

THE PANAMA GATEWAY AS RELATED TO THE INTERCONTINENTAL TRADE OF SOUTH AMERICA

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Panama, a Commercial Barrier.

Geologically, the Isthmus of Panama was the tie that bound the two continents. Commercially, its importance lay in the fact that it separated the two oceans and per se formed an obstacle to ocean trade. In the four hundred years since its discovery it has never functioned as a link in land routes, but always as a barrier to water-borne commerce. In comparison with the long and costly detour about South America, however, the Panama barrier possessed certain commercial advantage which at various periods of its history made it an extremely important trade route.

Panama of Interest only to Western South America.

In its relation to South American commerce Panama has been of importance only to the Pacific hinterland of that continent. The reason for this is to be found in the influence of both geographic and economic factors. Differences in the stage of economic development and, to a minor extent, contrasted resources have made the countries of the North Atlantic basin the complementary commercial region for South America. Of the total foreign trade of the latter, over 75% is normally with western Europe and eastern United States. Furthermore, there is little transcontinental trade overland. The Andes constitute a commercial as well as a drainage divide. As a result the foreign trade routes of South America are north-south routes, those of the Atlantic portion moving directly via the Atlantic and those of the Pacific via either Panama or Magellan. Our inquiry is thus limited to a study of the trade between Pacific South America and the North Atlantic via Panama.

Pacific South America.

Conditions within Pacific South America help to explain the character and quantity of its foreign trade as well as the choice of routes over which this trade moves. Politically, the region includes all of Chile and parts of Bolivia, Peru, Ecuador, and Columbia, an area approximately 1,086,000 square miles with a present population estimated at 12,231,000 people, of which certainly one-half and probably three-fourths, are Indians or Mestizos. Aridity and rough topography have greatly restricted the area of cultivable land, agricultural commodities making up only 18% of the total exports.¹ The Andes are, however, highly mineralized and the products of the mines make up the great bulk of outgoing commodities. All parts of this long narrow belt, which we have termed Pacific South America, are not equally productive. Since Panama and Magellan lie at the two extremities the location of the important centers of shipping is important as affecting the competition of the two routes. The southern half of Chile—some 1,500 miles—is productive of relatively small tonnage. However, this is counterbalanced by the great shipping activity of the northern half of the country—50% greater than all the rest of the Pacific coast of South America. The geographical center of the whole belt, therefore, coincides approximately with the economic center of gravity, and Antofagasta in the nitrate fields may be regarded as that center.

Periods of Isthmian Traffic.

With respect to the commercial carrier the history of Isthmian transit trade divides itself naturally into three periods: that of the pack mule, the railroad, and the canal.

THE PACK MULE PERIOD

The Camino Real.

For over three hundred years trans-isthmian traffic depended upon the pack mule for a carrier, precious



Fig. 1.



A Glimpse of the Royal Road.

Fig. 3. From Gause, F. A. and Carr, C. C. The Story of Panama, Silver Burdett, and Co., N. Y.

metals formed the principal cargo and a mule path through the jungle was the highway. Fig. 2 shows the relative positions of the various routes. The trail was a disgrace even for a mule and during the rainy season it was practically impassable. (See Fig. 3.) After 1534 the Rio Chagres was improved sufficiently to allow light draft barges to ascend to Cruces and thus supplement

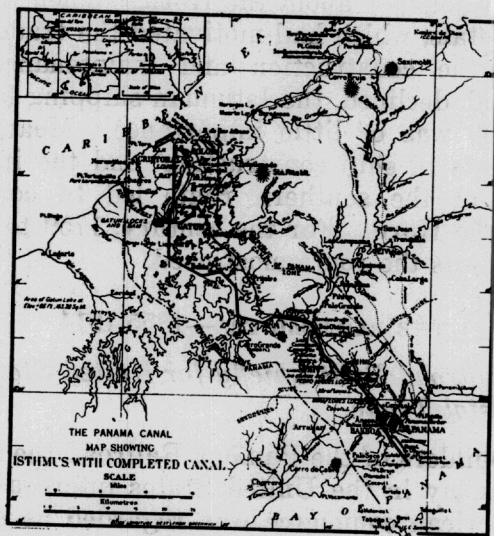


Fig. 2. From Official Handbook of the Panama Canal, Washington, D. C., 1915.

