CHAPTER XXVII

HANDLING THE TRAFFIC

FOUR or five years before the earliest probable opening date, shipping interests began to arrange their future schedules with respect to the Panama Canal.

One can scarcely realize how rapidly the facilities of the canal will be utilized. At the rate of expansion witnessed in the world's marine traffic during the past two or three decades, 17,000,000 tons of shipping will be handled through the canal in 1925, 27,000,000 tons in 1935, and 44,000,000 tons in 1945.

The maximum capacity of 80,000,000 tons assumes a passage of 48 vessels a day through the canal, or one for every half hour of the twenty-four. Two vessels a day of 4,000 tons each, at the present charge, will render the canal self-supporting.

While the great Isthmian highway will be completed far enough ahead to be ready to handle all traffic that offers long before the official opening date, it will, on the other hand, never reach that stage where dredges will not be needed. There are 22 rivers which wend their way from the watersheds of the canal, and pour their loads of sand and silt into it. Of course, these rivers are small — so small, indeed, that few of them

would be dignified by being called rivers in the United States. But when the heavens open and the floods descend, as they do so frequently during the rainy season at Panama, these usually quiet, lazy, little streams become almost as angry as the mighty Chagres itself, and they rush down to the canal heavily freighted with sand and silt. If the water in the great interoceanic channel is to be kept at its appointed depth of 41 feet, dredging perforce must be continued from year to year, summer and winter, spring and fall. And so it is that the dredges will be met by every ship that steers its course from Cristobal to Balboa, or from the Atlantic to the Pacific.

Few ships large enough to tax the dimensional capacity of the locks ever will go through the canal. Full 90 per cent of all the ships that sail the seas could go through locks one-half the size of those at Panama. So far as commercial shipping is concerned, a 15,000-ton vessel plying tropical waters is considered large, and a 20,000-ton ship is an exception. According to the best shipping authorities, the day when vessels of more than 25,000 tons will find it profitable to ply on the routes which lead through the Panama Canal is so far in the future that they are not able to discern it. With reference to the Navy, naval experts generally agree that the United States will celebrate many a decade of passing years before a battleship too large to use the present lock chambers is a possibility.

When a ship makes its maiden voyage through the canal, the measurements to determine its net register will be taken by the shipping experts

in the employ of the United States. When this work is completed the master of the ship will be required to pay the toll before he can take his vessel through the canal. If he should fail to pay the toll the vessel itself would be put on the block and sold at auction, if necessary, to reimburse the United States for its passage. However, it is not to be expected that such contingencies as these will arise. When once a ship has been measured, the formality will not have to be gone through with on future visits. It is not expected that each ship will be actually measured for every dimension as it comes to the canal on its first trip, since its net register tonnage probably will have been determined long before, and the canal officials will only check up the work already done elsewhere to assure its accuracy.

Many ships will go to Panama which will not use the canal. For instance, there will be those which will leave European ports, loaded in part with cargo bound to Pacific points and in part with cargo for Atlantic points on the South and Central American coast. Such ships will simply call at Colon, discharge their cargo bound to Pacific points, and take on what additional cargo they can get bound for points for which they are sailing on the Atlantic side. In stopping at Colon they will probably replenish their supplies from the commissary department of the canal.

What the freight department is to a railroad the cargo ship will be to the Panama Canal—its greatest revenue producer. Such ships will do comparatively little loading and unloading of cargo at either end of the canal. The tramp

steamer will figure largely in the traffic that passes from ocean to ocean at Panama. With no schedule of sailing dates and with no definite routes, the tramps constitute the flying squadron of the shipping world, moving hither and thither seeking cargoes wherever they can find them. A tramp steamer may load at Liverpool for San Francisco, reach that point through the Panama Canal, and, after discharging its cargo, go on up to Seattle and load for China. There it may discharge its cargo again and go thence to India to pick up a load of grain for Liverpool, passing through the Suez Canal. Its master always will turn its prow to the point where profitable cargo awaits it, and this may carry it by Panama once or a dozen times a year. The line steamers will have their regular sailing dates and will pass through the canal at stated intervals.

The problem of providing coal for passing ships is one of the most important with which the canal authorities will have to deal. The cheaper that commodity can be sold to the ships, the more attractive the route will be. For instance, a 10,000-ton ship which saves a dollar a ton on a thousand tons of coal, saves the equivalent of the cost of operating the vessel for a period of from 24 to 36 hours, and this, with the rates at Suez and Panama on an equal basis, gives at least one day's advantage to the Panama route in figuring on a voyage. Pocahontas steaming coal costs $2.70 per ton laid down at Newport News. Under the carrying agreements with shipping interests that obtained during the construction period, this coal was carried to Panama

for $1.395 a ton. It is estimated that the canal colliers, which have been authorized by Congress, with a capacity of 12,000 tons of coal and with a speed of 14 knots, can deliver to the Isthmus a half million tons of coal a year. The saving which will be effected by having the coal carried by Government colliers is a large one. A merchantman would get $368,000 for delivering 264,000 tons of coal, while the cost of delivery by collier for the same amount would approximate $184,000. The average life of a collier is 20 years. The saving effected in these 20 years by the Government carrying its own coal would be large enough to pay back the million dollars which the collier cost, and to yield an additional profit of $2,630,000 during the life of the vessel.

The sale of coal at Suez, where an annual shipping traffic of some 21,000,000 tons is handled, amounts approximately to 1,000,000 tons. Thus, it will require two colliers to handle the coal when the canal opens, and two more 13 years later.

Not all the ships which use the canal will coal there. For instance, the Royal Mail Steam Packet Company, which was so forehanded in its effort to get a good share of the trans-Isthmian traffic that it acquired the Pacific Steam Navigation Company long before the canal opened, is building a coaling station at Kingston, Jamaica, where its ships will replenish their bunkers. This coaling station will, of course, always be at the disposition of the British Government in case of war, and of such British merchantmen that choose to pass that way.

Some ships will not negotiate the canal under their own power. Many small vessels steer so badly that their masters would be afraid to risk them going through without aid. For instance, the skipper of the Cristobal, one of the 6,000-ton cement-carrying ships bought by the United States a few years ago, declared, in discussing this phase of the matter, that he would be afraid to trust his vessel going through the canal under its own power. To ships not sufficiently responsive to their helms, Government tugs will be furnished.

Some skippers prefer to have their vessels towed by one powerful tug, while others prefer several smaller ones. Several tugs are now building for towing purposes, and they will also be used to tow vessels through the locks in the early days of operation, pending the completion of all of the electric towing locomotives.

Two floating cranes will be provided in the permanent equipment at a cost of a quarter of a million dollars each. These cranes, with a lifting power of 250 tons, will be suitable for any wrecking operations in the canal and, also, for lifting the gates in case of repairs being required.

The canal will probably be the death blow to the sailing ship of international commerce. Not being able to negotiate the canal under their own power, and because of the dead calms which prevail in the Gulf of Panama, sailing ships will be stopped from using the Isthmian waterway. When they attempt to journey around Cape Horn and the Cape of Good Hope in competition with steam vessels which pass through the Panama

Canal, the operation will afford such little profit that in the course of a few years they will have to surrender what little share of international commerce they have succeeded in keeping.

The Panamans are inclined to think the United States drove a hard bargain when the provision was inserted in the treaty that all supplies for the building and operation of the canal, and for the demands of shipping using it, when imported by the United States, should be free of duty. This practically gives the United States a monopoly of the business of catering to the needs of ships passing Panama. The present duty on imports is 15 per cent, and the local merchant who would sell supplies to the passing ships would be under the necessity of adding 15 per cent to his buying price before he could compete with the United States Government on equal terms. This advantage is made all the more marked by the reasons of the fact that the United States often can make much money out of the operation by selling at actual cost, the profit arising from the extra shipping which is thereby attracted to the canal.

The United States will reimburse the owners of any vessels passing through the locks of the canal, under the control of its operatives, for any injury which may result to vessel, cargo, or passengers. Provision is made under the permanent canal law that regulations shall be promulgated by the President which will provide for the prompt adjustment, by agreement, and immediate payment of claims. In case of disagreement, suit may be brought in the district

court of the Canal Zone against the governor of the Panama Canal. The law says: "The hearing and disposition of such cases shall be expedited and the judgment shall be immediately paid out of any moneys appropriated or allotted for canal operation."

The character of misrepresentations made concerning the canal was illustrated in a story published in the midsummer of 1913. This story originated in London and declared that all of the big shipping interests were afraid of the Panama Canal, and that Lloyds would insure vessels and cargo only at much advanced rates. The article went on to state that the representative of one of the biggest European lines had visited the Isthmus and had returned with the announcement that his company could not afford to trust its vessels in the canal.

As a matter of fact, with the United States Government standing responsible for any damage sustained in the canal, no shipping interest could sensibly regard it as extra hazardous to pass through it; rather, it would be less hazardous than to negotiate the tortuous Strait of Magellan, where thousands of wrecks tell of unseen dangers, or to round Cape Horn with its fierce storms and its grave perils.

