

the surging-drum of the donkey engine, from which it was taken by the men and coiled on the pins.

The implement which we employed throughout the several cruises of the PORCUPINE, for bringing up animals from the bottom, was the naturalists' dredge, of the form first

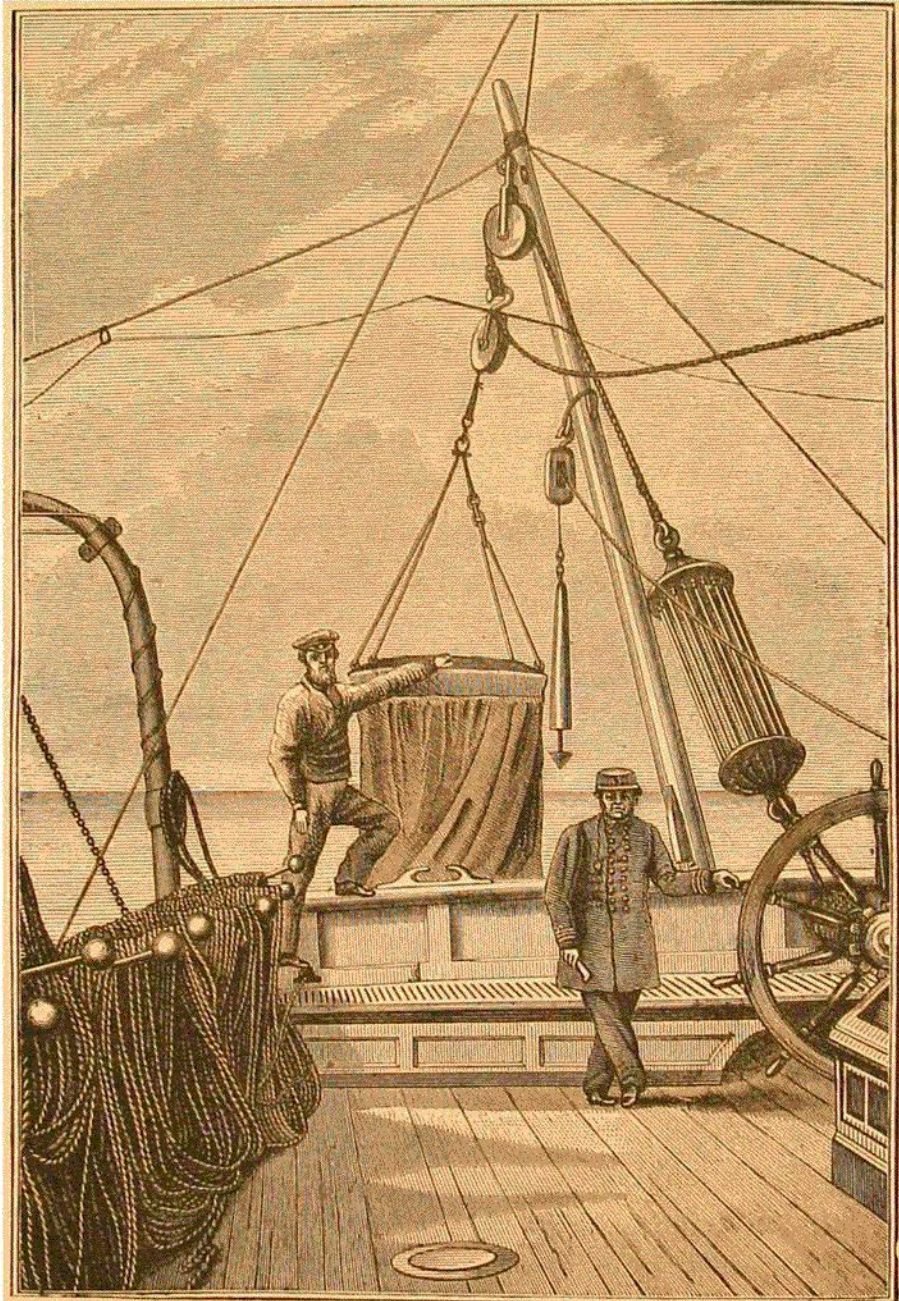


FIG. 3.—Sounding and Dredging from the Stern Derrick of the PORCUPINE.

devised by the late Dr Robert Ball of Dublin, increased in size and otherwise slightly modified to suit the size of the vessel and the command of steam-power. The construction of the frame of one of the dredges which we used in the Bay of Biscay is shown at figures 4 and 5. The length of the dredge-frame was 4 feet 6 inches, and it