Observations in the Mediterranean.

Gibraltar, the "Michael Sars" entered the Mediterranean, and took observations at Station 19, the hydrographical conditions being shown in Fig. 197. The surface temperature varied from 16° to 17° C., and the salinity was nearly 36.4 per thousand. The temperature decreased and the salinity increased downwards, until we struck the Mediterranean deep water at a depth of about 160 metres; from this point downwards we found exactly the same temperatures and salinities as in the undercurrent in the straits. This was on the 2nd May, between 10 A.M. and 1 P.M.; the observations in the uppermost 300 metres were made between 10.30 and 11.30 A.M. Judging from the previous measurements the inflow in the straits should then be about its strongest. Between 5 and 6 P.M. some of the observations were repeated, and the boundary between the surface-layers and the deep water then lay somewhat higher; it might be a matter of 10 or 15 metres. The under current setting out of the straits was then very strong and the surface current comparatively feeble. So there were fluctuations in the position of the boundary eastward of the straits corresponding to the fluctuations in the straits, only considerably smaller, because the current-velocities naturally would be much smaller where the basin was broad.

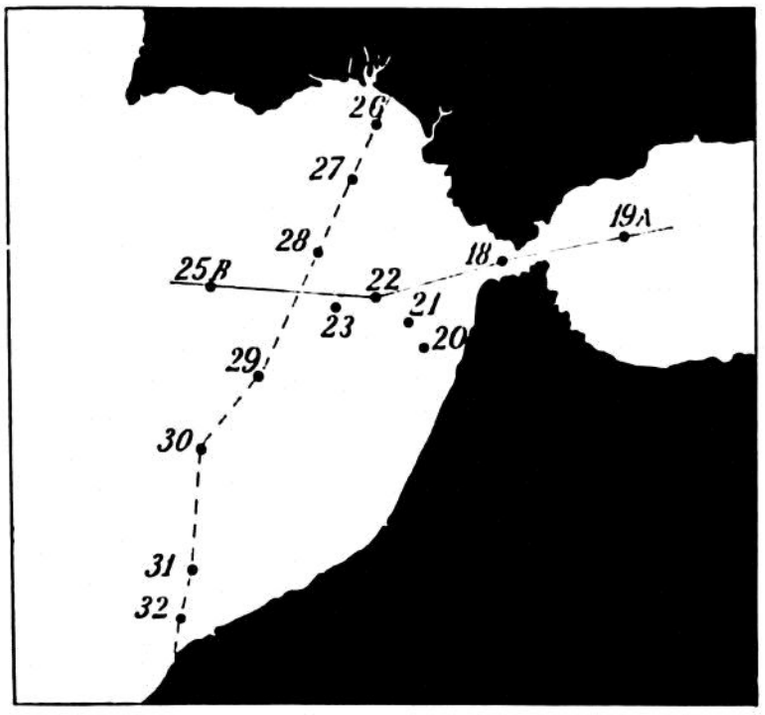

FIG. 198.—"MICHAEL SARS" STATIONS IN THE SPANISH BAY BETWEEN SPAIN AND MOROCCO IN MAY 1910.
The lines indicate the positions of the two sections represented in the two following figures.

Observations in Spanish Bay.

A few days later a number of observations were taken in the Spanish Bay westward of the straits. The positions of the stations are indicated in Fig. 198, and the salinities and temperatures are shown in the two sections: Fig. 199, in an east and west direction, and Fig. 200, in a north and south direction. In the east to west section the salt Mediterranean water with a salinity exceeding 38 per thousand is seen stretching out through the Straits of Gibraltar, its salinity, however, soon decreasing