the growing ovary. This view is supported by the fact that they were in functional activity though the eggs had just been extruded, and the new series of eggs were in a very early stage.

As already stated, the eggs give origin to embryos which develop into active little crustaceans exactly like free-swimming Ostracods or water fleas (Cypridæ), possessing a transparent bivalve shell and numerous paired limbs, and crowding the capacious mantle cavity, until they finally find their way into the external water.

Sylon, a Rhizocephalan, parasitic on shrimps, is known to reproduce parthenogenetically, and the same doubtless applies to *Mycetomorpha*, as Mr. Potts found no trace of any male organs.

*Mycetomorpha* lives upon the juices of its host which are sucked in by the short branches of the root-system (Fig. 4 rs) and carried by a hollow space or lacuna into the short oblique peduncle (Fig. 4 p) or neck of attachment to the shrimp, this neck being as usual strengthened by a ring of hard chitin, from which a median spike projects forward. (Fig. 2 sp.) The upper branching part or root-system of the peduncle (Fig. 4 rs) appears like a matted strip of short branches given off laterally along the under side of the great ventral nerve cord of the shrimp, these terminating in the ventral muscles. The root-system does not penetrate the host extensively, like *Sacculina*, but extends only about a segment and a half of the body in front of the peduncle and less than a segment behind the peduncle.

Mycetomorpha is a most interesting addition to the marine fauna of Canada. Like other Rhizocephalans it is, when adult, a most degenerate animal, with its rounded shapeless body destitute of limbs, send organs, mouth and digestive canal, gills, heart or blocd-vessels. Clinging tightly to its host by its peduncle with branching extensions, it sucks the nutrient juices, and devotes its sluggish energies to producing eggs, but in the absence of a male, these are parthenogenetic, and they give birth to embryos, which skip some of the larval stages of other Cirripedes, and appear in the mantle or brood cavity as active swimming Cypris-larvæ, and seem to then burst through the skin of the parent to wander about in the open waters of the sea.

Carl Claus said of the Crustacea, as a whole, that their development from the egg is "almost never direct, for it is rarely that the young, after hatching out, possess the form which they will have when adult. Almost always there is a complicated metamorphosis, and when they are destined later to live the life of parasites, the metamorphosis is regressive." *Mycetomorpha*, in its young stages, could hardly be more unlike its adult form, and in its development and mode of life it is a remarkable illustration of legenerative evolution or regressive development.