

- January 21. *Radiation and Spectroscopy*: DR. R. A. MILLIKAN, professor of physics at the California Institute.
- February 4. *Structure of the Universe*: PROFESSOR F. H. SEARS, Mount Wilson Observatory.
- February 18. *Nebulae*: DR. E. P. HUBBLE, Mount Wilson Observatory.
- March 4. *The Solar System*: DR. C. E. ST. JOHN, Mount Wilson Observatory.
- March 18. *Some Phases of the Evolution of Man*: DR. J. C. MERRIAM, president, Carnegie Institution of Washington.
- April 1. *Geological History of the Earth*: DR. J. P. BUWALDA, professor of geology, California Institute.
- April 15. *Geological History of the Earth*: DR. J. P. BUWALDA, professor of geology, California Institute.
- April 29. *Evolution of Matter and Energy*: DR. R. C. TOLMAN, professor of physical chemistry and mathematical physics, California Institute.
- May 12. *Evolution of Stars*: DR. H. N. RUSSELL, professor of astronomy, Princeton University.
- October 14. *The Earth and the Sun*: DR. C. G. ABBOT, Smithsonian Institution.
- November 4. *Evolution of Life on the Earth*: DR. CHESTER STOCK, professor of paleontology, California Institute.
- November 18. *Evolution of Life on the Earth*: DR. CHESTER STOCK, professor of paleontology, California Institute.

It is hoped that the course may be continued through the year 1927 so as to include lectures on biological evolution, anthropological evolution, the development of early civilizations and the evolution of mind and of human thought.

SCIENTIFIC NOTES AND NEWS

WILLIAM BATESON, director of the John Innes Horticultural Institution, near London, distinguished for his contributions to genetics and other biological subjects, died on February 1 in his sixty-fifth year.

PROFESSOR ROBERT H. MILLIKAN, director of the Norman Bridge Laboratory of Physics at the California Institute of Technology, has been elected a corresponding member of the French Academy of Sciences (section of physics) to take the place of the late Sir James Dewar.

PROFESSOR CHARLES JOSEPH CHAMBERLAIN, of the University of Chicago, has been elected a corresponding member of the Botanical Society of Geneva.

PROFESSOR E. D. MERRILL, dean of the College of Agriculture and director of the Agricultural Experiment Station of the University of California, has been elected a corresponding member of the Deutschen Botanischen Gesellschaft, in recognition of his "great and permanent service in the elucidation of the flora of tropical Asia, especially of the Malay Archipelago."

DR. J. WHITRIDGE WILLIAMS, professor of obstetrics in the Johns Hopkins University, recently received word of his election as an honorary member of the Society of Obstetrics and Gynecology of Paris.

DR. OSKAR VON MILLER, of the German Museum of Natural Sciences at Munich, has been made a corresponding member of the Royal Academy of Sciences of Stockholm.

S. Z. DE FERRANTI, inventor and engineer, has been made an honorary member of the British Institution of Electrical Engineers.

DR. HARRY PLOTZ, of the Pasteur Institute, Paris, was recently made a chevalier of the Legion of Honor by the French government.

DR. P. VOLKMANN, emeritus professor of theoretical physics at the University of Königsberg, celebrated his seventieth birthday on January 12.

PROFESSOR BAR has been elected president of the French Academy of Medicine and Professor Gley vice-president.

SIR OLIVER LODGE has been elected president of the Radio Society of Great Britain for 1926.

PROFESSOR DEXTER S. KIMBALL, dean of the college of engineering at Cornell University, has been elected president of the American Engineering Council, in succession to James Hartness.

PROFESSOR MARSTON T. BOGERT, of the department of organic chemistry at Columbia University, has been appointed a research consultant in the Chemical Warfare Service.

DR. CLARENCE C. LITTLE, president of the University of Michigan, has accepted the chairmanship of the lay advisory board of the American Association for Medical Progress, Inc.

At the close of ten years' service as managing editor of *Genetics*, Dr. George H. Shull has at his own request been relieved and Dr. Donald F. Jones, of the Connecticut Agricultural Experiment Station, New Haven, has been elected to the managing editorship.

A. W. ALLEN has resigned as editorial representative of *Chemical and Metallurgical Engineering* in the Pacific Coast region, to join the technical staff of Antony Gibbs and Co., in connection with the operation of nitrate recovery plants in Chile. He will sail for Chile late in February.

