

practical operations in dredging, sounding, and taking bottom and serial temperatures, was conducted by the naval officers.

The Naturalists' work-room corresponded with the chart-room, but on the port side, and as this was a novel addition to the equipment of a surveying ship I describe it somewhat in detail. The work-room (fig. 12) was 12 feet wide by 20 long, the height between decks 6 feet 10 inches. It was lighted by a large square port, a small scuttle, and two cupola sky-lights, and the side towards the main-deck was closed by movable glazed sashes. At either end of the room were fitted broad mahogany dressers, with knee-holes and spacious cupboards, and tiers of drawers beneath; and book-shelves and cupboards against the bulkheads above. At the back of the dressers all round were racks and holes to fit the fish globes and the bottles of various sizes in constant use, and similar racks were fitted wherever there was available space, against the ship's side. For convenience of working at sea it is impossible to have too many such racks, into which bottles may be instantly put in safety in case of the vessel suddenly rolling. Racks for test-tubes, which are simply thick slabs of mahogany drilled with deep holes to fit the tubes set as closely as possible, were fitted against the sides. Similar slabs of smaller sizes were also used for standing on the table while tubes were being filled with specimens. Some of the drawers in the dressers were fitted with racks for smaller bottles for specimens under examination, or for reagents, and others which contained forceps, tools, corks, and all the innumerable small things required for our complicated operations, were cut up by vertical partitions into small compartments to prevent their contents being shaken together. The instrument-cases had each its own compartment in the drawers and cupboards, in which they were secured by battens, and a fresh-water tank and sink occupied a space against the side bulkhead.

Long shelves, with ledges running parallel with the beams overhead, gave a great deal of stowage room, and various implements, such as harpoons, botanical vasculums, an injecting copper, &c., were conveniently suspended from the beams and deck by hooks. A large table was placed across the centre of the work-room, running right up to the port, so that two persons sitting opposite one another at the end of the table close to the port had a good light for their microscopes. The most convenient height for the table, using chiefly Hartnach's microscopes, is about 2 feet 9 inches; the microscopes were secured to the table by brass holdfasts, like those in common use on carpenters' benches; the holdfast, when brought to bear upon the back of the footpiece, holds the instrument rigidly firm; two holes were bored in the table for the holdfast, one for holding the microscope in position when in use, and the other for securing it when set aside. The centre of the table was divided by low fixed battens into oblong compartments, for micro-reagents, canada-balsam, glycerine jelly, and the paraphernalia used in examining objects with the microscope, and mounting microscopic preparations; inkstands, and drawing materials. Two large moderator lamps swung below the cupolas, movable branches for candles