has been protected for many years and is well stocked with hard woods, pine and hemlock. There is enough merchantable timber to permit economic forestry operations at once. The educational phases of the work on the forest will be progressively developed, as the details of administration of the property are perfected.

The director of the forest, Mr. N. D. Canterbury, graduated from the Yale School of Forestry in 1922. He has been associated with various enterprises, both in business and in public service.

THE CHILEAN NITRATE OF SODA NITROGEN RESEARCH AWARD

ABOUT two years ago the Chilean Nitrate of Soda Educational Bureau of New York made available an annual appropriation of $5,000 to be distributed in the form of one or more prizes for outstanding research in this country and Canada on nitrogen in its relation to soil processes and plant growth. The above sum has been placed in the hands of the American Society of Agronomy, the award being administered by a special committee of the society.

The first awards were made in 1928. The committee held then that it was advisable to select older investigators whose previous work in advancing knowledge of nitrogen in relation to plant growth has been beyond question. Professor J. G. Lipman, director of the New Jersey Agricultural Experiment Station, Professor T. L. Lyon, chief of the soil department, Cornell University, Professor E. B. Fred, division of agricultural bacteriology, University of Wisconsin, and Professor F. T. Shutt, dominion chemist, Ottawa, Canada, were those selected. In connection with the announcement of the selections for 1928 the committee suggested that subsequently it would be appropriate to consider and perhaps even give preference to those younger investigators who have made recent contributions to the subject.

The second award, announced at the 1929 meeting of the society, was divided among three investigators, namely, Professor C. A. Mooers, director of the Tennessee Agricultural Experiment Station; Professor P. L. Gainey, soil bacteriologist of the Kansas Agricultural Experiment Station, and Professor S. A. Waksman, microbiologist of the New Jersey Agricultural Experiment Station.

In order to make clear the nature of the investigations that will be considered for the award in 1930 the committee feels that it is desirable to publish a brief statement at this time.

Investigations will be considered which deal with the physical, chemical or microbiological transformation of both organic and inorganic nitrogen in the soil, the absorption and utilization of nitrogen by plants and nitrogen fertilizer in any of its aspects. The committee will give particular attention to those contributions which have been published within the past year or two. Investigations of longer standing will also be considered provided the authors are still actively engaged in the work.

Investigations dealing with any phase of nitrogen in relation to soils and crops may be called to the attention of the committee either by an author himself or by any one else. The award, which may be made either to one or more investigators, will be recommended to the society, according to the judgment of the committee.

The committee takes this opportunity to solicit nominations of candidates for the 1930 award. The nominations should be made in writing and may be addressed to any member of the committee. Although it may be difficult to select the "most" outstanding contribution to such a complex subject as nitrogen in its relation to soils and plants, the committee hopes that it will at least be able to select one or more investigators who have made a notable contribution to the scientific understanding of the rôle of nitrogen in soils and plants. It is expected that the award will be used in such a way as to lead to still higher scientific activity.

The award is open to investigators irrespective of their connection with the American Society of Agronomy. The investigation may have been made at a university, state experiment station, government institution or privately.

R. W. THATCHER,
C. B. WILLIAMS,
W. P. KELLEY,
R. I. THROCKMORTON,
R. BRADFIELD,
S. A. WAKSMAN, *Chairman*
Chilean Nitrate of Soda Nitrogen Research Award Committee

SCIENTIFIC NOTES AND NEWS

A BRONZE memorial plaque, picturing Mr. and Mrs. Thomas A. Edison, was unveiled at Fort Myers, Florida, on February 11, in celebration of Mr. Edison's eighty-third birthday. The plaque was erected in the city park by a committee of civic workers and will be illuminated perpetually.

DR. W. M. DAVIS, emeritus professor of geology at Harvard University, celebrated his eightieth birthday

on February 12 at Tucson, Arizona, where and in California he has been actively engaged in geological work.

AT a meeting of British botanists in London, held to receive the report of the executive committee on the progress which has been made in organizing the International Botanical Congress, which will be held in Cambridge from August 6 to 19 under the presidency of Professor A. C. Seward, a message of congratulation was sent to Dr. Sydney Howard Vines, F.R.S., Sherardian professor of botany in the University of Oxford, and fellow of Magdalen College from 1888 to 1919, who celebrated his eightieth birthday on December 31.

DR. IRVING LANGMUIR, associate director of the research laboratory of the General Electric Company, has been awarded the Willard Gibbs Gold Medal of the Chicago Section of the American Chemical Society for 1930, for "fundamental work on atomic hydrogen and on surface relations and also on electrical discharge phenomena. Also for his contributions of great importance to nearly all branches of physical chemistry, including high vacuum technique, electronics, thermochemistry and catalysis. And lastly for his presentation of a theory of atomic structure."

