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## E R R A T A .

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Page 56, line 2 from top, for Appendix C, p. 139, read *Appendix D, p. 145, et seq.*

Page 76, last line, for literal read *littoral*.

Page 179, under the cut, read Tower of San Jerome, *at Old Panama*.

Page 182, line 17 from top, for 45,000 read 4500.

Page 213, line 2 from bottom, for page 88, et seq., read page 141, et seq.

Page 214, line 18 from top, for Panama Mail Steamship Company read *Pacific Mail and Panama Railroad Steam-ship Companies*.

Page 231, line 2 from top, for copper, and barilla, read and copper barilla.



# ILLUSTRATED HISTORY

OF

# THE PANAMA RAILROAD;

TOGETHER WITH A

TRAVELER'S GUIDE AND BUSINESS MAN'S HAND-  
BOOK FOR THE PANAMA RAILROAD AND  
ITS CONNECTIONS

WITH

EUROPE, THE UNITED STATES, THE NORTH AND SOUTH ATLANTIC AND  
PACIFIC COASTS, CHINA, AUSTRALIA, AND JAPAN, BY  
SAIL AND STEAM.

BY F. N. OTIS.

NEW YORK:  
HARPER & BROTHERS, PUBLISHERS,  
FRANKLIN SQUARE.

1861.

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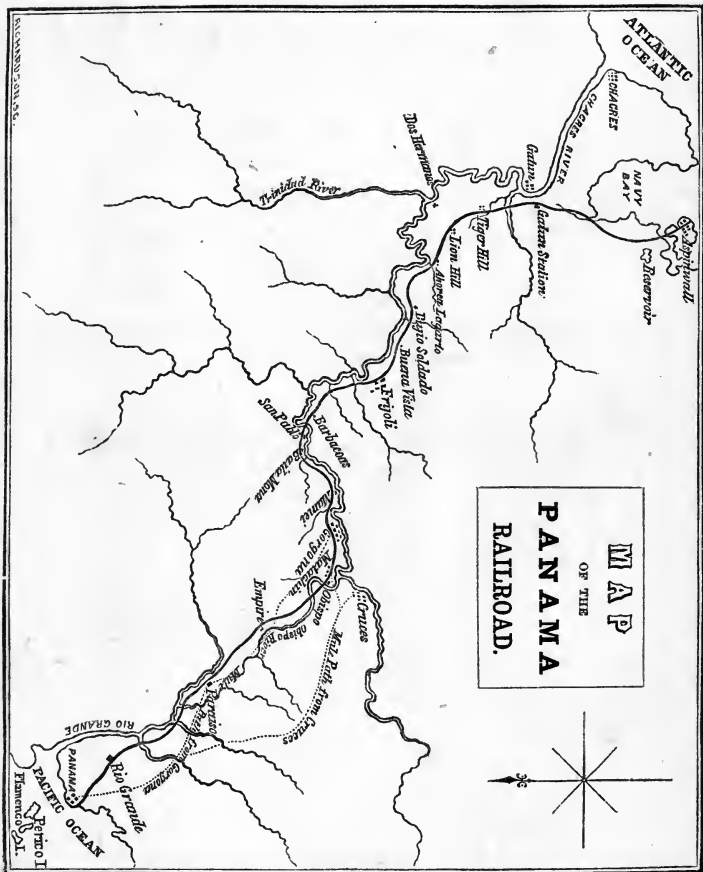
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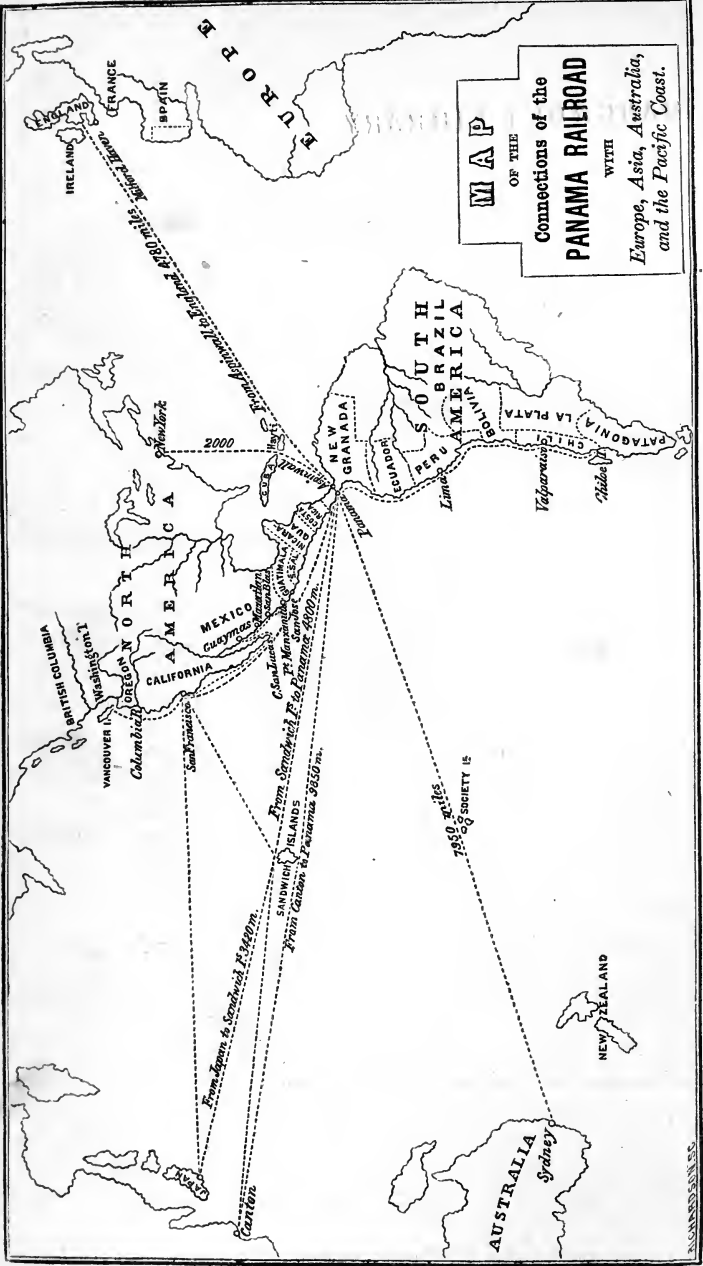
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# MAP

