CHAPTER XIV.

THE COMPLETED CANAL.

We may now begin to consider the canal as a whole and in its completed state. From deep water in Limon Bay, 41-foot depth at mean tide, to deep water outside Panama, 45-foot depth at mean tide, is just about 50 miles. The greater part of the canal is at high elevation, only 15 miles of it being at sea-level. We shall note the varying depths and widths of the channel when we take our imaginary journey along it. Here it is enough to say that the minimum width will be 300 feet, the minimum depth 41 feet, the breadth and depth being, however, for the greater portion of its course, greater than these dimensions. Its highest point above sea-level, as the reader already knows, is 85 feet—that is, 85 feet at the surface of the water, and 40 feet at the canal bottom. The depth along this
stretch is therefore 45 feet. The Panama Canal, though not so long as the Kiel and Suez Canals, is very much broader and deeper. Suez is 108 feet wide and 31 feet deep as minima; Kiel, 72 feet and 29½ feet. The Manchester Ship Canal is 120 feet by 26 feet. In length Panama, with its 50 miles, comes third, Suez being 90, Kiel 61, and Manchester 35½ miles long.

During the building of the canal the department of construction and engineering was arranged in three divisions—the Atlantic, embracing the engineering construction from deep water in the Caribbean Sea to include the Gatun locks and dam; the central division, extending from Gatun to Pedro Miguel; and the Pacific division, from Pedro Miguel to deep water in the Pacific Ocean. For the ordinary student, however, the channel divides naturally into four sections, the Atlantic level, the lake, the cutting, and the Pacific section (in two levels separated by locks).

The invisible channel of the waterway begins at the mouth of Limon Bay, about eight miles from Gatun locks. Limon, also known as Colon or Navy Bay, is about three miles wide and three and a half miles long from north to south. It
Gatun Upper Lock, looking North from Lighthouse.
The completed canal is shallow, from three to seven fathoms deep, and seems to be steadily growing shallower. This is not surprising, as it is fully exposed to the "northers," which blow with terrific force from the Caribbean, and no doubt carry into the bay a good deal of detritus from the bottom of the sea. The heavy rains of the isthmus must also scour the land perpetually down into the bay.

On the east side of the bay is the flat Manzanillo Island, a mile long by three-quarters broad, on which stands the city of Colon. This town, which was once known as Aspinwall, owes its existence to the Panama Railway, of which it is the northern or Caribbean terminus. Its position on the railway gave it an advantage over the old town of Chagres, a little distance along the coast to the west, which, though once a flourishing port, has now fallen on evil days.

Near Colon is Cristobal, the new Atlantic terminal of the canal. Without some protection the entrance to the canal would have been exposed to the extremely violent storms which occur in the Caribbean during the winter months. During these storms vessels cannot lie safely in Colon harbour, and could not...
safely enter or issue from the canal. So a breakwater two miles long has been run out from Toro point in an easterly direction, covering the extremity of the canal. A glance at the map will suggest a thought that this barrier will not provide sufficient protection, and that another breakwater will have to be run out from the eastern shore. Such a further protection will be provided if the need should arise.

At this point then, west of Colon and at the mouth of Limon Bay, our vessel enters the buoyed submarine channel of the canal and speeds onwards along the first section of the waterway, 500 feet in bottom-width and 41 feet deep, towards the locks at Gatun. But the locks are not yet visible. It is not until the fifth mile—that is, at Mindi—that a bend of the canal opens that gigantic structure to view, and by that time the vessel has left the broad waters and is enclosed within banks. The experience which awaits the traveller who has looked forward with some excitement to see the world's greatest wonder of to-day has been vividly imagined by Mr. Bryce. Our late American Ambassador writes:—
THE COMPLETED CANAL.

