

head of the department of apiculture at the Ontario Agricultural College at Guelph, died on July 14 at the age of fifty years. Dr. Millen was from 1916 to 1919 associate professor of apiculture at the Michigan State College.

*Nature* reports the deaths of Dr. E. E. Fournier d'Albe, known for his work on the properties of

selenium, on June 29, aged sixty-five years; of H. R. A. Mallock, F.R.S., consulting engineer, on June 26, aged eighty-two years, and of Ralph Richardson, formerly president of the Edinburgh Geological Society and secretary of the Royal Scottish Geographical Society, on June 26, aged eighty-eight years.

## SCIENTIFIC NOTES AND NEWS

At a Special Congregation of the University of British Columbia in honor of the Fifth Pacific Science Congress on June 13, the honorary degree of LL.D. was conferred on members as follows: Dr. Charles Gravier, Natural History Museum of Paris; Dr. Geoffrey Ingram Taylor, Yarrow research professor of the Royal Society; Dr. Shinkishi Hatai, professor of zoology, Tohoku Imperial University; Dr. Wen Hao Wong, director of the Geological Survey, Peiping; Dr. Gerrit van Itersen, Jr., professor of microscopical anatomy and director of the Laboratory for Technical Botany, Technical University, Delft; Dr. T. Wayland Vaughan, professor of oceanography and director of the Scripps Institution of Oceanography of the University of California, and Dr. Henry Marshall Tory, president of the National Research Council of Canada and president of the Fifth Pacific Science Congress.

THE University of Michigan at its commencement on June 19 conferred the honorary degree of doctor of science on Dean J. B. Johnston, of the University of Minnesota, in recognition of his contributions to neurology and his work in the field of education.

THE National University of Ireland, Dublin, has conferred the honorary degree of doctor of science on Dr. Dean DeWitt Lewis, professor of surgery, Johns Hopkins University School of Medicine.

THE Philadelphia College of Pharmacy and Science at its one hundred and eleventh commencement conferred the honorary degree of master in pharmacy on Henry K. Mulford, director of biological and research laboratories of the National Drug Company, Philadelphia. Mr. Mulford was the founder and for many years directing head of the H. K. Mulford Company and is now president of the Mulford Colloid Laboratories in addition to his connection with the National Drug Company.

At the annual meeting of the Board of Trustees of Norwich University, Porter Adams, of Thetford, Vermont, formerly president and now chairman of the Executive Committee of the National Aeronautic Association, was elected vice-president of the university, and at commencement was given the honorary degree of master of science.

DR. WILLIAM J. MAYO, of the Mayo Foundation, Rochester, Minnesota, has been elected a foreign associate member of the faculty of medicine of the University of Paris.

PROFESSOR H. J. MULLER, of the University of Texas, has been elected a foreign member of the Academy of Sciences of the Union of Soviet Socialist Republics at Leningrad.

DR. ALEŠ HRDLÍČKA, of the U. S. National Museum, and Dr. Herbert I. Priestley, of the University of California, have been made honorary professors of the National Museum of Mexico.

DR. ROBERT E. COKER, professor of zoology at the University of North Carolina, has been elected president of the university chapter of Sigma Xi.

W. E. WRATHER, consulting geologist, of Dallas, Texas, was elected president of the American Society of Economic Geologists, meeting at Princeton on July 7 and 8. Professor Per Adolf Geijer, of the Swedish Geological Survey, Stockholm, was elected vice-president. Dr. Donald H. McLaughlin, professor of mining engineering at Harvard University, was chosen secretary. The society also elected the following councilors: D. H. Newland, New York state geologist, Albany; Benj. L. Miller, professor of geology at Lehigh University, and Frank W. DeWolf, head of the department of geology of the University of Illinois.

AMONG scientific men from German institutions invited by the Universities Bureau of the British Empire to lecture in the colleges and universities of Great Britain are Dr. Friedrich von Müller, professor of internal medicine, Dr. Jonathan A. W. Zenneck, professor of experimental physics, Dr. Arnold Sommerfeld, professor of theoretical physics, and Dr. Hans Fischer, professor of organic chemistry, all of the University of Munich.

