STATION 225. Depth, 4475 fathoms; deposit, Radiolarian Ooze, containing only a trace of carbonate of lime (see Murray and Renard, Deep-Sea Deposits Chall. Exp.).

At 4 A.M. got up steam. At 5.15 A.M. shortened and furled sails. At 6 A.M. proceeded under steam, and sounded in 4575 fathoms. The line was checked at 4575 fathoms, and the accumulator showed that the weights were off. It must, therefore, just have got to the bottom as it was checked. To leave no doubt as to the correctness of the sounding, the line was again let go at 12.30 P.M. with a weight of 4 cwts. (instead of 3 cwts. as usual), and the depth obtained amounted to 4475 fathoms, only 100 fathoms less than the first sounding. In the first sounding two thermometers and water-bottle were attached, but one of the thermometers came up broken. In the second sounding two thermometers and the pressure gauge were sent down. Both thermometers came up broken, and the pressure gauge was not able to record the pressure existing at this great depth, the greatest ascertained during the cruise of the Challenger. At 3 P.M. took serial temperatures down to 1500 fathoms. The carbonic acid was determined in bottom water and amounted to 31·2 milligrammes per litre. At 4 P.M. completed observations and made sail.

Distance at noon from No Sima lighthouse, 1420 miles. Made good 103 miles. Amount of current 19 miles, direction N. 78° W.

ORGANISMS FROM THE DEPOSIT. RADIOLARIA (Haeckel, Zool. pt. 40).—The following is a list of the species of Radiolaria observed in the deposit from this Station by Professor Haeckel and Dr. Dreyer. They belong almost entirely to the legions Nassellaria and Spumellaria, the number of the former to that of the latter being about 2 to 1; only two species of Phæodaria are noted, while the Acantharia are quite absent :—

I. SPUMELLARIA.—Of the Spumellaria the Discoidea are the most abundant, being about as numerous as the rest of the Spumellaria together; after the Discoidea come the Sphæroidea and Prunoidea, and lastly the Larcoidea, which are very sparingly represented.

Cenosphæra antiqua, Haeckel.
„ *cristata*, Haeckel.
„ *maxima*, Haeckel.
„ *mellifica*, Haeckel.
Carposphæra micrococcus, Haeckel.
„ *nobilis*, Haeckel.
Coronosphæra diadema, Haeckel.
Ethmosphæra polysiphonia, Haeckel.
Liosphæra polypora, Haeckel.
Mazosphæra hippotis, Haeckel.
„ *lævis*, Ehrenberg.
Trypanosphæra coronata, Haeckel.
Trypanosphæra terebrata, Haeckel.
„ *transformata*, Haeckel.
Acrosphæra inflata, Haeckel.
Amphisphæra uranus, Haeckel.
Xiphosphæra juno, Haeckel.
„ *pallas*, Haeckel.
Xiphostylus alcedo, Haeckel.
„ *edolius*, Haeckel.
„ *trogon*, Haeckel.
Caryostylus hexalepas, Haeckel.
Staurolonche straussii, Haeckel.
Hexastylus thaletis, Haeckel.