Much has been said about the probability of injury to the canal by persons of evil intent, and the Panama Canal law imposes heavy penalties on anyone attempting to inflict such an injury. The law provides that the governor of the Canal Zone shall make rules and regulations, subject to the approval of the President, touching the

right of any person to remain upon or pass over any part of the Canal Zone. "Any person violating these rules or regulations shall be guilty of a misdemeanor and, upon conviction in the district court of the Canal Zone, shall be fined not exceeding $500 or imprisoned not exceeding a year, or both penalties in the discretion of the court. Any person who, by any means or any way, injures or obstructs or attempts to injure or obstruct any part of the Panama Canal, or the locks thereof, or the approaches thereof, shall be deemed guilty of a felony and on conviction shall be punished by a fine not to exceed $10,000 or by imprisonment not to exceed 20 years, or by the infliction of both of these penalties. If the act shall cause the death of any person within a year and a day thereafter, the person so convicted shall be guilty of murder and shall be punished accordingly." As a further precaution, individuals will not be allowed to approach the locks with any sort of packages unless they are properly vouched for.

The possibility of serious injury to the locks will be carefully guarded against. They will be lighted at night by electric lamps of large candlepower and the whole lock structure will be kept as light as day throughout the night. Men will be always on sentry duty, and an adequate system of intercommunication will enable the sentries to call out a guard large enough to repulse any attack of any small surprising party.

CHAPTER XXVIII

THE REPUBLIC OF PANAMA

THE Republic of Panama is one of the smallest countries in the world, its territory being about equal to that of the State of Indiana. It has no national debt, and has $7,000,000 invested in mortgages, on real estate in New York City.

When it received $10,000,000 from the United States, in payment for the rights under which the Panama Canal was built, it immediately invested about 75 per cent of it, using the remainder for paying the expenses of the revolution, and for setting the new government on its feet. It now receives $250,000 a year from the United States as rental for the Canal Zone, and this, with the $350,000 received as interest from its real estate mortgages in New York, gives it an annual income of $600,000 outside of money raised by the usual processes of taxation.

Under the treaty with the United States, Panama has its independence guaranteed, and recognizes the right of the United States to maintain order within its boundaries. This entirely does away with the necessity of maintaining an army and navy. The result is that with no appropriations required for military purposes, and with a $600,000 income from the Canal

Zone, it enjoys one of the lowest tax rates in the world.

Although the Republic of Panama has its Declaration of Independence and its Glorious Fourth, the former was written by a foreigner, and the latter occurs in November. There is some dispute as to who wrote the declaration of independence, but the best information points either to Philippe Bunau-Varilla, a Frenchman, or to William Nelson Cromwell, an American. These two gentlemen differ upon this subject, each claiming that he was the Thomas Jefferson of Panama.

When the $10,000,000 was paid to Panama by the United States, one of the first things done was to build a university, locally known as the National Institute. Some $800,000 was spent in the construction of the buildings, which are located near the line of the Canal Zone. But it so happens that Panama has few teachers qualified to hold university chairs, and fewer students qualified to pursue university courses; and the result is that the university is more a place of buildings than a seat of learning.

No other country in the world calls in another nation to superintend its elections. When the first presidential election was held the United States took the initiative and demanded the right to supervise the balloting. Before the second election was held the President became ambitious to succeed himself, although the constitution provided that he could not do so. He thereupon decided to resign for a period of six months, in favor of one of his partisans, thinking that this would allow him to live up to the letter of the constitution

even though he were violating its spirit in becoming a candidate for reelection. This situation was brought to the attention of the United States, and the President was politely but firmly informed that the subterfuge would not be permitted. When the election approached each side thought that the other was trying to win by fraud, and the United States was asked to referee the political battle.

The City of Panama is famous for its wickedness. Men who have seen the seamy side of life in all of the big cities of the world declare that Panama is as bad as the worst of them. Until a few years ago bull-fighting was permitted, but the bulls were so poor and the fighters were such butchers that the Government finally outlawed this form of entertainment. Cock-fighting persists, and numerous cock pits are popular resorts every Sunday. Nowhere else can one witness a greater frenzy in betting than at one of these cocking mains. The backers of the rival birds nod their heads and place their bets so rapidly that it is more bewildering to the onlooker than the bidding at an auctioneer's junk sale.

The prize ring has succeeded the bull ring in gratifying the Spaniard's thirst for gore, and scarcely a Sunday passes that there is not a prize fight in Panama. Few Americans who attend them come away without a feeling of disgust over the poor fighting, the brutality, and the trickery resorted to.

While the Americans have done so much for public cleanliness in Panama and Colon, the masses seem to know little more about sanitary living today than before the Americans came. The stenches which greet the visitor in the native quarters are no less odorous than those encoun-

tered in other cities of tropical America. The bathtub is an unknown quantity among the masses. Most of the natives who live in the cities are engaged in some line of small trade. It may be that a shop has only a platter of sweetmeats and a few bottles of soda on ice, and that another has only a bushel of different kinds of tropical fruits, but out of the small sales large families manage in some way to exist. The markets open early in the morning. There is no spirit of rivalry among the market men, and they act usually as if they were conferring a favor upon the buyer. At the markets many Indians are encountered who bring their wares from the interior and offer them for sale. These usually consist of pottery, net bags, charcoal and the like.

Life among the Panamans in the jungle is simple indeed. With his machete the householder may provide a thatched roof for his mud-floored hut, and he can raise enough beans, plantains and yams, and burn enough charcoal, and catch enough fish to meet all of his needs. In the kitchen the principal utensils are gourds and cocoanut shells. The most tempting morsel that the Panaman can get is the iguana, a lizard as big as a cat, whose meat is said to taste like spring chicken. It is about the ugliest creature in the animal world, and yet it means more to the native Panaman than does possum meat to the cotton-field darky of the South.

The unconscious cruelty of the average native is remarked by almost every visitor. He is usually too lazy to be conscious of cruelty, for that would require exertion. When he catches the iguana,

for instance, he takes it alive so that it may be fattened before being killed. Its short legs are twisted and crossed above its back, and the sharp claw of one foot is thrust through the fleshy part of the other, so as to hold them together without other fastening. The tail, being useless for food, is chopped off with the machete, and thus mutilated and unable to move, the lizard is kept captive until fat enough to eat.

The fruits of Panama are neither so numerous nor so plentiful as those of Nicaragua or Jamaica. The mamei is a curious pulpy fruit the size of a peach, with a skin like chamois and with a smooth pit the size of a peach-stone. The sapodilla is a plum-colored fruit with seeds in a gelatinous mass. One is usually introduced to the sapodilla with the remark that, although the seeds are eaten, they have never been known to cause appendicitis.

Cedar is preferred to mahogany in Panama. The Indians make their cayucas out of mahogany logs, and it is not uncommon to see bridges 40 feet long and 5 feet thick, made of mahogany logs which would be worth several thousands of dollars in an American furniture factory.

Panama is famous for its tropical flowers. Many of them are beautiful, but few are sweet smelling. Orchids abound, especially on the Atlantic side, and while the waters of the Chagres were being impounded in Gatun Lake, native boatmen would go out in their cayucas and gather orchids from the trees. One of the most beautiful of the orchids of Panama is the Holy Ghost orchid. It blooms biennially, and when its petals fold back they reveal a likeness to a dove.

Some of the American women on the Canal Zone became enthusiastic collectors of tropical flowers. Among these were Mrs. David Du Bose Gaillard and Mrs. Harry Harwood Rousseau. Both of these ladies spent much time hunting orchids and other flowers for the verandas of their houses and for their gardens. Mrs. Rousseau made trips into several of the other countries of Central America in her quest for new orchids. The collections made by these two ladies represent the finest on the whole Isthmus of Panama.

The animal life of the Isthmus is not abundant, although some deer and a few tapirs are to be found. Alligators abound in the Chagres River and other streams of the Zone. Perhaps the most interesting form of animal life to be found on the Isthmus is the leaf-cutting ant. This ant seems to be nature's original fungus grower. As one walks around the American settlements, he frequently comes upon a long path filled with ants, passing back and forth. They resemble a sort of miniature yacht under full sail, except that the sails are green instead of white. Upon closer examination it is found that what seemed to be a sail is a triangular piece of leaf carried on the back of the ant, with its edges to the wind so as to overcome air resistance. The ants do not gather these leaves for food, but they store them in such a way that a fungus grows upon them. They eat the fungus, and when the leaves are no longer useful they are thrown out and new supplies brought in.

The native remedies used by the Panamans are many and interesting. For stomach troubles, which are very rare, they eat papaya. The papaya

is a sort of fruit which might be a cross between a cantaloupe, a watermelon and a pumpkin, except that it grows on trees. It has the rind of a green pumpkin, the meat of a cantaloupe, and the seeds of a watermelon. It is probably richer in vegetable pepsin than any other plant in existence — a pepsin which neutralizes either alkaline or acid conditions in the stomach. It is said that a tough steak, wrapped in the leaf of the papaya tree overnight, becomes tender as the result of the digestive action of the pepsin in it.

The Indians and Panamans who live in the jungle use the wood of the cacique, or "monkey cocoanut," to stop any flow of blood. In their materia medica they have a large number of tropical plants which they use for their ailments.

