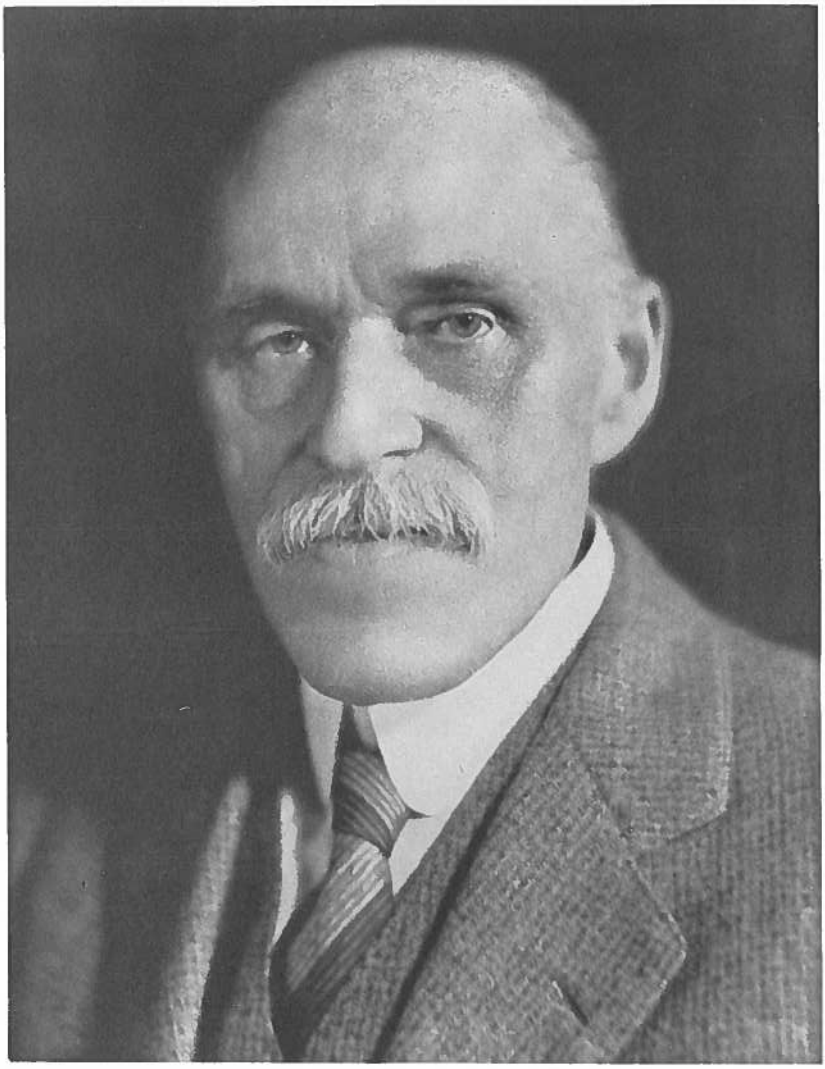

O. C. Farrington

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MEMORIAL OF OLIVER CUMMINGS FARRINGTON

BY SHARAT K. ROY

Shortly before dawn, on November 2, 1933, Oliver Cummings Farrington, for 39 years Curator of Geology in the Field Museum of Natural History, Chicago, died in Billings Memorial Hospital in that city.

In the summer of 1931 he was suddenly stricken with a heart attack from which he never recovered. He declined steadily, and, near the end, at an alarmingly rapid rate. His death, although anticipated for some time, created a solemn sense of personal loss and grief in all who knew him and spread a heavy pall over the Museum to which he was deeply devoted, and to whose expansion and greater usefulness to mankind he gave the best part of his productive life. Almost to the very end his spoken thoughts concerned the Museum and the Department of Geology.

In his passing, Field Museum lost one of the ablest and most respected members of its staff; the earth sciences, a leading authority on gems, gem minerals, and meteorites; and the world at large, a most lovable man whose whole life was marked by kindness, tolerance, and humility.