the Atlantic portion of the overland route. (Fig. 4.) Likewise the terminal ports were squalid tropic villages wedged in between the sea and the jungle. Porto Bello, especially, with its heavy rainfall and malarial swampy coast was shunned by all the Europeans except for the brief interval when the annual fair was in progress. Panama at the Pacific terminus enjoyed a somewhat better climate and became the entrepot for the whole Pacific coast. Both villages were commercial communities pure and simple. Their sole *raison d'être* was the transit trade, and they flourished and declined with the ebb and flow of commerce through their gates. The remnants of some of these towns are shown in Fig. 5. Lorenzo was the fort at the mouth of the Chagres; Nombre de Dios was the original Atlantic terminus of the overland trail.

The deleterious effects of the climate as well as the danger of pirates was reduced to a minimum by confining the actual transfer of goods over the Isthmus to a period of only 40-50 days and by timing the galleon movement from Spain so as to have transit movement and the fair at Porto Bello occur during the winter dry season.

Bad as it was the Isthmian route was preferable to the long stormy journey about the Horn. When the flow of precious metals, which had motivated the trade and had warranted the construction and maintenance of the Camino Real, declined, the Isthmian shipping languished and by 1750 was of little importance. Meanwhile the improvements in ship construction² and the increase in knowledge of the southern route led to considerable traffic via the Horn. For the century, 1750 to 1850, the latter path was the route most used.

THE RAILROAD ERA—1855-1914

Panama Railroad Built Chiefly for United States Intercoastal Trade.

To the builders of the Panama Railroad the chief hope for returns lay in the United States intercoastal trade. South American commerce was regarded as secondary. That this opinion was justified is indicated by Fig. 6, which shows the total Isthmian traffic for the last twenty years of the railroad period together with that portion going to or from western South America. It will be seen that this latter never amounted to one-half the total. In 1912, after almost a half century of operation, the railroad's total tonnage was equal to but 3% of the trade of Chile alone for that year. It will be seen from this that the supremacy of the Horn or Magellan route in the trade of western South America during the railroad era was never seriously threatened.

Why Magellan Remained Supreme.

The failure of the railroad to divert this trade from the southern route was due to a series of factors, partly

²Magellan's largest boat was of 150 tons while at Callao in 1789 there were 32 ships, one of 1800 tons and the smallest of 123 tons.



Ascending the Chagres River

Fig. 4. From Anderson, C. L. G., Old Panama and Castilla del Ora, Page Co., Boston, 1911.



Fig. 5. From Gause, F. A. and Carr, C. C., The Story of Panama, Silver Burdett and Co., N. Y.

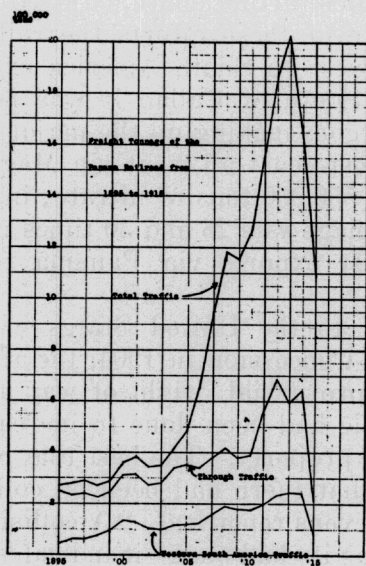


Fig. 6.

geographic, partly human. The trade of western South America was primarily with Europe rather than with the United States so that the saving in distance via Panama was not extremely large.³ Again, the railroad enjoyed a monopoly of the transit trade and used its privilege to exact high rates for passengers and freight.⁴ Furthermore, its service was usually the basis for much complaint. In addition to excessive charges there were costly delays, damages to goods, poor connections with boats, frequent theft of goods and inadequate facilities generally.

Freights via Panama were adjusted to meet the competition of Magellan. Thus in 1905, 100 pounds of general merchandise from New York to Buenaventura paid 75 cents; to Valpariso, only 50 cents. Thus the latter,

³Even for the United States, exports to the west coast in 1907 via Panama were \$7,000,000, but via Magellan more than twice that.

