

charge of that division. All informational work has been brought together with the Insect Pest Survey and placed in the Division of Insect Pest Survey and Information, under the leadership of J. A. Hyslop.

The other research divisions of the Bureau of Entomology, the regulatory divisions of the Bureau of Plant Quarantine, and the field stations of both bureaus will remain about as they were.

APPOINTMENTS AT THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH

THE Board of Scientific Directors of The Rockefeller Institute for Medical Research announces the election of Dr. Warfield Theobald Longcope as a member of the Board of Scientific Directors to succeed Dr. William H. Welch, deceased.

The following promotions and appointments are announced:

PROMOTIONS

Associate Member to Member, Dr. Leslie T. Webster.
Associate to Associate Member, Dr. Richard E. Shope
Assistant to Associate, Dr. Francisco Duran-Reynals, Dr. Kenneth Goodner, Dr. Geoffrey W. Rake.
Fellow to Assistant, Dr. Kenneth S. Chester, Dr. Erich Traub, Dr. Philip R. White.

NEW APPOINTMENTS

Associate Member, Dr. Max Bergmann.
Assistants, Dr. Donald C. Boughton, Dr. Jack Compton, Dr. James R. Dawson, Jr., Dr. Lee E. Farr, Dr. Delavan V. Holman, Dr. John G. Kidd, Dr. Colin M. MacLeod, Mr. William F. Ross, Dr. Thomas F. M. Scott, Dr. Joseph E. Smadel, Dr. Carl V. Smythe.
Fellows, Dr. Bacon F. Chow, Mr. Joseph S. Fruton, Dr. George I. Lavin, Dr. Charles V. Seastone, Jr., Dr. William Trager.

SCIENTIFIC NOTES AND NEWS

LORD RAYLEIGH, foreign secretary of the Royal Society, and Dr. Robert A. Millikan, of the California Institute of Technology, who retired on July 1 as foreign secretary of the National Academy of Sciences, will preside over a joint meeting in London of the International Union of Pure and Applied Physics and of the British Physical Society. The conference, held in response to an invitation from the Royal Society, will meet from October 1 to 6 at the Royal Institution. A visit to the Cavendish Laboratory of the University of Cambridge will be made on October 4.

COMMEMORATING the pioneer work in antitoxin of Dr. Henry Sewall, who conducted his experiments at the University of Michigan from 1882 to 1887, the Delta chapter of Delta Omega, national public health society, held a banquet at the Michigan Union on June 6, presenting to the university a bronze plaque honoring Dr. Sewall. In 1887 Dr. Sewall published a treatise on his work in immunizing animals against snake venom. The society also plans to publish a pamphlet containing a photostatic copy of the original treatise.

DR. EDWIN B. FRED, professor of bacteriology at the University of Wisconsin, has been appointed dean of the graduate school. He will succeed Professor Charles S. Slichter, who has been dean since 1920. Dean Slichter retired on July 1, having reached the age of seventy years. He has been appointed research adviser to the Graduate School and professor emeritus of mathematics.

Industrial and Engineering Chemistry states that Charles L. Reese, president of the American Chemical Society, has received the honorary degree of doctor of science from Wake Forest College, North Carolina. At the Johns Hopkins University he was made recently

a member of the honorary chemical society, Phi Lambda Upsilon, and the University of Virginia Chapter of Sigma Xi recently presented him with its key.

DR. CHARLES H. HERTY, director of the Division of Pulp and Paper Research of the Georgia Department of Forestry, has been awarded the Herty Medal of the Georgia Section of the American Chemical Society.

MEDALS for "eminent service" were presented at commencement by Amherst College to Arthur J. Hopkins, '85, retiring professor of chemistry, and to Eugene S. Wilson, of New York, vice-president of the American Telephone and Telegraph Company.

At the commencement exercises at Michigan State College on June 11, the honorary degree of doctor of science was conferred upon James Henry Kimball, of the U. S. Weather Bureau, New York City, in recognition of his contributions to science in the field of oceanic meteorology.

OKLAHOMA CITY UNIVERSITY conferred on June 1 the honorary degree of doctor of laws upon Charles Newton Gould, formerly director of the Oklahoma Geological Survey.

At its seventy-seventh annual commencement on June 11, Mills College conferred the honorary degree of doctor of laws upon Dr. Clelia D. Mosher, emeritus professor of personal hygiene at Stanford University.

