

chairman of the Forestry Commission, attended a meeting of the subsection on August 28 and gave a review of the commissioners' work and of certain problems to be faced in the near future.

Mr. J. E. Barnard, whose name has lately been made famous by cancer research (in association with Dr. Gye) lectured in the Physiology Section on August 28 on "The microscopic observation of small bodies." Professor A. V. Hill, who is the president of the section, dealt in his address with "The physiological basis of athletic records."

Sir Archibald Denny presided over the Engineering Section and surveyed "Fifty years' evolution in naval architecture and marine engineering." Road and other transport problems were considered at joint meetings of the Engineering and Economics Sections on two days. Among the special aspects of the subject which were dealt with were the economics of highway engineering, the classification of roads and the economic significance of the development of road transport. Southampton is the headquarters of the Ordnance Survey, and the president of the Geography Section, Mr. A. R. Hinks, who is also president of the Royal Geographical Society, took map-making as the subject of his address. The president of the Zoology Section, Mr. Tate Regan, of the British Museum, spoke on organic evolution.

The Agriculture Section met jointly with the Economics Section to discuss agricultural costs and marketing. At a meeting of its own members it considered the place of cereal growing in British agriculture. Captain W. E. Elliot (parliamentary under-secretary for health, Scotland) was one of the contributors to the discussions of the section. The Education Section considered such topics as the training of teachers, diet and health. The president of the Economics Section was Miss L. Grier, principal of Lady Margaret Hall, Oxford, and her address was on "The meaning of wages." In the Botany Section Dame Helen Gwynne-Vaughan and other speakers discussed reproduction in plants.

Meteorology occupied a considerable place in the program of the section of Mathematics and Physical Science, where the president, Dr. G. C. Simpson, director of the Meteorological Office, spoke on new ideas in this field. A morning was given to the subject of wireless.

"Citizens' lectures" were arranged on wireless, broadcasting and flying, and there were special lectures to young people. The program of excursions included a visit, at the invitation of the Air Ministry, to the Calshot Aerodrome. It is the practice to arrange for selected students to attend the association meetings, and this year these numbered altogether about forty.

SCIENTIFIC NOTES AND NEWS

DR. CHARLES FREDERICK CHANDLER, emeritus professor of chemistry in the School of Mines, Columbia University, died on August 25, aged eighty-eight years.

DR. N. L. BRITTON, director of the New York Botanical Garden, was recently elected a fellow of the American Academy of Arts and Sciences.

W. D. JONES, of Jacksonville, Fla., was elected chairman, and Dr. Jacob Diner, of Fordham University, New York City, vice-chairman of the American Pharmaceutical Association, at its recent meeting in Des Moines.

At the meeting of the Western Psychological Association held at Berkeley, on July 24 and 25, the following officers were elected for 1925-26: Professor W. R. Miles, Stanford University, *president*; Dr. Kate Gordon, the Southern Branch of the University of California, *vice-president*; Dr. Warner Brown, the University of California, *secretary*.

PROFESSOR J. BORDET, of Brussels, was recently given an honorary degree by the Toulouse medical faculty.

DR. ALDO CASTELLANI, director of tropical medicine and dermatology at the Ross Institute, London, has been elected a corresponding member of the Royal Academy of Medicine of Belgium.

THE council of the Royal Meteorological Society has awarded the Howard Prize for 1925 to H. W. Barnett, of South Africa, for the best essay on "Icebergs: their distribution and drift."

A BRONZE statue of Professor L. Mangiagalli, who has reached the academic age limit, was recently unveiled at Milan. The ceremonies concluded with a banquet.

D. A. CROCKER, vice-president in charge of woodlands of the Eastern Manufacturing Company, of Bangor, Maine, has been appointed forester in the woodlands section of the American Paper and Pulp Association, New York City.

DR. E. C. LEVY, professor of medicine at the Medical College of Virginia, has been appointed head of the Health Department at Tampa, Fla.

THE action of Secretary of Agriculture Jardine in naming Thomas P. Cooper, of Kentucky, as chief of the Bureau of Agricultural Economics in place of Dr. H. C. Taylor was followed by an announcement from President William C. Deming, of the Civil Service Commission, that Mr. Cooper must pass a civil service test. When officials of the Department of Agriculture were shown the Civil Service Commission's announce-

ment they said that Mr. Cooper, who is now dean of the College of Agriculture of the University of Kentucky, would submit to the required examination.