DR. ALBERT F. WOODS, president of the Maryland State University, is to be appointed director of scientific work in the United States Department of Agriculture by Dr. W. M. Jardine, Secretary of Agriculture, to fill the vacancy caused by the resignation of Dr. E. D. Ball.

DR. F. W. MILLER, formerly of the Oregon Agricultural College, has been appointed veterinarian and physiologist in the U. S. Bureau of Dairying.

DR. B. H. HAGER, associate professor of surgery at the University of Wisconsin, has received an appointment at the Mayo Clinic, Rochester.

HARRY B. RIFFENBURG has resigned as chemist in the Quality of Water Division of the U. S. Geological Survey to accept a place as chemical engineer with the Western Electric Company, Hawthorne Station, Chicago.

DR. AND MRS. N. L. BRITTON, of the New York Botanical Garden, arrived in San Juan on January 25, planning to devote two months or more to a continuation of their studies of the flora of Porto Rico. Dr. H. A. Gleason, curator of the New York Botanical Garden, went a week earlier to Porto Rico, where he will undertake an ecological survey of the island in collaboration with Dr. Mel T. Cook, of the Insular Experiment Station. It is planned to publish the results of this survey as a part of the scientific survey of Porto Rico and the Virgin Islands, inaugurated by the New York Academy of Sciences and affiliated institutions in 1913. During the absence of Dr. Britton, Dr. Marshall A. Howe is acting director of the botanical garden.

PROFESSOR GORDON F. FERRIS, of the department of entomology of Stanford University, has returned to the university with a collection of plants and insects from Tres Marias, a group of islands off the west coast of Mexico.

DR. RAYMOND C. SHANNON, of the U. S. Bureau of Entomology, left for Buenos Aires on January 30, where he is going to study the mosquitoes of the region under the auspices of the Argentina government.

DR. WILLIAM DARRACH, dean, College of Physicians and Surgeons of Columbia University, New York, recently went to San Juan, Porto Rico, in connection with the School of Tropical Medicine of Columbia University.

DR. PAUL F. GAEHR, of Wells College, is spending the second semester on leave of absence in study at Harvard University. His place is being filled by Professor C. C. Kiplinger.

DR. EDWARD ELLERY, dean of the faculty of Union College, Schenectady, N. Y., who is at present on a visit to England, recently visited the Universities of St. Andrews and Aberdeen, where he delivered an address on the "Universities of America."

DR. ALFRED NEWTON RICHARDS, professor of pharmacology at the University of Pennsylvania, will give a series of four lectures under the auspices of the

Herter Foundation at the University and Bellevue Hospital Medical College, beginning on February 15 at four o'clock and continuing daily at the same hour. The lectures will be on the subject of "The Physiology and Pharmacology of the Kidney."

DR. GEORGE E. VINCENT, president of the Rockefeller Foundation, gave one of the Cutter lectures in preventive medicine at the Harvard Medical School on February 11 entitled "Every Doctor a Health Officer."

DURING the latter half of January, Professor W. M. Davis conducted a special seminar in physiography in the department of geology of Stanford University, California. At the meeting of the Cordilleran section of the Geological Society of America held at Stanford University on January 30 he gave an address on "The Basin Range Problem."

PROFESSOR JAMES F. KEMP, of the department of geology at Columbia University, gave an address before the Geological Society of Boston, meeting at the Massachusetts Institute of Technology on February 9.

DR. DOUGLAS W. JOHNSON, professor of physiography in Columbia University, gave an illustrated lecture on "The Shore-Line Scenery of the Atlantic Coast" at Cornell University on January 21.

DR. VICTOR C. VAUGHAN gave a lecture on "The Typhoid Fever Board of the Spanish War" at the Army Medical School on January 29.

ON January 23, Dr. C. A. Chant, professor of astro-physics in the University of Toronto, delivered an address to the Royal Canadian Institute on the subject "Some Astronomical Problems, including the Surface Temperature of the Planet Mars."

DR. BURT L. NEWKIRK, research engineer of the General Electric Company, made a lecture tour into the North Central region last December. He spoke on "Shaft Behavior" before students in the engineering schools of the Universities of Illinois, Minnesota, Ohio, Wisconsin and of Purdue University; on "The Mercury Turbine" before the electrical board of trade of St. Louis, and on "Engineering Research" before the Affiliated Engineering Societies of that city.

F. L. RANSOME, professor of economic geology at the University of Arizona, will give a course of lectures at Stanford University in April or May.

DR. R. K. NABOURS, head of the department of zoology at the Kansas State Agricultural College, delivered a lecture entitled "A Quarter Century of the New Biology" before the chapter of Sigma Xi at the University of Kansas on January 28.

