

T H E

# AMERICAN JOURNAL OF SCIENCE

[ F O U R T H S E R I E S . ]

---

WILLIAM GILSON FARLOW.

DEC. 17, 1844—JUNE 3, 1919.

(Reprinted from the Harvard Graduates Magazine of December, 1919.)

To those who had seen Dr. Farlow during the early months of the present year, when his vigor of mind and body seemed quite unimpaired, his brief illness and unlooked-for death, which resulted from a rapidly increasing weakness of the heart, brought surprise as well as sorrow. It is seldom the privilege of a scientific man to retain, as he did, almost undiminished and to the very end, not only his physical and mental powers, but his interests and enthusiasm. One can but feel thankfulness that, in the last years of his life, he was hampered by few of the disabilities which so often afflict old age, and was granted the privilege of continuing, almost without interruption and with little hindrance, the activities to which his long and fruitful life had been devoted.

Dr. Farlow was born December 17, 1844, in Boston, where he lived with his parents until his fourteenth year, when the family, which included five other children, moved to the suburb of Newton. During the whole period of his early education, however, he attended schools in Boston, and at the Quincy Grammar and English High was awarded Franklin Medals for good scholarship.

His father, John Smith Farlow, was born in Boston in 1817 and was educated there; a public-spirited citizen, member of the State Legislature, President of the Massachusetts Reform Club; a successful business man later interested in railroads, but also a lover of the humanities; for many years President of the Newton Public

Library. In music and horticulture he found his greatest pleasure, and was for a time President of the Handel and Haydn Society of Boston. Although he had no special knowledge of botany, he was very fond of plants and flowers, and was a member of the Massachusetts and Newton Horticultural Societies at whose exhibitions he was awarded many prizes.

Dr. Farlow's mother, Nancy Wight (Blanchard) Farlow, came of an old Massachusetts family; but although she had the appreciation and taste of an educated woman, she does not appear to have had any unusually pronounced tastes. It is thus from his father, if from either of his parents, that he seems to have inherited the two chief interests of his earlier life, namely botany and music.

After a year of intensive study at the Boston Latin School where he worked, for the most part by himself, in Mr. Francis Gardner's room, not reciting with the school classes, he entered Harvard College in 1862, graduating with his class in 1866. During his college course he turned his attention especially to music and natural history; he was a member, and for a year secretary, of the Pierian Sodality, in which he played the piano, and was several times soloist at its public concerts. His unusual musical ability was recognized by Mr. B. J. Lang, under whom he studied and who then enjoyed in Boston a high reputation as a teacher, and he was even urged by Professor J. K. Paine, then fresh from his studies in Germany, to take up music as a profession.

Although he retained his fondness for playing the piano throughout his subsequent life, as well as his musical interests generally, his innate love of natural history, and especially of botany, as well as the influence of Asa Gray, with whom he early formed a close friendship, combined to determine his choice of a career: and despite the fact that at graduation he wrote in his class report that he had no definite plans for his future, botany was without question his predominant interest. He was a member of the Harvard Natural History Society, concerning which he has written a very amusing account, and which at that time maintained a miscellaneous collection of objects of Natural History. These included, in addition to a crocodile, a human skeleton and a turkey buzzard, an Herbarium, of which he had the honor to be appointed Curator, a guardian of whose ministrations it

seems to have been sadly in need; since, as he remarks, it was then arranged "partly on the Linnæan, partly on the Natural and partly on the Alphabetical System." His reputation as a scientific light among his fellow members is said to have been such that his name was always mentioned by them with "awed respect." He was also secretary and treasurer of the O.K. Society in his Junior year, and was greatly interested in the theatre and in private theatricals in which he often took part; his star performance being an impersonation of a ballet dancer in short skirts, which is said to have been quite inimitable. The estimation in which he was held by his classmates generally may be inferred from the fact that, at the Senior Class election, he was chosen Class Secretary.