The way in which sanitary instruction may be made efficient is illustrated among some of the people of Panama. Upon one occasion the Canal Record carried a small diagram of how to make a sanitary drinking cup out of a sheet of paper. After that there were many Panamans who, although in a hundred ways indifferent to contagion, would no longer drink from common drinking cups, but would make their own sanitary cups. Even the Jamaican negroes employed around the offices of the commission in many instances would not think of using the common drinking glass at the office water-cooler.

Two tribes of Indians on the Isthmus have not mixed with the Caucasians or the negroes. They are the Chucunoques and the San Blas Indians. The latter tribe has never been known to allow a white man to remain in its territory after sun-

down. Even the higher officials of the Panaman Government are forced to respect this tradition when they treat with the San Blas chiefs.

Government land in Panama can be bought at the rate of $49.60 for 247 acres, with reductions for larger areas. The Government invites foreign capital, declaring that the United States stands as a perpetual guarantee against revolutions within and aggressions without.

The story of the early days in Panaman history is a strange admixture of romance and cruelty. The Isthmus was discovered in 1500, and first settled by an adventurer who had been the Royal Carver in the king's household at Madrid. Balboa, carrying with him a small force of men and a lot of bloodhounds, one of them a dog of mighty prowess, known as Lioncico, or "Little Lion," which drew a captain's pay because of its fighting qualities, crossed the Isthmus in 1513 and discovered the Pacific Ocean. After him came a new governor of the Isthmus, who put Balboa to death.

The Spaniards were unspeakably cruel to the Indians. Even those who received them kindly were tortured and roasted to death, because they did not produce enough gold. One governor rode a mule, which was noted for the frequency of its braying. The Indians were taught that the mule was asking for gold, and in meeting these demands they not only had to give what they possessed, but were forced to rob the graves of their ancestors as well. Upon one occasion the Indians, having captured a number of Spaniards, melted a lot of the yellow metal and poured it down their throats,

telling them to drink until their thirst for gold was quenched.

After the Spaniards had established themselves upon the Isthmus, the English buccaneers, Drake and Morgan, fell upon their cities and despoiled them. The ruins at Old Panama, which once was a city of 30,000 inhabitants, to-day tell the story of the effective work of Henry Morgan when he raided it and captured its treasure.

While the Spanish conquerors, the French filibusters, and the English buccaneers, who took their turns in pillaging Panama, were cruel beyond imagination, they were always famous for their outward evidences of religion and piety. The Spanish were always chanting hymns and honoring the saints; the French would shoot down their own soldiers for irreverent behavior during mass; the English pirate captains never failed to hold divine services on Sunday, and often prohibited profanity and gambling.

Where once Spaniards tortured Indians and British buccaneers raided Spaniards, where once revolution after revolution left a poor and desolate country, to-day the gates of Panama are open to the world, and its trade is invited again to pass that way. The people of the Isthmus believe that the glory which departed when Morgan sacked Old Panama, forcing the Pacific trade to seek the Strait of Magellan, will return with the opening of the Panama Canal, and that their capital, whose walls cost so much that the Spanish king thought he could see them from his chamber window in Madrid, will retrieve its ancient glory.

CHAPTER XXIX

OTHER GREAT CANALS

WHILE the Panama Canal seems destined to endure for all time as the greatest artificial shipway in the world, there are other waterways, while small in comparison, that are in themselves wonderful works of engineering. In point of traffic the greatest canal in the world is the Sault Ste. Marie Canal, popularly called the "Soo." In point of economy of distance and world-affecting consequence the Suez Canal ranks with, or next to, Panama.

The Suez Canal was built while the Civil War was raging in the United States, and was opened for the passage of vessels on November 17, 1869. It is about twice as long as the Panama Canal, the distance from Port Said, at the Mediterranean terminus, to Suez at the Red Sea end, being approximately 100 miles. When constructed its depth was 26 feet, 3 inches, and its bottom width 72 feet. The maximum vessel draft permitted was 24 feet 7 inches. The canal was in operation for 11 years before vessels of this draft presented themselves for passage.

During the first dozen years of its operation various curves were straightened, the turning-out places where vessels passed one another were enlarged, and their number increased to 13. This

work of straightening curves and widening the canal has continued from that time until the present, and to-day vessels may pass one another through a large part of its length. The policy increasing the general dimensions of the canal was begun in 1887. By 1890 its depth had been increased to 29½ feet, so that it could accommodate ships having a draft of 26 feet 3 inches. The work of deepening continued, and when the United States began to build the Panama Canal this work was speeded up, so that by 1908 a depth of 32¾ feet was attained and vessels of 28 feet draft could be accommodated. In 1909 it was decided that it would be necessary to make the canal still deeper, and a project, which will not be completed until 1915, was then undertaken, calling for a depth of 36 feet 1 inch. By 1898 the width of the canal had been increased from 72 feet to 98½ feet. This is now being still further increased to 134½ feet. Even when this project is completed in 1915, the Panama Canal still can accommodate ships of 5 feet greater draft than the Suez Canal.

The maximum draft of ships permitted to use the Suez Canal is demanded in comparatively few instances. A recent report showed that 94 per cent of the ships using the canal had a draft of less than 26¼ feet, and that only 1 per cent had a draft of 28 feet. The increase in the depth of the canal, therefore, was made largely in anticipation of future shipping requirements.

When the canal was completed it required 49 hours for a ship to pass through it. The growth in its dimensions, together with the increase in the number and size of passing stations, the straighten-

ing of curves, and the improvement of facilities, have brought down to 17 hours the average length of time required for the transit. Ships not equipped with electric searchlights are not permitted to pass through at night. The improvements being made on the canal are being paid for mainly from the revenues derived from tolls.

The Suez Canal was constructed, and has been enlarged and managed, by a private corporation which has invested from the beginning of the construction up to the present time about $127,000,000 of which approximately two-thirds has been secured from the sale of securities, and one-third from the earnings. The original capital of the Suez Canal Company, issued in 1859, was 400,000 shares of $100 each. These shares partake of the nature of both bonds and stock, for they are entitled to interest of 5 per cent as well as to participation in the company's profits. Provision is made for their redemption, but when redeemed they continue to share in the profits and merely lose the interest-bearing feature. On December 31, 1911, 378,231 of these shares were in circulation.

In 1875 the British Government, through Lord Beaconsfield, purchased the 176,602 shares held by the Khedive of Egypt, paying some $20,000,000 for them. The British Government does not own a majority of the shares, and the Suez Canal is controlled and operated by a French company. The annual dividends have increased from 4.7 per cent to 33 per cent. The shares are closely held and trading in them is light. The stock sells at a premium of over 1,000 per cent. When the work of building the canal was undertaken, 100,000

shares were given to the founders. These shares are not stock, but are, rather, certificates of obligation, requiring the company to pay 10 per cent of its profits to the promoters and founders of the original company and their heirs and assigns. The net profits of the canal amount to about $17,000,000 a year. Of this the stockholders get $12,000,000, the Egyptian Government $2,500,000, the founders of the company $1,500,000 and the administrative officers and the employees divide $100,000 among them.

The traffic of the Suez Canal during the first two years was relatively small, for the reason that the canal is not a practicable one for sailing vessels, and steam vessels had to be built. These, being much less efficient than freight steamers are to-day, were slow in securing the trade that had been enjoyed by the sailing vessels. The rate of tolls charged by the Suez Canal Company has declined steadily since the canal went into operation. On January 1, 1912, they approximated $1.30 a ton, with a reduction of nearly a third for vessels in ballast. On January 1, 1913, the rate was made approximately $1.20 a ton, the fraction of a cent higher than the rate at Panama. The passenger tolls are $2 for passengers above 12 years and $1 for children from 3 to 12 years of age; children below 3 years are carried free. The highest toll charged on the Suez Canal was in 1874 when it was $2.51 a ton.

The Suez Canal has proved highly profitable to its owners. No one believes that the Panama Canal will yield as great a return on the capital invested. The cost of the Panama Canal will be

four times the cost of Suez, and it is doubted by traffic authorities whether the Panama Canal will ever handle as much business.

The Manchester Ship Canal, which connects Manchester with Liverpool, was constructed only after years of preliminary agitation. There was opposition by the railways, and from the industrial and commercial centers with which Manchester competes. Over 300 petitions were presented to Parliament before its consent was obtained for the construction of the canal. Work was begun in November, 1887, at which time it was estimated that the canal would cost $42,000,000. It was opened for traffic January 1, 1894, after $75,000,000 had been spent in building it. Of this about $60,000,000 went into actual construction work. The Manchester Canal is 35½ miles long. It extends from Eastham, about 6 miles from Liverpool, to Manchester. Its original depth was 26 feet, but this has been increased to 28 feet. Ships with a length of 550 feet, a beam of 61 feet, a height of 70 feet, and a draft of 27 feet can use the canal. There is a difference of 58 feet 6 inches in level between Eastham and Manchester, and this is overcome by five sets of locks. The highest lift is 16 feet.