The forebears of Dr. Farrington came to this country from England. In the list of passengers for New England on the ship "Hopewell" that sailed from London, on April 1, 1635, is found the name of "Edward Ffarrington, aged 47, his wife 48, with their children, Sarah 14, Mathew 12, John 11, and Eliza 8." Following that arrival the record up to 1646 is not now available, but in that year John Farrington, who was then 22 years of age, came to Massachusetts and settled in Dedham, where he married Mary, the daughter of William Bullard 1st, in 1649. At Dedham, the family prospered and lived for nearly four generations, emigrating in 1786 to the "District of Maine" and settling in what is now Brewer, Maine. It was here that, on October 9, 1864, in an attractive environment, Oliver Cummings Farrington was born, and it was here that, three score and nine years later, amidst the beautiful woods, hills, and meadows he loved so well, his remains were laid to rest.

He was the fourth of the six children of Joseph Rider and Ellen (Holyoke) Farrington, the grandson of his namesake, Oliver Farrington, an aggressive abolitionist, and the great-grandson of John Farrington, a distinguished veteran of the American Army in the Revolutionary War.

His mother, likewise, was of old New England stock and of a family with a large number of prominent men. The town of Holyoke, Massachusetts, bears her maiden name in recognition of the valuable services rendered by the members of her family to the community in which they lived. There was a strong bond between the mother and the son. Several years ago, while looking up references on gem minerals of the Far East, he stumbled upon a transcription of a Sanskrit aphorism. On learning that it meant "Mother and Motherland are superior to Heaven," he was visibly moved. "An exquisite sentiment exquisitely expressed," he said.

As a boy he was taken to Orono, Maine, where his father had accepted the farm superintendency of the Maine State College. This position the father held for ten years, later becoming the first Instructor of Agriculture. During the tenure of his office as Superintendent and Instructor he conducted some farm and feeding experiments which to this day have remained fundamentally sound.

Young Farrington, however, was not particularly interested in agriculture, although, unknown to many, his knowledge of plants and insects, especially butterflies, was considerably above the average. He was extremely fond of the woods, in whose peaceful solitude he found friendly communion. To him, trees were an inspiration, a stimulus to observation and creative thinking. He knew many of them by their specific names, and his familiarity with their distribution, relationships, and economic importance was remarkable.

His love for the woods, doubtless, led him to the study of butterflies, which held for him a marked fascination. Perhaps it was their colors that attracted him so strongly to them, for to colors, whether of butterflies, minerals, skies or seas, he was particularly susceptible. I well remember showing him a large specimen of labradorite which I brought back from Labrador. It was an exceptionally fine cleavage piece with numerous acicular inclusions, showing a brilliant display of flashes of yellow, green, red, purple, and blue, and their varying shades and tones. His delight at the sight of the play of colors was intense. He was so absorbed in admiring it in light reflected in proper angles that he was totally oblivious to the fact that a visitor was waiting for him—a rare incident indeed, for he was never the "professor" who was famous for his absent-mindedness. It was his wish to retire and spend the rest of his life collecting and studying butterflies—a wish forever unfulfilled. Is it a mere coincidence that such a large proportion of mineralogists should have the twin interest of collecting minerals and butterflies?

Early in his life—in fact, beginning with infancy—he exhibited strong evidences of possessing an unusually brilliant mind. His reputation of being a prodigy was wholly justified, for he learned the alphabet at three, finished high school at thirteen, and was graduated with the degree of Bachelor of Science from the Maine State College, now the University of Maine, at the head of his class when he was barely seventeen.

Nor was it in scholarship alone that he excelled. He made rapid strides in acquiring that broadening phase of education, gained only by an intimate association with the varied beings and changing phenomena of the natural world. From first to last, he was an ardent student of nature, and spent the greater part of his leisure hours tramping in the woods and hills, collecting rocks, minerals, plants, and insects, thus training his powers of observation and developing keenness in the interpretation of natural objects. Long before he finished his undergraduate studies he had assembled a collection of enviable size, which he carefully identified and labeled, noting the differences from described forms and inserting all essential data.

