

is divided between the National Advisory Cancer Council, the Surgeon General of the Public Health Service and the Secretary of the Treasury.

The National Advisory Cancer Council will consist of the Surgeon General, *ex officio*, as chairman, and six members appointed by him with the approval of the Secretary of the Treasury from leading medical and scientific authorities. Each member is to be paid for his services at the rate of \$25 a day. The council will recommend to the Surgeon General programs relating to the cause, prevention, diagnosis and treatment of cancer considered worthy of such action; it will collect and will make available the results of investigations, and it will examine applications for grants-in-aid for research projects.

The Surgeon General is authorized to provide free facilities for training and instruction concerning cancer; to establish research fellowships for investigators from any part of the world and for the assistance of experts from the United States or elsewhere; for the appointment of commissioned officers in the Public Health Service to aid in carrying out the provisions of the act; for the purchase of radium, and for making it available for the purposes of the act, and for grants-in-aid to universities, hospitals, laboratories and other institutions, or to individuals, for research projects relating to cancer.

The Secretary of the Treasury is authorized to accept any unconditional gifts or bequests to be used for furthering the purposes of the act and to accept any conditional gifts for that purpose if acceptance is recommended by the Surgeon General and the council.

The act becomes effective thirty days after its approval by the President, but in accordance with congressional practice it carries no appropriation and may have to wait until an appropriation is made before it becomes operative.

In SCIENCE for July 2 there is given an account of the establishment at Yale University of the Jane Coffin Childs Memorial Fund for Medical Research. The resources of the foundation, said to be in the neighborhood of \$10,000,000, will be devoted primarily to research into the causes and origins of cancer. It is provided that when in the judgment of the board of managers the causes and origins of the disease had been sufficiently determined, the fund "may thereafter on the advice of the board of scientific advisers" be devoted to research into "some other un-

solved problems of medicine" or of "some other field of science."

RECENT DEATHS AND MEMORIALS

DR. VERNON LYMAN KELLOGG, permanent secretary of the National Research Council from 1920 until his retirement as secretary emeritus in 1932, previously professor of entomology at Stanford University, died on August 8 at the age of sixty-nine years.

WILLIAM ATKINSON JOHNSTON, professor emeritus of theoretical and applied mechanics at the Massachusetts Institute of Technology, died on August 6 at the age of sixty-eight years.

DR. JOSEPH LEGGETT MILLER, clinical professor of medicine at the Medical School of the University of Chicago, died on August 6. He was sixty-nine years old.

DR. FERDINAND CANNING SCOTT SCHILLER, professor of philosophy at the University of California and fellow of Corpus Christi College, Oxford, died on August 6 at the age of seventy-three years.

DR. AMOS WILLIAM BUTLER, formerly secretary and executive officer of the Board of State Charities of Indiana, died on August 5 at the age of seventy-six years.

THE death in his eighty-seventh year is announced of Dr. E. B. Elliott, from 1892 until his retirement in 1921 as emeritus professor Waynflete professor of mathematics at the University of Oxford.

THE west unit of the University of Kentucky College of Engineering group, the building of which is now under construction, will be named Anderson Hall, in memory of the late F. Paul Anderson, who was dean of the college for forty-three years. The building housing the departments of civil engineering and physics will be named Pence Hall, in honor of Dr. M. L. Pence, professor emeritus of physics.

AT Cheltenham College on Speech Day, July 3, Lord Willingdon unveiled a memorial tablet to Dr. E. A. Wilson on a wall of the new science laboratory. This bears the inscription: "Edward Adrian Wilson, M.B., biologist and explorer from boyhood a lover of Nature. He died with Scott on the return from the South Pole, March, 1912. Strong in will to strive, to seek, to find, and not to yield."

SCIENTIFIC NOTES AND NEWS

DR. GEORGE D. BIRKHOFF, Perkins professor of mathematics and dean of the Faculty of Arts and Sciences of Harvard University, president of the American Association for the Advancement of Science, and Dr. F. R. Moulton, permanent secretary

of the American Association, have been appointed delegates from the association to the meeting of the British Association for the Advancement of Science to be held at Nottingham from September 1 to 8.

THE Comstock prize of the National Academy of

Sciences will be presented to Dr. Ernest O. Lawrence, professor of physics at the University of California, at the meeting of the academy to be held in Rochester from October 25 to 28.

