

- M. S. Dunn, University of California at Los Angeles, Synthesis of Naturally Occurring Amino-acids.
G. H. Ball, University of California at Los Angeles, Life History of Certain Parasitic Marine Protozoa.
M. T. Burrows, Pasadena, California, Relation of Cancer to Infection.
T. W. Vaughan, San Diego, California, Problems of Experimental Biology at Scripps Institute of Biological Research.
H. J. Deuel, Jr., school of medicine, University of Southern California, Metabolism of Cold-blooded Animals.
C. H. Thienes, school of medicine, University of Southern California, Effect of Nicotine on Rats.
M. B. Visscher, school of medicine, University of Southern California, Source of Energy in Muscle Contractions.

- R. W. Lamson, school of medicine, University of Southern California, Allergy and Immunity.
J. F. Kessel, school of medicine, University of Southern California, Interrelationship between Intestinal Protozoa and Bacteria.

Other members in the region who were unable to attend the meeting are T. H. Morgan, California Institute of Technology, Pasadena; W. D. Sansum, Cottage Hospital, Santa Barbara; E. M. MacKay, Scripps Metabolic Clinic, San Diego; H. E. Bellamy, University of California at Los Angeles.

Plans have been made to hold regular informal meetings at intervals until membership in the southern part of California is sufficient to warrant the organization of a separate branch in this region.

SCIENTIFIC NOTES AND NEWS

PROFESSOR ALBERT A. MICHELSON, who observed his seventy-seventh birthday on December 19, has resigned as head of the department of physics of the University of Chicago, his retirement to be effective at the end of the academic year. After a visit to Bermuda, Professor Michelson will resume his measurements of the velocity of light at Pasadena.

AN oil painting of Thomas A. Edison has been given to the Kansas State Agricultural College by the United Power and Light Corporation. The picture will be hung in the library of the engineering building.

THE *Pictorial Review* award of \$5,000 for distinguished public service by a woman was presented to Dr. Florence Rena Sabin at a luncheon at Sherry's, New York City, on December 17. The speakers included Dr. Simon Flexner, director of the Rockefeller Institute for Medical Research; Dr. George E. Vincent, president of the Rockefeller Foundation, and Mrs. Donald Hooker.

DR. THEOBALD SMITH, of the Rockefeller Institute for Medical Research, was recently the guest of the New York State Association of Public Health Laboratories at Albany. He gave an address on "Clinical and Pathologic Significance of Races and Varieties among Pathogenic Bacteria."

HARBEN lecturers of the Royal Institute of Public Health have been appointed as follows: for 1930, Professor William H. Park, director, bureau of laboratories, Health Department, New York City, and for 1931, Dame Louise McIlroy, professor of obstetrics and gynecology, University of London, Royal Free Hospital. The council has made the Smith award for 1930 to Mr. H. R. Kenwood, emeritus professor of hygiene in the University of London.

DR. E. D. MERRILL, dean of the University of California College of Agriculture and director-elect of the

New York Botanical Garden, has been appointed vice-president of the Fifth International Botanical Congress, which meets in Cambridge, England, during the third week of August. Dr. Merrill had previously been made vice-president of the section on taxonomy.

DR. CLARK WISSLER, curator of anthropology of the American Museum of Natural History and professor in the Yale Institute of Psychology, has been elected president of the New York Academy of Sciences to succeed Professor Charles P. Berkey, of the department of geology at Columbia University. Other officers elected are Horace N. Coryell, G. Kingsley Noble and Frederick W. Hodge, *vice-presidents*; Roy Waldo Miner, *recording secretary*; Horace W. Stunkard, *corresponding secretary*; George H. Sherwood, *treasurer*, and Herbert F. Schwarz, *editor*.

As a result of a mail ballot officers of the American Pharmaceutical Association have been elected as follows: *President*, H. C. Christensen, Chicago, Illinois; *First vice-president*, Walter D. Adams, Forney, Texas; *Second vice-president*, D. B. R. Johnson, Norman, Oklahoma; *Members of the Council* (for three years), H. V. Arny, New York, N. Y.; T. J. Bradley, Boston, Massachusetts; W. B. Day, Chicago, Illinois. These officers will be installed at the next annual meeting of the association in Baltimore, Maryland, to be held from May 5 to 10, 1930. The place of meeting for 1931 will be selected at Baltimore. The 1932 meeting will be held in Toronto, Canada, and will be a joint meeting with the Canadian Pharmaceutical Association.

