2.—This was a tropical hurricane which prevailed over the Atlantic south of the thirtieth parallel during the first decade of the month, having developed within the region south of 15° north latitude, and east of 47° west longitude. The earliest reports relating thereto, as yet received, date from the 3d of the month and are as follows: On the 3d Captain N. C. Walker, commanding the bark “Campanero,” in about N. 13° 27', W. 47° 28', reported: “Wild, threatening weather throughout the day; at 9 p.m., the wind was nw.; at 10 p.m., by w.; 11 p.m., w.w.; at 1 a.m. of the 4th it was w.; 2 a.m.; s.w.; 3 a.m., s.; barometer 29.84 (757.9). The wind blew in heavy and sudden squalls of about two minutes duration, with heavy rain and high seas; at 8 a.m. the barometer began to rise, but the squalls of wind and rain continued and a very rough and confused sea came up from s. and sw.; at noon the wind was blowing a strong breeze from ssw., with rain, and the sea became more regular.”

On the 4th the bark “Ella,” from Buenos Ayres to Boston, in N. 16° (no longitude given), had a heavy gale from w., in which she lost and split sails; and the brig “Emeline,” on the same date, in N. 16° 23', W. 52° 24', had a heavy gale from sse., lasting twelve hours. On the 5th Captain H. V. Schive, commanding the brig “Lilian,” in about N. 17° 39', W. 57° 50', reported very heavy ene. and ese. sea swell, with cloudy, squally, and threatening weather and strong nw. wind until 2 p.m., when it began to blow in heavy squalls, with rain from w. and w. by s.; barometer 29.79 (756.7). This weather continued for about six hours, when the wind shifted to ssw. and blew with the force of a moderate gale.

The above vessels appear to have been to the southward of the storm-vortex, which was evidently moving in a westerly or west-northwesterly direction, as shown by the directions and shifts of the wind; it appears probable that they were, however, at a considerable distance from the vortex, since the wind with them did not exceed the force of a moderate to
On the 6th the brig “Comalo” encountered a hurricane in N. 15° 58', W. 50° 6', and put into Saint Thomas, September 23d, leaky and partly dismantled; the direction of the winds and observations have not been received from this vessel, but the damage she sustained shows that she was probably at no great distance from the storm centre. The report of the s. s. “Plato,” H. W. James commanding, indicates the position of the vortex on the 7th; the following is an extract of the log of that vessel:

Encountered a cyclone in lat. 22° N., long. 57° W., September 7, 1884.

September 5, 8 a.m., barometer 29.83 (757.7), wind sw. by s., fresh gale, heavy rain and high sea, vessel laboring and straining and shipping heavy sea over all. 12 m., wind ssw., barometer 29.81 (757.5). Wind freshened and heavy weather and high sea. 4 p.m., wind south, barometer 29.81 (757.2), strong gale, continued same until 8 a.m., September 6, when wind shifted to se. by s., barometer 29.71 (754.5), strong gale, hard squalls and heavy rain. 4 a.m., on starboard tack, 12 m., wind s. by w., barometer 29.72 (754.9), fresh gale, very hard squalls. 8 a.m., wind s., barometer 29.68 (753.9), increasing gale, very hard squalls. 12 midnight, wind s. by e., barometer 29.38 (746.2), strong gale. 4 a.m., September 7, wind nw., barometer 28.90 (745.4), strong gale, rain and mountainous sea. 8 a.m., wind sw., by s., barometer 28.40 (721.5), blowing hurricane, air thick with rain and high sea, which swept over vessel. 9 a.m., wind sw., by s., barometer 28.25 (717.8), broached to on port tack. 10 a.m., wind suddenly fell and veered to w., again blowing a hurricane, ship settled on starboard gunwale in water. The wind then decreased gradually and barometer rose gradually.

The above shows that the hurricane had recurred and was then moving in a north-northeast direction. Through the courtesy of the Rev. Benito Vines, S. J., director of the Belen College Observatory, Havana, reports have been received from two vessels which were in the eastern quadrants of this cyclone. The s. s. “Ciudad de Saltaudor” D. F. Cimino, commanding, reported: “7th-8th, the wind began with threatening weather; fresh se. wind, heavy sea swell from sw. and w., wind freshened and barometer rose; 9 p.m., fresh se. wind, high, confused sea from sw. and w., heavy rain and violent squalls. The sky and horizon assumed a grayish color, and the sea became so furious as to prevent all headway; hove-to on the port tack until 12 hours, when it was blowing strongly, se. gale, barometer falling until 15 hours, when there was a sudden fall from 29.88 (759.0) to 29.49 (749.0), with furious sea from sw., s., sw., and w., threatening appearance and heavy rain.”

