

*Medicinal Chemistry*, 31 papers; Dr. Paul Nicholas Leech, director of the Chemical Laboratory of the American Medical Association, Winnetka, Ill., and secretary of the Council on Pharmacy and Chemistry.

*Organic Chemistry*, 43 papers; Dr. Claude S. Hudson, professor of chemistry, National Institute of Health, U. S. Public Health Service, Washington, D. C.

*Paint and Varnish Chemistry*, 16 papers; Robert J. Moore, development manager, Varnish Resin Department, the Bakelite Corporation, Bloomfield, N. J.

*Petroleum Chemistry*, 11 papers; Dr. F. W. Sullivan, Jr., director of research, Standard Oil Company of Indiana, Whiting, Ind.

*Physical and Inorganic Chemistry*, 92 papers; Dr. Donald H. Andrews, professor of chemistry, the Johns Hopkins University.

*Rubber Chemistry*, 44 papers; Professor Ira A. Williams, consulting geologist, Portland, Ore.

*Sugar Chemistry*, 7 papers; Otto A. Sjoström, research chemist, Corn Products Refining Company, Argo, Ill.

*Water, Sewage and Sanitation Chemistry*, 20 papers; Edward S. Hopkins, sanitary chemist, Bureau of Water Supply, Baltimore, Md.

The usual entertainments have been arranged and visits to commercial firms in and near Cleveland will include The National Carbon Company, The Ferro Enamel Company, The Glidden Company, Easterly Sewage Disposal Plant, Baldwin Filtration Plant, Industrial Rayon Corporation, Otis Steel Company, American Gas Association Laboratory, General Electric Company, Nela Park, and Pitney Glass Works, The Westinghouse Electric and Manufacturing Company, Willard Storage Battery Company, the Western Sewage Disposal Plant, the Firestone Tire and Rubber Company, the General Tire and Rubber Company, the B. F. Goodrich Rubber Company, the Goodyear Tire and Rubber Company, and the Brewing Corporation of America.

## RECENT DEATHS

FRANK EVANS SEAGRAVE, astronomer and mathematician, owner and director of an observatory at North Scituate, R. I., died on August 15, at the age of seventy-four years. Mr. Seagrave took part in solar eclipse expeditions in 1878, 1887 and 1900. He was for forty years night editor of the *Boston Globe*.

DR. WILLIAM A. P. GRAHAM, associate professor of geology at the Ohio State University, died suddenly on August 11, at the age of thirty-five years. He was, at the time, engaged in geological work in the Sweet Grass Hills in northern Montana. Dr. Graham had held teaching positions at the University of Iowa and Texas Technological College and had been at the Ohio State University since 1928.

DR. EDWARD R. BERRY, for many years a member of the research staff of the General Electric Company, died on August 17, at the age of fifty-five years.

DR. ARTHUR LATHAM BAKER, formerly head of the department of mathematics at Manual Training High School, Brooklyn, died on August 13, at the age of eighty-one years.

DR. GEORGES DREYER, professor of pathology at the University of Oxford since 1907, died suddenly on August 17. He was sixty-one years old.

HERMANN GLAUERT, principal scientific officer at the Royal Aircraft Establishment at Farnborough, died on August 6, as the result of an accident. He was forty-one years old. Mr. Glauert was a fellow of the Royal Society and a fellow of Trinity College, Cambridge; he had been engaged on research in aerodynamics at the Royal Aircraft Establishment since 1916.

DR. EDWIN WARD, director of the Royal Scottish Museum, Edinburgh, died on August 10, at the age of fifty-four years.

## SCIENTIFIC NOTES AND NEWS

THE honorary doctorate of natural science has been conferred by the University of Frankfort-on-Main on Professor Henry Fairfield Osborn, honorary life president of the American Museum of Natural History.

DR. EUGENE ALLEN GILMORE, dean of the College of Law of the Iowa State University, has been elected to the presidency. He succeeds Dr. Walter Albert Jessup, who recently resigned to become president of the Carnegie Foundation for the Advancement of Teaching.

DR. CHARLES F. MARVIN, chief of the Weather Bureau from 1913 to 1934, retired from the government service on August 25 on the fiftieth anniversary of his enrolment. He had continued in service to com-

plete a half century of government work. Dr. Willis R. Gregg has succeeded Dr. Marvin as chief of the bureau.

JULIAN S. HUXLEY, from 1925 to 1927 professor of zoology at Kings College, University of London, and now honorary lecturer, has been nominated to the secretaryship of the Royal Zoological Society for election at the annual meeting next April. He will succeed Sir Peter Chalmers Mitchell, since 1903 secretary of the society, who reaches the age of seventy years in November.