⁴The Panama Railways published tariff gives the following rates for the transit (47½ miles):—

Passenger \$25.00.

Excess baggage, over 50 pounds, 5c per pound.

Coal, \$5.00 per long ton.

Cattle, \$5.00 to \$7.00 each.

Copper or tin ores in bags ¾c per pound.

Lumber, \$10.00 to \$15.00 per M.

Gold, ¼% of its value.

Silver, ½% of its value.

though 3,000 miles farther south, enjoyed a rate 25 cents lower. In spite of these efforts the railroad did little business with western South America except at the extreme north. South of Callao it was negligible. The great bulky cargoes making up the major part of the exports of the west coast all went via Magellan. In 1884 Chile exported 550,000 tons of nitrate; in 1905, 1,603,140 tons. This tonnage was 26 and 30 times respectively the total west coast exports via Panama for those same years.⁵

Turned over to the United States with the French Panama Canal Concession in 1904, the railroad was described as the proverbial "right of way and two streaks of rust". Little had been done to increase its business or improve the property. The best that could be said of the road was that there had been no collision for some time, but as Stevens remarked, "A collision has its good points as well as its bad ones—it indicates there is something moving on the railroad." With the informal opening of the canal in 1914 the railroad ceased handling through commercial freight.

THE CANAL PERIOD

Primary Object of Canal Construction.

The chief object of the United States in taking over the canal project after the French had failed was to facilitate the intercoastal movement of our merchant⁶ and naval vessels⁷. However, a careful study had indicated that the prospective tonnage of western South America which would use the waterway was large. In 1909-10 the reports of shipping showed that of 8 1/3 million net register tons of all traffic which could have used the canal had it then been in existence, almost one-half was traffic originating in or destined to western South America. That

⁵It must not be thought however that the Panama railroad did little business or was unprofitable to the stockholders. On the contrary, it was said to be carrying in 1914 more cargo per mile of track than any railroad in the world and it certainly ranked among the two or three most profitable railroads of its day. It was said to have earned \$2,000,000 before completed. From 1853 to 1861 its dividend averaged 16%; from 1881 to 1905 it was almost 5%. In 1868 a single dividend of 44% was paid entirely from earnings.

⁶The time required for the intercoastal water journey via Magellan was about 6 months; via the Panama Railroad it was about 2 months; via the Panama Canal it was about two weeks.

⁷The voyage of the battleship Oregon from the Pacific coast around South America to join the Atlantic fleet during the Spanish-American War did much to awaken public sentiment to the necessity of waterway.

between Europe and western South America alone was estimated at 38% of the whole.⁸

Canal Traffic Compared with that of the Railroad.

In spite of the World War with its demoralization of ocean shipping⁹ and of the slides which closed the canal at various intervals, the record of the first six months of canal operation indicated that at last the Isthmus route had come into its own. In that period the tonnage transited was more than twice that carried by the Panama Railroad in double that time. In March, 1914, the canal carried almost as much as the railroad had

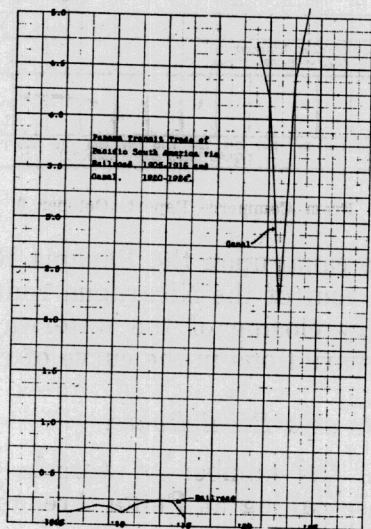


Fig. 7.

carried in an entire year. The busiest month (December, 1923) of the canal since its opening saw about four times as much tonnage transited as the Panama Railroad carried in the whole of the fiscal year, 1914.¹⁰ The marked change which the canal opening had inaugurated in Isthmian transport is well shown in Fig. 7. Fig. 8 shows

⁸Johnson, E. R.—The Panama Canal and Commerce, p. 223., N. Y. Appleton, 1916.