The Manchester Canal Company owns the Bridgewater Canal and makes connections with 13 other barge canals. It handles about 6,000,000 tons of freight a year, of which the bulk is seaborne. Although it connects with 13 barge canals, the amount of barge traffic handled is less to-day than it was a decade ago. From the beginning the Manchester Canal has had to compete with the

railroads, and they cut their rates to such a basis that they get the business and force the canal company to operate as a losing venture to its stockholders.

In spite of the competition of the railroads, the canal has managed to increase its business at about the same rate that traffic through the Suez Canal has increased, and a little more rapidly than it has been estimated that traffic through the Panama Canal will grow. The shareholders have not yet received any dividends, but it seems probable that in the course of a few years all of the securities will earn an annual income. Many shareholders have been more than compensated for their subscriptions by the collateral benefits they have received from the canal.

The Government of Germany constructed a canal connecting its Baltic and North Sea ports, and named it the Kaiser-Wilhelm Canal. The natural route from the Baltic to the North Sea around Denmark is circuitous, dangerous because of storms, and is guarded by foreign powers. The canal was begun in 1887 and completed in 1895, and was constructed primarily for military and naval purposes, although it has proved to be of great value to the commerce of Germany. It connects Brunsbuttel Harbor on the Elbe with Holtenau on Kiel Bay. It passes through low lands and lakes and along river valleys. It is 61 miles long and, as it was first constructed, had a width of 72 feet and a depth of 29½ feet. The total cost of the canal was approximately $37,000,000. It was in operation only 12 years until it was found necessary to enlarge it. The reconstruction

of the canal was authorized by the German Government in 1907, and the work, which is expected to be completed in 1914, was started in 1909. When this work is completed the canal will be 144 feet wide and 36 feet deep. At 10 places it will be widened so as to permit ships to pass. New twin locks, built for the regulation of the tides — for the canal itself is at sea level — will be 82 feet longer and 37 feet wider than the Panama locks. The maximum depth of these locks will be 45 feet, although at low tide they will be a little less than 40 feet.

During a recent year commercial vessels with an aggregate net register of over 7,000,000 tons used the Kiel Canal. The increase of business during the first decade of the present century amounted to 70 per cent, or a little more than the estimated increase for each decade at Panama. The net receipts from the operation of the canal are not sufficient to pay interest on the investment. No effort is made to levy tolls that will provide for interest charges, or for the amortization of the principal. The canal does not connect regions of enormous traffic, nor does it greatly shorten ocean routes. The longest route is cut down only 429 miles. The German Empire was so well pleased with the success of the Kaiser-Wilhelm Canal that the enlargement it is now making represents an expenditure one and a half times the original cost.

The Amsterdam Canal was built to connect Amsterdam with the sea. Formerly, ocean-going vessels were small and the Zuider Zee River was then a stream of considerable depth. Gradually, however, the Zuider Zee became shallower and the

size of ocean vessels larger, so that the commercial supremacy of Amsterdam was threatened by the competition of Rotterdam and Antwerp and north German ports. In 1818 a corporation constructed what was known as the "North Holland Canal," which was large enough to accommodate ships employed in the East India trade. It had a minimum depth of 20 feet and a minimum width of 100 feet. This canal, however, had numerous curves and it was constructed by a roundabout route of 52 miles from Amsterdam northward to the North Sea, while Amsterdam is less than 17 miles from the sea by direct route.

In 1863 a concession for the construction of the North Sea Canal was granted and two years later active work began. It was finished in 1876. There were no serious engineering difficulties to be met, there being no rivers to be crossed, no towns to block the way, and only three bridges to be built. The work consisted mainly of building embankments, draining and reclaiming land, and dredging the channel. The canal was not completed according to the original plan. Extensive enlargements and improvements were decided on, and a larger additional lock was undertaken in 1889 and completed in 1896. At that time it was the largest canal lock in the world. Plans are now being considered for building another new lock, which will be larger than those at Panama. The bottom width of the canal is now 164 feet. It can accommodate vessels 721 feet long, with a 79-foot beam and of 30 feet draft. The construction of the canal cost $16,000,000. Improvements have brought the total amount up to about $24,000,000.

Since 1893 all toll charges have been eliminated, and the canal has been operated at the expense of the State. The annual average cost of operation and maintenance is about $200,000. This canal bears about the same relation to the city of Amsterdam that the Delaware River Channel bears to the city of Philadelphia, or the improvements on the lower Mississippi to the city of New Orleans.

The Cronstadt and St. Petersburg Canal is 16 miles long and gives St. Petersburg an outlet to the Gulf of Finland. It was built at a total cost of about $10,000,000. It has a minimum width of 220 feet and a navigable depth of about 20½ feet. It was built primarily as a military undertaking, but has proved of great service to Russian commerce.

Another important European canal is that extending from the Gulf of Corinth to the Gulf of Aegina in southern Greece. Its length is about 4 miles, a part of which was cut through soft granite rock and the remainder through soil. It has no locks. The bottom width is 72 feet and the depth 26¼ feet. The average tolls are 18 cents per ton and 20 cents for passengers.

No other canal in the world can rival the one at Sault Ste. Marie, Mich., which connects Lake Superior with Lake Huron, in the enormous volume of its shipping. There are really two canals — one owned by the Canadian Government, and one by the United States Government. The canal belonging to the United States was begun in 1853 by the State of Michigan, and opened in 1855. It had a length of about a mile and was provided with twin locks 350 feet long, allowing the passage of

vessels drawing 12 feet of water. The United States Government, by consent of the State of Michigan, began in 1870 to enlarge the canal, and, by 1881, had increased its length to 1.6 miles, its width to an average of 160 feet and its depth to 16 feet. A lock 515 feet long, 80 feet wide, and 17 feet deep was located south of the locks which were built by the State.

In 1882 the United States Government took over the entire control of the canal. Five years later the locks that had been built by the State were torn down, and a new one 800 feet long, 100 feet wide, and 22 feet deep was put into commission in 1896. The Canadian Canal, $1\frac{1}{8}$ miles long, 150 feet wide, and 22 feet deep, was built on the north side of the river during the years 1888 to 1895. Its locks are 900 feet long, 60 feet wide, and 22 feet deep.

The traffic through the Sault Ste. Marie Canals averages around 60,000,000 tons a year. This is as much as the Panama Canal can expect to get 40 years after its opening. The tonnage of the American Soo Canal passed the million mark in 1873, reached the 20,000,000 mark in 1899, and amounted to 46,000,000 net tons in 1909. It now ranges around 50,000,000 tons. It will be seen from this that the American Canal, built on the south side of St. Mary's River, gets about ten times as much traffic as the Canadian Canal, built on the north side of the river. This gives the American Soo Canal more than twice as much traffic as the Suez Canal, and about four times as much as the Panama Canal expects to begin with.

A canal which was built primarily for drainage purposes, but which seems destined to fill an im-

portant place as a traffic-carrying waterway, is the Chicago Drainage Canal connecting Lake Michigan at Chicago with the Illinois River at Lockport —a distance of 34 miles. It was built for the purpose of reversing the movement of water in the Chicago River and preventing the pollution of Lake Michigan. The sewage of the city now goes to the faraway Mississippi instead of the Lakes. The minimum depth of the canal is 22 feet, and its bottom width 160 feet. To complete the project the excavation of nearly 44,000,000 yards of material was required — enough, if deposited in Lake Michigan in 40 feet of water, to form an island a mile square with a surface 12 feet above the water. The city of Chicago and the State of Illinois have agreed to turn this canal over to the United States Government, if it will deepen the Illinois and Mississippi Rivers to 14 feet between Lockport and St. Louis. This would give a complete water connection from upper Mississippi River points to Lake Michigan, and open up a highway to the Gulf of Mexico. The estimated cost of this project is $25,000,000.

The completion of the Panama Canal will probably result in an unprecedented activity in the development of inland waterways in the United States. The new markets which it will open up to American products and the old markets it will stimulate and extend, will demand large additional facilities for getting the products of the American farm and factory to the seaboard. Already preparations for capitalizing the commercial opportunities which the opening of the canal will afford, are being made in various parts of the country.

The Erie Canal, connecting Buffalo and Albany and giving the Great Lakes a water outlet at New York, is being widened and deepened at an expense of $101,000,000. The propaganda of the American Rivers and Harbors Congress, looking to the appropriation of $500,000,000 to be spent in a systematic program of inland waterway development, is meeting with encouragement in every part of the country, and it is the expectation of those who believe that the Government should commit itself to such a program, that within 25 years the stimulus to waterway development given by the opening of the Panama Canal, will give to the United States one of the finest systems of inland waterways in the world.

CHAPTER XXX

A NEW COMMERCIAL MAP

THE most rapid change in the commercial map of the world wrought in centuries will be witnessed during the years following the completion of the Panama Canal. Cities that heretofore have been mere way stations on the international routes of trade will grow into rich centers where the new roads of the commercial world will cross. On the other hand, cities which in the past have gloried in a trade supremacy of international recognition will see themselves displaced and their prestige lost. The readjustment will not be the matter of a day or a year; even a generation may pass before it is completed; but the ultimate changes will certainly be greater and more world-encompassing than anyone now can forecast.