M. P. MONTEL has been elected a member in the Section of Mathematics of the Academy of Sciences, Paris, to succeed the late M. E. Goursat; in the Section of Botany M. Henri Colin has been elected to succeed the late M. Mangon.

THE Halle Academy of Sciences has awarded Cotherius medals to Dr. Franz Volhard, professor of internal medicine at Frankfurt; to Dr. Eugen Fischer, professor of anthropology at Berlin; to Dr. Max LeBlanc, professor of physical chemistry at Leipzig; to Dr. Armin Tschermak-Seysenegg, professor of physiology at the German University at Prague.

PROFESSOR JULES BORDET, director of the Pasteur Institute of Brussels, has been awarded the Grand Cross of the Order of Leopold.

DR. J. McKEEN CATTELL, editor of *SCIENCE* since 1895, formerly professor of psychology at the University of Pennsylvania and at Columbia University, has been made commander of the Legion of Honor by the French Government.

A TESTIMONIAL dinner in honor of Dr. Irvin Abell, Louisville, president-elect of the American Medical Association, was given on July 1 by the Jefferson County Medical Society. The speakers included Drs. William Barnett Owen, Louisville, president of the county society; J. D. Northcutt, Covington, president of the state association, and William D. Haggard, Nashville, Tenn., a former president of the American Medical Association.

THE Trustees Medal of the School of Civil Engineering of Cornell University has been awarded to Charles Smith Whitney. The award, given annually to a graduate for a paper tending to advance the interests of the profession, was made in recognition of a design of reinforced concrete under flexure published in the *Journal* of the American Concrete Institute.

DR. THADDEUS L. BOLTON, who has been head of the department of psychology of Temple University for twenty years, will retire this month at the close of the summer school. He will be given the title of professor emeritus and will hold only nominal connection with the department in the future. The department has increased during these twenty years from a registration of about forty to as many as thirteen hundred and fifty students with a teaching staff of seven full-time members.

DR. G. W. BEADLE, assistant professor of zoology at Harvard University, has been appointed professor of genetics at Stanford University.

DR. LAURENCE IRVING, professor of experimental biology at the University of Toronto, has been appointed professor and head of the department of biology at Swarthmore College.

WILLIAM REUEL CHEDSEY, head of the department of mining at the Pennsylvania State College, has been appointed director of the School of Mines and Metallurgy at Rolla, Mo., to succeed Dr. Charles H. Fulton, who has resigned after serving for sixteen years.

DR. LLOYD LOGAN, associate professor of gas engineering at the Johns Hopkins University, has been appointed professor of chemical engineering and head of the department at Syracuse University. He succeeds Dr. Albert Salathe, who resigned last spring.

DR. ALAN MORITZ, who has been pathologist in charge at the University Hospitals, Cleveland, since 1930, and associate professor of pathology at Western Reserve University since 1932, will join the staff of the Harvard Medical School as professor of legal medicine. He will succeed Dr. George B. Magrath, who will become professor emeritus.

DR. ARTHUR H. SMITH, associate professor of physiological chemistry at Yale University, has been appointed head of the department of physiological chemistry at the College of Medicine of Wayne University at Denver.

DR. GERHARDT TINTNER, of the Cowles Institute, has been appointed assistant professor of mathematics and economics at the Iowa State College. As a Rockefeller fellow, Dr. Tintner has worked at the London School of Economics and at various American universities.

DR. D. G. CATCHESIDE, lecturer in botany at King's College, University of London, who has held a Rockefeller research fellowship during the past year at the California Institute of Technology, Pasadena, has been appointed university lecturer in botany at Cambridge.

DR. J. H. SCHULMAN, of Trinity Hall, has been appointed assistant director of research in colloid science at the University of Cambridge.

DR. EDWARD H. GRAHAM, formerly assistant curator of botany at the Carnegie Museum, Pittsburgh, has become biologist in the Section of Wildlife Management of the Soil Conservation Service, Washington, D. C.

DR. HAROLD W. HOOTS, formerly assistant chief geologist of the Union Oil Company, past president of the Pacific Coast Section of the American Association of Petroleum Geologists, has joined the staff of the Richfield Oil Company as chief geologist.

DR. CARL F. EYRING, professor of physics and dean of the College of Arts and Sciences at Brigham Young University, has been appointed president of the re-

cently created New England Mission of the Latter Day Saints Church. Dr. Eyring will have headquarters in Boston.