It was estimated that the War reduced the canal tonnage by 50% the first year.

⁹Johnson, E. R.—The Panama Canal and Commerce, p. 223, N. Y. Appleton, 1916.

¹⁰In the 5 fiscal years, 1920-1924, the canal tonnage averaged 674,454 tons through commercial traffic. In the 5 years preceding the canal opening the railroad averaged about 3% of this amount.

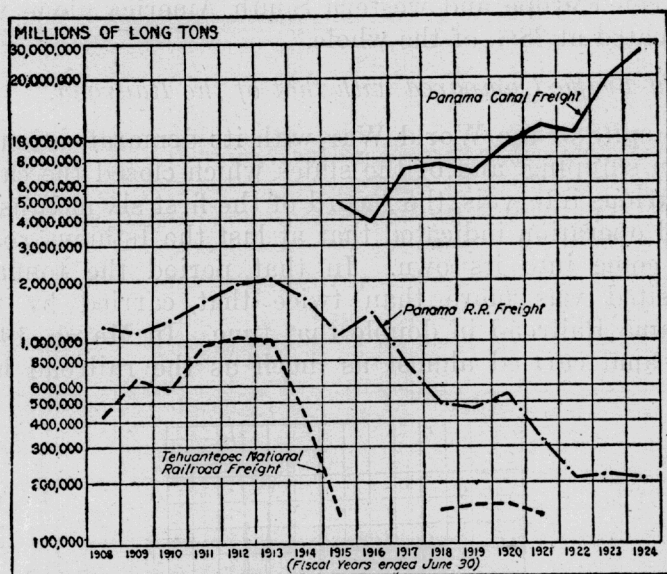


Fig. 8. From Commerce Report, October 6, 1924.

the effect of the canal upon the Panama Railroad traffic as well as upon that of the Nicaragua route. The effect of the temporary closing of the waterway by slides is reflected in the variations in the curve of railroad traffic.

Magellan Straits as a Rival Route.

Fig. 9 shows the number of vessels transiting the Canal, also those calling at Punta Arenas on their way through Magellan. The total number going via Panama in 1922 was twenty times that via the straits; furthermore, the latter were small vessels, mostly coasting steamers. The average for all was only 421 net tons each. The average for Panama ships up to date is about 4027 tons, or almost ten times as large.

A, Fig. 10, is more significant in that it shows the net tonnage moving by Magellan and by Panama between western South America and the North Atlantic. In 1923 the tonnage going via the Straits amounted to only 9% of the amount going via the canal.