DR. ARTHUR POWELL DAVIS, past president of the American Society of Civil Engineers, has been appointed consulting engineer in the field service of the Bureau of Reclamation, and particularly upon the problems of the Boulder Dam project. Dr. Davis was for years closely associated with the studies and

investigations of the Colorado River Basin which led to the selection of the site where the dam is now being built as the best place to regulate and conserve the flow of the Colorado River. His report is the basis for the construction of the dam. Dr. Davis is a nephew of John Wesley Powell, who first explored the Canyon of the Colorado.

BURNARD S. BIGGS, until recently connected with the research staff investigating petroleum bases in the University of Texas, has been appointed to the faculty of the Carnegie Institute of Technology, Pittsburgh, in the Coal Research Laboratory.

DR. A. RICHARD BLISS, JR., has presented his resignation, effective on August 15, as chief of the division of pharmacology in the University of Tennessee, to accept the position of director of the Research Laboratories of the William A. Webster Company of Memphis.

G. M. J. MACKAY, formerly in charge of the research and development work in the Insulation Section of the General Electric Company Laboratories, has been appointed director of research for the companies in the Cyanamid group of the American Cyanamid Company.

DR. EDWARD MELLANBY, professor of pharmacology at the University of Sheffield, has been appointed Sheild professor of pharmacology in the University of Cambridge.

R. C. EVANS, of Clare College, has been appointed university demonstrator in the department of mineralogy and petrology of the University of Cambridge.

PROFESSOR JOHANNES STARK, formerly professor at Würzburg, has been nominated for the presidency of the Physikalisch-Technischen Reichsanstalt, to succeed Dr. Friedrich Paschen, professor of experimental physics in the University of Berlin.

PROFESSOR HANS EPPINGER, director of the medical clinic at Cologne, has succeeded to the direction of the first medical clinic at Vienna, which had been vacant since the retirement of Professor Wenckebach some years ago.

DR. S. W. RANSON, of Northwestern University Medical School, has received a grant from the Committee on Scientific Research of the American Medical Association for the continuation of his study of the cutaneous nerves in man. The committee has also awarded a grant to Dr. W. R. Tweedy, of Loyola University Medical School, for further studies on the chemical nature of parathyroid hormone.

A GROUP of French scientific men arrived in New York on July 17, to attend the sixteenth International Geological Congress, which will be held in Washing-

ton from July 22 to July 29. Among those in the party were Professor Paul Leon Lutaud, of the faculty of sciences of the University of Paris, and Professor Paul Fallot, of the faculty of sciences, University of Lyons. Other foreign geologists reported to be in the United States are Professor O. T. Jones, of the University of Cambridge, Professor E. B. Bailey, of the University of Glasgow, and Professor Pierre Provost, of the University of Lille.

DR. FRANK SCHLESINGER, director of the Yale Observatory, has sailed for Europe, where he plans to spend the summer.

DR. ROBERT L. PENDLETON, chief soil technologist of the National Geological Survey of China, is on leave from the survey and is assuming his regular post as professor of soil technology and head of the department of soils of the College of Agriculture, University of the Philippines.

DR. E. A. BIRGE, president emeritus of the University of Wisconsin, and Dr. Chancey Juday have undertaken a census of fish in the lakes of northern Wisconsin. The headquarters are at Trout Lake in Vilas County. In addition they will direct a study of the growth of plankton and algae. A study will also be made of the large aquatic plants; and experiments in increasing the fish food of various lakes by "planting" fertilizers on the lake bottoms will be continued.

DR. R. E. ROSE, director of the Technical Laboratory of the E. I. du Pont de Nemours and Company, and president of the American Association of Textile Chemists and Colorists, has made a tour of the South, during which he addressed the Piedmont Section, the South Central Section and the South-Eastern Section of the association, and visited a number of the textile enterprises.

THE twenty-fifth semi-annual meeting of the American Institute of Chemical Engineers was held in Chicago, from June 14 to 16. As reported in *Industrial and Engineering Chemistry* some two hundred and thirty members and guests were in attendance. The program consisted of a Symposium on "High-Pressure Technic," and another on "Measurement and Control in Chemical Industries," in addition to a group of general papers and a round-table conference devoted to the mathematical treatment of certain problems in the process industries.

THE organization meeting of The Society for Research on Meteorites will, through the courtesy of Director S. C. Simms and Dr. O. C. Farrington, be held in the lecture hall of the Field Museum of Natural History, Chicago, on Monday morning, August 21. All persons who have joined the society as

charter members and others who would like to become charter members at that time are cordially invited to attend. Persons interested in the purposes or activities of the society, as well as friends of members, will be welcome.