OFFICERS of the American Pomological Society were elected at the recent Virginia meeting at Roanoke as follows: Dr. J. C. Blair, Urbana, Illinois, *president*; Dr. W. T. Macoun, Ottawa, and R. A. Van Meter, of the Massachusetts Agricultural College, *vice-presi-*

dents; W. R. Cole, Amherst, Massachusetts, *secretary*, and H. C. Miles, Milford, Connecticut, *treasurer*.

RAY M. HUDSON, assistant director of the Bureau of Standards, in charge of commercial standardization, has resigned. On January 2 he will become secretary of the Massachusetts division of the New England Council, with headquarters in Boston.

PROFESSOR L. R. SCHNEIDER, of the University of Michigan, is at the Geophysical Institute at Bergen analyzing the meteorological observations made during the American scientific expedition to Greenland last year and in 1927 under the leadership of Professor W. H. Hobbs.

DR. JOHN WHITRIDGE WILLIAMS, professor of obstetrics in the Johns Hopkins University School of Medicine, addressed the Rochester Academy of Medicine on December 4 on "Maternal Mortality."

DR. CLARENCE COOK LITTLE, managing director of the American Society for the Control of Cancer, gave an address on "Genetics and Cancer" at a "genetics luncheon" given by the American Institute, New York City, on December 7. The institute will give an "air and sunlight luncheon" January 18, at the Hotel Astor, at which Dr. Shirley W. Wynne will be chairman; Dr. William Crocker, director of the Boyce Thompson Institute for Plant Research, will speak on "City Air and Growth of Plants," and Edward R. Weidlein, director of the Mellon Institute of Industrial Research, will speak on "Studies of Air Pollution."

ON the afternoon of December 16, Dr. Jerome Alexander addressed the pre-medical group at Amherst College on "The Colloid Bridge Between Masses and Molecules." In the evening, he spoke to the Science Club on "Some Physico-chemical Aspects of Life, Mutation and Evolution."

DEAN BALDWIN M. WOODS, professor of aerodynamics in the University of California, recently gave three lectures at the University of Illinois, one popular in nature, entitled "What Next in Aviation?"; the other two technical, their subjects being "Precursors of the Airplane" and "Airplanes for Long Distance Flight."

DR. JAMES W. INCHES, formerly commissioner of health for the city of Detroit, delivered a lecture before the Royal Canadian Institute on December 7, entitled "An African Trip from Cairo to the Cape," which was illustrated by photographs of wild animals in both motion and still pictures.

DR. LEWIS DILLON ROBERTS, of the department of chemistry of the University of Southern California, has been appointed to head the list of twelve men who

have recently been recommended for the testing of radio-active waters by the U. S. Bureau of Standards. Others included in the list are H. Schundt, of the University of Missouri; George B. Frankforter, of the school of chemistry of the University of Minnesota; E. E. Biefer, of the physics department of McGill University; Rolla R. Ramsey, of Indiana University; D. H. Kabakjian, of the University of Pennsylvania; H. N. McCoy, of Chicago, Illinois; S. C. Lind, of the University of Minnesota; Dr. Barker, of New York; A. F. Kovarik, of Yale University, and Charles F. Whittemore, of Chicago.

THE names of those who have been awarded research grants of the Virginia Academy of Science have been announced by Dr. R. E. Loving, professor of physics at the University of Richmond and chairman of the research committee of the academy. These grants are made annually and are awarded to scientific men in the state who have promising problems requiring financial aid. Those awarded grants were Dr. Donald W. Davis, professor of biology at the College of William and Mary; Dr. W. R. Cornthwaite, associate professor of chemistry at the University of Richmond; Dr. James E. Kindred, associate professor of histology at the University of Virginia; Dr. John C. Forbes, assistant professor of chemistry and director of biochemical research for the College Hospitals of the Medical College of Virginia; Dr. Leonard Albright, associate professor of physics at the University of Richmond, and Dr. J. A. Waddell, professor of pharmacology at the University of Virginia. These annual grants are given for the encouragement of scientific research in Virginia. The principal of the fund was given during Dr. J. Shelton Horsley's term as president of the academy by citizens of Virginia interested in the academy's work of furthering fundamental research in the state. Other members of the research committee of the academy besides Dr. Loving are Dr. J. Shelton Horsley, of St. Elizabeth's Hospital; Dr. Wm. A. Kepner, professor of biology at the University of Virginia; Dr. C. P. Olivier, professor of astronomy at the University of Pennsylvania, and Dr. Sidney S. Negus, professor of chemistry at the Medical College of Virginia. Dr. Garnett Ryland, of the University of Richmond, president of the academy, and Dr. E. C. L. Miller, of the Medical College of Virginia, secretary-treasurer, are *ex-officio* members.

