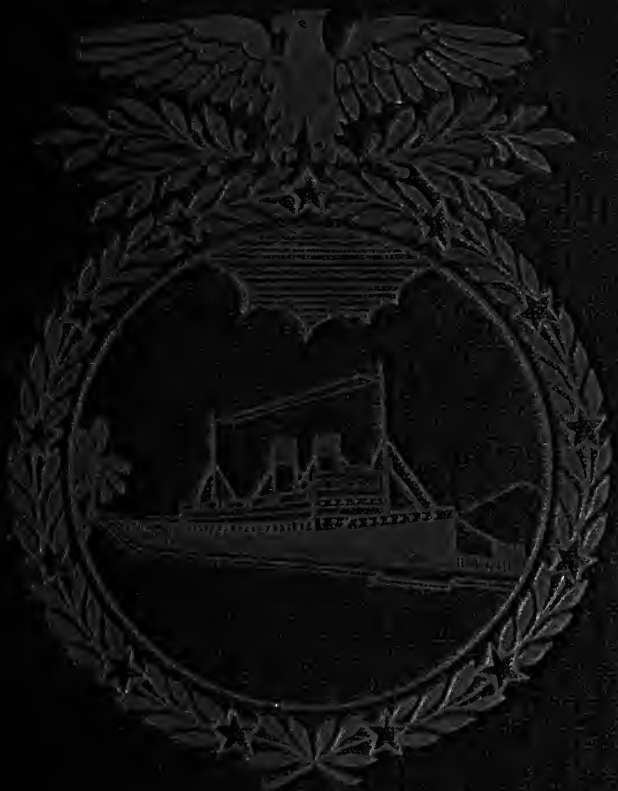


PANAMA AND ITS BRIDGE OF WATER



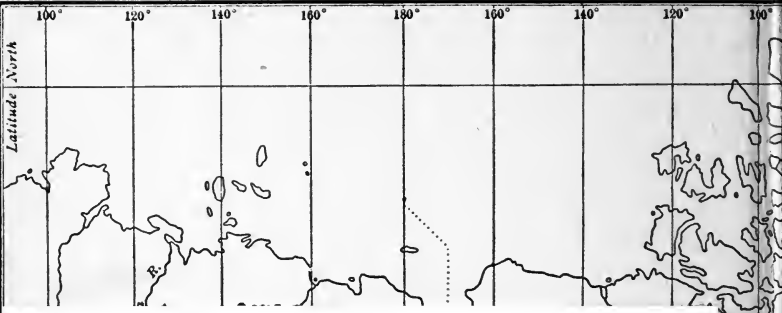
NIDA

PANAMA AND ITS “BRIDGE OF WATER”

By
STELLA HUMPHREY NIDA
”

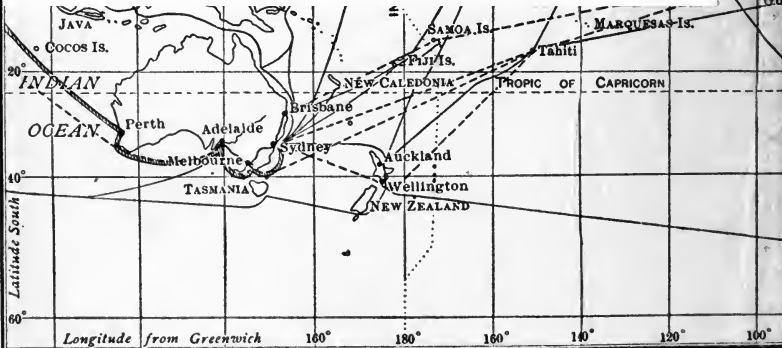
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**PANAMA
AND
ITS
“BRIDGE
OF WATER”**

"The Isthmus of Panama, formerly a part of Castella del Oro, is the gateway to the Pacific and the front door of the three Americas, to which the Antilles lead up as stepping stones. For migration, commerce, or war, the Isthmus of America, with or without a canal, is the most important strategic point in the world."

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A relief map of the Canal Zone

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The Rand-McNally Press
Chicago

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A FOREWORD

THE story of a raging stream made navigable, of a mountain chain bridged by an artificial stream of water, of climatic conditions overcome, and of swamps and jungles made a healthful dwelling place reads like a romance, but such is the history of the building of the Panama Canal. It was the conviction of the author in writing this story for young people that it should be a familiar tale to every school child of the grammar grades.