OF THE  
**Connections of the  
 PANAMA RAILROAD**  
 WITH  
*Europe, Asia, Australia,  
 and the Pacific Coast.*



## P R E F A C E.

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IN preparing the "Hand-book of the Panama Railroad," the endeavor has been to present,

1. A full and reliable history of the road, from the inception of the original contract to the present day, and such an account of its present condition and business regulations as would be likely to interest and benefit the traveling and commercial public.

2. All necessary information for the shipper and the traveler concerning the various lines of steam and sail communication connecting with the road.

3. A brief account of the present condition, commercial and other resources, of the countries bordering the Pacific coast, and doing business with the United States and Europe over the Panama Railroad, with such information in regard to the expenses connected with commercial transactions in those countries as it has been thought would prove serviceable to the mercantile and shipping interests.

In preparing this work from the most recent authorities and reliable sources, the strictest accuracy has been the first consideration. The tariffs and commercial regulations have been taken from documents published by the United States government in 1858. To the following works (not credited in place) the Author is indebted for valuable statistics: *Harper's Cyclopædia of Commerce*, 1858; *Appleton's American Cyclopædia*, 1860-1861. To Mr. DAVID HOADLEY, President of the Panama Railroad, Mr. ALLAN M'LANE, President of the Pacific Mail Steam-ship Company, Mr. GEORGE M. TOTTEN, Chief Engineer, Mr. JOSEPH F. JOY, Secretary, and Mr. ALEXANDER J. CENTER, former Vice-

president and Superintendent of the Panama Railroad, the Author is indebted for great and uniform kindness in affording facilities for procuring reliable data, and for much important information; also to Capt. J. M. Dow, of the steam-ship Guatemala (Central American Steam-ship Company), Mr. WM. NELSON, Commercial Agent of the Panama Railroad Company at Panama, Mr. CHARLES T. BIDWELL, Agent for the Pacific Steam Navigation Company at Panama, Mr. GEORGE PETRIE, General Manager of the Pacific Steam Navigation Company at Callao, Mr. J. W. HAWES, of Panama, and Capt. J. H. WINDLE, of Tarrytown, New York (formerly in the United States Mail Steam-ship Company's service), the Author is indebted for valuable favors.

