	2.05	.89	2.94
1896	2,715			39.91	2.08	.84	2.92
1897	3,980			51.85	1.99	1.00	2.99
First half 1898	3,630			48.70	1.98	.82	2.80
1898-99 ^a							
1899-1900	2,200				2.68	.09	2.77
1900-1901	2,000				2.20	.30	2.50
Mean	2,792			47.60	2.16	.66	2.82

* About.

^b This year continues to show reduced disease and death rates, both climatic and total."

Mr. GALLINGER. General Abbot continues:

Dr. Lacroisade's conclusions, after a residence of many years on the Isthmus, are the following:

"The Central American negroes, and especially those of the West Indies, resist its effects best, owing to their better endurance of the direct rays of the sun, to their relative immunity from malarial influences, and to their absolute immunity from the yellow fever. Hindoos, Chinese, and native Africans suffer more and, engaged in hard work, yield readily to beriberi, of which they have brought the germs. Europeans can resist the climate on condition of abstaining from severe manual labor."

"Of 254 officers and agents sent by the old company between January 1, 1881, and August 31, 1883, and thus exposed to the early conditions, 40 died, indicating a percentage per annum of 7.20. Of the 89 agents sent by the new company in the first three and a half years only 3 died." He attributes the undoubted improvement of health on the Isthmus to better accommodations of the laborers, to better drainage, and especially to the fact that the excavations have reached a level below the poisonous emanations of decaying organic matter. The period of serious sickness always to be expected at the beginning of extensive excavations in tropical regions has already been passed at Panama.

The logical deduction from these facts and figures is that the excessive mortality due to disturbing virgin soil in the Tropics remains to be encountered in Nicaragua, but has been gone through with at Panama, and we may now assume that a normal state of health will prevail there if proper sanitary regulations are enforced. The following figures from a recent official report of Major Gorgas, M. D., upon the health of Havana sustains this view. The average death rate for eleven years was 48 per thousand; the maximum was, in 1897, 103 in a thousand. The minimum was in 1900, when 21 per thousand died. During 1901, 19.56 per thousand died, which the Doctor says "compares very favorably with leading civilized countries."

I wish to add that it does compare very favorably with leading civilized countries. I find that in the District of Columbia for the ten years from 1892 to 1901, inclusive, the death rate was

21.83. The highest was 24.74 and the lowest 19.48. Yet in Havana, where in 1897 there was a death rate of 106 in a thousand, after modern methods were employed to get rid of conditions that give rise to infectious and malarial diseases, the percentage ran down to 19.58, or equal to the lowest death rate in the District of Columbia for the past ten years.

The Senator from Ohio [Mr. HANNA] interrogated General Abbot as follows:

Right there, General, I understand that your judgment is confirmed by these figures and these data, that in the construction of the Nicaragua Canal you would have to go through pretty much the same conditions, in the turning up of the soil, until you reach a depth below which malarial diseases will be induced.

General ABBOT. I have very little doubt of it. The Commission state the same belief in their report; and I think that anyone who is familiar with work in tropical regions knows that as soon as the surface soil is disturbed extensively diseases which did not exist before are likely to be developed. I remember very well in the early days when Illinois was considered a terrible region for chills and fevers.

Senator HANNA. It was, too.
General ABBOT. But that has passed away with the settlement and occupation of the country. I will now give the best information I have been able to obtain on the subject of diseases and death in recent times on the railroad. I will read an extract from a letter from the second vice-president of the Panama Railroad, Mr. Drake: *

"I write concerning the mortality in recent years among the employees of the Panama Railroad, to say that upon careful investigation we find that we have a monthly average of 266 men upon our gold pay roll, mostly foreign, about equally divided as to color, and that among the white employees from the United States, resident on the Isthmus during the last five years, there have been 12 deaths from various causes; none, however, from yellow fever, and 1 by suicide."

That gives nine per thousand. Mr. Drake further writes:
"We have an every monthly silver pay roll of 1,450 men, mostly colored, in constant service, which, as the time is divided into half days, is drawn from a force of fully 2,500 men. During the same period of five years there has been no serious epidemic in this force, or abnormal mortality. From among this force there are always patients in the company's hospital on account of disease or accident numbering from 5 to 20, but there are no records in this office as to the exact number of deaths."

It is interesting to note that in November, 1898, almost four years prior to the date of this testimony, General Abbot contributed an article to the Forum, from which I will read a paragraph or two:

The health of the personnel formerly caused trouble, coolies and other races not well suited to hard labor under a tropical sun being employed. With negroes from the British Antilles little difficulty is now experienced. This matter was carefully investigated during the inspection last spring. American engineers and employees on the canal and the Panama Railroad being questioned, the fine hospital near Panama, where the company provides for its sick, being visited, and the views of the medical officers and of the Sisters of Charity, acting as nurses, being obtained. All agreed that the dangers resulting from the climate have been much exaggerated. The surgeon in charge of the hospital, Dr. Lacroisade, who has resided on the Isthmus since 1887, after presenting full statistics covering the sick reports for the past year of a force of about 3,800 agents and laborers under employment, said:

"Among the diseases attributable to the climate the most numerous are simple marsh fevers, which have not occasioned a single death. Two diseases only belonging to the epidemic type have appeared—the beriberi, of which there is no longer any question (it was imported with negro laborers brought from Africa as an experiment and disappeared when they were sent back), and yellow fever. The latter, after having been absent from the Isthmus for at least six years, was imported in 1897 and continued about six months, from March to August, when it again disappeared after very light ravages (only six deaths)."

"Thus it can not be considered that this pest is really epidemic on the Isthmus. From the other infectious epidemics, such as variola, typhoid fever, diphtheria, etc., the Isthmus appears to be almost entirely exempt. From the foregoing we may conclude that life on the Isthmus scarcely incurs more dangers than elsewhere, even for Europeans who, after the blacks of the British Antilles, appear to resist the climate best. Residence here would, then, offer nothing alarming were it not for a constant feeling of fatigue and uneasiness due to a temperature always high and an atmosphere saturated with moisture."

There appears, therefore, to be no danger—

Says General Abbot—

of serious mortality in the construction of the canal, if due care be taken to benefit by past experience in selecting the laborers.

I find in the report of the minority certain conclusions reached by them from the testimony taken before the committee, a paragraph or two of which I will read:

As to the comparative healthfulness of the regions traversed by the two routes, we consider the advantages in favor of the Panama. The distance is short, being traversed daily by the railroad within a space of three or four hours; the country is open and occupied by man, and the worst conditions of construction are now over. The enormous loss of life on the Panama line occurred at a time twenty years ago, in the first days of canal construction, but continuous work and the natural operations of nature have made the conditions quite free from former perils and now reasonably safe under proper hygienic conditions. The hospital service of the Panama Canal was extravagantly complete, but furnishes unparalleled conveniences and service of this character. The United States, however, will now get the benefit of this lavish but humane use of money.

The mortality records of the company are kept with the accuracy of a government service, and in the official statement submitted by General Abbot it is conclusively shown that the conditions of health upon the Isthmus are now reasonably safe and not at all unusual or disturbing. At Nicaragua, on the contrary, in a country never traversed by man except for brief survey, the disturbance of the virgin soil is likely to be followed by mortality such as that which prevailed upon the Isthmus of Panama upon the opening of the canal works there, now happily past at the latter place.

From the testimony given before the committee I will read a few paragraphs:

Senator HANNA. Some consideration has been given to the health of the respective localities. It is claimed, and I presume it is true, that during the time of the construction of the Panama route there has been a great deal of

sickness from fever and from other causes along the route of the Panama Canal. Has that been entirely owing to the fact that it is a more unhealthy part of the Isthmus than any other?

Admiral WALKER. I don't know that it is. The Isthmus was very unhealthy in the early days. There was a great loss of life in building the railroad, and when they first went to work on the canal there was a good deal of sickness; but the surface material, from which the sickness is supposed to come, has been largely removed, and of late years it has been as healthy there as anywhere in a tropical country.

Senator HANNA. Is it not likely that in the construction of the Nicaragua Canal, working a large force, turning up the surface of the soil, and in dredging, that malarial conditions conducive to fevers would arise?

Admiral WALKER. Certainly. As it stands to-day Nicaragua is a healthier route, because there is no work of that kind being done and very few people to get sick, but when you get to turning up the ground there will be sickness there, as there would be anywhere.

Mr. NOBLE. As far as present conditions are concerned—that is, present sanitary conditions—I think the advantage is altogether in favor of Nicaragua. Now, when work is undertaken on either route the conditions will be less favorable, owing to the stirring up of the mud in the swamps and the soil; stirring up the soil anywhere will increase the sickness beyond a doubt.

Senator HANNA. On the Nicaragua route?
Mr. NOBLE. On the Nicaragua route or anywhere else. I wish to state that when extensive work was undertaken on the Croton watershed for the water supply of New York some years ago—a peculiarly healthful situation, one would think—there was a great deal of malaria, although it had not been known before.

I should think that as the unfavorable conditions developed the aggravation would be greater, perhaps, in Nicaragua than in Panama, and what the total result would be under the new conditions I am not by any means certain, though I think the advantage would still be with Nicaragua.

Mr. MORISON. I think the diseases at Panama are very largely due to artificial conditions. The Isthmus of Panama has always been an unhealthy place. It has been inhabited for four hundred years, and I think you may say that there is not a water pipe or a sewer on the whole Isthmus. The city of Panama has never had so bad a reputation for sickness as Santiago de Cuba, and we know what has been done at Santiago de Cuba. I think that we know now how to handle sanitary conditions at Panama. * * * The first thing to do on the Isthmus is to get a supply of good water. There is plenty of good water on the Isthmus, but the people do not have it; and the next thing is to dispose of their sewage. With those two conditions met, three-fourths of the sickness on the Isthmus will disappear.

Colonel HAINS. In regard to sanitary conditions, I think the advantages are decidedly with Nicaragua. The men that we had employed in Nicaragua, some of whom were there for a couple of years, were sick very little. There was very little sickness among them. I do not think the health of the men in Nicaragua was as poor as you would find it in many places in the United States.

Senator HANNA. How would it be when you commenced your digging and stirring up the primitive soil and the decayed vegetation.

Colonel HAINS. Well, there is generally an impression that it will create different conditions. I am inclined to think that the conditions even then will be in favor of Nicaragua, because on the east side, where the most troublesome work and the great mass of the work is, the rains are so heavy. While these rains are detrimental to construction, I think they are beneficial so far as hygienic considerations are concerned, and I think so far as the considerations of sanitary conditions are concerned the advantages are with Nicaragua.

The CHAIRMAN. Well, Panama, according to testimony here, is a very much more unwholesome climate than Nicaragua?

Mr. BURE. I do not think so, Mr. Chairman?

The CHAIRMAN. Well, taking the facts as they exist—not conjectures, but the facts as they exist, the data we have—did you come to the conclusion that Nicaragua was more unhealthy than Panama?

Mr. BURE. No; not more. I do not think there is any difference between them that is sensible. There is at Panama a great deal of sickness at the present time, many deaths, and there have been in the past; but it is a line of continuous population from one ocean to the other and with one or two great centers of population. It is situated upon converging currents of travel along which many people from infected places are constantly passing.

There is absolutely nothing done there that makes for public health, and you have the natural results of the constant presence of yellow fever and other tropical fevers and ailments belonging to such conditions, whereas on the Nicaragua route there is nobody there to be sick. The Nicaragua route from Greytown to Brito is practically an uninhabited country. There is a small population at Greytown, and steamships call there occasionally, and there is a little business, but it is practically shut off from the outside world.

The little place of Castillo, approximately halfway from Greytown to the lake, has a few people, constituting an isolated population. Fort San Carlos has a small population. I suppose that perhaps 500 people at each one of those places would probably cover all the inhabitants. Outside of that there is nothing in the way of population on the whole route from the Caribbean Sea to the Pacific; but there have been dreadful epidemics of yellow fever in Nicaragua in times past, as at Leon. From the accounts given of it there can be little or no doubt that it was yellow fever, and they have at Managua at the present time fevers which I was assured by Dr. Donaldson, the United States consul, are yellow fever, or something just as bad. * * *

I believe that if a large force of laborers were put upon the Nicaragua Canal for its construction, and there were brought into that country the seeds of disease that have been brought into Panama, there would be practically the same conditions to deal with at one place as in the other. It is equally malarial, naturally. The death rate of Nicaragua, so far as anybody can know anything about it, at Managua and other Nicaraguan towns, is appallingly high. In fact, Dr. Donaldson himself had to move out of the house in Managua, where he was living with his family, up into the suburbs on higher ground in order to save himself from illness.

Colonel ERNST. The healthfulness of the Nicaragua line is better than that of the Panama line, but I am not at all satisfied that we can not very much improve the state of affairs on the Panama line with our modern appliances and with the lessons that we have been taught, the necessity of it, and I would not venture to go into the Nicaragua line without taking equal precautions. I think it is absolutely necessary to have a rigid sanitary system there, with a police system to enforce the rules, and to introduce a copious water supply and take all the sanitary precautions that are necessary in those unhealthy countries. They are both unhealthy; there is no doubt about that.

I find likewise in the testimony given before the committee that Mr. Edward A. Drake and Mr. Charles Paine gave some interesting facts. They have been in charge of construction work on the Isthmus for many years. Mr. Drake said:

We have a gold pay roll and a silver pay roll. The gold pay roll represents the employees who are selected here and sent down there, who reside there,

with their families, in the company's quarters. And I should like to say, and I should like to have it recorded, that, although much is said of the nonsalubrity of the Isthmus, during the last five years we have had among that colony of our employees, among those whom we sent there, but twelve deaths.

The CHAIRMAN. Twelve deaths among your employees?
Mr. DRAKE. Among our employees sent from the United States. We have a total of gold pay-roll employees sent from here and on the Isthmus of 338.

I will pause, Mr. President, to say that a death rate of 12 out of a total of 338 in the period of five years is a remarkably small death rate for any city in the United States.

Mr. MORGAN. That was only on the gold pay roll, though.
Mr. GALLINGER. Yes; but it is a remarkably low death rate for any class of people anywhere. Mr. Drake, who was a responsible man, testifies that it is a fact.

Mr. PAINE. Those are on the gold pay roll?
The CHAIRMAN. And how about the silver pay roll?
Mr. DRAKE. The silver pay roll represents the natives. There are 338 on the gold pay roll, and among them we have had 12 deaths in the last five years, and only part of these due to climatic causes.

The CHAIRMAN. How about the silver pay roll?
Mr. DRAKE. The silver pay roll is made up of natives. There are 1,387 of them. It is made up of Jamaicans and of people who live in the Tropics, and very naturally are exempt from diseases due to the climate.

The CHAIRMAN. What is the proportion of death among them?
Mr. DRAKE. We have not that record. That is not furnished to us.
Mr. PAINE. There have been no epidemics since I have been there.
Mr. DRAKE. I have been connected with the railroad for fourteen years, and during that time we have had no epidemics.

The CHAIRMAN. You have kept no record of deaths on the silver pay roll?
Mr. DRAKE. The silver roll are natives. It would be keeping the statistics of the towns there. It is easy to obtain, but they live there. We employ them and discharge them, and there is a constant coming and going.

I find further along in the testimony that the chairman asked Mr. Paine:

Have you any statement of the health of your employees, the railroad employees, including the hirelings, the day laborers?

Mr. PAINE. We have no health reports with regard to any of our silver employees; that is, the men who are paid in silver, the natives and Jamaicans that we have there, except such as are in our hospital. We have a report every week showing the condition of the hospital, and generally we have from three to six or seven black men in the lower ward.

The CHAIRMAN. They are the silver men?
Mr. PAINE. They are the black men.

The CHAIRMAN. The silver men are on your silver roll?
Mr. PAINE. Yes.

The CHAIRMAN. They are the day laborers?
Mr. PAINE. Yes; that is, a force of—well, last month we had—
Mr. DRAKE. One thousand three hundred and seventy-eight.

Mr. PAINE. Those are the days' work—1,378 men continuously for a month. That would mean one-half more men who are really employed; that is, they only work about half time, less than half time, I should say, that the Jamaicans average. We have a force of 300 men paid in gold, and very often there are none of them in the hospital, and sometimes there are as many as five at once. I do not remember any instance where there were more.

Again, Senator KITTREDGE asked Mr. Paine:

What about the general sanitary condition all along the Panama Railway?
Mr. PAINE. There has never been any epidemic since I have been connected with the company; no epidemic of any kind. They have had yellow fever in Panama among the troops, but I do not know of a single instance of yellow fever among our men, among our employees, or among those of the canal company, except one, and that was a doubtful case. He was our agent at La Boca and Panama—Captain Beers. He had had yellow fever before, and he said that he did not have it at this time, but his physician pronounced it yellow fever, seemingly because it was convenient. That is the only case I have ever known among our employees.

The engineer in chief of the Panama Canal Company condensed much truth in a few words when he said in a recent publication:

The passage through the Nicaragua Canal, which will last a day and a half if navigation is possible during the night (a thing which many competent men consider impossible), and which will last three days if navigation is really impossible at night, will bring passengers and crew into contact with the land, and this will facilitate the communication between ships and shore of different diseases, such as smallpox, cholera, yellow fever, etc. The sanitary regulations, quarantine, etc., will cause other risks of detention that ships would not have in a short canal like that of Panama, which can be traversed between sunrise and sunset.

Mr. President, nothing has come to my attention which so completely demolishes the statements of those who have been trying to make it appear that Panama is a pest hole and Nicaragua a salubrious climate as an article in the Medical News of January 4, 1902, from the pen of George A. Soper, Ph. D., of New York City. Dr. Soper is known among scientists as a man of remarkable attainments, and his views on questions of sanitary science carry great weight. Dr. Soper's article is somewhat long, but its great importance will be a sufficient excuse for placing it entire in the RECORD.