ACCORDING to *Nature*, Professor C. E. Weatherburn, who holds the chair of mathematics in the University of Western Australia, has been awarded the

Hector Medal and Prize by the Royal Society of New Zealand, for his contributions to differential geometry.

THE von Wieser Medal of the Museum Ferdinandum has been awarded to Dr. Albrecht Penck, professor of geography in the University of Berlin, for investigations in the Tyrol.

DR. BRUNO GEBHARD, director of the German Museum of Hygiene, Munich, was the guest of honor on August 24 at a luncheon attended by public health officials at the Metropolitan Life Insurance Building, New York City. Dr. Gebhard is on his way to attend a meeting of the American Public Health Association at Pasadena, California, in September.

W. H. FULWEILER, chemical engineer of the United Gas Improvement Company, Philadelphia, has been elected a vice-president of the International Association for Testing Materials.

THE British Institution of Electrical Engineers has nominated officers for vacancies occurring on September 30 as follows: *President*, Professor W. M. Thornton; *Vice-presidents*, W. E. Highfield and Lieutenant-Colonel A. G. Lee; *Hon. Treasurer*, F. W. Crawter.

*Nature* states that at the invitation of the Council of the Pharmaceutical Society of Northern Ireland, the British Pharmaceutical Conference will be held in 1935 in Belfast. The following officers have been elected: *Chairman*, Dr. F. W. Crossley-Holland; *Treasurer*, Mr. T. E. Lescher; *General Secretaries*, Mr. C. E. Corfield and Mr. G. R. Boyes.

PROFESSOR H. SCHOTTMÜLLER, of Hamburg, has been elected president of the German Society of Internal Medicine for 1935.

DR. RICHARD E. MCARDLE, chief of the section of silviculture of the Pacific Northwest Forest Experiment Station, Portland, Ore., has been elected dean of the School of Forestry of the University of Idaho, to take the place of Dean Francis Garner Miller, who died last March after a period of service of seventeen years.

DR. CARL C. LINDGREN, research assistant in microbiology at the Mellon Institute, Pittsburgh, has been appointed chairman of the newly established department of bacteriology at the University of California at Los Angeles.

DR. HELEN J. HUBBELL has been appointed assistant professor of nutrition at Yale University.

C. H. SHOWALTER, formerly with the Lawrence Engineering Research Corporation in New York City, has been appointed instructor in aeronautical engineering at the University of Idaho.

DR. MATILDA MOLDENHAUER BROOKS has been appointed lecturer in zoology during the fall semester to give courses in physical-chemical biology at the University of California in the absence of Professor S. C. Brooks.

DR. C. B. JOLLIFFE, formerly chief engineer for the discontinued Federal Radio Commission, has been re-appointed as chief engineer with the Federal Communications Commission. W. G. H. Finch, formerly chief engineer of the American Radio News Corporation and at one time consulting engineer in New York City, has been made an assistant chief engineer.

*Industrial and Engineering Chemistry* writes that "Domenico Marotta has recently been appointed chief of the chemical laboratory of the Public Health Service of Italy. Professor Marotta is internationally known for his important and numerous scientific publications. He is a member of the council of the International Union of Chemistry and of many commissions, and is general secretary of the Associazione Italiana di Chimica, which owes its great progress to him."

ACCORDING to *Current Science*, Bangalore, Rao Bahadur B. Viswanath, now agricultural chemist to the government of Madras, has been appointed imperial agricultural chemist. He will work at the Pusa Research Institute. Dr. Hem Singh Pruthi, of the Zoological Survey of India, has been appointed agricultural entomologist. The Agricultural Research Station, now at Pusa, the buildings of which were seriously injured in the last earthquake, will be transferred to a suitable site in the vicinity of Delhi.

THE Rockefeller Foundation has appropriated \$5,000 in support of a study of the chemical aspects of vitamins and hormones under the direction of Dr. Herbert M. Evans, of the University of California.

A GRANT of \$1,000 has been made by the Simon Baruch Foundation for Medical Research, through the generosity of Dr. Herman Baruch, its founder, to the Pathological Laboratories of St. John's Hospital, Brooklyn, to carry forward an investigation by Dr. Theodore J. Curphey on the effect of foetal endocrine tissue extracts on cell growth.

