

Large closing  
nets.

diameter at the mouth and 9 metres long, one of silk and the other of net; one of these is depicted open on the right and shut on the left in Fig. 30. They proved to be our most successful pelagic appliances. We used them sometimes as vertical nets and sometimes for towing. The closing mechanism

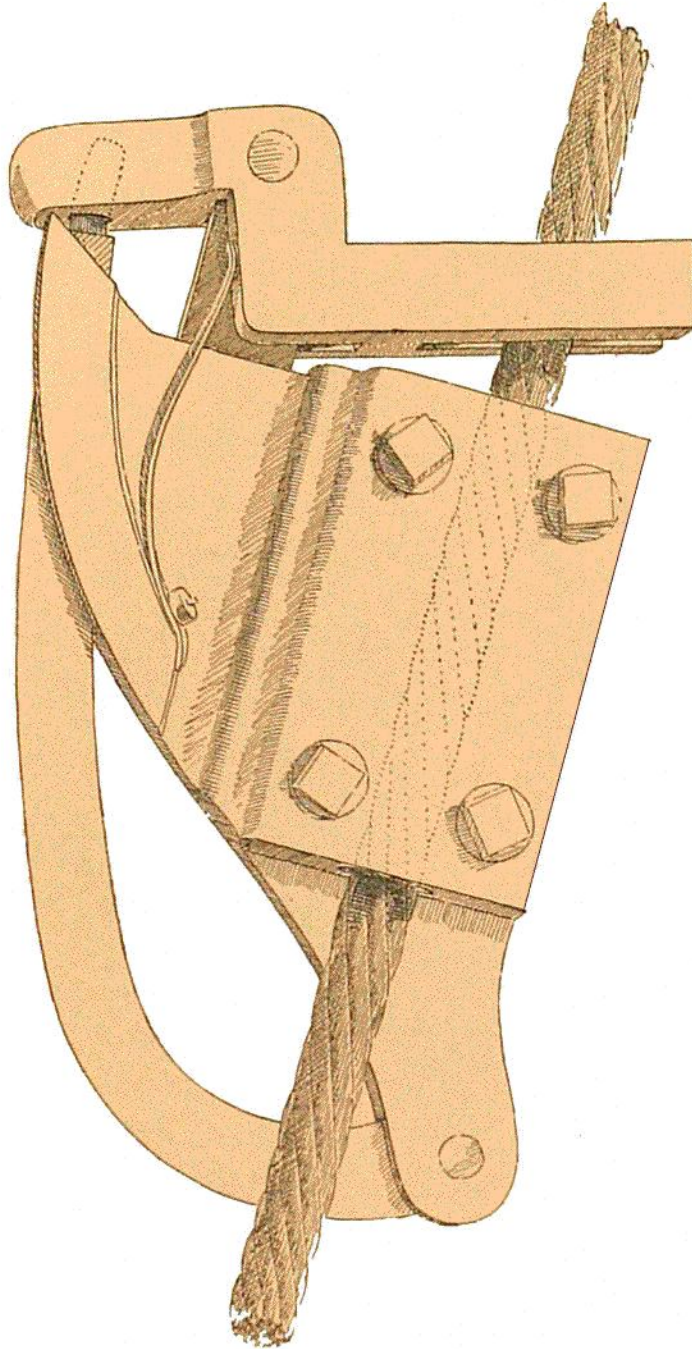


FIG. 31.—CLOSING MECHANISM.

(Fig. 31) was constructed on Nansen's principle. A slip-weight sets free the cords that support the ring, which falls down and leaves the whole hanging by a noose. This noose draws the net together so that nothing more can enter it. Two sizes of mesh are used in the construction of these nets; in the fore part a mesh of about 1 centimetre and in the after part one of almost  $\frac{1}{2}$  centimetre from knot to knot.

In deep waters, however, and especially out in the open ocean, even these large appliances, if merely used as vertical closing nets, fail to furnish a representative picture of the animal life. The animals can only be captured by long horizontal hauls, and therefore to ascertain what exists at the different depths we must tow a large number of appliances simultaneously.

Method of  
using tow-  
nets.

Fig. 32 shows the plan we generally adopted during the Atlantic cruise of the "Michael Sars." Two lines were used: a long line from the big winch for the deep-water appliances, and a shorter one from the after winch for lesser depths. Silk tow-nets either 1 metre or  $\frac{3}{4}$  metre in diameter, and Petersen's young-fish trawls were alternately attached, and to