near the Virgulariæ or sea-pens, belonging to the lower of the two. great orders or divisions in which modern forms of this class are mostly arranged. It should be observed, nevertheless, that some naturalists divide the POLYPIFERA into three Orders—Hydroida, Alcyonaria and Zoantharia (or groups with other names synonymous with these)—and place the graptolites (with the modern Sertularia, &c.,) in the first order. Agassiz, again, removes this order to the class ACALEPHA.

Graptolites.-The common form of the graptolite-structure is that of a narrow band or "stipe," with a row of "teeth," i.e., the mouths of cells, on one or on both sides. The teeth or servatures are pointed or even mucronate in some species, and obtuse in others. Sometimes in place of forming a narrow band, the cell-structure takes a leaf-like shape, and at other times it assumes a spiral or convolute form. Specimens have also been found, more especially in the Quebec group of rocks in the vicinity of Point Levi, in which several stipes cross each other or radiate from a common centre, around which there is a thin connecting membrane. Our ordinary examples, it is thus evident, are merely fragments of the true graptolite-structure; and as some of these occur in branching forms, of which the branches are only toothed on one side whilst the main stem is toothed on both margins, it is more than probable that the same species has been described in some instances under different names. Being entirely confined to the Silurian strata, the graptolites are especially interesting and valuable as geological test-forms. On this continent they are chiefly characteristic of the Lower Silurian division, (see PART V.) By some authors, the forms with serratures on each side of the stipe are described under the generic name of Diplograpsus; and those with servatures on one side only, under that of Graptolithus.

As examples of Canadian forms, we may cite at present Graptolithus Logani, Fig. 67. from the base of the Lower Silurian formation; Graptolithus (or Diplograpsus) pristis, Fig. 68, with acute or submucronate serratures, from the Trenton limestone, Utica Slate, and Hudson River group of the same formation; G. (=Diplograpsus) ramosus, with obtuse or somewhat truncated serratures, Fig. 69, from the Utica Slate and Hudson River group (Lower Silurian); and G. priodon, (=G. clintonensis, Hall) Fig. 70, with reversed serratures, from the Clinton and Niagara group of the Upper Silurian series.

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