in. To explain this, it muſt be obſerved, that the jaws of this animal do not open as ours, in the manner of a pair of hinges, where bones are applied to bones, and play upon one another ; on the contrary, the ſerpent’s jaws are held together at the roots by a ſtretching muscular ſkin ; by which means they open as widely as the animal chooſes to ſtretch them, and admit of a prey much thicker than the snake's own body. The throat, like ſtretching leather, dilates to admit the morſel ; the ſtomach receives it in part, and the rest remains in the gullet, till putrefaction and the juices of the ſerpent’s body unite to diſſolve it.

Some ſerpents have fangs or canine teeth, and others are without them. The teeth in all are crooked and hollow ; and, by a peculiar contrivance, are capable of being erected or depreſſed at pleaſure.

The eyes of all ſerpents are ſmall, if compared to the length of the body ; and though differently co- loured in different kinds, yet the appearance of all is malign and heavy ; and, from their known qualities, they ſtrike the imagination with' the idea of a creature meditating miſehief. In ſome, the upper eyelid is wanting, and the ſerpent winks only with that below,; in others, the animal has a nictitating membrane or ſkin, reſembling that which is found in birds, which keeps the eye clean and preſerves the fight. The ſubstance of the eye in all is hard and horny ; the cryſtaline humour occupying a great part of the globe.

The holes for hearing are very viſible in all : but there are no conduits for ſmelling ; though it is proba­ble that ſome of them enjoy that ſenſe in tolerable per­fection.

The tongue in all theſe animals is long and forky. It is compoſed of two long fleſhy ſubſtances, which terminate in ſharp points, and are very pliable. At the root it is connected very ſtrongly to the neck by two tendons, that give it a variety of play. Some of the vi­per kind have tongues a fifth part of the length of their bodies ; they are continually darting them out ; but they are entirely harmleſs, and only terrify thoſe who are ig­norant of the real ſituation of their poiſon.

If from the jaws we go on to the gullet, we ſhall find it very wide for the animal’s ſize, and capable of being diſtended to a great degree ; at the bottom of this lies the ſtomach, which is not ſo capacious, and receives only a part of the prey, while the reſt conti­nues in the gullet for digeſtion. When the ſubſtance in the ſtomach is dissolved into chyle, it passes into the inteſtines, and from thence goes to nouriſhment, or to be excluded by the vent.

Like moſt other animals, ſerpents are furniſhed with lungs, which we ſuppoſe are ſerviceable in breathing, though we cannot perceive the manner in which this operation is performed ; for though ſerpents are often ſeen apparently to draw in their breath, yet we cannot find the ſmalleit ſigns of their ever reſpiring it again. Their lungs, however, are long and large, and doubtleſs are neceſſary to promote their languid circulation. The heart is formed as in the tortoiſe, the frog, and the lizard kinds, ſo as to work without the aſſiſtance of the lungs. It is single ; the greatest part of the blood flowing ſrom the great vein to the great artery by the ſhorteſt courſe. By this contrivance of nature we eaſily gather two conſequences; that ſnakes are amphibious, being equally capable of living on land and in the water; and that alſo they are torpid in win­ter, like the bat, the lizard, and other animals formed in the ſame manner.

The vent in theſe animals ſerves for the emiſſion of the urine and the faeces, and for the purpoſes of gene­ration. The infiniment of generation in the male is double, being forked like the tongue : the ovaries in the female are double alſo ; and the aperture is very large, in order to receive the double infiniment of the male. They copulate in their retreats ; and it is ſaid by the ancients, that in this ſituation they appear like one ſerpent with two heads.

As the body of this animal is long, slender, and ca­pable of bending in every direction, the number of joints in the back-bone are numerous beyond what one would imagine. In the generality of quadrupeds, they amount to not above 30 or 40 ; in the ſerpent kind they amount to 145 from the head to the vent, and 25 more from that to the tail. The number of theſe joints muſt give the back-bone a ſurpriſing degree oſ pliancy ; but this is still increaſed by the manner in which each of theſe joints are locked into the other. In man and quadrupeds, the flat ſurfaces of the bones are laid one against the other, and bound tight by ſinews ; but in ſerpents, the bones play one within the other like ball and ſocket, ſo that they have full motion upon each other in every direction.

Though the number of joints in the back bone is great, yet that of the ribs is ſtill greater ; for, from the head to the vent, there are two ribs to every joint, which makes their number 290 in all. Theſe ribs are furniſhed with muſcles, four in number ; which being inſerted into the head, run along to the end of the tail, and give the animal great ſtrength and agility in all its motions.

The ſkin alſo contributes to its motions, being com­poſed of a number of ſcales, united to each other by a tranſparent membrane, which grows harder as it grows older, until the animal changes, which is generally done twice a-year. This cover then bursts near the head, and the ſerpent creeps from it by an undulatary mo­tion, in a new ſkin, much more vivid than the former. If the old ſlough be then viewed, every scale will be diſtinctly ſeen like a piece of net-work, and wall be found greateſt where the part of the body they covered was largest.

There is much geometrical neatneſs in the diſpoſal of the ſerpent’s ſcales, for aſſiſting the animal’s ſinuous motion. As the edges of the ſoremoſt ſcales lie over the ends of their following ſcales, ſo thoſe edges, whcn the ſcales are erected, which the animal has a power of doing in a ſmall degree, catch in the ground, like the nails in the wheel of a chariot, and ſo promote and fa­cilitate the animal’s progreſſive motion. The erecting theſe ſcales is by means of a multitude of diſtinct muſcles with which each is ſupplied, and one end of which is tacked each to the middle of the foregoing.

In ſome of the ſerpent kind there is the exacteſt ſymmetry in theſe ſcales ; in others they are difpoſed more irregularly. In ſome there are larger ſcales on the bel­ly, and often answering to the number of ribs ; in others, however, the animal is without them, Upon this flight difference, Linnaeus has founded his diſtinctions of the various claſſes of the ſerpent tribe.

When we come to compare ſerpents with each other,