ness coupled with senile indolence. At all events, modern psychology is not afraid of studying with biologic methods the questions connected with the organs of thinking. Psychophysics is part of psychology. Gustav Theodor Fechner (1801-1887) of Leipzig, should be considered its founder, but Wilhelm Wundt (born 1832) is now recognized as the most exact investigator of cerebral—so-called mental—functions, and the recognized head of the laboratory school of psychologists all over the world. They do no longer fear to apply their intellect to the study of their intellect. They are not even afraid of attacking problems left untouched by Julius Robert von Mayer (1814-1878), the author of the theory of the preservation of force. This theory, or rather this "law of the preservation of force", which is generally recognized, has become indispensable for biological research. It has finally annihilated the vitalistic theory, that is, the assumption of a special vital force; and has proven the sufficiency of chemistry and physics for the purpose of explaining the phenomena of biology and pathology.* Thus, on his lines, Robert Mayer has accomplished as much as Charles Darwin in his great books of 1859, 1868, 1871, and 1872 for biology, history, and archæology. Robert Mayer's name will be immortal on account of what he has achieved, and should not suffer because there are things he left undone, and truths he left unuttered. In regard to the latter he is, perhaps, slightly guilty.

Indeed, I was present when, in 1869, he delivered an address: "On the Necessary Consequences and Inconsistencies of the Mechanical Theory of Heat," in which, possibly overawed by many attacks by the always militant clergy, he postulated that in the world of intellect the laws of the preservation of force were not necessarily so valid as in the physical organism. Verily he was a queer example of greatness and mediocrity. He was a medical officer in the Dutch navy, and later a practitioner in a small South German town. Under the equator he noticed the altered metabolism of the sailors and the change in the color of the blood during venesection. That was enough to awaken his interest and to lead to results as great as the gravitation theory of Isaac Newton which is attributed to the falling apple. But he was an indifferent writer. His first publication of 1842 was hardly noticed, only that of 1845, under the title "Organic Motion in its Connection with Metabolism," (Die Organische Bewegung in ihren Zusammenhang mit den Stoffwechsel) made his name and his theory famous. I found his utterances halting and unimpressive, both in private conversation and in public, and he did not improve even in his fights for priority.

Nearest to him in line and in the results of his thinking came James

* Cf. Julius Pagel, Gesch. d. Medicin, Berlin 1898.