

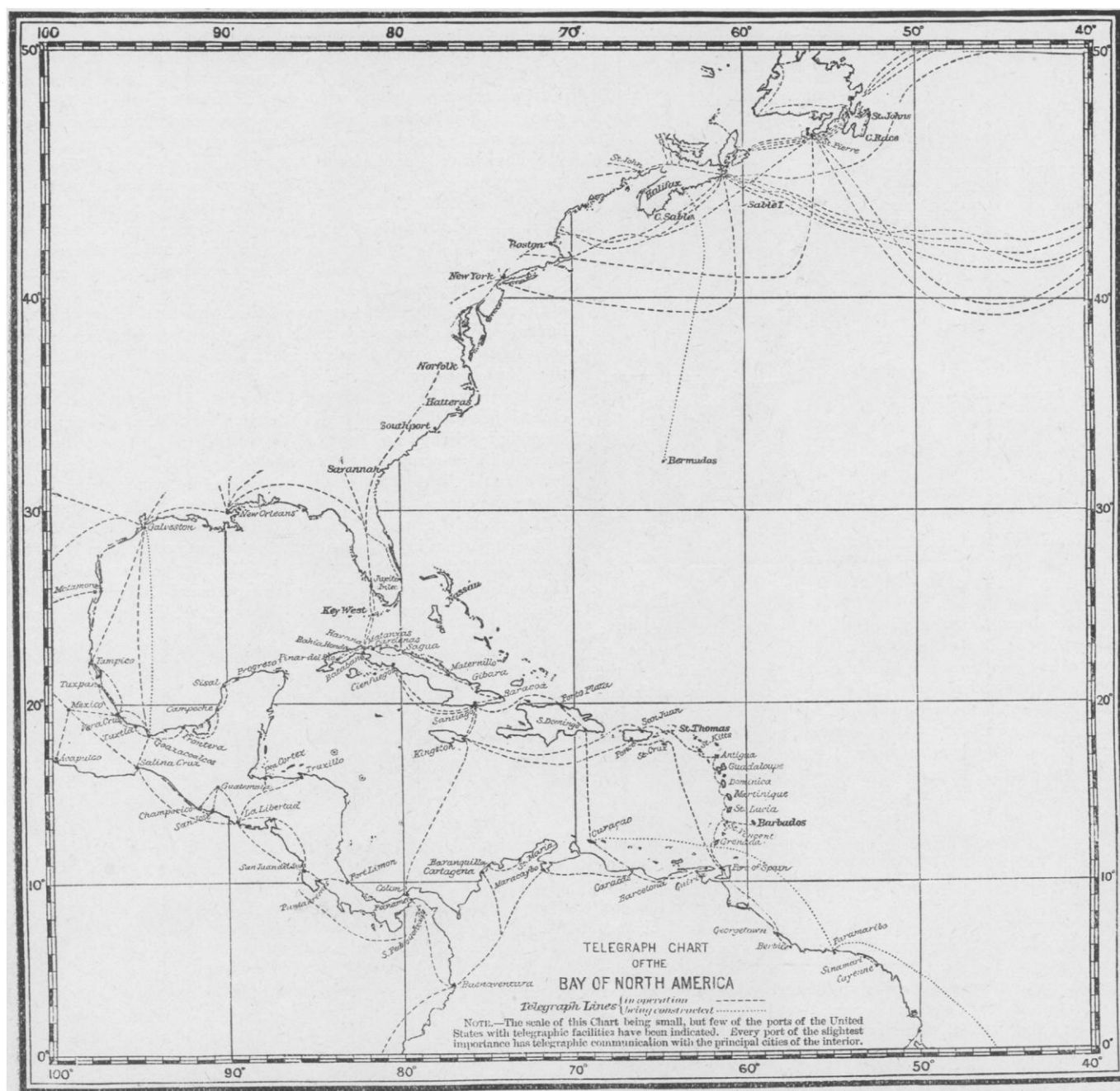
coil or band *S*. When the coils or circuits *S* and *C* are separated, as in Fig. 7, a closed iron path for the core *I*, as indicated by the arrows, is afforded the iron *I'*", operating after the manner of an armature, and comes into play to increase the effective self-induction of the coil *C*.

