

### APPENDIX III.

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REPORT on the CHRONOMETERS supplied to, and the MERIDIAN DISTANCES obtained by, H.M.S. Challenger, between the 1st December 1872 and the 12th June 1876, by Staff-Commander T. H. TIZARD, R.N.

THE sixteen chronometers supplied to the Challenger at Sheerness were twelve box and four pocket watches, and in addition a deck watch for ordinary use on board.

The chronometer room was on the port side of the lower deck just abaft the mainmast. In it a platform was constructed on which a wooden tray with twelve partitions rested, and the box chronometers were packed in this tray with horse hair (at Sheerness), and remained there undisturbed until they were finally returned on the ship's arrival in England in 1876. The platform consisted of three wooden stools of elm, 4 inches in thickness, with legs 4 inches in height and width, constructed in such a manner that when these stools were placed one upon the other, the legs of the upper stool rested on the middle stool immediately over its legs, which again were over the legs of the lower stool, so that copper bolts could be driven through the stools and their legs into one of the main beams, and thus securely fasten the platform. The wooden tray was secured to the top of the upper stool with brass screws, care being taken to keep all iron away from the chronometers. Around the platform a wooden screen was constructed, which reached just above the top of the tray, and on the top of this wooden screen was a glazed lid on hinges, so that the chronometers might be seen for purposes of comparison at any time, but neither they nor the platform on which they rested could be touched without lifting this lid, which was only done once a day for the purpose of winding. The wooden screen which protected the platform and trays was secured to the deck, and kept perfectly free from any of the bulkheads, so that its movement, like that of the platform, depended only on the working of the beam on which it rested, and not on the working of the bulkheads, which were secured to beams at top and bottom. Before being packed in the tray the lids of the boxes which contained the chronometers were unscrewed from the hinges, the screws wrapped in paper and put in their respective boxes, and the lids put on a shelf overhead in the chronometer room.