

*Locality and formation.*—East River, Pictou, Nova Scotia, collected by Sir J. William Dawson; lower Carboniferous formation.

PHILLIPSASTRÆA BILLINGSI, Calvin.

*Phillipsastrea gigas*, Billings, 1859. Canad. Journ., vol. IV, new series, p. 128; incorrectly identified with *Arachnophyllum (Astrea?) gigas*, Owen.

" *gigas*, Nicholson. 1875. Rep. Palæont. Prov. Ontario, p. 77.

" *gigas(?)*, Rominger. 1876. Geol. Surv. Michigan, Fossil Corals, p. 128, pl. XXXVII, fig. 4.

" *billingsi*, Calvin. 1893. Amer. Geologist, vol. XII, p. 111, pl. VI, figs. 1 and 2.

Corallum composite, large, discoidal, more or less convex above, rather flat below, formed of slightly divergent, confluent, polygonal corallites, from about 2 to over 4 cent. in diameter, that increase by marginal calicinal gemmation from a central basal beginning; attaining a breadth of over 40 cent. and a height of nearly 12 cent. Basal surface covered by a concentrically wrinkled epitheca. Corallites not bounded by a wall, their septa meeting and becoming confluent with those of the neighbouring corallites; opening on the upper surface in calyces having a broadly convex, exsert reflexed circular rim surrounding a deep, steep-sided pit measuring from about 8 to 10 mm. in diameter and 4 or 5 mm. deep. Septa well developed, numbering from about forty to sixty, of two alternating sizes, the larger reaching the centre and becoming somewhat twisted, or falling short of it, the smaller not extending beyond the sides of the central pit; they are decorated on their sides by arched carinæ curving upward and inward and appearing on their free edges in the central pit and reflexed calicinal margins as small transverse denticulations. Tabulæ, forming a narrow axial area, at times well developed, flat at the centre, turned down at the edge, the primary septa passing over them to the centre as carinæ, at