DR. CHARLES J. FISH, oceanographer with the *Arcturus* expedition to the Sargasso Sea and Galapagos last year, spoke before the Brown chapter of the Society of Sigma Xi in Providence on January 29 on "The Cruise of the *Arcturus*."

THE centenary of the birth of the physiologist, Felix Hoppe-Seyler, was recently celebrated in the physiological institute of Tübingen University.

ONE of the principal streets in Valencia has been renamed after the celebrated histologist, S. Ramón y Cajal.

PROFESSOR WILLIAM A. STOCKING, formerly head of the dairy department of the New York State College of Agriculture at Cornell University and at one time dean of the college, died on February 3, aged fifty-four years. Professor Stocking was born in Simsbury, Conn., in 1872.

DR. MURRAY GALT MOTTER, formerly professor of physiology at Georgetown University School of Medicine, died on January 14, aged fifty-nine years.

JOHN TATLOCK, of New York City, died on January 3 at the age of sixty-six years. He was associate astronomer at the University of Wisconsin in 1883-84 and professor of astronomy at Beloit College, Beloit, Wisconsin, in 1884-85.

ROBERT HENRY CAMPBELL, until recently director of forestry in the Canadian department of the interior, has died at the age of fifty-nine years.

DR. C. GESSARD, of the Pasteur Institute, Paris, who isolated a pyocyanic bacillus from pus in 1882 and was also known for his work on oxydases, has died.

PROFESSOR ALFRED PEROT, professor of physics in the École Polytechnique, Paris, and president of the Commission de Métrologie, died on November 27, aged sixty-two years.

PROFESSOR MATTHEW CURREY, formerly professor of engineering at King's College, London, died on December 29, aged seventy-four years.

DR. CLAUDE DU BOIS-REYMOND, professor of ophthalmology at the University of Berlin and son of the distinguished physiologist, Professor Emil du Bois-Reymond, died recently at the age of seventy years.

A COMMITTEE consisting of Drs. M. C. Hall and E. B. Cram, of the Department of Agriculture; C. W. Stiles, of the Public Health Service; H. J. Nichols, of the Army Medical Corps, and W. W. Cort, of the Johns Hopkins University, has been considering a proposal to establish a memorial to the late Dr. Brayton H. Ransom, who at the time of his death was chief of the zoological division of the Bureau of Ani-

mal Industry, and who ranked as one of the foremost parasitologists. The several propositions which are being considered are as follows: a tablet or a painting to be put up in the Department of Agriculture or a medal or a money prize to be awarded for important contributions in medical zoology. The final decision will depend on the amount subscribed. The subscriptions may be sent to the secretary of the committee, Dr. Eloise B. Cram, Bureau of Animal Industry, Department of Agriculture, together with suggestions as to the nature of the memorial.

THE United States Civil Service Commission announces an open competitive examination for associate cereal chemist to fill vacancies in the U. S. Bureau of Chemistry, at an entrance salary of \$3,000. Receipt of applications will close on March 16.

THE sixth summer term of the American School of Prehistoric Research will open in London on June 25, 1926. In the course of the summer, work will be carried on in France, Spain, Switzerland and Belgium, including actual experience in digging at a number of sites in these various countries. The three-months summer term of 1925 was so arranged as to give students actual contact with every phase of prehistoric culture from Eolithic through Paleolithic, Neolithic, Bronze and Iron. Approximately one third of the time was spent in excavating at various sites. Seventy-seven sites in all were inspected, and studies of special collections were carried on in forty-four museums. Of the eighty-eight conferences arranged, thirty were given by the director and fifty-eight by forty-two different European specialists. The American School of Prehistoric Research is the only organization claiming the Old World as its field of activity which is sponsored by the Archaeological Institute of America and the American Anthropological Association. Particulars may be obtained from Dr. George Grant MacCurdy, director of the American School of Prehistoric Research, Peabody Museum, Yale University, until March 1, and after that date from Dr. Aleš Hrdlička, U. S. National Museum.

THE zoology club of the State University of Iowa is sponsoring at the present a series of lectures on the subject of evolution. These lectures are presented by professors of the natural science departments of the university and they are open to the public. The first lecture was given by Professor C. C. Nutting, of the department of zoology, on January 8 on the subject "The General Arguments for Natural Selection," the second on January 22 by Professor G. L. Houser on the subject "Evolution in the Light of Life Histories and Cellular Organization of Animals" and the third of the series on February 5 by Professor A. O.

