

CLOSING THE SERIES OF UNCLE SAM'S NAVIES, WHICH HAVE NOW ALL BEEN PICTURED AND DESCRIBED.

PANAMA CANAL FLEET.

United States Vessels Which Bring Profits to the Treasury.

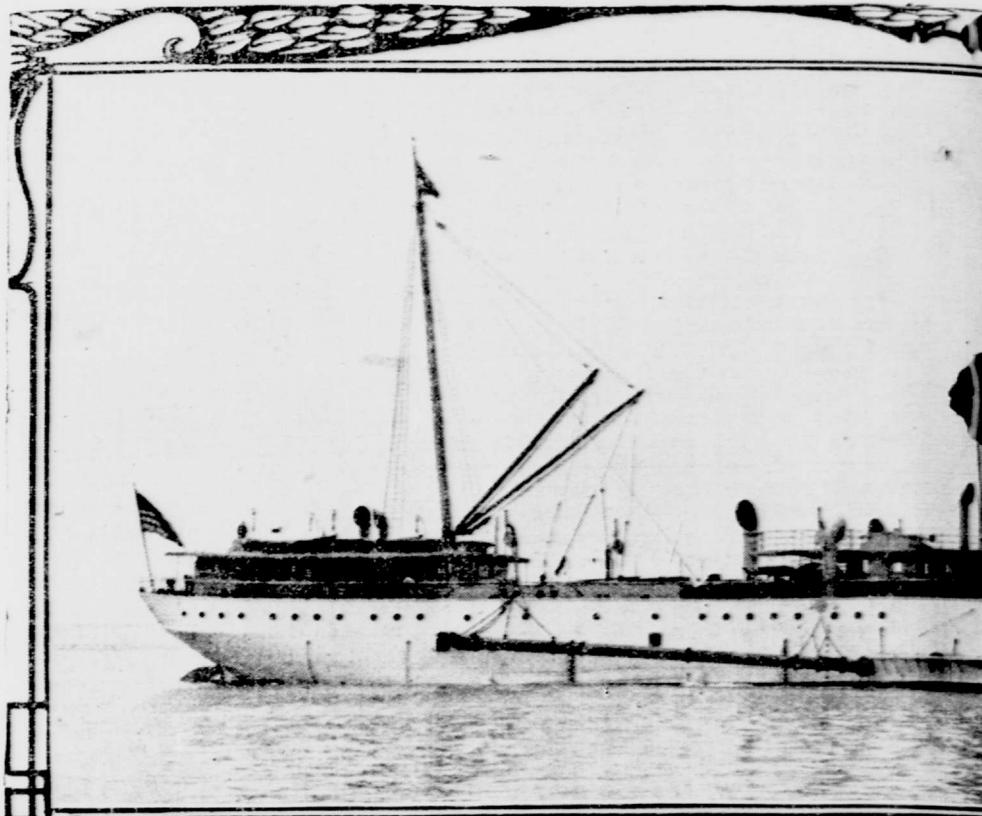
[From The Tribune Bureau.]
 Washington, Sept. 28.—Uncle Sam's "fighting navy," his army fleet, his revenue navy, his life-saving squadron, his lighthouse squadron, his fishing fleet, his coast survey vessels and his public health flotilla have all been described and illustrated in this section of The Tribune, but while all of these yield handsome indirect profits in the way of peace and life insurance and the general promotion of prosperity, it is his latest acquisition, the Panama Canal fleet, which brings actual shakels into the old gentleman's pockets over and above the expense of maintenance, for when he is directing his Panama fleet your Uncle Sam is a skipper for profit as well as for the promotion of the great inter-oceanic waterway and the convenience of the travelling public. Moreover, there is every indication that as the months go by the Panama Canal Zone will become a winter health resort, as well as the Mecca of sightseers and tourists, and the tidy sum which the thrifty old gentleman has already tucked away behind the locked and guarded doors of the United States Treasury will be even more rapidly augmented by his new fleet.