The capture of Constantinople by the Turks was directly responsible for the discovery of the New World. It cut off the cities of the Mediterranean from communication with India, and sent Columbus westward in quest of another passage, which could not be obstructed by the Mussulman tyrants of the East. At last the Panama Canal is to afford that passage, and to bring the whole earth into smaller compass.

Of course, the United States will be the first

to realize the great benefits of the canal. It will double the efficiency of the American Navy by permitting it to concentrate its forces on either ocean in shorter time, by weeks, than can be done by any other nation; consequently, it will add to American military prestige throughout the world. The benefits immediately accruing to the people of the United States will be as great in a commercial way as in military advantage. As the capture of Constantinople caused the upbuilding of many notable regions through the transformation of international trade routes, so will the completion of the Panama Canal open up new markets and new opportunities to the Mississippi Valley, the world's greatest granary. Its grain and meat products, loading by way of Gulf ports, can go to the ends of the earth with but little outlay for expensive rail transportation. It is even probable that the great awakening incident to the opening of the canal, may hasten the day when the Lakes-to-the-Gulf waterway will be an accomplished fact and when ships may load in Chicago, Detroit, Cleveland, St. Paul, and Minneapolis and sail directly to the ports of the world, thus beginning an era of commercial development surpassing even the wonderful growth of the half century just closed.

Pittsburgh may then be able to send its tremendous output of manufactures to all parts of the world without transhipment; Kansas City will feel the stimulus of the new waterway; and the Pacific coast, long cut off from the eastern section of the United States by high mountain barriers that have been only partially overcome

by railroads, will find its great resources within marketable distance of the Eastern States.

Canada, too, will feel the stimulus of the canal. No longer will its great crops have to find their slow outlet over railroads that must cross the backbone of a continent, but, pursuing the avenues of least resistance, they may move to all parts of the world by way of the Great Lakes and the Mississippi River.

South America will greatly benefit by the completion of the canal. Already its west coast countries and cities are getting ready for the boom of business that is to follow. Brought thousands of miles nearer to all western trade centers — so close that their raw products and American manufactured products can be exchanged to advantage — there will be a growth of trade whose prospect already has awakened the lethargic South American to the possibilities ahead.

These possibilities well may be considered by the business men of the United States. To-day North America buys a large percentage of the products of South America; but, when the South Americans have money to spare, they spend only $1 out of $8 in North America — the other $7 goes to Europe. The American exporter will find himself quickened by the history-making change the canal will produce and, if he goes at it in earnest, he will be in a position to reverse the present situation and get $7 of South American trade where Europe gets only $1.

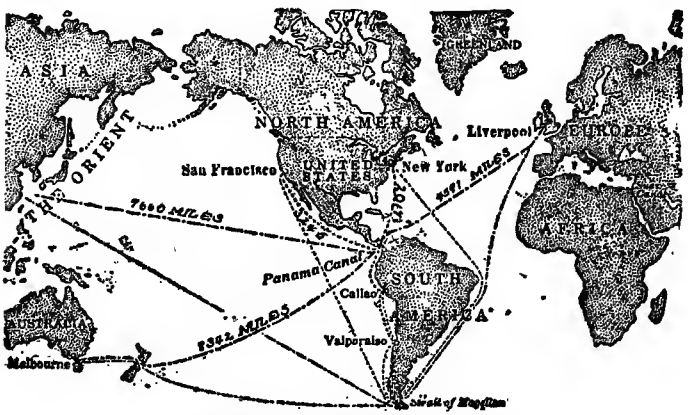
Australia and New Zealand will experience, perhaps, a greater change in the trade routes than any other countries outside of the Americas.

The Australian commerce now is largely carried by way of Suez. The opening of the Panama Canal will place New Zealand 1,200 miles nearer to London than it is by way of Suez, and the eastern ports of Australia will be as near to England by way of Panama as by Suez. All Australasian ports will be brought several thousand miles closer to the Atlantic ports of the United States than they are to-day. No one who has heard an Australasian complain of the long delays and the excessive freight rates that intervene between him and his American shoes, can doubt that the closer proximity of American markets will be welcomed in that faraway land under the southern cross. Sydney will be 4,000 miles nearer to New York through the Panama Canal, and 5,500 miles nearer to New Orleans and Galveston.

The transcontinental tonnage now handled by the railroads, which ultimately will go by the canal, aggregates 3,000,000 tons a year. The seaboard sections of the United States, of course, will benefit more largely than interior points, for the reason that interior points will have to take a combined rail-and-water route. This will involve railroad transportation and transhipment of cargo, also rehandling charges. After the canal is opened it is probable that the railroads will prefer to supply the intermountain States directly from eastern sources, instead of maintaining the existing policy of giving low rates to Pacific coast cities, so as to give them dominance over the shipping business of the intermountain region. The total coast-to-coast traffic of the railroads is said to approximate one-fifth of the entire traffic

carried across the Rocky Mountains. Only one-third of the through traffic of the transcontinental lines from the East to the West originates east of a line drawn through Buffalo and Pittsburgh. It is this third of the westward business that will be affected mainly by the operation of the canal.

The principal effect the Panama Canal will have in the readjustment of the trade map of the world is not, perhaps, as much in changing exist-



INTERNATIONAL SHIPPING ROUTES

ing routes as in creating new avenues of business. In every region where there is promise of unusual benefit by reason of the opening of the Panama Canal, an effort is being made to capitalize the advantages to be derived therefrom. The west coast of South America feels the stimulus of suddenly being brought thousands of miles closer to the best markets of the world, and anyone who travels down the coast from Panama may see

at every port signs of a determination to reap full advantage of the new opportunities.

Even Guayaquil, a city that for years has been a hissing and a byword to the masters of all ships plying up and down the west coast because of its absolute indifference to all requirements of sanitation, has prepared for a campaign of cleaning-up, in order that it may become a port of call for all the ships passing that way. Heretofore, masters of ships, in order to comply with quarantine regulations elsewhere, have given it a wide berth whenever possible.

Chile, Peru, and Ecuador — all three have caught the spirit of the new era which a completed canal proclaims, and are striving to set their houses in order for the quickened times they see ahead. With the Central American Republics it is the same. Handicapped as they are by revolutions that sap their life-blood, or dominated by rulers who have no other object in governing the people than to exploit them, these countries still hope for much from the canal, and new activities are beginning to spring up in every one of them.

It is not improbable that the canal will play an important part in transforming the economic situation of the world during the generations immediately ahead of us. One needs only to study the distribution of humanity over the countries of the earth to find how unevenly the population is scattered, and to learn what great tides of immigration will have to flow westward to establish the equilibrium of population, which some day is bound to come. When Asia has a population of 50 per square mile and Europe a population of

100 a square mile, while North America has 15 and South America has 7, it is apparent that the future holds great changes in store. The potential development of the two Americas challenges the imagination. South America, with its virgin soil all but untouched, can support a population half as dense as that of Europe. This means that it can make room for 300,000,000 immigrants. Likewise, it is fair to assume that North America, with its up-to-date methods of agriculture, industry, and commerce, can support a population as dense as that of Asia with its primitive methods of manufacture and agriculture. This means that North America has room to accommodate 300,000,000 souls. In other words, room still remains for 600,000,000 persons on the continents which the Panama Canal divides. When the day comes, as it seems certain that it will, that the Americas reach their full growth, even the Panama Canal, larger by far than any other artificial waterway in the world, will be much too small to accommodate the traffic which naturally would pass its way.

The foreign trade of the United States with its 90,000,000 of population, aggregates 60,000,000 tons a year. Assuming that foreign trade would grow in the same proportion as population, it will be seen that the foreign trade of the two Americas at a time when the population of South America becomes half as dense as that of Europe, and that of North America half as dense as that of Asia, will approximate 500,000,000 tons. Assuming further that only one-fifth of this would pass through the canal, the American commerce

alone would exceed its capacity, leaving all the trade between the Orient and eastern Europe to be taken care of by future enlargements.

More immediate, however, will be the realization of the prophecy of William H. Seward, Lincoln's Secretary of State, that the Pacific is destined to become the chief theater of the world's events. As the population of the earth stands to-day, more than half of all the people who inhabit the globe dwell on lands which drain into this greatest of oceans. Yet, in spite of that fact, the trade that sweeps over the Pacific is but small in comparison with that which traverses the Atlantic. Where a thousand funnels darken the trade routes of the Atlantic, a few hundred are seen on the Pacific.

But in Japan one may find an example of the possibilities of the Pacific in the years to come. When China, with its 400,000,000 people, awakens as Japan has awakened, and builds up an international trade in proportion to that of Japan, it will send a commerce across the seas unprecedented in volume. When it buys and sells as Japan buys and sells, the waters of the Orient will vie with those of the Occident in the size of their fleets of commerce.

The opening of the Panama Canal promises to be one of the factors in hastening the day when the Orient will become as progressive as the Occident, and when sleeping nations will arise from their lethargy and contribute uncounted millions of tons of traffic to the Pacific Ocean, making it a chief theater of commerce as well as of world events.

