

formed. By this mechanism, the sucker attaches itself to the surface with a force proportioned to its diameter, and to the weight of the column of water or of air of which it is the base. This force, multiplied by the number of suckers, gives that with which the whole or part of the legs attaches itself to the body, so that it is more easy to tear the legs than to separate them from the object which the animal wishes to retain. \*

In some cases, the action of the suckers, as suckers, seems not sufficient for the animal's purposes, and claws are super-added. This structure is to be found in the suckers of the animal that fixes itself to the gills of the bream, the *Diplozoon*, before described, † and to those of some Cephalopods a stout claw is added.

When we consider the nature and predatory habits of those Cephalopods whose tentacles are furnished with suckers often pedunculated, on that side which is prone when the animal moves, we shall at once see the reason that this change from the more common Molluscan structure of an expansile foot, took place, for had their principal locomotive and prehensory organ been of this description, or different from what it is, their motions must necessarily have been so slow, and their powers of prehension so weak, that they could never have overtaken and captured, and maintained their hold of, the well-defended and formidably-armed Crustaceans, which are their destined prey. Uncouth, therefore, and misshapen, and monstrous, as these animals at the first glance appear, we see that in these organs, and doubtless in all others, they are exactly fitted to answer the end and fulfil the purposes of Divine Providence in their creation.

The suckers of the *Diplozoon* exhibit a complex structure in aid of its powers of suction, not easily developed and under-

\* Anat. Comp. i. 410. Roget, B. T. i. 260.

† Vol. i. Appendix, p. 328.