“Judging that the centre of cyclone bore approximately sw. from the vessel, ran ship to the northeastward in order to reach the managed antecedents of the cyclone; barometer stationary at 29.49 (749.0); estimated position, latitude 25° 42' N., longitude 53° 52' west of Greenwich.”

Sept. 8th-9th.—Strong se. gale, high sea from se., s., sw., and w., threatening weather, rain squalls and violent gusts of wind; at 10 p.m. wind hauled to sse., and blew with great force; very high sea; rain; barometer stationary at 29.49 (749.0). At 13 hours, ship put on the starboard tack; at daylight the wind hauled to s., no change in barometer; at 20 hours the barometer began to rise; at noon, estimated position, lat. 25° 45' N., long. 51° 05' W. of Greenwich, barometer 29.76 (755.0), rising. 9-10th: Fresh s. winds, barometer 30.0 (782.0) weather very cloudy, small rain, seas less violent and weather improving; at 12 hours laid on our course, full speed ahead; sky clearing.”

The s. s. “Antonio Lopez” Domínguez, commanding, on the 8th had fresh s. to se. wind and rainy weather; at noon strong se. wind, high sea from s. and sw., barometer falling; position about N. 25° 3', W. 51° (longitude supposed w. of Greenwich). During the 7th the wind became stronger and was accompanied by heavy rain; at night it increased to a hurricane from s. and one, with violent squalls and high sea from s., sw., and w.; at 20 hrs. the barometer rose slightly; at 22 hrs. the wind hauled to nw., and the barometer again fell; at 24 hrs. hard squalls from n., barometer rising. On the 8th sky clearing and barometer rising.

The vessel’s position on the 7th is not given, but from the above report it would appear that she crossed the path of the cyclone and was to the northeastward of the vortex.
8.—This storm, which was remarkable on account of the abnormal path of the centre, is a continuation of that described under “Areas of low barometer” as number vii. It apparently developed off the coast of Florida on the 10th, the earliest marine data in connection therewith being the report of Captain Vogel, of the s.s. “City of Palaikia,” running between Jacksonville, Florida, and Charleston, South Carolina, as follows:—Weather on the coast last night (9th) from Charleston to about fifteen miles south of Savannah, heavy sea bearing in from ese, and wind at the time from ne. to e., force from 8 to 10 knots, the latter during squalls of rain and wind; overcast and very cloudy. The wind did not back to wnw. before 5 a.m. of the 11th.

The s.s. “Gaudeloupe,” at Key West, Florida, on the 11th, had fine weather until the night of the 10th, when she had light rains and wind squalls between the Bahama and the Florida peninsula. Other vessels plying between Havana and Key West reported pleasant weather during the early part of September.

During the 11th and 12th the storm-centre appears to have moved inland and was in South Carolina, being attended by very heavy rains at stations on the south Atlantic coast; during the last-mentioned date it moved off the coast into the Atlantic, where it rapidly increased in intensity and exhibited the characteristics of a tropical hurricane. Captain Pency, commanding the s.s. “Algers,” between N. 27° 55', W. 78° 35', and N. 36° 15', W. 74° 40', from the 11th to 14th, reported a phenomenal backing of the wind from sw. on the 11th, by way of e., to ne. on the 13th.

During the 12th, the wind shifted to ne. at stations off the North Carolina coast, and blew with the force of a strong breeze; by the 13th the ne. winds were felt at sea, where they increased to moderate or strong gales. Southerly and southeastwardly winds were reported by vessels south of N. 35° and east of W. 75°. During the 13th, the following vessels experienced the severity of the ne. gales: the bark “Alabama,” in N. 31° 30', W. 78° 30', had a heavy ne. gale lasting from 19 to 21 hours, during which she had decks swept, spars and sails carried away, and sustained other damage. The schooner “Five Brothers,” about one hundred and forty miles east of Charleston, lost and split sails during a heavy ne. gale, which lasted forty-eight hours, and the small steamer “Dos Hermanos,” was wrecked on the Frying Pan shoals, off the North Carolina coast, during the same gale.