In our own country the course of empire has been sweeping toward the Pacific. Where once the center of most things lay east of the Mississippi River, now we find its agriculture, its mining industries, and its commercial activities gradually moving westward. The center of cotton production, once in those States celebrated in the melodies of the Southern plantation, has moved westward and to-day in Texas, Oklahoma, and even Southern California, cotton is grown in a way which shows that King Cotton has caught the spirit of the age and is extending his territories westward toward the Pacific. And all of this means a growing business and an expanding traffic through the Panama Canal.

On the Atlantic side there are signs without number that many nations will be up and doing in the reformation of the commercial map of the world. The islands of the Caribbean form a screen around the Atlantic end of the canal, and the majority of them are British possessions. Many of their cities will be situated upon the new international trade routes that will be called into being by the opening of the Panama Canal. At Kingston, Jamaica, great improvements are projected, coaling stations are planned, and other steps are being taken which will enable the British Government to reap what advantage it can from the construction of the canal. With its splendid diversity of climate, brought about by the wide range of elevated land, the fruits of the temperate zones may be grown, as well as those of the Tropics, and, as John Foster Fraser expresses it, Jamaica may become the orchard of Great Britain.

Denmark is planning extensive shipping facilities in its beautiful harbor of Charlotte Amalia on the Island of St. Thomas. This island, which commands one of the principal passages from the Atlantic to the Caribbean Sea, might to-day be a possession of the United States had this Government been willing to buy it when Denmark was anxious to sell. It was here that the bold pirates of the *Spanish Main* hid their crews in the all but landlocked harbor, and waited for the shipping which passed through Mona passage. Here Bluebeard's castle still stands, a mute reminder of the romantic days when buccaneers dominated the *Spanish Main.*

The north coast of South America also expects to figure largely in the new commercial map. The northern cities of Venezuela are on the route from eastern South America through the canal, and on one of the natural routes from Pacific ports to Europe. Nowhere else in the world will one find a more delightful climate or a more picturesque city or scenery than in northern Venezuela. Caracas, the capital, is but two hours' ride from the port of La Guaira, and less than a day's journey from Puerto Cabello, and, while the commerce which may be developed in Venezuela will, for the most part, find its outlet to the sea through the Orinoco River, La Guaira and Puerto Cabello will always prove attractive ports of call for passenger-carrying ships.

The changes in the commercial situation of Asia and the Americas, brought about by the opening of the canal, will be many. There will be a sudden

readjustment of existing trade routes and this will be followed by a long era of development of new conditions, which will be so gradual as to be almost imperceptible, and yet so immense as to excite the wonder of humanity when it stops to reckon its full effect and meaning.

CHAPTER XXXI

AMERICAN TRADE OPPORTUNITIES

THE great development of the southern part of the New World, extending from the Rio Grande to the Strait of Magellan, certain to take place as a result of the opening of the Panama Canal, spells opportunity for American commerical expansion. This vast territory, covering an area nearly three times as great as that of the United States, has a population of only 50,000,000. Its resources have been merely scratched on the surface. Its potentialities, acre for acre, are as great as those of the United States.

Porto Rico will serve for a criterion by which to measure the future possibilities of this Empire of the South. In Porto Rico one may see the benefits of the institution of a really good government, and the success which attends a proper effort to develop natural resources in tropical America. If American opportunities in all Latin America may be measured by American successes in that island, then, indeed, the future is rich with promise. During a single decade the external commerce of this little gem of the West Indies was more than quadrupled. It now amounts to some $80,000,000 a year, and only about 12 other countries in the world buy more goods from the American manufacturer.

The expansion of internal business has kept pace with the growth of external commerce. In seven years taxable values increased from less than $90,000,000 to more than $160,000,000. In a single year the amount of life insurance written in the island nearly doubled, and fire insurance increased nearly half. The exportation of sugar increased fivefold in 10 years, and the exportation of cigars 14 times. The population of the island has increased by half under the beneficient policies of the United States, going up from 800,000 in 1898 to 1,200,000 in 1912. During a single year Porto Rico buys about $35,000,000 worth of goods from the United States, and ships practically the same amount to this country.

Should all Latin America prove as good a customer in proportion to area as Porto Rico, our trade with Latin America alone would be many fold greater than the entire foreign trade of the United States to-day. Should all Latin America, even with its present population, buy as liberally from the United States as Porto Rico does, we would sell annually to it nearly $2,000,000,000 worth of products.

The most necessary step in developing the potentialities of Latin America is to provide good and stable government. Commercial statistics show how prosperity flourishes where good government reigns, and of how poverty dwells where misgovernment exists. One may go to Porto Rico, to Jamaica, to Curacao, or to St. Thomas, and in each of these countries may behold the wholesome rule of northern Europeans and their descendants. The people have at least those sub-

stantial rights which are necessary to the peace, happiness, and well-being of humanity; and equally without exception trade statistics show a greater foreign trade, in proportion to area and population, than is enjoyed in any country where misrule prevails. Porto Rico could be buried in a single lake of Nicaragua; it is only one-fifty-seventh as large as Central America; and yet Porto Rico has a foreign trade greater than all the territory from the Isthmus of Tehuantepec to the Isthmus of Panama.

How to improve governmental conditions in those countries where misrule prevails is a most serious problem. Had it not been for the Monroe doctrine it is safe to say that not one of the Republics of tropical America would be in existence today. Instead, their territory would be colonial possessions of the several powerful nations, and their people would be living under the comparatively wholesome rule of those nations. As it is, in a majority of the Republics south of the Rio Grande there is a state of affairs which makes against the development of resources and the best interests of the people. The whole theory under which these countries are governed is that primitive one: "Let him take who has the power, and let him keep who can." The result is that they are Republics only in name, and that the only way to change administrations is to have a revolution. Revolutions mean poverty; poverty means undeveloped resources, and so in some of these countries conditions were as bad in 1913, after nearly a century of so-called republican rule, as they were when the yoke of Spain was thrown off in 1821. How to bring about those conditions

As matters stand today in the majority of the countries of Latin America, although their Governments owe their very existence to the United States, there is a feeling of antipathy against Americans, which places the American exporter on an unequal footing with his European rival. There is a prejudice against Americans, partly the result of a widespread feeling that the United States is the great land-grabber of the Western world, but mostly the result of the attitude of a large number of Americans who go into these regions. For instance, for years one could not go about the streets of Mexico City without hearing some American berating the "blankety blank greasers," and asserting that the United States could take 5,000 men and capture Mexico City in a two-month campaign. It happens that the Mexican is a proud individual and naturally he bitterly resents such asseverations.

The same is true elsewhere, and by personal contact prejudice rather than a feeling of friendship has been aroused. The European usually goes into these countries because there are few opportunities at home. He is usually representative of the best citizenship of his homeland, and quite as much the gentleman in Latin America as at home. While there are a great many splendid types of American citizenship scattered throughout Latin America, a greater number of people have gone there because they could not get along in the United States, and their hostile attitude toward the natives excites by far more prejudice than the better class of Americans can counteract by sympathy and good feeling. Americans who

visit these countries expressing contempt for everything they see, and everything the people do, are the greatest hindrances to the realization of the commercial opportunities which the United States possesses in Latin America.

If the manufacturers of the United States are to realize to the full the benefits which may be derived from the opening of the Panama Canal they will have to reform their methods of dealing with the Latin Americans. It is just as effective to send to buyers at home catalogs written in Greek or Sanscrit as to send to the majority of Latin Americans catalogs printed in English. In traveling through these countries, endeavoring to ascertain wherein Americans have failed in their efforts to get a proper share of their foreign trade, one hears on every hand the complaint that the American manufacturer seldom meets the conditions upon which their trade may be based. No satisfactory credits are given, and no effort is made to manufacture machinery fitted to their peculiar needs. Agricultural machinery, for instance, which may serve admirably in the United States, is wholly out of place in many of these countries; and yet the Latin American customer must either buy the surplus of these machines or go elsewhere for machinery built to answer his requirements.

The European traveling salesman in these countries carries a line of goods immediately answerable to local requirements. Furthermore, the European exporter understands that the system of credits in Latin America is not the same as prevails in Europe and the United States,

and he complies with their requirements. Of course, his prices are placed high enough so that he is nothing out of pocket for the seeming concessions he had made. The result is that in traveling in these countries, one meets three or four foreign "drummers" where he meets one American traveling man, in spite of their nearness to the United States. It will take years, even with the Panama Canal in operation, to overcome the disadvantage which bad business policy has placed upon the American manufacturers.

If the opening of the Panama Canal spells new American commercial opportunities, it also develops a new field of international politics in which the United States must make itself the dominant factor, and in which it will have a transcendental interest. It will unquestionably give to the Monroe doctrine a new importance and render its maintenance a more urgent necessity than ever. Prior to this time the breaking down of the Monroe doctrine would have been greatly detrimental to the interests of the United States, but from this time forth the domination of the Caribbean by some other strong nation would likely prove most disastrous to American welfare. It might even lead to the loss of the canal itself, and we then would witness that great waterway transformed from a military asset of immeasureable benefit into a base of operations against us.

