

the back part of the larynx, the basi-hyal, and the cerato-hyals (*lx., b.hy., c.hy.*) are also cut across.

*Eleventh Section.*—We now reach the auditory region (fig. 4), and from the obliquity of the head the cranial roof cartilage (*s.o.*) is seen, the alisphenoidal selvedge (*al.s.*) running from it into the auditory capsule (*au.*). The anterior canal (*a.s.c.*) is severed near its ampulla, and a little of the general cavity of the vestibule (*vb.*) is also shown. The capsule runs into the basal plate below, the isthmus of cartilage under these parts passes inside the trigeminal nerve (5), the internal carotid (*i.c.*) is also seen in its canal, and both these structures lie on the pterygoid (*pg.*). At the middle of the floor the bony matter of the basisphenoid (*b.s.*) is seen enclosing the cartilage from which the apex of the notochord has shrunk.

The quadrate (*q.*), half bony, is cut through in front of its tympanic cavity exactly at the hinge, so that here the outer "articular" bone is seen to invest the cartilage of the jaw within very closely. Here, exactly in front of the tympanic cavity, the quadrato-jugal (*q.j.*) is severed; between it and the post-orbital (*pt.o.*) there is a mere membranous space. Here the parietal (*p.*) is bifoliate, part going over the temporal muscle (*t.m.*) to the post-orbital, and part going down to protect the sphenotic tract of cartilage.

Below, behind the tongue, the trachea, cerato-hyals, and hypo-branchials (*trc., c.hy., h.br.*) are cut through.

*Twelfth Section.*—A little further backwards we come across new parts (fig. 5); the brain is shown as retained in the cranial cavity, and the optic lobes (C 2) are seen lying over the fore part of the medulla oblongata (C 3); but the cerebellum does not come into view.

The thick cartilaginous roof is now superoccipital (*s.o.*), and this runs into the widening auditory capsule, in which we see the arch of the anterior, and the ampulla of the horizontal canal (*a.s.c., h.s.c.*); the eighth nerve (8) is seen passing through the meatus internus, and the columella (*co.*) filling the fenestra ovalis (*co., f.o.*), which leads to the large vestibule (*vb.*). This section is directly in front of the small budding cochlea.

The seventh nerve (7) is seen riding over the columella (*co.*), beneath which the pterygoid bone (*pg.*) creeps outside the canal formed by it for the internal carotid artery (*i.c.*); for this bone has a most extraordinary development in the Chelonia, just as the "basi-temporal" plates have in the Bird. These are not homologous parts, but they are vicarious of each other in function in these two types.

Here, in the fore edge of the basioccipital bone, the essentially homologous nature of the inter-segmental vertebræ, and the non-segmented basis cranii in its hind part, is well seen in this section.

The notochord (figs. 5, 5") is here pinched, laterally, in a conical mass of true cartilage,—the mesoblastic sheath of the chord,—and embracing these on each side, we