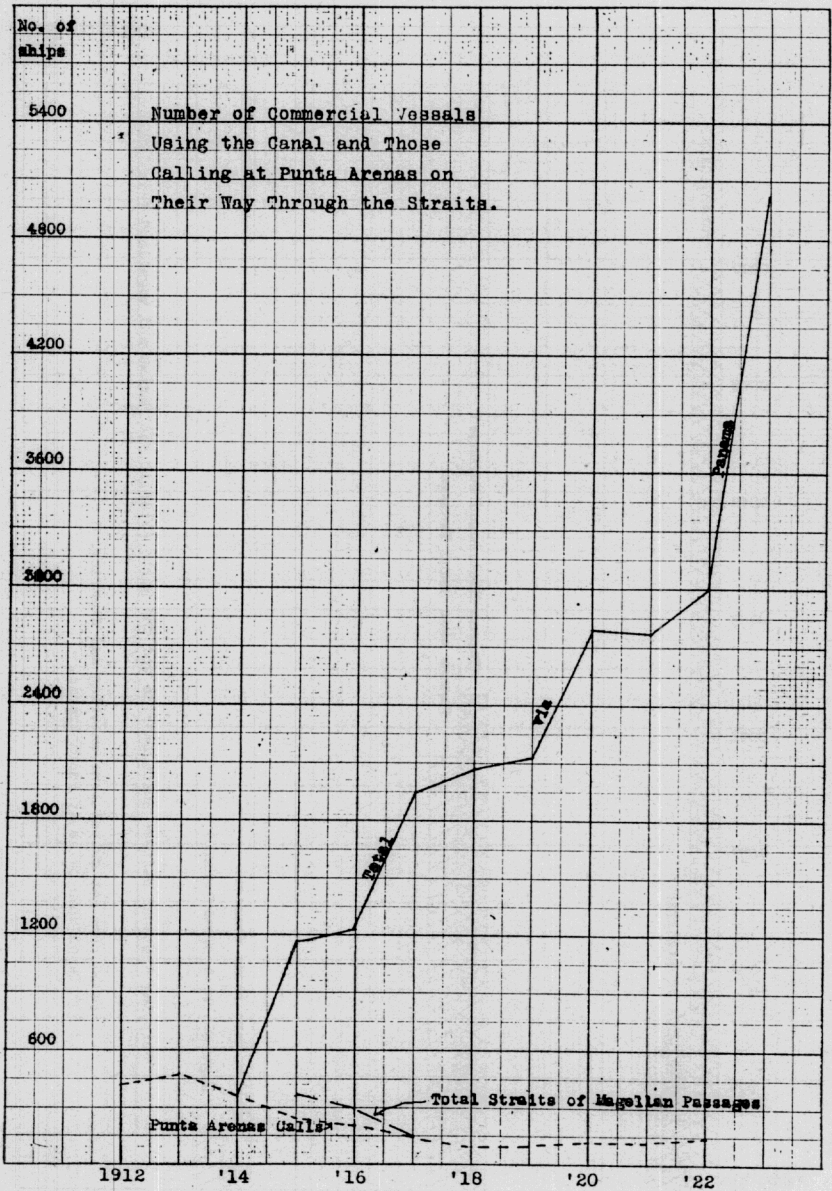


Fig. 9.