Probably the chief danger to which the Monroe doctrine is exposed is from those countries whose rulers profit most by its enforcement. While the United States can control its own affairs in

such a way as not to bring into question this doctrine, it is not so certain that the rulers of some of the Latin American nations will always do as well. In fact, some of the countries have conducted their affairs in such a way as might have involved the United States in a war with a foreign power. The knowledge that a small tropical American republic might act so as to force the United States into a critical situation has resulted in a desire on the part of the responsible authorities at Washington to exercise over the Republics of the Caribbean such a guiding control as would serve to prevent them, through any ill-considered or irresponsible act, from exposing the United States to dangerous controversies with foreign nations.

For instance, here is a country which owes a large debt to British bondholders. It defaults on the interest for a period of years. Efforts to collect are futile. Finally it is decided by the President that he needs additional funds. He reaches an agreement with the representatives of the bondholders, by which they agree to refund the debt and to lend him an additional half a million dollars, upon the condition that he hypothecate the Government's export tax upon coffee to secure the amortization of the refunded debt. He does so. Matters move along quietly for a little while, but soon he needs additional funds. He negotiates with New York bankers, getting from them the funds he needs, and hypothecates with them the same coffee tax that he had hitherto hypothecated with the British bondholders. Of course, the British bondholders protest at this

impairment of their securities. He laughs at their protest. England sends a warship to his ports. He appeals loudly to the United States for the maintenance of the Monroe doctrine; but the United States does not hear him, so he decides to treat the British bondholders fairly. If he had not done so, and England had been seeking to break down the Monroe doctrine, an ideal opportunity would have been afforded.

It is to prevent such situations as these that many Americans hope that the Government may devise some plan that will at once protect the United States from such menaces, and at the same time allow the people of these countries to work out their own destiny in their own way.

The situation in tropical America today, with a few exceptions, seems to be that the republics have the form of liberty without its substance, and the shadow of civilization without its realities. Some of them have had over fifty revolutions in as many years. Some of them have been in the grip of tyrants who were as heartless in exploiting their people as was Nero in ruling Rome. The masses have received nothing from the Government except oppression, and they live in that hopeless, heartless ignorance so well described by a Spanish writer, picturing conditions in Porto Rico before the American occupation. We know that this picture was a true one. It was drawn in 1897 and won the prize awarded by the Spanish Government at the centennial celebration of the retirement of the English from this island. After dilating upon the splendors and magnificence of Porto Rico, this artist of the pen said of the masses:

"Only the laborer, the son of our fields, one of the most unfortunate beings in the world, with the pallid face, the bare foot, the fleshless body, the ragged clothing, and the feverish glance, strolls indifferently with the darkness of ignorance in his eyes. In the market he finds for food only the rotten salt fish or meat, cod fish covered with gangrenish splotches, and Indian rice; he that harvests the best coffee in the world, who aids in gathering into the granary the sweetest grain in nature, and drives to pasture the beautiful young meat animals, can not carry to his lips a single slice of meat because the municipal exactions place it beyond his means, almost doubling the price of infected cod fish; coffee becomes to him an article of luxury because of its high price, and he can use only sugar laden with molasses and impurities."

That picture applies to more than 90 per cent of the people in tropical America to day. It explains why these countries, which might be made to flow with the milk and honey of a wondrous plenty, are poverty-stricken and unable to work out a satisfactory destiny for themselves. It shows why Cuba, Porto Rico, and Jamaica to-day are rich in internal trade, and prosperous in foreign commerce, while other countries are eking out a bare and scanty existence.

American commercial opportunities around the Mediterranean of the West, in particular, and in Latin America, in general, will reach their full when government there becomes government for the welfare of the people rather than for the aggrandizement of the ruling class.

CHAPTER XXXII

THE PANAMA-PACIFIC EXPOSITION

WHEN, on February 20, 1915, the Panama-Pacific International Exposition opens its gates to the world, in celebration of the completion of the Panama Canal, it expects to offer to the nations of the earth a spectacle the like of which has never been equaled in the history of expositions. It is estimated that $50,000,000 will be spent in thus celebrating the great triumph of American genius at Panama. And those who know the spirit of the people of California, who are immediately responsible to the United States and to the world for the success of the undertaking, understand that nothing will be overlooked that might please the eye, stir the fancy, or arouse the patriotism of those who journey to the Golden Gate to behold the wonders of this great show.

The spirit that was San Francisco's following the terrible calamity of April 18, 1906, when the city was shaken to its foundations by a great earthquake, and when uncontrollable fire completed the ruin and devastation which the earthquake had begun, has been the spirit that has planned and is carrying to a successful culmination the Panama-Pacific Exposition. The San Francisco earthquake came as the most terrific

blow that ever descended upon an American city. It left the metropolis of the Pacific a mass of ruins and ashes. In five years a newer and a prouder San Francisco arose from the ashes of the old, and greeted the world as the highest example of municipal greatness to which a community can rise at times when nothing is left to man but hope, and that hope is half despair.

The fire destroyed 8,000 houses, leaving such a hopeless mass of débris that $20,000,000 had to be raised to reclaim the bare earth itself. In five years 31,000 finer and better houses had taken their places. Assessed values before the fire were $30,000,000 less than five years after. Bank clearings increased by a third and savings-bank deposits were greater after only five years than they were before the terrible catastrophe.

It may be imagined what wonders this spirit of the Golden West will accomplish when applied to the creation of an exposition. It is easy to forecast that, beautiful as have been the expositions of the past, and magnificent as has been the scale upon which they were planned, fresh palms will be awarded to San Francisco and the great fair it will offer to the world in 1915.

The city of the Golden Gate was planning a great celebration nearly two years before the calamity which overtook it in 1906. The first suggestion for holding a world's fair at San Francisco was made on June 12, 1904, when Mr. R. B. Hale wrote a letter to the San Francisco Merchants' Association advising its members that it would be wise to take steps toward securing for that city a great celebration of the 400th anni-

versary of the discovery of the Pacific Ocean, in 1913. The matter was agitated for a year and a half and, a little more than three months prior to the earthquake, Representative Julius Kahn introduced in the National House of Representatives a bill providing for the celebration of the discovery of the Pacific, in 1913. Then followed the great catastrophe, and for the eight months next ensuing the problems of planning a new and greater San Francisco demanded all the attention of the people of that city. In December, 1906, however, the Pacific Ocean Exposition Company was incorporated with a capital stock of $5,000,000.

By 1910 New Orleans had loomed up as an aspirant for the honor of holding the great international celebration of the completion of the Panama Canal, and San Francisco understood that time for action was at hand, and, moreover, that money raised at home for the exposition would be the most eloquent advocate before Congress. Realizing this, a great mass meeting was called and in two hours subscriptions amounting to $4,089,000 were raised, headed by 40 subscriptions of $25,000 each.

In the fall of that year San Francisco was afforded an opportunity of attesting the universality of its interest in the success of the exposition. A proposition to vote $5,000,000 worth of bonds for the exposition was referred to the people. It carried by a vote of 42,040 to 2,122. The State of California also gave its citizens an opportunity to show their feeling, and by a vote of 174,000 to 50,000 made available bonds for $5,000,000 for

the purposes of the exposition. The result has been that from first to last, within the confines of California's borders, a sum approximating $20,000,000 has been raised for exposition purposes. To this, $30,000,000 will be added by outside governments and by exhibitors and concessionaires.

The fight which led to the choosing of San Francisco as the city for holding the Panama celebration is, for the most part, familiar history. The law under which this choice was made was signed by President Taft on February 15, 1911. The presidential signature was the signal for the beginning of operations looking to the completion of all of the exposition buildings a full six months ahead of the opening date. The details of the site were worked out promptly. The site selected includes the western half of Golden Gate Park; Lincoln Park, which is situated on a high bluff overlooking the approach from the Pacific Ocean and the Golden Gate; and Harbor View, which is an extensive tract of level land, stretching along the shore of San Francisco Bay and back to the hills and the principal residential portion of the city.

Each element in this extensive site possesses its own peculiar charm; Golden Gate Park with its great variety of flowers and semitropical plants and trees; Lincoln Park with its outlook on the broad Pacific and along the rugged coastline to the north; and Harbor View with the Golden Gate to the left, a chain of climbing hills across the harbor in front, and the long sweep of bay and islands to the right. What nature has

not done for the site of the exposition will be done by the art of the landscape gardener.

An ocean boulevard, to be made one of the most beautiful drives in the world, will become one of the permanent memorials of the exposition. A great esplanade, planted with cypress and eucalypti and liberally provided with seats, will extend along the water's edge for about half the entire length of the exposition grounds, affording ample opportunity for the thousands of visitors to watch the great water events which will constitute one of the features of the exposition. On the south side of this esplanade the principal exposition buildings, consisting of eight great palaces, will be located. A great wall, 60 feet high, will be built along the northern and western waterfronts for the purpose of breaking the winds which sweep down the harbor, and will be continued around the other two sides of the exposition grounds proper so as to constitute a walled inclosure which, in appearance, will remind one of the old walled towns of southern France and Spain.