Although he speaks at the time of his graduation of having "no definite plans for life," he appears to have kept up his botanical interests, and within a year to have made a definite decision. At this period the medical course was almost the only means by which one could acquire the training necessary for a scientific career. For this reason, and in order that, should the pursuit of botany as a profession prove impracticable, he might have another to fall back upon, he followed the advice of Gray, himself a graduate in medicine; and, after studying anatomy for a time with Dr. Jeffries Wyman in Cambridge, entered the Harvard Medical School in November, 1867. Although he never seems to have had any intention of practising medicine, he evidently took his medical studies with great seriousness; since, at the close of his third year, he won a coveted appointment as surgical intern at the Massachusetts General Hospital, under the distinguished surgeon Dr. H. J. Bigelow. That his proficiency, in surgery at least, was regarded as beyond question, seems clearly indicated by the fact that, after finishing his hospital service, when he came up for his final examinations, the only inquiry addressed to him by the examiner in this subject was, "Where do you intend to practise, Mr. Farlow?"

Where he intended to practise, he made quite clear, after receiving his medical degree in May, 1870; since immediately thereafter he betook himself to Cambridge and to Asa Gray, helping the latter with his classes, and continuing his botanical studies until, in the following July, he was appointed Gray's Assistant by the University.

In this position, which he held for two years, he took

full advantage of the rare opportunity presented to gain an extensive knowledge of the vascular plants as a whole, in close association with a master whose broad-minded outlook, wide knowledge and contagious enthusiasm were in themselves an inspiration. His predominant interest, however, was in the lower plants and especially in the Marine Algæ; and his studies on the last-mentioned group in various parts of New England and especially at Woods Hole, where, in the summer of 1871 he joined a scientific party under the charge of Professor S. F. Baird of the Smithsonian, had already made him an authority in this subject. Since, however, it was almost impossible, in America, to learn anything of the other groups of the lower plants, he decided, by the advice of Gray, to seek this knowledge in Europe; desiring at the same time to come into personal contact with some of the leading European botanists, and to familiarize himself with the new botanical points of view and methods of teaching and investigation then rapidly developing on the Continent. He therefore sailed for England in June, 1872, going thence immediately to Denmark, Norway, Sweden and Russia, where he had an opportunity to see a number of distinguished botanists, and especially algologists, with whom he found that he was able to meet on equal terms.

After a short trip to Moscow, of which he wrote that what most nearly appealed to him was the railroad station by which he left it, he took the long journey across Russia to Germany, visiting Berlin and various other German cities and finally settling in Strassburg early in October, where he had decided to study with Anton De Bary, then Professor of Botany and Regent of the University of Strassburg, whose reputation was at the time second to that of no other European botanist.

His sojourn in Europe extended over two years which were spent, for the most part, in De Bary's laboratories; but included some weeks devoted to an intensive study of the Lichens, with Dr. J. Müller at Geneva; and of the Algæ, with Bornet and Thuret at Antibes, all of whom were men preëminent in their specialties. During this period he corresponded regularly with Asa Gray; and his letters, which are preserved in the Gray Herbarium, are not only extremely interesting from a botanical standpoint, but are otherwise very entertaining and sug-

gestive. While working under De Bary, he was not only able to acquire a knowledge of this master's methods of teaching and investigation, and to be impressed with his ideas of care and exactness, but had an opportunity to fill the most serious lacuna in his botanical education by acquiring a good knowledge of the Fungi, on which in later years he became the leading authority in America.

Of all the friendships which resulted from this most important period of his life, that with Bornet seems to have been the closest; and was cherished, both by personal visits and uninterrupted correspondence, up to the time of the latter's death in 1911.

Before completing his studies, Dr. Farlow visited Paris several times, as well as various German cities; his itinerary including, also, Switzerland, Italy and England; and he was thus able to meet many distinguished botanists and to examine the more important Herbaria. When he returned to America in the summer of 1874, he was by far the best equipped Cryptogamic botanist in this country, and almost the only person who was competent not only to teach something beyond the rudiments of his subject, but to do original work, and to initiate it in others.