Thus he early learned the care and preservation of specimens and their usefulnes in illustrating natural sequence and phenomena, and unconsciously laid a broad foundation for the curatorial work which was to constitute the greater part of his life. Many of the specimens of his earlier collection, particularly minerals, are to be found today in Field Museum of Natural History, testifying to his zeal of collecting and his accuracy of identification.

He was not as fortunate as the succeeding generations in finding the scope for the study of his chosen subject, petrography. It was not even a definite study in itself. There were no organized courses given in microscopic petrography in the American universities, nor were there any petrographers in the faculties as outstanding as Zirkel or Rosenbusch of Germany. Published papers on the subject were few. Rutley's, the only text in English, was wholly inadequate. Determination of minerals was chiefly dependent on blowpipe analysis. The knowledge of refractive index, birefringence, and extinction angles of minerals as means of distinguishing them was in its infancy. As a result, the feldspars were crudely classified; pyroxenes were often confused; and quartz and orthoclase could not always be separated in thin sections.

Furthermore, his Alma Mater, in those days, was a small struggling institution. Only a single term was devoted to the study of geology with Dana's text book as an authority, and mineralogy was taught as a branch of chemistry. These handicaps, however, did not lessen his desire for advanced studies, nor did the fact that the family purse was fast dwindling,

in any way impair his ambition. He was determined not to let the bud wither on the stalk. Well schooled, he felt he was fully prepared to go to work, and hoped to save enough to enter Yale, which at that time offered the best courses in general geology and mineralogy.

Thereupon, he entered on a career of teaching general science in Maine academies, and while still in his teens acted as principal of Bridgetown Academy, discharging his duties, both as a teacher and as an executive, so creditably that he received many offers to teach at the beginning of each school year by the neighboring academies. Thus, throughout his teaching career he was left at liberty to accept such offers as suited him best and brought him the highest financial return.

In 1887 he entered Yale and studied under Dana and Penfield, earning his doctorate in 1891. Dana, the foremost general geologist of that time, had a tremendous influence on his young, plastic mind. In his impressions of James D. Dana as a teacher of geology he wrote, "To sit at the feet of Professor Dana and drink from the overflowing fountain of his knowledge, was a privilege which once enjoyed could never be forgotten. One knew not which to admire most, the simplicity and nobility of his character, or the breadth and grasp of his knowledge."

It was the genius of that great teacher that imparted to Farrington the fundamental principles of the successful pursuit of knowledge and clearly outlined in his receptive mind the methods by which progress in science could be obtained. In Dana he saw the full significance of a broad education and became its ardent supporter and enthusiastic advocate. All the successful men of science, he often said reflectingly, were products of broad and liberal education, without which the true proportions and relations of things to each other could not be appreciated. On the other hand, he favored and encouraged specialization but never unreservedly. On more than one occasion he let fall the reminder that all our attempts to specialize without adequate knowledge of the fundamental subjects were but to seek the top of that which had no bottom. There was that gentle hint, "The flame is feeble on which green wood is flung."

Carefulness, thoroughness, and strict adherence to facts were other qualities that he prized most highly and that guided all his activities. There was much to learn even in seeing him work. He embodied the very essence of patience and precision, and maintained a calm that was all his own. He worked unobtrusively, without ever making any gesture of being busy. "We can usually," he once said, "find time and do more if we know our limitations, and if we do not busy ourselves over unessentials." Those who knew him would remember that he never gave the impression of being

too busy to be of help to anyone. Always and genially, he would put aside his work whenever he was approached for counsel or discussion.

His advice was sound, unbiased, and liberal. He gave it freely to those who sought it, but in a general and impersonal manner. He evinced no desire to instill his views in any one. Likewise, he hesitated to accept the views of others without giving much thought to them, especially if they presented a radical departure from established forms. In this, he again followed what he himself wrote of his teacher, Dana, "I think it better to doubt until you know. Too many people assert and then let others doubt. But I always like to change when I can make a change for the better."

That he was ready to change his former opinions when he became convinced that the evidence was sufficient to warrant it, was best illustrated by his change of opinion on the theory of evolution. It is said that in the beginning of his career, he was reluctant to support the evolutionary theory in all its phases. Doubtless, it was not that he was a militant fundamentalist, or that he accepted the Bible as a source of scientific knowledge, but that he preferred to stay afloat until he could arrive in his own mind at a definite conclusion.