PROFESSOR A. C. SEWARD, professor of botany at the University of Cambridge, has been elected a foreign member of the Royal Swedish Academy of Sciences.

GEORGE D. PRATT, formerly conservation commissioner of New York State, has resigned as president of the American Forestry Association. Dr. Henry S. Graves, dean of the Yale Forest School and formerly chief forester of the United States, will serve as president until the end of the year.

DR. HIRAM S. LUKENS, of the University of Pennsylvania, was elected president at the recent annual meeting of the Electrochemical Society, which was held at Asheville, N. C.

THE title of emeritus professor has been conferred on Professor Edward Mellanby, formerly professor of pharmacology in the University of Sheffield, now secretary of the Medical Research Council.

PROFESSOR GREGORY BREIT, of New York University, has been appointed professor of theoretical physics at the University of Wisconsin.

DR. T. SMITH TAYLOR, who for the last nine years has had charge of the Physical Laboratory of the Bakelite Corporation at Bloomfield, New Jersey, was recently appointed head of the department of physics at Washington and Jefferson College, Washington, Pa.

DR. JOSEPH S. CHAMBERLAIN, head of the department of chemistry at the Massachusetts State College at Amherst, has been made Goessmann professor of chemistry in recognition of twenty-five years service as professor of organic and agricultural chemistry at the college.

R. O. STREET, senior lecturer in applied mathematics at the University of Liverpool, has been appointed professor of mathematics in the Royal Technical College, Glasgow.

PROFESSOR MAX NEUBURGER, having reached the age of sixty-five years, is retiring from the chair of medical history in the University of Vienna. He will continue his directorship of the Medico-Historical Institute.

H. P. BARSS, specialist in plant physiology and pathology in the Office of Experiment Stations, U. S. Department of Agriculture, formerly principal pathologist at the Oregon Agricultural Experiment Station, has been appointed a member of the National Research Council in the Division of Biology and Agriculture. Mr. Barss was nominated by the American Phytopathological Society and the Society of American Bacteriologists.

DR. H. W. BROWN, of Vanderbilt University Medical School, has been granted a fellowship for the study of public health by the General Education Board. He will sail in August to spend a year at the London School of Hygiene and Tropical Medicine.

EDGAR B. HOWARD, research associate in the department of vertebrate zoology at the Academy of Natural Sciences of Philadelphia, has been appointed a research associate of the Carnegie Institution of Washington.

Nature records the appointment of Dr. P. L. Mercanton, professor of meteorology and geophysics in the University of Lausanne, as director of the Central Meteorological Station of the Swiss Federal Meteorological Commission, in succession to Dr. J. Maurer, who retired recently.

DR. JOSEPH PEARSON, who recently resigned his post as director of the Colombo Museum and as marine biologist to the Ceylon government, has been appointed director of the Tasmanian Museum, Hobart.

DR. ERNST WEGNER has been appointed director of the newly established State Academy for Racial and Health Welfare, opened at Dresden on April 14.

DEAN SAMUEL N. SPRING, Professors Nelson C. Brown, Edward F. McCarthy and Dr. Joseph S. Illick, of the New York State College of Forestry, were recently appointed to serve on the Forestry Committee of the New York State Planning Board. The other members of the committee are Assemblyman Ellis W. Bentley, Senator Charles J. Hewitt, Professor Ralph S. Hosmer, of Cornell University; Dr. Thomas Lamont, of Cornell University, and Assemblyman Joseph D. Nunan.

A CONGRESS of the International Society of Geographical Pathology (which was founded in 1927 by Askanazy, supported by Aschoff) will be held at Utrecht from July 26 to 28.

SIGMA PI SIGMA, honorary physics fraternity, recently installed its twenty-seventh and twenty-eighth chapters at the Oregon State College and at the University of Denver. Dr. C. L. Utterback, of the department of physics at the University of Washington, was the installing officer for the Alpha-Gamma Chapter installation at Oregon State College on May 19. At the same time Dr. A. A. Knowlton, of Reed College, was initiated as an honorary member of the society. The executive secretary, Dr. Marsh W. White, of the Pennsylvania State College, installed the Alpha-Delta Chapter at the University of Denver on May 28, assisted by Dr. W. B. Pietenpol, professor of physics at the University of Colorado.

