

# WIRELESS

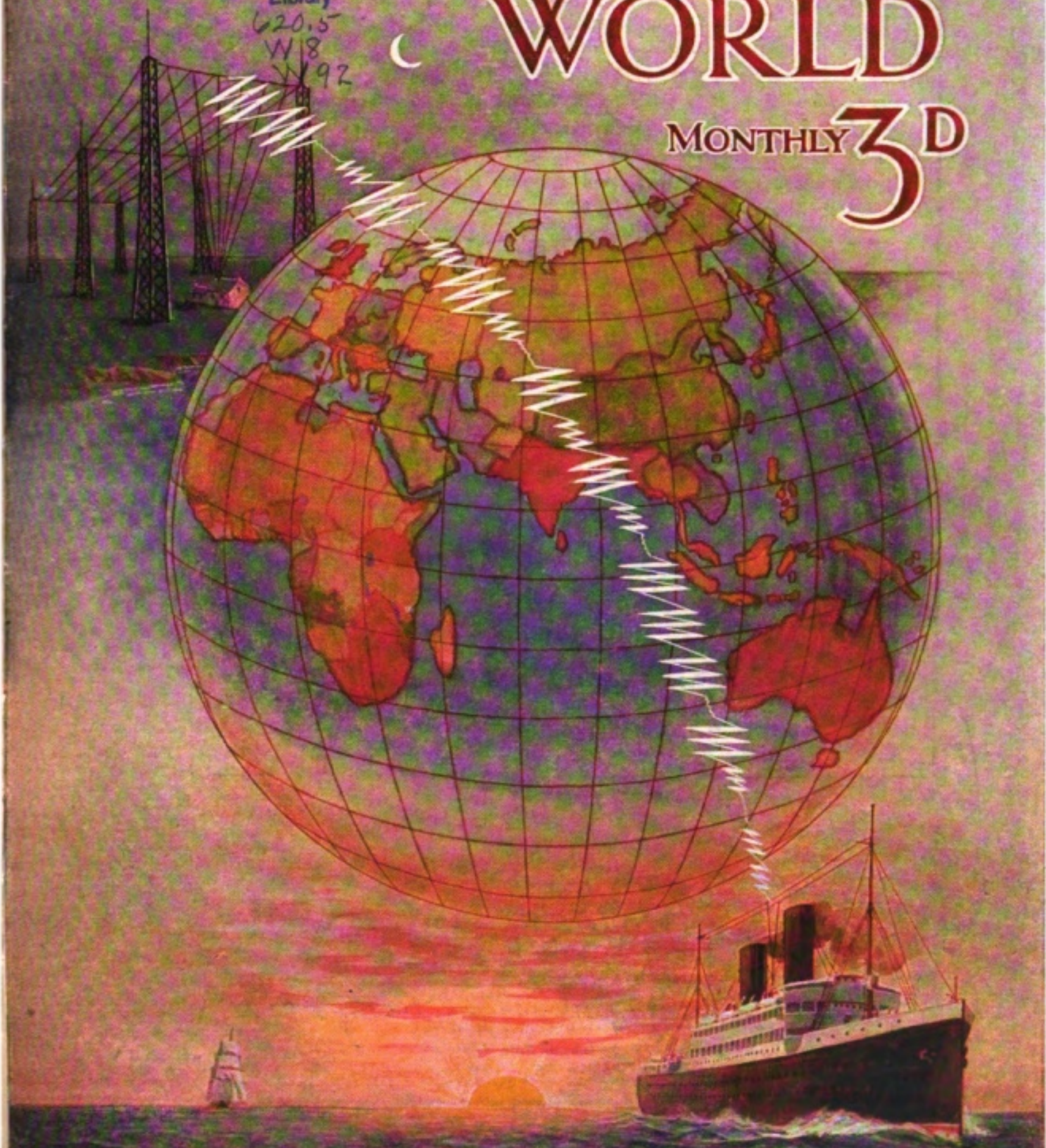
# WORLD

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# Wireless in Panama

*A description of the Wireless Stations erected to control the great Canal Zone.*

**T**HAT part of Panama which is called the "Canal zone" is a strip of land ten miles wide by 49 miles long. Through the middle of it, with five miles on either side, runs the Canal itself.

America has sent her engineers and provided the money for the opening up of this great waterway between the Atlantic and Pacific coasts. She is therefore entitled to be proud of her enterprise and to colonise the Canal zone with her own people. The two great towns on the banks of the Canal which are given over to Americans are Cristobal and Panama. Here the American official makes himself as comfortable as circumstances permit within his residence, which, from a distance, looks not unlike a gigantic meat safe.