The voyager of the future, in the ten or twelve hours of his passage from ocean to ocean, will have much variety. The level light of the fiery tropic dawn will fall on the houses of Colon as he approaches it in the morning, when vessels usually arrive. When his ship has mounted the majestic staircase of the three Gatun locks from the Atlantic level, he will glide slowly and softly along the waters of a broad lake which gradually narrows toward its head—a lake enclosed by rich forests of that velvety softness one sees in the tropics, with vistas of forest-girt islets stretching far off to right and left among the hills; a welcome change from the restless Caribbean Sea which he has left. Then the mountains will close in upon him, steep slopes of grass or brushwood rising two hundred feet above him as he passes through the great Cut. From the level of the Miguel lock he will look southward down the broad vale that opens on the ocean flooded with the light of the declining sun, and see the rocky islets rising, between which in the twilight his course will
lie out into the vast Pacific. At Suez the passage from sea to sea is through a dreary and monotonous waste of shifting sand and barren clay. Here one is for a few hours in the centre of a verdant continent, floating on smooth waters, shut off from sight of the ocean behind and the ocean before—a short sweet present of tranquillity between a stormy past and a stormy future.

The Gatun locks, each chamber of which is a sort of "canyon of cement," will almost oppress the imagination with the sense of immensity. At the foot of the locks the vessel will surrender its own volition and entrust itself wholly to the canal operators. It will be attached to the electric apparatus ashore and gently towed into the lock-chambers. In less than an hour it should have climbed the three gigantic steps and be afloat on the surface of the lake, 85 feet above sea-level. The traveller might fail even to notice of himself the great dam which abuts on the locks to the west. He may be surprised to hear that the whole being of the canal depends upon that earthwork, and that with the Culebra
Cut it absorbed the greater part of the labour and skill and solicitude of the canal-builders. The Gatun dam has indeed been so adopted and transfigured by Nature that it appears only a part, and not a very conspicuous part, of the landscape. Nor would our traveller, without previous information, guess the history of the great expanse of water which stretches to right and left up many a distant arm or loch and round many a picturesque island, and over which his vessel, once more resuming its own power and control, begins to advance. The buoys alone indicate that the channel, the true and well-wrought link between the two oceans, still holds its course through the bed of the lake. Mr. Bryce has pointed out what a pleasant interlude in a long ocean journey will be afforded by this placid glide of 22 miles over the inland lake from Gatun to Gamboa. The bottom widths through the lake are 1,000 feet for 16 miles, 800 feet for 4 miles, and 500 feet for about 3 miles.

At Gamboa the vessel enters the eight-mile section of the Culebra Cut. Here again, though the traveller in future days will need no reminding
of the enterprise represented by this tremendous trench driven through the backbone of the isthmus, he will have to imagine the busy scene during the days of construction which will then have disappeared. He must try to reproduce what was little less than a manufacturing town at Gorgona, just near the entrance to the Cut, where stood the machine shops, boiler shops, smith shops, car shops, pattern shops, where repairs of all kinds were made and machines of all sorts and sizes constructed. He should think of that model residential town to the west of the Cut where the chief engineer and his assistants lived, surrounded by the quarters of the men, each dwelling protected with its fine wire netting to exclude the mosquitoes, the whole settlement scrupulously clean and bright with well-kept lawns and flower-beds. All this will have passed away with the crowds of workers who interrupted for a dozen years the stillness of the primeval forest. Nature and silence will in a large degree have resumed their sway, but the world will not forget the debt it owes to that conquering industrial army which divided the land here in order to unite the nations.
THE COMPLETED CANAL.