Mr. MORGAN. Has the Senator seen the reply of Dr. Stubbart, who was the surgeon of the Maritime Canal Company, to that article?

Mr. GALLINGER. I will say that I have not.
Mr. MORGAN. It is a very powerful refutation of it.

Mr. GALLINGER. I wish it might have been furnished to me. I know Dr. Soper very well by reputation. He stands very high among the scientists of the country. He has a reputation to sustain, and he has given the country the benefit of this article which has had very great weight on my mind on the question of the relative healthfulness of Panama and Nicaragua. Dr. Soper does not make extravagant claims for Panama, but he seems to have given due weight to every available fact connected

with the subject, and his conclusions are a complete refutation of many assertions made in this debate.

I will not read the entire article, but will ask permission to put it in the RECORD. I hope Senators will read it. It will be seen from it that Dr. Soper finds very little difference in the relative healthfulness of the two proposed routes, the advantage, however, being with Panama.

SANITARY ASPECTS OF THE PANAMA AND NICARAGUA CANALS.

[By George A. Soper, Ph. D., of New York.]

The Isthmian Canal Commission, appointed June 19, 1899, to investigate the practicability and feasibility of various projects for constructing a ship canal across the Central American isthmus, have submitted their report to the Congress of the United States. While the matter stands before the representatives of the people and a final choice between routes is still open, it is of interest to inquire from a disinterested standpoint into the conditions which make for and against health in the countries and along the routes which are under consideration.

Upon the question of liability to, or immunity from, disabling diseases rests the problem of labor, and all persons are agreed that the greatest difficulty to be encountered in the construction of the canal will be the procurement of an adequate supply of laborers and the preservation of their health and efficiency. In view of this fact, it is rather curious that the exhaustive report of the Isthmian Canal Commission should not have discussed the question of health more thoroughly. In their report of 263 pages less than a page and a half is devoted to hygiene, and in the 40 appendices which accompany the report there is no discussion of the subject presented.

Not only is the question of health a factor to be considered in the construction of the canal, but when the canal is completed the rôle of this great waterway in promoting or endangering public health will be a subject of immense commercial importance.

General description of the American Isthmus.—The Central American Isthmus in the most extensive meaning is about 1,400 miles long, and extends from the seventy-seventh to the ninety-fifth meridian of longitude and from the eighth to the eighteenth parallel of latitude. The ninth degree of latitude nearly bisects the route of the proposed Panama Canal, while the eleventh parallel cuts that of Nicaragua.

The general direction of the Isthmus is from southeast to northwest, the first 600 miles to the eastward being comparatively small in width. It varies from a minimum of barely 30 miles to a maximum of 120 miles. The land is of volcanic origin and consists of mountain ranges which unite the Andes on the south with the great chain of mountains which extend along the western border of the United States. Below the mountains are many plateaus, plains, and small stretches of land, some of which are but slightly elevated above the level of the sea. The most available routes for a canal across the Isthmus are considered to be the Nicaragua and Panama lines, which would have a length of 183.66 miles and 49.09 miles, respectively.

Most observers writing on the health conditions natural to the low lands of the Isthmus describe the region as unhealthy to the natives and peculiarly fatal to Europeans. Since the period of the Spanish conquest many attempts have been made to colonize Central America, but the foreigners of Spanish extraction are the only ones who have been able to withstand the climate with even a tolerable degree of success. The natives are described as inferior in the social scale, of a wan, sallow tint, with softness and puffiness of the tissues, poverty of the blood, extra large development of the stomach, and with a tendency toward congestion of the liver and spleen.

This is accompanied by a state of languor, dullness of the intelligence and of the entire nervous system. Near the sea and along the lines of the proposed Panama and Nicaragua canals much of the land is low and comparatively flat, with sluggish water courses and all the characteristics of a tropical vegetation. Putrid emanations from decomposing organic matters prevail everywhere, and their deleterious effects, considered not as agencies of specific diseases, but more particularly as unwholesome gases, are evident.

The physiological effects often observed in the Tropics prevail on the Isthmus. The large amount of moisture which prevails in the air lessens evaporation from the skin and lungs, and this condition, with the continuous heat, shows its effect in loss of appetite, depression of spirits, and in disorders of the kidneys, stomach, and intestines. In new arrivals the body heat may reach an excess of 1° F. above normal, and frequently exceeds the temperature of the outside air. As a rule, however, the atmosphere is much warmer. This causes the metabolic processes, which in northern climates turn a part of the food materials into heat, to be reversed, and the vital functions are then called upon to neutralize the excess of heat received in order to maintain the body at a normal temperature.

This throws additional work upon the excretory organs, which, under other conditions, would be concerned in throwing off only a portion of the products of the food absorbed. The excess of work and alteration of functions described are important predisposing causes of disease as are the following physiological effects of hot, moist climates: A reduction of the pulse rate, decrease in respiratory action, diminution in the number of red blood corpuscles, increase in perspiration, reduction in saliva, gastric and pancreatic juices and bile.

Health conditions along the Panama route.—At Panama the seasons are divided into two tolerably well-defined periods—the dry or winter and the wet or summer seasons. By this accidental concurrence of the seasons of maximum moisture and maximum heat, the humidity and effluvia from marshes and swamps reaches its greatest possible amount.

For 55 per cent of the time the winds blow from the northeast and northwest, and 35 per cent of the time from the southeast and southwest. The dry season includes the months of January, February, March, and April, the rainy season occupying the remaining eight months of the year. During the dry season the average temperature at Colon for six years, 1882-1887, was 79.5° F., with a monthly maximum of 90.9°, which occurred in January, and a monthly minimum of 68.4°, which was recorded for the same month. During the rainy season the maximum average temperature for any month occurred in October, with a record of 91.9° F. The minimum of temperature for any month of the year was 66.9° F., for August.

The hourly variation in temperature is greatest during the dry season, when the change is, on an average, 7° F. between 4 p. m. and 7 a. m. each day. In the rainy season this difference is 5° F.

The humidity at Colon in 1881 was, on an average, 86 per cent during the rainy season and 77 per cent during the rest of the year. Only limited data are available concerning humidity, but the probability is that it is very high at most points on the Isthmus. As the climate of this insular country depends partly upon the influence of the sea, the temperature of the water of the Atlantic Ocean and that of the Pacific is interesting. On the line of the Panama Canal the temperature of the Atlantic is generally 9° F. higher than the Pacific in February, with a difference of 1° F. in September. At Colon the mean temperature of the ocean is nearly that of the air, 79.9° F.

The barometric pressure is very uniform, especially in the dry season, from which it appears that severe storms are uncommon; yet northern storms occasionally and severe hurricanes have been known on the Atlantic coast.

As a result of fifteen years' records at Colon, the annual precipitation in inches which was measured reached a maximum of 154.89, with a minimum of 116.86 and a mean of 130.20. Rainfall records for four years at Panama show a maximum of 84.73 inches, a minimum of 45.59 inches, and an average of 63.77 inches per year. At Culebra the records for three years showed the rainfall per year varied from 64.25 to 88.97 inches.

As to the forms of disease most commonly met with, Griswold says that four-fifths of all sickness at Panama are due to fevers. Severe bilious fevers, congestive fevers, and Chagres fever are not uncommon. According to Buel, the most sickly period is September, October, and November, during which time dysentery is very common, as is also a high degree of bilious fever which, in malignity and fatality, falls little short of yellow fever. Foreigners seldom, if ever, acquire the same immunity from local diseases as that enjoyed by the natives; they are frequently attacked by febrile disorders, and in the interim suffer from the depressing and debilitating effects of the climate. In March, April, and May fevers are at their minimum. Dysentery is common at the end of the rainy season and at the beginning of the dry season. Phthisis is prevalent among the natives, especially along the coasts. According to Wallis, "smallpox, yellow fever, and paludal fevers in their infinite varieties and forms are never absent in these intertropical regions, where they are truly endemic." Nelson, after an experience of five years at Panama, gives his approval of the statement long made with reference to the Isthmus, that it is the "Grave of the European." It has also been called the "Pest-house of the Tropics," and Bigelow says that here truly "life dies and death lives."

In the contracts let by the old Panama Canal Company the latter was compelled to supply the labor. The total population of Panama was estimated at not above 150,000, and as many thousand workmen were required for the work upon the canal, it was necessary to import labor from abroad. In the effort to supply the demand, many laborers were brought from the island of Jamaica, but of these many soon fell sick and died, and a large number of the remainder left the work to escape a similar fate. Other workmen came from Cartagena, the British Antilles, and the Lower Mississippi Valley. Of all the labor employed, the most hardy workers, as regards ability to endure hardship and resist disease, were a tribe of Indians from the Magdalena River.

The sickness and loss of life among the men engaged at work upon the canal has been variously stated. Davidson declares that of a force of 7,000 men, the company reckoned that about 1,000 men were always in hospital. From other sources we learn that the sickness and death rate among the laborers were very high. In Panama and its vicinity 37 engineers out of less than 100 are said to have died during the months of March and April, 1882. An observer declares "there was not a single French engineer who had been able to attend to the work beyond one year and a half, although the contract called for two." In September, 1884, it is said the canal company buried 654 officers and men. There were many sanitary abuses when the canal work was first begun, and the method of charging the contractors for the care of the men in hospital no doubt caused the laborers to be kept at work when they should have been under medical care.

The health conditions, as officially reported by French authorities, do not show the high mortalities from diseases incident to the climate which have been indicated by travelers and other independent observers. But Heffenger declares that it was impossible for him to gain access to the health records of the Panama Canal Company and that the impression gained by him after investigating the matter privately was that the public reports were garbled and incorrect. Dr. Heffenger states that he was informed by a leading physician of Panama that in the first eleven months during which preliminary work on the canal was under way, 65 officers and 800 men died of disease.

It is recorded by Liddell that of 382 patients treated by him between the middle of June and the succeeding May, 250, or more than two-thirds, were suffering from remittent fever with bilious, gastric, or enteric complications. Referring to the importation of labor for the Panama Railroad, Liddell says that the services of laboring men from the United States could not be counted on for three successive months. Before the end of the second month one-half the force was on the sick list or enfeebled by sickness already sustained.

In this connection it is interesting to note that the Panama Railroad Company, which has had fifty years' experience, along the line of the Panama Canal grants to its white employees from the United States two months' vacation every year.

The route of the Panama Canal follows low-lying valleys from the Atlantic terminus to a point within a few miles of the Pacific. Here, at what is known as the Culebra ridge, there is a section of several miles of mountain through which a deep excavation must be cut. It is probable that a large number of laborers would have to occupy the position for eight years. Next in importance are excavations and other work between Culebra and the Pacific.

There is a considerable diversity in the engineering problems connected with the Panama route, but the labor would be comparatively concentrated. Swamps, with the rank vegetation peculiar to the Tropics, abound along most of the line. To the cost of construction the Isthmian Canal Commission has added 20 per cent to cover engineering, police, sanitation, and general contingencies. The same percentage has been allowed for the Nicaragua route. How much would be devoted to sanitation is not stated.

Health conditions along the Nicaragua route.—Some 280 miles north of the Atlantic entrance to the proposed Panama Canal is the city of Greytown, the eastern terminus of the projected route of the Nicaragua Canal. Topographically, the country traversed by the line of the Nicaragua Canal consists of a great central, basin-like depression, inclosed by coastal mountain ranges, whose peaks occasionally attain a height of from 5,000 to 7,000 feet. The Central Basin is occupied by two great lakes, the waters of which flow eastward through valleys which open diagonally to the Atlantic Ocean.

The central depression descends to the Pacific through a short and narrow valley in the western coast range. The route is marked by swamps, lagoons, and river bottoms heavily overgrown with rank tropical vegetation. By far the largest share of the estimated cost of constructing the Nicaragua Canal is allotted to that part of the line which lies east of the lakes. Here are located extensive river and harbor improvements, several locks, and the Conchuda Dam, whose site is between Ochoa and Lake Nicaragua. It is thought that the canal would be eight years in building.

Much less is known about the climate and health conditions of Nicaragua than Panama. According to all sources of information, the temperature is fairly uniform throughout the year. The report of the Isthmian Canal Commission just published states that the thermometer seldom reaches 95° F. nor falls below 70° F. The humidity is usually high, particularly on the eastern slope. As recorded for several stations in 1888 the humidity was never below 58 per cent and generally above 80 per cent. It has been declared that the locality is beyond the cyclonic disturbances of the West Indies and that heavy storms are rare, yet authentic accounts exist which show that northers and other similar atmospheric disturbances have occurred at infrequent intervals along the Atlantic coast. The northeast trade winds predominate.

Rainfall records show that there is no definitely wet nor dry season on the eastern slope, but in the region of Lake Nicaragua, and on the west coast there is a distinct dry season from about the 1st of December to the middle of May, during which rain seldom falls. During the dry season the prevailing winds blow from the Atlantic coast and the moisture contained in the

atmosphere is precipitated before it reaches the central and western watersheds.

The rainfall at the Atlantic end of the Nicaragua Canal route is the heaviest yet recorded for the American continent. The annual rainfall at Greytown averages 230-270 inches and has twice reached nearly 300 inches. Points at which rainfall was noted in 1900 were: Greytown, 266.10 inches; Ochoa, 153.83 inches, and Fort San Carlos, 89.34 inches. In 1898 the rainfall at San Juan (Greytown) was 201.64 inches; Ochoa, 170.24 inches, and Brito, the Pacific terminal, 94.88 inches. The heaviest recorded fall of rain in a short period occurred at Lake Silico, November 4, 1899, when 10.5 inches fell in six hours, an average of 1½ inches per hour. On the same date 12.48 inches of rain fell in twenty-four hours at Greytown. A fall of four or more inches per day is not uncommon.

It is the testimony of disinterested observers that both coasts of Nicaragua are malarious, with a considerable amount of suffering from malarial cachexia and enlargement of the spleen. Dysentery is one of the severe diseases of the country. A prevalence of fever of the pernicious type has been noted, particularly in the western portion of the country. The fever is generally hepatic, and jaundice and hematemesis are usually present. The mortality from pernicious fever is very high. As this disease carries so many of the characteristic symptoms of yellow fever, Stitt declares that able physicians frequently pronounce the two diseases to be identical.

Among the diseases not epidemic but prevalent, may be mentioned those of an enteric nature, affections of the liver, such as hyperemia and tropical abscess, intermittent and remittent fevers, and pulmonary tuberculosis. The climate of the lake region is said to be particularly unfavorable to persons suffering from phthisis. The yearly reports made by the Maritime Canal Company of Nicaragua to the Secretary of the Interior of the United States, convey the impression that the health of the employees engaged upon the canal construction was satisfactory. About 1½ per cent of those actually in hospital died, including the patients who were admitted for the treatment of accidental injuries. About 51 per cent of all cases of sickness were fevers; there were no deaths from enteric diseases, and only two-thirds of 1 per cent of the cases in hospital died of diseases contracted in the country.

Commenting upon the records of the Maritime Canal Company, the Isthmian Canal Commission of 1899-1901 observes that "These operations, however, were of a preliminary character, employing but a limited number of men. It is probable that when 10,000 or 20,000 men are assembled, and the rank soil is being turned up over a widely developed line of works, the experience will be different." There is very little impartial or antagonistic criticism available concerning the health conditions which obtained at the works of the Maritime Canal Company, for very little attention has been given to this project except by Americans who have long been prejudiced in its favor.

Comparison between the Panama and Nicaragua routes.—A comparison of the conditions which make for and against health along the proposed lines of the Panama and Nicaragua canals may be summed up conveniently under the two following heads:

I. Which route would probably be freer from disease during the work of construction?

II. Which canal would be more favorable to health after it was built?

In discussing these topics it will be convenient to note some of the most unfavorable conditions common to both routes and suggest very briefly means by which the rates of sickness and death may be kept as low as practicable.

I. Health conditions during construction.—The greatest difference in climate between the lines of the Panama and Nicaragua canals is in rainfall. Panama has a dry season of four months with a rainy season of eight. No rain at all falls during the winter months, and in the rainy season the precipitation occurs mostly as heavy showers which come on in the afternoon.

On most of the Nicaragua line, particularly at the site of the great dam and about Grey Town, rain falls throughout the year. The immediate effect of the constant rain in Nicaragua is to keep laborers and others exposed to the elements in a drenched condition. Wet clothes taken off at night are put on damp the next morning, and worn so through the day. Sleeping garments removed after a night's rest are placed in rubber receptacles so they may be dry at night. The effect upon health of this constant wetting may be imagined. It is not reasonable that the human system should be able to long stand the debilitating effects which the wet apparel produces. Diseases of the respiratory organs, rheumatism, and fevers are consequently invited by the climatic conditions which occur between the lakes and the Atlantic terminus of the Nicaragua Canal. The western part of the route appears to be very similar to the Panama country so far as climate is concerned.

The range of temperature, so far as the records at hand indicate, is somewhat greater at Nicaragua than at Panama. Daily changes of temperature, however, do not seem to be quite so marked. The humidity is higher, and the soil, by reason of a greater length of low swampy territory along the Nicaragua line, makes the northern route less acceptable than the Panama Canal would be from this standpoint of health.

There is little difference in the nature of the diseases which are indigenous to the countries along the two routes. The history of the Panama Canal country is a black one, but in considering the records of sickness along this route, it must be remembered that grave sanitary errors were committed from the beginning, and that unfavorable accounts, arising probably in some cases from commercial and national prejudices, have been collected for a long time. The situation is very different with respect to Nicaragua. The country is comparatively new, and no such damage to its reputation has occurred. If it is said that but little disease can be charged against Nicaragua, the reason is probably because little experience of any kind has been had there.

From the evidence at hand it is inferred that dysentery, malarial, and other fevers are as much at home under the conditions of climate and soil which exist at Nicaragua as they are at Panama, and that smallpox and many minor tropical diseases are probably endemic in both countries. The climate in each case predisposes the native and foreigner to sickness and favors the progress of the worst diseases which may be brought into the country.

