

Floyd Karker Richtmyer

October 12, 1881 — November 7, 1939

Floyd Karker Richtmyer was born on October 12, 1881, in Cobleskill, New York, of a family settled in that region since colonial times. He received the A.B. degree from Cornell University in 1904 and after two years as instructor in Physics at Drexel Institute he returned to Cornell for graduate work, which led to the doctor's degree in 1910. He served as assistant in Physics during his senior year and was appointed instructor in Physics in 1906, assistant professor in 1911, professor in 1918, and dean of the Graduate School in 1931.

During the thirty-three years between his return to Cornell and his untimely death on November 7, 1939, his services to the university as teacher, investigator, and administrator were such as it is the lot of few men to give. Throughout the period he was giving prodigally of his time and effort to scientific and educational projects outside the university. The numerous positions which he filled do not adequately indicate the magnitude of the labors which he performed. He undertook each new task with an optimistic enthusiasm which persisted in spite of difficulties, and he gave to each the same careful attention as though it were his principal interest. As a result, his success in administrative positions brought upon him ever more demands. Four national societies, each of which he served in many capacities, honored him with the presidency, the Optical Society of America in 1920, the Society of the Sigma Xi in 1924, the American Physical Society in 1936, and the American Association of Physics Teachers in 1937. Similar services extending over many years culminated in his appointment as chairman of the division of physical sciences of the National Research Council in 1930, vice-president of Section B of the American Association for the Advancement of Science in 1930, vice-president of the American Association of University Professors in 1932, and secretary of the Association of American Universities in 1938. Active in the founding of the American Institute of Physics, he was a member of its governing board from its foundation and a member of its executive committee after 1934.

He was associated with the editorial staff of the *Journal of the Optical Society of America* from 1917 until his death and was editor-in-chief of that journal after 1933; he was largely responsible for the establishment of the "Review of Scientific Instruments," first as a part of that journal and later as an independent periodical; he was its editor from 1933 to 1939. From 1929 until his death he was consulting editor of the International Series in Physics. During that period thirty volumes of the series were published. In 1928 he published his *Introduction to Modern Physics*, which has been widely used as a textbook. At the time of his death he was preparing the third edition of this work.

In the classroom he was an inspiring teacher; outside he was the student's warmhearted friend and counselor. He won the affection and enduring loyalty of many a Cornell student by the help he freely gave in any kind of difficulty. He was particularly interested in foreign-born students and he made use of his nation-wide influence to assist them. No one of his many activities was closer to his heart than the International Association of Ithaca, of which he was the president for several years.

Professor Richtmyer's career as an investigator began when he was an undergraduate. Scientific research and its application to human needs became the dominant interest of his life. As a graduate student he published four notable papers on the photoelectric effect. Thereafter he devoted himself for several years to the fields of photometry, physiological optics, and illumination. In 1919 he began the series of investigations on x-rays which has given him an outstanding reputation, but his interest in optics continued. He studied the intensity of the solar corona during the eclipse of 1932 and was in charge of the polarization measurements of the solar eclipse expedition to Canton Island in 1937.

His classic work on the absorption of x-rays, a long series of precise measurements, led to the establishment of the law of variation of absorption with the frequency and with the type of absorbing material. It also furnished important evidence against the existence of the controversial "J" radiation. In 1926 he turned his attention to x-ray emission spectra and suggested an explanation for the existence of the x-ray satellite lines which was the basis of his subsequent experimental research. This work shares honors with the absorption work in perpetuating his memory in the x-ray field. When in 1935 it became evident that his original suggestion would not adequately account for the observed facts, Professor Richtmyer was among the first to recognize the limitation and he immediately directed the program of x-ray research at Cornell toward the broader aspects of the problem.

He contributed more than one hundred and fifty papers and abstracts to scientific periodical literature and gave uncounted addresses of which no abstract was published. He was awarded the Levy Medal of the Franklin Institute in 1929 for his work on x-ray satellite lines. He was elected to membership in the National Academy of Science in 1932, and in 1935 to the American Philosophical Society and the American Academy of Arts and Sciences. From one point of view it is unfortunate that a man of superlative capabilities for research should be drawn out of the laboratory by administrative duties. From a broader point of view, one that recognizes the far-reaching benefits to research that have come and will continue to come from his extraordinary administrative talents, his many activities were to the end an expression of his devotion to scientific research.

Despite these numerous labors and honors, it is as dean of the Graduate School, the genuine friend at the head, that most of us remember and cherish Floyd Richtmyer. As we look back over the years of his studies and progress and successes, it seems as if the direction of the Graduate School was his destiny. Thorough as a student, gifted as a teacher, enthusiastic and resourceful as an investigator, he proceeded to the deanship as to a natural no less than a deserved promotion; and his nine years in that office gave promise of an even longer period of devoted and zealous leadership. His administration from the beginning was marked by an ever increasing efficiency, to which the General Committee and the Faculty alike have borne steady testimony. No part of the diversified range of graduate studies, whether in the sciences or the humanities, went without his sympathetic understanding, his active interest, his helpful advice, his guiding hand. Here his own soundness of judgment and his insistence on the maintenance of standards was coupled with the spirit of tolerance, good nature, tact, and discretion which distinguished him as a leader. No call on his time and energy went unheeded; he was ever attentive to the incidental tasks of the office, the meeting of visitors, conferences, chairmanship of committees, as well as to the routine duties. All this is a record to be proud of; and we who have been associated with him on the Cornell campus are indeed proud that we have known and have had some share in the life and labors of Dean Richtmyer.