Heading the list of the Panama navy, the battleships in the fleet, are the *Alliance*, the *Advance*, the *Finance*, the *Panama* and the *Colon*, all passenger and cargo vessels making regular sailings between New York and Colon, carrying, in addition to the great quantities of material needed for the construction of the canal, large quantities

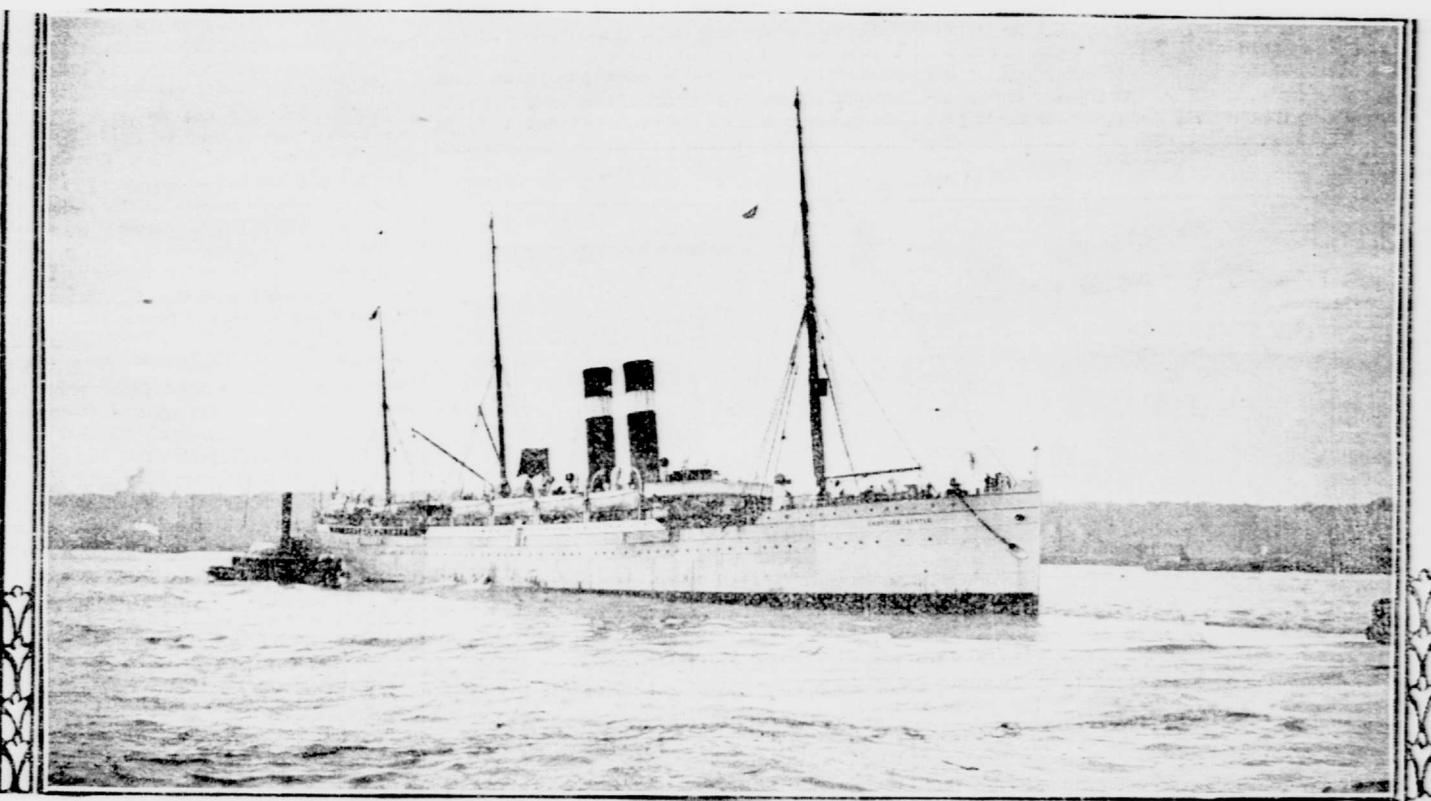
of freight for Pacific Coast ports, which is conveyed across the isthmus on the Panama Railway and transhipped to San Francisco and other points by the Pacific Mail Steamship Company. The *Panama* and the *Colon* are vessels of 5,067 gross tonnage, while the others are somewhat smaller, and all have passenger accommodations for an average of nearly 350 passengers of all classes. These are the ships which pay a profit which is monthly growing larger and which promises in time to be a handsome contribution toward the expenses of constructing the Panama Canal. At present some of these vessels are laid up for repairs, and some other vessels, including a British ship, the *Dunnotar Castle*, have been chartered, as no American vessels were available, but that is only a temporary arrangement.