The ordinary habits of the natives and visitors who stay any length of time on the Isthmus are not calculated to increase bodily vigor and natural resistance to disease. Carelessness to exposure, indifference to obvious dangers of diet, lack of proper attention to bodily irregularities, and a strong appetite for spirituous liquors are conditions which render the people of the Isthmus especially liable to disease.

Following the precedent established by the Suez Canal enterprise and adopted by the promoters of the Panama and Nicaragua canals, a department of health will in all likelihood be organized. The work which will naturally come before this sanitary organization will include the procuring and protection of pure water supplies, and the prompt and permanent disposition of the daily wastes, which will occur among the thousands of laborers who will be gathered together in camps and settlements. The housing and provisioning of the men will no doubt form a division of the work, as will be the regulation of their hours and habits of toil and recreation. Medical inspections will be required in order to detect the presence of diseases and insanitary conditions, and hospitals, with branches along the line, will be necessary to care for those who will inevitably suffer from accident and sickness. If an arrangement can be made by which the physical condition of the

laborers is examined, and perhaps vaccination practiced, before they are allowed to embark from their home ports for the works, the subsequent labor of the sanitary organization will be greatly lightened.

The type of physique which has been found most able to resist the unhealthful conditions of the climate of the Isthmus closely approaches the best types already found there and in the neighboring islands and on the Gulf coast of the United States. The foreigner least susceptible to disease in these tropical countries is a man of medium stature, square frame, dark complexion, thick skin, and mature age.

II. Health conditions after completion of the canal.—The health conditions which are likely to obtain at the canal after its completion are worthy of consideration, since a large population will probably gather along the route and an immense amount of traffic will pass through the great waterway. Tributary to the Nicaragua route there is a naturally rich and extensive country which would be opened up to traffic. On the line of the Panama waterway the country is rugged, sparsely settled, and much less productive. At the present time the population along the Nicaragua route is slight, and cities near its terminals are not yet built. At Panama a railroad which has been established for fifty years nearly parallels the line of the canal. Two well-established cities are situated at the ends of this route.

After the canal is built, infectious diseases will almost inevitably be brought to the people of the Isthmus by the large amount of traffic which will result. Vessels will come from the cholera centers of Hongkong, Calcutta, Bombay, Madras, Singapore, and the Straits Settlements; from the plague foci of China, India, and Japan, and from the yellow-fever ports of Brazil, Mexico, and those islands of the West Indies which lie between 61° and 85° west longitude.

Comparing the two routes across the Isthmus from this standpoint, it is plain that the Panama Canal has a very marked advantage over the line which would pass through Nicaragua. It is much shorter. Ships in transit would be able to pass from ocean to ocean by the Panama Canal in twelve hours, while by the Nicaragua Canal thirty-three hours would be consumed. It may be urged that communication with the land in either case could be avoided, and that an efficient sanitary police could effectually protect the people and shipping against mutually communicating disease.

Unfortunately, further thought shows that this would be a difficult matter. The temptation for sailors and others to seek the relaxation of a few hours on shore in the middle of a long voyage and under conditions of a peculiarly alluring nature while the ships are slowly passing through the locks and narrow reaches of the canal is not to be denied. If to this temptation is added the certainty of being able to overtake vessels by railway after a night's debauch it is not clear how the Isthmus can certainly be prevented from becoming a focus of disease as well as a focus of trade.

It is extremely important that this great highway of commerce should be kept entirely free of epidemics of infectious diseases, for the burdens which would be put upon shipping in the event, for example, of cholera becoming prevalent along the canal would go far to offset the advantages to be gained by making the short cut from ocean to ocean; nor would the fact that a vessel had loaded her cargo at a healthy port relieve her from suspicion of carrying disease. It is doubtful if the quarantine officers of any healthy city would admit to pratique a vessel which had passed a day and a half in an infected country, whether the original ports of departure of that ship had been in a healthy condition or not.

Another effect which the opening of the canal is liable to have upon public health will be that due to the improved chances of carrying disease between ports which will be brought nearer together by the canal. The southern ports of the United States and the Pacific coast will be brought in much closer contact with the unhealthy cities of South America and the East by the opening of a transitisthmian canal. The obvious remedy here is the cleaning up of these unhealthy centers; but meanwhile the insanitary condition of many of the ports of trade, both in the United States and South America, makes the danger dependent upon a closer and more extensive traffic among them.

SUMMARY OF CONCLUSIONS.

The principal conclusions reached in the foregoing inquiry may be conveniently brought together in the following categorical order:

1. Both the Panama and Nicaragua routes pass through a country which is extremely unfavorable to health.
2. The climate of Nicaragua and Panama differ chiefly with respect to rainfall, the precipitation on the Panama route being distinctly the less unfavorable to health.
3. Considerations of soil, topography, and the nature of the engineering work to be done are in favor of Panama. Fewer men would be required; they would be concentrated, and hence their health could be more easily protected.
4. There is practically no difference in the nature of the diseases to be anticipated, nor in the precautions to be taken to protect health in either case.
5. After construction the difficulty of controlling health conditions along the line would be greater on the Nicaragua route.
6. The shorter Panama route would cause passing vessels to be exposed to the possibilities of infection for a much briefer interval. The danger of communicating diseases to and from the Isthmus is fairly represented by the difference in time which it would take ships to pass from ocean to ocean by the two routes.
7. The likelihood of the canal becoming a disease focus, thus interfering with commerce, by requiring all healthy ports to quarantine against ships passing the Isthmus, is much greater in the case of Nicaragua than Panama.
8. Although the Panama health records are much darkened by heavy losses of life by disease, this is not to be construed as evidence of the existence of conditions favoring a greater immunity from sickness along the Nicaragua line. More lives have been lost at Panama because more lives have been unnecessarily exposed. The experience of Panama is to be taken as a warning of conditions which are liable to be repeated on either route.
9. Whichever canal is selected extraordinary care will be required to maintain satisfactory health conditions during construction and after completion of the work.
10. Plans and preparations in detail for the organization of an efficient sanitary and medical department should be made as early as possible, so that the measures necessary for the prevention of disease may be carried on in harmony with the engineering projects.

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Now, Mr. President, on this matter of health conditions in Panama and Nicaragua I have only to add that the United States Government is fully equipped with a service that will care for these malarial and infectious diseases wherever they exist under our control. We have stamped out yellow fever in Santiago de Cuba. We have stamped out yellow fever in Havana, a city that one of the witnesses of the Senator from Alabama pictured as being as bad as Panama. We have stamped out these epidemics wherever they have prevailed in our own country; and in my opinion we are fully prepared, if we construct a canal either along the Nicaragua or the Panama route, to stamp out the diseases which proved so disastrous to human life when the Panama Railroad was constructed, at which time all the laws of life and health were absolutely disregarded.

INTERESTING STATISTICS.

Mr. President, in connection with this subject it is interesting to recall the fact that in former years, before it was thought necessary to have clean streets, good sewerage, pure water, and efficient medical supervision, fearful epidemics of yellow fever and cholera were not unknown to Northern cities.

In 1699 yellow fever raged in Philadelphia, and again in 1762. In 1793 5,000 deaths occurred in Pennsylvania from yellow fever.

In 1792 the same disease carried off 1,792 people in Philadelphia, and in 1798 3,645 deaths occurred from the same scourge in that city.

In the years 1702, 1790, 1794, 1795, 1798, 1805, 1822, and 1867 yellow fever prevailed in New York City, some years to an alarming extent.

In 1832 there were 4,000 deaths from cholera in New York City, and in 1849 3,000 deaths. The same year there were 2,000 deaths from cholera in Buffalo, 5,080 deaths in Boston, and the epidemic raged in Michigan, Wisconsin, Pennsylvania, Missouri, Tennessee, and Illinois.

Those scourges are now unknown to the Northern States, and they are practically stamped out in the South, just as they can be in Nicaragua or Panama.

But, Mr. President, I have taken more time than I intended to, and I leave the subject for the consideration of others, contenting myself with the closing remark that the great natural advantages of the Panama route should not be abandoned because of the false cry that has been raised as to health conditions along that line. The preponderance of testimony refutes the arguments that have been made on the other side, and justify us in the conclusion that the climatic conditions of Panama are not such as should deter this Government from selecting that route as the most feasible one for an interoceanic canal.

Mr. MORGAN. Mr. President, if Panama has been the subject of a false cry about its healthfulness, it is the worst slandered country in the world, because I have never yet heard a person speak about it, I have never seen a newspaper that wrote about it that did not say it was the unhealthiest country in the world. The Senator from New Hampshire [Mr. GALLINGER] may have entirely overturned all that history has recorded on that subject, but I think I must content myself on that point by referring to the unanimous opinion of mankind, a judgment based on facts that are absolutely unanswerable, perhaps one of the leading and best authorities being Baron von Humboldt, who said it was the only place where, for fifty years, yellow fever had appeared at any isthmian port, and where it was continuous and immovable. We know that that is so.

Mr. President, I do not wish to appear in this debate as frequently as I am compelled to do, but a great amount of care, labor, and responsibility have been thrown upon me, and I am compelled in honor and in conscience to bring forward for the consideration of the Senate the facts which have not appeared in the history of this measure, except in certain papers and records that have been submitted here and in the testimony of witnesses, without proper arrangement.

I desire this evening to bring forward for discussion a situation that has been created by the act of the President of the United States. The last time I was on the floor I read a statement from General Grant, after he was President, which showed that he had made a very careful examination of both these routes, taking up the report made by Humphreys, Ammen, and others, to which the Senator from Nevada [Mr. STEWART] referred this morning. His statement on that subject, it occurred to me, contained as

much good sense as was ever contained in any proposition made by mortal man, and it is not at all unnatural that we should attribute such sensible things to General Grant.

Mr. President, I claim to have a proper respect for the solemn diplomatic acts, pledges, and agreements of our Presidents, without reference to the politics of their supporters or my political antagonisms toward them. It is on this basis that I rest the hope and the belief that the action of President McKinley in the conduct of a great and dangerous imbroglio in China, and the conclusion he reached of which we know little, officially, is honorable, just, correct, benevolent, wise, and patriotic. I have equal respect for the motives and the conduct of President McKinley in obtaining the agreements from Costa Rica and Nicaragua in December, 1900, that are called protocols, which have only been laid before Congress officially within a month past.

I honor him for the correct, just, benevolent, wise, and patriotic terms of those agreements and for the friendly regard for our sister Republics, Costa Rica and Nicaragua, in which those agreements had their origin, and for the splendid and intrepid statesmanship that inspired them. A more trying and difficult group of questions was never dealt with or answered in the clear mind and true heart of a courageous man than was settled in this simple act of quiet, firm, and wise resolve by President McKinley.

The first question in that difficult problem was: "Shall a canal be opened through the American isthmus or shall the effort be abandoned?" The answer was: "It shall be opened."

"At what place?" was the next question. The answer was: "Through the valley of the San Juan River and Lake Nicaragua." "Who shall construct, own, and control the canal?" The answer was: "The United States."

In what way and by what authority shall the right be obtained to do these acts that are little less than sovereign? The answer was, "By agreement with the sovereign Republics that own the country. They are our younger sisters, and in the sense of the protection we owe them through our national relations toward them they deserve our most respectful consideration, our most honorable care, our most neighborly assistance in the one great work which alone can bring these great Republics within reach of the distant coasts of the Atlantic and the Pacific, a work which the Creator has provided them the opportunity to accomplish—through lakes and rivers that only a slight diversion will cause to flow to the westward, as they now flow to the eastward, and connect the two oceans—without the strength to do the work."

The last and most trying question that arose was, Who shall prevent or hinder the performance of this plain duty?

To that question it was the soul of the American President that responded, not alone his wisdom or his courage. "No nation under the sun shall prevent us," was the answer of President McKinley.

While the Senate and Congress were in strenuous debate as to the true line of duty toward Great Britain in this connection, Mr. McKinley settled it by agreements with these States, then he signed, sealed, and delivered, to become effectual when Congress should give its consent. He did not, as the Spooner amendment does—I speak of the one before the Senate—first declare that Congress shall decide on the route, and it shall afterwards be ratified by the Senate, acting on a treaty by a two-thirds vote. As to the Executive, the lines of duty were fixed in those agreements. The President believed that Congress should authorize them to be made. I fully agree with the President.

There were still other embarrassments that he encountered. The chief of these was the artful, persistent, and intrusive overtures and supplications of the Panama Canal Company, assisted by its powerful allies, the transcontinental railroads. The entire group, in one solid agreement, which included all the railroads from the Canadian Pacific to the Panama Railroad, brought all their power to bear upon the President, and have never ceased their opposition to these agreements. He stood firm while life lasted.

Further on in my observations I will trace the insidious course of the Panama Canal Company, that never pursued any course which did not leave in its trail the marks of disaster and the stain of discredit. Mr. McKinley knew its odious history as well as any man that lived, and he despised it as thoroughly. He learned these things from the watchful scrutiny that was his habit and is the safeguard of all honest public servants. He had studied the report of the committee of which Hon. John R. Fellows was the chairman, dated March 3, 1893, made to the House, of which Mr. McKinley was then a member, and he knew the story of speculation and bribery and of the monopolistic agreements of the Panama Canal Company, laid bare in that document, and how its most distinguished promoter had stated his anxiety to quickly obtain and earn his salary by "putting the Nicaraguans on their backs," as he declared.

That was while De Lesseps was in the full tide of his glory and was permitting hundreds of millions of French money to be

squandered in corrupt contracts. And it was during the time that the American committee of the Panama Canal Company were the dispensers of French money in Washington. Mr. McKinley had even been worried and badgered by Cromwell and other agents of that company by letters thrust upon him that I will presently read to the Senate.

He knew of the passage of the bills in the Senate for the construction of the Nicaragua Canal and of the hearings and report of the Hepburn committee to the House of Representatives, in January, 1899, in which the whole subject of the merits of the Panama Canal was gone into, and he knew of the passage of the Hepburn bill in the House, in May, 1900, from which he copied the very language of the agreement of December, 1900.

He knew of the report of the Senate Committee on Inter-oceanic Canals, of May 16, 1900, of which the Senator from Ohio was a member, and that the committee denounced the Panama Canal Company in the terms which I will now quote and in other censures of like character.

That committee reported thus:

This manifest purpose of this company to interfere with legislation, by asking the President to inform Congress of a state of facts, as alleged, of which Congress is "presumably without knowledge," is an insult to the intelligence of Congress. It is an insolent invitation to the President to control the action of Congress so that they shall not act upon bills reported by committees in both Houses and "to be acted upon in the House of Representatives May 1 and May 2, 1900, having for their purpose the adoption by the Government of another isthmian canal route, without awaiting the recommendation of the President and the information, report, and conclusions of the Isthmian Canal Commission appointed by the President under the act of March 3, 1899."

It is a spectacle that is, happily, without precedent, that this foreign corporation, acting in a foreign country and without any recognition even of the honesty of its dealings, while it has all the time been the subject of distrust by our Government, should ask the President to "advise the Congress of the facts of the case" for the purpose of opposing Congress in declaring and enforcing the public policy of our people and Government.

A bill that the House had agreed to consider on the 1st and 2d days of May, 1900, is severely censured by this speculating corporation, because its passage would destroy the hope of that company of unloading a failing enterprise upon the United States under its proposal of February 28, 1899, which is again renewed in this letter.

Aside from the fact that said proposal contains suggestions that provide for the robbery of the stockholders of the "old company" and the violation of the decrees of the courts of France, it proposes a direct violation of the statutes of Colombia, enacted in granting the concessions to that company, and a breach of our treaty of 1846 with Colombia, which binds us to guarantee the sovereignty of that territory over the State of Panama.

The President has never answered said overture, nor has he responded to the suggestions and requests contained in the letter from Sullivan & Cromwell of April 30, 1900, but the Secretary of State has sent that letter to the chairman of the Committee on Inter-oceanic Canals in a communication as follows:

DEPARTMENT OF STATE, Washington, May 14, 1900.

HON. JOHN T. MORGAN,

Chairman Committee on Inter-oceanic Canals,
United States Senate.

SIR: I have the honor to inclose herewith copy of a letter addressed to the President by Messrs. Sullivan & Cromwell, general counsel for the New Panama Canal Company, expressive of the desire of the company that no action be taken by Congress upon the subject of an inter-oceanic canal between the Atlantic and Pacific oceans until the Isthmian Canal Commission, constituted under the act of March 3, 1899, shall have completed its investigations and inquiries and reported to the President.

The company's letter of February 28, 1899, referred to by Messrs. Sullivan & Cromwell, is printed on page 41 of Senate Document No. 188, Fifty-sixth Congress, first session, but a copy is herewith inclosed for more convenient reference.

I have the honor to be, sir, your obedient servant,

JOHN HAY.

(Inclosures:) Letters from Sullivan & Cromwell, February 28, 1899, and April 30, 1900.

The committee made further declarations in that report which will be a source of pride to its members while they live and will do them honor in their graves. They say:

As the question of the building of the canal is not dependent upon any doctrine relating to the freedom of the seas, or its neutrality, or its use as a feature of military strategy, delay in its construction, which may be fatal to its success, should not be the policy of Congress.

Delay in construction can not possibly advance the settlement of any question as to the use of the canal after it is completed.

Such questions are convenient pretexts for delay on the part of those who oppose the work of the construction, ownership, and control of the canal by the United States because they own competitive routes of inter-oceanic transportation, or by those who wish to place the control of this vast source of wealth and power in the hands of syndicates of private persons; but the duty of Congress, in response to the will of the people so universally expressed, is that we should provide the means for instituting this great work, and that we should enable the President, as the Chief Executive and as the head of the diplomatic department, to proceed to do what is useful and proper to be done to inaugurate the canal. This bill provides such authority, yet it makes the President subject to the future power of Congress or the Senate, as he may find it best to proceed by agreement or by treaty in its execution.

