



In 1876 Martin, when only 28 years old, was called to the chair of Biology at The Johns Hopkins University which was then in process of organization. His selection by President Gilman for this important post was made doubtless on the recommendations of Huxley and Foster. Martin undertook his new work with great zeal and energy. He arranged graduate and undergraduate courses in general biology, animal morphology and physiology and, to a less complete extent, in botany. He himself gave the introductory courses in general biology and physiology and took direct charge of the advanced work and research in the latter subject. For a period of about 15 years Martin was actively engaged in physiological research, and gathered round him a number of graduate students, so that the laboratory soon became recognized as a center for research and for the training of specialists in animal physiology. Physiology in his laboratory was treated not as a branch of medicine but as a biological science. This was the point of view that Martin had inherited from Huxley and Foster and which, in turn, he passed on to his pupils. Moreover at that time there was no medical school at The Johns Hopkins and hence no need to correlate instruction in physiology with other branches of the medical curriculum. It was accepted by the University as one of the principal or subordinate subjects that might be offered for the degree of Doctor of Philosophy. As a matter of fact a number of students took this degree in physiology under Martin, and other students, graduates in medicine, took special courses or carried on research under his direction. At the time of the founding of the Physiological Society six of his pupils had acquired sufficient reputation in the subject to be included among those asked to the organization meeting.

As an investigator Martin showed marked originality. He was not especially skillful in constructing new apparatus, but he was ingenious and original in devising new methods of attacking physiological problems. His most noteworthy contribution, probably, was his method of isolating the mammalian heart. With this method, which was entirely new, he and his pupils carried out a number of important researches upon cardiovascular physiology. One of these investigations, "The direct influence of gradual variations of temperature upon the rate of beat of the mammalian heart" (Phil. Trans. Royal Society, London, 1883, 174, 663) won for him the Croonian Lectureship of the Royal Society. After his retirement in 1893 his researches and addresses were reprinted by his friends and pupils as a memorial volume, "Physiological Papers by H. Newell Martin - Memoirs from the Biological Laboratory of The Johns Hopkins University, III, Baltimore, 1895."

Martin was one of the principal founders of the Physiological Society and was deeply interested in its work. He served as Secretary and Treasurer until the fifth annual meeting. The minutes of the first six meetings, annual and special are in his writing. He was prevented by illness from attending the annual meeting at Princeton, December 1892, and shortly thereafter his physical condition became so poor that he resigned his position at The Johns Hopkins and returned

to London. He was then only 45 years old, and it was hoped that rest and medical care would restore his health. He had this hope himself. In a letter dated January 6, 1895, he spoke of having just completed a revision of his college textbook, "The Human Body," and outlined a new theory of muscle contraction which he expected to work upon in Schafer's laboratory. But an attack of pneumonia left him in a much weakened condition and led him to leave London to seek rest and recuperation in Yorkshire, where a second attack proved fatal.

During his 17 years in Baltimore, Martin changed little in appearance. Physically he was somewhat under average size with a rather slender although athletic figure, so that he gave an impression of youthfulness. He was distinctly good looking with attractive blue eyes that could light up with rare humor and cordiality, or, on occasions, when he felt that he was being bored, could convey quite the opposite impression. His pupils were warmly attached to him for he never assumed with them the attitude of a master, but rather that of a companion and fellow student. He was fond of having his men at his home, at a sort of social seminary, at which beer and ale were dispensed and some physiological classic was read and discussed. The part that he took in the organization and development of the Physiological Society was appreciated by his contemporaries as is indicated by the resolution of the Council adopted at the Princeton meeting, 1892, as follows: "Deeply regretting the necessity which deprives the American Physiological Society of the services of Professor Martin as Secretary and Treasurer, the Council desires to record its grateful appreciation of the value of his service in past years, and to express the hope that he may, when fully restored to health, once more take an active part in the management of the Society which owes its origin in great measure to his energy and enthusiasm." At the ninth annual meeting, Boston, December 1896, his death was announced to the Society by President Chittenden and a resolution offered by Doctor Howell was adopted and placed in the minutes, as follows:

"In the death of Professor Martin the Society has lost a member to whom it owes an especial debt of gratitude. He was actively concerned in its foundation and organization, and during the critical period of its early history he gave much time and thought to its interests. He served for six years as its secretary and treasurer, and strove always with enthusiasm to make a successful beginning of an enterprise which he believed would foster the spirit of scientific research in physiology and bring its active workers into stimulating fellowship. For its present prosperous condition and its prospects of future usefulness the Society feels that it is largely indebted to his wisdom and energy. In a broader field his influence upon the science of physiology has been deeply felt. His own splendid contributions to experimental physiology will have an enduring value, while the stimulus given by him to others has been and will continue to be an influential factor in the development of physiological instruction and research in this country. As an investigator and teacher he was distinguished not only by his originality and ability, but by

many noble traits of character. His modesty, his genuine interest in all kinds of biological work, his steady insistence upon the highest ideals of scientific enquiry, his chivalrous conception of the credit due to his fellow workers, and the generous sympathy and appreciation always felt and shown by him for the work of younger investigators, are some of the qualities which will endear his memory to those who were so fortunate as to be brought into intimate association with him as teacher or as friend."

The resolution was seconded by Doctor Bowditch in the following words:

"Probably few of the younger members of the Society are aware of the great debt which we owe to Doctor Martin for establishing the high standard which the Society has always maintained with regard to the qualifications of the members. It was always Doctor Martin's contention that a candidate for admission to our ranks should be required to demonstrate his power to enlarge the bounds of our chosen science and not merely to display an interest in the subject and an ability to teach text-book physiology to medical students. To his wise counsel in this matter the present prosperity of the Society is, I think, largely to be attributed. I trust that the resolution will be adopted and spread upon the records of the Society."