negative; toutefois on n’a jamais aperçu des fluides dans ceux dont on a examiné l’estomac.”@@1 Other authors, how­ever, are of a somewhat different opinion. “ Tout au plus,” say MM. Dumeril and Bibron, “ cette langue fort longue sert-elle, comme on l’a observé quelquefois, à faire péné­trer un peu de liquide dans la bouche, car nous avons vu nous-même des couleuvres laper ainsi l’eau que nous avions placée auprès d’elles dans la cage oil nous les tenions renfermées pour les observer à loisir.”@@2

The alimentary canal of the Ophidians is remarkable for its great simplicity.@@’ The oesophagus and stomach form a continuous canal, to the special parts of which it is difficult to assign precise limits. The pancreas, according to M. Schlegel, is always placed “ dans la première courbure qui fait l’intestin à partir du pylore,” and varies in different species both as to size and form. The spleen is of an oval or somewhat globular shape, of a rather firm consistence, and frequently concealed among the lobes of the pancreas, with which it is sometimes intimately united. The liver in Ophidian reptiles assumes a long ribbon-shaped form, more slender at either end, sometimes imperfectly divided into a couple of lobes, and extending along the oesophagus and stomach, from the heart as far as the pylorus. The hepa­tic canal descends from its interior face towards the pan­creas, to conduct the bile into the small intestine. The gall-bladder, which is abundantly supplied, discharges its fluid by a short conduit, which joins the hepatic canal at an angle more or less acute. The kidneys, remarkable for their lengthened form and symmetrical position, are divided into a great number of small lobes, adhering to each other by means of the cellular tissue.

Digestion, notwithstanding the activity of the gastric juice, is sufficiently slow in serpents. It would appear, in fact, that the juice in question exercises its influence chiefly in the regions near the pylorus ; for it has been found that an animal withdrawn from the abdomen of a snake is always decomposed towards its lower extremity, while the portion lying nearer the oesophagus continues unconsumed. Indi­gestible portions, such as hair, feathers, *&c. are* said to be sometimes ejected by the mouth ; and, according to M. Die- perink, when a serpent in a wild state is pursued soon after it has swallowed a considerable prey, it will disgorge it to facilitate the means of escape. In regard to the digestive faculty of serpents, one of the most remarkable characters consists in the strong absorbing power of the intestines. When we examine their fecal remains, we find that these exhibit as it were a dry extract **of** the entire prey, of which the parts incapable of liquefaction remain not only unaltered, but occupying precisely the same relative positions which they held in the living animal. If, for example, a rat has been swallowed, we find, in what at first appears a dry and unformed heap, the muzzle, the long hairs upon the cheeks, the down which covers the thin cartilage of the ears, the hair, of various length and colour, which has clothed the back, abdomen, and especially the tail, and finally the nails, in a perfectly entire state. All fleshy or softer sub­stances have been completely absorbed ; and the earthy salts, which by their union with the gelatine give consistence to the bones, still indicate by their colour the position former­ly occupied by these osseous portions. The most complete natural analysis has been effected by means of dissolution, compression, and absorption,—and of this the desiccated mass already mentioned is the sole residuum.@@4 The infre­quent meals of serpents are thus in a measure compensated by the great profit which they derive from each.

The mode in which these reptiles swallow their food is sufficiently simple. They commence by getting the head within their throat, and while the teeth of one jaw adhere

to the prey, the other jaw makes a forward movement, and, fastening its teeth, draws the object inwards, till by this alternate action of the jaws, and chiefly of the under one, deglutition is effected. The jaws, as we have already hint­ed, are capable of a certain separation from each other even at their basis, and an abundant supply of saliva being at the same time poured out upon the victim, a body larger in bulk than the snake itself is sometimes swallowed ; and as in this case the process is slow, and but a small portion can enter the throat at a time, the reptile reposes for a con­siderable period, even till, with distended mouth, it seems gorged with putrefaction, presenting a hideous and disgust­ing picture of gluttony and sloth. When the venomous kinds swallow their prey, they do not use their poison-fangs, but lower these beautiful and highly-finished instruments of destruction into the hollow of the gums,—“ sheathing them as a sword.”

The heart of Ophidian reptiles is usually of an elongated form, and is remarkable for its distant position from the head. It is composed of two spacious auricles, separated from each other by a membranous division ; the ventricle, on the contrary, is imperfectly divided into two rather nar­row cavities, by a partition which takes its origin from the base of the heart, and loses itself amid the fleshy fibres of that region. The walls of the auricle, although fleshy, are slender,—those of the ventricle are of considerable thick­ness, especially on the left side of that portion which ex­tends in the form of a conical appendage beneath the left auricle. Each auricle communicates with the ventricle by means of a broadish opening, susceptible of being closed by a valve. The right auricle receives all the veins, which form, with the exception of the left jugular, prior to passing through the wall of the auricle, a kind of sac of greater or less extent, which, in addition to the ordinary tunics, ex­hibits a distinct muscular coat. Two large valves serve to close the common entrance of the veins into this auricle. When the blood has attained the right chamber of the ven­tricle, it is driven into the pulmonary artery, of which the embouchure offers two valves ; comprised at its base in the common trunk of the aortas, this artery curves itself be­neath the left aorta, and approaches the lung, of which it margins the posterior face before entering the interior of that organ. A single pulmonary vein, piercing the lung behind the artery of the same denomination, carries the oxydised blood into the left auricle, which is of a conoid form, and less spacious than the right one. This oxydised blood, after having passed into the left cavity, is pushed to­wards the right side, where we find the embouchures of the two aortas, of which each exhibits a pair of semicircular valves, even when these openings are united into one.

We shall now devote a few lines to the respiratory or­gans. When we observe a serpent in a state of repose,—

as on the grassy herb Fearless, unfeared, he sleeps,—

we may see that its body alternately dilates and contracts by the play of the ribs, and that this movement is repeated slowly, yet at regular intervals. But we may also perceive, that the nostrils are closed for a longer, and consequently on unconforming period, during one of which the body is contracted and dilated perhaps thirty times. It results from this observation, that the lungs of Ophidians, besides their ordinary function, fulfil that of serving as reservoirs of at·, mospheric air, which, though replenished only by a single inspiration, contain a quantity sufficient to admit a continu­ous oxydation of the blood by the contraction of the lungs. When the oxygen is totally absorbed, expiration takes place, and a supply of fresh air is drawn in. The configuration of

*@@@, Physiognomie des Serpens,* i. 97.

*@@@’ Erp. Gen.* i. 135.

@@@’ The digestive organs are described by Duvernoy in *Ann. des Sciences Nat.,* and by Meckel in his *Vergl. Anat.*

*@@@\* Erp. Générale,* i. 145.