(Fig. 8) of 1 cwt. is attached to keep it perpendicular, and immediately above a thermometer is placed; the line is then eased out to the first 100 fathoms, when a second thermometer is secured, and the line lowered to 200 fathoms, a thermometer being placed at each 100-fathom mark until six or eight have been attached and the line run out to the required depth, say to 1500 fathoms; it is now belayed and allowed to remain for a few minutes. The thermometers register the temperatures of the different depths at which they are submerged. The line is now hove in, and as each thermometer reaches the sounding-platform, it is removed, and the results are carefully read off. The temperature is then taken from the surface to 700 fathoms in the same manner. Sometimes it is considered necessary to obtain temperatures at every 10 fathoms from the surface to 200 fathoms, and at every 50 fathoms to 600 or 700 fathoms; this, of course, considerably increases the time occupied in obtaining these observations.

FIG. 8.

When the whole of the soundings and temperature observations have been obtained between any two places, a plan is drawn showing the section of the bottom and isothermal lines at different depths.

For the purpose of dredging in deep water, three different-sized ropes are supplied, of 2, 2½, and 3 inches in circumference. Each rope is spliced so