It should be remembered that he was born at a time when the *Origin of Species* was still being condemned for heresy, and the *Descent of Man* was but gestating in the womb. To be born at a time like that, to be reared in the faith of the elders, and then to be suddenly asked to peer into the darkness of the past, meet the Cambrian amoeba, and follow its descendants up the rocky ladder through eons immeasurable, and find at the top the simian grimace and the smile of Mona Lisa was no less than to be asked to step out of the old trodden path, strike a new one, view a strange landscape, and still not feel a trifle lost and dismayed. Old ideas do not die overnight, nor are new ones born full grown. The chasm that yawns between the intellect of man and that of an animal cannot be bridged by simply glancing over the momentous line, "Man still bears in his bodily frame the indelible stamp of his lowly origin." That he took time to change was wholly to his credit. It meant that he was unwilling to let others think for him. It meant that he was capable of cutting across and modifying the influence of tradition and of early religious training.

His last illustrated lecture on "Man's Place in Geologic History," given at James Simpson Theatre of Field Museum in 1930, was a lucid presentation of the paleontologic record of creation by evolution. Those who heard him might well remember that he made no scientific pretension to explain with qualifying phrases the meaning of whence we came and why, but simply stated, giving fossil evidences, that the present was the child of the

past, and that as ages passed, life moved sublimely in orderly succession from the simple to more complex, from Monera to Man.

It would be well to mention in this connection that he was an interesting lecturer. With an accent that was not particularly suggestive of his New England ancestry he spoke slowly and clearly, and his deep voice carried far and well. He labored for no dramatics in his choice of words, but in simple language he captured and epitomized succinctly the high points of the subject matter and presented them in a manner that left a sense of finality in the minds of his hearers.

Almost immediately after he left Yale he was offered the chair of geology at Lake Forest University, Illinois, but this he was unable to accept. His health failed, and it was nearly two years before he was able to resume normal life. Several years of teaching at a very early age, coupled with four years of intensive graduate studies, part of which was occupied in teaching biology and mineralogy, proved too much of a strain. Perhaps the pressure that circumstances and ambition brought upon him would have been much less trying had he had a stronger constitution.

Physically, he was taller than average height, broad of shoulders, and of considerable vitality, but he never had the appearance of robust health, nor had he the resistance commensurable with the activities he enjoyed. Despite this, he consistently refused to be less active. He seldom allowed any one to do what he thought he could do himself. It was by no means an uncommon sight to see him pushing a truck load of specimens, or rearranging mineral trays in the store room, or carrying heavy objects down the stairs to the exhibit halls.

His activities outside the confines of the Museum were still more strenuous. He traveled far and wide, on foot and by mule pack, made the difficult ascents of Popocatepetl and of Ixtaccihuatl in Mexico, explored extensively the caves of Indiana and Kentucky, and participated in a number of expeditions, the most outstanding of which was the Captain Marshall Field Geological Expedition of 1922-1923, when he spent seven months in the interior of Brazil.

Likewise, he was incapable of remaining mentally stagnant for any length of time. Enforced rest bored him. A vivid example of his inability to indulge in complete mental inactivity was the appearance of his first three papers, all of which were written between 1891 and 1893, when he was ill, and rest was imperative. Even during his last illness, which called for absolute quiet and rest, he often went to his office, overruling the wishes of physician, wife, and friends. Had he guarded his health

more carefully and had be been less eager to work, his life might have been considerably prolonged.

While at Yale he met Clara A. Bradley of New Haven, Connecticut, whom he married in 1896. His widow survives him. There were no children of the union. His married life was ideally happy. The deep devotion that he manifested for his wife and she for him could only emanate from an union that had a rich intellectual and spiritual anchorage and that was founded on strong mutual attachment and sympathy and an understanding of the realities of life.

His home, like his own life, was unpretentious, but there reigned an atmosphere of culture, peace, and contentment. He was not socially inclined and seldom entertained. He disliked being in a crowd or being placed in a conspicuous place. His retiring disposition and diffident manner earned him the title of "Deacon" at Yale. And yet, in the private circle with old friends, he was fascinating in his kindly manners.