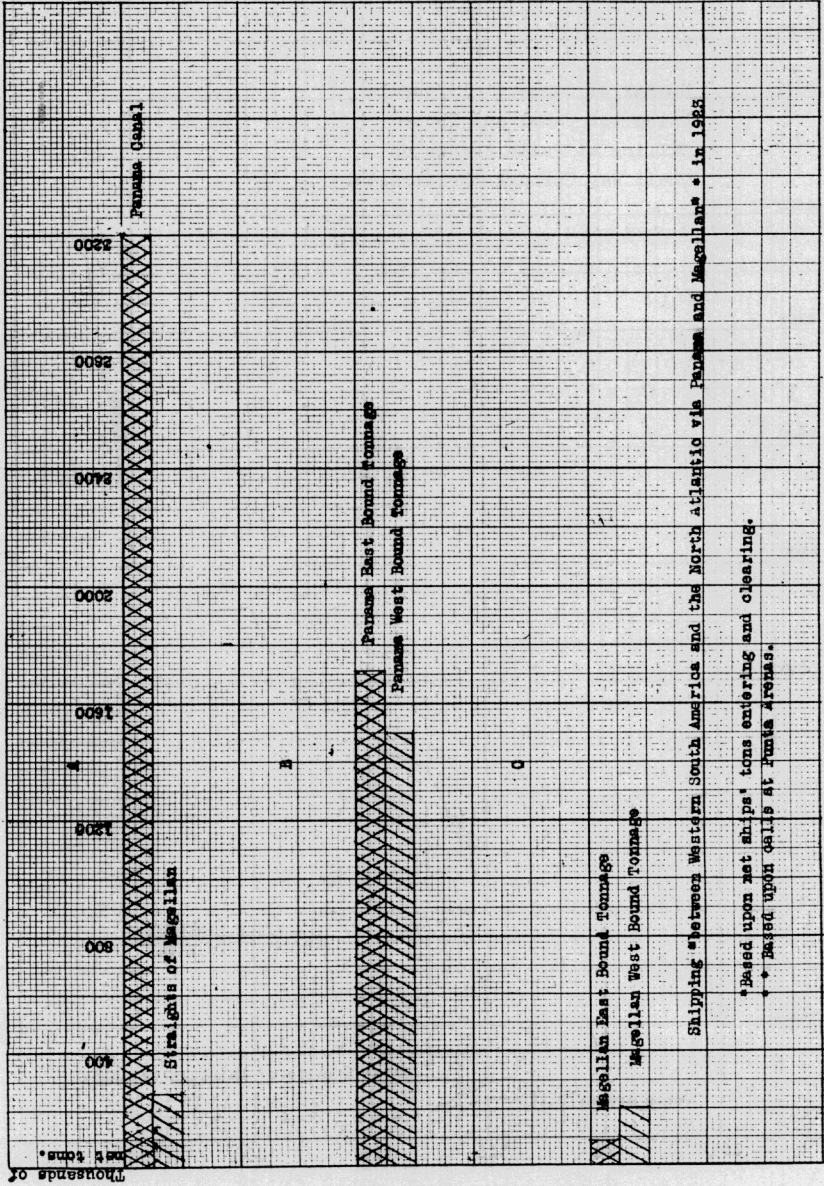


Fig. 10.

The greater savings effected by the canal for trade of the west coast with the United States as compared with the trade with Europe is shown by the predominance of European shipping in the Magellan route. An analysis of the Straits passages shows that the tonnage between western South America and Europe in 1923 amounted to seven times that between that coast and the United States.

B and C, Fig. 10, show the Straits and Canal shipping for 1923 analyzed as to direction of vessel movement. The explanation of the difference in the east and west bound tonnage in the case of Panama probably lies in the frequent tramps loaded with nitrate for the United States, which do not return via Panama. In the case of Magellan the preponderance of west bound traffic is due to the practice of two English lines in routing boats west via the Straits and back via Panama.

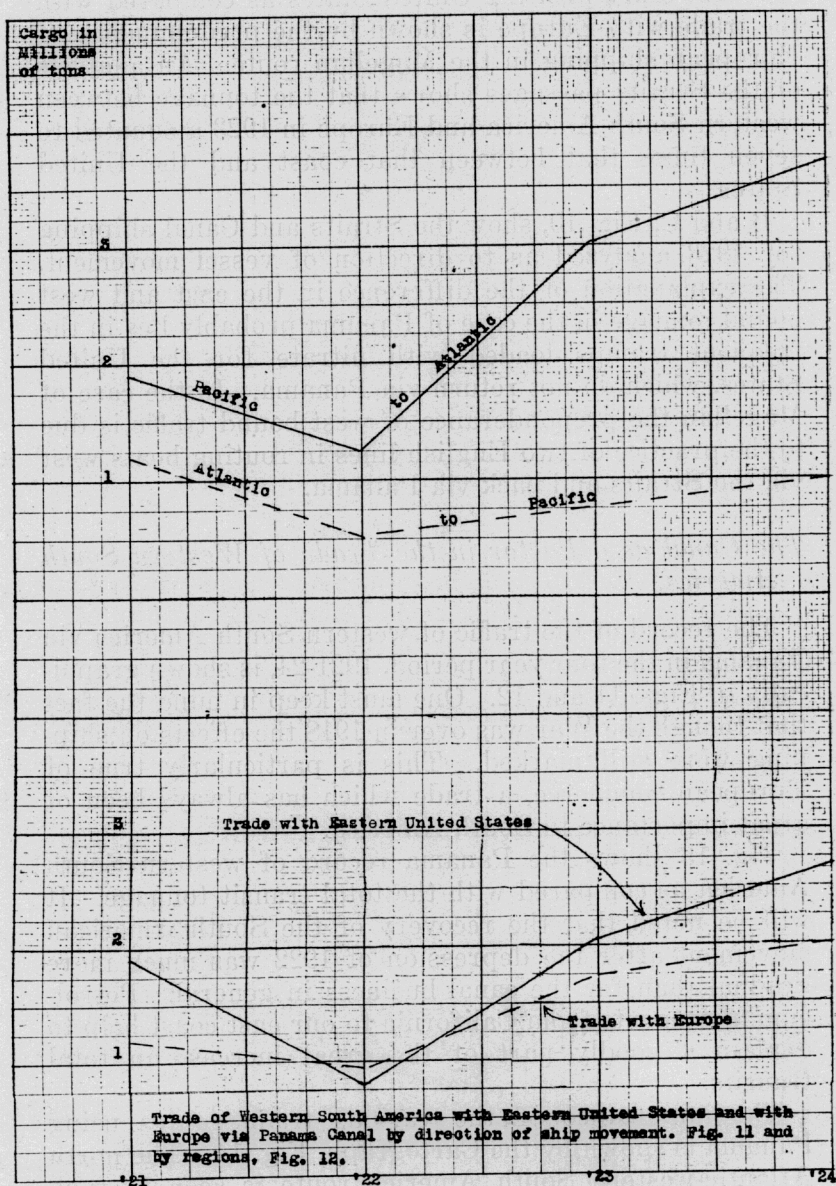
The Canal as a Factor in the Trade of Western South America.