THE proprietors of *The Lancet* have appointed Dr. Egbert Morland as editor in succession to the late Sir Squire Sprigge. Dr. T. F. Fox and Dr. M. H. Kettle have been appointed assistant editors.

PROFESSOR OTTO J. SCHMIDT, who recently received the title of "Hero of the Soviet Union" for leading the North Pole expedition, has been named director of the Institute of Theoretical Geophysics at Moscow. The executive committee of the Academy of Sciences of the U. S. S. R. has voted to reorganize the institute and centralize in its hands all scientific research on the stratosphere and the troposphere in the Soviet Union.

By an order of the Committee of Privy Council, made after consultation with the Medical Research Council and with the president of the Royal Society, Dr. L. J. Witts, professor of medicine in the University of London and physician to St. Bartholomew's Hospital, and Dr. G. E. Gask, emeritus professor of surgery in the University of London, have been appointed members of the British Medical Research Council, in succession to Sir Thomas Lewis and Sir David P. D. Wilkie, who retire in rotation on September 30.

THE *Journal* of the American Medical Association states that members of a commission authorized by the recent session of the legislature of New York State to survey the prevalence of cancer in the state and facilities for treatment were recently announced. Six members of the legislature were appointed by officials of that body and the following physicians were named by Governor Lehman: Drs. Edward S. Godfrey, Jr., Albany, state health commissioner; James Ewing, director of cancer research, Memorial Hospital for the Treatment of Cancer and Allied Diseases, New York, and Floyd S. Winslow, Rochester, last year president of the Medical Society of the State of New York. The commission has an appropriation of \$15,000 and will report to the 1938 legislature.

THE Committee on Scientific Research of the American Medical Association has awarded grants to Dr. Joseph Krafka, Jr., professor of microscopic anatomy at the University of Georgia, for the purchase of a seriograph with which to make elastometric measurements on muscle and connective tissue to extend analysis of the rôle of mechanical factors in the production of arteriosclerosis; to Dr. Peter Heinbecker, of the School of Medicine of Washington University, St. Louis, for an investigation of the pituitary regulation of water exchange in the dog; and to Margaret Lasker, New York, to aid an investigation of the inci-

dence and distribution of pentosuria and fructosuria in the population.

DR. CLIFFORD W. CHAPMAN, pharmacologist of the Department of Pensions and National Health, Ottawa, Canada, has leave of absence for two years, having been invited by the government of China to occupy the chair of pharmacology in the National Health Organization at Nanking. It is expected that he will take up his work on October 1.

DR. Z. I. KERTESZ, associate chemist at the New York State Experiment Station at Geneva, has been granted a year's leave of absence by Cornell University, to accept a fellowship from the Rockefeller Foundation for study of the pectin enzymes under Professor Hans von Euler at Stockholm.

DELEGATES appointed to represent the United States at the eleventh International Dairy Congress to be held in Berlin from August 21 to 29 include, in addition to Dr. O. E. Reed, chief of the Bureau of Dairy Industry of the U. S. Department of Agriculture, who will lead the delegation, Dr. A. C. Dahlberg, head of the Dairy Division of the New York State Agricultural Experiment Station, Geneva; H. P. Davis, Nebraska State College of Agriculture, Lincoln; For-dyce Ely, University of Kentucky College of Agriculture, Lexington; Dr. C. L. Roadhouse, California State College of Agriculture, Davis; A. W. Rudnick, Iowa State College of Agriculture, Ames; C. N. Shepardson, Texas State College of Agriculture, College Station; and T. G. Stitts, Farm Credit Administration, Washington.

DR. G. J. HUCKER, chief in research in bacteriology at the New York State Experiment Station at Geneva, will sail from San Francisco on August 18 for New Zealand, where he will deliver a series of lectures and confer with public health officials, dairy scientists and veterinarians on the detection and control of mastitis in dairy cattle under the auspices of the New Zealand Ministry of Agriculture.

DR. FORREST SHREVE and Dr. T. D. Mallery, of the Desert Laboratory of the Carnegie Institution of Washington at Tucson, Ariz., and Dr. Lee R. Dice, of the University of Michigan, left El Paso, Texas, on July 21 for a biological reconnaissance of the Mexican State of Chihuahua.

KARL P. SCHMIDT, curator of reptiles and amphibians, and D. Dwight Davis, assistant curator of anatomy, at the Field Museum of Natural History, have left Chicago to collect reptiles and mammals for the museum in the Chisos Mountains in southwestern Texas. Tarleton Smith, of the U. S. National Park Service, is cooperating in the expedition. A scientific

report will be prepared on reptiles of the Big Bend region, under Mr. Schmidt's direction.

