

rendered in a search for truth, few have been his equal. Upon this gift and upon the influence of his genuinely Christian spirit upon men and women young and old whose love he won and cherished rest his claim to a place among the sons of Indiana who should not be forgotten.

CHARLES E. TORBETT, Evansville, Indiana.

JOHN MERLE COULTER¹

NINGPO, CHINA.
November 20, 1851.

YONKERS, NEW YORK.
December 23, 1928.

John Merle Coulter, who founded the *Botanical Gazette*, and who edited it for more than half a century, died December 23, 1928, at Yonkers, New York.

The *Gazette* in its infancy was a very unpretentious undertaking, consisting each month of a four-page leaflet, the first number of which was issued at Hanover, Indiana, in November, 1875. At first the new journal was known as the *Botanical Bulletin*, but from the second volume it has been known as the *Botanical Gazette*, the change of name being made out of regard for the previously existing *Bulletin of the Torrey Botanical Club*.



JOHN M. COULTER

For the first few years M. S. Coulter, now better known as Stanley Coulter, was coeditor with his brother. In 1883 Charles R. Barnes, then at Purdue University, and J. C. Arthur, then at Charles City, Iowa, became joint editors with Professor Coulter. At that time the journal was much enlarged, and was

¹Reprinted from the *Botanical Gazette* 87: 211-217. 1929.

organized into departments. For many years the Gazette was published by the editors, who bore all financial, as well as editorial responsibility for the journal. At first the subscription price was but \$1.00 a year, and for several years there was no advertising matter, yet almost from the outset the journal paid its way. In the first twenty years of publication the home of the Gazette changed with the abode of one of the editors; at first it was issued from Hanover, Indiana, then from Crawfordsville, Indiana, and Bloomington, Indiana, the successive homes of Professor Coulter. From Bloomington it went to Madison, Wisconsin, at that time the residence of Professor Barnes.

In 1896 the Botanical Gazette was taken over by the University of Chicago Press, under whose auspices it has since been published. At the same time several prominent American botanists became associate editors, and the following year a group of foreign botanists was added to the list of associate editors. Commencing with 1900, Professor Arthur ceased to be coeditor with Coulter and Barnes, and his name was added to the list of associate editors. Thenceforward the main editorial responsibility rested with Professor Coulter and Professor Barnes, with the assistance of the other members of the botany staff at the University of Chicago. Upon the death of Professor Barnes in 1910, Professor Coulter once more assumed the chief editorial responsibility, and he continued in this capacity until 1926, when the main responsibility passed to the writer of this sketch. Even after the chief editorial burden was set aside, Professor Coulter continued to maintain a lively interest in the journal, contributing many reviews and performing various other editorial functions.

The growth of the Botanical Gazette in size and in the number of fields covered in its articles is a measure of the growth of botany in America since 1875. At first the contributions were mostly short taxonomic or floristic notes, without illustrations. Gradually the major contributions lengthened, were more profound in character, and often were illustrated. Morphology was early added to taxonomy as a field of interest, and later contributions appeared in physiology, ecology, mycology, pathology, genetics, and the other fields of modern botany. If Professor Coulter had no other monument than the Botanical Gazette, his place in the botanical roll of honor would forever be assured.

John Merle Coulter was born in Ningpo, China, November 20, 1851, the son of missionary parents. Upon the death of his father in 1853, his mother returned to America with the children, taking up residence at Hanover, Indiana, her father's home. His boyhood days were spent in southern Indiana, mostly at Hanover. He attended Hanover College, from which he was graduated in 1870 with the degree of Bachelor of Arts. His first teaching position was at a Presbyterian Academy at Logansport, Indiana, where he remained from the autumn of 1870 through the spring of 1872, not as a teacher of botany, but as a teacher of Latin.

In 1872 an event occurred which had a profound influence on Professor Coulter's subsequent career. He was given an opportunity to join the famous Hayden Survey of the Yellowstone, which occupied most of his attention for two years. His appointment was as assistant geologist, but while spending some weeks at Ogden, Utah, where the party was outfitting, he spent his time in collecting and studying the plants of the neighborhood. This came to the notice of Dr. Hayden, who needed a botanist, since the originally appointed botanist of the expedition had failed him. So the position was given to Mr. Coulter, who always regarded this incident as a veritable turning point in his life.

