

duties in which she was to be employed, were carried out under his general superintendence. All the guns were removed with the exception of two, and the space which they and the stores and ammunition in connection with them had occupied, was devoted to the necessary accommodation for laboratories, workrooms, dredging and sounding rope, storage of specimens, spirits of wine, boxes, trawls, and nets.

The following description of the arrangements finally adopted on board the ship, will be readily understood by reference to the accompanying plans.

UPPER DECK.

On the forecastle three cordage racks, each 5 feet square and $3\frac{1}{2}$ feet high, were placed, and in them the dredging rope in use was coiled, each rack holding about 2000 fathoms. Attached to each side of the ship, just before the foremast, was a reel of sounding line suspended on spurs extending from the bulwarks, so that it could revolve freely; one reel held the line used to ascertain the depth, and the other that set apart for temperature observations. Projecting outwards from each side abreast the foremast, were two small platforms level with the upper deck, placed exactly under the foreyard, so that the deep-sea sinkers could be lowered into the water without the necessity of hoisting them over the bulwarks. These platforms also rendered it possible to work lines simultaneously from the fore and main yards, so that in fine weather specimens of water could be obtained from various depths forward, whilst temperature observations were being carried on from the dredging platform. In the central part of the ship, before the mainmast, a dredging platform was built level with the hammock nettings, from which the operations of dredging and trawling could be pursued, and upon which the contents of the dredge might be emptied, so that the naturalists, while engaged in sifting the mud and preserving the specimens, might not be interrupted by the seamen working the ropes; and also in order that the refuse from the dredge might be thrown overboard without dirtying the decks, for which purpose two large shafts were fitted from the platform to the water's edge. The sieves and tubs used in sifting the mud and ooze brought up in the dredgings were kept on the port side of this bridge. Here also were permanently situated two large oblong boxes, with strong zinc cases inside, for holding spirit, in which large fish, reptiles, and mammals were kept for about ten days, before being finally packed in tins for transmission to England.

Under the after part of the dredging platform a small engine was placed, of eighteen horse-power, which worked a series of drums attached to each end of a shaft extending across the ship, so that two lines could be worked simultaneously, one on each side; another advantage was also gained by having drums on each end of the shaft, for, when the strain on the dredging rope was so great that the friction of the drum revolving was not sufficient to make it bite (even with ten or twelve men holding on behind,