

The Cullum Geographical Medal to Professor Jovan Cvijić.

The Charles P. Daly Medal to Colonel Claude H. Birdseye.

The David Livingstone Centenary Medal to Frank Wild.

Professor Cvijić's achievements are well known to all students of Balkan geography, for he has made the most substantial and original contributions in this field. The inscription upon the medal is as follows:

JOVAN CVIJIĆ

1924

For the scholarship displayed
in his published works
on the geography of the
Balkan countries and for the
originality of his field
studies on the complicated
physiography of the Karst.

Colonel Birdseye is the author of several technical papers in the field of surveying, did distinguished work for the artillery service during the war, and during the summer of 1923 repeated Powell's famous exploit of descending the Grand Canyon of the Colorado by boat as leader of a topographic and hydrographic party to study the water-power possibilities of the Canyon.

Frank Wild played an important part in the Scott expedition to the Antarctic, 1901-04; Shackleton's expedition, 1907-09; Sir Douglass Mawson's expedition, 1911-14. He was second in command on the Shackleton expedition of 1914-17 and during the recent expedition of the "Quest."

The Society announces further the election to honorary corresponding members of three scientists who have done distinguished geographical work, as follows:

Dr. Edwin R. Heath, of Kansas City, Mo.

Dr. H. L. Shantz, of Washington, D. C.

M. Paul Le Cointe, of Belem (Pará), Brazil.

Dr. Heath is well known for his early explorations in South America, having explored the Rio Beni region in 1880. In honor of his distinguished work a branch of the Rio Beni north of Lake Titicaca has been called the River Heath. The first statement of his explorations is given in the *Journal of the American Geographical Society* for 1882.

Dr. H. L. Shantz, of the Department of Agriculture, Washington, D. C., has made notable explorations in Africa and he is now engaged upon further study in plant ecology in that field. He is joint author with Dr. C. F. Marbut of Research Series No. 13, "Vegetation and Soils of Africa" (with colored maps), published by the American Geographical So-

ciety in cooperation with the National Research Council.

M. Paul Le Cointe, of Belem (Pará), Brazil, is the author of "L'Amazonie brésilienne: Le pays—ses habitants, ses ressources, notes et statistiques jusqu'en 1920," a work of high distinction, especially when the difficulties to be overcome in gathering and publishing the material are considered. Of particular importance are his discussions of the climate, economic development and forest life of Amazonia.

THE SOUTHWESTERN DIVISION OF THE AMERICAN ASSOCIATION

THE fifth annual meeting of the division will be held in El Paso, Texas, on Monday, Tuesday and Wednesday, May 5, 6 and 7. The registration and general meetings will be held in the Temple Mt. Sinai, corner of North Oregon and Montana Streets. Members are especially urged to prepare papers dealing with their original research in any line, and, whether they have yet heard from the chairman of the appropriate section or not, to send the titles of such papers immediately to the section chairman and also to the chairman of the executive committee, so that they may be sure to be listed in the printed program.

A time limit of twenty minutes will be set for the reading of any paper. The program committee desires therefore that in the actual presentation of papers, only the more important parts be given. Omitted parts and reference to authorities will of course be included in any subsequent publication.

Communications regarding papers should be addressed to the chairman of the section before which paper is to be read. They are:

Physical Science: Mr. A. L. Flagg, Goodrich Building, Phoenix, Arizona.

Biology: Dr. Forrest Shreve, Desert Botanical Laboratory, Tucson, Arizona.

Social Science: Mr. Paul A. F. Walter, First National Bank, Santa Fe, New Mexico.

The officers are:

Byron Cummings, *President*, Arizona State Museum, Tucson, Arizona.

Elliott C. Prentiss, *Vice-president*, El Paso, Texas.

Robert S. Trumbull, *Secretary-treasurer*, El Paso, Texas.

The Southwestern Division embraces members who reside in Arizona, Colorado, New Mexico, Texas west of the Pecos River, Chihuahua and Sonora.

SCIENTIFIC NOTES AND NEWS

DR. T. MITCHELL PRUDDEN, emeritus professor of pathology in Columbia University and a member of the board of directors of the Rockefeller Institute for Medical Research, died in New York on April 10, in his seventy-fifth year.