The degree of Master of Arts was conferred on the young botanist in 1873 by Hanover College, and from 1874 to 1879 he was Professor of Natural Sciences at that institution. It was during these years that he and his brother founded the *Botanical Gazette*. In 1879 he was called to the chair of Biology at Wabash College, where he remained until 1891. In 1882 he received the degree of Doctor of Philosophy at the University of Indiana, which called him to the botanical professorship and the presidency in 1891. In 1893 he went to the presidency of Lake Forest University. In 1896 he was called to the headship of the new Department of Botany at the University of Chicago, where he remained until his retirement in 1925. In the latter year he took up his residence at Yonkers, New York, the seat of the Boyce Thompson Institute for Plant Research, which he helped to organize, and of whose Board of Directors he was a member from the outset.

Professor Coulter was a charter member of the Botanical Society of America, and was twice its president. He was a long-time member of the American Association for the Advancement of Science and its president in 1919, a member of the National Academy of Sciences, and a member of many other scientific societies at home and abroad.

The early work of Professor Coulter was mostly in the field of taxonomy. This was natural enough, for in the seventies and eighties most American botany was in this field. When he went to Washington to work up his western collections, he chanced to meet Asa Gray, who took a great interest in the young Indiana botanist; from that time forth until the death of Gray in 1888, the friendship between the two was close and intimate. Coulter always attributed much of his success to the influence of Gray. The Hayden expedition naturally enough suggested the early attention of Mr. Coulter to the flora of the Rocky Mountains, and one of his earliest works was a synopsis of the flora of Colorado, published in 1874 in collaboration with T. C. Porter. Commencing with 1875, Professor Coulter contributed many articles to the *Botanical Gazette*, the first of which were mainly taxonomic. In 1885 there appeared his well known *Manual of the Botany of the Rocky Mountain Region*, and in 1909 was issued the *Manual of Rocky Mountain Botany* in collaboration with Aven Nelson. His *Botany of Western Texas* appeared as a contribution of the United States National Herbarium in 1891-1894.

In 1881 Professor Coulter issued, in collaboration with Charles R. Barnes, a *Catalogue of the Phaenogamous and Vascular Cryptogamous Plants of Indiana*. Alone or in collaboration Professor Coulter issued a number of taxonomic monographs, as his *Revision of the North American Hypericaceae* in 1886; *Synopsis of the North American Pines* (with J. N. Rose) in 1886; various works on the Umbelliferae from 1887 to 1909, especially *Revision of North American Umbelliferae* in 1888, *Synopsis of Mexican and Central American Umbelliferae* in 1900, *Monograph of North American Umbelliferae* in 1900, and *North American Umbelliferae* in 1909, all four with J. N. Rose. In 1894 and 1896 were published works on *Cacti*. In 1890 was issued the sixth edition of Gray's *Manual of Botany*, under the editorship of Sereno Watson and John M. Coulter.

Early in his career Professor Coulter turned part of his attention to the developing field of morphology, and many outstanding articles and books represent his contribution in this line of endeavor. Perhaps his first contribution in this field was a study of the development of a dandelion flower, published in 1883. Following this was a paper in 1887 on the development of the Umbellifer fruit. But it was after coming to Chicago that his great contributions to morph-

ology were made, mostly in collaboration with Charles J. Chamberlain. The most noteworthy of these were the volumes on the Morphology of Spermatophytes, Morphology of Angiosperms, and Morphology of Gymnosperms, published respectively in 1901, 1903, and 1910. Other morphological contributions were issued in the form of papers on the Phylogeny of Angiosperms in 1903, the Embryogeny of *Zamia* (with C. J. Chamberlain) in 1903, Development of Morphological Conceptions in 1904, Gametophytes and Embryo of *Torreya taxifolia* (with W. J. G. Land) in 1905, Relation of Megaspores to Embryo Sacs in Angiosperms in 1908, Embryo Sac and Embryo of *Gnetum gnemon* in 1908, Evolutionary Tendencies among Gymnosperms in 1909, An American *Lepidostrobos* (with W. J. G. Land) in 1911, the Endosperm of Angiosperms in 1911, and the Origin of Monocotyledony (with W. J. G. Land) in 1914.

In the field of botanical textbooks Professor Coulter made rich contribution. In 1886 appeared a Handbook of Plant Dissection by Arthur, Barnes, and Coulter, often familiarly called a botany ABC. Plant Relations appeared in 1901, Plant Structures in 1904, Plant Studies in 1904, Textbook of Botany in 1906, and Elementary Studies in Botany in 1913. Professor Coulter wrote the morphological section of the more advanced Textbook of Botany, issued in 1910 in collaboration with Charles R. Barnes and Henry C. Cowles.

Professor Coulter contributed also to fields other than those just noted. In 1914 he issued a book on the Fundamentals of Plant Breeding, and a book on the Evolution of Sex in Plants; and in 1916 a book on Evolution, Heredity, and Eugenics. He published from time to time papers on evolution, on various educational and religious subjects, and on topics dealing with the relation between science and religion.