The two principal gateways to the exposition grounds will open into great interior courts, around which the buildings will be ranged. It will be possible for the visitor to go from one building to another and complete the entire circuit of eight main exhibition palaces without once stepping from under cover. The three largest courts are named: The Court of the Sun and Stars, the Court of Abundance, and the Court of the Four Seasons. The Court of Abundance represents the Orient, and the Court of the

Four Seasons, the Occident; the Court of the Sun and Stars, uniting the other two, will typify the linking of the Orient and the Occident through the completion of the Panama Canal. There will also be two lesser courts, known as the Court of Flowers and the Court of Palms. Outside of the walled city there will be five other important exhibition palaces.

The Panama-Pacific Exposition will be different from any that has gone before. Where others have been built on broad, level plains, this one will be located in one of nature's most beautiful natural amphitheaters, with the residential portions of San Francisco and the towns of the surrounding country looking down upon it. The architecture will be of such a nature that will make the "Fair City" indeed a fair city to behold.

If Chicago had its "White City," the San Francisco fair will be all aglow with rich color. It will be made to harmonize with the "vibrant tints of the native wild flowers, the soft browns of the surrounding hills, the gold of the orangeries, the blue of the sea." The artist in charge of this phase of the work declares that, "as the musician builds his symphony around a motif or chord," so it became his duty to "strike a chord of color and build his symphony upon it." The one thing upon which he insisted was that there should be no white, and the pillars, statues, fountains, masts, walls, and flagpoles that are to contrast with the tinted decorations are to be of ivory yellow. Even the dyeing of the bunting for flags and draperies is under the personal

supervision of the artist in charge of the color scheme of the exposition. The roofs of the buildings will be harmoniously colored and the city will be a great party-colored area of red tiles, golden domes, and copper-green minarets. "Imagine," said Jules Guerin, the artist, "a gigantic Persian rug of soft melting tones with brilliant splotches here and there, spread down for a mile or more, and you may get some idea of what the Panama-Pacific Exposition will look like when viewed from a distance."

The lighting of the exposition will be by indirect illumination, affording practically the same intensity of light by night as by day. Lights will be hidden behind the colonnades, above the cornices, and behind masts on the roofs. Sculpture will stand out without shadow at night as by day. Great searchlights, many of them concentrated upon jets of steam, and playing in varying color, will add to the beauty of the scene. Even the fogs of the harbor will be made to contribute to the night effect of the exposition, and auroras will spread like draped lilies in the sky over the exhibition.

The sculpture will be unique in the history of exposition-giving. That phase of the work is under the control of Karl Bitter. In front of the main entrance, at the tower gate, there will be an allegory of the Panama Canal called "Energy; the lord of the Isthmian way." It will be represented by an enormous horse standing on a heavy pedestal, the horse carrying a man with extended arms pushing the waters apart. In the Court of the Sun and Stars two great sculp-

tural fountains, typical of the rising and setting of the sun, will carry out the idea of "the world united and the land divided." In every part of the exposition scheme the sculpture will tell the story of the unification of the nations of the East and the West through the construction of the Panama Canal.

Nothing seems to have been overlooked in the plans that have been made to celebrate the opening of the Panama Canal at San Francisco. There will be a working model of the Panama Canal, with a capacity of handling 2,000 people every 20 minutes. A reproduction of the Grand Canyon of Arizona will be another feature. The liberality of the prizes offered is indicated by the fact that premiums in the live-stock exhibits alone aggregate $175,000.

One of the greatest events of the exposition will be the rendezvous of representative ships from the fleets of all the nations of the earth in Hampton Roads in January and February, 1915. Their commanders will visit Washington and be received by the President. He will return with them to Hampton Roads and there review what promises to be the greatest international naval display in history. After this a long procession of fighting craft, perhaps accompanied by an equally long procession of tourist steamers, private yachts, and ships of commerce, will steam out of the Virginia Capes and turn their prows down the Spanish Main to Colon. Here the canal authorities will formally welcome the shipping world and pass its representatives through to the Pacific, whence they will sail to San Fran-

cisco, there to participate in the great celebration during the months which will follow. It may be that this great procession will be headed by the U. S. S. *Oregon*, whose trip around South America in 1898 proclaimed in tones that were heard in every hamlet in the United States the necessity of building the great waterway.

In addition to the great exposition at San Francisco, another will throw open its gates during 1915 — the Panama-California Exposition at San Diego. This exposition will be held at a total outlay of, perhaps, $20,000,000. Nearly $6,000,000 is being spent on a magnificent sea wall. The San Diego and Arizona Railway is being built on a new and lower grade for nearly 220 miles. About $5,000,000 will be spent in making the exposition proper in Balboa Park. Over 11 miles of docks and a thousand acres of reclaimed land for warehouses and factory sites will be ready when the exposition opens on January 1, 1915. The fair will have 30 acres of Spanish gardens. A great Indian congress and exhibit will be held, representing every tribe of North and South America. This exposition will in nowise interfere with the big show at San Francisco, but will be supplemental to it.

When the Suez Canal was finished, its opening was celebrated by the most magnificent fete of modern times, the profligate Khedive Ismail Pasha apparently endeavoring to outdo the traditions of his Mussulman predecessors, Haroun al Raschid and Akbar. The fete lasted for four weeks, Cairo was decorated and illuminated as no city, of either Occident or Orient, ever had

been before. The expense of the month's carnival was more than $21,000,000.

An opera house was built especially for the occasion, and Verdi, the famous Italian composer, was employed to write a special opera for the occasion. That the opera was "Aida," and that it marked the high tide of Verdi's genius, was perhaps more than might have been expected of a work of art produced at the command of an extravagant prince's gold.

The canal itself was opened on November 16, 1869, a procession of forty-eight ships, men of war, royal yachts and merchantmen, making the transit of the Isthmus in three days' time. In the first ship was Eugenie, Empress of the French. In another was the Emperor of Austria, and in still another the Prince of Wales, afterwards Edward VII. A more imposing gathering of imperial and royal personages never before had been witnessed, and all of them were the Christian guests of the Moslem Ismail.

When the procession of royal vessels had passed through, the captains and the kings went to Cairo for the fete. The canal was open for traffic. It was significant that the first vessel to pass through in the course of ordinary business, paying its tolls, flew the British ensign. The building of the canal had wrecked Egypt, financially and politically; was destined to end forever the hope of Asiatic empire for France; and was to make certain England's dominion over India, a thing de Lesseps and Napoleon III had intended it to destroy.

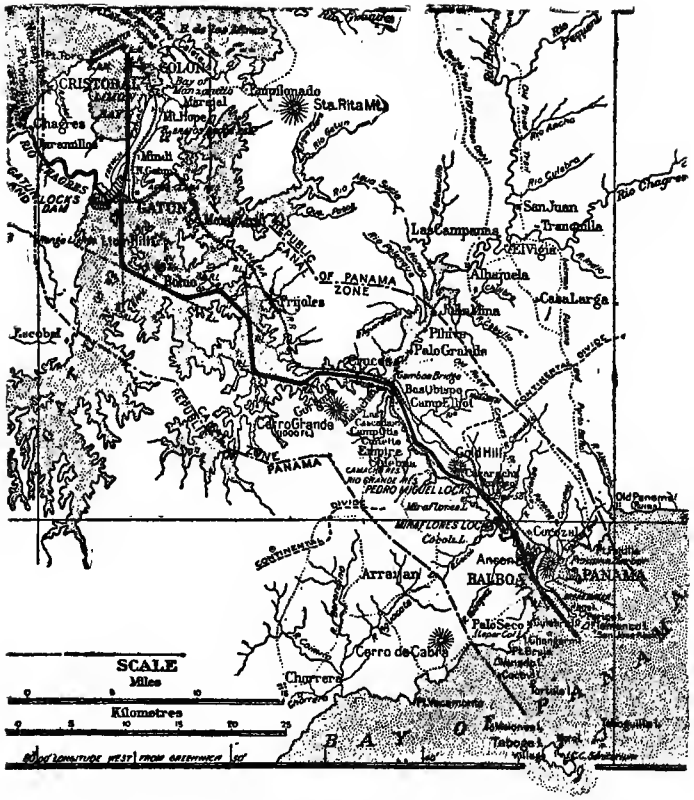
The celebration of the completion of the Suez

Canal was the wildest orgy of modern times, the last attempt to Orientalize a commercial undertaking of the Age of Steam and Steel.

The celebration at San Francisco will be more magnificent in its way, and will cost more money. But the millions will not be thrown away for the mere delectation of the senses of two score princes — they will be expended for the entertainment and the education of millions of people, the humblest of whom will have his full share in the celebration.

From the spruce woods of Maine, from the orange groves of Florida, from the wide fields of the Mississippi Valley, from the broad plains of the Colorado, from the blue ridges of the Alleghenies and the snow peaks of the Rockies, Americans will go to the Golden Gate to commemorate in their American way the closer union of their States, the consummation of the journeys of Columbus: The Land Divided — the World United.

THE END



A MAP SHOWING THE ISTHMUS WITH THE COMPLETED CANAL

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