The attitude of the American people, as it is presented in this bill, is at once proud, independent, self-reliant, and honorable, while it is properly considerate of all international obligations that may be justly demanded of our Government. It declares the right that belongs to our great Republic to provide for the general welfare of our people in the way that Congress shall provide, without nervous apprehension that any nation will find in our action any just ground of complaint or any reasonable criticism of the decisive promptitude of our determination.

There is no actual cause for such apprehensions, and the indulgence or the expression of them does not comport with the past history or the character of our people.

Believing that all other nations will regard our course in pursuing this vital duty to our country with the consideration that is due to the pressure

of this great subject upon the attention of Congress, our true and self-respecting line of action is clear. It is that Congress will now provide the means and the authority for constructing a ship canal in Nicaragua and Costa Rica, with their consent, and leave it to the President, under the Constitution, to deal with any questions of a diplomatic sort that may be made by other nations in the progress of his work.

Our plainest duty, after this bill becomes a law, is to agree with Nicaragua and Costa Rica as to the terms on which they will concede to the United States the right to build, own, and control a canal through their territories, and to arrange with them the terms and conditions under which the canal shall be used by the contracting powers and by other nations. When these conditions are thus settled by the powers that have the first and best right to settle them, a basis will be established on which further negotiations can be conducted with all other powers as to the privileges they shall enjoy in the use of the canal.

Until this is done no such just basis can exist.

Mr. McKinley did not wait for the passage of the first Hepburn bill to accept this suggestion in this statement of the committee. He proceeded in advance of it to secure the necessary rights from Costa Rica and Nicaragua, by the agreements of December 1, 1900, and which, when they are obtained, fix every right positively, but leave the details, the plans, and the compensation, if any, to be determined by treaty with these powers upon the basis of that agreement. That is what we ought to do now and ought to have done long since. Colombia has never proposed to make such an agreement with us, and she can not possibly propose to do it, because her constitution requires that any contract that she makes with a foreign government shall be first authorized by her congress.

Whatever the Senator from Ohio may think of Mr. McKinley, I feel deeply grateful to him for having taken his line of action in December, 1900, in precise accord with the foregoing declarations of the committee, even to the copying of the text of the Hepburn bill into the agreements with Nicaragua and Costa Rica, in December, 1900.

After that report was made, and up to the date of the report of the minority of the committee made on the 31st day of May, 1902, which was signed by the Senator from Ohio, that committee has uniformly and earnestly supported and defended the wise and patriotic course of Mr. McKinley in signing the agreements of December, 1900, with Costa Rica and Nicaragua, without any hint of dissent.

What reason or occasion can now be found for abandoning and scouting this great act is more than I possess the power to discern, and no reason is stated by the minority of the committee. The Senate has found it necessary and proper to rely upon the judicial fairness of the reports of its committees in order to get along with the public business. When objections exist of a grave character to a diplomatic agreement such as this, signed, sealed, and delivered between the parties, it is due by any committee or any part of a committee that departs from that agreement to state some reason for it.

Until this minority report came in no one questioned the propriety or the binding force of those agreements, or that Mr. McKinley was trifling with so serious a matter when he made them. What has aroused this new and sudden opposition to these honorable agreements I can not quite understand.

The facts that enter into the proper consideration of this great canal question are so numerous that it is scarcely possible in a report to present them in detail or even approximately. The Senate, unless it finds that its confidence is betrayed, is ready to accept the conclusions of its committees as presenting the honest opinions of their membership, at least for what they are worth.

As no dissent has ever been expressed by a member of the committee of this action of President McKinley in making these agreements with Costa Rica and Nicaragua, and it has been often referred to and commented upon in its reports, it seems to me that it is entitled to the respect of the members of the committee, however it may be regarded by others.

The Hepburn bill confirms those agreements, while the Spooner substitute destroys them.

When history makes up its records of the acts of the contemporaries of William McKinley, it will be found that no true Democrat has helped to destroy this wise, brave, and patriotic deed, performed in the quiet manner that is always characteristic of true greatness.

Mr. President, when the Committee on Interoceanic Canals reported the House bill now before the Senate, the drafts of the conventions proposed for our consideration by Colombia, Nicaragua, and Costa Rica had not been sent to Congress, and the committee, after earnest effort to ascertain what would be the cost of the concessions of the respective Governments, failed to gain that information. Consequently it had no basis of fact as to the cost of the two canals on which it could make a recommendation.

The result was that the committee made no report except to recommend the passage of the House bill, for reasons that are aside from the cost of the concessions and are far more important, which have been stated to the Senate without dissent in the previous reports of the committee. So the committee reported the bill to the Senate, along with the hearings and without re-

peating its former reports, the conclusions of which the evidence on the hearings still more fully sustained.

The Senator from Massachusetts [Mr. HOAR] afterwards offered a bill which was referred to the committee and was carefully considered.

In the meantime the proposed convention of Colombia and Nicaragua and a statement of the attitude of Costa Rica had been sent to Congress for information by the Secretary of State.

It was then possible to have a view of the subject that would include nearly every possible phase of the question of the choice of the routes, and the committee was enabled on Mr. HOAR's bill to state its reasons more fully for recommending the Nicaragua route. In doing this the committee made some comments on the attitude of Colombia and Nicaragua, as it is shown by their drafts of the proposed convention, which I do not now propose to repeat. But I respectfully ask that Senators will examine them.

Since December, 1900, the Committee on Interoceanic Canals have earnestly and carefully urged the passage of the House bill, of which Hon. William P. Hepburn is the author, because of its wise adaptation to the existing conditions at the time it was offered, and its still more appropriate application to conditions as they now exist.

That bill provides for the conditions on which the "protocols" of December, 1900, as the agreements were called, are to become fully obligatory, and this is its vital principle and most essential provision. If there are imperfections as to any matter of administration, they can be corrected hereafter without endangering the provisions for creating the canal.

These agreements fully define the obligations that Costa Rica and Nicaragua are ready to assume and execute as to a canal on the Nicaragua route, and the Hepburn bill accepts them as they are stated in these protocols. Such acceptance is a final disposition of several points in the situation that can not be settled with Colombia, under her constitution, except by act of her Congress to authorize the making of such an agreement.

The chief of these agreements are the definition of the canal route and canal zone, the terminals, and the perpetual and exclusive ownership and control of the canal. Other important matters are settled by those agreements finally, and the further details of the plan of execution are left to be arranged by future negotiation.

The passage of the Hepburn bill will create final relations with Costa Rica and Nicaragua on these points, which are vital to the canal. The passage of the Spooner bill would only authorize the President to open negotiations with Colombia, and will, if it is not amended, adopt the draft of the proposed convention at least as a guide to the President in acquiring canal rights in Colombia.

The report of the committee on the bill of Senator HOAR states its reasons for refusing to recommend the convention proposed by Colombia, and again presents reasons for the passage of the Hepburn bill, which the committee has heretofore on three or more occasions presented with unanimous concurrence. The committee has all the time stood firmly united upon the support of this great and wise policy of President McKinley, and the majority of the committee still adheres to it.

The minority abandon it in the statement of their views submitted to the Senate, and advise that Congress will direct the President to make an agreement with Colombia for canal concessions, and with the Panama Canal Company for the property it claims to own in connection with the Panama Canal and the Panama Railroad. This is done without pointing out the way by which such an agreement is possible to be made with Colombia under present conditions, or is even probable in the future. If Colombia is honest and respectful to the comity between nations in diplomatic intercourse, her draft of a convention is a sincere declaration of her attitude, otherwise it is only a discreditable finesse.

The adoption of the Spooner substitute is a repudiation of McKinley's great agreements with Costa Rica and Nicaragua, which will necessarily release those States from any obligation to comply with them and must create a bad state of feeling toward us in those Republics instead of the sincere and honorable regard they have always had for the United States.

They will deeply feel the rebuff and will not again be willing to have the United States approach them on this subject, as Mr. McKinley approached them with earnest and honorable impetuosity only to be snubbed by Congress when some glittering fraud is presented to tempt our cupidity and to provide \$40,000,000 as the pay of its contrivers.

Unless we are ready to perform our duty to the people of the United States, sword in hand and in defiance of the world's scorn and its combined powers, we will not get an isthmian canal by an adroit bargain with a corporation that renounces the control of the State under whose laws it has its existence. We had better follow the advice of Ammen, Grant, Frelinghuysen, and Harrison, and the solemn agreements of McKinley, rather than lay

aside an honorable and just course of dealing to follow the Panama Canal corruptionists, and the church party in Colombia by furnishing them money to oppress the liberal party there and to cut the throats of innocent people.

It is these people, in wicked combination, that the Spooner amendment compels us to deal with, in giving an offensive rebuff to Nicaragua and Costa Rica, and in utter abandonment of the agreements made with them by President McKinley.

The committee has been right in each of its unanimous reports in support of those agreements, and the majority are still right in adhering to them, while the minority are wrong in repudiating them.

The Senate has been fully informed as to the character of Panama as a region of pestilence, the Senator from the granite hills of New Hampshire to the contrary notwithstanding, the constant and unceasing nursery of death from climatic diseases, and that this condition is beyond remedy unless we can change the climate and prevent the tides that purge the oceans and make the bays of Panama and Colon the dumping ground of their excrement.

The evidence is full, complete, unquestionable, and as irrevocable as history on the subject of the pestilence that has its summer and winter home at Panama.

The Senate is also fully informed as to the character of the population in the region of the Panama Canal; that it is not homogeneous; that it contains every variety of the human family, except the best varieties; that it is the theater of insurrection, internecine warfare, mob rule, and pillage, and has been so for more than sixty years; that it is under the pall of the concordat of 1886, which divorces people at their option who have been married according to civil law in any country, if the ceremony was not performed by a Catholic priest, and punishes whoever may speak or write in condemnation of that church or its priesthood, and controls the schools and the text-books from which the children are taught, whether the books are secular or religious.

The Senate knows that the civil war that has raged for three years in Colombia was largely provoked by that infamous concordat and by the frauds of the Panama Canal Company, and that the Colombian Congress has not assembled since it dissolved in 1898, in consequence of its refusal to extend to that company a further lease of life for six years. You can no more gather a congress in Colombia, sir, to sit there voluntarily, than you can find a hundred men who are willing to go to the jail in this city and stay there for a year. They will not risk their lives to get to the capital. You can not have a congress there until the present revolution is ended.

The Government of Colombia is now a simple dictatorship; and that is what we are asked to go down there and make a treaty with. Well, we should have to hold it up after we made the treaty; we should have to spend more money to stiffen them to stand by the treaty than we would have to expend in buying out this fraudulent, corrupt Panama Canal project.

I hope the Senate realizes the danger of undertaking to construct and maintain a canal in that country or the indefinite delay of waiting until the animosities have died out which have been excited by such conditions and are so bitter and so bloody.

The Senate is bound to see that the alliance between the church-party government and the Panama Canal Company is formed for the purpose of furnishing money to that government to repress the insurrection of the Liberal party and to pay off and discharge the corruptionists who have wrecked the old canal company and now propose to expire and in its last will and testament to sell the body of the new company to the anatomists for the dissecting table.

But if this is not enough to forbid us from fostering this alliance for the benefit of the transcontinental railways, I believe that we will at least halt in this line of action when we examine into the heavy exactions made by the railroads upon our suffering people under positive agreements between these companies and the Panama Railroad Company for the express purpose of such exactions.

The proofs are all in the records of Congress. They are complete, and no one questions them. I will only delay the Senate while I make a few quotations from the contracts, sworn statements of witnesses, and committee reports, that establish these abuses.

I read:

APPENDIX A.

[House Report No. 2615, Fifty-second Congress, second session.]

The Committee on Rules, to whom were referred the resolutions heretofore introduced by Mr. Fellows and Mr. Geary, respectively, reported the same back with the recommendation that the resolution herewith submitted be adopted in lieu thereof, viz:

I will append this entire report to my remarks lest some Senator might have it to say that I had garbled the record. I have need to refer, though, only to parts of it. The part I now omit to read relates to the duties of the committee. The committee say in their report:

The Panama Railroad is a corporation under the laws of New York, and its directory and the rights of ownership of its shares are governed by the laws of that State.

Something our honorable friends on this floor omit to notice entirely, that after we get through with the Panama Company and Colombia we have to go to New York and get an act of the legislature to authorize the United States to become the full owner of the company.

Your committee being instructed to ascertain whether any sums of money were expended by the Panama Canal Company, or its promoters, for the purpose of preventing opposition in this country to the plans of said canal has done its utmost in the limited time before the end of the present Congress to investigate this matter.

It has been unable thus far to trace directly or indirectly the expenditure of any money whatever in a corrupt way to influence the legislative or executive action of the United States Government. It may be that no investigation, however prolonged, after this lapse of time could be efficient in making such discovery, even if such corrupt use of money was made; but this is the subject of which your committee does not desire authoritatively to express its opinion that further investigation would be entirely fruitless.

Certain facts in relation to the expenditure of money on the part of the canal company, however, are distinctively proven.

In the year 1879 the original subscription to the stock of the Panama Company was opened in France, of which country the canal company, by its technical name of the Universal Inter-oceanic Canal Company, is a corporation. The original subscription was an entire failure, and great weight must be given to the opinion that it was a failure principally on account of the distrust as to the attitude of the United States toward this canal project which was universally entertained in Europe.

It is a fact too well known to have required testimony to be offered that the entire tone of the executive branch of this Government during the Administration of President Hayes, and the entire current of our diplomatic correspondence was one of intense loyalty to the idea that not merely no foreign government, but no foreign corporation indirectly supported or controlled by any foreign government, should ever obtain any right to construct a canal across the Isthmus. In fact, during the two years preceding the close of the Hayes Administration the correspondence of our Government was kept within ordinary diplomatic courtesy of protest on this subject only by the belief, which results have proved to be well founded, that the canal constructed on the plans and ideas of De Lesseps and his associates was an idle dream, practically hopeless of accomplishment.

It seems clear that the promoters of the canal company saw that no success would attend their efforts to obtain subscriptions in Europe unless the public opinion of America on this subject should either be modified or that the people of Europe should be persuaded that the public opinion of the American people had been modified. De Lesseps visited this country in the winter of 1879-80, and a single instance will show how determined the promoters of the canal were, whatever was the popular opinion in this country, that Europe should be persuaded that it was not hostile to the canal. On the very day of De Lesseps's arrival in Washington President Hayes sent his message to Congress affirming in strong terms the position of his Administration as to the Monroe doctrine in its broadest acceptation.

That message as it appeared in the press was translated to De Lesseps, and his answer was characteristic and immediate. To the amazement of his American friends, who had translated him this message, he at once telegraphed to Paris that the President's message had guaranteed the neutrality of the Panama Canal. This seemed to be the beginning of a great change in the tone of the press of Paris and of France, and from the time of De Lesseps's visit to this country there seemed to be an assurance that America was not hostile, but, on the contrary, very friendly to the enterprise. It was after the return of De Lesseps to France that the decision was made that an American committee of men of prominence whose solid names would be a guaranty of the financial stability of the enterprise should be selected.

I have papers—which I will produce in the Senate if anyone wishes me to do so—showing that Mr. De Lesseps in a colloquy in Paris with the Colombian minister boldly asserted that he was ready to throw off his garments and take up arms for the purpose of fighting for Colombia against the United States, shortly after the time that he was here making these representations to our people.

The report continues:

The object of this is perfectly clear. It was to give a widespread public impression that American capital, in the persons of some of its most respectable agencies, with ramifications, correspondents, and connections in every financial center of all localities in the United States, was backing the enterprise, and that Americans intended to become shareholders in the canal. It was intended first by the gentlemen who were selected to compose this committee to choose General Grant to lend his name to this enterprise to give to this American committee not merely financial weight, but the patriotic glory of a great name at the head of it, so as to impress the American people with its international or binational character.

General Grant having declined, it was clear that the next best thing to do was to secure the name, as chairman of this committee, of some gentleman widely known, of political experience and position, and, if possible, one whose orthodoxy in the past in relation to the Monroe doctrine would make his support of the canal project all the stronger in the eyes of the American people. The American committee, by mutual agreement, under suggestions from the financial agents of the canal company in Paris, had already been composed of the great banking houses of J. & W. Seligman, Drexel, Morgan & Co., and Winslow, Lanier & Co., of New York.

Each of these houses was to designate one of its members to form the American committee, and the then Secretary of the Navy, Hon. R. W. Thompson, was decided upon as chairman, and in the autumn of 1880 the offer was made to him, through J. & W. Seligman, to leave the Cabinet and assume the title of the chairman of the American committee, with a salary to be paid at not less than 125,000 francs.

The house of Seligman & Co., of London, in which the New York banking firm of J. & W. Seligman were interested, had been the financial agents of the Navy Department during the Hayes Administration, and personal acquaintance between the Seligmans and Mr. Thompson had been the consequence.

Testimony has been taken showing that this action on the part of the Secretary of the Navy was a great disappointment and surprise to Mr. Hayes, and he so expressed himself to others than Mr. Thompson.

It is clear that the whole tone of the Administration had been suspicious of and hostile toward the enterprise into which Mr. Thompson was willing to go, and it is perfectly clear that had not Mr. Thompson been a member of that Administration, no controlling reason existed for his selection as chairman of a committee intrusted, or supposed to be intrusted, with such great financial and commercial responsibilities.

Mr. Thompson tendered his resignation early in December, 1880, and it was formally accepted by the President a few days thereafter.

The truth is, Mr. Thompson tendered his resignation because the President demanded it, and it was accepted in five minutes or five seconds after President Hayes was informed of his becoming the chief promoter and president of this American committee to carry out De Lesseps's plan. This may be rugged history, but I think there is a great deal of credit in it toward Mr. Hayes.