During this day the atmospheric depression seems to have been of small diameter, as vessels bound southward, and those to the eastward, observed little or no barometric indication of the existence of so severe a storm. The disturbance moved southeastward; its course and the position of the centre being shown by the report of the German bark “Paul,” on the 14th. The following is an extract from the log of that vessel for September 14 and 15, 1884, furnished by Captain Ang. Klatt:

Sunday 14th—4 a.m., strong wind from wsw., lightning in sw., barometer, 29.20 (756.1); 6 a.m., blowing strongly from w. and nw., barometer, 29.25 (753.5); 8 a.m., strong wind on beam-ends, no sail set, blowing hardfully, barometer, 29.60 (755.8); 12 noon, N. 29° 11', W. 75° 45'; no sail set, very high seas, barometer, 29.56 (749.5); 4 p.m., same weather; some of the well-fasted sails were blown to pieces on the yards, ship all the time on her beam-ends, barometer, 29.20 (741.7); 6 p.m., weather moderating, barometer, 29.20 (741.7); 8 p.m., calm, high seas running, sky very bright but barometer falling, 29.00 (736.5); 11 p.m., wind fell out from ne., with very heavy rain, barometer, 29.00 (736.5).

Monday, 15th.—11 a.m., morning wind wearing back to nee., terrific squalls, rising barometer 29.15 (744.1); 4 p.m., wind from ne. blowing at its strongest, heavy rain, barometer, 29.20 (741.7); 8 a.m., wind nww., blowing at its strongest, heavy rain, barometer, 29.35 (745.0); 12 noon, wind nw., full gale, barometer, 29.20 (749.8); 4 p.m., wind nw., full gale, barometer, 29.20 (746.0); 8 p.m., wind nw., moderating at times, barometer, 29.70 (754.4); 12 a.m., light wind, barometer 28.80 (753.9); Ship's position at the finish of the hurricane, N. 27° 20', W. 75° 50'. Lost a whole suit of sails and had everything movable swept from the deck.

Captain Brown, commanding the s.s. “Grip Fast,” reported: 14th, in N. 29° 14', W. 74° 48', at 4 a.m., wind sw., fresh, 8 a.m., shifted to nw. in a heavy gale, with high sea, barometer 29.8 (756.9); at 4 p.m., barometer 29.7 (754.4); 8 a.m., 29.5 (749.3), wind shifted to ne. and blew a strong gale, with thick, heavy rain squalls; at 2 p.m., lost foresail, jib, and maintopmast stay-sail, and at 4 p.m., shipped a heavy sea, which completely filled the engine room and stoke hole.

The schooner “R. M. Walls,” in about N. 33° 20', W. 75° 0', at noon of the 14th reported strong ne. wind with very high sea, barometer 30.1 (764.5), remaining stationary during the entire day; sun occasionally visible through mist and cloud.

The s. s. Valencian, Samuel Hess, commanding, reported: 14th, in N. 29° 30', W. 75° 35', barometer 29.9 (759.0) wind by e., force 8. Heavy sea from sw., at 9 a.m. wind suddenly veered to sw., in a squall of hurricane force, with heavy rain and lightning; remainder of the day strong gales and squalls.

On the same date the schooner “Carrie E. Woodbury,” L. Bryant, commanding, in N. 30° 40', W. 70° 45', had barometer 30.04 (763.0), wind e., force 6.

Captain R. de Echevarrieta, commanding the s. s. “Andes,” reported as follows: at 5 a.m., on September 14th, the wind shifted from sse. to ne. and increased in force very rapidly, with heavy rain and occasional flashes of lightning; after 3 p.m., the wind shifted gradually from n. until it reached nne. at 6 p.m. at which time it blew strongest; heave to from 8 p.m. till morning of the 15th: barometer at midnight 29.75 (755.1); ship's position at noon of the 14th, N. 30° 49', W. 74° 27'.
thirty-third parallel and west of the seventeenth meridian, and numerous disasters to shipping were reported.