The whole of the Panama zone is under State and military control for obvious reasons. The Canal is of immense importance both strategically and commercially to the United States. It will afford harbourage for her largest battleships, and therefore must be under efficient control if it is not to be a source of danger to the nation which has produced it. For this reason it has been fortified, and further facilities of control are afforded by an elaborate wireless system. The principal station in the zone is situated just outside Colon, and works under the supervision of the United States Navy. The structures will comprise a power house operating house, and staff quarters. There will be four aerials of 1,512, 1,000, 600 and 300 metres. The normal wave-length for merchant ship business is 600 metres; between government ships, 1,000 metres, and between government shore stations 1,512 metres.

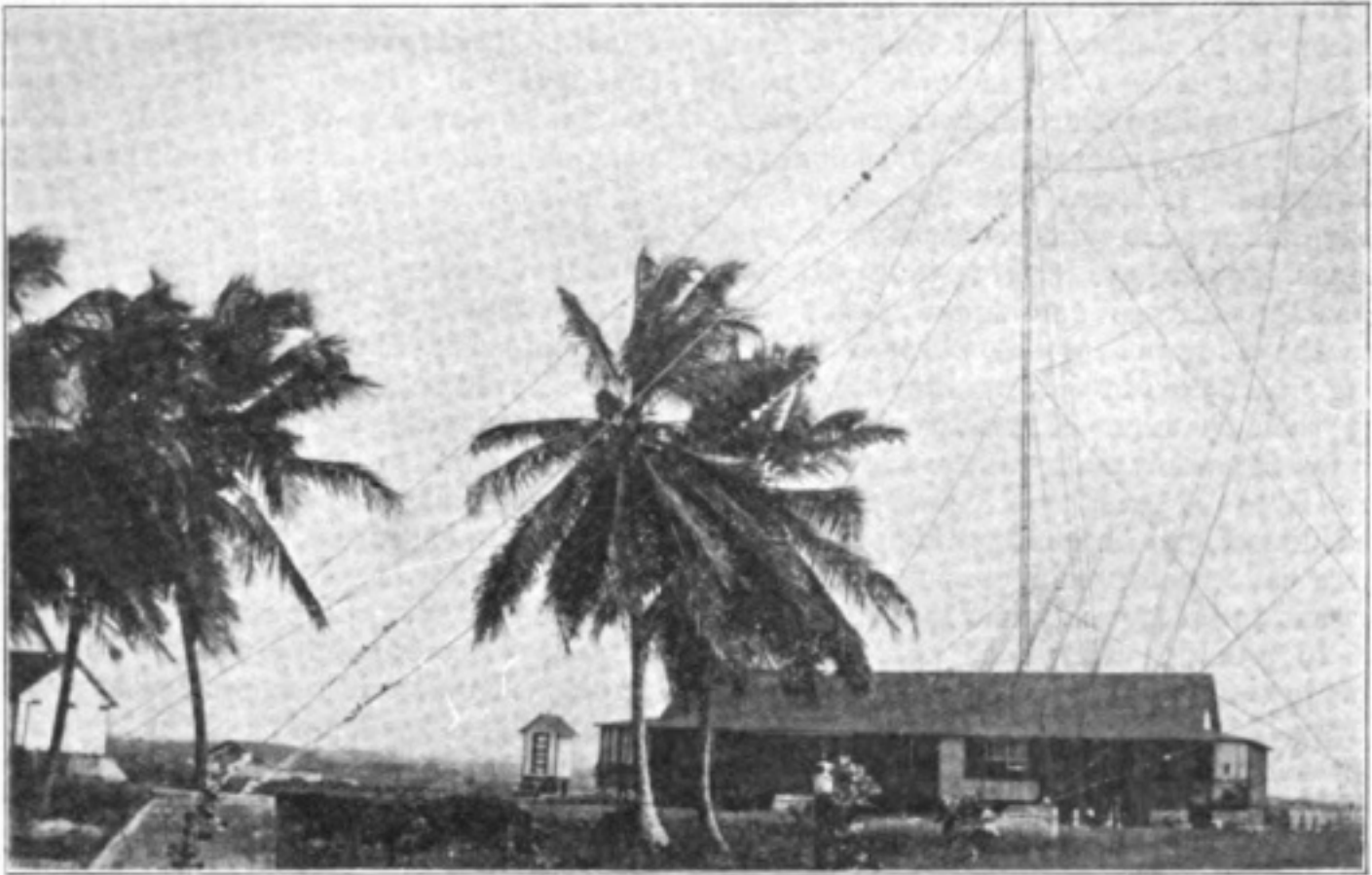
Two new skeleton towers, 600 ft. apart, each 300 ft. high, are in process of erection. They will rest on three bases 60 feet apart, forming a triangle, and set in cement. The intention is to use this station solely for

ship commercial work and certain classes of government business. A constant watch is, of course, maintained by the operating force.

