

chase of the important collections which formed the foundation of its present strong departments of mammalogy and ornithology. He has in later days shown his keen interest in its welfare through valuable gifts and appreciated advice.

On the occasion of his eightieth birthday, the American Museum made public recognition of his services through the publication of a brief biographical sketch of Dr. Elliot with portraits of him at the age of thirty years, at sixty-four (when curator of zoology at the Field Museum), and at eighty, and presented him with an engrossed memorial signed by the full scientific staff of the museum, giving him "greeting with grateful recognition and appreciation" of his services "as an expert adviser of the museum in its early days." A few months later he was elected to the board of trustees, from which his sudden removal by death is regarded as a great loss to the institution.

Dr. Elliot was not without further special honor in his home city. On March 24, 1914, the Linnæan Society of New York held a dinner in his honor in recognition of "his unique attainments in mammalogy and ornithology," at which the society presented him with its Linnæan medal of honor, the second occasion of the presentation of this medal. Dr. Elliot's speech of acceptance was in his characteristically graceful and happy vein. It was soon after published by the society as a special brochure.

Dr. Elliot was a man of striking personality, dignified and reserved in manner, conservative yet broadminded, constant and sympathetic in his personal friendships. His career was one of ceaseless activity in his lines of special research, and he has left many monuments to lighten the way of those who may follow in his footsteps. He fell into no ruts of routine that materially hampered his progress. On leaving England he was naturally deeply imbued with the ways and methods of his British confrères, particularly in certain nomenclatorial matters, but these he was able to promptly abandon, accepting in their place the then radical innovations that had arisen in

his home land during his absence. In other words, he soon accepted the A. O. U. Code of Nomenclature, with the date of Linné at 1758 instead of 1766, its trinomialism, and the point of view regarding species and subspecies thus entailed, which many of his colleagues of the earlier days of his sojourn abroad could never bring themselves to adopt.

Dr. Elliot was the fourth son of George T. and Rebecca Giraud Elliot. He was descended on his father's side from old Connecticut stock which settled near New London early in the sixteenth century, and on his mother's side from French ancestors who settled at New Rochelle and later moved to New York some two centuries ago. On the paternal side his forebears were prominent in public affairs, and in the colonial wars against the Indians. He was married in 1858 to Annie Eliza Henderson, by whom he had two daughters, of whom one, Margaret Henderson Elliot, still survives.

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NEW YORK

FRANCIS MARION WEBSTER

SCIENCE has suffered an irreparable loss and the entomological confraternity a severe shock in the death, by pneumonia, of Professor F. M. Webster, in charge of cereal and forage insect investigations in the U. S. Bureau of Entomology. The sad event occurred on January third at Columbus, Ohio, where he had gone in order to attend the meetings of the American Association for the Advancement of Science.

Francis Marion Webster was born at Lebanon, New Hampshire, August 8, 1849, and was therefore in his sixty-seventh year. His first entomological writing occurred in the *Chicago Weekly Inter-ocean*, July 2, 1874, under the title of "Notes on Some of the Common Injurious Insects." He was appointed assistant state entomologist of Illinois in 1882 and served in that capacity until 1884, publishing several short but interesting and important papers on insects affecting cereal and forage crops. Professor Webster served

as special field agent to the U. S. Department of Agriculture from 1884 to 1892 and at other various times in his career. It was during the period mentioned above that he conducted the very important investigations on the buffalo gnats in Mississippi and Louisiana, resulting in the discovery of the conditions necessary for the maintenance of the larval existence of these pests, thereby paving the way for the institution of remedial measures eventually resulting in immense savings of money in the form of live stock, to say nothing of the assuagement of human misery.

In 1888 Professor Webster was detailed by the late Dr. C. V. Riley, then chief of the U. S. Division of Entomology, to visit Australia for the purpose of making a report on the agricultural features of the Melbourne International Exposition, the U. S. Exposition Commissioners making the preparation of this report conditional upon their agreement to assume the expense of the journey for both Professor Webster and another entomologist, Mr. Albert Kooble. The latter was charged with the work of collecting the natural insect enemies of the citrus fluted scale, which had accidentally become introduced into California, resulting in the discovery of the wonderfully efficient Coccinellid beetle, *Vedalia cardinalis*. Professor Webster visited portions of Australia, Tasmania and New Zealand, accomplishing his mission with eminent success and returning to this country in 1889.

During the years 1891 to 1902 he was entomologist to the Ohio State Experiment Station. This portion of his life was productive of much important biological research work and many valuable observations, not the least of which were his discoveries of the relations of ants to the existence of the corn root aphid, and those which resulted in his memorable paper on the Hessian fly, setting forth the now well substantiated theory to the effect that wheat should be planted subsequent to the emergence and death of the great bulk of adult flies in the autumn, resulting undoubtedly in the saving of vast sums of money to the progressive farmers of the entire wheat belt. During a portion of the years 1903-04

Professor Webster was connected with the Biological Survey of Illinois but his more important work was in the capacity of special field agent to the United States Department of Agriculture. The results of these investigations were made known in several bulletins of the old Division of Entomology. The most important of these is perhaps the paper entitled "Some Insects Attacking the Stems of Growing Wheat, Rye, Barley and Oats," regarded as a standard publication of its class for many years.