PROFESSOR ELWOOD MEAD, of the University of California, has been appointed by President Coolidge director of the Reclamation Service, replacing David W. Davis. It will be remembered that about a year ago Arthur Powell Davis's resignation was forced by the Secretary of the Interior, and the appointment given to David W. Davis, who is not an engineer. Dr. Mead is now professor of rural institutions in the University of California. He had previously been professor of irrigation in the Colorado Agricultural College, chief of irrigation investigations in the U. S. Department of Agriculture and chairman of the State Water Supply Commission, Victoria, Australia.

DR. G. G. HENDERSON, F. R. S., regius professor of chemistry, in the University of Glasgow, was elected president of the Institute of Chemistry of Great Britain, at its forty-sixth annual meeting, on March 3, 1924, to succeed Dr. Alfred Chaston Chapman, who has served as president during the past three years.

DR. W. CH. BRÖGGER, professor of mineralogy in the University of Christiania and Dr. Edmund Landau, professor of mathematics in the University of Göttingen, have been elected corresponding members of the Prussian Academy of Sciences in the physical-mathematical section.

THE University of Paris proposes to confer an honorary degree on Professor S. Ramón y Cajal, of Madrid, the distinguished histologist.

WE learn from *Nature* that at a meeting of the Royal Society of Edinburgh held on March 17, the president, Professor F. O. Bower, announced that the Keith prize for the period 1921-1923 had been awarded to Professor J. W. Gregory, professor of geology in the University of Glasgow, for his papers published in the *Transactions* of the society, and in recognition of his numerous contributions to geology extending over a period of thirty-six years; and that the Neill prize for the period 1921-1923 had been awarded to Professor J. McLean Thompson, professor of botany in the University of Liverpool, for his series of memoirs on staminal zygomorphy and on the anatomy of the Filicales.

A COMMITTEE of engineering alumni of Cornell University is collecting a fund to place a portrait of Professor Henry S. Jacoby beside those of Dean Estevan A. Fuertes, Professor Irving P. Church and Professor Charles L. Crandall, which were presented to the college by the Cornell Society of Civil Engineers some years ago. More recently the Cornell Society of Engineers has presented portraits of Deans Albert W. Smith and Eugene E. Haskell, which are now on exhibition at the Cornell Club of New York. Professor Jacoby went to Cornell University in 1890.

PROFESSOR WALTHER NERNST, for the past two

years president of the *Reichsanstalt*, the German national physical laboratory, will resume his former position of professor of physics and director of the physical laboratory of the University of Berlin.

PROFESSOR DOUGLAS JOHNSON, of Columbia University, has been elected an honorary member of the Geographical Society of Bordeaux. In connection with his service as exchange professor to the French universities, he recently gave a series of lectures at the University of Algiers, after which he visited the Atlas Mountains and the northern part of the Sahara Desert as guest of the French authorities in Algeria.

PROFESSOR E. M. CHAMOT, of the department of chemistry of Cornell University, has been appointed American exchange professor of applied science at French universities during the ensuing academic year.

DR. STANLEY W. KEMP, superintendent of the zoological survey of India, has been appointed director of research on Captain Scott's old ship, the *Discovery*. This vessel is being reconditioned in order to undertake research, mainly into whaling, in the dependencies of the Falkland Islands on behalf of the colonial government.

DR. VAN H. MANNING, formerly director of the Bureau of Mines, and since June 1, 1920, director of research, American Petroleum Institute, has resigned to direct research for the Pan-American Petroleum & Transport Co., New York. Harmon F. Fisher, also formerly of the institute, is now in charge of production, Knox Process Co., Texas City, Texas.

THE annual meeting of the Undergraduate Medical Association of the University of Pennsylvania Medical School was held on April 4. Mr. Charles H. Best lectured on the "Discovery and development of insulin." The annual Mary Ellis Bell Prize for the best undergraduate work in medical research was given to Messrs. Landis, Long, Dunn, Jackson and Meyers (all second year students) for their work on the "Effects of hot baths on respiration, blood and urine."

THE seventh Silvanus Thompson memorial lecture before the Röntgen Society, London, was given by Professor C. G. Barkla, F.R.S., of Edinburgh. The subject of the lecture was "Some recent investigations in X-rays—the 'J' phenomena."

IN response to the invitation of the Kelvin Centenary Committee, the Council of the American Society of Mechanical Engineers has made appointments of members of the society to represent it at the centenary celebration in England this summer, as follows: Ambrose Swasey, honorary member and past-president of the American Society of Mechanical Engineers, was appointed representative on the Committee of Honor of the Kelvin Centenary Celebration, with President Fred R. Low as alternate. Calvin W.