The position of the storm-centre on the 15th cannot be determined from the data as yet, but the following reports show its presence, probably at a great distance east of the schooner "Anna Bell," in latitude "Anna Bell" in N. 30° 17', W. 75° 12', had a heavy gale, with annual calm and very heavy gale from n. to e.

The schooner "Bonanza," in N. 31° 27', W. 77° 45', had heavy sea and strong eastern gale throughout the day.

Schooner "Clio," in N. 44° 44', W. 55° 10', reported the barometer fell 30.2 (767.1) at 12 a.m. of the 16th, and the barometer rose to 30.2 (767.1) at 12 a.m.

During the 16th the storm-centre appears to have moved very slowly southward. Its position on the 16th is indicated by the report of the schooner "R. M. Walls." The latitude and longitude of the schooner at the time she encountered the central calm are not stated; her position, however, may be approximately given as being between N. 25° 29' and W. 74° 16' and W. 75° 10'.

At midnight the 15th the barometer rose to 30.2 (741.7). At 11 a.m. of the 16th the gale was at its height, barometer 30.18 (742.1), and it then suddenly died out, leaving the vessel wallowing in a dead calm in the trough of a very heavy sea, rain squalls passing. After about three hours, during which the wind had died down, the small vessel burst out from a moderate to a stormy force. At 4:30 a.m. wind shifted from n. to n.e., force 7, weather clearing, barometer rising. The wind afterward shifted to n.w. and decreased in force. From 8 a.m. to noon a high sw. sea prevailed.

The ship "J. T. Berry," in N. 40° 1', W. 56° 9', reported, 7 p.m., wind howling from s.s. to w. and blustering with hurricane force with very high seas; ship lost sails and spars. Several vessels reported heavy weather on the southern edge of the Banks. By the 21st the pressure had increased to 30.2 (767.1) and above, and the region east of the fortieeth meridian, and the area of low barometer was shown near N. 51°, W. 25°, where the readings ranged from 29.6 (754.1) to 29.9 (759.4), with moderate to strong n.w. winds near W. 30° and w.w. winds on the fortieth parallel. By the 25th the area of low pressures was in the northwest of Ireland.
5.—This was a tropical hurricane, the first indications of which were noted on the 7th and 8th, near the eastern end of Cuba. Prior to and during the 7th, very heavy rains are reported to have occurred in Jamaica; on the 7th, the s.s. "Cienfuegos," F. M. Fairclough, commanding, sailed from Cienfuegos, Cuba, for Santiago, and had strong e. winds with cloudy weather, barometer 29.8 (750.9). On the morning of the 8th, the "Cienfuegos" was off Cape Cruz, with light e. breeze and heavy rainfall, wind increasing from 8 a.m. to noon; during the afternoon, the wind shifted to ne., and ne., with heavy rain squalls. At 4 p.m., the vessel was in the harbor of Santiago, and from that time until 9 p.m., the wind blew in hurricane-like squalls, with rain, from e. to ne.; and at 9.30 p.m., it was blowing a hurricane from ne., with barometer down to 29.58 (751.3); by 10 p.m., the wind had shifted to nw., and was blowing with hurricane force, barometer 29.51 (751.5); at 11 p.m., it was w. by n., with hurricane squalls, barometer 29.6 (751.8), and rising; at midnight, barometer 29.7 (754.4), wind s., moderating, although the squalls were still heavy and frequent. By noon of the 9th, the wind had shifted to sw., blowing strongly, weather clearing, with barometer 29.85 (758.2).

From the report of the "Cienfuegos," and the following press report, it would appear that the hurricane passed over the eastern end of Cuba:

A hurricane, coming from the direction of Jamaica, passed over Santiago de Cuba, on Wednesday night (October 8th). Some small vessels in the harbor, and a number of houses in the city, were slightly damaged.

In the absence of reliable data, the subsequent path of this cyclone cannot be determined; it did not, however, approach Havana, since the observations at that station during the first decade of the month, do not show the existence of the disturbance; a very slight barometric depression appeared from the 7th till 14th, but during this time the weather remained dry and clear.

5a.—This was a tropical hurricane, the centre of which was to the northward of Cuba on the 11th, but its position could not be definitely determined until the 12th. This hurricane may have been identical with that which crossed eastern Cuba on the 8th, but the data received up to date are too meagre to warrant the tracing of a continuous curve.

