

will be removed. In the ensuing increase in trade the manufacturers of this country should share---in fact, they should enjoy it wholly, for those on the Pacific will have it at their doors, while those on the Atlantic may reach these markets at less expense and delay than is now necessary to place their products at Pacific tidewater after transshipment across the Isthmus of Panama.

The completion of the Panama Canal will place both coasts of the Republics of Central America within easy international commercial intercourse; manufactures of all kinds will have ready access to the constantly growing markets of those countries; their products and perishable fruits will have frequent and rapid transportation facilities awaiting them. The adoption of the pending conventions with Honduras and Nicaragua, from which such permanent benefits will most certainly be derived, should rectify

forever the conditions which directly and indirectly throttle the natural development of Central America. It is indeed time for the manufacturers, merchants, farmers, and exporters of this country to consider the tremendous possibilities that the construction of the great waterway between the two oceans by the United States has placed within their grasp, and to consider also, as directly affecting their interests, the diplomatic and commercial policies by which their Government is striving to serve them.

The present commercial relations of the United States, the stimulus that these relations and the commercial interrelations of all American republics are soon to receive, and the future accessibility of many new ports not only to ourselves but to the commerce of the world deserve more than passing consideration. This new proximity of the commercial ports of other nations should

command attention. With the route via Cape Horn no longer necessary, and under the conditions now imposed so unhappily by the status of our merchant marine, the freight steamers of the world will have much easier access to the doors of a region whose future commercial possibilities are as yet inestimable, and whose greatest trade should be with the United States. We should not lose sight of this collateral consideration.

San Francisco, speaking and acting for the whole territory of the Union west of the Rockies, has taken time firmly by the forelock and allowed three years for the preparation necessary to the adequate celebration of the opening of the Canal. The time allowed for the accomplishment of the work undertaken by the Pacific States, aided by all the others of our Union, is none too long if the end is to crown the work and afford to the world an exposition that will rival and

even transcend in its magnitude and completeness any previous international concourse of the world's productive and creative forces. In like manner and with equal energy it behooves you to make the most of these three years, so that when the time comes you will celebrate not merely a rose-tinted prospect of future trading advantages, but can point to actual achievement in the way of reaping a remunerative share in the rich harvest that is to be gathered from the treasure and toil our nation has planted on the Isthmus. It is truthfully said that opportunity knocks but once at any man's door, and the aphorism that there is a tide in the affairs of men that, taken at the flood, leads on to fortune, is of apt pertinence. It will not do for you Far-Westerners to relax your preparative activities and sit idly amid the splendors of your great exposition, watching your alert

competitors responding instantly to the knock of opportunity and passing through the newly opened Golden Gate of the Isthmus on the favoring tide of fortune. Your agencies should be seasonably active in every country where you have a chance to gain a fresh commercial footing, either by supplying its needs from your own abundant resources, or by attracting a share of its exports to your shores, or, better still, by doing both. In addition to the energetic, capable men whose services you require to build up a new trade, you need the ships to carry your wares and to bring back lucrative returns.

Moreover--and this is an important consideration--you should comprehend the almost axiomatic proposition that the mercantile possibilities of the countries with which you seek to cultivate commercial intercourse are inseparably bound up with the tranquillity and undisturbed prosperity of

those countries. "Do men gather grapes of thorns or figs of thistles?" Can you expect an impoverished, perturbed, and embarrassed community to throw open wide the door of practical opportunity? Your thoughtful public men should realize the vital interest our vast body of producers and consumers have in the stable prosperity of their neighbors and see to it that no act or thought or speech on their part shall run counter to the earnest efforts of this Government to make true international friendships of respect, good will, and justice, and to aid certain less fortunate commonwealths at our doors to guard themselves from the embarrassments of alien indebtedness, to build up their national credit on the firm foundation of responsible good faith in all their transactions with the outer world, and to free themselves from the carking malady of domestic insurrection. These efforts, exemplified in the Nicaragua and

Honduras conventions to which I have referred, are not mere academic theories. The soundness of their principle has been practically demonstrated through the sympathetic assistance we so successfully lent to Santo Domingo in her struggle to extricate herself from the quagmire of foreign debt and to throw off the hideous burden of political instability.

The measure of the benefits of the Dominican treaty is shown by the remarkable growth of the commerce. In 1903, a year before the *modus vivendi* went into effect, the total Dominican foreign trade was approximately \$6,000,000. In 1911, according to the message of the President of the Republic, it had grown to more than eighteen millions. The United States has shared in this peaceful prosperity. Our exports to the Dominican Republic have increased from relatively two millions (at the time the treaty

went into effect) to nearly four millions, and the proportionate share of the United States in the trade of the Dominican Republic has materially increased.

