SCIENTIFIC NOTES AND NEWS

THE Duddell Medal of the Physical Society of London for 1930 has been awarded to Dr. A. A. Michelson, of the University of Chicago. This award is made annually to one who has contributed to the advancement of knowledge by the invention or design of scientific instruments or by the discovery of material used in their construction.

THE Cameron Prize of the faculty of medicine of the University of Edinburgh for 1930 has been awarded conjointly to Dr. George R. Minot, physician-in-chief to the Collis P. Huntington Memorial Hospital of Harvard University, and to Dr. William P. Murphy, assistant physician in the Peter Bent Brigham Hospital, for their work on the liver treatment of pernicious anemia.

As a part of the fiftieth anniversary celebrations of the American Society of Mechanical Engineers a luncheon was given at Washington on April 8, at which medals were presented to Dr. C. E. Grunsky, president of the American Engineering Council; Loughman St. L. Penred, editor of *The Engineer*, Great Britain; Brigadier-General C. H. Mitchell, University of Toronto, Canada; Georges Claude, France; Dr. Ing. Conrad Matschoss, Germany; Dr. Masawo Kamo, Tokio Imperial University, Japan; Senator Luigi Luiggi, Italy; Professor Donato Gaminara, Uruguay; Professor Julio Garzon Nieto, Colombia; Hofrat Ing. Ludwig Erhard, Austria; Baron Gaston de Bethune, who received the medal on behalf of seven Belgian engineers; Professor D. Dresden, the Netherlands; Vilhelm F. A. Nordstrom, Sweden; Professor Aurel Stodola, Switzerland; Norberto Dominguez, Mexico; Dr. S. Spacek, Czechoslovakia. The medals were presented by the ambassadors or ministers representing the different countries. Julio Kilenya, portrait sculptor, designed the medal. It symbolizes the engineer and his past and present achievements.

THE Burroughs Medal of the John Burroughs Memorial Association has been awarded to Archibald Rutledge, a writer on nature subjects. Holders of the medal have been William Beebe, Ernest Thompson Seton, John Russell McCarthy and Frank M. Chapman. The award was presented by Dr. Clyde Fisher, president of the association.

DR. C. E. HELLMAYR, associate curator of birds at the Field Museum, Chicago, has been awarded the Megaud d'Aubusson Gold Medal by the Société Nationale d'Acclimatation de France, for his work on South American birds. Recently Dr. Hellmayr was awarded the Brewster Medal by the American Ornithologists' Union.

THE doctorate of laws will be conferred by the University of Edinburgh on Sir William Hardy, director of food investigation, Department of Scientific and Industrial Research; Sir David Wallace, consulting surgeon to the Royal Infirmary, Edinburgh; Professor W. W. Watts, professor of geology, Imperial College of Science, South Kensington, and Professor K. F. Wenckebach, emeritus professor of medicine, University of Vienna.

DR. W. R. BLOOR, biochemist of the University of Rochester, was elected president of the Federation of American Societies for Experimental Biology and reelected president of the American Society of Biological Chemists at the recent meeting in Chicago. Dr. Frederick L. Gates, of the Rockefeller Institute and Harvard University, was chosen president of the American Society of Pathology; Dr. George Wallace, of the Bellevue Hospital, New York, was elected president of the American Society of Pharmacology and Experimental Therapeutics, and Dr. Walter J. Meek, of the University of Wisconsin, was reelected president of the American Physiological Society.

THE retirement after a service of forty years is announced of Dr. William M. Esten, professor of bacteriology at the Connecticut Agricultural College, at Storrs, effective September 1.

DR. RAYMOND C. PARKER, who has been connected with the cancer research organization of the University of Pennsylvania, joined the scientific staff of The Rockefeller Institute for Medical Research on March first.

DR. WILLIAM A. PERLZWEIG, associate in medicine and chemist to the medical clinic in the Johns Hopkins University, has been appointed professor of biochemistry in the Duke University School of Medicine, effective July 1, 1930.

DR. E. L. HILL has been appointed assistant professor of theoretical physics at the University of Minnesota. He will begin his work there in September.

