

Sars." We have found that if the appliance is sent down open to a considerable depth, immediately closed and hauled in again, it fails to capture anything, thus proving that vertical appliances need not be closed while being lowered.

For studying the vertical distribution of larger organisms Chun used during the "Valdivia" Expedition a large silk net, 4 metres in length (Fig. 16). By lowering it to different depths

Chun large net.

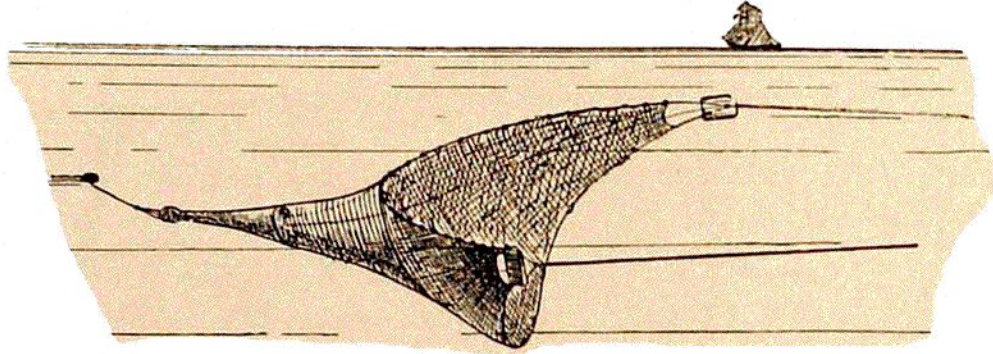


FIG. 17.—MONACO'S PELAGIC TRAWL. (From Steuer.)

and comparing the catches so obtained, he could determine at what particular depths the animals lived, and he succeeded in collecting by this means valuable data as to pelagic deep-water forms.

Prince of Monaco's pelagic trawl.

The Prince of Monaco has also added largely to our knowledge of the habitats of the larger pelagic organisms by means of his pelagic trawl (Fig. 17), which is designed for

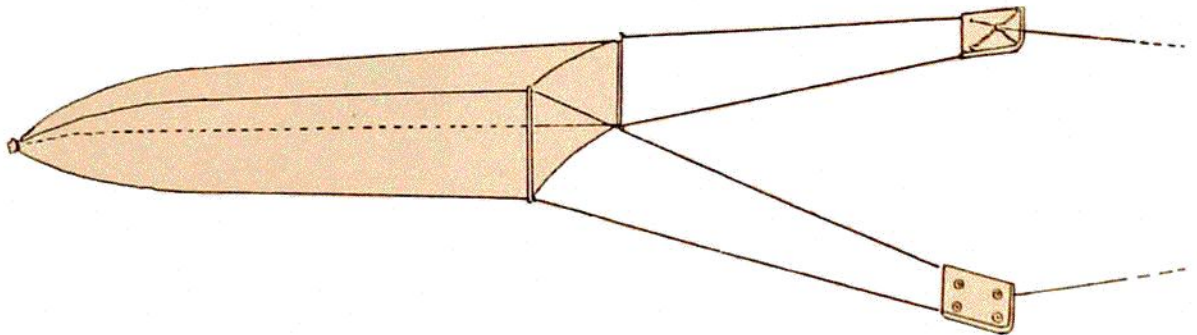


FIG. 18.—C. G. JOH. PETERSEN'S PELAGIC YOUNG-FISH TRAWL. (From Schmidt.)

being towed horizontally through the water. In addition he made some remarkable captures of large pelagic animals, chiefly cuttle-fish, by shooting whales and examining their stomach contents, for the whale is still far more capable of catching living marine creatures than any scientific appliance hitherto invented.

Petersen young-fish trawl.

The young-fish trawl designed by C. G. Joh. Petersen (Fig. 18) is a considerable improvement on the Prince of Monaco's pelagic trawl. It is very easy to construct, and may be of any size or mesh. For catching young fish, etc.,