

during this time the surface water itself may have been moving, the actual movement of the watch buoy, with reference to a fixed point, was therefore represented by the resultant of the movement of the surface water and the movement of the watch buoy through the surface water.

Figure 26 shows the result of the observations made on the currents on the 24th April 1873. The surface current was found to be nearly N. 60° E. 0·24 mile per hour; the watch buoy of the drag at 50 fathoms was found to move E. 0·24 mile per hour from the surface current log; the movement of the watch buoy from a fixed point was therefore N. 75° E. 0·46 mile per hour. In the same manner the current was ascertained at 100 fathoms, 200 fathoms, &c.

These results were assumed as giving the rate and direction of the current at different depths with sufficient accuracy to ascertain any marked movements, but it is evident that they are not strictly accurate, as no allowance was made for the retarding or accelerating influence of the surface water on the watch buoy, or of the intermediate water on the line.

To facilitate lowering and hauling in the current drag, a small derrick was made to ship in the boat where the foremast stepped.