Great as were Professor Coulter's contributions to taxonomy, morphology, and other fields, and as a botanical editor, it is probable that his greatest single influence was as a teacher. He was an inspiring lecturer, a splendid counselor, and a devoted friend. His kindly sympathy and help drew all his students closely to him, and made them devoted followers. He inspired many men and women to devote themselves to botanical research and botanical teaching. This was true at Hanover, Crawfordsville, Bloomington, and Lake Forest, but it was particularly true at Chicago, for there as nowhere else in his previous experience came opportunity to teach, influence, and inspire graduate students from colleges and universities from this and other countries. During his headship at Chicago 175 students attained under him the degree of Doctor of Philosophy, and almost as many attained the degree of Master of Science. Shortly after coming to Chicago he initiated the series of researches known as "Contributions from the Hull Botanical Laboratory." These include contributions made by Professor Coulter and other members of the Chicago botany staff, nearly all of the Doctor's theses, and many of the Master's theses. Nearly 400 of these have been issued in the Botanical Gazette.

The students of Professor Coulter have more than once shown their appreciation of their leader. In 1916, at the occasion of the quarter centennial of the University of Chicago, the botany doctors, then 80 in number, presented to him a volume giving the record of the doctors to that date. On December 27, 1928, at New York, there culminated a movement to establish at Chicago a John M. Coulter Research Fellowship in Botany. This movement had been initiated by the Chicago botany doctors two years previously at Philadelphia, and at New York it was announced that pledges amounting to more than \$25,000 were in hand, thus assuring the fellowship. This fund was subscribed by 130 doctors and 75

masters and former students of Professor Coulter. It is expected that the first fellowship on this foundation will be available in the academic year 1929-1930. Almost simultaneously with the announcement of the Coulter Fellowship, there was presented to Mrs. Coulter a silver service and a volume of testimonials to Professor Coulter from the botanists of America. It had been the hope that Professor Coulter would be present in person to hear the announcement of the Fellowship and to receive the silver service and the volume of testimonials. It was a tragic coincidence that he died but a few days before these events were scheduled to take place. It is, however, a matter of satisfaction that before he died he was apprised of both events and was highly gratified because of them.

A scientific journal, such as the *Botanical Gazette*, is hardly the place to speak more intimately and appreciatively of Professor Coulter's life and influence, even though this is the journal that he founded and edited for so many years. It is perhaps enough to say that there has passed from us a man loved and admired, not only by his fellow botanists and former students, but also by many in other fields of science, and in every walk in life; that there has gone a great teacher, a gifted editor, an inspiring lecturer, and a facile writer; and that, as he himself said on the death of Professor Barnes, "a priceless asset has become a memory."

H. C. COWLES.

Note. Professor Coulter was one of the founders of the Indiana Academy of Science and was its second president, in 1887, succeeding David Starr Jordan. Throughout the forty-three years existence of the Academy Professor Coulter maintained an active interest in its work.—Ed.

JOHN CANDEE DEAN

DEANSBORO, NEW YORK.
September 15, 1845.

INDIANAPOLIS, INDIANA.
December 31, 1928.

John Candee Dean, the son of John and Harriet R. Peck Dean, was born in Deansboro, New York, September 15th, 1845. He attended Whitestown Seminary, Utica, New York. After a short residence in New York City and Utica, he moved to Indianapolis in 1869, where with his brothers, he founded the Dean Bros. Company, manufacturers of pumps. In 1891 he married Miss Lillian B. Wright, a niece of the late Mrs. May Wright Sewall, and many were the interesting social events at their home on Pennsylvania Street. For a long time it was their custom to visit Europe every other year. After Mrs. Dean's death in 1915 Mr. Dean continued his travels in Europe and this country with Dr. Frank S. C. Wicks, a life-long friend and pastor of All Souls Unitarian Church, of which he was a member. Bashford Dean, one of the world's greatest authorities on fishes, and curator of armor at the Metropolitan Museum in New York City, was a cousin, and Mr. Dean often visited him at his home in Riverdale, New York.

At an early age Mr. Dean became interested in science and especially astronomy, and found time to contribute a monthly article on astronomy to the Indianapolis News. As a boy the writer well remembers Mr. Dean's instructive and scholarly discussions of current astronomical problems. Later, due to press of business affairs, he omitted his monthly articles, but continued to write for the newspapers until a short time before his death. He often said that his ambition was to create an interest in astronomy among the people. Farmers, school