Immediately after his return, he received an appointment as Assistant Professor of Botany in Harvard, the first special provision made in this country for instruction in Cryptogamic Botany. The earlier years of his service in the University were passed at the Bussey Institution, where he taught special students primarily interested in the economic aspects of his subject; although he also gave a certain amount of regular instruction in Cryptogamic Botany at Cambridge, and taught for several years in the Summer School. His work and publications on various important fungous diseases of plants, while he was stationed at the Bussey, may be truly said to have laid the foundations of American Phytopathology; a branch of botany in the development and practical applications of which this country has outstripped all others.

Conditions at the Bussey were, however, not at all to his liking, and he found his work hampered and interfered with to such an extent that the situation finally became quite intolerable. It was thus a great relief to him when, in 1879, he was transferred to Cambridge, and appointed Professor of Cryptogamic Botany; and found himself free to carry out his own plans and ideas without inter-

ference or hindrance. These plans involved the accumulation of the great Herbarium which bears his name, and is now the property of the University, and of his private library; the carrying on of original investigations; and the further development of instruction in his subject.

The nucleus of the Herbarium was the famous Curtis Collection of Fungi, assembled by the Rev. M. A. Curtis, and extremely rich in authentic material from Berkeley, Schweinitz, Ravenel and others of the early mycological pioneers. This collection was purchased for Dr. Farlow by Asa Gray, while the former was in Strassburg, and around it has accumulated an extensive and unique Herbarium of non-vascular Cryptogams.

Dr. Farlow's writings, which cover a variety of topics dealing chiefly with the algæ and fungi, comprise nearly two hundred titles, including his biographical notices and public addresses, and are models of clearness, conciseness, accuracy, and originality. It is greatly to be regretted that he should have left unpublished two of his most important works; namely, the monumental bibliographical index, prepared in collaboration with Mr. A. B. Seymour, a small portion of which, only, was issued in 1905 by the Carnegie Institution; and a sumptuous work on American Fleshy Fungi, the plates for which were completed many years before his death.

As a teacher and lecturer he had few rivals, and his instruction, which possessed the attraction more or less inseparable from that of a master of his subject who speaks *ex cathedra* on a majority of the topics which he discusses, was made doubly effective by reason of his capacity for lucid, well-balanced and interesting presentation, in which he succeeded in bringing essentials into strong relief. Never leaving his work to be done by an assistant, he came into close relations with all his students, and had a faculty for giving an impression of personal interest in each individual; so that the time spent in his laboratory was, for most, an experience the pleasure of which was not to be forgotten. The influence which, over a long period of years, he exerted on the development of his subject in this country through his writings, his students and his personal example, in setting a high standard of work in his chosen field, can hardly be overestimated and is, perhaps, his most important professional contribution. Among those who

have come in contact with him as a teacher, or who have been associated with him in botanical work, few would not acknowledge that their ideals had been thus fundamentally influenced.

Although in 1896 he withdrew from active teaching, in order that he might have his whole time free for other activities, he continued occasionally to give attention to advanced students in whose work he felt a special interest; and retained, until his death, his place on the Faculty, of which, after a continuous service of forty-five years, he had become the senior member.

After his appointment as Professor, his life was passed almost wholly in Cambridge; although he made several brief visits to Europe, and went twice to Bermuda and to Florida. In 1885 he accompanied Asa Gray to Mexico and California; but otherwise his field work was done almost wholly in New England; for the most part in the vicinity of Boston; at Eastport, Maine; at Shelburne, N. H.; and in the White Mountains, more recently at Chocorua, where his summer home, overlooking the lake, was situated in a mycologist's paradise.

In Cambridge he was at one time a parietal officer, and at various periods occupied rooms in several dormitories, where he used to give memorable entertainments to his students; but in 1893 he bought the Putnam house on Quincy Street, next to the Colonial Club, where he kept bachelor's hall until, in 1900, the great happiness of his marriage to Miss Lilian Horsford transformed it into a home to be shared by a beloved companion.

