

described these wonderful "*organisms without organs*," when examining the simplest phenomena of propagation and inheritance. We already know seven different genera of these Monera, some of which live in fresh water, others in the sea (compare above, p. 191; also Plate I. and its explanation in the Appendix). In a perfectly developed and freely mobile state, they one and all present us with nothing but a simple little lump of an albuminous combination of carbon. The individual genera and species differ only a little in the manner of propagation and development and in the way of taking nourishment. Through the discovery of these organisms, which are of the utmost importance, the supposition of a spontaneous generation loses most of its difficulties. For as all trace of organization—all distinction of heterogeneous parts—is still wanting in them, and as all the vital phenomena are performed by one and the same homogeneous and formless matter, we can easily imagine their origin by spontaneous generation. If this happens through *plasmogeny*, and if plasma capable of life already exists, it then only needs to individualize itself in the same way as the mother liquor of crystals individualizes itself in crystallization. If, on the other hand, the spontaneous generation of the Monera takes place by true *autogeny*, then it is further requisite that that plasmion capable of life, that primæval mucus, should be formed out of simpler combinations of carbon. As we are now able artificially to produce, in our laboratories, combinations of carbon similar to this in the complexity of their constitution, there is absolutely no reason for supposing that there are not conditions in free nature also, in which such combinations could take place. Formerly, when the doctrine of