

Vertical Sections of the Head taken from Left to Right Side, Longitudinally.

Some of the most valuable preparations of the head at this stage were made in this way, the object being sliced centripetally.

First Section.—The skin being removed, the temporal muscle, the outer part of the quadrate, and the end of the columella (Pl. VI. fig. 7, *t.m., q., co.*), were exposed, and the front part of the eye (*e.*) removed.

Second Section.—Here (Pl. VI. fig. 8), farther in, the thinning out of the quadrate (*q.*) to form the tympanic cavity (*cl. 1*) is shown, and that cavity is partly opened through the membrana tympana (*m.ty.*); in this opening the columella (*co.*) is seen.

Third Section.—In this slice (Pl. VI. fig. 9) the auditory capsule is laid open so as to expose the three canals (*a.s.c., h.s.c., p.s.c.*), and the ampulla of the foremost. The tympanic cavity (*c.ty.*) is more fully laid open, the stem of the columella (*co.*) is cut through, and the hinge of the lower jaw is severed (*q., ar.*).

Fourth Section.—The auditory capsule is here quite opened (Pl. VII. fig. 3, *au.*). The angular tympanic cavity (*cl. 1*) lies between the hinge of the lower jaw (*q., ar.*) and the two chief elements of the hyoid arch, the columella (*co.*), and the cerato-hyal (*c.hy.*).

Fifth Section.—This section (Pl. VII. fig. 4) shows many of the cephalic structures; the body of the eyeball and the thickest part of the ear-capsule are cut through; behind the former are seen, first the “external rectus” muscle (*erm.*), and then the Gasserian ganglion sending forward the orbito-nasal (5¹), and having the common stem of the other branches (5^{2,3}) cut through.

Below these parts a V-shaped cartilage is seen, this is the pedicle of the quadrate (*pd.*) severed from its body; from the apex a short rod grows downwards and forwards, at less than a right angle; this is the “epipterygoid” (*e.pg.*), not distinct in its formation from the quadrate, as in the Lizard.

At some distance below this part the mandible (*mk.*) is largely exposed, the fore half and the articular region are cut away. The bilobate section of the ear-capsule (*au.*) has in its upper emargination a tube entering like a Dentalium-shell; this is the aqueductus vestibuli (*aq.v.*), or remains of the primary involution. In the lower emargination, the mediostapedial (*co.*), or stem of the columella, is cut across as it is passing outwards and a little backwards. The recess in which it fits is the fenestra ovalis. A little of the occipital arch (*e.o.*) is seen behind the ear-capsule, and between that arch and the columella two large nerves are seen emerging, each with its ganglion; these are the ninth and tenth (9, 10), as was seen in the twenty-first transverse section (Pl. VII. fig. 1; 9), the glosso-pharyngeal has a very long root.

Sixth Section.—Here (Pl. VII. fig. 5) the sense-capsules (*e., au.*) are nearly cut away, so that the optic nerve (2) is seen entering the eyeball; the motor oculi (3) is seen arising