

but their labours have hitherto been fruitless. Fanciful hypotheses in abundance might be adduced on this favourite topic of speculation; but they have led to no useful or satisfactory result. Haller, who pursued the inquiry with great ardour, came to the conclusion that there existed what he calls the simple or primordial fibre, which he represents as bearing to anatomy the same relation that a line does to geometry. Chemical analysis alone is sufficient to overturn all these hypotheses of the uniformity of the proximate elementary materials of the animal organs: for they are found to be extremely diversified in their chemical composition. Neither has the microscope enabled us to resolve the problem: for although it has been alleged by many observers that the ultimate elements of every animal structure consists of minute globules, little confidence is to be placed in these results obtained by the employment of high magnifying powers, which are open to so many sources of fallacy. That globules exist in great numbers, not only in the blood, but in all animals fluids, there can be no doubt; and that these globules, by cohering, compose many of the solids, is also extremely probable. But it is very doubtful whether they are essential to the composition of other parts, such as the fibres of the muscles, the nerves, the ligaments, the tendons, and the cellular texture: for the most recent, and apparently most accurate microscopical observations tend to show that no globular structure exists in any of these textures.*

The element which we can recognise without difficulty as composing the greater portion of animal structures, is that which is known by the name of the *cellular texture*. Although bearing the same designation as the elementary material of the vegetable fabric, it differs widely from it, in its structure and mechanical properties. It is not, like that of plants, composed of a union of vesicles; but is formed of a congeries of extremely thin laminæ, or plates, variously con-

* See the Appendix to Dr. Hodgkin and Dr. Fisher's translation of Edward's work on the Influence of Physical Agents on Life, p. 440.