Dr. Farlow's memory was phenomenal, and his estimate of values keen and sure. He actually read the literature of his subject, not contenting himself with summaries or abstracts, or confining his reading within narrow limits. His first-hand knowledge of multitudes of forms thus combined to make his judgments and opinions those of an expert in almost all of the larger groups of cryptogams, and in questions relating to his specialties and their literature he was justly regarded as a court of last resort.

His professional reputation was quite as great in Europe as in America, and his correspondents included a majority of the more prominent members of his profession throughout the world. In addition to the degrees of A.B., A.M., M.D., and the honorary LL.D. which he

received from his Alma Mater, he was given the honorary LL.D. by the Universities of Wisconsin and of Glasgow, and that of Ph.D. by Upsala. He was a member of the National Academy of Sciences, the American Philosophical Society, the American Academy of Arts and Sciences, the Linnæan Society of London, the Paris Academy of Science, and of numerous other scientific bodies in this country and abroad, in which he held various offices, including the presidency of the American Association for the Advancement of Science and of the Botanical Society of America.

In his private relations, Dr. Farlow was a loyal friend, thoughtful, kind, generous and sympathetic; a delightful companion and charming host. Dullness he abhorred. Incapable of uttering the banalities of ordinary social intercourse, his talk was always interesting, original, and witty. Contact with him almost always left one with some new idea, or point of view, or bit of interesting news, or humorous conceit that served to relieve the monotonies of life. He had a fund of rare and quiet humor which he often used effectively to drive home some point, as well as to enliven his utterances. This habit was so characteristic, and is so well illustrated in his presidential address before the American Association in 1905, that it seems worth while to quote its opening sentences. Introducing his subject, which was entitled "The Popular Conception of the Scientific Man at the Present Day," with a brief reference to the conception of Progress of Science, Dr. Farlow says, "What is or is not progress, depends, of course, on the point of view. Some are so far ahead of the majority that they cannot see how much progress is made by those behind them. Others are so far in the rear that they cannot distinguish what is going on ahead of them. We must also admit that there are different directions in which progress may be made. You have all seen the agile crab, and been surprised to find how rapidly he gets over the ground, although he never seems to go ahead, but to scramble off sidewise. The crab perhaps wonders why men are so stupid as to try to move straight forward. It is a popular belief, but, not being a zoölogist, I cannot vouch for its correctness, that the squid progresses backward, discharging a large amount of ink. One might perhaps ask: Is the Progress of Science sometimes like that of

the crab, rapid, but not straightforward; or, like the squid, may not the emission of a large amount of printer's ink really conceal a backward movement."

In his earlier life, especially, Dr. Farlow often gave the impression of being overbiting and sarcastic in his condemnation of what appeared to him to be pretension and superficiality, and he had many pet aversions—people who thank one in advance for favors, or are unable to find time to spell "through" correctly—and his often amusing tendency to view people, and things in general, with a comprehensive pessimism might have led one to conclude that he believed most things in this world to be sadly out of joint. Those who understood and knew him well, however, did not need to be told that this habit was a mannerism, of little real import; and that beneath it lay warm feeling, understanding and appreciation, and an unbounded readiness to be of service.

There have been few members of the academic family at Harvard whose individuality was more cleanly cut than that of Dr. Farlow, or whose aspect marked him more clearly as one of the elect; a personality quite apart from the more commonplace entities who tend to predominate in the human race. Even those to whom he was not personally known cannot but miss his familiar figure: small, slightly stooping in later years; his striking features somewhat downcast as if his thoughts were far away from his immediate surroundings, little of which, however, escaped his quick side-glance; a sheaf of papers or books under his arm, as he walked rapidly from his house in Quincy Street to the Museum, where not many days passed, even till within a few weeks of his death, that did not find him there and at work. To his friends, it will be difficult to realize that this striking personality, with its stores of learning, wit, humor, kindness and sympathy is a memory only.

ROLAND THAXTER.