OBITUARY

FREDERICK PARKER GAY

WHENEVER one of the really great men of science passes from our midst, not only are our hearts filled with sorrow for the loss of a dear and esteemed colleague, but our minds pause long enough to reflect upon a personality which has exercised such a tremendous influence on the time and sphere in which he lived and worked. These were the emotions and thoughts that came to the scientific world with the news of the death of Frederick Parker Gay on July 14, 1939.

Born in Boston, Mass., on July 22, 1874, he received a classical preparatory education at Boston Latin School and Harvard University. His career in research began early while he was still a medical student at the Johns Hopkins University. As assistant to Dr. Simon Flexner he traveled around the world with the Johns Hopkins Medical Commission, stopping in the Philippines to investigate cholera and dysentery. About thirty years later he was to return to the same Islands, this time in quest of leprosy, as a member of the Leonard Wood Memorial Commission.

By 1901, when Dr. Gay was graduated from medical school, the science of bacteriology was blossoming prodigiously and its spectacular achievements could not help but attract a man with Gay's intellectual curiosity and emotional drive. Because medical bacteriology began as a branch of morbid anatomy, the young bacteriologist naturally entrusted his early instruction to the pathologist. An award of the first fellowship by the new-born Rockefeller Institute opened a position as assistant demonstrator in pathology at the University of Pennsylvania from 1901–1903. For some years later Gay continued to call himself a pathologist; but as he advanced in age there developed in him a growing interest in the fundamental problems of microbiology which was to carry his activities far beyond the conventional lines of medical bacteriology. An inborn desire to elucidate principles rather than to record phenomena was probably the reason for his early association with the great theoretical genius of his time, Jules Bordet in Brussels. Here, during the years 1903 to 1906, his attention was fully absorbed by an investigation of the complexities of the alexin fixation reaction which was to initiate a long and fruitful series of contributions in the field of immunology. An important by-product of this period was his first book, a translation into English of the "Studies in Immunity" by Bordet and his collaborators, published in 1909. When he returned to this country, his scientific progress was one of uninterrupted activity and his career one of increasing momentum. During the years 1906 and 1907 he served as bacteriologist to the Danvers Insane Hospital in Massachusetts; between 1907 and 1909 he was assistant and later instructor in pathology at the Harvard Medical School. In 1910 he became professor of pathology at the University of California at Berkeley. Here he remained for thirteen years, except for a brief period of service as major in the Medical Corps of the U. S. Army during the World War. It was towards the end of his stay in California that he succeeded in developing bacteriology and immunology as independent sciences, separate from pathology, a division which led to his appointment, in 1921, as professor of bacteriology and director of the newly organized department. In 1923 he went to Columbia University as head of the department of bacteriology, a position which he occupied until his death.

His many contributions to bacteriology and immunology are known to all workers in the field and need no extensive review here. In roughly chronological order they included: studies of the serum reactions, particularly conglutination and alexin fixation (1905–10); anaphylaxis (1905–13); typhoid fever, both experimental studies of the carrier state in animals and immunization, vaccine therapy and skin tests in man (1913–18); pathogenesis and chemotherapy of hemolytic streptococcus infections (1919–39); tissue immunity, in particular the rôle of tissue macrophages (clasmatocytes) in enhancing local resistance and the relation of the reticulo-endothelial system to the formation of antibodies (1920–31); virus infections, especially the problem of the interrelationship of herpes and encephalitis (1929–39). He was also author of a number of papers on general topics in the realm of medical education and the historical development of bacteriology. Besides the translation of Bordet's "Studies in Immunity" he also wrote a monograph on "Typhoid Fever" (1918). In 1935 there appeared "Agents of Disease and Host Resistance," the most extensive American system of bacteriology, immunology and related aspects of the etiology of disease, which he planned and edited and of which he contributed the major part. His last book, "The Open Mind" (1937), was a monument to E. E. Southard, with whom he shared the bonds of a deep friendship as well as an intense interest in problems of psychiatry and sociology.