Through the cutting the bottom width of the canal is 300 feet. Having accomplished the eight or nine mile passage through the deep gorge, the vessel reaches the end of the high-level section at the Pedro Miguel locks. Here she is gently lowered 30 feet down to the bosom of little Miraflores Lake, held at 55 feet above sea-level. The length of this subsection is about a mile and a half, and it ends at the Miraflores locks, where the ship is lowered by two steps to the level of the Pacific. Then follows the last stage of this eventful transit—the eight-mile tidal section along which the vessel glides between low swamps to her own element of deep sea-water beyond the new port of Balboa, west of Panama, whose wharves are being constructed from the waste material of the inland excavations. The new breakwater which runs out from Balboa to Naos Island suggests wind and storm. But eternal calm reigns along these shores, and the object of the breakwater is to protect the line of the canal, not from heavy seas, but from the silt-bearing currents from the east which set at right angles to the channel. Constant dredging was necessary to prevent the bed of the canal becoming filled
with this sediment. The dyke has proved very effectual for this purpose.

Such is the Panama Canal which has for so many centuries been the desire of the nations, and which is now one of the permanent geographical features of the globe. It is so well and truly constructed that nothing short of an earthquake could ever seriously damage it. The question naturally arises whether this ultimate danger needs to be seriously considered. Panama is rather suspiciously close to a region where geological conditions are not remarkable for stability. The earthquake at Kingston a few years ago was as destructive a calamity as those of Messina and San Francisco. Costa Rica, too, almost an isthmian country, enjoys a very bad reputation for this kind of friskiness. Panama, however, seems happily to lie outside the zone of such disturbances. Slight earthquake shocks have been felt, probably only the reflections of severer shocks elsewhere. But there is no record or tradition of a really serious convulsion. There is, indeed, one visible and reassuring evidence of the self-possession of the earth's surface in this region. To the east of the modern city of
Panama is the site of old Panama, of which the lofty tower of the old cathedral—a pathetic and picturesque object—is still standing. This shows that there has been no serious earthquake here for the greater part of four centuries. Still, the danger—great or small—does exist, and it threatens a high-level canal, with its elaborate lock-machinery and masonry, far more than it would have affected a canal at sea-level. No very severe convulsion might be necessary to throw one of these locks out of gear, and the entire canal, therefore, out of operation for a considerable time. But against such perils there is no guarding, and every precaution having been taken against foreseeable and preventable dangers, all else must be left to the disposal of that Providence "which by his strength setteth fast the mountains," "who laid the foundations of the earth, that it should not be removed for ever."

It seems incredible that the canal should ever be in danger of injury or destruction from the attack of any civilized Power, because all nations are apparently interested in its preservation. What, then, is the meaning of these slopes which are being prepared for forts and batteries at
either end of the canal? "With the two great forts at the two ends of the canal," writes Mr. Showalter, "fitted with four 14-inch guns, six 6-inch guns, and twelve 12-inch mortars, with twelve companies of coast artillery, one battery of field artillery, four regiments of infantry, and one squad of cavalry, there is not likely to arise a time when these fortifications, backed up by the American navy, will fail to command a proper and wholesome respect from other nations."

Yet if the object were simply to maintain the neutrality of the canal, the best course would seem to have been to leave the canal entirely unfortified, as is the case at Suez, and trust to the moral influence of the great Powers and their common interest in keeping the canal free and open to the world's traffic. Obviously the idea of making the canal zone a big military camp and arsenal is not so much to "police" the passage as a great international waterway, but to defend it and the zone as a position of immense strategic importance to the United States. President Hayes, in a message to the Senate in 1880, spoke of the canal as "the great ocean thoroughfare between our Atlantic and Pacific ports, and
THE COMPLETED CANAL. 219

virtually a part of the coastline of the United States.” The words I have italicized seem to show that the United States regard the new passage rather as wholly proprietary, like those of Kiel and Corinth, than as international in status, like the Suez Canal.

In the Hay-Pauncefote Treaty there is no specific reference to fortification. The only allusion to the defence of the canal occurs in the second subsection of the third clause: “The United States shall be at liberty to maintain such military police along the canal as may be necessary to protect it against lawlessness and disorder.” The Hay-Bunau-Varilla Treaty is rather more specific in its provisions on this subject, though even that instrument seems scarcely to have contemplated an armament and garrison on the large and permanent scale intended at the isthmus.*

England has, however, acquiesced in the proposed fortification. The decision is not likely to be challenged in any other quarter. The United States have built the canal with their own money and enterprise. They are more

* See ante, page 71.
closely and immediately interested in the passage
than any other Power, and so long as they fulfil
their undertaking to afford equal treatment
in tolls and other respects to the commerce of
all nations, nobody is likely to protest against the
presence of American men and guns at the isthmus.

