

another plication. It is, then, a mature specimen of that class which has no plications. In the same way figure 3, Plate IV, appears to be a mature specimen with one plication, figure 11, Plate IV, an adult of two plications, etc. That is, there are specimens which have not attained the maximum number of plications in the sinus although they have reached maturity. They, then, must have commenced growth with a tendency to form no plications, one, two, or three, as the case may be, but not the maximum number.

Second.—The adult specimens illustrated by figures 1, 3, 6, 9, 11, 20, and 30, Plate IV, appear to have reached their full development of plications and most of them have formed their maximum number while still far from reaching their present mature size, the last stages of growth being in size only. These specimens, which are quite typical, have evidently commenced growth with the inherent tendency to form a certain number of plications, and have ceased forming new ones when the required number was reached, although growth is continued. On the other hand there are a few specimens, that cannot be ignored, such as those illustrated by figures 9 and 24, Plate IV, which, though adults, are evidently in a transition stage. It is probable that each of them has reached its mature form, but the next generations might appear with three and five plications, respectively, in the sinus.

It seems, then, that each shell has commenced with an inherent tendency to form a given number of plications—whether it be one, two, three, or the maximum number—and, with a few exceptions, has ceased to form more when the required number is reached, though growth is continued.

*Development of One Group from Another.* First.—Considering the specimens at the stage of growth when the plications are initial, it is evident, from the illustrations given, that when a shell is of the plication-forming variety it does not usually leap at once into its adult condition of two, three, or four plications, as the case may be, but after the formation of the sinus the other plications appear, sometimes one at a time, or sometimes two, in some cases more. The initial stages of the plications show two tendencies in each group of shells. The majority of the speci-