

Müller. And out of the circle of which E. H. Weber was the centre, has emanated that work of Fechner, 'Elements of Psycho-physics,' which marks an epoch in psychology: it is indeed mainly occupied with the exposition and application of what is termed Weber's law of sensation.¹ In the course of the second quarter of the century, the names of Gauss and Jacobi in mathematics, of Liebig and Wöhler in chemistry, of Schleiden and Schwann in the science of life, of Müller and Weber in physiology, raised German science to the level previously reached by the French Academicians, by Laplace and Lagrange, by Lavoisier and Berthollet, by Cuvier and St-Hilaire, by Vicq-d'Azyr and Bichat. During

created by the posthumous publication of Riemann's celebrated Memoir, 'Ueber die Hypothesen welche der Geometrie zu Grunde liegen,' Göttingen, 1865. Helmholtz's invention of the ophthalmoscope in 1851 marks an epoch in ophthalmology.

¹ Gustav Theodor Fechner (1806-87), professor at the University of Leipsic, was an extraordinary man. The wide range of his interests and his great personal influence are well described in his biography by Dr Kuntze, 'G. T. Fechner, Ein deutsches Gelehrtenleben,' Leipzig, 1892. Together with Lotze he may be said to have brought about the reform of German speculative philosophy, and in relation to this he will occupy our attention largely in a later portion of this book. He belonged to the circle of which E. H. Weber was the centre, and has taken an important place in the history of philosophy and science by his now celebrated work, 'Elemente der Psychophysik,' 2 vols., Leipzig, 1860; 2nd ed., 1890. The

object of this work is to establish "an exact doctrine of the relations of body and mind," the principal task being "to fix the measure of psychical quantities." He says in the preface: "The empirical law which forms the principal foundation, was laid down long ago by different students in different branches, and was expressed with comparative generality mainly by E. H. Weber, whom I would call the father of psycho-physics" (Preface, p. v). In early life Fechner did much, by his translations of Biot's 'Physics' and Thénard's 'Chemistry,' as well as by his own experimental works, to introduce the French scientific spirit into German research. His psycho-physical labours have been continued by Prof. Wundt; his importance as marking a turning-point in German philosophy is brought out in Paulsen's 'Einleitung in die Philosophie,' Berlin, 1890. See especially Preface, p. viii, and p. 318, where Fechner is placed before Lotze.