Rarely did he appear at a public function. Ostentation and its inevitable concomitants were repellant to his standard of enjoyment and living. He had a natural distaste for artificiality and popular glamour. The company of his charming and talented wife, books of travel and biographies of interesting persons, and occasional music from the radio were ample attractions for his recreations and enjoyment. He had a fine bass voice. At the Yale Glee Club he was a much sought for member. He seldom failed to attend any outstanding musical performance that came to the city.

In 1893 he joined the geological staff of the United States National Museum. Here he came under the influence of his brother-in-law, George P. Merrill, one of a small group of highly competent men to enter the new and difficult field of chemical and microscopic studies of meteorites. Doubtless it was Merrill who awakened in him his interest in the study of meteorites which eventually became the ruling passion of his life and led to his signal achievement for its advance.

His connection with the National Museum was short lived, but while there he helped to prepare the exhibits for the World's Columbian Exposition, held in Chicago in 1893, and came to Chicago personally to supervise their display. Shortly after the close of the Exposition all the important collections which formed the nucleus of the present Field Museum were purchased, but their removal and installation in museum form and into instructive and attractive series was a difficult task. It was not until the summer of 1894 that the museum opened its doors to the public. At this time, which was the beginning of Field Museum's active functioning

as a scientific organization, Dr. Farrington received a call to head its Department of Geology.

The breadth and the richness of his knowledge, his comprehensive view of geology and his interest and familiarity with all its divisions, added to his kindly tolerance and penetrating understanding of human nature, fitted him admirably for the responsibilities with which he was entrusted. He was, moreover, eminently qualified for museum work and a museum career. His love of collecting, his knowledge of the care and preservation of specimens, his ability to teach science through natural objects, and his natural leaning for research, left nothing to be desired in the way of serving successfully the fundamental purpose of a scientific museum.

It cannot be doubted that he enjoyed teaching, for, from 1895 to 1903, in addition to his duties at the Museum he served as a Professorial Lecturer of Determinative Mineralogy at the University of Chicago. Nevertheless, his affiliation with museum work was not a chance occurrence but rather his first choice. He early recognized the educational possibilities of the museum as an institution and dedicated the greater part of his life to the furtherance of its cause. He was one of the original instigators of the American Association of Museums of which he was a charter member and later president. In his article, "The Museum as an Educational Institution," he clearly set forth the meaning and purpose of a museum. To summarize: A natural history museum is an institution for public education and for research for the specialist. It provides *objective* as well as *unconditional* lessons for all classes and furnishes means for *extending the boundaries of knowledge.* Its mission is to illustrate the truths of science in a vivid and positive way, to show graphically how much knowledge can be imparted by gathering in one place objects from all parts of the world, from which information can be obtained that would otherwise be gotten only by years of travel. Finally, it shows to the individual a vast field of thought and study outside his own every day employment and thus broadens his outlook and cultivates new sympathies.

His views regarding the museum leave no doubt in one's mind that he was a practical educator, and, as such, he knew that education could not be gained alone from the abstract, books and lectures, but must be supplemented and illustrated by concrete examples. Thus, if education was to mean rational thinking and broadening of the human mind, museums must spring up side by side with universities, the one playing the complement and interpreter of the other.

He was barely thirty when he took charge of his department, but he was broadly trained and supremely possessed of that calmness of judgment so essential for successful executive work. Stimulated by the cherished opportunity of building up a department of his choice and inspired by the vigor and the vision that youth alone can lend, he let loose his pent up ambition and launched upon a career of activity which had its permanent edifice in the exhibits, now occupying the various halls of his department, and in the extent of his bibliography.

