a facility for smoothing out crude English, and this was discovered more or less accidentally by Professor Thomas C. Chamberlin, for whom he was writing manuscript from dictation. Mr. Chamberlin, having had a sample of the help he could give, called for more and spread the word among his colleagues. This probably gave the eventual turn to Mr. Wood's career, for it led to his appointment in the Geological Survey. He served as editorial clerk, assistant editor, and finally editor, the position he held from 1908 till his retirement in 1925. During this long period he taught the scientific writers whose work he criticized to welcome rather than resent his criticism, for they learned that it was neither pedantic nor arbitrary but was based on common sense and an earnest desire to be helpful.

The reports of the United States Geological Survey have a wide reputation for lucid, virile, straightforward expression, which is due in large part to the sincere and painstaking efforts of Mr. Wood. His greatest influence was probably exerted by the modest pamphlet in which he put his counsels into print—"Suggestions to authors of papers submitted for publication by the United States Geological Survey." This pamphlet was first published in 1909 and was revised and enlarged in 1913 and again in 1916. It was of course prepared primarily for authors of geologic reports, but its usefulness in other fields was soon demonstrated. Its 50 pages of "suggestions as to expression" have been found to apply so well to scientific and technical writing in general—indeed, to writing of any kind—that the demand for this pamphlet has been wide-spread and continuous, and instead of its long title it is generally known as "Suggestions to authors." The edition of 1916 has been reprinted seven times—the latest printing in July, 1930—and has been sent on request to government and state departments and bureaus, universities and colleges, research and engineering institutions, business executives, and countless individuals engaged in writing. It has also been highly commended by such eminent critics as Brander Matthews in America and Sir Clifford Allbutt in England.

It had been Mr. Wood's hope, after his retirement from the government service, to expand the "Suggestions" into a more comprehensive manual on technical writing. Such a project had been urged upon him by Director George Otis Smith, of the Geological Survey, and many others, and he saw clearly the widened usefulness that would be given to his condensed advice by more detailed elucidation. He had accumulated some material for this purpose, but when it became known that his services were still available he received so many requests for help that they left him no time for his own work. He was at the beck and call of any one who needed him and, though more than 75 years old, put in longer hours than he had in his official life. The larger part of this work was done in geology and allied fields. His last work for the Geological Survey was done on Henry Fairfield Osborn's monograph on the titanotheres, and Professor Osborn made arrangements for him to continue that work for the American Museum of Natural History after his retirement from government service. He prepared many of the articles on the geology of North and South America in the new edition of the Encyclopaedia Britannica. The recently published symposium "Creation by evolution" owes in no small degree the clarity and force of its articles to his skillful editing, though he preferred to remain anonymous on that work. At the time of his death he was editorial reader for the *Bulletin* of the Geological Society of America and the Arkansas Geological Survey, and one of his latest tasks was to edit a memoir on the geology of Cape Cod for the Harvard Museum of Comparative Zoology. He died practically "in harness," having been ill only three days.

No one could have been in intimate daily contact with George McLane Wood during the last twenty years of his service for the United States Geological Survey without learning to appreciate the spirit that animated him. It was a privilege to work under him, and I am honored in being permitted to pay this tribute to his memory. He scorned hypocrisy and bluff but could not do too much for any one who was earnestly endeavoring to increase the sum of human knowledge. His kindliness was a subject of common remark—he was as considerate of the humble messenger boy as of his chief. His sense of humor was keen and enabled him to take the bumps of life with a twinkle in his eye. His characteristics were well summed up by Professor Harlow Shapley, of Harvard University, who said at the funeral service that he exemplified the four things that justify the experiment of living—sincerity, enthusiasm, skill and usefulness.

BERNARD H. LANE
UNITED STATES GEOLOGICAL SURVEY

MEMORIALS

THE college of forestry of Syracuse University recently unveiled a portrait of the late Dean Franklin Moon in the faculty room of the college. Dean Moon had been connected with the College of Forestry since its beginning in 1912.