At the end of 1904 Professor Webster came to Washington to join the entomological service of the Department of Agriculture which had just been given bureau rank. The section of Cereal and Forage Insect Investigations was created in 1906 and Professor Webster placed in charge, which position he held at the time of his death. In this service the climax of his usefulness was attained. He started this work with a single assistant but under his masterly guidance its organization developed with giant strides until at the time of his death a staff of more than fifty trained entomologists were carrying out his plans and the section received from congress for the fiscal year 1915-16 an appropriation of \$114,500. Professor Webster's life was a most industrious one. His hundreds of valuable papers dealing almost exclusively with the many phases of economic entomology will endure so long as the science of entomology itself.

Although recognizing fully the importance of taxonomic work in the field of biological science Professor Webster apparently never described a single genus or species, although he discovered many during his decades of biological research work. Several genera in hymenoptera and diptera have however been named in his honor by various authors. He evinced a tremendous interest in his work and was able through sheer force of character to transmit this quality to his entire staff of investigators, each one of whom was made to feel that his superior took a lively and intensely human interest not only in his work but also in him personally. The younger men will remember their lamented friend and chief

with especial gratitude for his kindly interest, generous viewpoint and sound advice. He evinced absolutely no trace of that petty jealousy regarding credits in the publication of results which mars the character of some otherwise truly big men in science. On the contrary, he was ever ready to sacrifice both time and labor in assisting his men in their efforts.

Professor Webster was a Fellow of the American Association for the Advancement of Science and the Indiana Academy of Science, and ex-president of the Association of Economic Entomologists, Ohio Academy of Science and the Entomological Society of Washington, a member of the Entomological Society of America, Biological Society of Washington, and the National Geographic Society. He was also an honorary member of the Entomological Society of Ontario and Corresponding member of the Cambridge Entomological Club and the New York Entomological Society. The degree of master of science was conferred on him by the University of Ohio in 1893.

Personally, Professor Webster was genial in manner, frugal and abstemious in habit and extremely simple in tastes; of exceeding honesty; in speech most temperate and he had acquired a literary style that was at once direct, lucid and forceful. He was also a most practical man, possessing a broad knowledge of agricultural methods and was therefore enabled to see his scientific problems from the viewpoint of the farmer. This latter faculty contributed as much perhaps as any one of his many excellent attributes toward the achievement of the magnificent success in economic entomology which was his.

Although Professor Webster's death occurred with shocking suddenness, he enjoyed a privilege granted to comparatively few men, in being permitted to spend nearly a half century in a labor he loved and to die at the very zenith of his usefulness and popularity in a manner which would very probably have been his choice, namely, "in the harness."

W. R. WALTON

THE JOSEPH AUSTIN HOLMES MEMORIAL

A MEETING was held in the Bureau of Mines, Washington, on January 15, 1916, at which the following were in attendance: Mr. Hennen Jennings and Mr. Van H. Manning, representing the American Institute of Mining Engineers; Dr. David T. Day and Dr. Joseph Hyde Pratt, the American Mining Congress; Mr. Samuel Gompers, the American Federation of Labor; Mr. William Green, the United Mine Workers of America; Dr. George Otis Smith, the Mining and Metallurgical Society; Gen. W. H. Bixby, the American Society of Mechanical Engineers; Mr. John H. Finney, the American Institute of Electrical Engineers; Dr. F. G. Cottrell, the American Electro-Chemical Society; Mr. George S. Rice, the National Safety Council; Dr. L. O. Howard, the American Association for the Advancement of Science; Dr. S. S. Voorhees, the American Chemical Society; Dr. Charles D. Walcott, Mr. Nelson H. Darton and Dr. Joseph Hyde Pratt, the Geological Society of America; Dr. David White, the National Academy of Sciences; Major Robert U. Patterson, the American Red Cross Society, and Mr. William L. Hall, the American Forestry Association.

The object of the meeting was to consider a permanent memorial to the late Dr. Joseph A. Holmes, the founder of the United States Bureau of Mines. After an extended discussion, the following resolutions were adopted:

WHEREAS, it is the sense of this meeting that a suitable memorial be established to honor the memory of the distinguished humanitarian and scientist, Dr. Joseph A. Holmes, therefore be it

Resolved, First, That each national body or society here represented and others that desire to be represented be requested to approve a permanent organization or incorporation to be known and named "The Joseph A. Holmes Safety First Association," and that each such national body or society shall appoint one representative to act with other representatives in such permanent organization.

Resolved, Second, That a meeting be held of the duly appointed representatives of the Bureau of Mines building, Washington, D. C., on March 4,