ican Genetic Association, Deutsche Gesellschaft für Züchtungskunde, Société de morphologie de Paris, etc.

As to his personality, it should be mentioned that he was not only an eminent scientific investigator and a brilliant lecturer, but also an exceptional man, well known for his inexhaustible energy, kindness and responsiveness to the needs of all those who surrounded him. His death was a heavy blow to every one who knew him closely and a great loss for science.

M. RIMSKY-KORSAKOW
V. DOGIEL
M. ROZANOVA
T. LUS
T. LIEPIN

MEMORIALS

A MEMORIAL meeting in honor of the late Dr. Henry Leffmann was held in the auditorium of the Wagner Free Institute of Science on January 16, with addresses by Dr. Wilmer Krusen, president of the Philadelphia College of Pharmacy and Science; Dr. Howard McClenahan, president of the Franklin Institute, and Dr. Samuel T. Wagner, Jr., treasurer of the Wagner Free Institute of Science.

AN oil painting of Graham Bell, by Mr. W. W. Russell, R.A., was presented to the British Institution of Electrical Engineers by Sir Hugo Hirst on January 8.

THE council of the senate of the University of Cambridge has appointed the following committee to arrange for the celebration of the centenary of James Clerk Maxwell: The Vice-Chancellor, Sir J. J. Thomson; Mr. W. Spens, master of Corpus Christi College; Sir Joseph Larmor, Sir Ernest Rutherford, Dr. C. D. Broad, Professor H. F. Newall, Sir Arthur Eddington, Professor C. T. R. Wilson, Professor F. J. M. Stratton, Dr. J. Chadwick, Dr. J. D. Cockcroft, and Sir James Jeans.

THE centenary of the birth of the celebrated syphilologist Alfred Fournier will be celebrated on May 12, 1932, under the presidency of Dr. Lucien Hudelo, president of honor of the French Society of Dermatology and Syphiligraphy. Further information can be obtained from the general secretary, Dr. Sicard de Plauzoles, 44, Rue de Lisbonne, Paris, VIII^{e}.

ON the occasion of the opening of the Pasteur pavilion of the Instituto Bacteriológico of the National Department of Hygiene of Buenos Aires, which pavilion is devoted to studies of plague and mycology, a plaque was unveiled in honor of Pasteur. The president and ministers of the government of Argentina and representatives of the principal medical societies were present. The diplomatic representative of France, and Drs. C. Nicole, G. Araoz Alfaro and Ponce de Leon, made addresses.

RECENT DEATHS

DR. W. A. LIPPINCOTT, professor of poultry husbandry at the University of California since 1923, has died at the age of forty-nine years.

THE death at the age of fifty-six years is announced of Dr. Frederick J. Pritchard, senior plant physiologist of the U. S. Department of Agriculture.

EDGAR STEINER THOMSON, professor of ophthalmology at the Manhattan Post-Graduate School of Ophthalmology, Otology and Laryngology and at the New York Polyclinic Graduate Medical School from 1912 to 1917, has died at the age of fifty-nine years.

DR. WILLIAM A. JONES, professor of mental and nervous diseases for ten years, 1909 to 1919, at the University of Minnesota, and president of the State Board of Health from 1905 to 1917, has died at the age of seventy-one years.

DR. FELIX LÖHNIS, head of the laboratory of agricultural bacteriology at the University of Leipzig, has died at the age of fifty-seven years. Dr. Löhnis was in 1914 appointed soil bacteriologist in the U. S. Department of Agriculture and in 1923 was made senior bacteriologist in charge of the office of soil bacteriology investigations in the Bureau of Plant Industry. He resigned in 1925 to go to Leipzig.

Nature records the death of Mr. T. F. Bourdillon, formerly conservator of forests, Travancore, on December 19, aged eighty-one years, and of Professor Pierre Termier, inspector-general of mines and director of the service de la carte géologique, who was elected in 1909 a member of the Section of Mineralogy of the Paris Academy of Sciences, aged seventy-one years.

DR. A. O. THOMAS, professor of paleontology in the University of Iowa, died on January 13 at the age of fifty-four years.

SCIENTIFIC EVENTS

EXHIBITION OF THE PHYSICAL AND OPTICAL SOCIETIES IN LONDON

THE twenty-first annual exhibition of the Physical Society and the Optical Society was opened by Sir Arthur Eddington at the Imperial College of Science, South Kensington, on January 6. According to the account in the London *Times* the exhibition included a great variety of electrical, optical and other physical apparatus, much of it on view for the first time. The first evening discourse was delivered by Mr. E.

