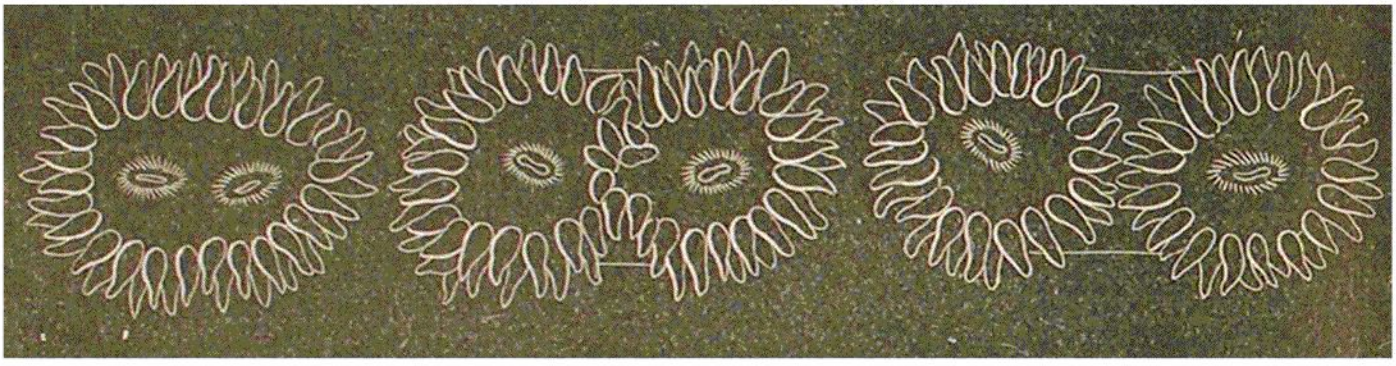
the old tentacles, as illustrated in the following figure. It is not, as is seen, a subdivision strictly into halves, as one carries off the old mouth and stomach. The figure to the left represents a polyp of the Astræa tribe, with already two mouths, through a commencement of the process of subdivision. In the next figure there are tentacles between the two mouths, so that each



SPONTANEOUS FISSION IN POLYPS.

mouth has its own circle; and in the third, the separation has gone so far as to complete the circles and make two independent polyps. This dividing one's self in two, for the sake of an increase of population, is the process called spontaneous fission or fissiparity.

This mode of budding does not belong exclusively to coral polyps, for it has been observed among a few Actiniæ. Gosse describes its occurrence in a British species, the *Anthea cereus*, in which it results in two distinct animals. He says "the fission begins at the margin of the disk, and gradually extends downward until the separation is complete, when each moiety soon closes and forms a perfect animal." The same author alludes to the occurrence of double-disked individuals of the genera Actinoloba, and Actinia as illustrating the process without a separation of the spontaneously developed pair.

This spontaneous fission is the common kind of budding in the large Astræa tribe.

The following figure represents a species of living coral of the Astræa family, from the Feejees, the *Astræa pallida*, D. which grew, and multiplied its polyps as it grew, by this method. In such species some of the disks of the polyps will