THE presentation of the American Iron and Steel Institute Medal awarded in October to Dr. Elmer A. Sperry, president of the Sperry Gyroscope Company, was made at a meeting of the board of directors at the Metropolitan Club on January 31. The medal, which was founded by the institute in memory of its founder and first president, Elbert H. Gary, was awarded for the first time to Dr. Sperry especially for his work on the non-destructive detection of flaws in steel rails. Mr. Charles M. Schwab, chairman of the board of the Bethlehem Steel Corporation and president of the institute, made the presentation.

AT the annual general meeting of the Royal Meteorological Society on January 15, Sir Richard Gregory, the president, presented Dr. G. C. Simpson, director of the Meteorological Office, with the Symons's Gold Medal, in recognition of the value to meteorology of Dr. Simpson's researches on thunder-storms and terrestrial radiation.

A BRONZE *bas relief* of Dr. C. H. Kauffman, professor of botany and director of the herbarium, was presented to the University of Michigan on January 24. It is the gift of twenty-eight doctorate students of Dr. Kauffman, which group includes those who have taken the degree of doctor of philosophy and those who are at present working under him. The plaque was made by Mr. Carleton W. Angell, of the University of Michigan, and it was sent to Munich, Germany, to be cast in bronze. Dr. G. Carl Huber, dean of the Graduate School, presented the portrait to the university, and it was accepted by President Alexander G. Ruthven. It will be placed in the herbarium library in the museums building.

DR. SAMUEL THEOBALD, clinical professor emeritus of ophthalmology in the Johns Hopkins University School of Medicine, was honored by the ophthalmologic section of the Baltimore City Medical Society on January 23, the fiftieth anniversary of his discovery of the use of boric acid in direct application to the eye.

DR. H. S. FAWCETT, professor of plant pathology in the Citrus Experiment Station of the University of California, was elected president of the American Phytopathological Society at the recent Des Moines meeting.

DERWENT WHITTLESEY, assistant professor of geography at Harvard University, has been appointed editor of the *Annals* of the Association of American Geographers.

PROFESSOR ARTHUR C. HARDY, of the department of physics of the Massachusetts Institute of Technology, has been chosen by the Society of Motion Picture Engineers to be chairman of its committee on standards. This committee will consider the proposed increase in the width of motion-picture film. The standard film is thirty-five millimeters wide. With the advent of the talking motion picture it was necessary to use about one tenth of an inch from one side of the film for the "sound track," thus narrowing the space available for the picture area. Recently films of widths ranging from fifty to seventy millimeters have been proposed and some experimental pictures have been shown. The object of wider films is to permit the projection of pictures of full stage dimensions.

DR. A. A. LEVINE, who for the past six and a half years has been on the staff of the department of chemistry of the State College of Washington, has resigned to accept a research position with the Roessler and Hasslacher Chemical Company, of Niagara Falls, New York. He is being succeeded by Dr. W. E. Bradt, who for the past two and a half years has been on the teaching and research staff of the department of chemistry of the University of Cincinnati. Dr. Bradt received his bachelor's, master's and doctor's degrees from Indiana University.

DR. C. E. RESSER has been appointed curator of stratigraphic paleontology in the National Museum. He has been connected with the division of paleontology since 1915.

DR. N. ERNEST DORSEY, having completed his work as associate editor of "The International Critical Tables," has returned to the Bureau of Standards.

DR. WILLIAM B. MCDOUGALL, of the University of Illinois, has been appointed visiting professor of botany at the University of Southern California for the spring semester. He will fill the vacancy in the department of botany during the sabbatical leave of Professor Howard de Forest.

DR. HUGH CABOT, dean of the Medical School of the University of Michigan, has been relieved of his duties of that office and as director of the department of surgery. He continues as professor of surgery. The action has been taken owing to differences in questions of policy between Dr. Cabot and the faculty.

DR. CLARENCE C. LITTLE, formerly president of the University of Michigan, will act as director of the Mount Desert Island Biological Laboratory at Salisbury Cove for the coming six months during the absence of Dr. Herbert V. Neal, professor of zoology at Tufts College, who has gone on a scientific expedition to the Nile Valley. Dr. Little is at present director of the Dorr Station of the laboratory as well as director of the Roscoe B. Jackson Memorial Laboratory for Cancer Research.

PROFESSORS EDWIN O. JORDAN and William H. Taliaferro, of the department of hygiene and bacteriology of the University of Chicago, are spending the winter quarter at the School of Tropical Medicine, San Juan, Porto Rico. Professor Hans Smetana, of the University of Vienna, formerly of the Johns Hopkins Medical School and the Peking Union Medical College, has become assistant professor of pathology at the school, holding dual appointments in Columbia University and the University of Porto Rico. Professor George W. Bachman, formerly of the School of Hygiene and Public Health of the Johns Hopkins University, has accepted the post of associate professor of parasitology in Columbia University with duties at the School of Tropical Medicine.