I think the honorable President of the Senate, perhaps, was on the committee which heard the statement of De Lesseps when he declared that he was for a sea-level canal, and that if a lock canal was to be thought of Nicaragua was the only location.

It is significant of the controlling reasons for the haste in which this matter of Mr. Thompson's resignation from the Cabinet was concluded by him, that we find him writing, on December 16, that arrangements should be made that his salary should begin on the 20th of December, in order that his friends might "be assured that his position was fixed beyond a peradventure," and that a promise to this effect "would satisfy his friends and put the Nicaraguans on their backs."

Who were "the Nicaraguans" to whom Mr. Thompson referred? They were the men who had hopes merely that some future day might inaugurate a Nicaraguan Canal—hopes inspired by the confidence they had in the judgment of General Grant and in the honest, sincere, yes, severe fidelity of men like Humphreys and Ammen, who made the surveys there during six years to determine which was the best route, and who had decided in favor of Nicaragua. That was all they had to do.

To "put the Nicaraguans on their backs" meant to nip the whole Nicaraguan idea in the bud and to prevent any American Congress from having the audacity to back up the opinions of these men that Nicaragua was a better route than Panama. Here in the galleries I have seen them day after day watching these proceedings, and they are here now looking upon us, the successors of the men who started this arrangement that caused poor Mr. Thompson to lose reputation—I am afraid to lose it all—for he had an honorable reputation.

The committee proceed:

It was at this time that the Forty-sixth Congress appointed a special committee to examine and report on interoceanic routes. At the same time the Committee on Foreign Affairs was charged with the examination and report upon the so-called "Crapo resolution," as to whether the Panama Canal project was a violation of the Monroe doctrine or was detrimental to American interests.

In the Senate the Burnside resolution to a similar effect was under consideration.

Your committee repeat that it has not found any evidence to show that any corrupt or improper means were used to stifle the investigation or the discussion of these resolutions. In fact, in spite of the arguments of Mr. Thompson and the counsel employed by him to assist, the Crapo resolution was reported back to the House in a somewhat modified form, but with a report ringing with true American patriotism, and a manly, yet conservative assertion of the Monroe doctrine as it is generally understood in the United States.

The select committee on interoceanic routes also made a report strongly supporting the idea that the United States should control all transit over the Isthmus, at least in so far as to prevent any European or non-American nation from having a preponderating influence. But it will be remembered that it was at the short session of the Fortieth Congress, with a change of administration coming on the 4th of March, that these reports were made, as the present one will be, just at the close of the session, and your committee can see reasonable ground for the belief that these resolutions and reports were not acted upon simply from the general apathy of the House and the stress of other business at the close of the session.

Your committee find that for the next three or four years Colonel Thompson was exceedingly vigilant in watching the legislation of Congress and most active and able in his efforts and influence to postpone the consideration of any legislation, either directly or indirectly, tending to work an injury to the cause of the Panama Canal Company. He appeared before committees, House and Senate, personally and by printed arguments and briefs.

These, he thinks, had great weight in the defeat of the Nicaragua Canal plans in whatever shape they came up, but it is not clear that, outside of this, he had anything directly to do with the shaping of public opinion in this country or bringing about what seems to have been an apparent acquiescence, or at least an indifference, on the part of the press and the people. So far as the testimony goes, the work of the American committee was altogether done by Mr. Thompson, and consisted of supervising purchases for a part of the time for the construction of the canal, and this persistent, watchful, and successful supervision of the legislation of the United States.

I hope that these visitors who are here in the galleries every day have not the right to represent Mr. Thompson's ghost while they sit here and carry on that same work. Sometimes I am a little doubtful about it. Some things go on in the Senate, of which I am informed, although I do not know, which look very queer.

The members of the American committee other than himself were supposed by Mr. Thompson to have received no compensation whatever except their commission as bankers and brokers in obtaining subscriptions and furthering the sale of the stocks and bonds of the canal company and in the handling and transmission of the very large amount of money spent in this country for the purchase of supplies of various kinds.

It was the object of the committee to see that to as great an extent as possible the purchase of supplies of raw material, of machinery and tools should be made in the United States as an aid to make it appear that America had no hostility but every reason to look with a friendly eye on this enterprise. The total amount of money for purchases of this kind passing through the single house of J. & W. Seligman and distributed to American trade was upward of \$40,000,000, and that house is not able to say that no further accounts of money came through other banking houses to be spent in America for similar ends. This, however, was all spent by purchasing agents of the canal company, and their vouchers for their purchases were forwarded to Paris for approval.

There was one thing, however, which struck the only three salaried officers of the Panama Canal Company whose testimony we have been able to get

as an entire surprise. This fact is that these three banking houses named above received, apparently for the loan of their names and for nothing else to this enterprise, the immense sum of 6,000,000 francs, or \$1,200,000; \$400,000 apiece, or \$50,000 a year, was paid these houses without the knowledge of the chairman of that committee, who all the time supposed that he was the important factor in this enterprise, and was himself receiving only half of that sum annually.

In fact, two years before the canal company went into liquidation it is in evidence that Mr. Thompson voluntarily reduced his salary by one-half—that is, to \$12,500—remaining in complete ignorance that the other members of the committee, of which he was still chairman, were still each receiving \$50,000.

Mr. Thompson must have been overcredulous and too confiding to deal with men who were exploiting this organized fraud.

These banking houses state they had no specific duties to render in return for these subsidies; that they had no employment or interest to effect the sale of canal stock or bonds, and that, in fact, practically none were sold in the United States. What influence was exercised upon the financial public opinion of the United States by the names of these three great banking houses, what indirect credit and popularity was given to the enterprise through their numerous correspondents and connections throughout the country, is perhaps impossible now to estimate, but to effect this was the object of the formation of this American committee; a committee which testifies that it had no regular meetings, and some members of which were never present at a meeting or knew whether any minutes were ever kept by the committee, while each of these houses was receiving \$400,000.

This fact, if it is a measure of the general conduct and management of the Panama Canal Company, may possibly explain why it was compelled to go into liquidation as soon as it did.

There is another thing which shows the French estimate of the character of the American people, which seems to be that any sum of money that you shake at the Americans will cause them to do whatever you want done, if it is large enough.

That has been exemplified here when the drop was made from a hundred and nine millions to forty million dollars at one fall; when some \$5,000,000 is held out before this august Senate as a reason for changing the policy of this Government and discrediting all the vast number of men who have advocated and testified in favor of the Nicaragua route and entering into a questionable bargain with a corrupt company. I am not misquoting, misstating, or exaggerating anything about this. They believe we are capable of it, and when this substitute is passed they will think they know it in their own judgment, and the American people will believe it.

The only specific matter the three banking members of the American committee seem to have had in charge and to have accomplished was the purchase of the stock of the Panama Railroad Company by the canal company at a price more than double what it had been quoted in the market for two or three years previous to the beginning of these negotiations. This stock had been selling from \$140 to \$150, and the result of the negotiations and contract of sale was that the Panama Canal Company purchased 68,500 shares out of the 70,000 shares of stock, at a price of \$291—\$250 a share for the stock, \$41 and some cents on each share for certain "assets" of the railroad company, the nature of which is not very clear.

As to the second part of the resolution referred to your committee, relating to the situation in the past few years and at present of American commerce upon the Isthmus, your committee feels that it has obtained all the evidence needed to establish certain facts beyond controversy.

This was an American corporation, the controlling interest of it purchased by the Panama Canal Company.

On the 1st of February, 1878, the Pacific Mail Company, a corporation organized under the laws of New York, owning and running steamers between New York and Aspinwall on the Atlantic, and between Panama and San Francisco on the Pacific, together with certain intermediate Central American and Mexican ports, made a contract for fifteen years with the Panama Railroad Company, also a corporation under the laws of New York. At that time there was no showing that there were any foreign stockholders in either of these two corporations.

This contract provided that the Pacific Mail should have the exclusive right "to bill freight through" from New York to San Francisco, and vice versa, over the Panama Railroad, and all freight offered by others between these points could not be "billed through," but would have to pay local rates on the isthmus railway. The sum paid for this was to be a lump sum of \$75,000 a month to the railroad company, which, by modification, was afterwards lowered to \$55,000 a month.

Corresponding every time.

A remarkable fact about this contract is that it was the result of a contract made before that time between the Pacific Mail Company and the Transcontinental Railway Pool, as at that date the Association of Transcontinental Railways was called.

As I have read—

That was a contract whereby the Transcontinental Railway Pool, embracing all of the roads between the Missouri River and the Pacific seaports and covering entirely all railway traffic between the Atlantic and Pacific seaboard, several of which had received large donations of public lands and the bonds of which the United States Government was guaranteeing, paid the Pacific Mail the sum of \$90,000 a month, which was afterwards reduced to \$75,000 a month, for the consideration that the Pacific Mail would carry only 1,200 tons a month of freight each way between New York and San Francisco, and on that freight would allow the transcontinental pool to fix the price and rate to be paid.

That was the upshot of the contract, although the form was a reservation of space for 1,200 tons a month for the exclusive benefit of the Transcontinental Railway roads—whether the steamers sailed full or half empty.

After the passage of the interstate commerce law had compelled the dissolution of the so-called "pool," a transcontinental railway association was formed, which, under some name or other, is still in existence; and down to the present time the Pacific Mail, subsidized by the Government in a large amount each year, has been allowing the transcontinental railways to fix the rates and limit the traffic over its line.

These two contracts were so far practically parts of one and the same that the amount paid the Panama Railroad monthly was fixed with regard to that paid to the Pacific Mail by the transcontinental roads, and when the latter was lowered from \$90,000 a month to \$75,000 the former was lowered from \$75,000 to \$55,000. The object of this is frankly stated by the officers of both

the transcontinental roads and the Pacific Mail; it was to maintain rates above the level to which they would fall if free competition between these several routes had continued.

When we pass the Spooner amendment in favor of the Panama route we will cut off every sailing ship in the United States from all possible access in competition with the steamers, and that same arrangement will be instituted again by the Senate, not under a contract such as that Pacific Mail contract, but by legislation.

It seems to be certain that a very large, if not an absolutely controlling, interest in the stock and directory of the Pacific Mail Company is owned by individuals and estates very largely interested in the stock and directory of the transcontinental roads; and it is proven that the same individuals composing a majority of the directory of the Pacific Mail composed a majority of the directors present at the meeting of the Panama Railroad Company's directory at which the contract between the Pacific Mail and the railroad company of February 1, 1878, was ratified and executed.

That this system has for fifteen years been diminishing commerce between New York and San Francisco across the Isthmus is not denied. It is stated, as a justification that the Transcontinental Railway Association, controlling, as it did, under these contracts, the prices and traffic of the Pacific Mail, used the latter as an active factor to defeat—

There we come to it—"used the latter as an active factor to defeat"—

the competition of sailing-vessel traffic around Cape Horn, and thus were able to maintain the rates of the railroad companies as against that of sailing-vessel competition.

If a contract of this kind was necessary at that time to prevent competition of sailing vessels around Cape Horn, what will be the case when we have dug a canal and consecrated it to steamers, a canal that is an absolute prohibition upon sailing ships? What will be the consequence?

The motive is the same, but the inducement is very much greater with the transcontinental railroads and the great steamship companies that wish also to get rid of this sailing competition through the Panama Canal. Sir, I would not under any conditions disable a great American industry like that for the accommodation of any friend or any man who ever lives in this world. We can not honorably do it.

It is obvious that this did not tend to increase American shipping or tend to the encouragement of the merchant marine of the commerce of the United States.

It seems to your committee that this state of things can not be beneficial to the general interstate trade or commerce of the United States, nor can it see that it is of any particular benefit to our trade with foreign countries. It is stated that this arrangement between the Pacific Mail and the Transcontinental Railway Association came to an end in December last, which is just about the time that negotiations between the Panama Railroad Company and the Pacific Mail as to a renewal of the former contract seems to have fallen through.

And it is likewise in evidence that the final check to the attempts at making a new contract between the Panama Railroad Company and the Pacific Mail was given by the following letter to the vice-president of the railroad company from the controlling member of the executive committee of the Pacific Mail, who is also universally recognized as one of the controlling influences of the transcontinental railways:

C. P. HUNTINGTON, 23 BROAD STREET,
New York, December 28, 1892.

CHARLES COUDERT, Esq.,
68-70 William street, N. Y.

MY DEAR SIR: Herewith I return memorandum that you gave me on Monday. Of course this would not do, but it does seem to me as though there could be such a contract made as would be largely beneficial to both interests.

Yours, truly,

C. P. HUNTINGTON.

Whatever be the case in the last sixty days, it is perfectly clear to your committee that the Panama Railroad Company has for fifteen years been prevented by these arrangements from being a competitor with the transcontinental railway lines.

Your committee recommends that whenever, under provisions of the act of March 3, 1891, "for ocean mail service and to promote commerce," the Postmaster-General shall enter into contract with any line of vessels, a clause shall be inserted in said contract to the effect that if said steamship line shall enter into any combination or arrangement with competing lines of traffic the result of which is to diminish traffic or raise or maintain rates of freight on American commerce, foreign or domestic, over what free competition would effect, that said contract may be terminated forthwith by the Postmaster-General.

Your committee regrets, so far as the ownership of nearly all the stock goes, that the control of any American corporation, as the Panama Railroad is, should be held in foreign hands, particularly in the hands of the liquidator or receiver of another corporation, also foreign-appointed by foreign judicial authority and subject to foreign judicial supervision. It fails to see, however, that any law, treaty stipulation, or contract obligation has been violated by the purchase of these railroad shares by the Panama Canal Company, or that as yet any discrimination has been attempted against American commerce or any injustice practiced thereon on account of such foreign ownership of this stock.

If that committee of the House had had the benefit of the testimony that came before the Committee of the Senate on Inter-oceanic Canals, they would have come to a different conclusion, because the Committee on Inter-oceanic Canals have presented proof of a number of contracts. The testimony shows them. The testimony of the secretary of the Panama Railroad Company sets out the terms of the contract intended to monopolize the carrying trade of all countries, as far as possible, carried across the isthmian railway in competition with the interest of the commerce of the United States. Thus are we bitten by the adder that we have brought to our fireside in the winter time in a log that was frozen.

On another occasion, having no reference to canals, but to transcontinental railroads, Mr. Huntington was a witness on a committee that I had the honor to be a member of. He was under oath and I asked him the following question:

Your guaranty appears to be that the gross earnings upon through freight and passengers between New York and San Francisco to be provided to this steamship company by the railroad companies shall be \$75,000 per month. These railroad companies constituted the Transcontinental Association?

Mr. HUNTINGTON. Yes.

Senator MORGAN (reading from the contract):

"All the gross earnings of said steamers from through business between New York and San Francisco each way shall go to and belong and be payable to said party of the first part or credited upon its said guaranty to said steamship company. In consideration of said guaranty of said party of the first part the said Pacific Mail Steamship Company promises and agrees that it will, at its own cost and expense, dispatch and run from the port of New York for Aspinwall not more than three nor less than two through steamers per month, and not more than three nor less than two steamers connecting therewith from Panama to San Francisco, and from the port of San Francisco or Panama not more than three nor less than two through steamers per month, and not more than three nor less than two steamers connecting therewith from Aspinwall to New York, and that said steamship company will permit said party of the first part to fix the rates at which all their freight between New York and San Francisco and of passengers shall be transported by the vessels of the steamship company from the port of New York to San Francisco, and from the port of San Francisco to the port of New York, and will furnish room on each of said steamers from New York and San Francisco, respectively, and their connecting steamers for the transportation of and will transport from New York to San Francisco and from San Francisco to New York all and only such passengers and such freight as may be obtained under rates fixed by said party of the first part to an amount as to freight not exceeding 600 tons of 2,000 pounds each in case it runs two steamers per month, and 400 tons in case it runs three steamers per month upon any one steamer, the intent being * * * that the steamship company shall carry monthly an average of 600 tons per vessel in case two steamers per month are run or a monthly average of 400 tons per vessel in case three steamers per month are run."

"The understanding and intention of this agreement is that the party of the first part shall, through agents appointed by itself, have entire and exclusive control of all the other business of the said steamship company between New York and San Francisco each way, and that no through freight or passengers shall be taken except at prices to be fixed by the party of the first part and by its consent, it being understood that said control shall be exercised through the established agencies of said steamship company."

Now, Mr. Huntington, without going through this paper, it appears to be a contract under which the party of the first part, representing several railroad companies, has a right to fix the freight upon a certain amount of tonnage on each of those vessels?

Mr. HUNTINGTON. Yes; that is it.

Senator MORGAN. Which was the largest amount—occupying nearly the entire carrying capacity of the ship. The object of that was to be enabled, in competition with those steamships, to keep up the rate of charges on your railroads and on the railroads represented in this agreement without cutting.

Mr. HUNTINGTON. Yes; the object was to make us able to get paying rates.

Senator MORGAN. And this arrangement between the railroad companies represented by Mr. Smith and the steamship company represented by Mr. Gould put it in the power of Mr. Smith and of the roads he represented to fix the rate of freights both on the steamship line and on the overland lines to any figure they saw proper?

Mr. HUNTINGTON. Any price that was fair and right.

Senator MORGAN. He was not controlled in any way by that consideration.

Mr. HUNTINGTON. We could not raise the rates upon grain tonnage, which is a low-priced tonnage, and which goes around Cape Horn.

Senator MORGAN. It goes that way now?

Mr. HUNTINGTON. Yes; tonnage where the cost per pound is small.

Senator MORGAN. Was not the effect of this arrangement to put all the freight south of San Francisco, going and coming, under the control of these particular railroads?

Mr. HUNTINGTON. It extended over the whole coast. The Northern Pacific reached Seattle, the Union Pacific reached Portland, the Oregon and California reached Tehama Bay, and the Atchison and Topeka ran to San Diego.