Thomas, of the department of geology, on "Paleontological Evidences of Evolution." The remaining two lectures will be given by Professor R. B. Wylie, of the department of botany, on "Some Evidences of Plant Evolution" on February 19 and Dean G. F. Kay, of the department of geology, on "The Place of Man in the Universe" on March 12.

THE Sigma Xi Alumni Association of the University of Pittsburgh held an open meeting on January 28. The program was presented by the department of zoology as follows: "Studies in Biometry, White Spotting in Rabbits, Undescribed Color Varieties in Rabbits," Professor H. D. Fish; "Fresh Water Life in Cumberland Region," Dr. A. E. Ortmann; "Ontogenetic and Phylogenetic Development of Soldier Caste of Termites," Dr. A. E. Emerson; "Pattern Regulation in Vermillion-spotted Newt, *Triturus Viridescens*," by H. H. Collins.

A SIGMA XI club has been formed at the University of South Dakota with Dr. Freeman Ward as president and Dr. E. P. Churchill as secretary. Monthly meetings have been held during the year at which the following topics have been presented: "Gravel Prospecting in South Dakota," by Dr. E. P. Rothrock and Professor H. V. Newcomb; "The Hibernation and Seasonal History of Dandelion Powdery Mildew," by Dr. H. C. Abbott, and "The Effect of Alkali upon Pepsin," by Professor Grant Kloster. Other topics will receive attention during the rest of the year.

ON the evening of February 17, the members of the Columbia University chapter of Sigma Xi will be the guests of the scientific staff of the American Museum of Natural History, for an inspection of their research laboratories, accompanied by brief accounts of different branches of research being conducted therein. An opportunity will be afforded to inspect some of the most important discoveries of the third Asiatic expedition.

LUCIAN N. LITTAUER, of Gloversville, has pledged \$10,000 a year for an indefinite period to the school of public health of New York University to be used in studying pneumonia.

AMONG recent gifts to the University of Chicago is one from Mr. Reuben H. Donnelley of \$1,500 a year for the next three years, 1926-27-28, for a scholarship in the department of physiology under Dr. A. J. Carlson, to be known as the Laura Thorne Donnelley Scholarship. The university has also received a gift of a series of transections of the eye, a collection of great value from the standpoint of comparative anatomy, from Professor Doctor O. Schnaudigel, director of the Universitäts-Augenklinik, Frankfurt, Germany.

THE Rockefeller Foundation has recently made a

donation of three million francs to the Faculty of Medicine of Strasbourg. One million of this sum is to be used for building an otolaryngologic clinic; the second million is for building an institute of histology; the third million is to subsidize research workers.

A GIFT of £10,000, which, for the time being, is anonymous, has been made to the appeal fund, started by Lord Balfour in November, to promote the work of the National Institute of Industrial Psychology, England. The first list of subscriptions has not yet been issued. It will include 100 guineas from the National Union of Railwaymen and 1,000 guineas from Messrs. Debenham's.

SANCTION has been given by the standing Finance Committee for the ultimate expenditure of £833,000 on the Forest Research Institute at Dehra Dun, India. This marks an important step in India's progress. It is an old complaint of Indian aspirants to the higher posts of the forest department that hitherto the expenses of European training placed them at a disability. To this it was generally replied that the required standard was unattainable in India. The government's decision will bring the institute thoroughly up to date and enable Indians to qualify for forestry positions.

THERE has been presented to the natural history department of the Royal Scottish Museum by Lady McEacharn, Galloway House, Garlieston, and Captain N. McEacharn, an extensive collection of Australian birds and their eggs, made by the late Sir Malcolm McEacharn during his residence in Australia. The series of mounted birds, which includes over 350 individuals, is specially rich in birds of paradise—among which are included several rare species—in bower-birds, in parrots and in parakeets. The cabinet of birds' eggs, with over 1,500 specimens, the majority in clutches, is representative of 570 different species. In addition to birds and birds' eggs, Sir Malcolm McEacharn's collection contained many zoological specimens in alcohol, among which the most interesting are a large series of the embryonic and post-embryonic stages of marsupials, as well as fishes and invertebrate animals collected on the shores of Australia or among the islands of the East Indian Archipelago.

WE learn from *Nature* that the New South Wales government has announced its decision to close the State Observatory, which for many years has been under the control of Professor W. E. Cooke. Owing to the growth of Sydney, the site of the observatory has become quite unsatisfactory and its work has suffered in consequence. The necessity for removal to a distant suburb has repeatedly been urged upon successive state governments, but the Labor Ministry's

method of dealing with the problem has come as a surprise.