THE following grants have been made by the Committee on Scientific Research of the American Medical Association: Ernest C. Faust, New Orleans, for the completion of a study on *Strongyloides stercoralis*; W. J. Nungester, Northwestern University Medical School, Effect of Mucin on Infection; Edward J. Van Liere, University of West Virginia, Effect of Anoxemia on Smooth Muscle; Wm. de B. MacNider, University of North Carolina, Establishment of Artificial Circulation in the Kidney; Timothy Leary, Boston,

two grants, Cholesterol Atherosclerosis; Rachel E. Hoffstadt, University of Washington, Protein and Carbohydrate Fractions of *Staphylococcus aureus*; W. R. Tweedy, Loyola University School of Medicine, Parathyroid Hormone; Jane Sands Robb, Syracuse University, Individual Cardiac Muscles; Alexander S. Wiener, Brooklyn, Agglutinogens and Agglutinins of Human Blood and their Heredity; John R. Murlin, University of Rochester Medical School, Chemical and Physiological Properties of the Male Hormone; W. T. Dawson, University of Texas School of Medicine, Cinchona Alkaloids; Arthur J. Geiger and Louis S. Goodman, Yale University, the Antianemic Principle; H. A. Kemp, W. H. Moursund and H. E. Wright, Baylor University College of Medicine, Relapsing Fever in Texas; E. Brand and G. F. Cahill, New York State Psychiatric Institute and Hospital, Cystinuria.

DR. EDWARD C. ROSENOW, of the Mayo Clinic, at Rochester, Minn., who was invited to go to Cuba by President Carlos Mendieta to assist the medical authorities in combating the wave of infantile paralysis which has taken twenty-five lives in the last two months, arrived at Havana on August 19.

JASON R. SWALLEN, assistant agrostologist of the Bureau of Plant Industry, U. S. Department of Agriculture, has returned to Washington after nine months spent in northern Brazil studying and collecting grasses. He visited the states of Rio Grande do Norte, Ceará, Piauy, Maranhão and Pará along the Amazon as far as the Tapajós River.

DR. KATSUMA DAN, of the department of physiology in the University of Pennsylvania, is leaving for an extended visit to Japan.

THE next biennial Organic Chemistry Symposium of the American Chemical Society will be held at Rochester, N. Y., in December, 1935. The exact dates have not yet been determined, but they will probably be from December 30, 1935, to January 1, 1936. The first Organic Chemistry Symposium was held in Rochester, and the forthcoming sixth symposium will mark the tenth anniversary.

BY the will of the late Mrs. Perla A. Brickman the following bequests are made: The Hospital for Joint Diseases, New York City, \$15,000; The New York Academy of Medicine, \$10,000; The American College of Surgeons, Chicago, \$1,000; The Gorgas Memorial Institute of Tropical and Preventive Medicine, Inc., Washington, D. C., \$1,000, and The New York Physicians Mutual Aid Association, \$1,000.

THE University of California has received the sum of \$1,820 from Merck and Company, Inc., Rahway, N. J., to establish "The Merck Fellowship in Pharmacology" for the academic year 1934-35.

A COPY of "Prodomus Faunae Rossicae—Preliminary Account of the Russian Fauna"—by Joanne Dwigubski, published in Göttingen, Germany, in 1804, has come to light in the library of the Academy of Natural Sciences of Philadelphia. This thin volume, printed in Latin on hand-made paper, bound in the original blue papers, and containing one copperplate engraving of a certain species of mole, has been in the library for many years, but remained in obscurity because no one ever had asked for it. The book is uncut from cover to cover and is in excellent condition.

THE London *Times* reports that the Australian Federal Government has accepted the offer of Mr. Donald Thompson, of the staff of the University of Melbourne, to live among the Arnhem Land aboriginals, in order to study their habits and customs. Mr. Thompson has already lived for two years among the North Queensland aboriginals studying sociological organizations, folk lore and hero cults. He won this year's anthropological scholarship at the University of Melbourne for his work on aboriginal sociology. Mr. Thompson will be appointed Federal Control officer, but will be free to carry out work in his own way, submitting periodical reports.

THE African Prehistoric Research Expedition, under the leadership of T. P. O'Brien, left London for Uganda on August 15. The expedition, undertaken with the approval of the Uganda government, will devote a season of eighteen months or two years to archeological work in the Protectorate. The London *Times* points out that East Africa is one of the richest fields for the study of Stone Age archeology. Uganda offers a wealth of sites which cover the greater part of Stone Age times. Deposits containing Late Pliocene and Early Pleistocene fauna exist in several parts of the country, and there is said to be a strong possibility that artifacts and, perhaps, human skeletal remains of very early times may also be brought to light. During its first season, however, the main object of the expedition will be the study of the Middle and Upper Paleolithic cultures.