It may be taken for granted that a man who held such a key position in research and medical education should have shared generously in the honors and distinctions that science bestows on its outstanding exponents. Through his early affiliation with Bordet he belonged to the Société belge de Biologie. All prominent scientific societies in America counted him among their members, and often their president. From 1917 to 1918 he was a member of the Medical Section of the National Research Council, functioning

first as its chairman and later as chairman of its Medical Fellowship Board. With the foundation of the American Commission for Relief in Belgium he was appointed exchange professor from Columbia University to Belgian Universities (1926–27); from 1932 to 1936 he served as chairman of the Advisory Committee on Research of the Leonard Wood Memorial. He was a Commander of the Order of the Crown of Belgium and received an honorary Sc.D. degree from George Washington University in 1932. At a meeting of the National Academy of Sciences in Washington, D. C., held in April, 1939, Dr. Gay was made a member of this society.

It would be difficult to say whether Gay's contributions to science, brilliant as they were, or the unforgettable part he played as an inspiring teacher and counselor were foremost in helping him to win the unique distinction that was his. A man of rare culture and outspoken personality, he would naturally imbue his lectures with an air of scholarly refinement that could not fail to make a deep impression on young medical students. But his presentation had also an unusual eloquence, an originality and facility of expression which made it an esthetic pleasure to listen to him. He was truly master of the printed and the spoken word. For there was in Gay's make-up a strong artistic impulse that often helped him to bridge the gap between intellectual skepticism and intuitive vision. This artistic talent, which found its natural outlet in literature and poetry, undoubtedly was a great creative force in Gay's productivity. At the peak of his life, it led him once to formally pose the question whether one good sonnet might, perhaps, not be worth more than a sheaf of scientific papers. A man with such gifts of mind and soul could not help but attract a wide circle of devoted friends and associates. This affectionate regard, which all who knew him intimately learned to share for Dr. Gay, was sometimes difficult to fathom for others whose contact with him was only brief. At first sight he often seemed cool and aloof, perhaps even introverted. His nature had in it a certain shyness, characteristic of all great men, which did not permit him the easy approach in establishing human relations. Coupled with this was an utter sincerity and fearless insistence on the rightness of certain principles—to which he sometimes referred as his New England conscience—which may occasionally have colored his decisions with an arbitrary note. Mistaken superficial impressions of this kind, however, can not do justice to the warm-hearted character that was capable of forging such strong bonds of affection with those who were close to him.

Had he lived but a little longer, there might have been a greater measure of outward perfection in his life even though his work was done, by his own decision. Earlier in the year he had made known to his associates his intention to retire from active service after a contemplated year's leave of absence. He had looked forward to a few quiet years at his beautiful country home, in pursuit of hobbies and in happy enjoyment of family life. Fate decided differently for him. He had not been seriously ill, except for recurring anginoid attacks during the last year or two. He passed away in his sleep, quietly, we hope painlessly. Death had gently shut the door upon a full life.

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WILLIAM R. PERKINS

PROFESSOR W. R. PERKINS, vice-director, emeritus, of the Mississippi State Experiment Station, died on August 21 after forty-eight years of notable activity in agricultural work in three states, Mississippi, South Carolina and Louisiana. After graduation from the State College of Mississippi in 1891, he was employed as chemist in the Experiment Station until 1893, when he became agronomist in the Station and professor of agronomy in the college for the following seventeen years. In 1910 he was called to Clemson College, South Carolina, where he remained two years. For the next three years he determined to put in practice the facts which he had found in chemistry and in agronomy and to try out the theories which he had formulated during the years of his teaching and experimenting. Thus he returned to Mississippi where he demonstrated in the practical operation of a farm the soundness of his factual knowledge and of some of his theories. But the educational authorities would not let him follow his natural desires, and in 1915 he was called to the Louisiana State University as forage crop specialist for the extension department. Later, he became director of the extension department, a position which he filled with marked success until in 1928, when he came back to his native state as assistant director of the South Mississippi Experiment Station at Poplarville. In 1930 he was made director of the state system of branch experiment stations and, finally, vice-director of the State Experiment Station at the State College.

Professor Perkins retired from his administrative duties at the age of 70, but continued his activities until illness prevented further work. He was engaged in gathering data and compiling a history of the Experiment Station with which he became officially connected six years after its establishment in 1885.

Professor Perkins was of a modest and retiring disposition, but his knowledge of the different phases of practical agriculture was broad and profound. He was widely known in the southern states for his work as an agricultural chemist, agronomist and administrator in extension and experiment stations. He early recognized the economic futility of a one-crop system, cot-