The geography and history of the past is largely the story of man adapting himself to natural conditions. In the old days physiographic features, such as rivers and mountains, determined routes of travel and commerce. While their effect is still important, the coming of steam and electric power has helped man to conquer nature to an astonishing degree. Deserts are traversed by the iron horse, rivers spanned by monster bridges, and mountains pierced by tunnels. Arid regions are irrigated and made to yield abundantly and great hills are leveled to plains. The men of the future, instead of searching for natural routes, will go about making their own where they will. The explorer has given place to the engineer.

This gives a new trend to the study of geography. Emphasis is now placed upon the human side of

geography, upon the mastery of the world's trade routes. For instance, rivers that are of commercial value have a human interest, while little attention is paid to those that are not navigable, because they are of no service in the progress of mankind. The conditions that have helped to make a city great are of more importance to us than the mere fact of the city's greatness, for we shall always be building other great cities.

To build the Canal required the best thought of scientists, engineers, and statesmen. Hundreds of our citizens who were American school children a generation ago played an important part in the undertaking. It took courage, honest service, unselfishness, and great faith to gain this superb conquest. What better ideals for our coming citizens?

S. H. N.

THE INTRODUCTION

THE building of the Panama Canal brought together on the Isthmus a great army of men, splendidly organized and pursuing a peaceful conquest with all the energy, valor, and heroism that might characterize a decisive battle in warfare. But instead of an opposing army of regiments, the attack was directed against mountains, swamps, and diseases.

The results of that conquest, as measured in terms of service to our country, can be compared only to the heroic services of our greatest wars. As a nation we are indebted to every man who faithfully performed his duties on the Canal. Many endured privations, and some even met death, but always with the same dauntless courage that has ever led men of like spirit to charge the ramparts of an enemy.

It was a battle against nature,—and the patriotism revealed was as strong and as real as has been any in our proud history. As a national achievement it is worthy of primary consideration in our public schools, and in providing this school text the author has made no small contribution to our nation's good. She has possessed the "Canal spirit" to a remarkable degree, and has given the narrative vividness in spite of its broad scope. The text is, in itself, a tribute to the author's exhaustive and discriminating study

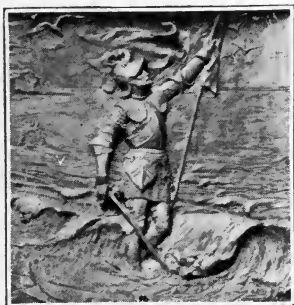
of the world's greatest and most fascinating campaign of engineering. Having the advantage of a personal acquaintance with varied features of the Canal enterprise, I am convinced that this book will give to the school children a correct understanding of the subject, and will increase their interest in, and respect for, our nation's greatness.

The history of any great achievement is the biography of its leaders. The story of the Panama Canal is the record of the deeds of great men who were supported by the patriotic devotion of an army. The Canal record of brilliancy and honor is a long one, and no page stands out with more credit to the American nation than that one which records our government's marked interest in the highest moral, as well as physical, welfare of the men whom she sent into most trying and depressing conditions in the heart of the tropics. Such an expression of Christian ideals has been noted by the nations of the world as truly as our achievements in sanitation and engineering.

