

two or three rows, the middle one of five or six. The dorsal papillæ are small and fully retracted, and therefore their true disposition is not discernible in the very contracted and wrinkled specimen. A single madreporic canal and Polian vesicle are present. The calcareous ring is like that figured by Semper. The forms of the deposits are shown in the figures, and seem to agree with those of Semper. The C-shaped bodies (Pl. VII. fig. 7, *e*) are numerous and of very unequal size, some being small, others large; usually their length reaches as much as 0.06 mm. The rosettes or dichotomously branched bodies (Pl. VII. fig. 7, *d*) are small, measuring about 0.3 mm., and the tables (Pl. VII. figs. 7, *a*, *b*, *c*) have a height of about 0.032 mm. The pedicels are strengthened by spinous rods (Pl. VII. fig. 7, *f*), commonly enlarged and perforated at the middle, and even the papillæ are provided with numerous crowded, slightly curved, spinous rods.

*Stichopus challengeri*, n. sp. (Pl. X. fig. 21).

Body elongated, cylindrical, more tapered posteriorly than anteriorly, slightly flattened. Mouth ventral, surrounded by nineteen tentacles. Anus terminal. Ventral surface with three longitudinal series of cylindrical pedicels, the two lateral series composed of two rows, the middle broader one of two to four rows. Dorsal surface with elongated, conical processes scattered over the ambulacra and interambulacra; an arrangement of them in rows is scarcely to be found elsewhere than along the sides of the body, where they evidently belong to the lateral ventral ambulacra. Body-wall thin and pliable, with scattered deposits, composed of three to four arms and a central column terminating in a few small teeth; the arms are mostly bifurcate at the ends, but sometimes perforated. As a rule, the deposits are not very symmetrical. The pedicels and processes are supported by numerous spinous, slightly curved rods, and the former bear a well-developed terminal plate. Colour in alcohol, grey inclining to violet; tentacles yellowish. Length, 160 mm. or more.

*Habitat*.—Station 148A, January 3, 1874; lat. 46° 53' S., long. 51° 52' E.; depth, 550 fathoms; hard ground, gravel, shells; a single slightly macerated specimen.

The dorsal processes have a length of about 7 mm.; the largest are to be found round the anterior extremity of the body. Excepting four-armed bodies like those in the body-wall itself, but considerably larger and with the enlarged ends of the arms perforated, the processes contain numerous simple, or, more seldom, branched spinous spicules, which often have the ends perforated by a small hole. The top of the processes is supported by small irregularly branched and spinous spicules forming a kind of terminal plate. The cylindrical, wide pedicels, about 5 mm. long, form an alternating double row along each side of the ventral surface, and, also, a median series, composed, apparently, of about four rows of pedicels on the posterior half of