

tain proportion of fluid. Hence, all animals that masticate their food are provided with organs which secrete a fluid, called the *Saliva*, and which pour this fluid into the mouth as near as possible to the grinding surfaces of the teeth. These organs are glands, placed in such a situation as to be compressed by the action of the muscles which move the jaw, and to pour out the fluid they secrete in greatest quantity, just at the time when the food is undergoing mastication. Saliva contains a large quantity of water, together with some salts and a little animal matter. Its use is not only to soften the food, but also to lubricate the passage through which it is to be conveyed into the stomach; and the quantity secreted has always a relation to the nature of the food, the degree of mastication it requires, and the mode in which it is swallowed. In animals which subsist on vegetable materials, requiring more complete maceration than those which feed on flesh, the salivary glands are of large size: they are particularly large in the *Rodentia*, which feed on the hardest materials, requiring the most complete trituration; and in these animals we find that the largest quantity of saliva is poured out opposite to the incisor teeth, which are those principally employed in this kind of mastication. In *Birds* and *Reptiles*, which can hardly be said to masticate their food, the salivary glands are comparatively of small size; the exceptions to this rule occurring chiefly in those tribes which feed on vegetables, for in these the glands are more considerable.\* In *Fishes* there is no structure of this kind provided, there being no mastication performed: and the same observation applies to the *Cetacea*. In the cephalopodous and gasteropodous *Mollusca*, we find a salivary apparatus of considerable size: *Insects* and the *Annelida*,† also, generally present us with organs which appear to perform a similar office.

\* The large salivary gland in the woodpecker, is seen at s, Fig. 271, page 99.

† The bunch of filaments, seen at s, Fig. 260 (p. 78) are the salivary organs of the leech.