A. BRUCE MINEAR

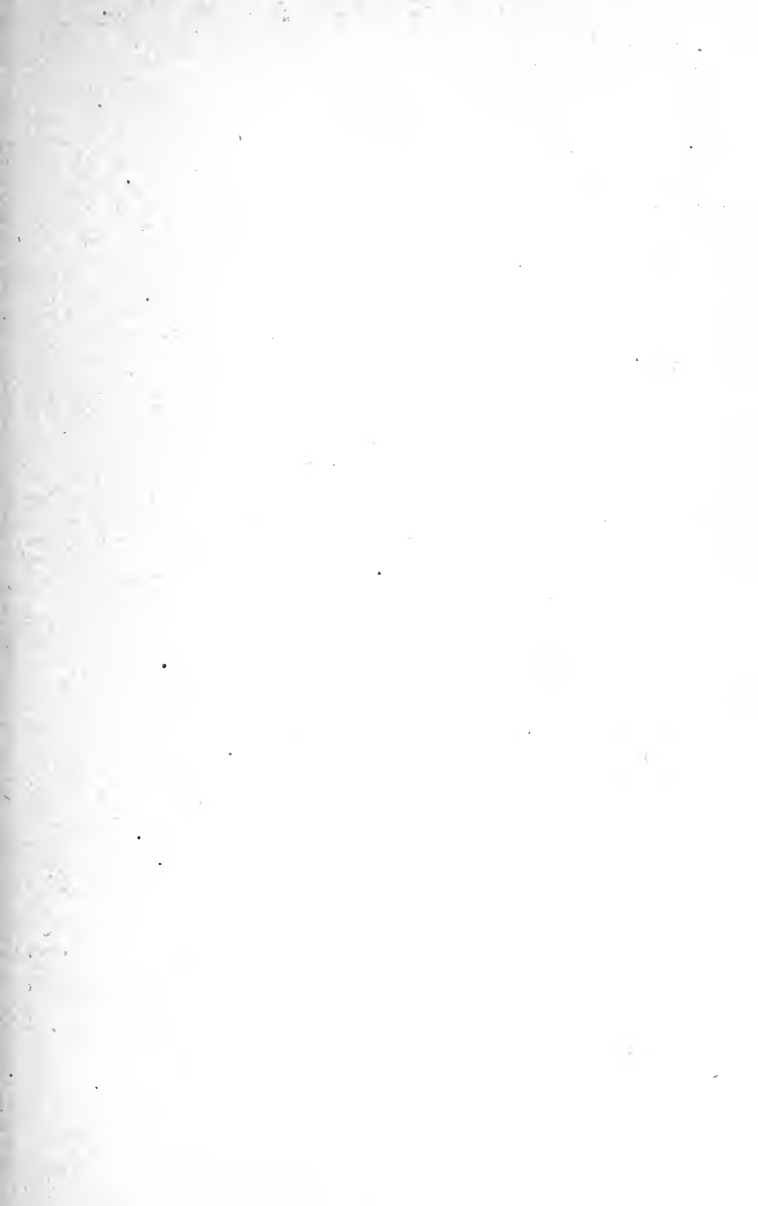
*Superintendent of Club Houses
and
General Secretary, Y.M.C.A.*

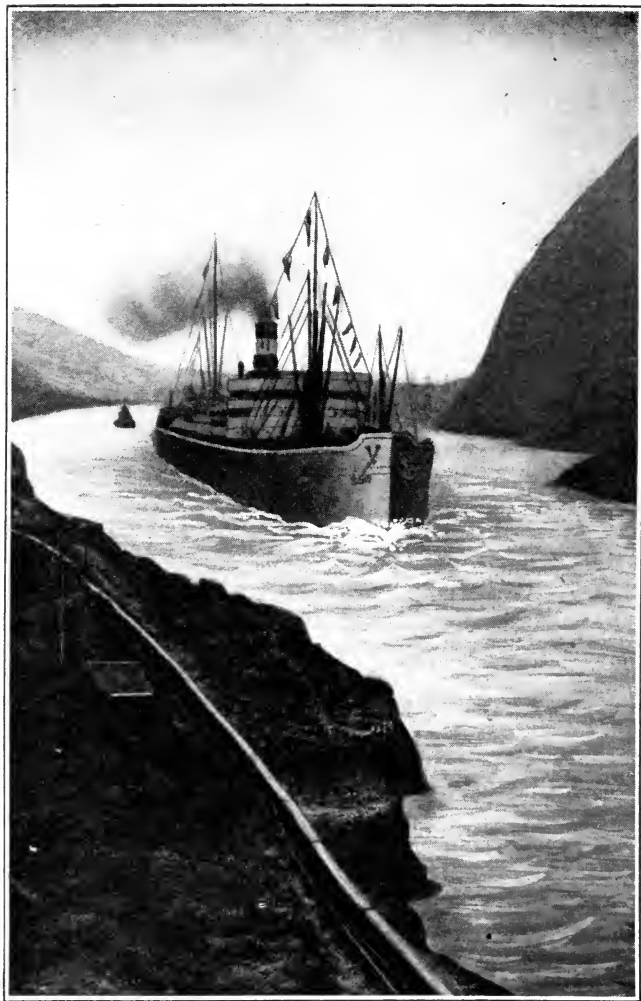
PART I



**THE LAND
OF THE
PANAMANIAN**

“When the last dike was blown up at Gamboa and the water of Gatun Lake was allowed to rush into the Cut, it marked a new era in the history of the race. For countless ages the narrow strip of land which is the Isthmus had been soaked with human blood—sodden with the romance of olden days. This Canal of ours stands for the new and better times. The old romance of brawn and blood has given place to the romance of brains.”