F. N. OTIS.

*New York, July 15, 1861.*

# C O N T E N T S.

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# 1907/1908

Date	Description	Debit	Credit	Balance
Jan 1	Balance forward			100.00
Jan 5	Wages	5.00		95.00
Jan 10	Expenses	2.00		93.00
Jan 15	Income		10.00	103.00
Jan 20	Wages	8.00		95.00
Jan 25	Expenses	3.00		92.00
Jan 30	Income		12.00	104.00
Feb 5	Wages	6.00		98.00
Feb 10	Expenses	4.00		94.00
Feb 15	Income		15.00	109.00
Feb 20	Wages	7.00		102.00
Feb 25	Expenses	5.00		97.00
Feb 30	Income		18.00	115.00
Mar 5	Wages	9.00		106.00
Mar 10	Expenses	6.00		100.00
Mar 15	Income		20.00	120.00
Mar 20	Wages	10.00		110.00
Mar 25	Expenses	7.00		103.00
Mar 30	Income		22.00	125.00
Apr 5	Wages	11.00		114.00
Apr 10	Expenses	8.00		106.00
Apr 15	Income		25.00	131.00
Apr 20	Wages	12.00		119.00
Apr 25	Expenses	9.00		110.00
Apr 30	Income		28.00	138.00
May 5	Wages	13.00		125.00
May 10	Expenses	10.00		115.00
May 15	Income		30.00	145.00
May 20	Wages	14.00		131.00
May 25	Expenses	11.00		120.00
May 30	Income		32.00	152.00
Jun 5	Wages	15.00		137.00
Jun 10	Expenses	12.00		125.00
Jun 15	Income		35.00	160.00
Jun 20	Wages	16.00		144.00
Jun 25	Expenses	13.00		131.00
Jun 30	Income		38.00	169.00
Jul 5	Wages	17.00		152.00
Jul 10	Expenses	14.00		138.00
Jul 15	Income		40.00	178.00
Jul 20	Wages	18.00		160.00
Jul 25	Expenses	15.00		145.00
Jul 30	Income		42.00	187.00
Aug 5	Wages	19.00		168.00
Aug 10	Expenses	16.00		152.00
Aug 15	Income		45.00	197.00
Aug 20	Wages	20.00		177.00
Aug 25	Expenses	17.00		160.00
Aug 30	Income		48.00	208.00
Sep 5	Wages	21.00		187.00
Sep 10	Expenses	18.00		169.00
Sep 15	Income		50.00	219.00
Sep 20	Wages	22.00		197.00
Sep 25	Expenses	19.00		178.00
Sep 30	Income		52.00	230.00
Oct 5	Wages	23.00		207.00
Oct 10	Expenses	20.00		187.00
Oct 15	Income		55.00	242.00
Oct 20	Wages	24.00		218.00
Oct 25	Expenses	21.00		197.00
Oct 30	Income		58.00	255.00
Nov 5	Wages	25.00		230.00
Nov 10	Expenses	22.00		208.00
Nov 15	Income		60.00	268.00
Nov 20	Wages	26.00		242.00
Nov 25	Expenses	23.00		219.00
Nov 30	Income		62.00	281.00
Dec 5	Wages	27.00		254.00
Dec 10	Expenses	24.00		230.00
Dec 15	Income		65.00	295.00
Dec 20	Wages	28.00		267.00
Dec 25	Expenses	25.00		242.00
Dec 30	Income		68.00	310.00
Total		1000.00	1000.00	







WESTERN SUBURB (SANTA ANA) OF PANAMA.

