

by what means this is effected; the attachment is very slight, and they are removed by the least touch. In this attached stage until they entirely free themselves, which they do when the number of tentacular feet on each arm has reached about twenty, they cluster in the re-entering angles between the arms of the mother, spreading a little way along the arms and on the dorsal surface of the disk; the young escape from the marsupium chiefly in the neighbourhood of the angles between the rays. The madreporiform tubercle is visible in the young near the margin of the disk between two of the arms; but in the mature starfish it is completely hidden by the paxilli, and no doubt it opens into the space beneath them.

“We took *Leptychaster* in the act of bringing forth young on that one occasion only; and the weather was so boisterous at the time that it was impossible to trace the early stages in the development of the embryo. It is evident that the process generally resembles that described by Professor Sars in *Pteraster militaris*, O. F. Müll.; and it is quite possible that, while there is certainly not the least approach to the formation of a locomotive bipinnaria, as in that species, some provisional organs may exist at an early period.

“In *The Depths of the Sea* (p. 120) I noticed and figured a singular little starfish from a depth of 500 fathoms off the north of Scotland under the name of *Hymenaster pellucidus*. This form was at that time the type of a new genus; but the researches of the last three years have shown that, with the exception perhaps of *Archaster*, *Hymenaster* is the most widely distributed genus of Asterids in deep water. It is met with (sparingly, it is true, only one or two specimens being usually taken at once in the trawl) in all parts of the great oceans; and it ranges in depth from 400 to about 2500 fathoms.

“On the 7th of March 1874 we dredged an extremely handsome new form, to which I shall give provisionally the name of *Hymenaster nobilis*, in lat. 50° 1' S., long. 123° 4' E., 1099 miles southwest of Cape Otway, Australia, at a depth of 1800 fathoms, with a bottom of Globigerina ooze, and a bottom temperature of 0°·3 C.

“*Hymenaster nobilis* (fig. 148) is 300 mm. in diameter from tip to tip of the rays; the arms are 55 mm. wide; and, as in *Hymenaster pellucidus*, a row of spines fringing the ambulacral grooves are greatly lengthened and webbed, and the web running along the side of one arm meets and unites with the web of the adjacent arm, so that the angles between the arms are entirely filled up by a fleshy lamina stretched over and supported by spines, the body thus becoming a regular pentagon. The upper surface of the body, the disk, and the arms,—all the surface except the smooth membrane between the arms,—are covered with fascicles of four to six diverging spines. These spines are about 3 mm. in height; and they support and stretch out a tolerably strong membrane clear above the surface of the perisome, like the canvas of a marquee, leaving an open space beneath it. A close approach to this arrangement occurs also in *Pteraster*.

“At the apical pole the upper free membrane runs up to and ends at a large aperture, 15 mm. in diameter, surrounded by a ring of five very beautifully formed valves. These