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S.S. "Cristobal," the first ocean-going liner to pass through the Panama Canal

PANAMA AND ITS "BRIDGE OF WATER"

INTRODUCTORY

ON the seventh day of January, 1914, a certain boat made a short voyage of fifty miles in which all the world was interested. This boat, by sailing through the new Panama Canal from the Pacific Ocean to the Atlantic, proved that the United States government had successfully completed the most wonderful piece of engineering known to history.

The Panama Canal cuts in two the Isthmus of Panama, which joins North America and South America. It would take a railroad locomotive going at ordinary speed less than two hours to travel across this narrow isthmus, but, strange as it may seem, this fifty miles of waterway has cost the United States \$375,000,000 in money, six thousand lives,

and ten years of the hardest and bravest struggle.

It is difficult to think in terms of millions. Can you imagine every man, woman, and child in the United States bringing four silver dollars and placing them in a heap? It would be a mountain of money, and it would take it all to pay for this wonderful Canal. It would take seven millions of these dollars to pay for one mile of the Canal, or about six thousand dollars for a strip of it as long as your foot ruler.

The Canal will be of great value to the world's commerce by shortening the distance from the western coast of Europe and the eastern coast of the United States to the western shores of North and South America and to the coasts of Asia and Australia. It will save a great deal of time and money. In order to pay for its upkeep it must earn more than a million dollars a month by charging ships a toll for their passage.

For four hundred years the world has been

wishing for a canal across the Isthmus. Why was it not built long ago? Our government



Adapted from Barrett, "Panama Canal: What It Is, What It Means"

The same amount of excavation as that of the Panama Canal would make a tunnel, 14 feet in diameter and 8,000 miles long, which would cut through the center of the earth

is tunneling beds for rivers through mountains, building great artificial lakes, and reclaiming miles of sandy desert larger than the whole Isthmus of Panama. Why was it so stupendous a task to build this short strip of waterway? Let us go back four hundred years, and learn the whole story of the enterprise.

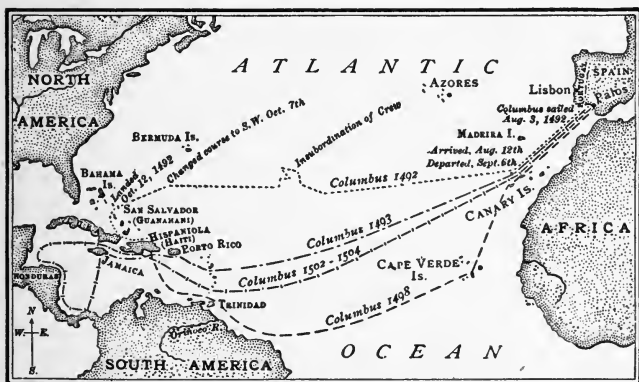


*Christopher Columbus, from a portrait supposed to have
been painted by Jan Van Eyck of Bruges*

EARLY HISTORY

THE ARRIVAL OF THE SPANIARDS

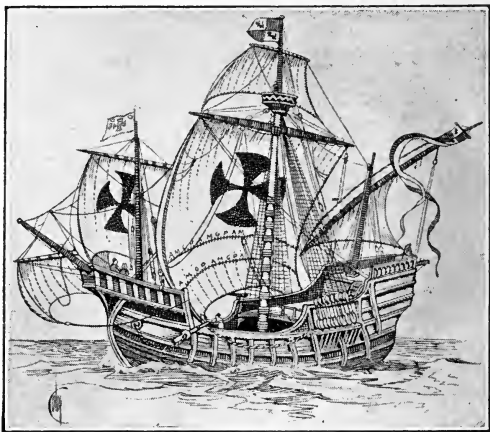
Columbus spent some time on his last voyage to America sailing on Limon Bay, which is at the Atlantic entrance to the Canal. He also explored the Chagres River. Columbus is usually given credit for first exploring the Isthmus of Panama, and the two cities of Colon and Cristobal are named for him. Four years before this time, however, another



The voyages of Columbus to the New World

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Spaniard, Rodrigo de Bastides, had visited the shores of the mainland of America at the



The "Santa Maria," the flagship of Columbus

Isthmus. With him was Balboa, who later became governor of the first settlement at Nombre de Dios in 1509.