Rice, secretary of the society, was appointed to represent the society at the Kelvin Centenary Celebration, the summer meeting of the Institution of Mechanical Engineers, and the joint meeting of the Institutions of Civil and Electrical Engineers, all of which will be held in London this summer.

THE committee on scientific research of the American Medical Association, in addition to grants already reported, has made a grant of \$300 to Dr. Addis, of Stanford University Medical School, for the furtherance of an investigation into the factors which influence the rate of compensatory hypertrophy of the kidney in rats after unilateral nephrectomy.

DR. DONALD REDDICK, professor of plant pathology at Cornell University, has been granted sabbatic leave and sailed on April 9 to spend several months in study in European universities.

DR. G. ELLIOT SMITH, professor of anatomy in the University of London will give a series of three lectures under the Herter Foundation of the University and Bellevue Hospital Medical College on "The human brain in the light of its evolution." The lectures will be given on consecutive days at four o'clock in the afternoon at the Carnegie Laboratory, 338 East Twenty-sixth Street, beginning on Monday, April 28.

PROFESSOR PAUL EHRENFEST, of the University of Leiden, is lecturing in the United States. He gave four lectures on "Some problems of quantum statistics" in the department of physics of the University of California, beginning on March 14.

AT the meeting of the Philosophical Society of Washington on April 19 the address will be given by Professor W. M. Davis, of Harvard University, on "Some oceanographic problems in connection with coral reefs."

ON April 14 and 15, George C. Whipple, professor of sanitary engineering at Harvard University, gave two lectures before the Sigma Xi Society at Chapel Hill, North Carolina, one on "The biology of stream pollution; the other on "The philosophy of sanitation." During the week of April 14 to 19 he visited the University of Virginia and Trinity College at Durham, North Carolina.

DR. L. R. JONES, professor of plant pathology at the University of Wisconsin, delivered five lectures at the Massachusetts Agricultural College at Amherst during the first week in April.

DR. FERNANDUS PAYNE, professor of zoology in the University of Indiana, visited the Kansas State Agricultural College over the week end of March 28-30, and gave an address on "The rôle of mutation and selection in evolution."

DR. PAUL E. KLOPSTEG, director in charge of manufacturing and development of the Central Scientific Company, addressed on April 4, the members of the Society of Chemical Industry at Toronto on "The measurement of hydrogen ion concentrations."

PROFESSOR LYMAN C. NEWELL, head of the department of chemistry in Boston University, delivered an address on "The earlier and later days of chemistry in New England" at the twenty-fifth anniversary meeting of the New England Association of Chemistry Teachers, held on March 15, in Malden, Mass., where the organization was founded. The address was illustrated with lantern slides, portraits and autograph letters from Dr. Newell's collection. In recognition of his services to the association Dr. Newell was presented with a copy of resolutions adopted at this meeting. The resolutions acknowledge the work which Dr. Newell has done for the society and express the thanks of the organization for his unbroken services in many ways. Dr. Newell was a moving spirit in the formation of the association. He was its first president, and now holds the office of curator of the library and museum.

PROFESSOR MERRITT R. GROSE, head of the department of chemistry of Temple University, died of pneumonia on March 26. He obtained his training in chemistry at the University of Chicago, Harvard University and Columbia University and had taught at Findlay College, Ohio, and Syracuse University before going to Temple University.

WILLIAM HENRY MAW, for fifty-eight years editor of *Engineering*, probably the most influential technical journal in Great Britain, past president of the Royal Astronomical Society, died on March 19, at the age of eighty-five years.

DR. R. E. FROUDE, F.R.S., lately superintendent of the British Admiralty Experimental Works, Gosport, died on March 19, aged seventy-seven years.

THE death is announced at the age of seventy-four years of Dr. Ludwig Graff, emeritus professor of zoology at the University of Graz.

THE spring meeting of the American Society of Mechanical Engineers will be held at Cleveland from May 26 to 29.

THE annual meeting of the German Surgical Society will be held at Breslau, under the presidency of Professor Braun, of Zwickau, from April 22 to 26. The principal subjects for discussion will be surgery of the lung, transfusion of blood, and open treatment of fractures.

THE Belgian Minister of the Interior and of Public Health has included in his budget a proposal to spend a million francs this year on a campaign against cancer. Treatment centers would be established in

university towns at first, and later in other large communities.