Senator MORGAN. How did it happen that this combination of railroads and steamship lines found it expedient to abandon their contract?

Mr. HUNTINGTON. I suppose it was on account of the cutting of rates. That is why these agreements have always gone up.

Senator MORGAN. Cutting of rates by whom?

Mr. HUNTINGTON. By some of the railroad lines.

Senator MORGAN. Not by some of those included in the agreement?

Mr. HUNTINGTON. I think so. If they had all agreed upon a fair rate, and had all held to it, it was a very fair and proper thing to have done. I did not have much to do with the making of that agreement.

Senator MORGAN. The companies that came into the agreement—some of them—broke away from it?

Mr. HUNTINGTON. I assume that, because notice was given to withdraw from the agreement.

Senator MORGAN. The withdrawal was not caused by competition from the Canadian railroads or from the Northern Pacific?

Mr. HUNTINGTON. No; the Northern Pacific was in the agreement, and I think the Canadian Pacific was in it.

Senator MORGAN. Then it was not competition from that quarter?

Mr. HUNTINGTON. It may have been. There was a screw loose somewhere.

Senator MORGAN. It was not the competition from the companies that were outside of the agreement, but from those that were inside, that caused you to have to break it up?

Mr. HUNTINGTON. I should say so.

Senator MORGAN. Did the Panama Railroad have anything to do with causing you to throw up this agreement?

Mr. HUNTINGTON. I think not.

Senator MORGAN. Did not that railroad company raise the rates for transportation across the Isthmus?

Mr. HUNTINGTON. The Isthmus rates we had nothing to do with.

Senator MORGAN. Did not the Panama Company notify you, or notify Mr. Smith, that it would no longer be bound by that agreement?

Mr. HUNTINGTON. I think not.

Senator MORGAN. And that they would levy their usual charges?

Mr. HUNTINGTON. I think not.

Senator MORGAN. And was not the result of it that you had a lawsuit in New York about it?

Mr. HUNTINGTON. No; we never had a lawsuit about it. Senator MORGAN. Was not a suit in contemplation?
 Mr. HUNTINGTON. That was on an old contract of 1872; not for San Francisco business at all, but on the west coast of the coast of Mexico and with the small republics south of it.
 Senator MORGAN. That was a different contract?
 Mr. HUNTINGTON. Yes.
 Senator MORGAN. How long did that 1872 contract run?
 Mr. HUNTINGTON. I think it ran some twenty years.
 Senator MORGAN. Who had that contract?
 Mr. HUNTINGTON. It was between the Pacific Mail Steamship Company, by Col. W. Park, I think, on the one side, and the Panama Railroad Company on the other. I do not know who its president was.
 Senator MORGAN. Was the Central Pacific interested in that contract which ran for nearly twenty years?
 Mr. HUNTINGTON. No; none of the Pacific roads had anything to do with it?
 Senator MORGAN. That was a contract for the purpose of keeping down competition?
 Mr. HUNTINGTON. Not between San Francisco and New York. As I remember, they gave a certain price over the isthmus—a certain price per month.
 Senator MORGAN. So that neither the Central Pacific or the Southern Pacific had any connection with that agreement?
 Mr. HUNTINGTON. Not at all. It was before the Southern Pacific was commenced. It was in 1872.
 Senator MORGAN. Did you make your money back which you paid to this steamship company—\$75,000 a month?
 Mr. HUNTINGTON. I suppose so.
 Senator MORGAN. You heard no complaint about not making it back?
 Mr. HUNTINGTON. I never heard any. It seemed a proper thing to do to get fair rates.
 Senator MORGAN. How much money, in the aggregate, was paid to this steamship company presided over by Mr. George J. Gould during the continuance of this contract?
 Mr. HUNTINGTON. Seventy-five thousand dollars a month, and it ran about three years. That would make \$2,700,000.
 Senator MORGAN. You collected that, of course, out of the people of California?
 Mr. HUNTINGTON. If we did the business we collected our freight upon it. We always do so before we deliver the goods.
 Senator MORGAN. So that the loss of that sum fell upon them?
 Mr. HUNTINGTON. I do not understand that there would be a loss in paying honest freights on goods.

A cutting of rates by whom? He answered by some of the railroad lines, and then he proceeded to state that he thought this was a perfectly right and fair transaction so far as the people of the United States were concerned, because after all they were not made to pay more freight than they ought to have paid any way.
 The most humiliating and repulsive feature of this entire situation, to the people of the United States, is the direct, constant, and offensive intrusion of the Panama Canal Company into the legislation of Congress, the hearings of committees, the deliberations of canal commissions, and the frequent presentation of letters of advice, and remonstrance to the Secretary of State, and to the President, rebuking the conduct of the House of Representatives, and its ignorance.

The accusation of the ignorance of the House of Representatives has been so harped upon by the agents of the Panama Canal Company that it has grown into a bad habit, into which the Senator from Ohio [Mr. HANNA] has fallen, inadvertently, of course.

Two leading characters have had charge of this campaign of false pretenses and misrepresentations—M. Hutin and Mr. Cromwell, who is general counsel for this company, and has a large experience in the hospital treatment of infirm corporations.

M. Hutin is aggressive and quick to seize upon and misunderstand the attitude of his diplomatic antagonist, and becomes testy when he is foiled and resorts to misrepresentation to drive his adversary into a corner. When he is defeated he breaks away from the contest and takes a dignified and defiant attitude, as he did when Admiral Walker refused to be placed in the attitude of making an offer to purchase the Panama Canal. He had made no such offer, and so informed M. Hutin in unmistakable terms.

Thereupon, M. Hutin appealed to the President in a long and formidable address, taking care to omit from his statement of facts the most important letter that Admiral Walker had written.

Thereupon, M. Hutin, more in anger than in sorrow, left the country and went to Paris. He was in bad shape to face the storm that came upon him when the House passed the second Hepburn bill, now before the Senate. When it broke upon him he stood by the \$109,000,000 which was the value of the canal and railroad property as it had been appraised, and refusing to join the set that intended to capture the \$40,000,000 for their own purposes, they turned him out of office and determined to become voluntary bankrupts, but to reserve the \$40,000,000 from their schedule of their assets.

M. Hutin disappeared when his scheme failed, but Mr. Cromwell followed the sinking ship and kept a sharp lookout for the salvage.

As soon as the Panama Canal Company found they could not induce Frenchmen to put up the money to complete the canal that had caused France so much trouble and mortification of spirit, to say nothing of the vast sums that the Panama Canal Company had filched from the French people of the middle classes, they turned to the United States a second time and put their case in the hands of a lawyer.

De Lesseps, when he made a like resort to the United States, in a like emergency, opened the money chest of the old company and paid more than \$4,000,000 into the hands of the American committee and dismantled a Presidential Cabinet.

He worked high diplomacy, sustained by a plethora of money, and failed to get our Government snared in his trap.

The new company could not hope to succeed in open efforts to purchase leading characters after De Lesseps had failed so disastrously.

In the meantime Congress was moving toward the point we had finally reached, of the exclusive ownership and control of a canal by the United States, to be paid for by appropriations from the Treasury, and the only hope left to the New Panama Canal Company was to sell out to the Government.

To accomplish this feat was the loved task of Mr. Cromwell. This new movement, which was made indispensable by the flat refusal of the French people to be a second time victimized, required adroit manipulation, and no one was so adroit as Mr. Cromwell.

He also had a keen appreciation of the innocent humor of the little Sunday-school girl, who, being asked to recite a Bible story, said: "The Bible does not tell stories. It tells the truth. It says that a lie is an abomination unto the Lord and an ever-present help in time of need." [Laughter.]

Mr. Cromwell opened his campaign of deception as to facts and concealment as to motives by giving to the President information of the excellent condition and bright prospects of the New Panama Canal Company.

To do this, in an official way, he sent a letter to the President, dated Paris, November 18, 1898, signed by "J. Bonnardel, the president of the board of directors," and certified by the secretary of the company, Ed. Lampre, that distinguished counsel who came over here to give us his testimony as to what French law means, and he was examined before the committee.

No description of this letter would do justice to its apparent innocence, which is only the veneer of its crafty diplomacy. I will ask leave to insert it in the RECORD. It is a most remarkable piece of adroit diplomacy. There is nothing like it that I have ever seen in any lawyer's brief before.

Mr. MITCHELL. It is from Lampre?

Mr. MORGAN. Certified by Ed. Lampre.

The PRESIDING OFFICER (Mr. WELLINGTON in the chair). The Chair hears no objection, and the letter will be inserted in the RECORD.

The letter referred to is as follows:

[Translation.]
 [Compagnie Nouvelle du Canal de Panama, 7 Rue Louis le Grand, Paris, Capital, 65,000,000 francs.]

PARIS, November 18, 1898.

TO THE PRESIDENT OF THE UNITED STATES.

SIR: The New Panama Canal Company believes it to be its duty to respectfully submit the following statement:

It is common knowledge that in 1889 the Compagnie Universelle du Canal Interocéanique de Panama, the old company, fell into financial difficulties after about one-third of the canal had been finished. The rights of that company then passed judicial administration. A liquidator (receiver) was appointed by the judgment of the civil tribunal of the Seine under date of the 4th of February, 1889. During his administration (1889-1894) and with the authorization of the court, the greatest care was taken to preserve and maintain the work already done, and a prolongation was obtained from the Republic of Colombia of the time stipulated for the completion of the canal, thus preserving the rights of the company under its concession in their entirety.

In view of the advanced state of the work on the canal, and the considerable sum (at least \$150,000,000) actually expended for canal work properly so called, and for installations and plant, the logical conclusion followed that the very large capital invested would be protected through a reorganization of the affairs which took place successfully in the month of October, 1894. At that time and with this object in view the undersigned company was organized under the general laws of France.

The company is a commercial association, formed exclusively upon private capital, and has no connection, alliance, or relation whatever with any government, except the relations established by the concessions which it holds from the Republic of Colombia. The board of directors of the company is an entirely new board and composed of gentlemen of independent positions, having no official relation with the old Panama Company, and for the most part identified with large financial and commercial enterprises.

Pursuant to judicial sale, authorized by the court as aforesaid, the undersigned company in 1894 became the sole owner of all the canal works, plant, material, concessions, and other property of the old company. The title of the undersigned to this property is therefore unquestionable, and has been officially recognized by the Government of Colombia.

Surveys had been made by the old company, but the new company, while making use of them, would not be bound by their conclusions. The board of directors resolved at the start to examine and study anew all the questions involved, making use of the most recent improvements in material and of the advances made in engineering.

It is needless for us to enumerate the difficulties and enormous expense involved in the choice of a definite plan for the execution of this work, which is one of the greatest undertakings of our time.

Different plans, equally practicable but varying in probable cost, have been studied. Many months have been spent in preparing, studying, and revising them. This work has not been done hastily and superficially. Engineers, chosen specially for their professional ability, have studied the question in all its details—technical, climatic, physical, geologic, and economic.

Though the skill of its own technical staff is worthy of the highest confidence, the undersigned company, out of abundant caution and in order to place beyond criticism the final conclusions, caused to be appointed an International Technical Commission, composed of engineers selected from different

We therefore construe the action of the House of Representatives as only a part of the strife between the House and the President, and not a declaration of the policy of the nation or the Congress in respect of the Panama Canal, and as not evidencing hostility to the company itself. We are the more confirmed in this belief because of the uniform consideration and cordiality displayed by the Congress and the Government to the New Panama Canal Company, which we have no doubt their minister at Washington would fully confirm to you.

Our company has not the least apprehension regarding any prorogation of its concessions it may consider necessary in the future.

I have, etc., your obedient servant,

WM. NELSON CROMWELL,
Counsel New Panama Canal Company.

If Senators, when they come to read this, will refer to the last clause of the letter which I have quoted, they will see what this man was driving at.

The treaty of 1846-1848 bound the United States to protect Colombia in the ownership and sovereignty over Colombia. It also bound us to protect the transit across the Isthmus.

The Canal Company fancied that it saw in this revolt, which is still flagrant, the opportunity to turn over the canal to the United States, so that, in protecting the canal, it would be protecting its own property.

It was a bold movement of the reckless lawyer to involve the United States in a war, if need be, to get rid of this property by selling it, or an interest in it, to the United States. This ugly device was received in silence by Mr. McKinley, and Mr. Cromwell was thrown upon his ingenuity to arrange another coup.

On the 21st of December, 1898, Mr. Cromwell informed Mr. Hay that the Government of Colombia (which means the President) had signed the extension of the concession until 1960.

This, of course, united the interests of Colombia and the Panama Canal Company in supporting the war of the President, at the head of the church party, against the Liberals, for which the canal company paid him \$1,000,000 French gold to carry on the war. It was an extraordinary transaction. They had to put up with it when they paid him a million dollars in gold, and they paid it to get the President to sign this last concession, which is the basis of their title to-day, a part of it, after Congress had refused to ratify it and declared the presidency vacant because the President had signed the concession for a million dollars. That is the crowd that we are asked to shake hands with by treaty.

After that transaction Colombia was plunged into civil war. They are still fighting, and if we purchase the property of the canal company we must take the war along with the property, or if we do not buy ourselves into the conflict of arms the Liberal party will never forgive us for paying \$1,000,000 to the church party to furnish them the sinews of war.

But to follow Mr. Cromwell. When he found that he could not inveigle the United States into the dishonorable scheme of capturing the canal and railroad, because we had engaged to protect them, and that to own them would be the easiest way to protect them, the canal company then broke up the peace and unity of the Colombian Government, as I have shown from admissions in his own letter, by buying the consent of the President to sign an extension of the concession that Congress had refused to ratify. There is where that Government went to pieces; that is the rock on which it broke, and it stays there yet.

The French people were still unwilling, notwithstanding this extension, to put any more money into the canal, and he again approached the President of the United States with a proposition for the joint ownership of stock in the New York or New Jersey corporation, under the title of the New Panama Canal Company of America.

To accomplish this project it was becoming, in his opinion, to boast more loudly than ever of the wealth and power of his company, and also to make a side lick at its rival, the Maritime Canal Company. That letter carries its own interpretation, and it will be seen, as it is read, that it is the last bid of a desperate gambler in corporation stocks.

On the 28th of February, 1899, Mr. Cromwell addressed the following letter to the President:

Messrs. Sullivan & Cromwell to Mr. Hay.

NEW YORK, February 28, 1899.

DEAR SIR: We beg leave to hand you herewith a copy of the communication which this day has been addressed to the President.

We are, etc.,

SULLIVAN & CROMWELL,
General Counsel.

Mr. Hutin and Messrs. Sullivan & Cromwell to the President.

NEW YORK, February 28, 1899.

SIR: 1. The New Panama Canal Company has never proposed and does not seek any appropriation or financial aid from the Government of the United States in the completion of its canal.

What a heroic outburst of independence that is!

2. It places its canal works on the Isthmus of Panama subject to the examination of this Government, or any special commission through whom it may be desired to make such examination, and will facilitate in every possible way any such desire of the Government.

3. The Government will find that fully two-fifths of the canal works are already constructed; that continuously during the past four years from

3,000 to 4,000 men, under a large force of engineers, have been and are now actually engaged upon its works; that all technical and physical problems have been solved by the eminent "International Engineering Commission," whose report of November 18 last is before you; that the canal is undoubtedly feasible and the harbors at both ends natural harbors and entirely satisfactory.

They say nothing about the eight millions it will take to fix the harbor at Colon.

That its concessions are perfect and unquestioned, and that the relations of the United States to the canal are especial and superior by reason of the "special and remarkable advantages" secured to it by the treaty of 1846 between the United States and Colombia, and which rights, whatever they may be, were scrupulously respected, observed, and confirmed in the concessions of Colombia to the Panama Canal Company, under which the canal is being completed.

4. While the New Panama Canal Company does not seek any financial aid from the Government, it recognizes the national sentiment in favor of acquiring some pecuniary interest in any canal connecting the Atlantic and Pacific oceans. Therefore, the New Panama Canal Company declares that if, as the result of any such investigation, the Government of the United States adopts the Panama route, the company, if the Government so desires, will reincorporate under the laws of the State of New York (under the laws of which State the Panama Railroad Company has existed for nearly fifty years), or of some other State of the Union—

It turned out to be the fate of New Jersey to receive that compliment—

subject to the provisions of its concession, and vest its concessions and property in such corporation. It will also in said event accord to the United States such representation in its board of directors, and such opportunity to acquire an interest in its securities, as may be permitted by its concessions, which, of course, must be scrupulously observed.

And further, if the United States should desire to perpetuate or enlarge its existing rights and privileges, acquired under said treaty of 1846—

That means if they should undertake to take the Panama route in order to protect it—

the company will conform to such supplemental treaty as may be entered into between the United States and Colombia.

We beg leave to say that yesterday, at a public hearing accorded us by the Committee on Rivers and Harbors of the House of Representatives, we submitted to the chairman and gentlemen of that committee a communication to the foregoing purport, and have the honor to be,

Your obedient servants,

MAURICE HUTIN,
Director-General of the New Panama Canal Company.
SULLIVAN & CROMWELL,
General Counsel, New York City.

And on March 11, 1899, M. Hutin sent the following letter to the President:

Mr. Hutin to the President.

COMPAGNIE NOUVELLE DU CANAL DE PANAMA,
45 Wall Street, New York City, March 11, 1899.

TO THE PRESIDENT:

Referring to the act of Congress approved on the 4th instant, respecting an investigation of the Panama and Nicaragua canals, the New Panama Canal Company, as one of the subjects of the inquiry, respectfully invites attention to its communication addressed to you December 2, 1898, and to its subsequent offers to the honorable Secretary of State, and finally to its official proposition of February 27 last, all of which contain the proffer and urgent invitation that the President or Congress make the fullest investigation of the canal works, plans, seven concessions, and status of the New Panama Company; and it also refers to the official report upon the canal made by the International Technical Commission November 18, 1898, and placed in your hands by us on December 2 last.