The record of the traffic of western South America via Panama in the four year period, 1921-24, is shown graphically in Figs. 11 and 12. One must keep in mind the fact that though the War was over in 1918 the effects on shipping were still marked. This is particularly true of European commerce, a trade which has always been of great importance to South America.

Fig. 13 shows the Panama record of western South America as compared with the total transit tonnage. It will be noted that the recovery of the South American movement after the depression of 1922 was much more gradual than for the canal business in general. Petroleum movements from California to our east coast help to explain a goodly part of the great increase in total transits.

The importance of the various trade routes using Panama is shown by the Cartograph, Fig. 14. The north Atlantic-western South America route is seen to rank second to the United States intercoastal in importance.

The importance of the canal to various regions as



Figs. 11 and 12.

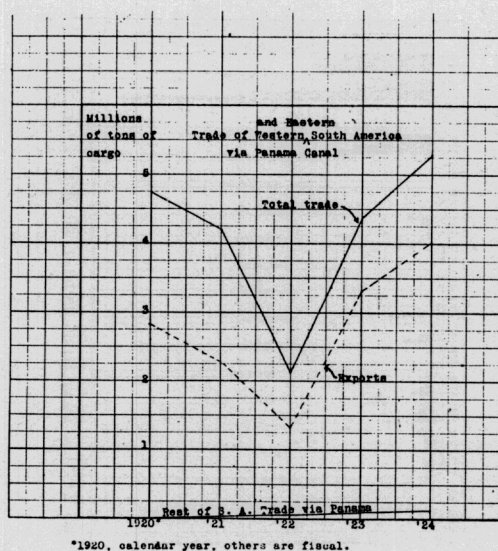


Fig. 13.

measured by their use of that waterway is shown in Fig. 15. Western South America is second only to our east and west coasts. Of all the Pacific or Atlantic traffic via Panama in 1923 western South America was the origin of 20.9%, and for the reverse movement the destination of 15.1%. Fig. 15 shows the record over a four year period.

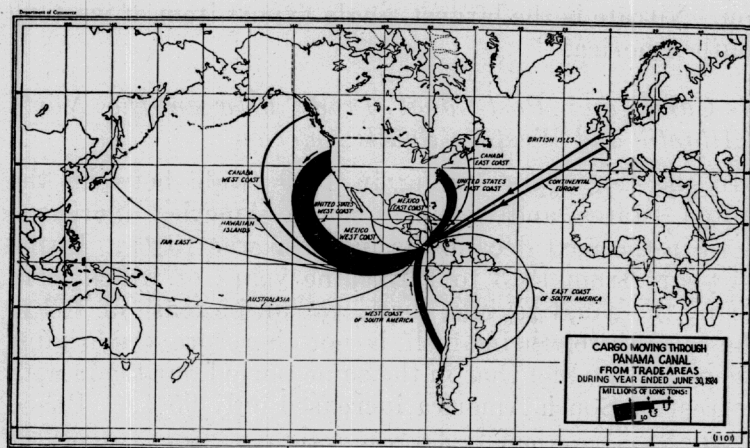


Fig. 14.

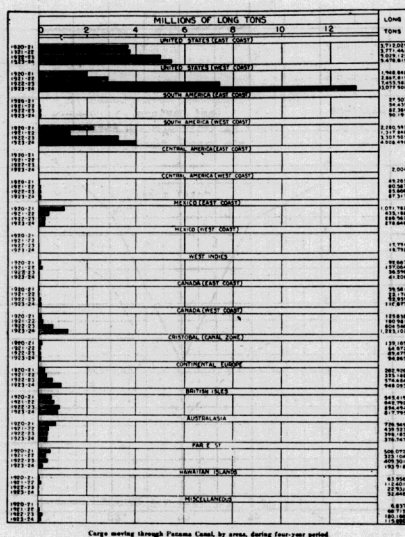


Fig. 15. From U. S. Commerce Report.