ELIHU THOMSON.

WEST INDIAN HURRICANES.

THE Bay of North America is that portion of the North Atlantic west of the 50th meridian, between Newfoundland and Venezuela, including the Caribbean Sea and Gulf of Mexico. In accordance

the higher latitudes. West Indian hurricanes follow this path with marked regularity; so much so, that a hurricane reported off Antigua or St. Thomas is almost sure to either sweep across the Greater Antilles into the Gulf of Mexico and strike our Gulf coast with furious intensity, or else (according to the time of the year) cross the Bahamas and follow the Gulf Stream toward Hatteras and the Grand Banks. With the telegraphic facilities that already exist, it is therefore possible to give from twenty-four hours to ten days' warning of the approach of one of these terrific tropical cyclones, — warning that might often result in the saving of more property ashore and at sea in a single storm (not to speak of the



with the policy followed hitherto by the United States Hydrographic Office, of calling attention to matters of special importance to navigators, on "The Monthly Atlantic Pilot Chart," a telegraphic chart, which we here reproduce, has been prepared to illustrate the admirable facilities that are available for the establishment of a more complete system of telegraphic weather forecasts, for the benefit of the commerce of various nations frequenting this great bay, as well as of the inhabitants of its shores and islands. The general movement of storms over this area is westward in the tropics, then northward into the temperate zone, and eastward in

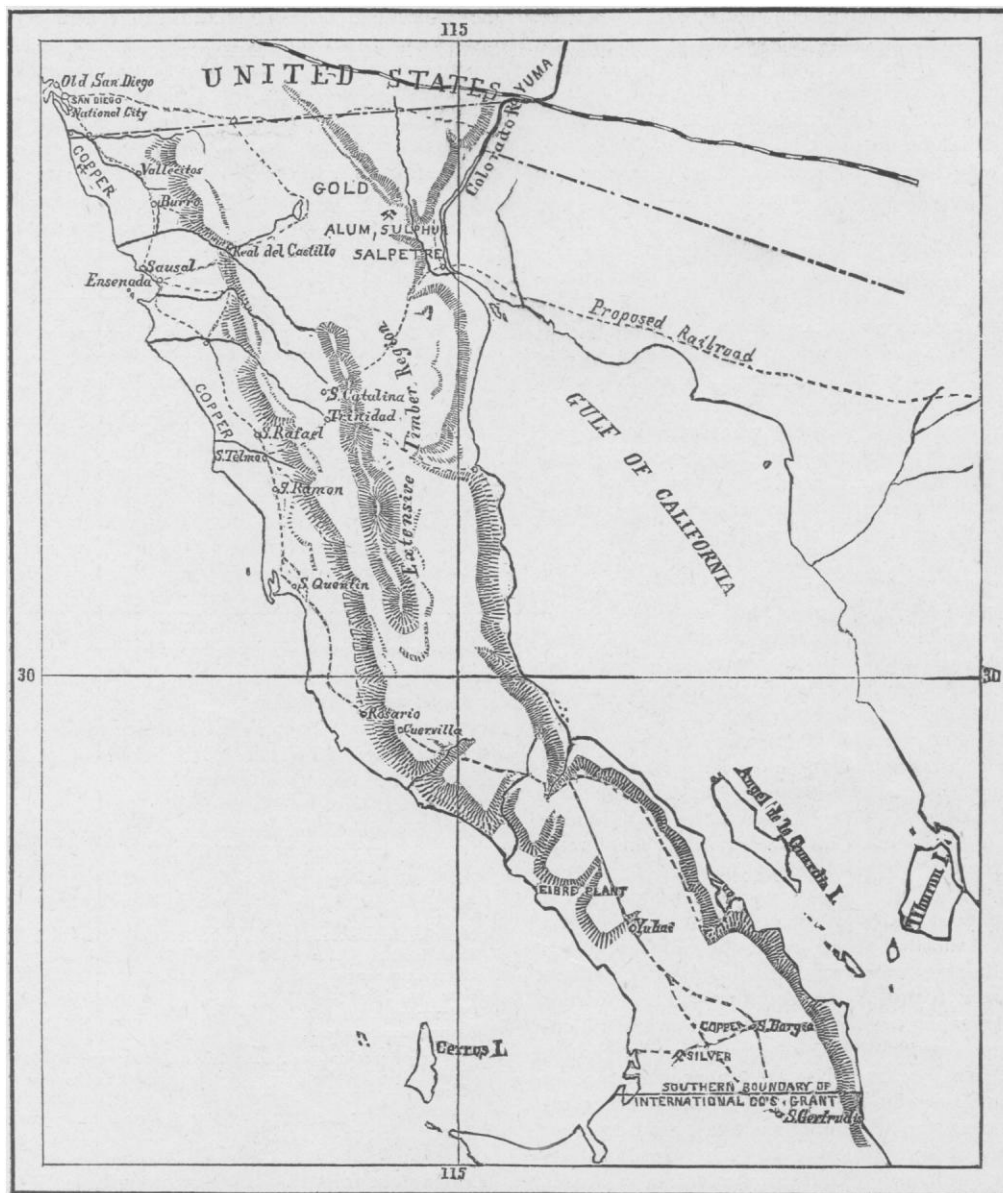
lives endangered) than would suffice to pay for the cost of a well-equipped weather service for several years. Moreover, it is well known that the movement of an area of low barometer is controlled to a very large extent by areas of high barometer adjacent to it, especially in advance (even though a thousand miles away), and many noticeable instances might be referred to: the hurricane in the Gulf in August, 1886, for example; the March blizzard of last year; and the severe cyclone off the coast last November. The wider the field of observation, therefore, the better the forecast; and the completion of the cable to Bermuda will be invaluable in

