

Not unfrequently during the extension of one or more pseudopods in advance, another may originate, and extend in a widely divergent or even opposite direction from the former. In such instances, after a little while, the previously advancing pseudopods become retarded in their course, then recede, and go to contribute to supply the new pseudopod moving in another direction.

Occasionally clearer and wider expansions than usual of the ectosarc appear at the root of a pseudopod, or like a web in the crotch of a pair of pseudopods, as seen in figs. 3, 5, 7, pl. I. Similar expansions at times extend as longitudinal folds along the body and principal pseudopods, as represented in fig. 7.

Sometimes a pair of pseudopods start together from near the same point, extend side by side, and, as they advance, become confluent from their root onward. Very rarely do contiguous pseudopods, approaching one another and coming into contact at the ends, become connate, or fused together, though I have observed this to occur in the capture of an animaleule, as represented in fig. 5 c, pl. I.

The fundamental structure of *Amœba proteus* consists of a thin, colorless, jelly-like, pale, and finely granular protoplasm, or sarcode, endowed with extensile, contractile, and other less well defined attributes, in which, however, a chemical or digestive power may be included. The exterior clearer portion of the protoplasmic mass constitutes the ectosarc, while the interior portion, mingled with various elements, intrinsic and extrinsic, constitutes the endosarc.

The clear ectosarc, examined by the higher powers of the microscope under favorable conditions of light, appears never to be perfectly structureless, but exhibits an infinitely fine granular constitution.

The endosarc, with its mingled coarser elements in its relationship with the ectosarc, may be compared with the circulating blood in the capillaries of the higher animals. The endosarc is comparable to the rapidly flowing current of blood, mingled with its corpuscles, in the axes of the vessels, while the ectosarc is comparable to the slower moving blood-liquor next the walls of the vessels.

The ordinarily distinguishable elements of the endosarc of *Amœba proteus* have appeared to me to be as follows:

1. Granules, from those of the finest, most diffuse, and scarcely per-