crown of tentacles, and close to the genital aperture. I intend to point out those cases in which several pores are to be seen.

When examining the madreporic canal in *Lætmogone wyville-thomsoni* it will be found that, proceeding as usual from the dorsal part of the ambulacral ring, it runs upwards and backwards, being enveloped by the dorsal mesentery, and is attached at the medio-dorsal line about 30 mm. behind the tentacular crown (Pl. XLIII. fig. 4, *a*). The terminal part is surrounded and entirely enveloped by a rather thick layer of connective tissue, and gives off, four, five, or up to nine very fine branches, which pierce the body-wall, and open at the tops of small papillæ, 2 or 3 mm. long. These papillæ vary in position; they are either closely crowded in front of, or at one side of, or behind the large genital process, or they are situated in a semicircle along one side of the latter (Pl. XXXVIII. fig. 9, *a*). The fine canals, which pierce the perisoma, are rendered most distinct because of the great abundance of red and violet pigment present in their walls. A transverse section of the papillæ proves that they are made up of a very thick layer of connective tissue, containing a multitude of filaments, cells, and pigment, and that the canal which penetrates them is very narrow, scarcely a fifth of the diameter of the papillæ themselves.

In *Ilyodæmon maculatus* (Pl. XXXVIII. fig. 6) the terminal part of the madreporic canal divides into a greater or smaller number, sometimes up to fifty, branches, which penetrate the body-wall immediately in front of the genital process, and about 20 mm. behind the anterior extremity of the body. The fine canals, which do not run out in any papillæ, are often slightly expanded and branched, and contain a great quantity of pigment, but no deposits are present in them; their walls are extremely thin, and lined by an epithelium consisting of small, flat cells, which differ most strikingly from the elongated, closely-crowded, cylindrical cells, which line the true madreporic canal. In *Benthodytes abyssicola* the madreporic canal sometimes runs out by a single pore (Pl. XXXVIII. fig. 2, *a*), sometimes by four pores, which lie together at the top of a small obtuse papilla (Pl. XXXVIII. fig. 1). The canal is often more or less strengthened by calcareous deposits, but it may also lack such, as, for instance, in *Kolga hyalina*, Dan. and Kor. The fine canals or branches, which penetrate the body-wall seem to be always without calcareous matters.

The five main canals, which proceed from the circular vessel of the ambulacral system, are long and wide in some forms, and are always attached to the most anterior portion of the alimentary canal by numerous threads or filaments (Pl. XLIII. fig. 1, *a*). Their communication with the circular vessel is effected by means of a wide opening, while their anterior, slightly distended ends, lying close to the calcareous ring, open into the tentacles and the radial ambulacral vessels by a minute orifice. In *Deima fastosum* especially I have had the opportunity of observing the manner in which the main canals terminate in the tentacles and the ambulacral vessels. The anterior slightly distended end of these canals (Pl. XLIII. fig. 7, *a*) lies close to the posterior portion of