One of the principal secrets of his success in museum work lay in his firm conviction that "A finished museum is a dead museum, and a dead museum is a useless museum." Throughout the tenure of his office he realized that in the presentation of subjects there were always gaps to be filled and new fields of endeavor to be entered. To attain this end he enthusiastically supported field collecting by the members of his staff, and himself went out frequently to near and far off places to collect needed materials. In fact, in 1895, within a year of his joining the museum he led an expedition to Mexico which resulted in procuring an elaborate series of ores and representative collections of specimens from volcanoes and glaciers. Incidentally, it was the first expedition to be sent out by the Field Museum. He was, therefore, the first member of the staff to blaze the trail that hundreds of others have since followed. To him, also, went the honor of being the author of the first scientific paper, "Handbook and Catalogue of the Meteorite Collection," published by Field Museum.

There is a general misconception, even in scientific circles, that "catalogues" of meteorites are mere listing of specimens of various finds and falls, and, as such, are not important contributions to the subject as a whole. The truth, however, is precisely the opposite. Of all catalogues of natural history objects, the ones of meteorites are by far the most useful, without which no thorough study of the collection could be made. They contain localities, and localities of meteorites are not only an essential feature in the determination of their relation to one another, but also of incalculable service in preventing much confusion that has often been caused by efforts to determine whether differently named meteorites belong to single falls.

Perhaps nothing else fed the inner flame of Farrington's life so intensely as the meteorites and, perhaps, to nothing else did he so contentedly dedicate his energies as he did to them. The hackneyed question, why he experienced so great a delight and fascination in the study of these bodies, has been repeatedly asked and might be asked again. Happily, he left the answer himself in his valuable book "Meteorites, their Structure, Com-

position and Terrestrial Relations," giving three good reasons; namely, "They are our only tangible source of knowledge regarding the universe beyond us. They are portions of extra-terrestrial bodies. They are part of the economy of Nature. *No survey of Nature can be considered complete which does not include an account of them.*"

His interest in meteoritics, a name which he himself proposed and which had gained adoption during his lifetime, was so intense that he digested the whole subject at a breath-taking speed. In the opinions of his contemporaries he outdistanced his old masters in less than ten years after his initiation into the study of meteorites and became the most outstanding figure in the field—a status which he maintained until his death. Considering that his work was analytical rather than descriptive and that it involved an adequate knowledge of astronomy, geology, mineralogy, petrology, physics, and chemistry, his achievements were truly remarkable.

Generally speaking, his studies were not confined to any particular aspect of meteorites but were broad and varied. He showed some partiality to the problem of the relation of meteorites to the origin and the composition of the earth, and of the relation of composition of irons to Widmanstätten figures, but they did not, in any sense, hold his most absorbing interest. A survey of his published works at once reveals that he covered a wide range, but each work was significant, well organized, and had quality that made for permanence. For obvious reasons it is impossible to review them here. Enough to mention that his contributions to meteoritics constitute such an important part of our knowledge of these little known bodies that his name will ever be cited by all students of the subject.

Aside from his written contributions, the crowning glory of his life, and perhaps the greatest service, which he rendered as few others could, was the collection of meteorites now occupying the mineral hall of Field Museum. Beginning with specimens of 187 meteorite falls, he was instrumental in increasing the collection to almost 700 falls, thus making not only the largest single representative collection of meteorites in existence but also imparting to the institution the distinction of being the world's most profitable center for research in meteorites. Field Museum is justly proud of this monumental acquisition. It has brought greater prestige to the Department of Geology than anything else, and it can be safely asserted that there is no single unit of collection in the entire institution which has given it a greater scientific recognition than has the collection of meteorites. That the status of this collection be maintained was the last wish of its maker, and that his wish will be respected and carried out is the hope and belief of all true lovers of science. Remember-

ing President Stanley Field's utterances in a comparatively recent article that "Field Museum will move as the world moves, forever keeping abreast of the times and the changes which they bring," one feels no apprehension of the discontinuance of the growth of the collection left as a monument by the oldest and one of its most scholarly curators.