There is some discussion of the advisability also of having six ships built which would ply on the Pacific, between Panama and San Francisco and other ports on the west coast, because the Pacific Mail Steamship Company's service is not regarded by the officials as adequate, and it is figured that such a line would add materially to the convenience of shippers and passengers and would, moreover, add a handsome profit to that already reaped. The proposition is, however, purely tentative.

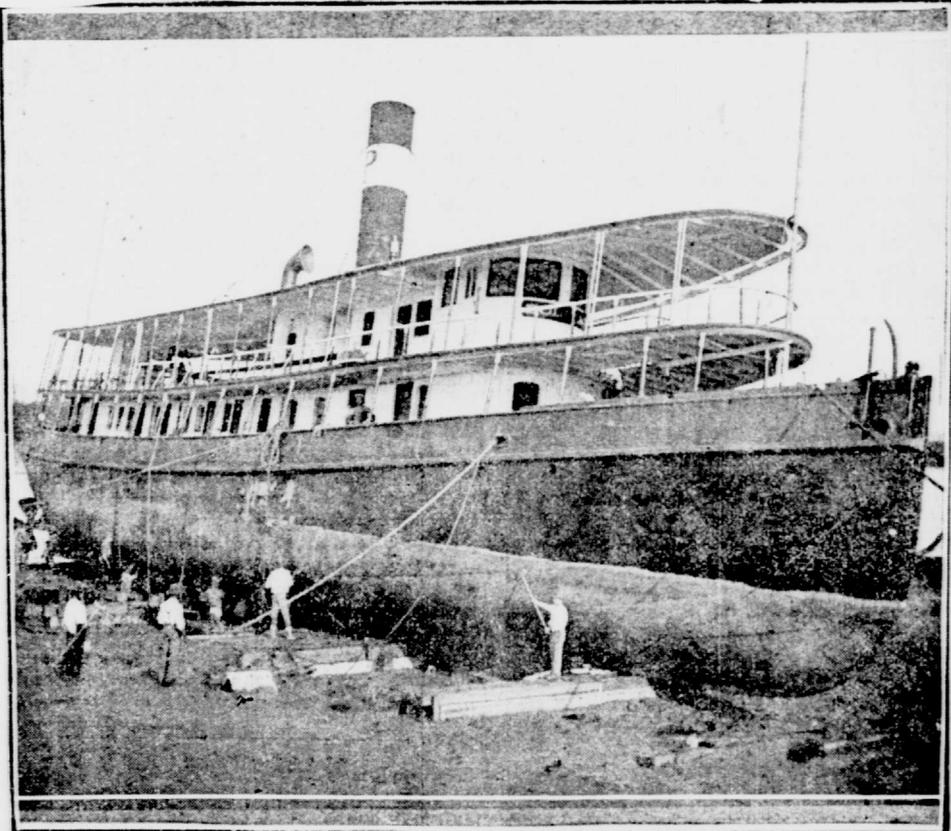
The cruisers of the Panama Canal navy consist of two great seagoing dredges, not the dirty, ungainly sort of craft which most persons are wont to associate with the name dredge, but handsome, trim vessels with graceful lines, which take their load of sand and earth aboard through hermetically sealed pipes operated by powerful suction engines, deposit it in tight compartments in their holds and then, regardless of wind or weather, sail far out to sea and deposit it in the bottom of the Atlantic or



NEW SEAGOING I
 At work on the Panama Canal. Her sister boat, the



THE DUNNOTAR CASTLE.
 Leased by the Isthmian Canal Commission and making regular sailings between New York and Colon.



P. R. R. TUGBOAT OLIVER ON THE GRIDIRON AT LA BOCA.

that the canal commission will have to add several new ships to its Atlantic service, especially as the desire to view the canal will naturally increase as it approaches nearer and nearer to completion.

