

but, in birds, they are soon folded together into a rounded mass; while, in the mean time, the two filaments of the spinal cord have approached each other, and united into a single column, the form which they ever after retain. Even at this early period the rudiments of the organs of the higher senses, (first of the eye, and next of the labyrinth of the ear,) make their appearance; but, on the other hand, those of the legs and wings do not show themselves until the brain has acquired greater solidity and development. The nerves which are to connect these organs of sensation and of motion with the spinal cord and brain are formed afterwards, and are successively united to the nervous centres.

Although the plan of the future edifice has thus been sketched, and its foundations laid in the homogeneous jelly by the simpler efforts of the vital powers, the elevation of the vast superstructure demands the aid of other machinery, fitted to collect and distribute the requisite materials. Here, then, we might, perhaps, expect to meet with a repetition of those vegetative processes, having similar objects in view, and the adoption of analogous means for their accomplishment; but so widely different in character is the whole organic economy of these two orders of beings, that we perceive no resemblance in the mechanism employed for their formation. For the purposes of animal life the nutrient juices must be brought into active circulation by means of vessels extensively pervading the system. Nature, then, hastens to prepare this important hydraulic apparatus, without which the work of construction could not proceed. What may be the movements of the transparent nutrient juices at the very earliest period must, of course, remain unknown to us, since we can only follow them by the eye after the nutritive substance they contain has become consolidated in the form of opaque globules. These globules are at first seen to meander through the mass, unconfined by investing vessels; presently, however, a circular vessel is discovered, formed by the foldings of the membrane of the embryo, along which the fluids undulate backwards and for-