DR. C. F. JURITZ, chief of the division of chemistry of the Department of Agriculture of the Union of South Africa, is retiring, terminating a service of about thirty-five years.

At the recent meeting of the International Congress of Roentgenologists in London, Professor Nemenov, director of the Leningrad Institute of Roentgenology and Radiology, was elected chairman.

THE Russian Geological Committee has received an invitation to attend the fourteenth International Geological Congress, which is to take place in Spain on June, 1926. Professor Samilov will represent Russia at the congress.

PROFESSOR G. E. F. SHERWOOD, of the Southern Branch of the University of California, has been granted leave of absence for the next academic year, and will go to Cambridge, England, for study.

AMONG American scientific men who attended the recent meeting of the British Association for the Advancement of Science in Southampton are Dr. Vernon Kellogg, of the National Research Council, Professor Yandell Henderson and Professor W. F. G. Swann, of Yale University.

DR. CORNELIA CAREY, of Barnard College, Columbia University, has been working during June and July at the New Jersey Agricultural Experiment Station, New Brunswick, N. J. She is making a study of soil microbiological methods preparatory to undertaking investigations of soils in New York City and vicinity under the auspices of the Bronx Botanical Gardens and Columbia University.

PROFESSOR F. L. WASHBURN, of the University of Minnesota, who is collecting insects of Polynesia for that institution, is in Tahiti, on his way to the Tuamotus, the low atolls lying east of the Society Islands.

PROFESSOR MARK A. CARLETON, with the U. S. Department of Agriculture from 1894 to 1918, died recently in Peru, where he had gone some months previously in the service of a cotton growers' association, located at Piura.

DR. R. MARTIN, professor of anthropology at Munich and a pioneer in anthropometric calculations, has died.

G. M. MURGOCI, chief of the agrogeological section of the Geological Institute of Rumania and professor in the Polytechnic School of Bucharest, died on March 5 at the age of 53 years. He was president of the International Commission on Soil Mapping and

director of the International Pedological Charts of Europe.

THE Civil Service Commission has announced open competitive examinations to fill vacancies in the following positions: Associate agricultural economist (agricultural history) at \$3,000 a year, associate agricultural economist (farm finance) at \$3,000 a year, Bureau of Agricultural Economics, Department of Agriculture, for duty in Washington, D. C., or in the field. Chief social service worker (psychiatric), Veterans' Bureau, Washington, D. C., at \$3,000 a year. Under scientific helper, experiment station of the Bureau of Mines, Pittsburgh, Pa., and the chemical laboratory of the Bureau of Internal Revenue, Buffalo, N. Y., at \$1,140 a year. This examination is also to fill vacancies in the District of Columbia, at an entrance salary of \$1,140 a year and for junior metallurgist, Frankford Arsenal, Philadelphia, Pa., at \$1,920 to \$2,040 a year.

THE All-Ukrainian Geophysical Congress has been concluded at Kiev. Papers were read on the condition of meteorology in the Republics of the Soviet Union, on the study of solar energy, on the importance of meteorology to agriculture and railway work. It was resolved to organize at the meteorological stations additional observations, with a view to agriculture, of the continuity and intensity of the solar influence, of the evaporation of water, of the distribution of temperature in the soil, of rain and hail-storms, etc. The congress appealed to Polish and Rumanian scientific institutions to communicate their respective observations on the upper courses of the Pripyat and Dniester Rivers.

THE Missouri Forestry Association has raised by public subscription a fund which now exceeds \$22,000. The larger part of this will be used to give effect to the forestry law passed by the last general assembly, the appropriation provided for this purpose having been vetoed by Governor Baker as a measure of economy. A portion has been paid to the University of Missouri to enable that institution to engage in extension work in forestry in cooperation with the federal government under the provisions of the Clarke-McNary law. Frederick Dunlap, of Columbia, who has served as secretary of the Missouri Forestry Association while engaged in the private practice of forestry, has been appointed state forester as well as extension forester and for the present will have charge of both lines of activity.