THE Massachusetts Branch of the Eastern Association on Indian Affairs, Inc., of which Miss Mary Cabot Wheelwright is secretary, is cooperating with the association in a drive for funds with which to continue the public health education among the Indians of the southwest. The work is being carried

on with the full support of the Bureau of Indian Affairs in Washington. A benefit performance of Cochran's London revue, "Wake Up and Dream," will be given in New York on January 8, by the benefit committee of the Eastern Association on Indian Affairs. Miss Amelia E. White, of New York, is chairman of the committee. The officers of the association are: *President*, Dr. Herbert J. Spinden; *first vice-president*, Dr. Ellwood Hendrick; *second vice-president*, Mrs. Joseph Lindon Smith; *secretary*, Miss Amelia E. White; *treasurer*, Percy Jackson. The board of directors includes the following named Massachusetts members: Mrs. H. K. Estabrook, Dr. Frederick L. Hoffman, Warren K. Moorehead and Miss Mary Cabot Wheelwright.

At the request of the secretary of commerce a study has been made by the Bureau of Efficiency of the examining divisions of the Patent Office to determine what action should be taken to bring the examination work up to date and to insure that future applications for patents will be disposed of expeditiously. At the time this survey was undertaken the work of patent examination was considerably in arrears, and the office was doing little more than disposing of a volume of business equivalent to current receipts of new applications. The bureau submitted a report recommending a reorganization of the Patent Office which, it is believed, will result in improved methods, in coordination of action on applications throughout the office and in a larger output of work of improved quality. Certain additional personnel was recommended to make the new organization and procedure effective.

THE chief recent acquisition by the department of geology of the British Museum is said by the London *Times* to be the Buckman collection of fossil Brachiopoda and ammonites. This numbers about 25,000 specimens, mostly brachiopods, and nearly all from the English Jurassic rocks. It is the bulk of the material collected by the late Professor James Buckman and his son, the late Sidney Savory Buckman. The former had unique opportunities for collecting, since he lived in the southwest of England when the early railways were being made, and this involved not only the opening of the railway cuttings, but also the quarrying of local stone for bridges, etc. His son studied and collected from the English Jurassic strata all his life. He acquired a specialist's knowledge of brachiopods and ammonites, and adduced theoretical considerations both in paleontology and stratigraphy. His collection is, therefore, regarded as of interest not only for its intrinsic value but also for enabling future workers to understand and test Mr. Buckman's work.

ACCORDING to *The Experiment Station Record*, an act of the last legislature has consolidated into a single board of nine members the governing authorities of the five higher educational institutions of the state of Oregon and the former board of higher curricula. The new board, which is known as the State Board of Higher Education, assumed control on July 1 and consists of the following: Herman Oliver, of Canyon City, for 1 year; A. R. Watzek, of Portland, for 2 years; F. E. Callister, of Albany, for 3 years; E. C. Pease, of The Dalles, for 4 years; Albert Burch, of Medford, for 5 years, and E. C. Sammons, C. L. Stair (chairman), B. F. Irvine and C. C. Colb, all of Portland, for 6 to 9 years, respectively. The appropriations and incomes for the several institutions for the current biennium are not to be disturbed other than by prorating among them the board's own expenses, but on July 1, 1931, the board is to inaugurate its own program. Full authority is given to reorganize the work of each institution to eliminate unnecessary duplication of equipment, courses, departments, schools, summer schools, extension activities, offices, laboratories and publications. In the interim the board is to make a complete survey of state-supported higher education in Oregon, using a special appropriation of \$10,000 for the purpose. The various millage taxes for the different institutions are consolidated into a single state tax of 2.4 mills. A standardized system of accounts and records is to be prescribed by the board, and in the preparation of the budget the board is authorized to allocate all funds from all sources. It is instructed, however, to foster gifts to the separate institutions by faithfully devoting them to the institutions for which they are intended.

