

18.
The extreme
vitalism.

representatives of the medical profession considered it unworthy and degrading to treat the human frame as a mechanism, and to approach it by the methods used in other sciences. "For the vitalist physician," says Helmholtz,¹ "the essential part of the vital processes did not depend on natural forces which act according to fixed laws. What these could do appeared of secondary importance, and a study of them hardly worth the trouble. He thought to be face to face with something soul-like,"—the *anima* of Stahl, the vital force of the vitalists,—“which had to be met by a thinker, a philosopher, a man of spirit. . . . Auscultation and percussion were practised in the hospitals,² but I have heard it said that these were crude

tificially, we shall probably be able to date from that day an entirely new period in natural science, but this artificial production of albumen will never be feasible through the simple affinities of the elements, but only by producing a new arrangement in organic substances already formed by the plant. We shall gratefully receive all such increase of our knowledge: we do not require wonders and belief in miracles for the vital force, but only a name for the effects of which we do not know the causes. . . . Neither the ancient primæval ooze nor the modern Bathybius, neither the remote monads nor the recent monera, neither protoplasm, nor nucleus and cell and their development, confessedly so simple and easily understood up to self-conscious man, give us the smallest clue to the forces at work and their origin. This induces us to ascribe them to a force, regarding the essence of which we indeed know

no more than we know of any cause that cannot be further analysed. But we admit in doing so the imperfection of our knowledge, and do not deceive others by suggesting that mechanical science could solve the secret of organised nature.”

¹ 'Vorträge und Reden,' vol. ii. p. 179.

² Chr. Fried. Nasse (1778-1851), since 1822 professor at Bonn, where, together with Walther, Joh. Müller, and others, he cultivated the physiological method in medicine, "was, as it seems, the first German doctor in whose clinical institute physical diagnosis was introduced. From 1820 onward percussion was practised; since 1821 the stethoscope was regarded as an indispensable instrument" (Haeser, 'Geschichte der Medizin,' 3rd ed., Jena, 1881, p. 912). "The thermometer was first used extensively at the bedside by James Currie (1756-1805). His 'Medical Reports on the effect