

lightest resemblance to the adult polyp. As in the young Medusa, the body is cylindrical, covered with delicate cilia. After having remained free for some time, the young animal fixes itself and assumes a flattened form. By degrees, a little swelling rises from the centre, which elongates, and at last forms a stalk. This stalk ramifies, and we



Fig. 144. soon recognize in it the animal of figure 143, with the three kinds of buds, which we may consider as three distinct forms of the same animal.

350. The development of *Campanularia* presents, in some respects, an analogy to what takes place in the reproduction of plants, and especially of trees. They should be considered as groups of individuals, and not as single individuals. The seed, which corresponds to the embryo of the Hydroid, puts forth a little stalk. This stalk soon ramifies by gemmiparous reproduction, that is, by throwing out buds which become branches. But ovulation, or reproduction by means of seeds, does not take place until an advanced period, and requires that the tree should have attained a considerable growth. It then produces flowers with pistils and stamens, that is, males and females, which are commonly united in one flower, but which in some instances are separated, as in the hickories, the elders, the willows, &c.\*

---

\* Several plants are endowed with organs similar to the third form of buds, as seen in the *Campanularia*; for example, the liverwort, (*Marchantia polymorpha*), which has at the base of the cup a little receptacle, from the bottom of which little disk-like bodies are constantly forming, which, when detached, send out roots, and gradually become complete individuals. Besides that, we find in these animals, as in plants, the important peculiarity, that all the individuals are united in a common trunk, which is attached to the soil; and that all are intimately dependent on each other, as long as they remain united. And if we compare, in this point of view, the various species in which alternate reproduction has been observed, we find that the progress displayed in each type consists precisely in the increasing freedom of the individual in its various forms. At