The said act of Congress is therefore in full accord with our repeated offers and our warmest desires.

We again most respectfully renew our proffer of the fullest investigation and our offer of all the facilities to that end. But the subject is of such transcendent consequence to the United States, to the people of the world as well as to ourselves, that we venture, with due respect, to submit this our petition that any commission designated to aid you in making the investigation and comparison contemplated by the act of Congress be composed of gentlemen of the widest experience, of exceptional character and unquestioned professional standing, and who are not embarrassed by public commitments or previous records favorable or unfavorable to either one or the other project and who have not heretofore served upon any canal commission.

The New Panama Canal Company does not present or suggest any name for membership of any commission. Its only petition is that the selection be of gentlemen whose conclusion will at once command public confidence, fully relying upon its ability to satisfy fair and impartial investigation of the merits of its canal.

THE NEW PANAMA CANAL COMPANY,
By MAURICE HUTIN, Director-General,
SULLIVAN & CROMWELL, General Counsel.

What does that mean? Walker and Haupt and Hains had been appointed by the President upon the Nicaragua Canal Commission and had made their report adverse to this company, and here the New Panama Canal Company come in and make their bow to the President of the United States, and politely suggest to him that they think it would be very much better that he should not appoint any gentleman who has been upon any former commission, and the President forthwith appointed all three of them on the next commission. That was his way of answering such insolence.

Mr. Cromwell then proceeded, in New Jersey, under the general laws of that State, to take out a charter for the proposed company to carry out his offer to the President. It would require a long recital to set forth the wild absurdity of its alleged powers.

It is impossible to conceive of any law paper that is more grotesquely absurd. One is left in doubt, after reading this charter, whether it could have been intended as a serious proposition.

Mr. MORGAN. Mr. President, these statements establish positively that all the movements of Mr. Cromwell, from the beginning of his conduct of affairs of the company in the United States, were directed to the purpose of defeating the Nicaraguan Canal movement, whether by the Government or by the Maritime Canal Company. If the Nicaraguan Canal could be defeated, the way was open to the Panama Canal, and in any event they had a paying property in the Panama Railroad.

The extraordinary folly and presumption of his letter to the President of the 28th of February, 1899, was intended to show the President that if Congress was willing to accept stock in a canal company he would remove the Panama Canal Company bodily from France and put all its assets into a New Jersey corporation and give the United States the privilege of becoming a stockholder and of appointing directors in the New Panama Canal Company of America.

The later letters, which I have just read, show that when Cromwell failed to ensnare the President with his New Jersey corporation scheme, he attacked the lion in his den and made direct and almost open war on the Nicaragua Canal bill, reported to the House in the Fifty-sixth Congress, and passed by the House on the 2d of May, 1900, by a very strong majority.

The bill was delayed in the Senate until the Fifty-sixth Congress expired, and Mr. Cromwell had a rest from active operations.

In the Fifty-first Congress Mr. Sherman made a report from the Committee on Foreign Relations in favor of the Nicaragua Canal. He made a second report in the Fifty-second Congress.

In the Fifty-third Congress Mr. MORGAN made a like report from the Committee on Foreign Relations.

In the Fifty-fourth Congress Mr. MORGAN made a like report from the Select Committee on the Construction of the Nicaragua Canal.

In the Fifty-fifth Congress Mr. MORGAN made a like report from the select committee, and the bill passed the Senate on the 21st day of January, 1899, by a vote of 48 yeas to 6 nays. A previous vote had been taken on one of these bills. It passed the Senate by a vote of 11 majority. For the last bill the Senator from Ohio [Mr. HANNA] voted. On the first occasion he was not here.

This action of the Senate put Mr. Cromwell in the state of agitation that caused him to address his first letter to the President, on the day of which I have read to the Senate.

In October, 1895, Ludlow's report in favor of the Nicaragua Canal was made to the President, and on June 1, 1896, the Committee of the House on Interstate and Foreign Commerce made a searching examination into the entire subject and reported a bill to construct a canal on the Nicaraguan route.

On the 17th of January, 1899, the House committee, of which Mr. HEPBURN was chairman, began a full and searching examination of the whole subject of the canal.

Mr. William Nelson Cromwell was the first witness to be examined, and he took charge of the French forces as general in chief, legal counsel, diplomatic functionary, orator, and witness for the Panama Canal Company.

He produced General Abbot, who was examined at great length, and Mr. Choran, chief engineer of the Panama Canal Company, who was also examined at great length and made a supplemental statement of 10 pages of printed matter in behalf of Panama.

Mr. Fteley made a written statement covering 33 pages of printed matter in small type.

Mr. Cromwell was assisted by Mr. Curtis in conducting the examinations and both broke in with their statements when it was found necessary.

The witnesses for Nicaragua on that occasion were Alexander T. Mason, Hiram Hitchcock, and Lewis M. Haupt. The committee made no report on the Senate bill, but took a bold departure from the policy of Government aid to the Maritime Canal Company and adopted the policy of ownership, construction, and complete control of a canal by the United States, and the first Hepburn bill was accordingly reported to the House on the 7th day of December, 1899.

In the meantime, on December 1, 1900, President McKinley had entered into agreements with Costa Rica and Nicaragua which he knew would close the controversy and shut off Mr. Cromwell's intrusions into legislation relating to the canal.

The President passed to his new and greater estate believing that he had settled the canal question, if Congress would authorize the President to acquire the right to do so from Nicaragua and Costa Rica.

He understood the reasons for the choice he made as well as any man who has survived him, having been fully informed by Mr. Cromwell and other agents of the Panama Canal Company as to every fact and plea and finesse and misrepresentation they had to make. It is a shameful reflection on Mr. McKinley to say that he did not have the opportunity to understand the Panama route when he chose the Nicaragua route.

But what respect has Mr. Cromwell, or anyone who is opposed to any canal, for the decision made by Mr. McKinley, when the occasion is again presented for further delay and final defeat of the will of the American people at the behest of the great railroads?

In the opening of this Congress the House again took up the Hepburn bill and passed it. Cromwell was, for the first time, belated by nine days' interval of time.

The Senator from Ohio has graphically depicted the sad period, but Cromwell rose to the occasion and opened a new campaign. I refer only to what the record discloses of his action. I would not dare to follow him when he is not on the surface.

His next appearance was, as counsel for the Panama Canal Company, in the rôle of chief negotiator for Colombia, in formulating the draft of the proposed convention that is before the Senate as the expression of the purposes of Colombia as to the granting of canal rights to the United States.

He puts another letter into the diplomatic files, which is to stand as the key of interpretation of the convention in any future misunderstanding that may occur. It is sent to Congress as part of the Colombian draft of a convention.

When we wish to know what that convention means we must refer to this letter.

It is attended with a disgusting cajolery and sycophancy that only too well indicates that it is intended to mislead Congress.

Mr. Cromwell's final appearance, in the open, is his letter of indorsement and explanation appended to the report of the minority of the committee. Why was he not called before the committee, as Mr. Pasco was, to swear to his opinions, if they are so important? It is plain enough for common comprehension that Mr. Cromwell could not afford to appear to support his attack upon the Nicaragua route.

The friends of Nicaragua could not call him as a witness without indorsing him, and could not compel him to disclose professional secrets to the disadvantage of his clients.

The Cromwellian phase of the situation is not likely to commend the Panama Canal Company or its ditch to the favor of the American people.

Mr. President, I have now shown the circumstances under which this matter has been brought before the Congress and before the Senate to-day, and I have shown how the discerning eye of the President and of the chairman of the Committee on Interstate and Foreign Commerce of the House saw through this pretender, trapped him as he came along with his cajolery and his seductive offers, and how they have disregarded him.

But it seems, Mr. President, that we can not shake him off. I presume he is in the gallery now, listening to me. He has been here all the time during this debate. The word "Panamaist" in Paris to-day is as much a synonym of a scoundrel as any word that was ever invented to define a bad character in our provincialism. I do not foresee what the result may be if we take up that corporation and do what Colombia says, "Go to them first and deal with them, settle with them, and then come to us."

Sir, I propose that if the Government of the United States has to deal in respect of property with any foreign person it shall find at least some authorized diplomatic agent to stand up in company with our diplomatic agent, to bind a government, to bind somebody beside a private individual or corporation in a contract which relates to the affairs of the whole world.

Why shall we go into a diplomatic correspondence or a dicker with the Panama Canal Company in order to do that which is provided for in the Spooner amendment at the round sum of \$40,000,000? If we are to take it, why is not our agent permitted to have some judgment about its actual value? Why is the round sum put up, and why is it provided that more or less shall not be given as the price of it?

Mr. President, without reference to its connection with Nicaragua or any other thing or anybody else, it appears to me that the Government of the United States was never put into such a humiliating position as it will be in when our agents go to M. Hutin, or whoever may be the new president, the man put in in order to make the forty-million-dollar bid, and make an arrangement with him to discuss what he proposes to do in selling the property to the United States. The proposed treaty requires that we shall settle with that company, the company being authorized by Colombia to do it, before we go to Colombia for the purpose of obtaining concessionary rights to go through the State of Colombia with a canal.

The Panama Canal Company can not be a party to a diplomatic agreement with the United States. If it turns out that, by fraud, or through our mistake, we are cheated out of money, that we are deceived, what remedy have we? We have merely to turn our backs and walk off from a transaction with which we had no business to have anything to do.

If, however, the Government of Colombia will come forward and say, "We think the property is worth \$40,000,000, and you can

have it for \$40,000,000, which we will distribute, and another million dollars," (which they have put into the treaty and which is not in the \$40,000,000, to be paid at once for its ownership of stock in the Panama Canal Company), "and seven millions advance payment for fourteen years of rent at \$500,000 a year for a canal while you are building it, we will guarantee you against France, guarantee you against the creditors of the Panama Canal Company, although some of them are American citizens" (for there are a number of them in the United States); "we will guarantee you against all the speculators and speculators" (who have been running through the market to pick up the bonds since we have been at work about it); "we will guarantee you against the women and the children who have no representation in this matter, and whose rights have been cut down by legal technicality or mistake" (they can not guarantee us against the abuse of our own character by accepting a proposition surrounded with such evidences of frightful wrong and injustice), then we might say, "We will accept your proposition, it being extremely beneficial to us and better than any we ever dreamed we could get. We will accept your proposition for the reason that we can hold you to your bargain. If it turns out otherwise, and some court in France, or in Colombia, or in the United States, or elsewhere should hold in favor of one of these little innocent children, that they had a right of lien upon the property, you, Colombia, are bound to make it good to us."

But as we have nobody to deal with but this corporation, the Panama Canal Company, that is now in articulo mortis, it is a very bad outlook for the United States. It is a degrading, a cheapening, and a bad outlook for the United States to engage in any such transaction. We have no business committing the honor of this country to any such transaction. Senators may find in acts of friendship that they think they owe to leading Senators or others in this country some excuse for accepting such a situation, but I have no such responsibilities and no such inducements to lead me from what I consider to be the path of duty; and I will not consent that this Government, after an experience that has been disagreeable in the past, shall have any dealings with the Panama Canal Company. Let that company deal with Colombia, with the consent of France, and let Colombia at least offer us a title that is warranted to be free of all incumbrance.

APPENDIX.

[House Report No. 2615, Fifty-second Congress, second session.]

INVESTIGATION OF PANAMA CANAL.

March 3, 1893, laid on the table and ordered to be printed. May 9, 1900, ordered reprinted by the Senate.

Mr. Fellows, from the Special Committee to Investigate the Panama Canal Company, etc., submitted the following report.

The Committee on Rules, to whom were referred the resolutions heretofore introduced by Mr. Fellows and Mr. Geary, respectively, reported the same back with the recommendation that the resolution herewith submitted be adopted in lieu thereof, viz:

"Resolved, That a special committee of five be appointed by the Speaker to investigate and report as to what sums of money, if any, were expended by the Panama Canal Company, or its promoters, directly or indirectly, for the purpose of preventing opposition in this country to the plans of said company, or securing acquiescence in America thereto, and what disposition was made of such sums; and generally as to the situation of affairs upon the Isthmus so far as American commerce seeking transit across the same may be concerned; and also as to the contracts and relations between the Pacific Mail Steamship Company and the Southern Pacific Railroad Company, the Transcontinental Railroad Association, and other railroads; and as to what contracts or other collusive arrangements have been made by said companies whereby the traffic by way of the Isthmus of Panama has been suppressed or diminished; and as to whether said steamship company, by virtue of said contracts or otherwise, has been practically absorbed by or subjected to the control of said railroad companies; and as to whether the business which it was the design of this Government to foster by the sums granted to said steamship company, through mail contracts or otherwise, has been thereby diverted from the Isthmus of Panama and the Panama Railroad Company to such transcontinental companies; and as to whether such acts are detrimental to the interests of American maritime commerce and the producers, manufacturers, and merchants of the United States; and if such abuses are found to exist, by what means the same can or should be suppressed, and as to whether the further grant of said sums to said steamship company should be withdrawn. Said committee shall have the power to send for persons and papers and administer oaths, and the expenses incurred in said investigation shall be paid out of the contingent fund of the House, and said committee shall have leave to sit during the sessions of the House in Washington or elsewhere."

Your committee, to which was referred the foregoing resolution, finds itself confronted with the fact that this session will close within a few days and that some report is demanded during the very last week of an expiring Congress.

The matters referred to in the resolution are so varied and distinct in their nature that while the committee finds itself able authoritatively to report on certain of the subjects contained in it, feeling confident that the true facts have been thoroughly disclosed, as to other matters referred your committee does not feel that same confidence, and should the House desire further investigation of some of the subjects embraced in this resolution your committee does not feel justified in saying that no ground for such action exists.

Your committee has not felt itself compelled to go through the great mass of diplomatic papers and correspondence which has accumulated during the present century between various foreign powers and the United States on the subject of transit across the Isthmus of Panama. Your committee has examined the matter sufficiently to be able to say that as far as the treaty of 1846 with New Granada is concerned, and so far as the concession granted to and contracts made with the present Panama Railroad corporation, there is no clear ground for the assertion that any exclusive right to cross the

Isthmus was ever in terms granted, or by implication secured, either to an American corporation or to citizens of the United States, to the exclusion of citizens of any other country.

The original concession to Howland and Aspinwall was simply the transfer of the concession theretofore given to a French corporation, which concession had been surrendered back to the Government of New Granada. The rights of the Panama Railroad Company are simply those conveyed to it by Howland and Aspinwall, affirmed and modified only by subsequent contracts with the Government of New Granada. There does not seem to be any ground, so far as the evidence adduced before this committee goes, for the claim that the Government of New Granada or the United States of Colombia has ever guaranteed that the United States shall control the transit, or place any limitation on the legal rights of shareholders in the railway company or restriction in the nationality of the owners of its stock.

The Panama Railroad is a corporation under the laws of New York, and its directory and the rights of ownership of its shares are governed by the laws of that State.

Your committee being instructed to ascertain whether any sums of money were expended by the Panama Canal Company or its promoters for the purpose of preventing opposition in this country to the plans of said canal, has done its utmost in the limited time before the end of the present Congress to investigate this matter. It has been unable thus far to trace directly or indirectly the expenditure of any money whatever in a corrupt way to influence the legislative or executive action of the United States Government. It may be that no investigation, however prolonged, after this lapse of time could be efficient in making such discovery, even if such corrupt use of money was made; but this is the subject of which your committee does not desire authoritatively to express its opinion that further investigation would be entirely fruitless.

Certain facts in relation to the expenditure of money on the part of the canal company, however, are distinctively proven.

In the year 1879 the original subscription to the stock of the Panama Canal Company was opened in France, of which country the canal company, by its technical name of the Universal Inter-Oceanic Canal Company, is a corporation. The original subscription was an entire failure, and great weight must be given to the opinion that it was a failure principally on account of the distrust as to the attitude of the United States toward this canal project which was universally entertained in Europe.

It is a fact too well known to have required testimony to be offered that the entire tone of the executive branch of this Government during the Administration of President Hayes, and the entire current of our diplomatic correspondence, was one of intense loyalty to the idea that not merely no foreign government, but no foreign corporation indirectly supported or controlled by any foreign government, should ever obtain any right to construct a canal across the Isthmus. In fact, during the two years preceding the close of the Hayes Administration the correspondence of our Government was kept within ordinary diplomatic courtesy of protest on this subject only by the belief, which results have proved to be well founded, that the canal constructed on the plans and ideas of De Lesseps and his associates was an idle dream, practically hopeless of accomplishment.

It seems clear that the promoters of the canal company saw that no success would attend their efforts to obtain subscriptions in Europe unless the public opinion of America on this subject should either be modified or that the people of Europe should be persuaded that the public opinion of the American people had been modified. De Lesseps visited this country in the winter of 1879-80, and a single instance will show how determined the promoters of the canal were, whatever was the popular opinion in this country, that Europe should be persuaded that it was not hostile to the canal. On the very day of De Lesseps's arrival in Washington President Hayes sent his message to Congress affirming in strong terms the position of his Administration as to the Monroe doctrine in its broadest acceptance.

That message as it appeared in the press was translated to De Lesseps, and his answer was characteristic and immediate. To the amazement of his American friends, who had translated him this message, he at once telegraphed to Paris that the President's message had guaranteed the neutrality of the Panama Canal. This seemed to be the beginning of a great change in the tone of the press of Paris and of France, and from the time of De Lesseps's visit to this country there seemed to be an assurance that America was not hostile, but, on the contrary, very friendly to the enterprise. It was after the return of De Lesseps to France that the decision was made that an American committee of men of prominence whose solid names would be a guaranty of the financial stability of the enterprise should be selected.