On the 11th, the s.s. "Ivanhoe," off Cape Mayasi, Cuba, had a southwest wind of force 7, increasing during the day to force 8, with heavy rain. Captain Fyde reported having passed numerous trees and vegetable matter, evidently washed out by heavy rains. The s.s. "Cienfuegos," which was in the harbor of Guantanamo, Cuba, during the 10th, 11th, and 12th, reported light barrelling winds from s. to se., with heavy rains during those dates. On the 12th, the storm-vortex was apparently between Crooked Island and Abaco. The s.s. "Ivanhoe," was near the former place at noon of the 12th, and had a sw. gale of force 8 to 10, with heavy rain, barometer 29.6 (751.3), and falling, while the schooners "Josephine," in N. 27° 30', W. 70° 53', had ne. gale, blowing in gusts, with squalls of rains, barometer 28.85 (753.1), and "Isabel Alberto," in about N. 27° 41', W. 75° 21', had a severe gale, with heavy showers of rain and high se., sea-swell, barometer 29.85 (757.1).

During the 13th the hurricane seems to have curved to the east-northeastward in about N. 29° 30', W. 79°. The steamers "Kohler," and "Jamaican," the former in N. 27° 11', W. 70° 33', and the latter in N. 26° 57', W. 79° 27', had south-easterly gales of force 7 to 8, with very heavy rain squalls, thunder and lightning, and high seas from all directions, barometer 29.82 (752.3). The "Ivanhoe," during the forenoon of the 13th, had a s. gale of force 10, with terrific squalls, heavy rain, and dark, gloomy weather, and at noon was in N. 29° 11', W.
74° 23'; at 2 p. m. the wind shifted to e. and blew a whole gale, barometer (correction unknown) 29.10 (739.1), and at 8 p. m. it had shifted to ne., force 10, barometer 29.0 (736.6). The s. s. "Cienfuegos," off Cape May, on the 13th, had strong southwesterly wind, with heavy rain squalls and barometer 29.85 (738.2), rising. During the 13th the progressive movement of the cyclone appears to have been very slow, and on the 14th its centre was again well-defined in about N. 26°, W. 74°. The s. s. "Kelewyder," during the morning of the 14th, had sse. wind of force 9, barometer (correction unknown) 29.58 (751.3); at noon she was latitude 26° 14' N., longitude 74° 20' W.; during the afternoon the barometer continued to fall and the wind shifted from s. to se., ese., and e., blowing with hurricane force throughout and with heavy rain squalls from s. and sw.; at 4 p. m. the wind shifted to east, barometer 28.95 (735.3), and at midnight it was ne., moderating. On the same date the "Dakar," in N. 26° 20', W. 74° 15', at noon, reported se. by s. to se., winds of force 5 to 8 and barometer falling until 4 a. m., when there was less wind and the sky became clearer; at sunrise the sky was clear overhead while a dense bank of clouds, like a wall, appeared in the southwest, with a wild and threatening appearance all around the horizon. At 8 a. m. the vessel appeared to steam into the bank of cloud above referred to, and from that time until noon she experienced heavy squalls of wind and rain, with high, confused sea; during the afternoon the wind shifted from sse. to e., and at midnight it was blowing from the ne. with force 9, barometer (correction unknown) 29.25 (742.9). During this time, vessels near the Florida coast had heavy n. gales; those off the Georgia and Carolina coasts had ne. gales, while those to the eastward of the seventieth meridian and between N. 25° and 30° had strong se. winds, steady in direction, but accompanied by heavy rain squalls. On the 15th the storm-centre passed to the eastward of the seventieth meridian; to the westward the winds had shifted to n. and nw., and blew with the force of a strong gale until midnight of the 15th, the barometer rising gradually. Vessels to the eastward of W. 70° had heavy gales, the wind shifting from se. to s. and sw., with falling barometer, and the strong ne. and e. gales continued in the Gulf Stream and on the thirtieth parallel. On the 16th the storm-centre moved northeastward to about N. 28°, W. 68°, and the heavy gales continued in all quadrants of the disturbance; by the 17th it had passed to the eastward of the sixtieth meridian, without any decrease of energy, as the vessels which came within its influence reported heavy sw. to ne. gales; while those to the westward of 65° had moderate to strong w. and nw. gales. After the 17th this disturbance passed beyond the area covered by the reports as yet to hand.