C. Wyville Thomson, The Depths of the Sea (1873)

stant in its action, as the amount to which the bulb is compressed depends upon its form and upon the thickness and quality of the glass; thus the error of good thermometers of the Hydrographic Office pattern varies from 7° C. to 10°·5 C. at a pressure of 6·817 lbs. on the square inch, representing a depth of 2,500 fathoms. In thoroughly well-constructed thermometers, however, such as those made by Casella and Pastorelli for the English Admiralty, the pressure error is tolerably constant; and Captain Davis, R.N., who has lately conducted important experiments on this point, expresses his opinion that by an extended series of observations a scale might be obtained to correct the thermometers hitherto in use to a close approximation to the truth, and thus utilize to some extent observations which have been already made with our ordinary instruments.

In the 'Lightning' expedition in 1868 we used the ordinary Hydrographic Office pattern, and a large number by different makers were sent with us for testing and comparison. The depths not being very great, the general temperature results came out well, and were among the most singular phenomena which we had to record. Many of the instruments were very wild at a few hundred fathoms, and several gave way under the pressure. On our return in April 1869, Dr. W. A. Miller, V.P.R.S., attended a meeting of the Deep-Sea Committee of the Royal Society at the Hydrographic Office, and proposed encasing the full bulb in an outer covering of glass containing air, in order to permit the air to be compressed by the pressure of the

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