connection with forecasts of weather along our entire Atlantic sea-board.

An officer detailed from the Hydrographic Office to visit Havana last September, in order to consult with Padre Viñes, the leading authority on West Indian hurricanes, secured also the cordial co-operation of Capt. Carbonell, the director of the newly established marine observatory there; and the French and Spanish cable companies have granted the franking privilege for telegrams over their lines whenever the weather is disturbed. The chief signal officer, United States Army, has offered every assistance in his power in order to secure the best results during the coming hurricane sea-

COLONIZATION OF LOWER CALIFORNIA.

COMPANIES which attempt to promote immigration into Mexico have to contend against serious political prejudices, which are not readily counterbalanced by even great prospective productivity of the land they offer for sale. Most attempts on large and small scales have failed on account of this fact. One of the most important and promising enterprises of this kind is that of the International Company of Hartford, which, by the Colonization Act of 1883, received a grant of the northern portion of Lower California. It appears that the company finds some difficulty in inducing sufficient



son; and it would seem, that, by means of earnest co-operation, the dangers of storms that traverse the Bay of North America might be greatly reduced, and a large loss of life and property be avoided annually. To navigators, especially, this is a subject of great importance, as timely warning may enable them not only to avoid the dangerous regions of an approaching storm, but actually take advantage of it to prosecute their voyages. The attention of all those interested in the commerce of the Bay of North America, and the security of the inhabitants of its shores and islands, is therefore specially called to the importance of this subject.

THE Long Island College Hospital recently graduated a class of forty-seven men.

numbers of colonists to settle in this region ; and, as a chapter of its charter requires the settlement of a certain number of families in a certain period, difficulties arose. The New York *Times* remarks upon this subject in a recent issue.

The International Company, as is well known, has its principal sphere of operations in Lower California; and the chief aim of Mexico in granting such large concessions to the company was to secure the speedy survey and settlement of that territory. A leading stipulation, in fact, in the company's charter, which was granted in 1883, was that within ten years there should be settled in the territory granted at least two thousand families as colonists; and it was the alleged failure to have brought in the requisite number of settlers up to the time of the close of the inspection of the