Nature states that the project of a tunnel under the Straits of Gibraltar to link the railways of Europe and Africa has reached the stage of preliminary investigations on the Spanish side. The scheme, in which the Spanish government is interested, was proposed by Lieutenant-Colonel P. Jevenois. It was recently expounded in an address ("El Tunel del Estrecho de Gibraltar") to the Real Sociedad Geográfica by Señor D. Rafael de Buen, of the Spanish Institute of Oceanography. The narrowest part of the straits is eight miles wide, but the depths there are great and the nature of the rock precludes the possibility of boring. The site that has been chosen lies some eleven miles west of Tarifa at the broader western end of the straits, where a preliminary shaft has been sunk. The proposed route follows a curve to the southwest in order to avoid the deeper channel of the narrows and terminates near Punta Altares in the Spanish Protectorate. A tunnel on that course would be a little more than twenty miles in length

and would dip at its lowest point to 1,500 feet below sea-level. From the preliminary shaft it is proposed to explore by means of sound waves the consistency

of the rock. At the same time a detailed oceanographical exploration of the straits is to be undertaken.

UNIVERSITY AND EDUCATIONAL NOTES

By the will of the late Colonel Henry Woodward Sackett, who died on December 9, eleven twelfths of the residuary estate, which is stated to be above \$1,000,000, is left to Cornell University to be used in the beautification of the campus. In addition \$250,000, of which \$175,000 has already been used, is to be devoted to "the proper protection, development and maintenance" of the Fall Creek Gorge and Cascadilla Glen on the north and south borders of the campus.

THE will of the late Dr. John F. B. Weaver, Manchester, provides that the University of Maryland School of Medicine shall be the residuary legatee of his \$150,000 estate, and that it will be used ultimately to establish a professorship, fellowship or research fund.

DARTMOUTH COLLEGE receives in trust \$185,000 and is made residuary legatee under the will of the late R. Melville Cramer, M.D. The bequest reverts to the college after the death of the first beneficiaries and is to be known as "The R. Melville Cramer Foundation." The object of the foundation is to provide fellowships, especially in genetics or other laboratory investigations.

Two research fellowships have been endowed with \$100,000 in the Hospital for Joint Diseases by Frederick Brown, who has been president of the hospital for six years. Under the terms of this gift the income of about \$4,800 will be divided between two fellows chosen by the committee on award. They must be graduates of Grade A medical schools and have served internships in other hospitals.

PROFESSOR ARTHUR J. TIEJE, chairman of the department of geology at the University of Southern California, will have charge of classes in geology at Columbia University during the summer session of 1930.

DR. CHEVALIER JACKSON has resigned his professorships at Jefferson Medical College and University of Pennsylvania and his posts as head of the clinics which these institutions have named after him. The resignations become effective in June. Dr. Jackson intends to devote his time to development of a clinic at Samaritan Hospital and to his work as professor at Temple University School of Medicine. He will continue as William Potter Memorial lecturer at Jefferson.

DISCUSSION

THE POPULARIZATION OF SCIENCE

THE scientific progress of a country is dependent on the appreciation of science by an interested public as well as on the support and encouragement of wealthy men. Many of the greatest strides have been made, it is true, through the patronage of philanthropists. But a comprehensive, sound body of science can no more be built without the credence and sympathy and even the practical assistance of a large part of the population than could the Cathedral of Chartres have been erected, unaided, by the nobles of Beauce. The best science, like the greatest art, belongs to the people and must express their spirit.

In America we are witnessing to-day a nation-wide flowering of interest in science that is without precedent. A number of startling disclosures, such as radioactivity, the automobile, the aeroplane, the radio, the X-ray—all of them the results of scientific research—have forcibly impressed on every one the concrete significance of science to his own welfare. The scientist must nourish this new-born interest. The

medium through which he must work to this end is primarily the press. The demand for scientific information exists; he does not have to create it. His responsibility and opportunity consist in providing accurate material in sufficient quantities and of proper quality.

In this country the literary popularization of science on a large scale is roughly coeval with the present century. Previously popular lectures were the favorite means. Among the names which shine brightest in both fields is that of Robert Kennedy Duncan (1868–1914), whose efforts to promote cooperation between science and industry found expression in the establishment of the industrial fellowship system. More lately the foremost figure has been Edwin E. Slosson, whose recent death was such a great loss to the scientific professions. Both men were remarkable for their power of translating technical achievements into simple, lucid, emphatic, correct language. The success of Slosson's Science Service is well known; this organization is now one of our chief