UTAH'S NATURAL BRIDGES

Continued from second page.

which slants from an elevation of 7,000 feet in oblivion at the river level at Dandy crossing.

The Edwin Bridge spans a small branch of Armstrong Canyon, and the abutments are set upon a natural rise far above the general level. The government measurements, taken this summer, show it to be 104 feet from the bed of the creek to the top of the arch. The floor of the bridge is 32 feet wide, 10 feet thick and 114 feet long. It, like the others in the group, was formed solely by the water that boiled down over the rocks and gouged a hole in the narrow wall, leaving a perfect arch. The original course of the canyon stream is traceable around the west end of the bridge.

The permanent camp of the party was made three miles below Edwin Bridge in Armstrong Canyon, and a quarter of a mile above the Caroline Bridge, under whose arch White Canyon comes to its junction with the Armstrong. The Caroline Bridge lacks some of the symmetry and grace of the Edwin Bridge, and while it is 205 feet high, the distance from the bottom of the arch to the creek bed is only 97 feet, showing a thickness of the floor of 107 feet. Three receding ledges form the roof of the bridge.

Up White Canyon, two miles from the junction, stands the Augusta Bridge, the most majestic of the three. From an imposing height of 222 feet one looks over the edge of the great structure to the creek bed beneath. Walls rising to greater and dizzier heights flank the bridge on both sides. The floor of the bridge is 65 feet thick, and under the arch, 157 feet high, an average ten story building might be set without touching the under side of the bridge. The floor is 261 feet long. The erosion of ages has cut away all of the irregular edges, leaving a perfect arch of splendid proportions. The same story of chemical and water action is written on the Augusta, traces of the water that poured down from the Elks are still found around the south end of the bridge, and the confusion of great rocks below shows that huge pieces were torn away at a time in that titanic work which resulted in the present freak formation.

The trip from Bluff to the natural bridges is beset with more than enough hardships to appease the appetite of the average tenderfoot, but it is like a spin along the boulevard in an automobile when compared with the journey across the San Juan River through the Navajo Indian reservation into Monumental Valley, the other national park that is to be cared for and protected by Uncle Sam.

Turning their backs upon White Canyon, the party struck off across the country to the south. Seventy-five miles away Grand Gulch empties into the San Juan River, and across that treacherous stream lies Moonlight Gulch, east of the Navajo Mountain, the most romantic spot in all the desert waste of the Southwest. Through rocky canyons, across desert wastes, around impassable gorges, into tangled forests of scrub pifion and cedar, the party slowly wended its way.

For two days the party travelled almost constantly through a labyrinth of canyons and an exasperating growth of scrawny trees without covering more than thirty miles, as the crowd

the Pacific, doubtless to the intense amazement of the deep-sea creatures whose native region is thus disturbed. These vessels, sister ships, are named the *Ancon* and the *Culebra* respectively. They are 288 feet long by 47½ feet in breadth and 25 feet in depth, built of steel, driven by compound condensing engines and each fitted with two complete pumping units. They have their own electric and ice plants and are fitted with everything calculated to promote their efficiency. The Maryland Steel Company has constructed these ships at its great plant at Sparrow's Point, Md., and the *Ancon* has already arrived at the Atlantic side of the isthmus. It is, in fact, doubtless due to its good work that the excavation of the canal prism showed such marked progress last month. The *Culebra*, which is for use on the Pacific end of the canal, will sail soon, under her own steam, for Panama, going by way of the Magellan Straits.

In addition to these suction dredges there is a small flotilla of dipper dredges and large steel barges, which receive the material scooped up by the dippers and convey it out to sea in tow of the powerful tugs, and the commission has acquired several. For the handling of freight there are eight large lighters, three coal lighters and several tugs, and a great floating pile-driver contributes its share in the construction of docks, seawalls, etc.

The voyage to Colon, the eastern terminus of the canal, is made from New York in just a week; the run across the isthmus to Ancon, where is situated the beautiful and well appointed Hotel Tivoli, takes only a few hours, and the trip is becoming more and more popular with those who desire a fortnight's rest at sea and to see the great waterway which Uncle Sam is so rapidly constructing. If the present patronage continues to grow it is entirely probable