Sir John Murray & Johan Hjort, The Depths of the Ocean: Scientific Researches of the Norwegian Steamer Michael Sars (1912)

the vessel is able to tow through the water, and by comparing the catches in the manner described in Chapter IX. one can ascertain the depths at which the animals lived. It is really a development of the plan adopted by the "Challenger," which towed its small nets along at different depths, or else attached them to the sounding-line (see above, p. 34).

Centrifuge.

The pelagic investigations of recent years have shown that a great many marine organisms are so small that they pass through the meshes of all nets—even the finest silk nets (see

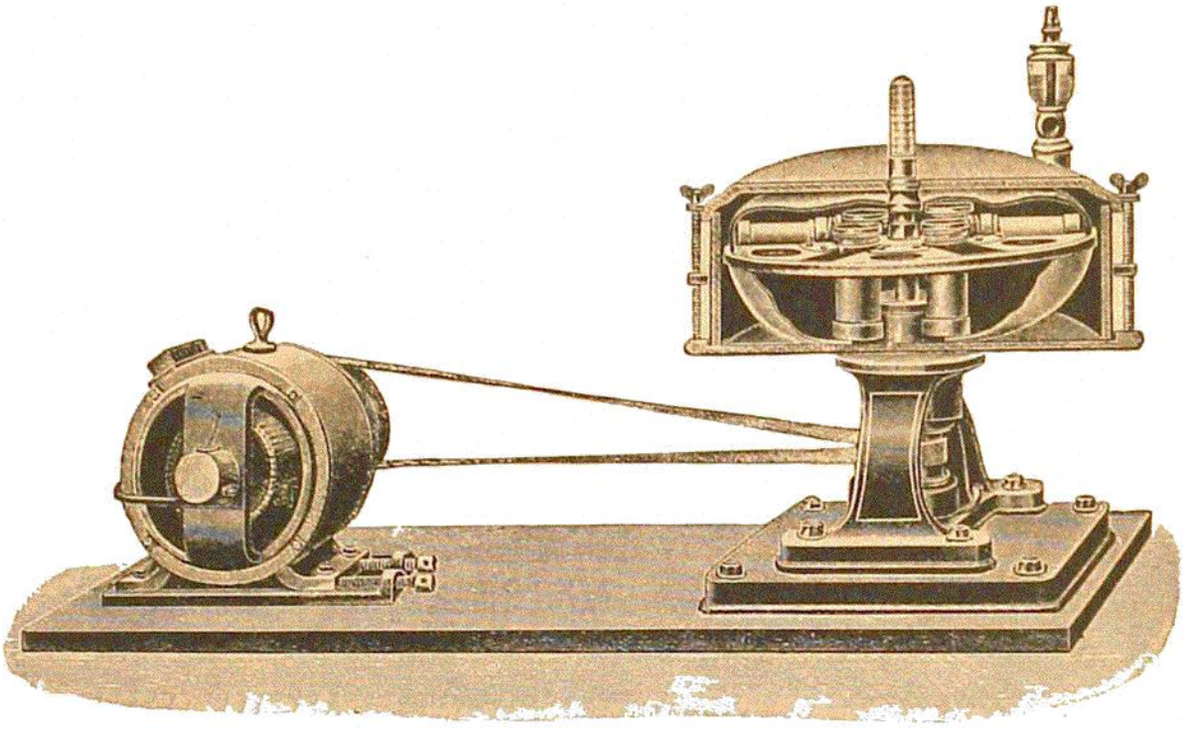

FIG. 35.—CENTRIFUGE DRIVEN BY ELECTRIC MOTOR. (From a catalogue.)

Chapter VI., where these organisms and their occurrence are described). To catch them in greater quantities we employed a large centrifuge (Fig. 35) as used by physiologists, which could centrifuge 1200 cubic centimetres at a time. The centrifuge was driven by one of the small steam-winches usually for a period of seven minutes and at a speed of 500 to 700 revolutions per minute.

This short description of the outfit of the "Michael Sars" does not claim to be exhaustive. During past years probably most kinds of fishing gear and scientific instruments available for the investigation of the sea have been made use of by us. When undertaking a definite limited cruise, however, a programme of the researches contemplated must necessarily be drawn up in advance and the gear selected accordingly.

Our Atlantic cruise proved that a greater number of appliances could hardly have been employed during a cruise

http://19thcenturyscience.org/HMSC/HMSC-Reports/1912-Murray/README.htm