# HAND-BOOK

OF

## THE PANAMA RAILROAD.

---

IN ancient or in modern times there has, perhaps, been no one work which in a few brief years has accomplished so much, and which promises for the future so great benefit to the commercial interests of the world, as the present railway thoroughfare between the Atlantic and Pacific Oceans at the Isthmus of Panama. A glance at its geographical position can not fail to discover to the most casual observer that, situated as it is midway between the northern and southern, and alike between the eastern and western hemispheres, it forms a natural culminating point for the great commercial travel of the globe. Wise men in every enlightened nation had seen this for centuries, and had urged the importance of free interoceanic communication at this point; but its lofty and rugged mountain ranges, its deep and pestiferous morasses, seemed almost equally to defy the skill of the engineer and the physical endurance of the laborer. Even the possibility of opening such a communication by the government exercising jurisdiction over that portion of the isthmus through which it should pass had never been seriously entertained; but New Granada had long and earnestly challenged the more powerful nations of the world to break down this barrier to commerce and civilization, and reap the richest benefits which might result therefrom. England had looked toward the project with longing eyes, but quailed before the magnitude of the

labor. France had done more—surveyed and entered into a contract to establish it; but too many millions were found necessary for its completion, and it was lost by default.

Events at last occurred which turned the attention of the American people to this transit, viz., the settlement of the northwestern boundary, by which we came into possession of Oregon, and the war with Mexico, which added California to our possessions. But, while the accession of these territories was of the highest importance to us in a national point of view, their distance rendered them almost inaccessible to the class of emigrants who usually settle our new domains, as well as inconvenient to the proper administration of law and government. Still, urged on by that pioneering spirit which seems inherent in the blood of the American, and invited by the prolific soil and genial climate of these distant possessions, and a prospect of a new and enlarged field for commercial pursuits, large numbers of our people migrated thither around Cape Horn. Congress, however, in 1848, in order to render these countries more accessible, authorized contracts to be entered into for the establishment of two mail lines of steam-ships, the one from New York and New Orleans to Chagres, and the other to connect with this by the Isthmus of Panama, from Panama to California and Oregon. The inducements to invest in these projects were not sufficient to attract the favorable attention of capitalists, and the contracts were taken by parties without means, who offered them for sale, and for a long time without success.