The range of the large set will be 500 miles in the daytime and 1,000 to 1,800 miles at night. Under favourable conditions the station will work direct with Washington, D.C., and at all times with Key West and points within that radius. The site of the station is about one-quarter of a mile outside of the city limits of Colon, and faces about north. It is opposite the eastern breakwater at the entrance to the harbour. The site includes many bearing cocoanut trees, many of which will be cut down to facilitate the handling of the large antenna. This station will take care of the wireless service on the Atlantic side.

The machinery in the power house includes one 25-kw. set, 2 5-kw. sets and 2 2-kw. sets. Power is supplied by the Canal zone hydro-electric plant at Gatun, which also supplies the Balboa station on the Pacific side. In case of emergency the steam plants at Gatun and Balboa can be brought into use.

But as we progress eastward through the Canal we reach Gatun, a station, a dark town planted on the grass, whose chief feature is an enormous cyclopien wall which rises in three immense steps for nearly half a mile. This giant staircase is encumbered with machinery and crowned by a complicated network of steel. It forms the edge of the Gatun locks and the machinery is part of the emergency gates which, should the other barricades fail, would fall into position and effectively bar the onrush of water from the upper canal. The locks are the elevators for the ships. By them the biggest battleships can be raised to a height of nearly 80 ft. and brought down to the level of the sea. For the bed of the Canal lies some 85 ft. higher than the two



COLON WIRELESS STATION.

*One of the chief stations erected for control of the Panama Zone.*

oceans, and it is, in fact, a water-bridge thrown across the land. Each of the locks raises or lowers the vessel 20 ft. But magnificent as this work is, it does not appeal to the eye of the traveller with such arresting force as the Culebra Cut. After passing Gatun the Canal finds its way into the bed of the Chagres River until Gamboa is reached, where the Culebra Cut commences. For nine miles it cuts its way into the red earth, and the strange colouring of the precipitous cliffs thrown up on either side creates the impression of a wound not yet healed. On either hand are swamps and marshes or forests, so silent that one feels that nothing can have stirred in them for a thousand thousand years. That is the outward impression; but as the history of its making comes back to the mind the whole significance of the Culebra Cut takes another aspect. It is the work of Titans, and it has been accomplished in the face of untold difficulties. As fast as scientific man banked and terraced the sides, so did the mutinous earth slide back to its former place, and the work had to be done over again. Nine miles is the length of the Cut, and in this short distance twenty-one such

slides occurred, or, as an American author aptly remarked, "The American went on patiently terracing and cutting off the heads of the adjacent hills, and the adjacent hills went on pushing and kicking the dirt back into the hole like so many naughty boys."

