

general motion is quite insignificant compared with the tidal current.

Current-measurements on Storeggen.

In Fig. 180 we see some current-lines of a totally different form, the results of a number of measurements made on Storeggen, westward of Aalesund, on the 12th and 13th July 1906. A line is drawn for each of the following depths below the surface: 2, 20, 50, 100, and 200 metres (the depth of water being 260 metres). It is seen that the current on the whole flowed in a north-easterly direction at all depths, but the

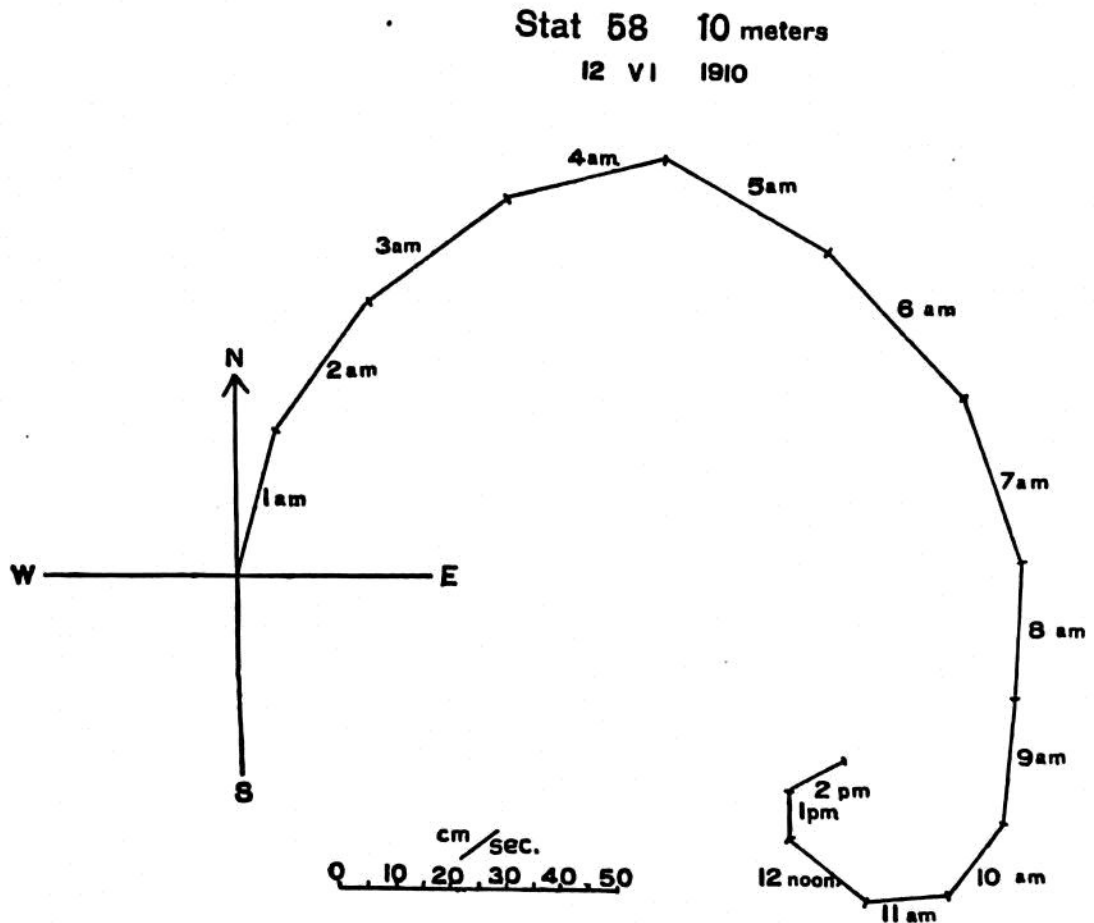


FIG. 181.—RESULT OF CURRENT-MEASUREMENTS AT 10 METRES AT STATION 58, SOUTH OF THE AZORES (12th June 1910).

direction was not constant, as implied by the bends in the lines. The variations of direction were due to the tides, but here the tidal current was weak compared with the general motion of the water-masses. In this place the coast-current of the upper 75 or 100 metres, and that portion of the Gulf Stream which traversed the layers below, both ran towards the north-east; had there been no tide-motion on the bank, the lines would probably have been straight, not sinuous.

The measurements at these two stations give an idea of the movements of the water-masses in the sea, and show that current-lines may have very different courses, largely determined