AN amendment to the Department of Agriculture appropriation bill has been submitted by Senator Harris, of Georgia, to appropriate \$100,000 "for the extermination and prevention of the cotton boll weevil, including an investigation of processes of the manufacture of calcium arsenate and other poisons" to be used in connection therewith.

OFFICERS and faculty members of the University of Richmond, Richmond, Va., have acquired life insurance protection through an arrangement with the Metropolitan Life Insurance Company, which became effective on March 17. Under the terms of the group insurance policy, the president of the university, the vice-president and treasurer and the dean receive protection of \$5,000. The faculty members receive \$4,000. There are 51 persons in the insured group. The university pays part of the premiums and the insured individuals themselves contribute a part. A nursing service is maintained and will be available to the insured in the event of illness.

THE biological laboratories of the United States Bureau of Fisheries at Woods Hole, Mass.; Beaufort, N. C., and Fairport, Iowa, will open on June 20, and are expected to remain in active operation until about September 15. A limited number of research rooms and tables will, as usual, be available to those qualified to conduct investigations in the various branches of marine and fresh-water biology. At Fairport there is a new and well-equipped laboratory, with needed collecting apparatus and ponds and tanks. Both river water and filtered water are provided. This field offers opportunities for zoological and botanical investigations as well as for chemical studies relating to biological problems. Those desiring to have the use of tables and other facilities at these laboratories may communicate with Henry O'Malley, Commissioner of Fisheries, Washington, D. C.

A REPORT in *The Experiment Station Record* of a monograph by Dr. E. W. Allen, E. R. Flint and J. I. Shulte in regard to the work and expenditures of the agricultural experiment stations for 1921, states that for the fiscal year, the total income reported by the stations from all sources was \$7,660,570.77. This amount includes \$1,440,000 derived from Federal sources under the Hatch and Adams Acts and \$210,000 appropriated by the federal government for the experiment stations in Alaska and the insular possessions. The support of the stations from within the states included \$3,786,997.94 derived from state appropriations or apportionments, \$359,964.92 from fees, \$1,167,856.62 from the sale of farm and other products, \$371,421.86 from miscellaneous sources, and

\$534,329.43 carried over as balances from the previous year. During the year the stations added equipment aggregating \$992,308.03 and classified as follows: Buildings \$459,644.38, library \$29,023.53, apparatus \$67,598.63, farm implements \$107,490.62, livestock \$147,229.36, and miscellaneous \$181,321.51. In the work of administration and inquiry the stations employed 1,965 persons. Of these, 1,023 were also members of the teaching staffs of the colleges and 434 assisted in the various lines of extension work.

Nature states that for the last decade the French Jesuit Father Licent has been exploring the fossiliferous deposits of northern China, and has sent some valuable collections to Paris, including a fine series of remains of Pliocene mammals. A year ago he was joined by Father Teilhard de Chardin, professor of geology in the Catholic University of Paris, who has had much experience of collecting in the caverns and rock shelters of France and Spain, and was associated with the late Mr. Charles Dawson in collecting from the river gravel at Piltdown, Sussex. According to a despatch from Peking to the *Manchester Guardian*, Fathers Licent and Teilhard have now made an important discovery of human remains at a depth of sixty meters in a river deposit in northern Kansu, through which the existing river Shara Osso Goh has cut a deep gorge. There seems to be evidence of six individuals, and one well-fossilized skull with retreating forehead and large orbits may prove to be of special interest. No lower jaw was found. With the human remains there occur numerous bones of rhinoceros, horse, bison, camel, deer, elephant and other mammals. One horse is said to be no larger than a collie dog. It is reported from another source that at least ten well-preserved skulls of rhinoceros have been obtained, and that they closely resemble the skull of the ordinary woolly rhinoceros. With the human and other remains there are also numerous small rude implements of quartzite.