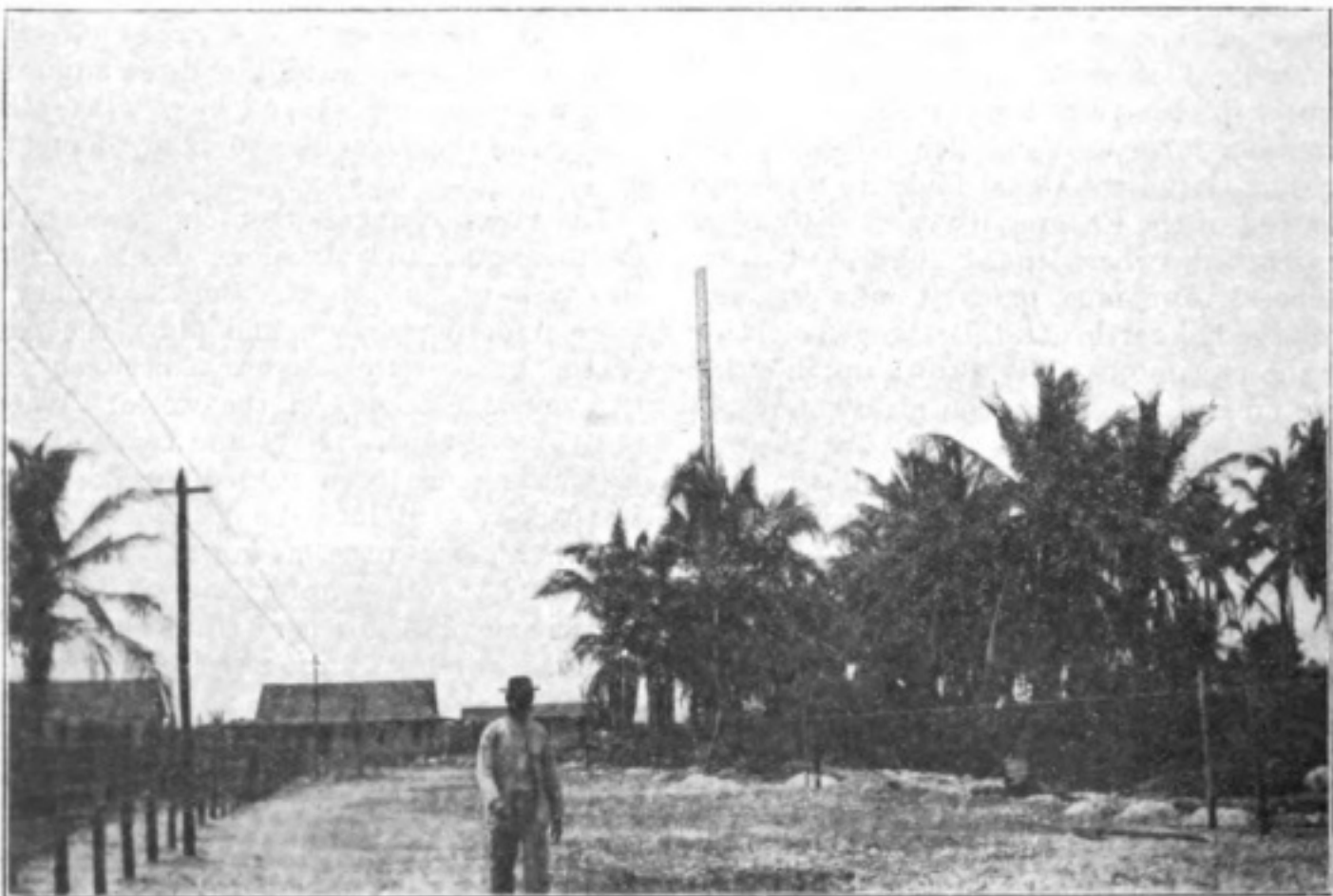
The vision changes when one reaches the Pedro Miguel and Miraflores Locks. Here the view opens out, the Canal assumes a more imposing aspect, and plays the part of the great water highway between the two greatest oceans of the world. Water has covered some valleys and earth others. Everything has been turned upside down. In the Bay of Balboa the ocean now comes to where was once a famous hill. But Balboa has other interests besides constructional ones, for here is another of the Panama wireless stations. Its purpose is not so strategical as the one at Colon, and consequently it is not of such high power. It has been erected with a view to relieving the pressure of work at Colon, which will necessarily be felt as the wireless traffic increases, as it is sure to increase. Balboa Station will therefore deal principally with the vessels passing through the Canal.

At last we come to Ancon and Panama. Ancon is to Panama what Cristobal is to Colon, but it is a larger town. It is, in fact, the capital of the Canal's zone. Panama City is the most interesting of all the Panama townships. It teems with life, and, moreover, it has some signs of the older order of things. There are, for instance, its old Spanish churches and squares, and there are the dungeons of the Chiriqui Prisons, long since fallen into disuse, but still retaining their glamour of barbarous romance. As for the inhabitants, all the world and his wife is to be met here. Every language and dialect can be heard, while, moreover, there is a nondescript population whose descent and nationality it would be impossible to fathom. The blood of many races runs in their veins, and the Panama has, in a way, made them her own; so much so, that they could almost form a nationality of themselves, for whom no better name could be found than "The Panamese."

Such is the Panama Canal as it is to-day. What it has cost is 80 million pounds in hard cash, or four times as much as the Suez Canal. Of human life, too, it has

taken its toll, for it has been said that the Panama Railroad cost a man for every tie that was laid. Besides, it cost something to stamp out disease from this infested zone, and this was only accomplished at the expenditure of much time and money, and at great personal risk. At the outset it seemed a stupendous task, but the genius and fortitude of one man—Colonel Goethals—accomplished the seemingly impossible, and we have this eighth wonder of the world. Even as we write, we are undecided as to its best claim to the title. Is it as an engineering feat, or as a feat of colonisation, or as a State enterprise, or as the enterprise of one man battling against disease? It is impossible to say, and on any one score its claim to be considered a wonder would be secure. Therefore it is more: it is a wonder of wonders; it is a triumph of the twentieth century, and one of the victories of peace.

Marconi's Wireless Telegraph Company announce that their service to Honolulu has not been closed as reported by the United States Government, and that the commercial service is being carried on as usual.



**CARTAGENA, COLUMBIA, WIRELESS STATION.**  
*Showing one of the trellis-work steel masts.*