

ventral surface; the anterior part of that surface destitute of pedicels. The dorsal surface with three pairs of processes anteriorly; two larger, close-set, arranged in a transverse row, and the third pair small, placed a little behind those. Integument thin, with two sorts of calcareous deposits: large bodies composed of three long, straight spinose arms; and smaller ones, in the form of a C.

Colour in alcohol, light violet. Length, about 133 mm. Breadth, about 53 mm.

Habitat.—Station 157. March 3, 1874. Lat. $53^{\circ} 55' S.$, long. $108^{\circ} 35' E.$ Depth, 1950 fathoms; diatom ooze. One specimen.

The dorsal surface is extremely convex. The ventral surface is almost flat or slightly convex, and its anterior half is totally destitute of pedicels. The posterior pairs of pedicels are comparatively small. Four of the dorsal processes, being of a comparatively large size, are arranged in a transverse, slightly arcuated row between the two ambulacra, and situated 30 to 40 mm. behind the anterior extremity of the body; united together at their large base, they give the impression of running out from a low ridge; those in the middle are largest, measuring in length about 10 mm. The third pair of processes is placed a little behind the former ones, one on each ambulacrum. The calcareous deposits (Pl. XXXIV. fig. 6) are rather scattered in the integument, in consequence of which this becomes rather soft and pliable. The C-shaped bodies, measuring in length about 0.1 mm., are more crowded together than the three-armed ones, which are comparatively larger, each arm having a length of about 0.24 mm. The arms being more or less spinose and bearing in the middle some small spinose, outwardly directed processes, run out from a central point, thus forming with one another angles of equal size. The tentacles and processes (Pl. XXXIV. fig. 7) bear besides those C-curved deposits, straight or arcuated, branched or unbranched spinose spicula. The five pieces (Pl. XXXVII. fig. 9) constituting the calcareous ring, are separated from one another, and consist of eight rods, which, having their ends more or less branched, diverge from a common centre. The polian vesicle measures in length about 15 to 20 mm. The madreporic-canal opens exteriorly about 20 mm. behind the crown of the tentacles—that is to say, on the back almost in the middle between the tentacles and the transverse row of processes; its wall contains only a few C-shaped bodies. The alimentary canal is very thick and connected to the body-wall by elastic bands and threads; the cloaca fills up the whole posterior peritoneal cavity. The reproductive organ consists of a single considerable wide tube, narrowing anteriorly into an efferent duct, which opens at the top of a small papilla, situated immediately behind the pore of the madreporic canal. The tube bears numerous bundles of cæca, and its length is about three-fourths of the body.

Scotoplanes insignis, n. sp. (Pl. VII. figs. 1–3).

Body elongated, of almost equal breadth, about twice and a half as long as broad, considerably depressed posteriorly; its posterior flat end deeply incised in its middle.