DR. LOUIS EHRENFELD, of Northwestern University, has been appointed curator of organic and industrial chemistry in the Museum of Science and Industry, Chicago; Mr. Herman R. Eberle, of the Michigan College of Mining and Technology, has been appointed assistant curator of mining, and Mr. M. K. Hubbard, of the University of Chicago, has been appointed research associate in geology and geophysics.

DR. H. ROSSBACHER has been made superintendent

of manufacturing development at the Kearny, New Jersey, plant of the Western Electric Company.

M. RENÉ BAILLAUD, associate astronomer of the observatory at Marseilles, has been elected director of the observatory at Besançon to succeed the late M. Lebeuf.

R. E. HELLMUND, chief electrical engineer of the Westinghouse Electric and Manufacturing Company, has been elected a member of the board of directors of the German Institute of Electrical Engineers.

A CONSULTATIVE committee on cancer research, consisting of representatives of the University of Manchester and of the Manchester Committee on Cancer, has been established. The research work will be conducted in the university laboratories, and will be directed by the committee. Mr. C. C. Twort, M.D. (Aberdeen), who has been working under the direction of the Manchester Committee, has been appointed director of the department of cancer research.

THE Board of Conservation and Natural Resources of the State of Illinois has asked a committee consisting of William Trelease, H. C. Cowles, C. M. Thompson and M. F. Walsh to recommend some one for appointment as chief of the Natural History Survey, the position held by the late Professor Stephen A. Forbes. Information about suitable candidates may be sent to any member of the committee.

DR. W. J. HOLLAND, director emeritus of the Carnegie Museum, Pittsburgh, has left for Mexico City to set up the ninth replica of diplodocus, first uncovered by a Carnegie Museum expedition thirty years ago.

DR. REMINGTON KELLOGG, assistant curator, division of mammals of the U. S. National Museum, sailed for Europe on March 24. He will spend two or three months in an examination of the fossil cetacean types in various European museums.

MR. M. W. STIRLING, chief of the Bureau of American Ethnology, has returned to Washington from Florida, where he excavated a large shell mound and a sand burial mound near Safety Harbor. A large amount of skeletal material was obtained, as well as a good collection of objects representative of the culture of the period.

MR. N. N. KUSNETZOV-UGAMSKI, of Tashkent, Usbekistan, known for his studies of Hymenoptera, has moved to Samarkand, where he is working in the Research Institute of Meteorology and Hydrology. For the time being, his entomological studies have been discontinued.

DR. H. U. SVERDRUP, professor at the Geophysical Institute of Bergen Museum, Norway, and research associate of the Carnegie Institution of Washington, arrived in Washington on March 1 to spend five or six months there assisting the Department of Terrestrial Magnetism of the Carnegie Institution in the revisions and interpretations of the oceanographic data obtained during Cruise VII of *The Carnegie*. On April 8 Dr. Sverdrup will deliver an illustrated lecture at the Carnegie Institution of Washington on "Some Aspects of Oceanography."

DR. E. G. CONKLIN, professor of biology at Princeton University, delivered a lecture on March 29 before the Royal Canadian Institute, on "Some Present Problems of Evolution."

DR. HENRY B. WARD, professor of zoology at the University of Illinois, gave one of the De Lamar lectures at the School of Hygiene and Public Health of the Johns Hopkins University on April 1. The title of this lecture was "The Introduction and Spread of the Fish Tapeworm, *Diphyllobothrium latum*, in the United States."

DR. WINTHROP J. V. OSTERHOUT, member of the Rockefeller Institute for Medical Research, New York City, will deliver the seventh Harvey Society Lecture at the New York Academy of Medicine, on Thursday evening, April 17. His subject will be "Electrical Phenomena in the Living Cell."

ON March 29, Dr. Edgar L. Hewett, of Santa Fé, New Mexico, lectured at Chapelle House, Denver, Colorado, on the Indians of the Southwest, with special reference to the ruins of ancient pueblos.

DR. GEORGE B. CRESSEY, professor of geology and geography at Shanghai College, China, gave a series of five lectures on the geography of China at Clark University commencing on March 31. Dr. Cressey is spending his sabbatical year as research associate at Harvard University and instructor at Clark University.

DR. WILLIAM MANSFIELD CLARK, professor of biological chemistry at the Johns Hopkins Medical School, gave at the Harvard Medical School on April 1 and 2 the Cutter Lecture on Preventive Medicine. The subject of his lecture, which was given in two parts, was "Reversible Oxidation-Reduction in Organic Systems."