Indeed, there is some force in the plea that the
complete neutralization of the canal would be
inconsistent with American control and operation.
In time of war the Americans would have had
either to refrain from using the canal for their
warships (an unthinkable proposition) or to
permit their enemy or enemies to use it on equal
terms. This would have meant a rather painful
experience for the American engineers, managers,
workmen, and others on the isthmus. They would
have been obliged to put the enemy’s vessels
through the canal, and thus commit a sort of
legalized treason against their own government
by giving “aid and comfort” to the enemy. So
it comes to this—that the canal will be neutral
at all times except when the United States are
themselves a belligerent. Then it will become
part and parcel of the sovereign dominions of
the great American Republic.
But the United States will have to stand all the ulterior possibilities of this position. If they were at war the canal would be at once liable to attack. In fact it would invite attack as a very vulnerable point in their armour. It has been truly said that the canal zone will have all the disadvantages, without any of the advantages, of an island. It will be entirely dependent on imported supplies and isolated from the centre of American power. If the American fleet lost the command of the sea even for a short time, the enemy could land troops at any part of the isthmus, march them against any point of the extended canal line and inflict on the United States a wound in a very sensitive, if not a vital region. So that instead of simply doubling the efficiency of the existing American fleet, by enabling it to be transferred swiftly and bodily from the western to the eastern coast, it may rather add to the naval responsibilities of the States and compel a considerable increase in their sea-power. To Englishmen, however, this development of the power and resources of the United States ought to bring no feelings but those of pleasure and satisfaction. In view of the
great secular struggle between East and West for supremacy in the Pacific, which some people think will fill the pages of future world history, anything that strengthens the position and prestige of Anglo-Saxonism as the main guardian of Western ideas and principles should be welcome to all the members of that race.

It is estimated that the fortification of the canal will cost about $12,000,000. This added to the $375,000,000, the estimated cost of construction, will bring the entire bill up to the round and goodly sum of $400,000,000 or £80,000,000. This puts all other expenditure on artificial water-channels into the shade, as the Suez Canal cost only £19,000,000, the Manchester Ship Canal £15,000,000, and the Kiel Canal £8,000,000. As regards this expense and the possibilities of revenue returns, Colonel Goethals has written an interesting passage:—

Much has been said and predicted as to the commercial value of the canal to the United States. In this connection it must be remembered that the commercial shipping of this country never required the canal.
The trip of the Oregon in 1898 settled the question of the advisability of constructing an isthmian canal, and had the canal been built at that time, thereby saving that trip around the Horn, there is no question that it would have been agreed generally that the canal, even at an expenditure of $375,000,000, was worth while.

In whatever light the Panama Canal is viewed, it will have paid for itself if in time of war or threatened war a concentration of the fleet is effected without that long, tedious, uncertain route followed by the Oregon.

It will practically double the efficiency of that fleet, and, notwithstanding the fact that we are a peaceful nation, our outlying possessions make the Panama Canal a military necessity, and it must be so recognized. From this point of view the debt should be charged to the account which necessitated its construction, and whatever revenues are derived from other sources are so much to the good. The traffic that will utilize the canal depends upon the tolls
that will be charged, and the President has asked the Congress for legislation which will enable the establishment of rates.

There is another policy which, if adopted, will have a material bearing on the revenues of the enterprise. Through the Panama railroad a large expenditure of money has been made for providing the present working forces with supplies of all kinds. Though the railroad has been reimbursed for this plant through fixed charges on sales, it should not be abandoned, but utilized for furnishing shipping with its needed supplies. Suitable coaling plants should be erected for the sale of coal to vessels touching at or passing through the canal. In addition, since oil is now used on a number of ships plying in the Pacific, such fuel should also be on hand for sale by the canal authorities.