*Nature* reports that it is announced that an expedition, of which Dr. Quaritch Wales is field director, will leave England for India in October next for the purpose of archeological exploration in Lower Burma and Siam. His Highness the Maharajah Gaekwar, of Baroda, has contributed £500 towards the expenses of the expedition, which will be known as the Gaekwar of Baroda Greater Indian Research Expedition. The work of organization has been in the hands of a small committee of the Royal Asiatic Society, the India Society and the School of Oriental Studies, under the chairmanship of Sir Francis Younghusband. The area which the expedition proposes to explore is one of the few districts of Further India

and beyond which is still unexplored, and it may be anticipated that the expedition, under the leadership of Dr. Wales, who has already done valuable work in Siam, will yield material which will throw light on artistic and religious development in Further India and Siam and the cultural relations of these countries to the art, culture and religions of ancient India.

By a recent act of the Congress, all persons over sixteen years of age who wish to hunt migratory waterfowl will hereafter be required to carry a federal hunting stamp. These stamps will be sold at \$1 each at all post offices in towns of 2,500 population or more

and also at post offices at all county seats. In addition, certain other post offices conveniently located will be authorized to issue the stamps in order to make it easy for the sportsman to comply with this new federal law. Persons who collect migratory birds for scientific purposes must also have the stamp, in addition to the Federal scientific collecting permit prescribed. The stamps will be ready for issue about July 1, and are good for one year. The fund derived from the sale of these stamps has been set aside by the Congress to be used in purchasing or leasing marsh and water areas to be acquired as inviolate refuges for ducks and geese and other waterfowl.

## DISCUSSION

### THE DISCOVERY OF AN ANCIENT MINNESOTA MAKER OF YUMA AND FOLSOM FLINTS

SATURDAY, July 28, 1934, I had the satisfaction of confirming an earlier private report of the finding in Minnesota of a human skeleton associated with ancient flint artifacts of the now famous Yuma and Folsom types. A fuller report of the discovery, the fragmentary skeleton and the artifacts will be made later in association with Mr. William H. Jensen, of Brown's Valley, Minnesota, to whose quick intelligence the rescue and conservation of the find is due. Since Mr. Jensen was nine years old he has been an ardent collector of Indian artifacts along both the eastern and western shorelands of Traverse and Big Stone lakes, boundary waters for some seventy miles between Minnesota and South Dakota.

In the fourteen-foot pluvial gravel of a plateau, once an island in Glacial River Warren (the earliest and southern outlet of Glacial Lake Agassiz), the skeleton and artifacts in question were dug out, but unnoticed, by a drayman who on October 9, 1933, was hauling gravel for repairing a driveway at the Jensen grain elevator. At the driveway Mr. Jensen noticed a flint implement in the gravel as it was being unloaded. He also then and there picked up small fragments of bone which proved to be human. On going immediately to the gravel pit he picked up the human skull frontal, other small fragments of the skull, two fragments of jaws and also fragments of long bones. All the bones recovered lay close to the bottom of the vertical face of the stratified gravel—which face was then exposed about seven feet high.

In the face of the gravel Mr. Jensen readily identified the exact spot from which the bones had fallen. Still within the skeletal pit (in all probability a grave) he saw at the depth of four and one half feet from the surface the exposed tip of a second flint implement. This he dug out. In the loose gravel

fallen from the face of the wall he found a third flint implement. In the partially filled dray, being reloaded with gravel for the elevator driveway, he found a fourth flint artifact. Nearby in a junk heap he picked out an old five-gallon gasoline can; this he filled with gravel lying immediately beneath the skeletal pit. Later at home he rescued from the can of gravel a fifth flint and two fragments of a dresser of sandstone.

Thus last October there had been found by Mr. Jensen personally, or found in his presence (and always also in the presence of other witnesses), a human skeleton with five flint artifacts of Yuma chipping, three of which are of Folsom outline. He first wrote to me in January, 1934. It was not until July 21, 1934, that I could go to the site of the find, after discovery on June 24, from a photograph, of the unmistakable Yuma and Folsom characteristics of the flints. With a field class of six students in archeology I redug the gravel which had fallen in the vicinity of the skeletal pit of last October. We dug and sifted July 28, 30 and 31. We found seventeen additional bone fragments, some of which contacted with cranial fragments earlier secured by Mr. Jensen. We found also a tooth from one of the jaw fragments, and, most surprisingly, found a sixth flint artifact. It is practically a duplicate of the most perfect one in the earlier find and is Folsom in all particulars, except that both faces are of characteristic Yuma chipping instead of being excavated in the Folsom manner.

Western Minnesota thus is shown to be of great significance for early man in the Western Hemisphere. Not only has she produced the "Minnesota Man" of late Glacial Age, but she now reveals the Brown's Valley Man, who is the first recorded maker of either of those acknowledged ancient American flints known as Yuma and Folsom. The two flints are culturally closely related.

ALBERT ERNEST JENKS

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