APPLICATIONS for the position of associate veterinarian (diseases affecting wild animal life), Bureau of Biological Survey, Department of Agriculture, must be on file with the U. S. Civil Service Commission at Washington, D. C., not later than July 23. The entrance salary is \$3,200 a year, subject to a deduction of not to exceed 5 per cent. during the

fiscal year ending June 30, 1935, as a measure of economy, and also to a deduction of $3\frac{1}{2}$ per cent. toward a retirement annuity. Competitors will not be required to report for a written examination, but will be rated on their education and experience and on a thesis or published writings. A requirement is not less than three years of responsible professional experience, at least one year of which must have been in the treatment of, or research in, the diseases of native wild animal life.

By the will of the late Joy Morton a trust fund of \$300,000 is established, the income of which is to be used for maintenance of the 419-acre Morton Arboretum at Lisle, Ill.

THE General Education Board of the Rockefeller Foundation has made a grant of \$70,000 to Bennington College, Vt.

A GRADUATE fellowship for research study in some field of metallurgy connected with aluminum has been established at the Carnegie Institute of Technology by the Aluminum Company of America. The fellowship, which is to run for two years, will be awarded to a graduate student to be selected by Dr. R. F. Mehl, director of the metals research laboratory, under whose guidance the study will be made. The grant, which becomes effective on September 1, will make it possible for the recipient to devote his full time to an investigation of a problem to be assigned by the institute. The fellow will conduct his studies in the metals research laboratory where fundamental research in metals is being done at the present time by a group of experts.

THE Rajah of Sarawak, Sir Charles Brooke, has given £20,000 towards the building scheme of the Imperial Forestry Institute at the University of Oxford, which is to be established on a permanent and self-supporting basis.

Nature reports that the Council of the Institution of Electrical Engineers has made the following awards of premiums for papers read during the session 1933-34, or accepted for publication: Institution premium to W. Kidd and J. L. Carr; Ayrton premium to B. A. G. Churcher, A. J. King and H. Davies; Fahie premium to T. S. Skillman; John Hopkinson premium to Dr. W. G. Thompson; Kelvin premium to B. L. Goodlet; Paris premium to Dr. J. L. Miller and J. E. L. Robinson; Webber premium to G. Shearing; Overseas premium to S. P. Chakravarti; extra premiums to Dr. M. A. B. Brazier, Capt. B. S. Cohen, C. W. Marshall, P. D. Morgan, W. G. Radley and Dr. S. Whitehead, H. Rissik. *Wireless Section Premiums*: Duddell premium to T. Walmsley; Extra premiums to L. H. Bedford and O. S. Puckle; E. B. Moullin, and H. D. M. Ellis; A. H. Reeves. *Meter and Instrument*

Section Premiums: Silvanus Thompson premium to Dr. A. H. M. Arnold; extra premiums to J. B. Lees, Dr. E. Mallett, G. F. Shotter. *Willans Premium*, for a paper dealing with the utilization or transformation of energy: Mr. D. B. Hoseason for his paper on "The Cooling of Electrical Machines."

AN Associated Press dispatch reports that Pope Pius has signed a contract for installation of an astronomical observatory at Castel Gandolfo, the papal summer residence. This will complement the observatory in the Vatican. The contract calls for a double telescope, consisting of an astrograph with quadruple objective of 40 centimeters opening and 200 centimeters of focal distance, combined with a reflector with 60 centimeters opening and 240 centimeters focal distance. In addition, the observatory will be furnished with modern auxiliary instruments, including two large objective prisms, an astrospectrograph and a spectrophotometer register. To the observatory will be annexed an astrophysical laboratory for special researches. The new observatory will continue the specialized observations made by the late American Jesuit Father Hagen, who occupied for many years the post of Vatican astronomer. Castel Gandolfo is thirteen miles from Rome on Lake Albano.

ACCORDING to the London *Times*, in the annual report of the director of the British Meteorological Office for the year ended March 31, it is stated that during the latter part of the year messages transmitted from Horta, in the Azores, three times a day had been received fairly regularly. These messages contain a number of observations from ships in the Atlantic which have frequently proved to be of considerable importance and utility. During the year it was learned that Russia was broadcasting a synoptic message each morning containing observations made at 0100 local mean time. These reports are now regularly received and plotted on the weather map containing 0100 G.M.T. observations. Reception of the international synoptic of messages issued from Paris, Hamburg and Moscow, which were referred to in detail last year, has continued to be on the whole satisfactory. Reception from America has been less good, but considering the long range of transmission it was quite as satisfactory as could be fairly expected. Success has attended the reorganization of the work of the Forecast Division, by which the whole of the weather forecasting, whether for aviation, shipping or the general public, was last year transferred to this division. As expected, it has been necessary to retain two types of working charts, one, which is mainly used for general forecasts, taking in a large area, and one of a smaller area on a larger scale on which more detailed information can be entered for aviation. The former of the two working charts has