The extensive machine shops now located at Gorgona must be moved before the completion of the canal, and they should be established in connection with a dry dock that will be needed for commercial purposes, and utilized as a revenue producer for the
Pedro Miguel Locks, from Hill on East Bank.
THE COMPLETED CANAL.

This policy also needs Congressional action.

With properly regulated tolls, and with facilities for fully equipping, supplying, and repairing ships, the Panama route would offer many advantages and bring to it a sufficiently remunerative return to pay, not only the operating expenses, but to gradually absorb the debt which the United States has incurred by its construction.

We shall return to the question of tolls in a later chapter.
CHAPTER XV.

PANAMA AND THE Isthmus.

It may be convenient to deal here with a few detached questions before inquiring into the commercial and maritime changes likely to be produced by the canal. The reader understands the position of the United States at the isthmus. They control a zone of territory ten miles wide running across from Panama to Colon. These two towns are, however, not included politically, though they are geographically, within the zone. This narrow strip of territory with its precious canal runs right through a foreign country in which the social and political conditions existing must be a matter of importance to the canal-owners. One cannot help wondering how long this state of things is likely to continue. Panama, the youngest of the South and Central American
republics, is no better than the rest in its governmental principles. Indeed, the republic had scarcely got into being when it was threatened with a military revolution. A pompous and polysyllabic self-importance, coupled with a levan-tine standard of business and financial ethics, scarcely promises a long continuance of the present political relations with a great republic which is not likely to see its achievement at the isthmus in the smallest degree prejudiced or endangered.

Some interesting little details of Panamanian manners have been reported. For example, Chinese immigration is forbidden by law, yet, strange to say, most of the retail trade of the isthmus is in Celestial hands. This is because the law against immigration gave the opportunity for the formation of a syndicate with the collusion of the authorities, by which Chinese were introduced at a rate of $200 entrance fee. The judicial standards which prevail in this little Bumbledom may be gathered from another story. The mate of a British ship was recently sentenced to twelve years’ hard labour for manslaughter, because he was held responsible on no evidence whatever
for the loss of a ship and the lives of several relatives of those serving on the jury.

It is scarcely to be expected that a people for whom ideals and standards of this kind are good enough will take much trouble to develop their country. An efficient and responsible administration might make a good deal of these narrow lands between the two oceans, a territory of 33,000 square miles, larger, that is, than Scotland or Ireland. It is perhaps as well that the construction of the canal has not made many Panamanian fortunes or produced any great boom in trade. Otherwise the withdrawal of the industrial army from the zone might have had the effect produced when the French canal works were shut down. A grievous famine desolated the whole country. This is not likely to happen again. The zone has been largely an independent and detached enclave, such as never existed during the French occupation, when the Panamanians became dependent for work and wage on the industrial invaders. The American canal employees have done very little shopping in Panama and Colon, because they could buy every necessity and luxury duty-free in the United States
government stores. Some trade may be lost owing to the departure of the workers, but it is hoped that this will be more than replaced by the growing stream of tourists who will come to visit the "big ditch," and increased business brought by the shipping which will pass through the canal.

With a little thrift and enterprise the Panamanians might have profited much more from the long period of construction. They might have supplied the zone with a good many more articles. As it was, the only contribution the country made to the zone or to the towns was about 28,000 head of cattle killed annually. The country is almost entirely dependent on imported supplies, only a small fraction of which it pays for by exports. Here is a little instructive table of the Panamanian commerce:

<table>
<thead>
<tr>
<th>Year</th>
<th>Imports</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1908</td>
<td>£1,561,362</td>
<td>£365,410</td>
</tr>
<tr>
<td>1909</td>
<td>£1,751,261</td>
<td>£300,495</td>
</tr>
<tr>
<td>1910</td>
<td>£2,008,679</td>
<td>£353,866</td>
</tr>
<tr>
<td>1911</td>
<td>£1,980,488</td>
<td>£179,941*</td>
</tr>
</tbody>
</table>

* Six months.
The excess of imports over exports looks rather alarming, but it is adequately explained by the British Consul at Colon as "a measure of the commercial value to Panama of its transit trade and of the trade with canal employees and tourists." The great bulk of the imports is consumed in the two towns of Panama and Colon, for, as in most of the South American republics, the interior is undeveloped and therefore self-supporting, being still in the "pack-mule" stage of civilization.

In 1911 the imports into Panama from the United States amounted to £1,024,589, from the United Kingdom to £454,541, and from Germany to £223,845. France, Italy, and Spain exported to Panama smaller quantities. The exports from Panama to the United States amounted in 1910 to £301,684 (1911, first six months, £150,990); to the United Kingdom, to £33,055 (1911, first six months, £15,921), with smaller values to Germany and France. The reader will be interested to learn what sort of things Panama exports. Here, then, is a list of the principal exports for 1910, the last full year available:—
<table>
<thead>
<tr>
<th>Commodity</th>
<th>Units</th>
<th>Quantity</th>
<th>£</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bananas</td>
<td>Bunches</td>
<td>3,643,900</td>
<td>184,257</td>
</tr>
<tr>
<td>Cacao</td>
<td>Kilos</td>
<td>18,021</td>
<td>940</td>
</tr>
<tr>
<td>Cocoanuts</td>
<td>&quot;</td>
<td>6,305,238</td>
<td>31,534</td>
</tr>
<tr>
<td>Cocobolo</td>
<td>&quot;</td>
<td>1,203,522</td>
<td>7,132</td>
</tr>
<tr>
<td>Gold</td>
<td>&quot;</td>
<td>2,748</td>
<td>26,995</td>
</tr>
<tr>
<td>Hides</td>
<td>&quot;</td>
<td>567,454</td>
<td>16,973</td>
</tr>
<tr>
<td>Horns</td>
<td>&quot;</td>
<td>6,893</td>
<td>1,410</td>
</tr>
<tr>
<td>Ivory Nuts</td>
<td>&quot;</td>
<td>2,102,743</td>
<td>26,527</td>
</tr>
<tr>
<td>Mother-of-pearl</td>
<td>shell</td>
<td>625,008</td>
<td>10,183</td>
</tr>
<tr>
<td>Rubber</td>
<td>&quot;</td>
<td>6,305,238</td>
<td>31,534</td>
</tr>
<tr>
<td>Sarsaparilla</td>
<td>&quot;</td>
<td>32,553</td>
<td>2,099</td>
</tr>
<tr>
<td>Skins</td>
<td>&quot;</td>
<td>257,740</td>
<td>4,750</td>
</tr>
<tr>
<td>Tortoise shell</td>
<td>&quot;</td>
<td>3,829</td>
<td>3,334</td>
</tr>
</tbody>
</table>

The United Fruit Company has now, in the province of Bocas del Toro, 32,000 acres of bananas under cultivation and 1,000 acres planted in cacao, with about 165,000 trees; the bananas being exported to the United States, and the chocolate to the United States and Europe. There should be a considerable increase in rubber production during the next few years, as 150,000 rubber trees have been recently planted in this
province, and these will soon be ready for tapping. Nearly all the rubber exported at present is taken from the wild trees growing in the virgin forests of this province. A curious article of exportation is the ivory nut, or *tagua*, which in value now comes next after bananas. These nuts are collected by Indians on the Caribbean coast, brought to Colon, and there bought by merchants and shipped to New York and Hamburg. They are used to make the big buttons which are now so fashionable, and probably a good many English girls who are wearing coats "made in Germany," are carrying about a number of these ivory nuts which not long ago were lying on the tropical shores of the Caribbean. The timber exports from Panama would grow rapidly with proper exploitation. Exports of mahogany, cedar, and cocobolo have already begun.