Next to meteorites, he devoted his attention most to minerals and gems, and, as in meteorites, he did not specialize in any particular group but covered a wide field. Nevertheless, glancing through his published papers, one feels certain that he had a deeper interest in semi-precious minerals, especially in the highly colored ones, such as colored agates, to whose physical properties, origin, occurrence, method of formation, coloring, cutting, and polishing, he gave much time and consideration. Here again one finds evidence of his susceptibilities to color and beauty. Fundamentally, he was an esthete. Gems to him were as paintings to the artist, verses to the poet—a means of expression. His book on "Gems and Gem Minerals," a superbly illustrated work, was not written for financial gain but for popular consumption so that others might gain a knowledge and appreciation of the form and beauty of gems. To quote his own words: "This work may lead to a wider knowledge of gems, a more intelligent use of them and an admission to their charmed circle of some substances now shut out because little known."

His writings were characterized by simplicity, directness, and clear cut analysis of the subject matter. He wrote easily but not voluminously, often sacrificing color for clarity. In the preparation of manuscripts he was extremely careful, frequently rewriting them as many as a dozen times. He was particularly gifted in the generalization and popularization of scientific subjects, as illustrated in his many magazine articles and museum leaflets written for the use of non-technical readers. As the editor of departmental publications he will be greatly missed by the members of his staff.

His affiliations with scientific societies and other important organizations were many and varied. He was a Fellow of the Geological Society of America and of the American Association for the Advancement of Science; member of the Astronomical Society of France; Chicago Academy of Science; American Association of Museums (President 1915-17); International Jury of Awards of Louisiana Purchase Exposition, 1904; Sigma Xi; Phi Beta Kappa; American Alpine Club; Collaborator in Mining and Metallurgy at the Paris Exposition, 1900; chairman, Section of Petrology and Mineralogy at the International Congress of Arts and

Science at St. Louis, 1904; and Honorary President of the Society for Research in Meteorites, 1933.

As an administrator he followed an extremely liberal policy—never demanding, never giving any one a sense of compulsion. Gentleness was the only force he ever used, and it never failed to bring the desired results. He took a personal interest in all the activities of the Department, but there was no autocratic interference in the autonomy of the individual's work, no hint of indirection in his dealings with his associates. Unless the fundamental conception of his ideas was threatened he never used the prerogative of his office. With new members of the staff he was reasonably cautious, but once their apprenticeship was over and their competency proved, he left them to their own direction with the injunction, "Do your own work in your own way which is the best way." Less regulation and more individual initiative were the natural idiom of his mind, and with it he chartered the activities of his administration.

He greatly appreciated one's work, but his natural reserve did not permit him to be effusive in his praise. Yet, on rare occasions he broke away from this restraint and expressed his appreciation of his associates for their cooperation in the upbuilding of the Department. Even in his own studies in meteorites he did not assume all credit, but freely acknowledged the help he received from the present successor to his office, especially in regard to physical and chemical problems.

Perhaps there were moments when one wished he were a little more dynamic, a little more communicative, but these were traits wholly alien to his nature. The nobility and dignity of his character commanded so great respect and imparted so much lasting force to his personality that he led effectively without commanding.

A spirit of democracy pervaded all his activities. His association with his colleagues was one of absolute equality, marked by unfailing courtesy. During the last nine years I had the privilege of associating with him I was called to his office only once, and that was when he was failing and was forced to be less active than usual. It was his wont, no matter how occupied, to come personally to the office of any one to whom he wished to speak or whose assistance he needed. It is indeed difficult to recall his stimulating and ever kindly presence without feeling a deep sense of personal loss. True, his reticent manner did not allow him to cultivate a wide circle of friends, but it is equally true that he had a deep and conscious love for his fellow men. The fairness he showed to those with whom he could not agree, the kindness and consideration with which he treated all, irrespective of their station in life, and the spirit of justice

he displayed in all his actions will be long and gratefully remembered by those who had close and sustained contact with him. Shortly before his death the present Director of Field Museum, Stephen C. Simms, in the course of a casual conversation said, "I have known Farrington for nearly forty years but during all these years I never heard him speak unkindly of anyone. He is the most lovable man I know." That was probably the highest tribute one man could have paid to another, and perhaps the most esteemed compliment any man could have ever wished for. Doubtless, many lived a more crowded, a more spectacular life, but few died with less to regret than he.

Oliver Cummings Farrington will be long remembered as a mineralogist, longer as a student of meteorites, and longest as a man of broad intellect and catholic sympathies.

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