

fathoms, as the difference of temperature between that depth and the bottom is very small. The observations were generally first made between 800 and 1500 fathoms. When 1500 fathoms of line had been "paid out," and the mark on the line carefully brought level with the surface of the water, the line was secured and kept quite perpendicular for five minutes, each thermometer then registered the temperature of the water at the depth to which it had been lowered. The line was then hove in, and as each thermometer reached the level of the sounding platform, or hammock rail, it was hauled in by the lizard, unbent, carefully read off, and registered. The temperatures were then taken from the surface to 700 fathoms in the same manner, or when they varied much they were taken at intervals of 25 or even 10 fathoms between the thermometers.

The results of these temperature observations were then corrected for errors of zero point, after which they were plotted on a paper of equal squares, specially provided for that purpose, and a curve of temperatures drawn, so that the temperature at any depth could be ascertained. The curve shows directly whether any of the results disagree with the temperatures shown by the main body of the thermometers, and if such were the case, the temperatures at those depths were taken again. When the temperature observations between any two places had been completed, a section was constructed from the temperature curves showing the relative positions of the isotherms from the surface to the bottom. The observations and curves used in the production of the Diagrams of Temperature given in this volume are published as Part III. of the Physics and Chemistry of the Expedition.

