

be much encroached upon; and until our knowledge covers this, the practice of medicine can never be truly a science.

The theories of life have been constantly changing from the earliest times until the present day. This was to have been expected from the fact that thinking men are not apt to rest satisfied with the knowledge of any truth, but seek to explain it by a reference to other truths; to endeavour to establish, in short, some relation between all things that seem in the least degree analogous to one another.

Thus in the middle of the seventeenth century, we see a sect of medical philosophers, headed by Sylvius, holding the iatro-chemical doctrines;* which were supposed to be justified by the discovery of the fact that many of the chemical actions going on within the body were analogous to others observed in the inorganic world.

At the same time and later flourished the iatro-mathematical school, founded in the first place by Borelli,† and afterwards extended by Bellini.‡ The doctrine of these philosophers was based on the observation that many of the vital actions are governed by mathematical laws.§

The insufficiency of these hypotheses gave rise in turn to that of the *Archeus* of Van Helmont, the *Anima* of Stahl, and the *Vis Medicatrix Naturæ* of Cullen.

Still later than this a belief became somewhat prevalent of so monstrous a nature, that, did we not know by daily experience the almost unlimited extent of human belief, we could never suppose it to have been entertained. It was that all the vital force required to build up any organism was stored up in the cell from which the plant or animal originally proceeded, so that all the force by which an oak, a whale, or an elephant was built up, was capable of being confined within the compass of a microscopic cell, of which thousands, or perhaps millions would lie upon the point of a penknife blade.

Still later, when it was believed that the vital forces existed in a dormant state in all matter capable of undergoing organisation, light and heat were regarded as vital stimuli or forces which possessed the power of calling these forth from the latent condition. This theory cannot be said to be absurd, it involves no contradiction, and could not be logically denied while it was held that a dormant magnetic power was possessed by iron, that latent heat existed in steam, and the like; but when with Grove we deny the existence of such a property in iron, of such heat in steam, and the presence of latent force in every other case where it is said to exist; we have also a right to deny to carbon, hydrogen, oxygen, &c., the dormant power that is by this theory attributed to them.

* Bostock's "History of Medicine," pp. 157-8. Francis Delabac Sylvius, a Dutch physiologist and chemist, was born 1614, and died 1672. "Cyclopædia of Biography," p. 917.

† J. A. Borelli, an Italian philosopher, was born 1603 and died 1679. "Cyclopædia of Biography," p. 111.

‡ L. Bellini, a celebrated anatomist, was born 1643 and died 1702. "Cyclopædia of Biography," p. 89.

§ Bostock's "History of Medicine," pp. 164-5.