those animals which subsist in complex communities, and which aggregate large quantities of mineral matter in their skeletons. So true is this that up to the present time all the species of Protozoa and of the animals most nearly allied to them are aquatic. Even in the waters, however, plant life, though possibly in very simple forms, must precede the animal.

Let humble plants, then, be introduced in the waters, and they would at once begin to use the solar light for the purpose of decomposing carbonic acid, and forming carbon compounds which had not before existed, and which, independently of vegetable life, would never have existed. At the same time lime and other mineral substances present in the sea water would be fixed in the tissues of these plants, either in a minute state of division, as little grains or Coccoliths, or in more solid masses like those of the Corallines and Nullipores. In this way a beginning of limestone formation might be made, and quantities of carbonaceous and bituminous matter, resulting from the decay of vegetable substances might accumulate on the sea bottom. Now arises the opportunity for animal life. The plants have collected stores of organic matter, and their minute germs, along with microscopic species, are floating everywhere in the sea. The plant has fulfilled its function as far as the waters are concerned, and now a place is prepared for the animal. In what form shall it appear? Many of its higher forms, those which depend upon animal food or on the more complex plants for subsistence, would obviously be unsuitable. Further, the sea water is still too much saturated with saline matter to be fit for the higher animals of the waters. Still further, there may be a residue of internal heat forbidding coolness, and that solution of free oxygen which is an essential condition of existence to the higher forms of life. Something must be found suitable for this saline, imperfectly oxygenated, tepid sea. Something, too, is wanted that can aid in introduc-