

## CHAPTER V.

*Nutrition in the higher orders of Animals.*

IN proportion as we rise in the animal scale, we find that the operations of Nutrition become still farther multiplied, and that the organs which perform them are more numerous and more complicated in their structure. The long series of processes requisite for the perfect elaboration of nutriment, is divided into different stages; each process is the work of a separate apparatus, and requires the influence of different agents. We no longer find that extreme simplicity which we noticed as so remarkable in the hydra and the medusa, where the same cavity performs, at once, the functions of the stomach and of the heart. The manufacture of nutriment, if we may so express it, is, in these lower zoophytes, conducted upon a small scale, by less refined methods, and with the strictest economy of means: the apparatus is the simplest, the agents the fewest possible, and many different operations are carried on in one and the same place.

As we follow the extension of the plan in more elevated stages of organic development, we find a farther division of labour introduced. Of this we have already seen the commencement in the multiplication of the digesting cavities of the *Leech* and other Annelida; but, in animals which occupy a still higher rank, we observe a more complete separation of offices, and a still greater complication of organs. The principle of the division of labour being carried to a much greater extent than in the inferior departments of the animal creation. Besides the stomach, or receptacle for the unassimilated food, another organ, the heart, is provided for the