DR. J. FRENKEL, professor of theoretical physics at the Polytechnical Institute at Leningrad, will lecture on "Wave Mechanics" at the University of Minnesota during the academic year 1930–31. He will also conduct a seminar on problems in modern physics.

ON the occasion of the fiftieth anniversary of the foundation of the Ophthalmological Society of the

United Kingdom, on April 3, the Bowman Lecture was given by Sir Arthur Keith. The lecture was entitled "The Genius of William Bowman."

THE American Geophysical Union will hold its eleventh annual meeting on May 1 and 2 at the National Academy-Research Council Building, Washington, D. C. The sections of geodesy and meteorology will meet on the morning of May 1 and the sections of oceanography and volcanology in the afternoon. The sections of terrestrial magnetism and electricity and of seismology will meet on the morning of May 2 and the general assembly of the union will be held in the afternoon. The section meetings will be preceded by short business sessions and will include reports on national, international or cooperative progress, as well as scientific papers in each field, except in the case of the section of seismology, the meeting of which will be for business purposes only, as a joint meeting for the presentation of scientific papers is planned with the eastern section of the Seismological Society of America at Washington on May 5 and 6. Following the business session of the general assembly to consider reports of officers, there will be a scientific session on "The Utility of Geophysics" consisting of a series of six papers, one from each section of the union.

THE eleventh International Congress of Zoologists will be held at Padua from September 4 to 11, under the presidency of Professor Paolo Enriques. Excursions after the meeting to the valleys of Comacchio, Ferrara, Bologna and Ravenna are planned.

CONSTRUCTION on the new building in Cambridge for the Biological Institute of Harvard University will begin shortly. Plans have not yet been completed, but the Boston *Evening Transcript* states that it is expected that the building will contain no lecture halls, as those in the University Museum fulfil present needs. Instead, it will be devoted to laboratories, research rooms and administrative offices. The site, which has been definitely picked out, is the plot of ground across Divinity Avenue from the museum, a little to the east of Divinity Hall and the Semitic Museum.

TEACHERS COLLEGE, Columbia University, receives $500,000 by the will of the late V. Everit Macy.

THE Medical School of Washington University, St. Louis, has received from E. Arthur and Frank E. Ball, manufacturers, of Muncie, Indiana, a gift of $60,000 for research in hearing at the Oscar Johnson Institute.

ACCORDING to a press dispatch, the House of Representatives has voted to create a Textile Foundation to spend and administer a fund of about $2,000,000 for scientific and economic research in the textile and allied industries. The bill provides that the Textile Alliance, a corporation formed immediately after the war to protect the American textile industry in the purchases of dyes, should pay to the new foundation about $2,000,000, which it was supposed to turn over to the government. Under the terms of the charter of of Textile Alliance, it was supposed to make no profits, but through its dealings immediately following the war, to prevent a demoralization of the dye market, it actually came out more than $2,000,000 to the good. The bill provides for a board of directors of the foundation, to be composed of the Secretary of Commerce, the Secretary of Agriculture and three individuals familiar with the textile industry, to be appointed by the President for terms of two, three and four years. The bill gives the directors wide powers in administering the fund, with the provision that an annual report be made to Congress.

THE new Institute for Cancer Research was opened at Villejuif, near Paris, on March 17, by M. Doumergue, President of the Republic. He was accompanied by M. Marraud, Minister of Public Instruction, and M. Desiré Ferry, Minister of Public Health. After the opening ceremony the President laid the foundation stone of the new hospital which is to be erected beside the institute. In an address on the work of the institution, M. Ferry said that the importance of a close liaison between the laboratory and the hospital could hardly be overestimated. To the sufferers in hospital would come all the relief that lay in the power of the research worker, who in his turn would be helped to fresh achievement by their practical observations of the progress of the disease. The International Congress on Cancer opened at the new institute on March 18.

