

In the trigeminal region of the hind-brain the neural canal is open for some thirteen sections, but before the auditory region is reached it is again closed as far as section 81, near which point (Fig. 11) there is again a failure to close for a few sections; thereafter, however, the canal is closed as far as section 126, Fig. 12, behind which point the groove is, at first narrowly, and then widely, open.

In section 160 (Fig. 16) the fusion of the ventral wall of the neural groove and the notochord begins and is continued in the following sections (Figs. 17-20), the complete fusion of the ectoderm, chorda, mesoderm and endoderm being attained at the 175th section (Fig. 20). Beyond this point we can hardly speak of a neural groove; the 181st section (Fig. 21), indeed, shows an unsymmetrical fissure which is not uncommon in the primitive groove of normal embryos, and by section 190 all traces of the primitive streak have disappeared and the germinal area presents a normal appearance (Fig. 23). The comparison of my Figures 15-22 with those of Hertwig (1 c., Figs. 536-545, page 894) shows that there is little difference except in the less amount of closure of the neural canal, and without an inspection of sections further forward, it would be impossible to detect any symptom of "duplicitas."

NOTOCHORD.

The contact of the two notochords has already been sufficiently referred to in the hinder region; it only remains to call attention to their gradual increase in size from their first appearance in section 9 (immediately behind figure 5) till their fusion in section 131, also to their gradual convergence to this point.

MESODERM.

As already remarked there are ten somites, and this is the case with the "median" series of fused somites which lie exactly in the same plane as the lateral ones. Of the "median" series, the seven posterior are better demarcated than those further forward, and are sometimes notched on their ventral surface. The rudiment of the Wolffian body may be seen in the region represented in Figs. 12 and 13.

VASCULAR SYSTEM.

A convenient starting-point for the description of the vascular system is the region depicted in Fig. 10 (section 67), where the vitelline veins are perfectly normal, and the only thing that arrests attention is the "median" descending aorta. Fig. 9 shows that the vitelline veins have not become fused into a single heart as in a normal