A GIFT of \$245,000 to the University of Minnesota has been made by the Laura Spelman Rockefeller Memorial for the establishment of an institute for child welfare. The gift will be available at the rate

of \$49,000 a year for five years. A home will be established to which a small number of infants may be sent, and a nursery school for children up to five years of age. The institute will study the development of habits, means of bettering child health, methods of instructing children and the most normal reactions to environment.

SIGNATURES of the governor of Illinois and the governor of Wisconsin have been affixed to the final state enabling acts necessary to the establishment by the Federal Government of the upper Mississippi River wild life and fish refuge. Purchase of the first tracts of the refuge, which covers some 345,000 acres of bottom lands from Rock Island, Ill., to Wabasha, Minn., is expected to be started at once. A total federal appropriation of \$1,500,000 has been authorized, of which \$400,000 is now available.

FREE illustrated lectures on natural history are to be given by the Field Museum of Natural History this fall in the public schools of Chicago and in the museum. The income from a trust fund of \$300,000 just presented the trustees by Mrs. James Nelson Raymond makes the course possible.

A SUM of 160,000,000 gold rubles, or approximately \$80,000,000, is included in the budget of the Soviet Union for 1925-26 for the carrying out of an extensive plan for electrical development, according to K. P. Lovin, chairman, and B. A. Barsukov, manager of the technical department of the Moscow Combination of State Electrical Stations, who are in this country for a three months' study of power development and electrical machinery. The ultimate development for the Soviet Union will include thirty stations with a combined capacity of 1,750,000 kw.

IN conformity with resolution number 8 passed at the Madrid meeting of the International Section of Terrestrial Magnetism and Electricity, the Danish government will establish this summer a magnetic observatory, near Godhavn, Greenland. It is hoped later to include atmospheric-electric observations.

THE *Aften Posten* of Oslo, Norway, states that Captain Roald Amundsen since his arrival home from his recently attempted flight to the North Pole has been preparing a new airplane expedition for next summer, from Spitzbergen over the Pole and unknown Arctic regions to Alaska. The newspaper states that financial backing has been assured and that the expedition will include Lincoln Ellsworth, the American who was with Amundsen's party this summer. It is stated that the Dornier Company will build an airplane larger than the N-25 which Amundsen's party saved from the Arctic this year and that the new machine will be equipped with many improvements

resulting from experience gained during the recent expedition.

THE Harvard College Observatory has received a cable from the Central Bureau of Astronomical Telegrams at Copenhagen announcing the rediscovery on Aug. 14 by Dr. A. Schaumasse, of the observatory at Nice, France, of the Borelly Comet. This comet was first discovered in 1889 at Marseilles and has a period of approximately seven years. It was last rediscovered by Fayet at Nice in 1918. The detailed observation by Dr. Schaumasse was ascension 5 hours, 4 minutes, 24 seconds; declination north 2 degrees, 4 minutes, the comet being of the thirteenth magnitude. This return, as announced, is within one degree of the place predicted by Dr. Crommelin, of the Greenwich Observatory.

THE Exposition of Chemical Industries will be held from September 28 to October 3 in the Grand Central Palace, New York City. Last year this exposition was not held. It is expected that the 1925 exposition will offer more to chemists and chemical engineers in the line of new equipment, new methods and new materials than any previous exposition. Aside from the regular exhibits, the management this year plans some new features which should add to the attractiveness of the event for those who are interested in chemistry and chemical progress. One of these, known as the "Court of achievement," has been worked out in co-operation with a committee representing the American Chemical Society. In this court outstanding achievements in chemistry, either in research or in industry, will be featured. A series of lectures by outstanding men in the chemical industry of the country is planned. These lecturers will cover almost the entire field of chemical industry and should be of considerable interest to those who wish to keep abreast with the developments in the various industries.

THE Royal College of Surgeons has decided to admit women on the same terms and under the same conditions as men. Heretofore they have been admitted as fellows and members, but without the right to vote for the council, which is the executive body. In the future women also will be eligible for seats on the council. There are at present thirteen women fellows and members.

