The majority of snakes are active during the day, their energy increasing with the increasing temperature of the air ; whilst some delight in the moist sweltering heat of dense tropical vegetation, others expose themselves to the fiercest rays of the midday sun. Not a few, however, lead a nocturnal life, and many of them have, accordingly, their pupil contracted into a vertical or more rarely a horizontal slit. Those which inhabit temperate latitudes hibernate. Snakes are the most stationary of all verte­brates ; as long as a locality affords them a sufficiency of food and some shelter to which they can readily retreat, they have no inducement to change it. Their dispersal, therefore, must have been extremely slow and gradual. Although able to move with extreme rapidity, they can­not maintain it for any length of time. Their organs of locomotion are the ribs, the number of which is very great, nearly corresponding to that of the vertebræ of the trunk. They can adapt their motions to every variation of the ground over which they move, yet all varieties of snake locomotion are founded on the following simple process. When a part of the body has found some projection of

the ground which affords it a point of support, the ribs are drawn more closely together, on alternate sides, there­by producing alternate bends of the body. The hinder portion of the body being drawn after, some part of it (c) finds another support on the rough ground or a projection ; and, the anterior bends being stretched in a straight line, the front part of the body is propelled (from *a* to *d)* in con­sequence. During this peculiar locomotion the numerous broad shields of the belly are of great advantage, as by means of their free edges the snake is enabled to catch and use as points of support the slightest projections of the ground. A pair of ribs corresponds to each of these ventral shields. Snakes are not able to move over a per­fectly smooth surface. Thus it is evident that they move by dragging their body over the ground, or over some

other firm base, such as the branch of a tree ; hence the conventional representation of the progress of a snake, in which its undulating body is figured as resting by a series of lower bends on the ground whilst the alternate bends are raised above it, is an impossible attitude. Also the notion that snakes when attacking are able to jump off the ground is quite erroneous ; when they strike an object, they dart the fore part of their body, which was retracted in several bends, forwards in a straight line. And sometimes very active snakes, like the cobra, advance simultaneously with the remainder of the body, which, how­ever, glides in the ordinary fashion over the ground ; but no snake is able to impart such an impetus to the whole of its body as to lose its contact with the ground. Some snakes can raise the anterior part of their body and even move in this attitude, but it is only about the anterior fourth or third of the total length which can be thus erected.

With very few exceptions, the integuments form imbri­cate scale-like folds arranged with the greatest regular­ity ; they are small and pluriserial on the upper parts of the body and tail, large and uniserial on the abdomen, and generally biserial on the lower side of the tail. The folds can be stretched out, so that the skin is capable of a great degree of distension. The scales are sometimes rounded behind, but generally rhombic in shape and more

or less elongate ; they may be quite smooth or provided with a longitudinal ridge or *keel* in the middle line. The integuments of the head are divided into non-imbricate shields or plates, symmetrically arranged, but not cor­responding in size or shape with the underlying cranial bones or having any relation to them. The form and number of the scales

and scutes, and the

shape and arrange­

ment of the head-

shields, are of great

value in distin­

guishing the genera

and species, and it

will therefore be

useful to explain in

the accompanying

woodcut (fig. 3) the

terms by which

these parts are de­

signated. The skin

does not form eye­

lids ; but the epi­

dermis passes over

the eye, forming a

transparent disk,

concave like the

glass of a watch,

behind which the

eye moves. It is

the first part which

is cast off when

the snake sheds its skin ; this is done several times in the year, and the epidermis comes off in a single piece.

The tongue in snakes is narrow, almost worm-like, generally of a black colour and forked ; that is, it terminates in front in two extremely fine filaments. It is often exserted with a rapid motion, sometimes with the object of feeling some object, sometimes under the influence of anger or fear.

Snakes possess teeth in the maxillaries, mandibles, pala­tine, and pterygoid bones, sometimes also in the inter­maxillary ; they may be absent in one or the other of the bones mentioned. In the innocuous snakes the teeth are simple and uniform in structure, thin, sharp like needles, and bent backwards; their function consists merely in seizing and holding the prey. In some all the teeth are nearly of the same size ; others possess in front of the jaws (Lycodonts) or behind in the maxillaries (Diacrasterians) a tooth more or less conspicuously larger than the rest ; whilst others again are distinguished by this larger posterior tooth being grooved along its outer face. The snakes with this grooved kind of tooth have been named *Opisthoglyphi,* and also *Suspecti,* because some herpeto­logists were of opinion that the function of the groove of the tooth was to facilitate the introduction of poisonous saliva into a wound. The venomous nature of these snakes, however, has never been proved, and persons are frequently bitten by them without any evil consequences. Nevertheless as the depth of the groove, the length of the tooth, and the development of the salivary glands in its vicinity vary greatly, it is quite possible that the func­tion and the physiological effect of this apparatus are not the same in all Opisthoglyphs. In the true poisonous snakes the maxillary dentition has undergone a special modification. The so-called Colubrine Venomous snakes, which retain in a great measure an external resemblance to the innocuous snakes, have the maxillary bone not at all, or but little, shortened, armed in front with a fixed, erect fang, and provided with a deep groove or closed