practice in the use of Sir William Thomson's marine galvanometer, the instrument employed in observing the indications, it might be possible to arrive at considerable accuracy.

The slip water-bottle which was used by Dr. Meyer and Dr. Jacobsen in the German North Sea Expedition of the summer of 1872 was sent down to the bottom, and Mr. Buchanan determined the specific gravity of the bottom water to be 1·02584 at a temperature of 17°·9 C., the specific gravity of surface water being 1·02648 at a temperature of 18°·5 C.

All Sunday, the 16th, we spent sailing with a light air from the northward, and by Monday morning we had made about 130 miles from our previous sounding. The dredge was put over at 5.15 A.M. with 2700 fathoms rope, and a weight of 2 cwt. 300 fathoms before the dredge. A sounding was taken at 7 A.M. with the "Hydra" machine and 2 cwt.; a slip water-bottle and two thermometers, Nos. 49 and 40, being sent down along with it. The sounding instrument gave a depth of 1945 fathoms, with a bottom of gray globigerina ooze containing many large foraminifera. The mean of the two thermometers was 2° C., and the specific gravity of the bottom water 1·02527 at 18°·3 C., that of the surface water being 1·02629 at 19°·6 C.

After steaming up to the dredge once or twice, hauling-in was commenced at 1.30 P.M., and the dredge came up at 3.30 half full of compact yellowish ooze. The ooze was carefully sifted, but nothing was found in it with the exception of foraminifera, the otolites of fishes, the dead shells of pteropods, and one mutilated specimen of what appears to be a new Gephyrean. This animal was examined by Dr. von Willemoes-Suhm, who found that it shows a combination of the characters of the Sipunculacea and the Priapulacea. As in the former group, the excretory orifice is near the mouth, in the anterior part of the body; while, as in the latter, there is no proboscis and there are no tentacles. The pharynx is very short, and is attached to the walls of the body by four retractor muscles. The phar-