GERALD FITZGERALD and J. B. Mertie, Jr., of the U. S. Geological Survey, who will make topographic surveys and geologic investigations in the Goodnews Bay district and adjacent parts of southwestern Alaska where there have been recent discoveries of platinum-bearing deposits, and T. W. Ranta, who will make topographic surveys in the Alaska Range region at the head of Copper River, are now on their way to the Territory.

THE Executive Committee of the American Association of Anatomists has voted to hold the next annual meeting at the School of Medicine of the University of Pittsburgh on April 14, 15 and 16, 1938.

It has been decided by the Royal College of Surgeons of England that under the Moynihan bequest not less than three, or more than five, lectures on the results of research in its application to surgery shall be given in alternate years by a lecturer who shall be styled the Moynihan lecturer.

It is planned to amalgamate the Institute of Hygiene, London, with the Royal Institute of Public Health. They will in future be known as the Royal Institute of Public Health and Hygiene.

WILLIAM BINGHAM, 2D, of Boston, has given \$300,000 to the Boston Dispensary to complete the building of its Diagnostic Hospital and to finance its operation. The donation, supplementing a previous gift of \$400,000 made by him in April, will be devoted to the creation of a medical center for the rural physicians of New England, which will be the only one of its kind. The object of the gift is "to make it possible for patients needing diagnosis, patients from any corner of New England and from any economic group to get the latest medical advice and for the country

doctor to profit from the knowledge and experience of specialists."

A SEISMOLOGICAL observatory has been established at the University of Queensland in Brisbane. Hitherto there has been no such observatory in Australia north of Sydney. The station has provided a missing link in the chain of seismological observatories in Sydney, Melbourne, Adelaide and Perth. According to *The Courier-Mail* "interest in the creation of a seismological station at Queensland was first aroused as a result of the earth tremor at Gayndah in April, 1935. The first practical move was made anonymously in that year by a former student of the department of geology in the early days of the university. His offer to provide a Milne-Shaw seismograph was accepted with enthusiasm. Later, when it was considered desirable to have an additional instrument, so that the Northern-Southern component might be determined, as well as the Eastern-Western one, the Council for Scientific and Industrial Research provided the second machine last year."

ACCORDING to *Nature* the Kyoto Imperial University has accepted a donation equivalent to about \$50,000 from the Osaka Electric Railway Company towards the building of an observatory on the southern peak of Ikomasan at a height of 640 meters. The observatory will include a main building with a 9-meter dome, a solar laboratory, housing for a reflector and a dormitory. The equipment of the solar department of the Kwasan Observatory will be transferred to the new site, in addition to other instruments including the 80-cm. Tomkins reflector. Later a museum devoted to astronomical exhibits and those of allied sciences will be built near the Ikomasan Observatory. Professor Yamamoto will be the director of the group. The Kwasan Observatory will then become a purely academic institution.

DISCUSSION

SPORES OF CAMBRIAN PLANTS

THE recent discoveries of Silurian land plants in association with the graptolite genus *Monograptus* in Victoria, Australia, by Lang and Cookson¹ have extended our knowledge of a terrestrial flora antedating by millions of years the celebrated Devonian Rhynia flora.

There are among rocks of Lower Paleozoic age a number of carbonaceous sediments which presumably are composed largely of plant debris. Kuckersite is a boghead from the Ordovician of Esthonia that Zalessky² has described as consisting almost exclusively of *Gleocapsa*-like unicellular algae.

¹ *Phil. Trans. Roy. Soc. Lond., B.*, 224: 421-449, 1935.

² *Ann. Soc. Pal. Russ.*, 25, 1917.

Professor A. C. Lane and Professor E. C. Jeffrey have given me specimens of the Upper Cambrian "Kolm" or "Swedish oil shale." This sediment from the district of Ost-Gotland is rather peculiar among oil shales. The color is black, the luster dull (rarely resinous in small areas on the surface) and the fracture cubic or conchoidal. The black shale gives little indication of distortion. It occurs in lenses of variable dimensions.

With the aid of a surface maceration treatment with Schultz's mixture and subsequent neutralization with ammonium hydroxide, it has been possible to obtain serial nitrocellulose peels, both vertically and transversely, through the samples.