attack of their enemies by darting upon them, with the head elevated, so as to enable them to bite with greater energy. A few, such as the Najas, raise a considerable portion of the anterior of the body, so as to assume a very singular position. Most of them give utterance to a sharp hissing sound as a prelude to battle ; and they also produce a peculiar blowing, by forcing the air rapidly through the nostrils. Several species throw themselves upon their prey with a great and sudden bound, usually seizing it by the throat ; while others encircle it by a tortuous embrace, thus pressing it to death by sinewy folds. The venomous kinds make use of the same means to obtain their food as they do to defend themselves from threatened danger. Quietly stretched along the earth, they will attack indifferently what­ever incommodes them ; but knowing the potency of their empoisoned fangs, they are satisfied by the infliction of a murderous bite, without recourse to muscular pressure.

As snakes swallow their food entire, and without masti­cation, their teeth serve merely to wound and retain their prey, or to instil into it the envenomed fluid. This deadly matter is the product of certain glands of the head. These are of two kinds ; the one composed, like the salivary glands of quadrupeds and birds, of numerous small granules, which secrete a fluid analogous to saliva, and destined to prepare the food for digestion ; the other, of a very different nature, forming a thick sack, of which the interior is divided into numerous compartments, and distilling a liquid which, by its fatal effects on the principle of life, becomes a dreadful instrument of destruction. The salivary glands are com­mon alike to all Ophidian reptiles, but scarcely a fourth of the entire species are provided with those which secrete the poison. The teeth which conduct this fatal fluid into the wound are hollow and pierced at each extremity. They are always situate towards the anterior end of the maxil­lary bone, are covered by the gums, which there form a kind of sheath, and are always kept bent when in repose. The rest of the teeth, and the whole of those of the innocuous kinds, are solid, with the exception of the hollow which con­tains the nutritive organ of the tooth. Although these large anterior fangs are characteristic of the poisonous kinds, we yet find a considerable number of innocuous species, of va­rious genera, which have the jaws armed with one or two teeth larger than the others, and usually furrowed by a cleft extending along the anterior face. These grooved teeth are always situate at the base or posterior extremity of the maxillaries, and it is but seldom that we perceive a second on the middle portion of the jaw. Their sole func­tion is believed to be the pouring into their wounded prey an abundant supply of saliva secreted by the posterior part of the salivary glands, which are most voluminous in the re­gion occupied by the teeth in question. The organization of these posterior glands entirely resembles that of the or­dinary salivary ones ; and recent observation has demonstrat­ed, that the bite of species belonging to the genera *Dry­ophis, Dipsas,* and others with furrowed teeth, is followed by no fatal results, at least to the human race.@@\*

In studying in detail the teeth of the Ophidian reptiles, we may perceive a gradation from the solid to the hooked teeth. Each tooth in fact consists, in its earliest develop­ment, of a kind of lamella with curved margins, so as to open as it were on its anterior face. In the so-called solid teeth, this opening has become filled by the union of the margins at an early period ; it continues open for a longer time in the hooks of the most venomous kinds, but in the completed state they exhibit only the two orifices destined for the entrance and emission of the poison,—the lower one

continuing to preserve the character of a longitudinal cleft. In other poisonous species we find analogous fangs, but with a continuing vestige of the groove which formerly united the two orifices. Finally, the furrow in the lengthened posterior teeth of certain innocuous species, is nothing more than the permanence of the groove now mentioned.

The solid teeth occur indifferently in all Ophidian rep­tiles ; but their number, form, and position, vary in the different species. With the exception of the genus *Oligo- don,* which is unprovided with palatine teeth, there are always four rows of teeth in the upper jaw (see Plate CCCCXLIII. fig. le), and two in the lower. Intermaxil­lary teeth are not observable, except in the genus *Python,* and occasionally in *Tortrix scytale,—*the number rarely ex­ceeding four (see figure last referred to). These solid teeth are usually all of equal length ; but in the Boas they enlarge towards the extremity of the muzzle (fig. 11), while the reverse is the case in several species of *coluber, Tropidοnοtus,* &c. The *Lycodοns* exhibit some teeth more largely developed than the others at the anterior extremity of the maxillaries ; those of *Dryophis* and *Psammophis* are rather unequal, several being even greatly elongated towards the centre of the jaw ; those of certain species of *Dipsas, Homa­lopsis,* &c. are often furrowed ; while other genera, such as *Xenodon, Coronellα,* and several kinds of *Homalopsis,* have the base of the maxillaries armed with a strongly developed tooth of a solid structure. The number of teeth, in general, obviously varies in relation to the development of the maxil­laries and of the dental bone of the lower jaw.

The poison-gland, which forms so peculiar a character of the noxious kinds, is enclosed in a thickish tendinous en­velope, hard and tenacious to the touch, and diminishing backwards into the form of a narrow ribbon, by which it is attached to the articulation of the lower jaw. Anteriorly this envelope is also restricted to a canal-shaped space, which stretches along the maxillaries, and then descends towards the orifice already mentioned, of the anterior face of the base of the hooked fang. (See Plate CCCCXLIII. fig. 10). Among the poisonous serpents properly so called, this canal is folded when the fangs are in a state of repose, but easily extends in conformity with the movement of the maxillary bones. The interior of the poison-gland is sub­divided into a great number of minute cells, produced by very slender partitions, which cross each other at an angle more or less acute. To this peculiar structure, so dissimilar to that of the salivary glands, is due the secretion called poison, from its fatal effect when mingled with the blood of any living creature. It is true, that the bite of even the most innocent animal may sometimes produce the most dis­astrous results, by a concourse of peculiar circumstances, such as the temperature of the climate, the psychological or pathological condition of the creature bitten, or the rabid fury of that which has aggressed, and for this reason the bite of innocuous serpents may have sometimes proved fatal even to the human race ; but the poison of the injurious kinds holds its noxious qualitics in its very nature, although the circumstances just alluded to may render more deadly its destroying powers.

The poison of snakes, when fresh, may be described as a transparent limpid fluid, of a greenish-yellow colour, slight­ly gluey, viscous, adhering to other objects when dried, and evaporating without burning when exposed to fire. It sinks in water, and when mingled with it by shaking, pro­duces a troubled and somewhat whitish appearance. It partakes greatly of the nature of mucus; and when placed in contact with any re-active substance, we discover that it

@@@, The glands in the head of serpents have been discussed in numerous publications. See, among others, Ranby, ***Phil. Trans.*** No. 401, p. 377 ; Tiedemann, ***Mim. del’Acad, de Munich,*** 181.1, p. 25; Cloquet, Mém. ***du Mus.,*** vii. p. 62; Demoulins ap. Magendie, ***Journ. de Physiol,*** iv. p 274; Meckel, ***Archie,*** i. 1; and Duvernoy, ***Ann. des Sciences Nat.*** xxvi. and xxx. Various observations bearing on the subject will also be found in the well-known writings of Redi, Mead, Fontana, and other physiologists.