THE Buckston Browne Surgical Research Farm at Down, Kent, was formally opened by Sir Holburt Waring, president of the Royal College of Surgeons of England, on July 12.

A STRIP of countryside running for thirteen miles along the Palisades has been given by Mr. John D. Rockefeller, Jr., to become a part of the public domain if the commissioners of the Palisades Interstate Park can raise funds to develop it as a parkway "within a reasonable time." In announcing that he had offered the land to the commissioners, Mr. Rockefeller made public a letter to them in which he expressed the hope that, if the property were accepted, a treaty might be arranged between the States of New York and New Jersey for a joint commission "which would insure for all time a continuity and permanence of interstate administration" for the area. The property, which runs from about 2,500 feet south of the George Washington Bridge and extends north to the New York-New Jersey line, includes about 265 acres and was said to be worth about \$5,000,000. Mr. J. Du Pratt White, president of the commissioners, in accepting Mr. Rockefeller's offer, announced that they would apply for a grant of \$3,500,000 from the federal administration's public works program to pay for labor and materials for constructing the parkway. Provided the application is granted, work could be started within 60 days.

AN Associated Press dispatch reports that August 1 has been set as the date for closing twenty-three Weather Bureau observation stations in seventeen states as part of the effort of the Department of Agriculture to cut expenditures this year. Observers in all cases will either be retired or transferred.

THE publication of a thirteenth edition of the American Medical Directory was authorized at the recent meeting of the American Medical Association.

BEGINNING in January, 1934, the *Journal of Nutrition* will be published by the Wistar Institute, Philadelphia, instead of by the American Institute of Nutrition.

AN Institute of Public Health in Calcutta, a gift of the Rockefeller Foundation to the Government of India, was opened recently. It will be operated in cooperation with the Calcutta School of Tropical Medicine, where basic subjects will continue to be taught, while the institute deals with public health subjects. It will later be affiliated with the Univer-

sity of Calcutta, through which a doctorate in public health will be offered. The building, which harmonizes with the School of Tropical Medicine, has four stories, with facilities for teaching, laboratory work and lectures.

THE Carnegie Corporation, through the Carnegie Institution of Washington, has made a grant of \$2,100 as emergency aid to the Institute of Forest Genetics at Placerville, California.

THE will of the late Mrs. Gertrude Dunn Hicks, leaving \$479,000 to the University of Chicago, has been admitted to probate.

The *British Medical Journal* states that the annual report of the board of the British Institute of Physics shows that the many activities of the institute have continued to prosper and that the *Journal of Scientific Instruments* has made satisfactory progress. A new feature introduced during the year was the inclusion of articles specially written by authorities in their subjects, dealing with the trend of development of various classes of instruments and with matters of general interest to manufacturers. The opening in May of the joint library and reading rooms by the president, Lord Rutherford, marked an important step forward. Its establishment is the result of the work of the Joint Library Committee originally set up by the Institute of Physics, the Physical Society of London and the Optical Society.

AN exchange of art treasures by the Fogg Art Museum of Harvard University and the Spanish Government has been announced by the directors of the museum in Cambridge. The transfer restores to the Republic of Spain the Sahagun Tomb, said to be the most ancient sculptured sepulcher of the Middle Age period in Europe. Long sought by the National Archeological Museum of Spain because of its historical significance, the tomb was finally found in America in the possession of the Fogg Art Museum. In gratitude for this act, the Spanish authorities are presenting to Harvard a collection of objects of artistic and archeological value.

ACCORDING to the *Journal* of the American Medical Association, a society for encouraging the promotion of all branches of science in Japan was formally organized this spring. The last session of the diet approved the government's annual subsidy of 750,000 yen. The emperor's subsidy was 1,500,000 yen. The total sum to be spent annually to encourage scientific research will amount to 5,000,000 yen. The honorary president of the society is Prince Chichibu, the younger brother of the emperor; the president is Viscount Admiral Saito, the prime minister, and the chief director is Dr. Joji Sakurai, president of the Imperial Academy. From medical circles, six coun-

cilors were appointed, including Dr. T. Kitajima, head of the Japan Medical Association. The society

will begin work this autumn; its selection is said to be the result of careful deliberation by 110 councilors.

