

to the posterior side of the brain; a median line is slightly indicated by the arrangement of the nucleogenous bodies. The tract composed of large nerve fibres with scattered ganglionic cells on the left side is very much more extensive than on the right.

Comparison with the brain of other Arthropods. — So wholly unlike in its form, the want of antennal nerves, and internal structure, is the supra-oesophageal ganglion, or »brain«, of *Limulus* to that of insects and the higher Crustacea, that it is very difficult to find any points of comparison.

Histologically, judging by my specimens of the brain of the lobster which are stained with carmine, the brain of *Limulus* agrees with that of other Arthropods in having similar large ganglion-cells; the smaller ganglion-cells, so abundant in the brains of insects and Crustacea, are wanting in *Limulus*. There are, in *Limulus*, no ballen-substanz-masses homologous with those of the other Arthropods nor any »mushroom« bodies.

Topographically the internal structure of the brain of *Limulus* is constructed on a wholly different type from that of any other Arthropodous type known, so much so that it seems useless to attempt to homologize the different regions in the two types of brain. The plan is simple in *Limulus*; much more complex in Arthropods, especially in the brain of the craw-fish, as worked out by Krieger, as in the Decapodous brain there arise two pairs of antennal nerves besides the optic pair, and in external form the two types of brain are entirely unlike. The symmetry of the brain of the crayfish, as of the lobster and insects, is marked throughout, each hemisphere exactly repeating in its internal topography, the structure of the opposite side; that of the *Limulus* is obscure and imperfect.

III. Mittheilungen aus Instituten, Gesellschaften etc.

1. Bitte um embryologisches Material.

Zur befriedigenden Durchführung meiner in ihrem ersten Theil bereits publicirten Arbeit über die Anatomie menschlicher Embryonen bedarf ich noch einiger gut conservirter Embryonen von 1— $1\frac{1}{2}$ (event. bis 2) cm Körperlänge. Präparate dieser dem zweiten Monat zukommenden Entwickelungsstufe sind in Sammlungen nicht allzu selten und vielleicht findet sich ein oder der andere von den Herren Collegen bereit, mir mit vorhandenem Material auszuhelfen. Zu Gegendiensten erkläre ich mich gern bereit.

Leipzig (Königstr. 17), den 31. Mai 1880.

W. His.

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