Lancaster-Jones on "Searching for Minerals with Scientific Instruments," and the second by Sir Gilbert Walker on "The Physics of Sport."

Among the demonstrations given by the Gramophone Company was a display of television, on a system developed by the company's research staff at Hayes, Middlesex. The work has reached the stage of an advanced laboratory experiment, but there is no intention of exploiting it commercially at present. The aim of the company is to produce a form of television that will be of definite entertainment value, without which, it is considered, no system can hope to be commercially successful. Attention has been concentrated on two points—the employment of a large number of picture elements to each unit area of the picture, in order to get definition, and some means of modulating the strong light needed to give an image of real entertainment value. The second of these requirements has been met by using a powerful arc lamp and designing apparatus to control this powerful source of illumination.

In the experiments which are to be shown at the exhibition, cinema pictures are transmitted along cables, and reconstructed on a screen measuring about 24 in. by 20 in., without the aid of lens magnification. Although for this demonstration the transmitter and receiver will be only a short distance apart, there would be no difficulty in using cables of any length between them. At a private view at the Gramophone Company's works some days ago, several film pictures were successfully transmitted by the apparatus, including pictures of street scenes in London and of a cricket match. The pictures are scanned at the transmitter in five sections of thirty lines each, a lens drum being used to traverse a succession of images over five scanning apertures. Photo-electric cells placed behind these apertures generate currents corresponding to the picture elements, and these currents are amplified and transmitted along five separate channels. At the receiver, further amplification is necessary before the picture pulses are applied to a multiple Kerr cell. The received image is reconstructed by means of a mirror drum driven synchronously with the transmitter, and thus projected on the screen.

BUDGET FOR THE U. S. DEPARTMENT OF AGRICULTURE

ACCORDING to *The Official Record* the budget of the U. S. Department of Agriculture for the fiscal year 1932 as submitted by the President to the Congress recommends that a total of $225,537,476 (including $137,500,000 for roads) be provided for all activities conducted or administered by the department, as compared with $174,345,474 for all purposes for the fiscal year 1931, or an increase of $51,192,002 over total funds appropriated for 1931 up to December 1, 1930.

The 1932 budget includes a proposal for the establishment in the department of a Bureau of Agricultural Engineering, to which the work now conducted by the division of agricultural engineering of the Bureau of Public Roads, together with a portion of the appropriation of the latter bureau for general administrative expenses, is recommended to be transferred. As all the operations of the farm which involve the use of construction materials, labor, power, machinery and improvement of the land by irrigation, drainage and erosion lie partly within the field of engineering, it is felt that, in order to secure the most effective coordination of effort within the department and in its relations with the state agricultural colleges and experiment stations and with commercial and other non-governmental agencies, the agricultural engineering work should be segregated from road construction activities and set up as a distinct unit coordinate with the other major subdivisions of the department.

The recommended increases for 1932 include items totaling approximately $1,200,000 for expanding the research of the department, and $700,000 additional for continuing the building program at the forest products laboratory at Madison, Wisconsin. Among the increases for research are $30,000 for animal husbandry investigations; $25,000 for poultry investigations; $63,000 for investigating diseases of livestock; $80,000 for dairy research projects; $180,000 for investigations of the Bureau of Plant Industry; $227,000 for forestry research under the McNary-McSweeney Act; $113,000 for projects of the Bureau of Chemistry and Soils; $156,000 for research by the Bureau of Entomology; $93,000 for activities of the proposed new Bureau of Agricultural Engineering; $210,000 for marketing investigations of the Bureau of Agricultural Economics; $40,000 for investigations of the Bureau of Home Economics, and $70,000 for expanding the soil-erosion program. Also an increase of $58,000 is recommended in the department appropriation for printing, a large part of which is for the publication of manuscripts on scientific subjects.

The budget also includes increases of $21,000 for the motion-picture work of the Extension Service; $360,000 for extending the service of the Weather Bureau in aid of civil aviation, under the air commerce act; $250,000 for payment of indemnities in connection with tuberculosis eradication in California; $186,000 for the administration and protection of the national forests and $280,000 for construction and maintenance of national forest improvements; $75,000 for cooperation with states in fire control on state