So much for the commercial and morally potential results to come from the Canal, if individual effort and governmental policy work intelligently together. In its physical aspects the marvel of the thing is almost beyond conception. In fulfillment of the charge intrusted to me by the President to bear to the nations of the Caribbean and, through them, to all Latin America a message of fraternal good will and to assure them of the deep concern of the Government and people of the United States in all that might tend to promote their enduring welfare, my first halting place was naturally at Panama, the site of the colossal undertaking so pregnant with inestimable benefits to the New World. Opportunity was thus afforded

to see the astounding progress that had been made. It is a sight to inspire awe; the mind is whelmed on beholding how puny man, a pigmy in presence of the Cyclopean powers of created nature, has grown to titanic stature, and to realize how, with mingled skill and daring, mind has successfully contended against matter, achieving in a few months results which have taxed the cosmic forces of earth unnumbered centuries to bring about. The first impression is one of disappointing inability to grasp the wonder of the achievement. Accustomed as we are to the spectacle of the gigantic works of nature---the stupendous gorges of the West and the victorious surge of the mighty Niagara through rock-hewn channels to the graving of which untold centuries have been given---one does not at once realize that on that narrow strip of ocean-sundering land the

supreme inventive capacity of man has accomplished, in a space of time measurable by the brief life of a child, a task commensurable with those of nature. Take, for example, the Gatun Dam, unrivaled in the world. No towering wall of Cyclopean blocks confronts the observer; only a gentle, rising slope is seen, mounting so gradually that an infant might toddle to its summit. Astonishment grows when it is learned that the dam is, as has been well said by its builder, a veritable hill, moved from its secular position and stretched, by human hands, across the plain through which the torrential Chagres has flowed for ages.

It was fortunate for us that the Act under which the Canal was undertaken provided that it should be built with locks. Opinion was long divided as to which was the more feasible, a canal with lifts or one at sea level. We ought to be thankful that the sea-level

alternative was finally eliminated. Its impracticability has been abundantly demonstrated in the course of the present work. The difficulties at the Culebra Cut would alone have made it perhaps impossible. The lock system once decided on, the task was to meet the natural problems, like that of the impetuous Chagres. Radical changes were made; the old tunnels and spillways to divert the torrents were abandoned, as was the larger part of the channel which the French had begun to dig. The new school of engineering evolved the happy plan of converting the destructive Chagres into a helpful agency by harnessing it to do much of the work. The Gatun Dam makes of the rebellious river a placid inland sea on which the world's navies might float in safety, thus fulfilling one of the ideal conditions of the Nicaragua route, with the advantage that the surface is 20 feet lower than that of the

lakes of Nicaragua and Managua, thus permitting fewer and lower locks, conveniently grouped with a view to more practical operation. Thus, the serious work of excavation was limited to the Culebra Cut. Some of the French excavation could be utilized in that quarter, but perhaps not more than about 2,000,000 cubic yards out of more than a hundred million to be dug out on the new theory of construction. The Gatun Dam contains some 21,000,000 cubic yards. The locks at Gatun Dam require 2,000,000 yards of concrete, enough to build a fair-sized city.

The Culebra Cut is rapidly approaching completion. The scale on which operations are conducted is made clear by the statement that in one year, 1909-10, nearly 32,000,000 yards, much being shattered rock, were taken out. At Culebra one realizes what has been done. The vista of

the cut is that of a natural valley, with sloping, terraced banks and with a level bottom some 300 feet wide, instead of the narrow 110 feet planned by De Lesseps. Indeed, all the dimensions of the Canal are far in excess of the old plan. The sea-level channel to Gatun, 7 miles long, is 500 feet wide at bottom and 41 feet deep. The lake channel, mostly artificially excavated, is 32 miles long and from 500 to 1,000 feet bottom width and 45 feet deep. The Culebra passage, the narrowest part of the Canal, is to have 300 feet of bottom width, giving a channel in which the *Olympic* and *Mauretania* could pass each other, with room to spare. On the Pacific end the depth is 45 feet, the width 500 until it reaches the ocean, where the tide rises and falls some 20 feet. The total length of the passage from sea to sea is approximately 50 miles.

Everything about the Canal is on a scale of great magnitude. The six systems of locks are in pairs, each lock having a usable length of 1,000 feet and a width of 110 feet. The Gatun spillway alone could carry off the highest flood of two or three rivers like the Chagres; and its capacity is perhaps an overabundant prevention, since the surface evaporation of the lake and the flow into the locks make it doubtful if its surface can rise to the safety spillway, even if rain should fall a whole day at the rate of 5 inches an hour, as it sometimes does in that quarter.