Fig. 16 shows the trade of western South America analyzed as to imports and exports. The latter tonnage runs from one and a half to four times the former. Extractive products, ores and agricultural raw materials, for the most part bulky and cheap, make full outgoing cargoes but manufactures require limited return space. Coal moving south is the only important exception and happens to be the largest single item going in that direction. Nitrate is the largest single export item of western South America.

Pre-Canal and Post-Canal Trade between the North Atlantic and Western South America.

In the ten years ending in 1899 trade between the United States and western South America increased 27%; in the next decade the increase was 158%. In the ten years from 1913 to 1923, nine years of which were during the canal regime, there was an increase of 163%. The latter growth in itself is not therefore remarkable except for the fact that in the same period our trade with the rest of South America increased only 95%.¹¹ Based

¹¹It is interesting to note that during the same period our trade with the Pacific countries, with which the canal brought us closer, increased 233%; that with the rest of the world, by only 70%. Our Short Cut to the Pacific, Trade Record, National City Bank of New York, May 26, 1924.

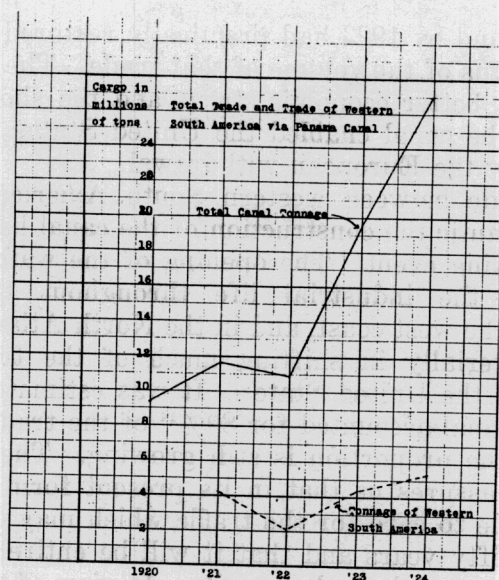


Fig. 16.

upon the net register tonnage of laden vessels in the trade there was an increase from 1914 to 1923 of about three-fourths of a million tons or about 50%. This includes commerce between Pacific ports of the two countries. It is significant that the bulk of this increase was in our imports, indicating that the Canal¹² has furnished a short cut for bulky west coast products to a market previously closed to them.

A record of net register tonnage passing between Europe and Western South America shows that from 1913 to 1923 there was a decrease of something less than a million tons, that is one-fifth or possibly one-fourth.¹³

Comparing the European losses with the gains of the United States in this decade, the one just about balances the other. An examination of Fig. 12 shows however that since 1922 trade with both the United States and Europe has been increasing. In general, we may conclude that in spite of the European debacle the canal minimized the loss otherwise inevitable to the west coast

¹²Military demands of the War played a part here also.

¹³Estimated by E. T. Chamberlain, *Shipping of the West and East Coasts of South America*, p. 16. It is based on records of the principal European countries.

shipping, and by 1923 had practically restored the ante-bellum status of the volume of that trade. The combined effect of a better economic status and the short cut offered by the canal enabled the United States to fill the gap left by the European withdrawal.

For trade between western South America and the North Atlantic the construction of the canal has been an epoch making event. The opening of the waterway has quickened the industrial life throughout the entire length of the west coast, and in the North Atlantic it has aided materially in shifting much of the trade from Europe to the United States. It was estimated that in 1923 the canal accounted for 80%¹⁴ of the trade in question and the proportion is still growing. The War Department assures us that in its present form the canal will be able to care for the traffic which may develop in the next fifty years and that it will be entirely feasible then to increase the lock capacity. In view of these facts it would seem that the final triumph of Panama¹⁵ over the Straits is essentially complete and permanent.

¹⁴Chamberlain, E. T. p. 7.

¹⁵Long, W. L.—Development of Panama Canal Traffic, Com. Reports, Wash. D. C., Oct. 8, 1924, pp. 13-16.