The gold exports come mainly from the mines of the Darien Company, a French company which has been working for years. The whole isthmus is strongly under suspicion of gold. All the streams show evidence of it, and prospectors are always searching the Darien country and the provinces of Los Santos and Veraguas for the
saint-seducing metal. No other minerals are worked in the isthmus. There are "coal-deposits" of a sort in the canal zone, but the coal is of no commercial value.

The only railway at present existing in the republic is that between Colon and Panama, the entire stock of which is owned by the United States government, and is worked as a company under the laws of the state of New York. This line, which has had to be largely reconstructed owing to the course of the new canal, was opened in 1855. It is rather surprising that it should not have been more extensively employed for traffic between the Atlantic and Pacific coasts of America. As a matter of fact, it was the main highway of transcontinental traffic until 1869, when the Missouri River was first linked up with the Pacific coast by the Union and Central Pacific Railroads, and the first continuous line across the States came into existence. After that date the traffic fell off very rapidly. The causes of this decline are various. To begin with, the great trunk-lines across the States competed ruthlessly with the old isthmian route, getting control of the Pacific Mail Steamship Company, which was
for long the only regular line between the west coasts of the United States and Panama. Then the French and American construction work has seriously interfered with the route by limiting the amount of commercial freight that could be handled across the isthmus.

Another cause of depression has been the opening of the Tehuantepec route in South Mexico. In 1906 the American-Hawaiian Steamship Company made an agreement with the Tehuantepec National Railway, which runs across the isthmus, and withdrew its vessels from the old Magellan route, establishing regular services between New York and Puerto Mexico on the Atlantic side, and on the Pacific between Salina Cruz, the Pacific terminal of the canal, and the west coast ports of the United States and Hawaii. The route so organized was opened in 1907, and has proved very successful, chiefly owing to the enormous increase in the sugar exports from Hawaii. The intercoastal traffic by Tehuantepec from New York to Pacific ports advanced from 114,900 tons in 1906 to 295,800 tons in 1911, and from Pacific ports to New York from 32,000 tons in 1906 to 162,500 in 1911.
All this competition hit the Panama route very badly. The Atlantic to Pacific traffic by that railroad rose from 25,914 tons in 1906 to 46,394 tons in 1910, and the Pacific to Atlantic from 24,937 tons to 32,482 tons between the same years. But in 1911 there came a sudden expansion to 96,420 tons (Atlantic to Pacific), and to 115,508 tons (Pacific to Atlantic), owing largely to the development of shipping services on both isthmian terminals. In fact, the commercial freight has had to be seriously held up and restricted in the interests of canal construction and the shipment of canal material.

The reader will perhaps ask whether the Tehuantepec route is likely to compete seriously in the future with the Panama Canal. The distance from New York to San Francisco is 1,016 nautical miles less via Tehuantepec than via Panama, and from New Orleans 1,573 miles less. The difference to Honolulu in favour of the Tehuantepec transit is almost exactly the same. But the difference in time will be a good deal less than these figures indicate. The cargo has to be transferred from shipboard to railroad on one side of the isthmus of Tehuantepec and retrans-
ferred on the other. This means on the average about four days' delay. At Panama, a vessel can pass through the canal in half a day, or, reckoning other causes of detention, coaling, etc., the total isthmian transit should not take more than one day. Then there is the question of expense. The cost of transferring freight at Tehuantepec could not be less than $2.50 per cargo ton. A Panama toll of $1.20 per vessel ton, net register, would be equivalent to about $0.60 per cargo ton, giving Panama an advantage of $2 over Tehuantepec. And the inconvenience and damage resulting from transhipment, from which a through service through the canal is free, will also be a considerable point in favour of the waterway. It is not likely, however, that Tehuantepec will be ruined by the opening of the canal. Considerable short-distance coasting trade is sure to continue along that route, and it will share in the general benefit of the developments which await Isthmian and Central America.