The most impressive thing about the Canal is the practicability of all its workings. I do not speak alone of the mechanical perfection which is evident on every hand, or of the astounding development of the forces of steam, electricity, and explosive force far beyond any previous application by human skill to such a task. I speak also of the

administrative system which has been organized in the Zone. For efficiency and completeness it is unrivaled in the world. In sanitary and educational development it is ahead of any other community on the face of the earth. It is an example of organized effort and whole-souled, devoted, intelligent work for a common purpose that we ought to emulate in our national life here at home. Its army of workers is an army of progress.

It is to be hoped that, on the completion of the task, the force necessary to its maintenance and operation will continue the same perfection of organization. The Canal Zone, incapable of agricultural production, is not a fit spot for promiscuous settlement. The Zone should be treated as a part of the Canal itself and be reserved in its entirety for canal uses. The civic structure that has been built up, like the Canal itself, in less than seven years, for the most part within the

last three years, under the wise direction of a single administration and under the efficient control of one man, providentially fitted for the task, should not be permitted to deteriorate. The sturdy, healthy, and law-abiding cosmopolitan community which has been implanted along the track of the Canal should not be suffered to perish in the foul atmosphere of a camp of sordid adventurers. As scum drifts with the tide, so the new world currents of traffic will carry to the Isthmus many undesirable elements. It remains for Congress to enact wise laws for the governance of the Zone as an enduring model of municipal administration.

There is another aspect of the problem of the Canal which is now attracting much attention and begetting a vast deal of discussion, and that is its political status from the international point of view. This discussion began in earnest when the plans for

the fortification of the Canal were brought forward. Much was said about the neutrality or, to be more precise, the neutralization of the Canal. As in the case of many interesting discussions, confusion has arisen through the circumstance of its not always being certain the advocates and the opponents of any particular disposition of the question are talking about the same thing. The words "neutrality" and "neutralization" have several different meanings and shades of meaning. All seem to agree that the Canal should be neutral, but as to the way of producing that condition and as to its nature, obligations, and scope when produced, there appears to be a lack of agreement.

Our treaties, in so far as they relate to the Canal, contemplate its full and unimpeded pacific use by all nations. The United States, as the occupant and adminis-

trator of the territory traversed by the Canal, assumes for itself the sole right to see that the Canal shall not be misused to defeat that end. Our national policy in this respect is declared by those treaties, wherein we have announced that as a basis for carrying it out the United States adopts substantially the rules for the navigation of the Suez Canal. If any belligerent violates those precepts of the law of nations upon the territory controlled by the neutral state, as the Zone is controlled by the United States, the neutral has the right to prevent such violation, just as he would have the right to prevent it on any part of his sovereign territory. That right is an inherent attribute of sovereignty.

The neutrality of transit, which is the particular shade of neutrality intended by the American declarations, can be practically maintained only by the responsible party in possession, and it is the inherent right of the

United States to maintain it, precisely as it is to maintain the innocent freedom of transit through any part of its territory. For all purposes of sovereign administration, the Canal is American territory and a part of the coast line of our country. It stands to reason that the "neutrality" imported by the generous donation which we make to the world of the impartial privilege of transit and of the use of our own property to that end could not have meant and can not mean that the United States, if at war, would have to abstain from sending warships through the Canal or, on the other hand, be constrained to allow the enemy to use it on equal terms with ourselves: The mere statement of such a proposition is its self-reduction to an absurdity.

I am glad to have had the opportunity to speak to you on this great subject of the Canal, and to share with you the deep inter-

est you feel, in common with all our countrymen, in the successful accomplishment of a purpose so dear to every American heart. Its achievement will be bright with happy auguries for our future. You of the Pacific coast have practically testified your keen concern in its success by organizing the coming celebration. You had the hearty sympathy and active support of President Taft in securing its location here. The situation of the great exposition is singularly favorable. The converging lines of communication have made Roman roads from all parts of our land to San Francisco. Even from the remote east the distance to be traversed is pleasantly offset by the alluring natural attractions on the way---the grand severity of the ice-crowned Rocky Mountains, the wonders of the Yellowstone and Yosemite, the stupendous cañons of the rivers, the lakes of the higher plateaus---all

replete with interest. Now, through the Golden Gate of the Isthmus we shall have a new road by sea to your own Golden Gate. Many of your visitors may come by way of the Canal itself and see, with unclouded eyes, the work of man outrivaling the great labors of nature. Although your exposition is to open and close in winter, a perpetual springtime, fragrant with bloom and rich in fruitage, will attend the traveler. If we of the East envy your good fortune in the matter of climate, we shall that year have the privilege of sharing it with you. With a full heart I wish you all good fortune and success in your great undertaking.