The object of this is perfectly clear. It was to give a widespread public impression that American capital, in the persons of some of its most respectable agencies, with ramifications, correspondents, and connections in every financial center of all localities in the United States, was backing the enterprise, and that Americans intended to become shareholders in the canal. It was intended first by the gentlemen who were selected to compose this committee to choose General Grant to lend his name to this enterprise, to give to this American committee not merely financial weight, but the patriotic glory of a great name at the head of it, so as to impress the American people with its international or binational character. General Grant having declined, it was clear that the next best thing to do was to secure the name, as chairman of this committee, of some gentleman widely known, of political experience and position, and, if possible, one whose orthodoxy in the past in relation to the Monroe doctrine would make his support of the canal project all the stronger in the eyes of the American people.

The American committee, by mutual agreement, under suggestions from the financial agents of the canal company in Paris, had already been composed of the great banking houses of J. & W. Seligman, Drexel, Morgan & Co., and Winslow, Lanier & Co., of New York. Each of these houses was to designate one of its members to form the American committee, and the then Secretary of the Navy, Hon. E. W. Thompson, was decided upon as chairman, and in the autumn of 1880 the offer was made to him, through J. & W. Seligman, to leave the Cabinet and assume the title of the chairman of the American committee, with a salary to be paid at not less than 125,000 francs.

The house of Seligman & Co., of London, in which the New York banking firm of J. & W. Seligman were interested, had been the financial agents of the Navy Department during the Hayes Administration, and personal acquaintance between the Seligmans and Mr. Thompson had been the consequence.

The only testimony obtainable as to the reasons which induced Mr. Thompson to consent to take this step is his own recollection of what was in his mind at that time. He states that after he decided on this step he notified the President of his intention and that the President acquiesced in it; and his resignation, under these circumstances, caused no severance of the personal friendly relations between them. This may be true, but it is difficult to see what the President could have done to show any want of acquiescence when one of his Cabinet tendered his resignation and explained that it was to assume a position of great apparent financial responsibility and importance, with a salary three times greater than he received as head of the Navy Department.

Testimony has been taken showing that this action on the part of the Secretary of the Navy was a great disappointment and surprise to Mr. Hayes, and he so expressed himself to others than Mr. Thompson.

commerce have sustained have been laid on them by American citizens controlling various other American corporations, and it is not a pleasing subject to contemplate.

Your committee can not refrain from calling attention to what seems an obvious deduction from the facts shown, that it is to the interest of the United States that the American people should absolutely control some outlet across the Isthmus at some point, which shall be used for the benefit of American trade in general as an open and continuous competitor, affording no opportunity for entangling subsidies from great competing lines or chance of falling into the grasp of any monopoly through stock manipulation.

JOHN R. FELLOWS,
Chairman.
T. J. GEARY.
JOSIAH PATTERSON.
H. HENRY POWERS.
BELLAMY STORER.

Mr. QUARLES obtained the floor.

Mr. MORGAN. Will the Senator from Wisconsin allow me?
Mr. QUARLES. Certainly.

Mr. MORGAN. I promised the Senator from Wisconsin [Mr. SPOONER] that I would ask the Senate to agree that the pending bill should be taken up after the routine morning business tomorrow. He was not feeling very well and did not wish to occupy the latter hours of the evening speaking. I also ask permission to take the floor for the Senator from Wisconsin.

The PRESIDING OFFICER. If there be no objection to the request, it will be so ordered.

Mr. MORGAN. Have I unanimous consent for the other order?

Mr. SCOTT. I wish to ask the Senator from Alabama if there are not other Senators who have given notice, and whose notices are on the Calendar, that they wish to speak to-morrow?

Mr. MORGAN. That will be a question between the other Senators. If there is objection, I will not try to secure the order; but it was my suggestion that the Senator from Wisconsin should be relieved in this way. I did not suppose anybody would object. At all events, I will ask that the Senate proceed to the consideration of this bill to-morrow at the conclusion of the routine morning business.

The PRESIDING OFFICER. The Senator from Alabama asks that the Senate proceed to the consideration of the unfinished business to-morrow at the conclusion of the morning business. Is there objection to that request? The Chair hears none, and it is so ordered.

Mr. HOAR. The request was "at the conclusion of the routine morning business."

Mr. MORGAN. After the routine morning business.

The PRESIDING OFFICER. That was the request of the Senator from Alabama.

Mr. BACON. Mr. President, a few days since I presented to the Senate two amendments to the pending measure, one intended to be proposed to the amendment offered by the Senator from Wisconsin [Mr. SPOONER] and the other an amendment to the original bill. Each of these amendments is identical; in other words, one is the same as the other, and is intended to be ingrafted upon whichever measure shall be adopted by the Senate. Since offering those amendments certain amendments have been suggested by various Senators, and I have recast them. I ask that they be reprinted in order that they may be available for examination by Senators.

The PRESIDING OFFICER. The Senator from Georgia asks that the amendments he has heretofore offered, and which have been recast by him, be reprinted for the use of the Senate. Is there objection to the request? The Chair hears none, and it is so ordered.

Mr. BACON. I desire that one of the amendments shall be read now, in order that it may be in a position where Senators may conveniently see it. The Secretary will begin at the important part, which is the only part I desire read.

Mr. ALDRICH. I suggest that it be printed in the RECORD without being read.

Mr. SCOTT. It is late; let it be printed.

Mr. BACON. That is sufficient.

The amendment referred to is as follows:

Amendments intended to be proposed by Mr. BACON to the bill (H. R. 3110) to provide for the construction of a canal connecting the waters of the Atlantic and Pacific oceans, viz:

On page 2, line 3, strike out the words "Secretary of War" and insert in lieu thereof the words "Isthmian Canal Commission hereinafter authorized."

On page 2, lines 10 and 11, strike out the words "Secretary of War" and insert in lieu thereof the words "Isthmian Canal Commission under the direction of the President."

On page 3, line 6, strike out the words "Secretary of War" and insert in lieu thereof the words "said Isthmian Canal Commission subject to the approval of the President."

On page 3, at the end of line 9, after the word "defenses," insert the words "or any part thereof."

Add an additional section to said bill, to be known as section 7, as follows:

"Sec. 7. That to enable the President to construct the canal and works appurtenant thereto as provided in this act, there is hereby created the Isthmian Canal Commission, the same to be composed of seven members, who shall be nominated and appointed by the President, by and with the advice and consent of the Senate, and who shall serve during the pleasure of the President, and one of whom shall be named as the chairman of said Commission. Of the seven members of said Commission at least four of them shall

be persons learned and skilled in the science of engineering, and of the four, at least one shall be an officer of the United States Army and at least one other shall be an officer of the United States Navy, the said officers, respectively, being upon the active or the retired list of the Army or of the Navy. Said commissioners shall each receive as their compensation the sum of \$10,000 per annum, and such additional allowances for actual expenses incurred as may be allowed by the President in his discretion.

"In addition to the members of said Isthmian Canal Commission, the President is hereby authorized through said Commission to employ in said service any of the engineers of the United States Army, at his discretion, and likewise to employ any engineers in civil life, at his discretion, and any other persons necessary for the proper and expeditious prosecution of said work. The compensation of all such engineers and other persons employed under this act shall be fixed by said Commission, subject to the approval of the President. The official salary of any civil or military officer of the Government appointed or employed under this act shall be deducted from the amount of salary or compensation fixed under the terms of this act. Said Commission shall in all matters be subject to the direction and control of the President and shall make to the President annually and at such other periods as may be required either by law or by the order of the President full and complete reports of all their actings and doings and all moneys received and expended in the construction of said work and in the performance of their duties in connection therewith, which said reports shall be by the President transmitted to Congress. And the said Commission shall furthermore give to Congress or either House of Congress such information as may be required either by act of Congress or by the order of either House of Congress."

The President shall cause to be provided and assigned for the use of the said commission such offices as may, with the suitable equipment of the same, be necessary and proper, in his discretion, for the proper discharge of the duties thereof.

PERMANENT CENSUS OFFICE.

Mr. QUARLES. I am directed by the Committee on the Census, to whom was referred the bill (S. 6178) to amend section 4 of an act entitled "An act to provide for a permanent Census Office," approved March 6, 1902, to report it without amendment.

I desire to say that it is intended solely to add one word which was carelessly omitted from the permanent census act. I ask unanimous consent for the present consideration of the bill.

There being no objection, the Senate, as in Committee of the Whole, proceeded to consider the bill. It provides that section 4 of an act of Congress entitled "An act to provide for a permanent Census Office," approved March 6, 1902, shall be amended by inserting, after the word "watchmen" and before the words "and charwomen," where the same occur in section 4, the words "unskilled laborers."

The bill was reported to the Senate without amendment, ordered to be engrossed for a third reading, read the third time, and passed.

REFUNDING OF CERTAIN TAXES.

Mr. ALDRICH. I ask unanimous consent for the present consideration of the bill (H. R. 13204) to provide for refunding taxes paid upon legacies and bequests for uses of a religious, charitable, or educational character, for the encouragement of art, etc., under the act of June 13, 1898. The bill has the unanimous approval of the Committee on Finance, and I think it will cause no discussion whatever.

There being no objection, the Senate, as in Committee of the Whole, proceeded to consider the bill, which had been reported from the Committee on Finance with amendments.

The first amendment was to add as a new section the following:

SEC. 2. That the Secretary of the Treasury, under rules and regulations to be prescribed by him, be, and he is hereby, authorized and directed to refund, out of any money in the Treasury not otherwise appropriated, sums paid for documentary stamps used on export bills of lading, such stamps representing taxes which were illegally assessed and collected.

The amendment was agreed to.

The next amendment was to insert as a new section the following:

SEC. 3. That in all cases where an executor, administrator, or trustee shall have paid, or shall hereafter pay, any tax upon any legacy or distributive share of personal property under the provisions of the act approved June 13, 1898, entitled "An act to provide ways and means to meet war expenditures, and for other purposes," and amendments thereof, the Secretary of the Treasury be, and he is hereby, authorized and directed to refund, out of any money in the Treasury not otherwise appropriated, upon proper application being made to the Commissioner of Internal Revenue, under such rules and regulations as may be prescribed, so much of said tax as may have been collected on contingent beneficial interests which shall not have become vested prior to July 1, 1902. And no tax shall hereafter be assessed or imposed under said act approved June 13, 1898, upon or in respect of any contingent beneficial interest which shall not become absolutely vested in possession or enjoyment prior to said July 1, 1902.

The amendment was agreed to.

The next amendment was to insert as a new section the following:

SEC. 4. That taxes which shall have accrued before the taking effect of the act of April 12, 1902, entitled "An act to repeal war-revenue taxation, and for other purposes," and since July 1, 1900, upon securities delivered or transferred to secure the future payment of money, are hereby remitted.

The amendment was agreed to.

Mr. SCOTT. I should like to ask the Senator from Rhode Island a question. He says this is a bill which the House has passed?

Mr. ALDRICH.* It is a House bill, passed by the House of Representatives.

Mr. SCOTT. And is recommended by your committee?

Mr. ALDRICH. Yes; it is recommended by the unanimous vote of our committee.

Mr. SCOTT. It is very sweeping.

The bill was reported to the Senate as amended, and the amendments were concurred in.

The amendments were ordered to be engrossed, and the bill to be read a third time.

The bill was read the third time, and passed.

The title was amended so as to read: "A bill to provide for refunding taxes paid upon legacies and bequests for uses of a religious, charitable, or educational character, for the encouragement of art, etc., under the act of June 13, 1898, and for other purposes."

NATIONAL APPALACHIAN FOREST RESERVE.

Mr. BURTON. I desire to have unanimous consent for the consideration of the bill (S. 5228) for the purchase of a national forest reserve in the Southern Appalachian Mountains, to be known as the "National Appalachian Forest Reserve," after the routine morning business on Saturday. I do not think it will take long to debate it.

Mr. BATE. I should like to hear the Senator's request?

Mr. BURTON. It is that the bill be taken up for consideration at that time.

Mr. BATE. Simply for consideration?

Mr. BURTON. Yes, sir. The agreement I ask for is not to interfere with conference reports, appropriation bills, or any notices that have heretofore been given.

Mr. ALDRICH. If this is to be a continuing order, I shall be obliged to object to it. As I stated the other day, it seems to me at this time of the session it will not do for us to take up bills for consideration for an indefinite period.

Mr. BURTON. I will not ask that it shall be a continuing order, because I think the Senate will be ready to vote upon the bill after very brief consideration. There have been several speeches made upon the bill; it has had attention called to it, and I think Senators are ready to vote.

Mr. ALDRICH. I shall not object to its being considered in the morning hour of the day named by the Senator from Kansas.

Mr. BURTON. After the routine morning business on Saturday.

Mr. ALDRICH. Yes; in the morning hour of that day only.

Mr. BURTON. Yes.

The PRESIDING OFFICER. The Chair understands it to be a request for unanimous consent that the bill named by the Senator from Kansas be made the order of business at the conclusion of the routine morning business on Saturday morning.

Mr. BATE. Not to affect any other business for which notice has been given.

Mr. ALDRICH. And for consideration during the morning hour of that day only.

The PRESIDING OFFICER. For consideration during the morning hour of Saturday only. Is that the understanding?

Mr. ALDRICH. It is.

The PRESIDING OFFICER. The Chair so understands it. Is there objection? The Chair hears none, and that order is made.

EXECUTIVE SESSION.

Mr. ALDRICH. I move that the Senate proceed to the consideration of executive business.

Mr. BURTON rose.

Mr. ALDRICH. I withdraw the motion if the Senator from Kansas desires to make a request.

Mr. BURTON. I shall be glad if the Senate will be so kind as to pass a bill for me. It is the bill (S. 6070) to authorize the construction of a bridge across the Missouri River, at a point to be selected, within 5 miles north of the Kaw River, in Wyandotte County, State of Kansas, and Clay County, State of Missouri, and to make the same a post route. It is a bridge bill, drawn in the usual form, which has been referred to the War Department and reported by the Committee on Commerce.

Mr. SCOTT. It is after 6 o'clock.

Mr. KEAN. It is a very long bill.

Mr. SCOTT. It is a very long bill.

The PRESIDING OFFICER. There seems to be objection.

Mr. BURTON. Very well; I will not urge it.

Mr. ALDRICH. I move that the Senate proceed to the consideration of executive business.

The motion was agreed to; and the Senate proceeded to the consideration of executive business. After twelve minutes spent in executive session the doors were reopened, and (at 6 o'clock and 20 minutes p. m.) the Senate adjourned until to-morrow, Wednesday, June 18, 1902, at 11 o'clock a. m.

NOMINATIONS.

Executive nominations received by the Senate June 17, 1902.

REGISTERS OF LAND OFFICES.

Daniel Arms, of Butte, Mont., to be register of the land office at Missoula, Mont., vice Elmer E. Hershey, whose term will expire July 8, 1902.

William R. Dunbar, of Washington, to be register of the land office at Vancouver, Wash., his term having expired. (Reappointment.)

INDIAN AGENT.

William R. Logan, of Helena, Mont., to be agent for the Indians of the Fort Belknap Agency, in Montana, vice Morris L. Bridgeman, removed.

CONFIRMATIONS.

Executive nominations confirmed by the Senate June 17, 1902.

CONSUL.

Joseph E. Proffit, of West Virginia, to be consul of the United States at Pretoria, South Africa.

REGISTER OF LAND OFFICE.

Charles A. Blake, of South Dakota, to be register of the land office at Huron, S. Dak.

POSTMASTER.

Henry J. Ritchie, to be postmaster at St. Augustine, in the county of St. John and State of Florida.

HOUSE OF REPRESENTATIVES.

TUESDAY, June 17, 1902.

The House met at 12 o'clock m.

Prayer by the Chaplain, Rev. HENRY N. COUDEN, D. D.

The Journal of yesterday's proceedings was read and approved.

COMPILATION AND INDEX OF REPORTS OF COMMITTEES.

Mr. JOY. Mr. Speaker, I desire to present, by direction of the Committee on Accounts, House resolution No. 302.

The Clerk read as follows:

Resolved, That there be prepared, under the direction of the Committee on Accounts, a continuation of the compilation and index of the reports of the committees of the House, for the use of said committees, from the Forty-ninth to the Fifty-sixth Congresses, inclusive, uniform with the compilation up to the Forty-ninth Congress, the cost of the preparation of said compilation and index not to exceed \$3,000, to be paid out of the contingent fund of the House.

The resolution was agreed to.

JANITOR FOR COMMITTEE ON ELECTIONS NO. 2.

Mr. JOY. Mr. Speaker, I also, by direction of the committee, ask consideration of House resolution No. 289.

The Clerk read the resolution, as follows:

Resolved, That the chairman of the Committee on Elections No. 2 is hereby authorized to appoint a janitor to said committee room, to be paid out of the contingent fund of the House at the rate of \$60 per month, during the present Congress, until otherwise provided for by law, payment hereunder to date from December 1, 1901.

The following amendment was recommended by the committee:

In line 5, after the word "the," insert the words "session of the."

The amendment was agreed to.

The resolution was agreed to.

MABEL CRUMP CURTIS.

Mr. JOY. Mr. Speaker, I also present House resolution No. 182, from the same committee.

The Clerk read the resolution, as follows:

Resolved, That the Clerk of the House be, and he hereby is, authorized and directed to pay to Mabel Crump Curtiss, out of the contingent fund of the House, the sum of \$750 for services rendered as clerk to her father, the late Hon. Rousseau O. Crump, of Michigan, from April 1 to October 15, 1901.

The following substitute resolution was recommended by the committee:

Resolved, That the Clerk of the House be, and he is hereby, authorized and directed to pay, out of the contingent fund of the House, to Mabel Crump Curtis the sum of \$100 for services rendered as clerk to the late Representative-elect from Michigan from April 1 to April 30, 1901, inclusive.

The amendment was agreed to.

The substitute resolution was agreed to.

R. E. WALKER AND J. K. DUNCAN.

Mr. JOY. Mr. Speaker, by direction of the Committee on Accounts, I also call up House resolution 275.