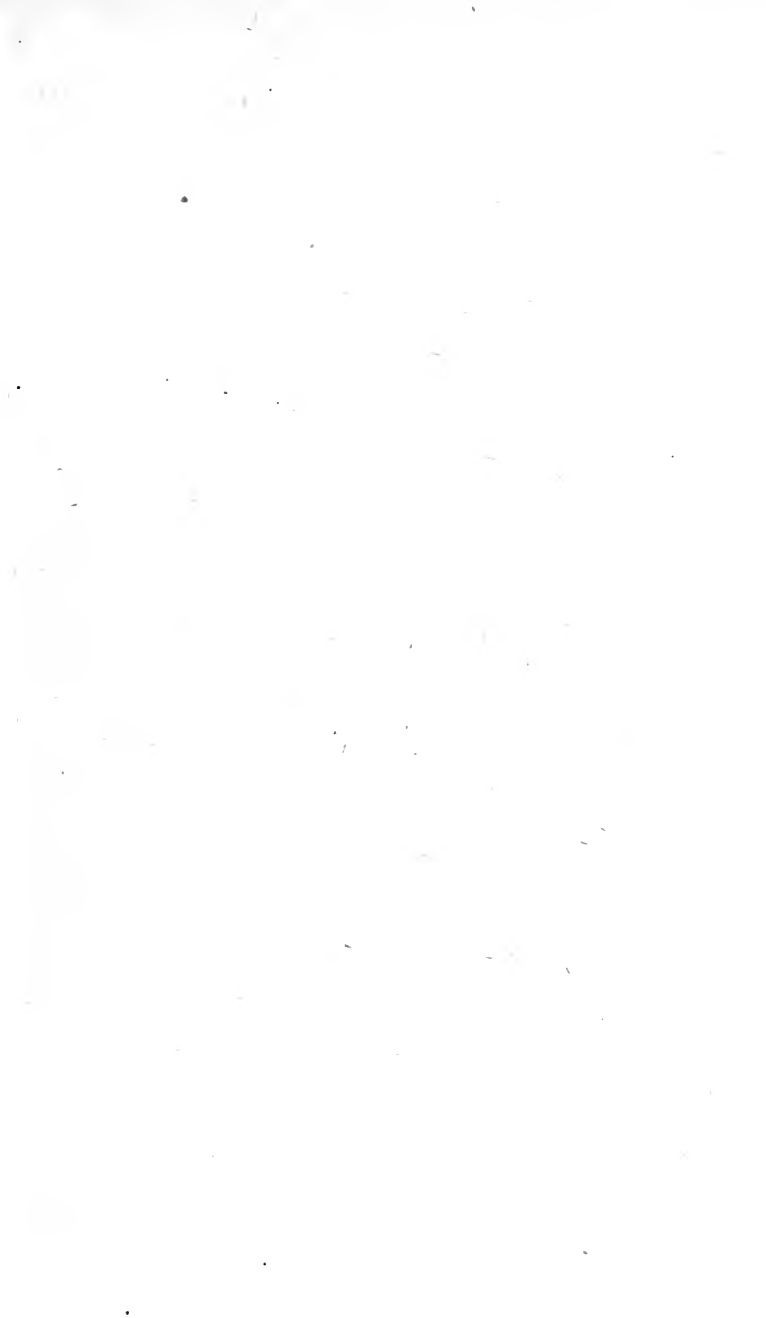
Men were at last found bold enough to venture upon the enterprise. Mr. William H. Aspinwall secured the line on the Pacific side, and George Law that on the Atlantic. In the Atlantic contract there was comparatively little risk, and a promise of almost immediate remuneration, as it connected with the cities of Savannah and New Orleans, and terminated at the portals of the Pacific Ocean. But the

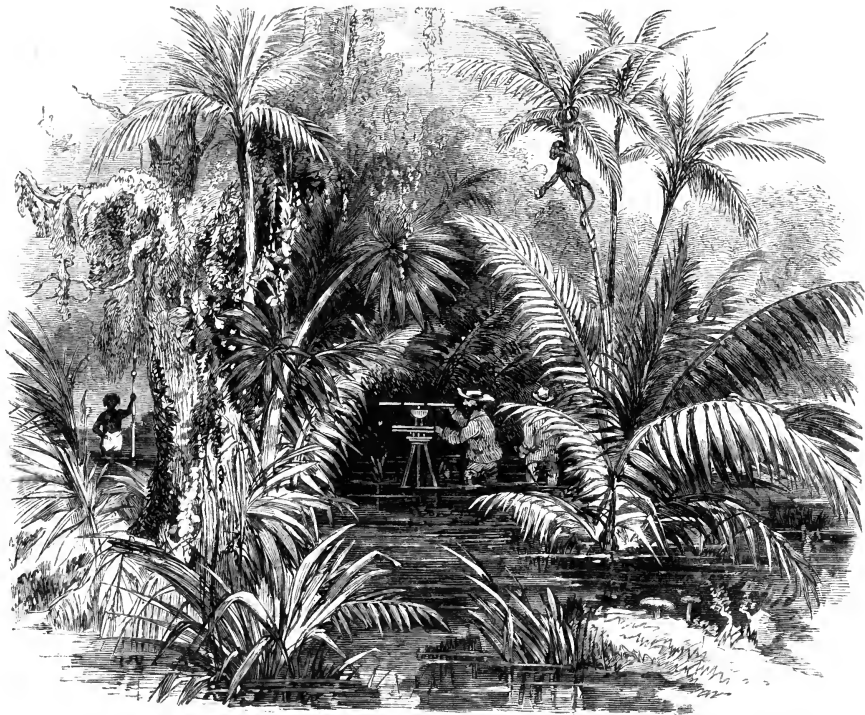
Pacific contract was looked upon by the generality of business men as a certain sequestration of a large amount of property for an indefinite time, with a faint prospect of profit; and the wonder seemed to be that so sound a man as Mr. Aspinwall should have engaged in it. But it soon became evident that he expected no great profit from the steam-ship line *per se*; but that, with those enlarged and far-reaching views for which he is so justly noted, this line was only a part of the great plan which he had conceived, the remainder being embraced in the bold design of a railroad across the Isthmus of Panama; and at this time he, with Mr. Henry Chauncey and Mr. John L. Stephens, entered into a contract with the government of New Granada for the construction of that work. Mr. Chauncey, like Mr. Aspinwall, was a large-minded and public-spirited capitalist, whose integrity and straightforwardness were undoubted. Mr. Stephens possessed an experience in the country through which the road was to pass, and a knowledge of its geography and its inhabitants, gained by practical study and observation. These three gentlemen were associated together for the prosecution of this great enterprise, and shortly after, Mr. Stephens, accompanied by Mr. J. L. Baldwin, a skillful and experienced engineer, made an exploration of the route, and decided upon its entire feasibility, dissipating the fears entertained by many that no line could be established without such heavy grades as would interfere materially with the paying character of the undertaking by the discovery of a summit gap no more than three hundred feet above the ocean level.

