

The last four joints describe a spiral curve; so that the tenth lies parallel to the seventh. Their inner surfaces are furnished with numerous rows of very flat spines. In the oldest specimen there are about twelve rows, making the total number of spines for every joint several hundreds. None of these spines, however, show the original shape; they are all of them broken by use or by age, and those placed towards one side especially are very short and rudimentary. On the other side they grow longer (Pl. X. fig. 2), and, covered by this outermost row of longest spines, some short thimble-shaped knobs (fig. 5) are to be observed. Such is at least the condition of the flattened spines on the last four joints of the ovigerous legs of the gigantic male dredged at Station 146. The specimen second in size is a great deal smaller and in all probability is not quite adult. Here the spines, placed in about eight rows, show a much more regular shape (fig. 3); their margins are furnished anteriorly with very small hairs. These hairs are rather firm, are not at all injured by the action of alcohol, and must not, I believe, be considered as cilia. The spines are in the middle a great deal narrower, and broader again at the extremity, the broader part has the shape of a rhomb. In the earliest stage the spines are much smaller and beautifully spatulate. The small hairs extend here to beyond the middle (Pl. X. fig. 4).

This species has exceedingly long legs. The first three joints are very small, the three following very long; the fourth is the longest, the fifth a little shorter, the sixth again a little shorter; the two last joints are small again; the second tarsal is only half as long as the first. The claw measures about one-third the length of the second tarsal joint; there are no auxiliary claws. The joints of the leg, from the fourth to the eighth, gradually decrease in thickness. The hairs, which on the legs of the large adult specimen are extremely small and sparse, are stronger and more numerous on the legs of the younger specimens.

In regard to the sexes of the specimens of this species dredged during the voyage of the Challenger, I am sure only of the gigantic specimen. This is a male; it shows genital openings on the ventral surface not very close to the distal margin of the second joint of the two posterior pairs of legs. About the other specimens, whose genital openings I failed to observe, I am in doubt whether they are young males or females. The colour of the specimens is light yellow, nearly the same as that of all other Pycnogonids preserved in spirits. The large full-grown male, however, is of a much darker orange-red colour, with beautiful red bands over the proboscis, at the extremity of the joints of the legs, &c.

*Habitat.*—*Colossendeis gigas*, seems to occur in different parts of the southern ocean; it was dredged at

Station 146. December 29, 1873. Lat. 46° 46' S., long. 45° 31' E. Depth of the sea, 1375 fathoms. Temperature of the bottom, 1.5° C. Sea bottom, globigerina ooze.

Station 147. December 30, 1873. Lat. 46° 16' S., long. 48° 27' E. Depth of the