Has Panama any danger to fear from its old rival the Nicaraguan canal project? The United States seems to have forestalled this possible challenge of Panama's monopoly of water transit
over the isthmus. Just as I write comes the news of a new treaty between the United States and Nicaragua, securing to the former, for the payment of $3,000,000, the exclusive rights to construct a canal through Nicaraguan territory. The United States are reported also to have obtained under the treaty possession of Fonseca Bay, one of the few places on the west coast of Central America affording ample deep water facilities.

Moreover, the Colombian Chargé d’Affaires in London recently made the following communication to the press:—

I have received from my government the following information respecting certain propositions made to Colombia by the government of the United States, which the government of Colombia has not accepted. The American propositions were as follows:

1. That Colombia should grant the United States an option for the construction of an inter-oceanic canal, starting from the Gulf of Uraba on the Atlantic to the Pacific Ocean, through the region of the Atrato River.
2. That Colombia should give to the American government the right to establish coaling stations in the islands of San Andres and Providencia, which are located in the Caribbean Sea.

3. In consideration of the above, the United States to pay to Colombia $10,000,000 and to use their good influence for the settlement of pending differences between Colombia and Panama. Also to grant Colombia preferential rights for the use of the canal and the settlement by arbitration of the claims of Colombia against the Panama Railroad Company.

The government of Colombia declined to accept the above proposals, insisting, at the same time, that all questions pending between Colombia and the United States should be settled by arbitration.

It is evident that the United States are not going to permit any competitive canal scheme in Central America if they can help it.

What will be the effect of the opening of the canal on Panamanian prosperity? The local
merchants fear that the system of state-supply, which has prevailed in the zone during the constructional period, will be continued after completion and extended to the shipping which will pass through the canal, and that coal and ship-chandlery will become American government monopolies. Much depends on whether the Panamanian merchant will be allowed to import freely through Colon and compete in the supplying of the ships in transit.

No serious development can be expected in Panama until the country is better provided with railways. The only other line in contemplation is one from Empire, on the Culebra Cut, to David, a town close to the Pacific near the far western frontier, in the province of Chiriqui. This line would be 289 miles in length, and branches from it are proposed to Anton, 5 miles, and to Los Santos, about 67 miles.

It is pretty safe to prophesy that the blue streak through the isthmus of Panama will have a gradual but sure effect on the politics of Central America. The need to protect the canal, and to surround it with orderly conditions, social and political, will compel a good many states to
put themselves to amendment or force the big republic responsible for the canal to provide them with good government whether they like it or not. If the United States had to intervene in Cuba in order to put down anarchy or misrule, they may be persuaded by an even stronger necessity to intervene in the affairs of Central America in the defence of the Panama Canal. It would be no surprise, especially after recent events in Mexico, if the south-western frontier of the States gradually advanced down the broad and narrow isthmus until it reached and passed the line of the canal. This would be quite in accordance with the law which makes it almost inevitable that a great and well-governed Power should absorb weaker states along its borders, especially when these are unable to keep their houses in order.

There is always the danger that foreign Powers will intervene in the affairs of these republics in the interests of their bondholders, and this would compel in turn the intervention of the United States in order to make good the Monroe doctrine, which is directed against any such foreign interference in American affairs. In order to avoid
these complications Mr. Taft actually proposed not long ago to refund the debts of Honduras and Nicaragua, placing the custom-houses under the control of American officials. The object was partly to secure loans advanced by American bankers, but partly also to satisfy European bondholders and to make the politics of these republics more stable. Nothing came of this significant project. But I should not care to ensure, except at a very high premium, the permanence of the political arrangements now existing in these regions when the Panama Canal is in working order and becomes more and more essential to the safety and prosperity of the great republic. The canal may in the long run be not "virtually" but actually "a part of the coast-line of the United States."