

out. The weight of the frame of this dredge, the largest we ever used, was 225 lbs.; it was forged by Messrs. Harland and Wolff of Belfast of the best Lowmoor iron. The dredge-bag was double—the outer of strong twine netting, the inner of bread-bag. Three sinkers—one of 1 cwt., the other two of 56 lbs. each—were attached to the dredge-rope at 500 fathoms from the dredge.

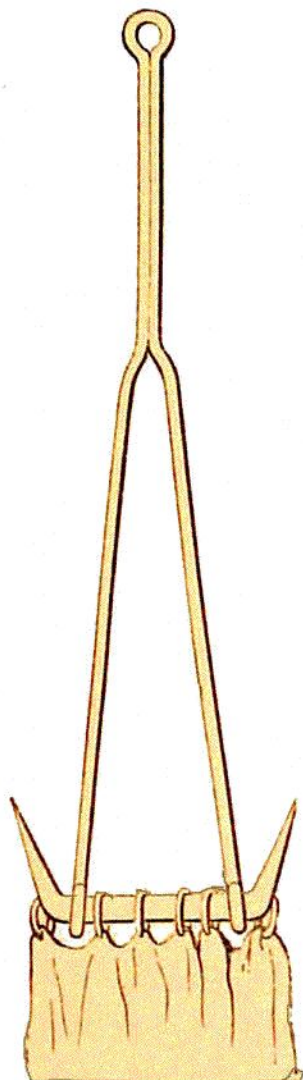


FIG. 49.—The End of the Dredge-frame, showing the mode of attachment of the Bag.

The operation of sounding at a depth of 2,435 fathoms in the Bay of Biscay on the 22nd of July, 1869, has already been described in detail. When the depth had been accurately ascertained, about 4.45 P.M. the dredge was let go, the vessel drifting slowly before a moderate breeze (force=4) from the N.W. The 3,000 fathoms of rope were all out at 5.50 P.M. The diagram (Fig. 50) will give an idea of the various relative positions of the dredge and the vessel according to the plan of dredging adopted by Captain Calver, which worked admirably, and which appears, in fact, to be the only mode which would answer for great depths.

A represents the position of the vessel when the dredge is let go, and the dotted line A B the line of descent of the dredge, rendered oblique by the tension of the rope. While the dredge is going down the vessel drifts gradually to leeward; and when the whole (say) 3,000 fathoms of rope are out, c, w,