

on possible vortex movements. Four parallel sections were made, the two in the middle by the "Michael Sars," the southerly one being represented in Fig. 190, and the northerly one in Fig. 191. In the map of the stations (Fig. 104, p. 122) the position of the sections is seen, the distance between them being 20 to 25 nautical miles. Although the sections were so close together they differed greatly. In the northern section the lines are fairly regular; high salinities of more than 35.25 per thousand are found only in the neighbourhood of Shetland, not in

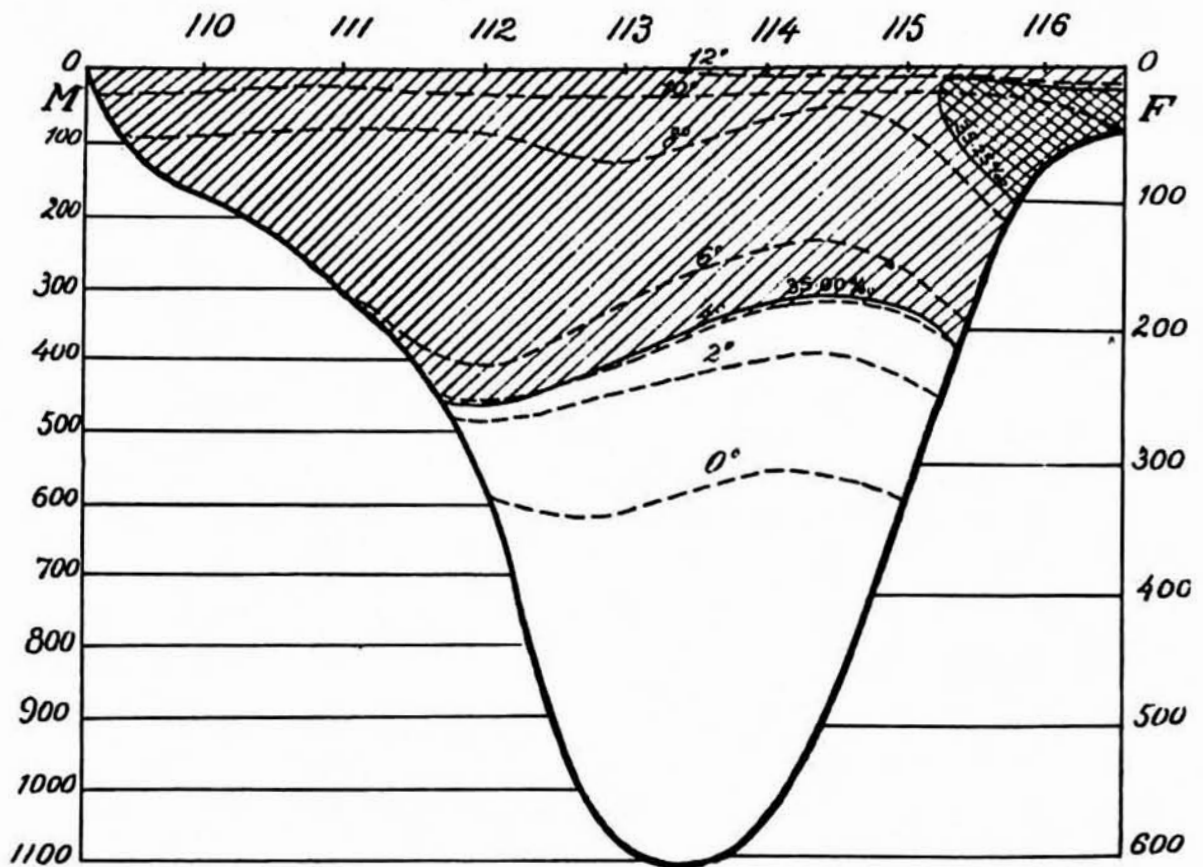


FIG. 191.—THE NORTHERN SECTION IN THE FAROE-SHETLAND CHANNEL (11th-14th August 1910).

the middle of the channel. Vertical oscillations may have had great influence on the appearance of the section. The two sections might not have presented such great differences if the observations had been taken at other times, but in any case they point to other irregularities, in the first place to vortices with vertical axes, similar to those known in rivers, only very much larger. These vortices have rendered the motion of the water highly complicated. The "Atlantic water" has moved towards the north, having a breadth of 50 or 60 miles in the neighbourhood of Shetland; between Stations 105 and 106 the water of the upper layers has probably moved southwards, between Stations 106 and 107 to the north, and so on. Previous investigations