been increased in size so that the area of the map now includes a portion of Labrador and of Newfoundland and extends from the American coast in the west to beyond the Ural Mountains in the east. The report also contains much useful information with regard to climatology, observatories, the second international polar year, and international cooperation. In the British Isles 344 stations provided climatological data, while rainfall records were received from 5,329 stations. During 1932 there were 244 earthquakes recorded at Kew, and in eight cases the azimuth of the epicenter could be determined.

Nature, quoting from *Current Science*, states that at a joint session of the Sections of Botany and Zoology of the Indian Science Congress recently held at Patna, under the presidency of Professor Gopala Aiyer, the desirability of establishing a marine biological station in India was discussed. Colonel Sewell opened the discussion. It was suggested that the authorities of the congress should appropriate a certain sum of money which would act as a nucleus for private subscription. The general opinion was in favor of the station being at Bombay, which with its

central position and varied coast line offers an ideal site for such a laboratory. It was moved and seconded that a committee of five biologists be appointed to go into the question of establishing a marine biological station in India and the resolution was carried by a large majority. The committee was constituted as follows: Dr. S. B. Setna, of Bombay (convener); Professor Gopala Aiyer, of Madras; Professor George Mathai, of Lahore; Professor R. H. Dastur, of Bombay, and Dr. S. K. Mukerji, of Lucknow.

ACCORDING to *Nature*, Professor A. F. Joffe, of the Physico-Technical Institute of the U.S.S.R., is sending out a scientific expedition to Erivan to establish a laboratory for the study of the cosmic rays. It is proposed to set up the station on Mount Alagöz, in Armenia, at a height of 14,400 feet above sea-level. The object of this station will be to investigate the distribution of the cosmic rays. The leader of the expedition is Dr. D. V. Skobeltzin. It has also been decided to set up on the shore of Lake Gokcha (6,345 feet above sea-level) an astrophysical observatory where a 16-inch reflector will be erected.

DISCUSSION

A MICROORGANISM CARRIED BY THE DUST-STORM

THE pronounced dust-storm which swept the country on May 10 brought to the laboratory a liberal supply of microorganisms.

Its thick haze hung like a fog over tremendous areas the entire day and, in addition, the windblown particles permeated the air of the buildings and interfered to some extent with respiration. While the storm was in progress the students, in the routine of the work in medical bacteriology, had occasion to examine their serial dilutions of several of the slow-growing pathogens. The agar medium had been inoculated the previous day and poured into Petri dishes. To facilitate the inspection of the colonies the covers of the dishes were temporarily removed, thus exposing the surfaces of the nutrient material to the dust-laden air. Due to the fact that the desired cultures had not developed, the plates were returned later in the afternoon to the hot room, and incubation was continued for another 24 hours. In this manner a total of 120 individuals working in 6 separate rooms opened an average of 5 plates for intervals of less than 2 minutes each.

The following day on examining the dishes several (3-5) glistening, raised, brownish mucoid colonies ranging in size from 6-10 mm were observed on practically every agar surface. This type of growth is not ordinarily encountered by the students in this

laboratory. Suspensions were made in water of material taken from a number of the colonies and examined microscopically. In each specimen large, heavily encapsulated slightly motile bacilli were noted.

The organisms in pure culture, isolated by the routine-plating methods, were uniformly shaped rods with rounded ends measuring 1.25 to 2 μ by 4 to 8 μ arranged usually in threads or chains. The thick capsules originally noted were not present in the subcultures. The motility was of a slow creeping variety. Median oval spores without enlargement of the cells were freely abundant in 36 to 48 hours on plain agar. The young cells stained regularly and were Gram positive. The protoplasm was converted into globular highly refractive bodies on sugar-containing mediums.

The colonies on gelatin plates were round with concentric rings of growth. The medium was liquefied rapidly. In the gelatin stab a sacchate zone appeared, followed in some instances after several days by a thin surface film. There was no immediate change in litmus milk, but a gradual peptonization took place with the production of a wine-red color. Dextrose, lactose and saccharose broth were not fermented; there was a rich granular sedimenting growth with no scum formation. On Russell's, Kligler's, Endo's and litmus lactose agar mediums, no change was recorded.