The settlement at Nombre de Dios was the first made on the continent of America. It was founded fifty-four years before the settlement at St. Augustine, and nearly a hundred years before that at Jamestown. So Panama is the white man's first home in America.



A portrait of Balboa, published by courtesy of the "Bay View Magazine" and the Pan American Union

Balboa is said to have been the first white man to discover the Pacific Ocean. He



Brown Bros., photographers

Balboa's discovery of the Pacific. Leaving his followers on Darien Heights, Balboa waded into the ocean and took possession in the name of the sovereign of Spain

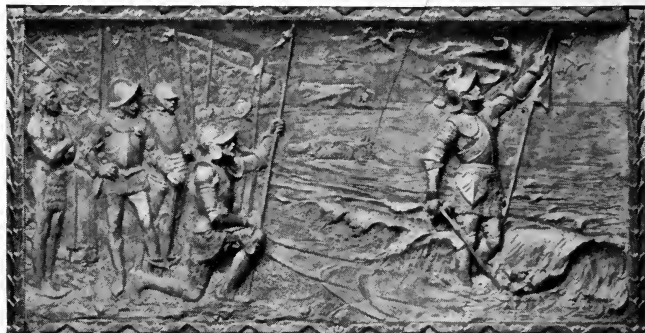
married an Indian princess, and profited by it, for the Indians became his fast friends. They kept telling him of the gold and precious stones he might obtain not far away on the other coast, but for some time he was afraid to cross the mountainous jungle. At last he started out with one hundred and



Routes of early voyagers to Panama

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ninety men. They traveled very slowly, at the rate of about two miles a day, and reached



Courtesy of the Pan American Union

*Balboa taking possession of the Pacific in the name of Spain,
from the bronze frieze in the Pan American Building*

the Pacific coast in September, 1513. Balboa took possession of the ocean in the name of Spain, and called it the "South Sea."

When he returned to Nombre de Dios, about five months later, he found in his place a new governor, named Pedrarias. The two men did not get on well together. Balboa made other trips to the Pacific, carrying the parts of ships. These he put together again, and sailed upon that great body of water. But in 1519 Pedrarias succeeded in

having him beheaded under a false charge, and the real founder of Panama was no more. In the year of Balboa's death—a whole century before the Pilgrims landed at Plymouth—the old city of Panama was founded on the Pacific coast.

In 1532 Francisco Pizarro led an expedition southward from Panama on the Pacific coast and conquered the Incas, a remarkable tribe



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*"Flat Arch" ruins of Santo Domingo church, city of Panama.
This arch, said to be the longest flat arch in the world,
has stood more than two hundred years*

28 *Panama and Its "Bridge of Water"*

of Indians who lived in splendor in the mountains of Peru. They had immense



Francisco Pizarro, from an old engraving

treasures of gold and silver and jewels which adorned their temples, and all this wealth fell into the hands of the Spaniards. Extensive

30 Panama and Its "Bridge of Water"

merchantmen that every year carried the king's treasure across the Atlantic to Spain,



C. M. Peacock, photographer

A cave near the site of the old city of Panama which is believed to have been used as a hiding-place for treasure

for the course was beset with pirates. The English allowed the Spaniards to encounter all the hardships in securing the treasure, and then lay in wait to take it from them.

Although Morgan and Drake were just plain, everyday pirates, Morgan was actually knighted for his daring robberies on the seas and on the Isthmus. Morgan and Drake

justified their unlawful deeds by claiming that England was at war with Spain, and there was also the feud between the Protestants and the Catholics to offer as an excuse for this lawlessness.

About a hundred years after the founding of Nombre de Dios the Spaniards settled Porto Bello in a more healthful spot on the Atlantic coast, and removed bag and baggage to this fine port. A yearly fair was held regularly at Porto Bello, and at that time the people crowded there for several weeks, while the mule trains were arriving from Panama and the treasure was being loaded upon the king's ships. Merchants exchanged their wares for the products brought by the colonists, and the trade grew year by year, until, it is said, it reached the immense sum of two hundred million dollars. For many years Spain lived on the wealth brought from America and the Peruvian mines.