AN exhibition organized by the chief scientific board of Russia is soon to be opened at Moscow, which will demonstrate the researches and achievements of the different scientific institutions in Russia. Exhibits will be furnished by the Baring Sea Hydrological Expedition, by the Polar Expedition, by the Timiryazev Research Institute, by the Roentgen Institute, etc. Professor B. M. Zavodovsky will exhibit his experiments on the physiology of the thyroid gland of birds and animals. A number of charts and drawings will be displayed by the Optical and Radio Institutes. New instruments and appliances will be exhibited by the Astrophysical and Geophysical Institutes. There is also to be displayed a variety of objects of ethnographical interest.

THE *Christian Science Monitor* states that King Haakon, of Norway, on January 29 honored the members of the *Maud* expedition by conferring on them the Order of Saint Olav. After eight years' absence, Captain Wisting will remain in Norway a few days, then proceed to Rome to participate in Captain Roald Amundsen's transpolar flight. Dr. Sverdrup, scientific member of the expedition, has been offered a professorship in the University of Oslo.

UNIVERSITY AND EDUCATIONAL NOTES

THE daily papers report that more than \$7,000,000 has been pledged to the University of Miami by residents of Greater Miami, in a campaign started to raise \$10,000,000 for buildings and equipment. Construction of administration buildings has started and it is planned to open the university in October.

DR. CLARENCE C. LITTLE, president of the University of Michigan and former president of the University of Maine, will direct the summer course in biology at the University of Maine biological station at Bar Harbor this year.

DR. ALBERT DAVIS MEAD, director of the department of biology at Brown University, has been made vice-president of the university to act under the direction of President W. H. P. Faunce.

DR. ELMER P. KOHLER, professor of chemistry at Harvard University, has been appointed acting dean of the graduate school of arts and sciences for the second half of the current academic year, during the absence of Dean George H. Chase.

DR. BARTON WARREN EVERMANN, director of the museum of the California Academy of Sciences and of the Steinhardt Aquarium, has been appointed lecturer in zoology at Stanford University. He has also been reappointed chairman of the section on scientific

research of the Commonwealth Club of California, which position he has held for several years.

JAMES ASTON, of Pittsburgh, for the past five years metallurgical engineer in charge of research with the A. M. Byers Company, has been appointed professor of mining and metallurgy and head of the department of mining and metallurgical engineering at the Carnegie Institute of Technology.

DR. S. J. BARNETT, research associate of the Carnegie Institution of Washington, has been appointed lecturer in physics at the University of California Southern Branch, for the second half of the current academic year.

DR. CHARLES L. BONIFIELD has been made director of the gynecologic service in the medical school at the University of Cincinnati to succeed the late Dr. Sigmar Stark.

M. GIGNOUX, professor of geology at the University of Strasbourg, has been appointed professor of geology and mineralogy at the University of Grenoble to take the place of the late Professor Kilian.

DISCUSSION AND CORRESPONDENCE THE DANGER OF EARTHQUAKES IN NEW ENGLAND

IN the November twentieth number of *SCIENCE* is an article entitled "Jay Backus Woodworth" in which the statement was made that it was his opinion "that neither human history nor the relevant facts of geology indicate serious danger for the city of Boston from earthquakes."

This is not in accord with his published statements as quoted below:¹

The belief is quite general about Boston that this region is now practically exempt from severe earthquakes, and that the occurrences of the 17th and 18th centuries at Plymouth, Newbury, and Boston pertain to an exhausted régime in the earth's conduct. It is well to remember, however, that from the great earthquake of 1638, felt at Plymouth, to the shocks at Newbury in 1727 is an interval of 89 years; and that the interval between the earthquake of 1638 at Plymouth and that of 1755 at Boston is 117 years. The interval between the earthquake of 1755 at Boston and the Charleston earthquake of 1886 is 131 years. These long intervals of repose and minimum seismic action lull suspicions and cause the multitude to regard what has not occurred in their father's and grandfather's days as a possibility too remote to enter into their own lives. Nevertheless it behooves us to remember that the earthquake at Plymouth, Mass., in 1638, at Newbury, Mass., in 1727, at Boston in 1744 and more strikingly in 1755, and yet more impressively at Charleston, South Carolina in 1886, and at San Francisco in 1906, offer phenomena during

¹ Harvard Seismographic Station, Seventh Annual Report, including Records 1 January to 31 December, 1915.