Methodists and Quakers. He declined an offer from his uncle, the Rev. Thomas Spencer, to send him to Cambridge, and so was practically self-taught. During 1837-1846 he was employed as an engineer on the London & Birmingham railway; 1848-1853 as sub-editor of the *Economist.* From about this time to 1860 he contributed a large number of articles to the *Westminster Review,* which contain the first sketches of his philosophic doctrines. He also published two larger works, *Social Statics* in 1850, and *Principles of Psychology* in 1855. In 1860 he sent out the syllabus of his *Synthetic Philosophy* in ten volumes, and in spite of frequent ill health had the satisfaction of completing it in 1896 with the third volume of the *Principles of Sociology.* He died on the 8th of December 1903.

Herbert Spencer’s significance in the history of English thought depends on his position as the philosopher of the great scientific movement of the second half of the 19th century, and on the friendship and admiration with which he was regarded by men like Darwin, G. H. Lewes and Huxley. Spencer tries to express in a sweeping general formula the belief in progress which pervaded his age, and to erect it into the supreme law of the universe as a whole. His labours coincided in time with the great development of biology under the stimulus of the Darwinian theory, and the sympathizers with the new views, feeling the need of a comprehensive survey of the world as a whole, very widely accepted Spencer’s philosophy at its own valuation, both in England and, still more, in America. In spite of this, however, his heroic attempt at a synthesis of all scientific knowledge could not but fall short of its aim. Living at the commencement of an epoch of unparalleled scientific activity, Spencer could not possibly sum up and estimate its total production. To the specialists in sciences which were advancing rapidly and in divergent directions to results which often reacted on and transformed their initial assumptions, Spencer has often appeared too much of a philosopher and defec­tive in specialist knowledge. To the technical philosophers, who strictly confine themselves to the logical collation and criticism of scientific methods, he has, contrariwise, not seemed philosophic enough. Hence his doctrines were open to damaging attacks from both sides, the more so as he always stood aloof from the academic spirit and its representatives. It seems unlikely, therefore, that as a system the *Synthetic Philosophy* will prove long-lived; but this hardly detracts from its fruitfulness as a source of suggestion, or from the historic influence of many of its conceptions on the culture of the age.

This estimate of Spencerian philosophy may be substantiated by a brief survey of its origin and leading characteristics. Spencer claims, with some reason, that he was always an evolu- tionist. But his notions of what “ evolution ” is developed quite gradually. At first he seems to have meant by the word only the belief that progress is real, and that the existing order of nature is the result of a gradual process and not of a “ special creation.” In *Social Statics* (1850) he still regards the process teleologically, and argues after the fashion of Paley that “ the greatest happiness is the purpose of creation ” (ch. iii. § 1), and that to “ gag the moral sentiment ” is “ to balk creative design ” (ch. xxxii. § 7). But this phraseology soon dis- appears, without his considering how, in default of some sort of teleology, it is legitimate to treat the world’s history as a process. In *The Development Hypothesis* (1852) he objects strongly to the incredibility of the special creation of the myriad forms of life, without, however, suggesting how development has been effected. In *Progress, its Law and Cause* (1857) he adopted Von Baer’s law, that the development of the individual proceeds from the homogeneous to the heterogeneous. This is at once connected with the nebular hypothesis, and subsequently “ deduced ” from the ultimate law of the “ persistence of force,” and finally supplemented by a counter-process of dissolution, all of which appears to Spencer only as “ the addition of Von Baer’s law to a number of ideas that were in harmony with it.” It is clear, however, that Spencer’s ideas as to the nature of evolution were already pretty definite when Darwin’s *Origin of Species* (1859) revolutionized the subject of organic evolution by adding natural selection to the direct adaptation by use and disuse, and so suggesting an intelligible method of producing modifications in the forms of life. Spencer welcomed the Darwinian theory, and enriched it with the phrase “ survival of the fittest ”; but he did not give up the (Lamarckian) belief in the hereditary transmission of the modifications of organisms by the exercise of function. Shortly afterwards (1860) he sent out the prospectus of a systematic exposition of his *Synthetic Philosophy,* of which the first volume, *First Principles,* appeared in 1862. This work is divided into two parts; the first intended to show that while ultimate metaphysical questions are insoluble they compel to a recognition of an inscrutable Power behind phenomena which is called the Unknowable; the second devoted to the formulation and illustration of the Law of Evolution. In the first part Spencer’s argument rests on Mansel's *Limits of Religious Thought* and Hamilton’s “ philosophy of the con­ditioned ” (and so ultimately on Kant), and tries to show that alike in scientific and religious thought the ultimate terms are “inconceivable” (not by him distinguished from“ unimaginable ”). In science, the more we know the more extensive “ the contact with surrounding nescience.” In religion the really vital and constant element is the sense of mystery. This is illustrated by the difficulties inherent in the conception of Cause, Space, Time, Matter, Motion, the Infinite, and the Absolute, and by the “ relativity of knowledge,” which precludes knowledge of the Unknowable, since “ all thinking is relationing.” Yet the Unknowable may exist, and we may even have an “ indefinite knowledge ” of it, positive, though vague and extralogical. Hence both science and religion must come to recognize as the “ most certain of all facts that the Power which the Universe manifests to us is utterly inscrutable.” Thus to be buried side by side in the Unknowable constitutes their final reconciliation, as it is the refutation of irreligion which consists of “a lurking doubt whether the Incomprehensible is really incomprehensible.”

Such are the foundations of Spencer’s metaphysic of the Unknowable, to which he resorts in all the fundamental difìiculties which he subsequently encounters. Whatever its affinities with that version of “ faith ” which regards it as antagonistic to knowledge, it can hardly be deemed philosophically satis- factory. A failure to solve the problems of metaphysics must always remain a failure, in spite of all protestations that it was inevitable; and it in no wise justifies an advance to so self- contradictory an *asylum ignorantiae* as the Unknowable. In the edition of his *First Principles,* published in 1900, Spencer adds a “ postscript ” which shows some consciousness of the contradiction involved in his knowledge of the Unknowable, and finally contends that his account of the Knowable in part ii. will stand even if part i. be rejected. Even this, however, understates the case, seeing that a really inscrutable Unknow- able would destroy all confidence in the order of nature and render all knowledge entirely precarious.

In part ii. Spencer recognizes successively likenesses and unlikenesses among phenomena (the effects of the Unknowable), which are segregated into manifestations, vivid (object, non- ego) or faint (subject, ego), and then into space and time, matter and motion and force, of which the last is symbolized for us by the experience of resistance, and is that out of which our ideas of matter and motion are built. Hence the Persistence of Force is the ultimate basis of knowledge. From it Spencer proceeds to deduce the indestructibility of matter and energy, the equiva- lence and transformation of forces, the necessity of a rhythm, of Evolution *(i.e.* integration of matter with concomitant dissipation of motion) and Dissolution, and finally reaches the statement of the Law of Evolution as “ an integration of matter and concomitant dissipation of motion, during which the matter passes from an indefinite incoherent homogeneity to a definite coherent heterogeneity, and during which the retained motion undergoes a parallel transformation.” This process of evolution is due to “ the instability of the homogeneous,” the “ multiplication of effects ” and their “ segregation,” con- tinuing until it ceases in complete “ equilibration.” Sooner