WE learn from *Nature* that a new laboratory for marine biological research was opened at Batavia on December 12 last. This, the first of its kind to be established close to the equator, offers opportunities to naturalists desirous of investigating the problems of marine life in the tropics. For the zoologist there are rich fields of study around Batavia, including the river fauna of the Tji Liwung, the brackish life in the estuary and coastal ponds, and the varied marine fauna of the Sea of Java. For the botanist, there is a fine collection of East Indian beach and coast plants in the garden surrounding the laboratory, and easy access to the famous Botanical Gardens at Buitenzorg. The station consists of two main buildings, the laboratory facing the sea, and the aquarium behind it. The buildings are well equipped and are lighted

throughout by electricity. In the laboratory a large room has been fitted up for the use of visiting naturalists, five of whom can be accommodated at the same time. They have at their disposal certain of the aquarium tanks and table-aquaria, as well as two boats for collecting fresh material, the *Max Weber*, working in the vicinity, the other a steamer of 322 tons displacement, the *Brak*, for longer voyages.

BACTERIOLOGISTS having cultures of red chromogenic bacteria are requested to forward sub-cultures to Mr. R. S. Breed, New York Agricultural Experiment Station, Geneva, N. Y. A monographic study of this group of bacteria is in progress and comparative material is needed. Records of source, time of isolation and by whom isolated should accompany cultures. Proper credit will be given in publications for any assistance given.

DR. J. F. ILLINGWORTH, formerly professor of entomology in the University of Hawaii, after spending four years in Australia on a special investigation of the pests of sugar cane for the Queensland government, has returned to his home at Honolulu, where he has been appointed research associate in entomology at the Bishop Museum. At present Dr. Illingworth is engaged as specialist on the Green Japanese Beetle problem, by the U. S. Department of Agriculture, and is traveling in the Orient. The past season was spent in a general survey of this pest in Japan, where, unfortunately, he lost all his equipment in the Yokohama catastrophe. Since Dr. Illingworth is to investigate Chinese territory during the coming season, he has selected Shanghai as temporary headquarters, care of the American consul.

UNIVERSITY AND EDUCATIONAL NOTES

CONTRACTS have been awarded for the construction of the hall of chemistry for the University of West Virginia, Morgantown, which will be erected at a cost of \$750,000.

It is planned to build a hospital at the Ohio State University at Columbus at a cost of \$500,000.

THE London County Council Education Committee has agreed to recommend the council to establish two. Sir Robert Blair fellowships for applied science and technology, each of the value of £450 for one year.

THE board of regents of the University of Michigan Medical School has approved a combined course in pharmacy and medicine for students who wish to prepare for scientific careers in research laboratories, or for educational, scientific or pharmaceutical manufacturing institutions. The new combination course requires three years in the College of Pharmacy and two years in both the pharmacy and the medical

schools. The five years of study leads to a degree of bachelor of science in pharmacy. Two more years in the medical school will give the degree of doctor of medicine.

AT Yale University the appointments of five instructors on the faculty to assistant professorships are announced. These include Arthur H. Smith, physiological chemistry; Erwin George Gross, pharmacology and toxicology; Howard W. Haggard, applied physiology, and Lester C. Lichty, mechanical engineering.

THE *Bulletin* of the American Mathematical Society records the following promotions and appointments: Associate Professor S. Lefschetz, of the University of Kansas, to a full professorship of mathematics; Associate Professor J. W. Calhoun, of the University of Texas, to a full professorship of applied mathematics; Mr. A. S. Hathaway to be professor of mathematics at Friends University, Wichita, Kansas; Assistant Professor E. C. Keifer, Iowa State College, to be head of the department of mathematics at James Millikin University; Professor D. A. Lehman, of Goshen College, to be professor of mathematics at Bluffton College.

PROFESSOR A. E. JOLLIFFE, M.A. (Oxford), has been appointed to the university chair of mathematics, of the University of London, tenable at King's College.

DR. HANS KNIEP, of the University of Würzburg, has been appointed professor of botany at the University of Berlin to succeed Professor Haberlandt.

DR. FRIEDRICH MÜLLER, of the University of Tübingen, has been appointed professor of anatomy in the German University at Prague.

DISCUSSION AND CORRESPONDENCE THE METRIC SYSTEM IN AGRICULTURE

FROM time to time there have appeared in *SCIENCE* suggestions for promoting the adoption of the metric system of weights and measures in the United States. One promising field of propaganda that has apparently been neglected by devotees of this rational system of measurements is that of reports of agricultural experimentation. On account of the wide distribution of such reports and the large number of persons reached the influence of such propaganda on the popular mind probably would be great. For those interested in the movement and occupying positions permitting the use of them, the following concrete suggestions are made:

(1) That new, especially long-time, experimental fields be platted in units of the metric system, and results from them be reported in both the metric and English systems.