

methods of science have been used in its investigation—is still a great and hopeless mystery.

The very word life is practically indefinable. We can only say, at most, that it is a something whose properties are never found apart from a compound of oxygen, hydrogen, nitrogen and carbon, called protoplasm; on the other hand, this compound often exists unaccompanied by the properties of life.

In order to study with effect any difficult subject, we should look at it in its least complex form, so as not to lose the essentials in the surrounding circumstances. Perhaps the simplest form of life is presented in the amœba, a creature almost exactly like a drop of the white of an egg in appearance and composition. By perseverance or good fortune it may be found in water containing a little organic matter, and then may be studied sufficiently well with a microscope magnifying two or three hundred diameters. At first it may seem lifeless, like other matters within the field of view, but frequently we see that the drop has changed its shape. A part bulges out on one side, the projection grows, and, while we watch it, the rest of the drop has slid into it, and the amœba has moved a length. This is often done so rapidly by a young amœba that the glass slide must be moved every few moments to keep it in the field of view. This almost indescribable motion may be up or down in the water as well as from side to side. It is as though a man should thrust out his arm and presently all the rest of him should have flown into it, and then he should proceed to send out another arm in another direction.

The amœba possesses something like a will; he pleases to go in one direction or another, and straightway goes, as though to will was to do. We think we can understand motion where there is organization, machinery, to produce it, but here the highest powers of the microscope show no trace of organization.

An astronomer can calculate with unerring certainty the position of any planet of our system for any given future time—no man can calculate for a moment before where that drop of living jelly will have taken itself. How much higher