THE Royal Institute of Public Health, London, has been called on to give up its present site in Russell Square. The lease extends over several more years, but the site is required for the University of London, and the London County Council has served notice that in order that road widening may be carried out the demolition of the institute building is required. After an extensive search of the surrounding district by Sir William Smith, the principal, the institute has acquired a site a short distance away, on which new buildings will be erected. The site acquired is one of the few remaining open spaces in London available for building purposes. It is the plot of land on the north side of Queen Square, with frontages to the square and to Guilford Street. The institute was founded in 1886, incorporated in 1892 and received royal recognition in 1897. Its headquarters were

established in Russell Square in 1905. Here laboratories were constructed for chemical, bacteriological and other research work. The courses of instruction given in these laboratories are recognized as qualifying medical practitioners for admission to the examinations for degrees and diplomas in public health of all the universities and medical corporations in the kingdom.

INDICATIONS of extensive commercial research in Soviet Russia are shown, as reported in the *U. S. Daily*, in large exports from the United States of various types of scientific, laboratory and professional instruments and apparatus in 1929. Soviet Russia became the second most important market for this class of materials last year, being exceeded only by Canada, which is the leading purchaser of American scientific appliances. The shipments to Russia amounted to $400,816, and accounted for a large part of the 23 per cent. gain in the year's exports of these commodities. The total shipments in this group, which is classified as "other scientific, laboratory and professional instruments and apparatus," aggregated $4,344,640 during the year. The materials include scientific instruments for testing physical strength, materials and forces; chemical and physical apparatus, aeronautical, astronomical and bacteriological instruments; graphic recording, military and naval, meteorological appliances; microscopes, laboratory scales, thermometers, barometers, hygrometers, magnets, etc. The exports of these materials showed a gain also during the month of January, when shipments amounted to $344,763, an increase of 13 per cent. over the corresponding month of 1929.

DISCUSSION

A SACRIFICE TO PELE

DOWN along the thinner borders of the lava overflows from Kilauea, which four years ago surged out into the fern forests and cut off some acres of them, where Pele's glowing strands had floated round, I noted last October that many of the tree fern stumps, somewhat pocketed in the light and fluffy lavas from one to three feet thick, seemed again to come to life. Could that be? I asked, and was told it was apparently so.

Then I looked over about an acre of the former fern forest, noting many of the stumps which seemed to send up the gnarled, irregular shoots, rather large for the time in which they had appeared, if grown from spores and prothalli. No soil seemed to have gathered over these shoots; their roots were imbedded deeply in the chaffy tops and remnants of the old stumps. No other plants or ferns of any kind whatever were to be noted round about, although the rough, deeply furrowed lavas should have favored soil forming and the growth of prothalli. Without previous and continued observation of the stumps from the time of the flows and without the digging up of the stumps from beneath the lavas, it seemed necessary to consider the amazing explanation of survival. Not knowing the forms of the fern forest very well, I can't say which of the several species was concerned, or how.

Could a surging, fiery spray of thinning waves of basaltic lava of extreme liquidity, flowing rapidly about the fern trunks with their heavy mat of wet, insulating chaff, perhaps with accompanying torrential rain, cool quickly enough to leave strands of the fern stumps still alive? And then, with initial rootlet cell growth, could a stalk cell form, and life begin anew? This much is certain: the liquid lava temperatures, usually recorded as from 800° to 1,200°, would be nowhere near so high about the fern stumps while the free tops of the forest were cut down. There would also form about the chaffy outer mass a jacket of steam which would hold the lava away from the stems as water from below made its escape. The trunks themselves and the fern forest floor would be further protected by a dust and ash coating precedent to the flow. The lava is very vesicular.

Recently the subject of reforestation following devastating eruptions, especially at Krakatau and at Katmai, has claimed some further attention. It has been found that the destruction of the original flora is not so extreme as earlier supposed. Certainly, ferns do come up from beneath the ash when it is washed away by the rains.

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BRANCHING HABITS OF THE HEVEA RUBBER TREE

MANY tropical trees have specialized habits of branching, which may be viewed as adaptations to forest conditions. Darwin and many other writers have recognized that forest vegetation in the tropics must meet an intensive competition for space and light. Chances of survival are greater for seedlings or saplings that can outgrow the surrounding vegetation and reach the sunshine. The seedlings of Hevea are specially adapted to undergrowth conditions in tropical forests.

Instead of beginning to branch near the ground, as do the more spreading trees of temperate climates, the specialized tropical species send up at first a tall, slender stalk, with branches only at the top. The