## DISCUSSION

### OBSERVATION OF A NEW MEXICO METEOR FROM THE AIR

A METEOR of unusual size and brilliancy passed over a portion of the Texas Panhandle and eastern New Mexico on the morning of March 24, 1933. This meteor was described in *Science News Letter* for April 8, by Dr. John Strong, of the California Institute of Technology, who observed it from a train between Springer and Wagon Mound, New Mexico.

A rare opportunity for observing this meteor was had by C. W. Coyle, a T. and W. A. air pilot flying from Albuquerque, New Mexico, to Amarillo, Texas. Mr. Coyle was in the neighborhood of Adrian, Texas. When first seen by him the meteor was very low; it seemed to be rising in the east and appeared like a floodlight gradually being turned on. Then it seemed to be coming directly toward him, rapidly increasing in brilliancy and leaving a long trail behind.

The meteor passed to the north of his line of flight, and as it passed him, fragments were discharged from the meteor. It seemed to disappear in the longitude of Tucumcari, New Mexico, perhaps in the vicinity of Mosquero. In passing, the meteor seemed to be lower than the airplane, which was flying at an elevation of about 7,000 feet. The direction of the trajectory was judged to be about 70 degrees west of south.

The time of the meteor's flight was about 5:07 A. M. (M. S. T.), and its duration was about 5 seconds. The illumination caused by the meteor is described as "three times as light as day." (The hour was a little before sunrise.) The front of the meteor was a reddish color and behind it was a cone of blue. The "tail" was a bluish, incandescent cloud, which continued visible, through several changes of color and form, until dawn, or till 5:35 A. M. This cloud of meteoric dust was visible at Amarillo through a low fog or haze, and was at an elevation of about 50 degrees with the horizon.

The passing of the meteor created an electrical effect, which appeared in the radio set of the pilot, resembling frictional static sometimes caused by dust in the air. This effect lasted for a little while after the meteor had passed.

Sounds were reported, as coming from the meteor, at Clayton and Estancia, New Mexico, and Texline, Texas.

The meteor was noticed by an air pilot, Mr. Frank Williams, who was flying west near the Zuni Mountains, about 300 miles west of the other air pilot. He saw the light of the meteor and the cloud which

hung in the sky, but the meteor did not pass him. He noticed that the bright light ended suddenly.

An observer at Amarillo, Texas, saw the meteor first at an elevation of about 50 degrees and almost directly northeast of him. He observed it for some seconds, as it seemed to come directly toward him, growing brighter rather than seeming to move. He noticed that the light was bluish at first, but in passing was like the sun. He saw the cloud for 30 minutes, but there was no cloud caused by the explosion. He saw the meteor "explode," he thought near Clayton, New Mexico. He noticed that most of the fragments seemed to "shoot up" and then disappear; only a few, and larger, pieces fell down and backwards.

An Associated Press notice of May 8 stated that a man living near Vanadium, New Mexico, exhibited at Silver City a 400-pound meteor which he had dug up on his ranch at a depth of 18 feet. He reported having been awakened on the morning of March 24 by a loud explosion and quaking of the earth. If this was a piece of the same meteor that was seen in the northeastern part of the state, its position would indicate that it had been shot out at the time of the explosion of the meteor, following a somewhat different direction from that of the original meteor.

One of the most remarkable records of the meteor is a photograph of the cloud of meteoric dust, that was taken by an Albuquerque photographer about 20 minutes after the passage of the meteor. This shows a very luminous area beyond dark clouds overhanging the Sandia Mountains 15 miles to the northeast. The sky shows just a little illumination at the right of the picture, due to the approaching dawn.

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### AN EXPLANATION OF THE CAUSE OF SPIRAL GRAIN IN TREES

SPIRAL grain in so-called twisted trees has engaged the attention of several observers from widely separated parts of the country. Seifrizz<sup>1</sup> has reviewed the literature relative to spiral grain and presents an interpretation of the cause.

Eames and McDaniels<sup>2</sup> state (p. 145) that "spiral grain also is related to the structure of the cambium." Division of the cambium by a peculiar kind of cell-plate formation has been described by Bailey.<sup>3</sup> Spiral

<sup>1</sup> William Seifrizz, *SCIENCE* (n.s.), 77: 50-51, 1933.

<sup>2</sup> A. J. Eames, L. J. McDaniels, "Introduction to Plant Anatomy," McGraw-Hill. 1925.

<sup>3</sup> I. W. Bailey, *Amer. Jour. Bot.*, 7: 417-434, 1920.