PROFESSOR S. HATAI, of Tohoku Imperial University, Sendai, Japan, has extended an invitation to Professor Charles A. Kofoid, of the University of California, to be visiting professor of biology on the Rockefeller grant. Professor and Mrs. Kofoid sail on March 14 for a period of three months of lectures at the Biological Institute at Sendai and three months at the Marine Biological Station at Asamushi, at the northern end of Hondo, for graduate instruction and research.

MR. MATTHEW W. STIRLING, chief of the Bureau of American Ethnology, left Washington on January 13 for a cruise among the Ten Thousand Islands between Charlotte Harbor and Cape Sable, Florida, where he hopes to discover evidences of the former occupancy of this area by the Caloosa Indians. He is being aided by Mr. Lee Parish, of Tulsa, Oklahoma, whose 85-foot yacht, *Esperanza*, furnishes transportation. After his exploration in the Ten Thousand Islands region Mr. Stirling will excavate a large sand mound on the west coast of Florida, south of Tampa Bay.

C. B. PHILIP, associate entomologist for the Rocky Mountain Spotted Fever Laboratory of the U. S. Public Health Service at Hamilton, Montana, has returned from a tour of eighteen months in West Africa, as entomologist of the Yellow Fever Commission of the Rockefeller Foundation.

MR. M. F. BRAMLEY, of Cleveland, Ohio, has invited the Cleveland Museum of Natural History to send two men with him on a short entomological trip into Central America. The museum secured Dr. George P. Engelhardt, director of natural sciences in the Brooklyn Museum, to make this trip, along with their own entomologist, Mr. John C. Pallister. The party left Long Beach, California, on February 1, in Mr. Bramley's yacht, *The Peary*. This is the yacht used by MacMillan and Byrd on their Arctic expedition. Before going to Guatemala the party will spend a few days on the uninhabited island of Socorro.

DR. H. M. DADOURIAN, professor of mathematics and astronomy at Trinity College, Hartford, Connecticut, has leave of absence. With Mrs. Dadourian he expects to travel in the Near East and Europe, including Russia, returning at the end of September.

PROFESSOR F. A. MELTON, of the department of geology of the University of Oklahoma, will spend seven months from February to September in research work and study in southern and central Europe on the relationship of jointing to orogeny.

DR. PHILIP E. SMITH, professor of anatomy in the College of Physicians and Surgeons of Columbia University, will deliver the fifth Harvey Society lecture at the New York Academy of Medicine on February 20. His subject will be "Relations of the Activity of the Pituitary and Thyroid Glands."

DR. W. F. G. SWANN, director of the Bartol Research Foundation of the Franklin Institute, Philadelphia, recently delivered a lecture before the Royal Canadian Institute on "Philosophical Aspects of Modern Physics."

DR. OSCAR RIDDLE, of the Carnegie Institution, addressed the Commonwealth Club and the University Club of Chicago on January 24 and 25 on "Disclosing Mechanisms of Life."

PROFESSOR V. K. LA MER, of Columbia University, delivered two lectures before the department of chem-

istry of Brown University on January 10 entitled "Solutions of Electrolytes" and "An Extension of the Debye-Huckel Theory to High Valence Ions in Non-aqueous Solutions." Professor La Mer gave the same lectures before the departments of chemistry of the Universities of Wisconsin, Iowa, Nebraska, Kansas and Illinois and the Iowa State College at Ames.

DR. EDWARD FRANCIS, of the U. S. Public Health Service, will give two lectures under the Harrington Foundation at the University of Buffalo Medical School. The first will be on "Tularemia" on February 27, the second on "Undulant Fever" on February 28.

PROFESSOR ROBERT H. GAULT, of Northwestern University, read a paper before the Franklin Institute on the evening of January 30, entitled: "A Partial Analysis of the Effects of Dual Stimulation from Spoken Language."

PROFESSOR FRANCIS E. LLOYD, of McGill University, Montreal, delivered lectures on January 28 and 29 at Ann Arbor and Detroit. At the University of Michigan his subjects were "A Botanist's Tour in Africa" and "The Comparative Morphology and Physiology of the Bladders of Utricularia." In Detroit he spoke under the auspices of the United States Rubber Company on the "Culture of Plantation Rubber."

DR. FRIDTJOF NANSEN will lecture in London on "The Importance of Meteorological Research" on March 14 before a joint meeting at the Institution of Electrical Engineers of the Royal Aeronautical Society and the Royal Meteorological Society.

