

mean of two observations; a string of thermometers was then sent down in detachments, to avoid the risk of too great a loss in case of an accident, at intervals of 100 fathoms, to within 100 fathoms of the bottom, or more usually to a depth of 1500 fathoms—considerably beyond the uniform layer.

Such observations gave us a very fair idea of the distribution of temperature along a section, and the general course of groups of lines joining points of equal temperature along the section gave very delicate indications of any general rise or fall. The word "isotherm" having been hitherto so specially appropriated to lines passing through places of equal temperature on the surface of the earth, I have found it convenient, in considering these questions of ocean temperature, to use the terms "isothermobath" and "isobathytherm;" the former to indicate a line drawn through points of equal temperature in a vertical section, and the latter a line drawn through points of equal depth at which a given temperature occurs. Isothermobaths are shown in schemes of a vertical section, such as those in Plates V., IX., XI., etc.; isobathytherms are, of course, projected on the surface of the globe. All the temperature observations have been made with the modification of Six's registering instrument known under the name of the Miller-Casella thermometer; and this instrument, although a great advance upon any other hitherto constructed, is essentially uncertain and liable to error from various causes; thus even a slight jerk causes the index to move slightly either up or down, and an observation is in this way very frequently vitiated. In almost every serial temperature sounding, one or two of the thermometers were evidently adrift from some such cause. There was an excellent proof that these eccentricities did not always depend upon differences of temperature. Very frequently, especially at considerable depths, where the differences were very slight, thermometers sent to greater depths gave indications higher than those above them. There may be no absolute rea-