As a memorial to Francis P. Leavenworth (1858–1928), professor of astronomy at the University of Minnesota from 1897 to 1927, the University of Min-

nesota Press is publishing his "Measures of Double Stars," left at the time of his death. The book includes a number of measurements made by William O. Beal, who was assistant professor of astronomy at the University of Minnesota from 1913 until his death in February, 1930. The records in the book were made during a period of forty years, and consist of the measures of 1,185 stars. Both Mr. Leavenworth and Mr. Beal were members of Sigma Xi and of the American Astronomical Society.

AT the same time that Admiral Richard E. Byrd received the Langley Memorial Medal, America's highest award for achievement in the field of aeronautics, a similar honor was conferred posthumously on Charles Matthews Manly in recognition of his pioneering work in connection with the first aeroplane flight in this country. Charles W. Manly, a Cornell undergraduate, accepted this award on behalf of his father. The exercises took place at the Smithsonian Institution in Washington during the annual meeting of the Board of Regents on December 11. Chief Justice Charles E. Hughes made the presentation address. The Langley Medal has been awarded only five times previously—to the Wright brothers, Eiffel, Curtiss and Lindbergh. The medal is cut from a die kept in the French mint in Paris. The belated honor to Charles M. Manly comes as a result of the suggestion of Mr. Charles L. Lawrance, president of the Wright Aeronautical Corporation. On his graduation from Cornell in 1898, Charles Matthews Manly went to Washington as chief assistant to Samuel P. Langley and was engaged in aviation development at the Smithsonian Institution until 1905. He built and piloted the historic Langley aeroplane in its tests in 1903, when the work was stopped by lack of funds from congressional appropriations.

RECENT DEATHS

DR. M. A. MINER, until his retirement in 1916 professor of chemistry and pharmacology in Northwestern University, died on December 11 at the age of eighty-one years.

PROFESSOR ALBERT DICKENS, head of the department of horticulture of the Kansas State College at Manhattan since 1902, died on November 28 at the age of sixty-two years.

THE following deaths are reported in *Nature:* Dr. J. W. Evans, C.B.E., F.R.S., a past president of the Geological Society, on November 16, aged seventy-three years; Dr. E. R. Frazer, a distinguished pathologist and benefactor of the University of Oxford, on November 17, aged sixty-three years; Dr. G. H. K. Macalister, formerly principal of the Singapore Medical College and editor of the *Malaya Medical Journal,* on November 2, aged fifty-one years; Dame Mary Scharlieb, a pioneer in medical education for women, on November 21, aged eighty-five years; Professor J. H. Teacher, St. Mungo (Notman) professor of pathology at Glasgow University, on November 21, aged sixty-one years.

SIR FRANCIS OGILVIE, former director of the National Science Museum at South Kensington, died in Edinburgh on December 14 at the age of seventy-two years.

SCIENTIFIC EVENTS

ARCHEOLOGICAL FIELD WORK OF THE UNIVERSITY OF MINNESOTA IN 1930

DR. ALBERT ERNEST JENKS, professor of anthropology, University of Minnesota, has returned to Minneapolis after an absence of eight months in archeological field work in North Africa and Europe. Accompanied by Mrs. Jenks and two graduate students, Lloyd A. Wilford and Ralph Brown, Dr. Jenks, in cooperation with Logan Museum, dug shell-heap culture during the three spring months on the high plateau of central Africa.

The Minnesota party spent June in reconnaissance farther south in the barren deserts of Algeria and Tunisia. It located eleven unrecorded shell-heaps, found habitation grottoes and rock shelters in two areas never studied, and in its excavations had particularly good fortune. About 6,000 pieces of flint from the one shell-heap trenched were brought back, while an equal number were left with the Algerian government. The party also found seven human burials in undisturbed position which are of the age of the shell-heap at its mid-development. This skeletal material becomes particularly valuable in America, since the University of Minnesota purchased from M. Arthur Debruge, of Constantine, the type-skull of the shell-heap culture of North Africa, the "Mechta el Arbi" man, found by Debruge in 1912 and first measured and published in 1923–1924 by M. Henri Logotala.

Though the prehistoric stone culture of North Africa was named "Capsian" from the Latin name of the present Tunisian oasis of Gafsa, and again named "Getulian" (a pre-Roman local tribal designation), yet the vast amount of the artifacts assembled for the scientific study of that culture came from the provenence around about Redeyef—a desert phos-