A formal contract was then entered into with the government of New Granada, on the most favorable terms, for the exclusive privilege of constructing a railroad across the Isthmus of Panama. Among the most important concessions by the terms of this contract was one guaranteeing that all public lands lying on the line of the road were to

be used gratuitously by the Company; also a gift of 250,000 acres of land, to be selected by the grantees from any public lands on the Isthmus. Two ports, one on the Atlantic and the other on the Pacific (which were to be the termini of the road), were to be *free* ports; and the privilege was granted of establishing such tolls as the Company might think proper. The contract was to continue in force for forty-nine years, subject to the right of New Granada to take possession of the road at the expiration of twenty years after its completion, on payment of five millions of dollars; at the expiration of thirty years, on payment of four millions; and at the expiration of forty years, on payment of two millions. Three per cent. was to be paid to the New Granadian government upon all dividends declared. The entire work was to be completed within eight years, and a sum of one hundred and twenty thousand dollars was to be deposited at its commencement, as security for the fulfillment of the contract, but to be refunded, with interest, on the completion of the road within the given time.

Up to this period calculations for the ultimate success of the undertaking were based upon the advantages it would afford in shortening, by many thousand miles, not only the route to California and Oregon, but to China, Australia, and the East Indies, and in the development of the rich, but then almost inaccessible countries bordering the whole Pacific coast. At this time, however (the latter part of 1848), the discovery of gold in California, with its accompanying tide of emigration across the Isthmus of Panama, changed the prospects of this projected road; and, from an enterprise which looked far into the future for its rewards, it became one promising immediate returns from the capital and labor invested, and in which the people, as well as the government of the United States, must be immediately and deeply interested. A charter was now granted by the Legislature of the State of New York for the formation of a





RUNNING THE LINES.

stock company, under which one million dollars of stock was taken—the original grantees having previously transferred their contract into the hands of this company. A large and experienced party of engineers, under the command of Colonel G. W. Hughes, of the United States Topographical Corps, were sent down, in the early part of 1849, to survey and locate the line of the road. The result of their work not only confirmed the previous reconnoissance in regard to the entire practicability of the railroad, but another summit gap was discovered by Mr. J. L. Baldwin, thirty-seven feet lower than that previously established by him, and a line was run from ocean to ocean not exceeding fifty miles in length. The Pacific terminus of the road was located at the city of Panama, on Panama Bay, and the Atlantic terminus at Navy Bay, on the Atlantic shore.

The character and geographical position of the country through which the line of the road had been carried was such as might well have made the hardiest projectors shrink from attempting its construction. The first thirteen miles, beginning at Navy Bay, was through a deep morass, covered with the densest jungle, reeking with malaria, and abounding with almost every species of wild beasts, noxious reptiles, and venomous insects known in the tropics. Farther on, though some of the land was so fair and beautiful that the natives called it *Paraiso*, the greater part of the line was through a rugged country, along steep hill-sides, over wild chasms, spanning turbulent rivers and furious mountain torrents, until the summit-ridge was surmounted, when it descended abruptly to the shores of the Pacific Ocean.