IT is proposed to establish in England a British Institute of Radio Engineers. According to a letter to the London *Times* from Mr. Y. W. P. Evans, it is felt that with the rapid advance of radio science a great advantage is to be gained by the formation of an association which will concentrate on the purely technical radio problems which arise from time to time. The constitution of the proposed association will be

strictly confined to members whose radio knowledge is beyond question, and every effort will be made to keep the standard of efficiency as high as possible.

ACCORDING to the annual report of the British Museum the total number of visitors to the Natural History Museum during 1924 was 521,901, the largest since 1920, and an increase of 29,401 as compared with 1923. The attendance on Sunday afternoons, the highest recorded since the institution of Sunday opening in 1896, was 84,844, as against 72,931 in the previous year. The museum specialists continued to advise on a great variety of economic problems referred to them. Inquiries dealt with by the department of entomology included many relating to the cotton boll weevil and the pink boll worm, which cause enormous damage to cotton crops. The report states that knowledge as to the extent of the ravages of these pests seems to have been spread considerably through the British Empire Exhibition.

UNIVERSITY AND EDUCATIONAL NOTES

MRS. ANNA RAYMOND has given \$100,000 to the University of Chicago to establish a James Nelson and Anna Louise Raymond professorship in the School of Medicine. The subject in which the professorship is to be established is left to the discretion of the trustees.

CONSTRUCTION is to be started at once on a new wing to the main building of the University of Wisconsin, to cost \$470,000. This sum was recently appropriated by the state legislature.

THE vice-chancellor of the University of Cambridge has announced that the Board of Trade has approved of the Joint Coal Mining Diploma granted by the Universities of Cambridge and Birmingham on satisfactory completion of their joint course in science and coal mining.

DR. J. H. HANCE, assistant chief of the Illinois Geological Survey, has been appointed head of the department of geology at the Texas Agricultural and Mechanical College.

DR. THOMAS G. PHILLIPS, professor of agricultural chemistry at the Ohio State University, has been appointed professor of agricultural chemistry and chemist in the New Hampshire University and Experiment Station.

EARL B. SMITH, who for the past nine years has been in charge of the engineering and research laboratories of the United States Bureau of Public Roads, has resigned to become professor of mechanical engineering at the Iowa State College.

DR. ROBERT M. ISENBERGER has been appointed asso-

ciate professor in the department of physiology and pharmacology at the University of Kansas School of Medicine.

DR. CHARLES DALE BEERS, of the Johns Hopkins University, and Dr. Harold Kirby, Jr., of the University of California, have been appointed instructors in biology at Yale University.

DR. ROBERT L. PENDLETON, director of agriculture in Gwalior State, India, has been appointed professor of soil technology at the University of the Philippines and in charge of the work in soils in the department of agronomy.

DR. G. M. SHRUM, who has been associated with the low temperature laboratory at the University of Toronto since its inception, has been appointed assistant professor in physics at the University of British Columbia, Vancouver.

PROFESSOR GUSTAV HERGLOTZ, of the University of Leipzig, has been appointed professor of mathematics at the University of Göttingen.

DISCUSSION AND CORRESPONDENCE

DR. W. D. RILEY ON EVOLUTION

PRIOR to listening to a debate upon evolution I was moved to wonder just what an anti-evolutionist would have to talk about, and since many readers of *SCIENCE* must be in a like frame of mind I should like to report briefly upon the debate between Dr. Riley, representative of the Christian Fundamentalists, and Dr. Cantrell, of the Science League of America. The debate, which occurred at the Armory at Eugene, on July 9, was one of a series between the two men which took place in various cities on the Pacific coast. This article is based upon notes taken at the time, and upon my memory of the proceedings. I have checked my statements by submitting them to others who attended the meeting. I was seated where I could simultaneously see both the speaker and the larger part of the audience.

Dr. Riley represented himself as a lover of science and of verified knowledge. He maintained, however, that the fundamentalist was the true scientist, the so-called scientists being unworthy of the title. There was a difference between the fundamentalist and the so-called scientist, which Dr. Riley felt himself called upon to sturdily proclaim. The doctrine of evolution was unscientific because it was a theory. Huxley and Darwin had both called it such. Evolution presupposed that one species came from another. This idea Dr. Riley "held to scorn." "Every species," he continued, "produces after its kind." After some extension of this idea Dr. Riley related an anecdote of a personal meeting, on a train, with a young instructor