

haps more abundant forms living on the bottom. The collecting apparatus consisted of numerous small brachioles or pinnules which captured the living organisms by means of ciliated grooves, lined with viscous secretions, and protected by a series of minute alternating cover-plates. The material caught by brachioles or pinnules was passed into common covered ways leading to the mouth. The main streams became in time mere conduits, and the surplus water taken in with capture and used for conveyance was either gradually lost between the cover-plates or carried to specialized separating areas, where the water was sent to hydrospires and made to assist in respiration. With this manner of food getting it will readily be seen that the cover-plates nearest the mouth would tend to remain closed and to become permanently fixed, or the proximal portions of the food grooves might become subtegmenal in position. In every case the extent of the collecting portion of the apparatus is proportioned to the needs of the organism, and to the abundance of minute organisms in its habitat. Deprive Crinoid, Blastoid, Parablasteroid or Cystid of its pinnules or brachioles, and its larger or main covered food-grooves could no longer function. Now, we must ask ourselves these questions. If the Edrioasteroidea are Cystids they belong to a group that secured their food by means of brachioles; they were for the greater part fixed and sessile forms, and could therefore only feed on such passing organisms as they could capture; for their size they show no greater length of covered food-grooves than we find in Malacystites, which was an elentherozic form and a feeder close to the sea bottom. Why should the Edrioasteroidea have lost the inheritance of the collecting mechanism of their class, and how could they secure sufficient food without it? These are serious questions, and they are made no easier by raising the group to class rank, for even then every other class of their sub-phylum required and retained the fringing brachioles or pinnules.

If we compare Blastoidocrinus with Steganoblastus, the need for and probable possession of brachioles by the latter will become more evident. Both are stemmed forms, with similarly shaped body cavities, and with proportional surface areas, covered by large food-grooves. In Steganoblastus, a name suggested by Bather on account of the *closely covered* condition of the main food-grooves (1914, p. 193), we find "large covering plates," (loc. cit.) which form a prominent rounded arch over the groove" (1914, p. 200). "At the proximal end smaller plates may be intercalated along the middle line" (1914, p. 199, and fig. 5, p. 200), or "the medial suture in the proximal region becomes curved and interlocking" (1914,