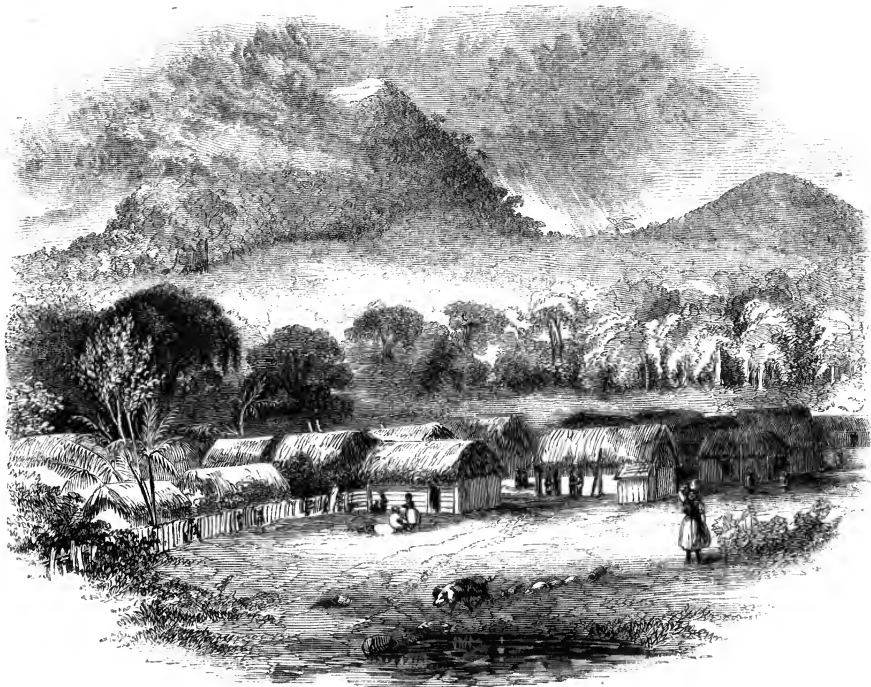
Situated between the parallels of  $8^{\circ}$  and  $9^{\circ}$  north of the equator, a sultry tropical heat prevailed throughout the year, nearly half of which time the country was deluged with rains that, if they would not seriously damage the works, were certain to impede their progress, and add greatly to the arduous character of the undertaking. The whole



isthmus, though covered with the most luxuriant vegetative growth, possessed little or no timber sufficiently durable to be of use in the construction of a permanent work. The native population, composed of a mongrel race of Spaniards, Indians, and Negroes, were too indolent and unaccustomed to labor to be depended on to any great extent. The resources of the country were entirely inadequate for the support of laborers. Men, materials, and provisions were to be transported thousands of miles. And yet, despite all these obstacles, the dim glimpses of which had, at a previous time, caused European capitalists to shrink back with fear, our bold operators at once, and earnestly, pushed forward this stupendous enterprise.

In the early part of 1849 a contract was entered into with Messrs. George M. Totten and John C. Trautwine for the construction of the road. The services of these gentlemen had been solicited by the Company, not only on account of their previously established reputation as skillful and successful engineers, but from having only a short time before been engaged upon a work of considerable magnitude in a neighboring province—the “Canal del Dique,” connecting the Magdalena River with the Caribbean Sea at Carthagena: they had, consequently, a large experience in the character and resources of the country, and the conditions necessary to the success of such a project. The contractors at once proceeded to the Isthmus with a large force, and commenced the final location of the road.

Basing their operations upon the reconnoissance of Colonel Hughes and party, a native town called Gorgona, on the Chagres River, about thirty miles from the Atlantic, was selected as a point for the commencement of the work. This place was chosen on account of the facilities it afforded for communication with the Atlantic by the River Chagres (which was supposed to be navigable to this point for vessels of light draught), by which men, materials, and stores



PARAISO.