THE program of the non-biological science section of the Ohio State University Educational Conference on April 4, which will be presided over by Professor Wm. Lloyd Evans, is as follows: "Matter and Energy," Professor Alpheus W. Smith, the department of physics, the Ohio State University; "Symmetrical and Unsymmetrical Hydrogen," Professor Herrick L. Johnston, the department of chemistry, the Ohio State University; "An Interpretation of the New Mechanics," Dr. Saul Dushman, the research laboratory, the General Electric Company; "What are the Stars?" Professor H. T. Stetson, the department of astronomy, the Ohio Wesleyan University; "Some Applications of the New Mechanics to Physics and Chemistry," Dr. Saul Dushman; "What is Light?" Professor Arthur H. Compton, the department of physics, the University of Chicago.

PRESIDENT J. Y. SNIDER, of the American Association of Petroleum Geologists, in a letter addressed to the chairman of the section of geology and geography of the American Association for the Advancement of Science, extends a cordial invitation to all association members to attend the annual convention of the petroleum geologists to be held in New Orleans on March 20, 21 and 22, with headquarters at the Roosevelt Hotel. Those interested may obtain further information concerning this meeting by addressing J. P. D. Hull, Box 1852, Tulsa, Oklahoma.

DR. J. MURRAY LUCK, secretary of the Pacific Division of the American Association for the Advancement of Science, writes that at the thirteenth annual meeting of the division announcement was made that a prize of $100 would be awarded to the authors of the most important scientific contribution reported at the Berkeley meeting. The amount of the prize was increased by recent action of the executive committee to $150. Five papers were submitted to the committee on award as being worthy of consideration. Acting on recommendations received, the executive committee at its last meeting awarded the prize to the investigations on the isotopes of oxygen pursued by W. F. Giauque and H. L. Johnston, of the University of California, and H. D. Babcock, of the Mount Wilson Observatory. In this work convincing evidence was presented of the existence in small proportions of two isotopes of oxygen, masses seventeen and eighteen. The committee also acknowledged the unselfish services of Professor R. T. Birge, an international expert in matters relevant to the study of spectral lines, whose contributions were of invaluable assistance in bringing these investigations to a successful conclusion. Honorable mention was made of the contribution by E. B. Babcock and J. L. Collins, of the University of California, on the "Rate of Mutation in *Drosophila melanogaster* as Affected by Differences in Earth Radiation."

The University of Texas has recently come into possession of somewhat more than $800,000 bequeathed to it by the late W. J. McDonald, of Paris, Texas, for erecting, equipping and maintaining an astronomical observatory. The bequest was contested by relatives and the amount mentioned above is the result of a compromised suit. The university will proceed very carefully and slowly to plan for the future McDonald Astronomical Observatory, availing itself of the advice of the most competent astronomers.

H. R. FRY has given an eight-inch refracting equatorial telescope to the University of London Observatory in Mill Hill Park, which is administered by University College.

THE Research Corporation of New York has appropriated $15,000 for the work of the division of radiation and organisms of the Smithsonian Institution.

THE *Journal* of the American Medical Association reports that during the twelfth International Ophthalmological Congress, I. Van der Hoeve, president of the congress, and E. Marx, secretary, called a meeting at which the representatives of the following states and cities were present: Van der Hoeve, Leyden; Jitta and F. Wibaut, Amsterdam; Angelucci and V. Rossi, Naples; Lutrario, Rome; Emile de Grosz, Budapest; Auerbach, Moscow; F. Avizonis, Lithuania; F. H. Beaumont, New Zealand; Birch-Hirschfeld, Königsberg; Coppez, Brussels; A. Feigenbaum, Jerusalem; Gray Clegg, Manchester; Hamburg, Roumania; Hanke, Vienna; F. Humbert and Morax, Paris; Imre, Pécs; Lundsgaard, Copenhagen; Lussich-Matkovic, Zagreb; Marquez, Madrid; M. Nakashima and S. Myashita, Japan; J. Park Lewis, Buffalo; Walter R. Parker, Detroit; C. Pascheff, Sofia; Pavia, Buenos Aires; Soria, Barcelona; Symansky, Warsaw; Charles Weiss, United States; W. H. Wilder, Chicago; R. E. Wright, Madras; M. Zachert, Poland. The spread of trachoma and the necessity of the campaign against it were set forth in an exhaustive report by Lutrario and Jitta, delegates of the Comité d'hygiène of the League of Nations. It was resolved to form an international league, in accordance with the motion of Van der Hoeve. Dr. Emile de Grosz, professor of ophthalmology at the University of Budapest, was appointed president, and Dr. F. Wibaut, secretary. They were entrusted with the formation of a committee from among the delegates of the ophthalmic societies and leagues already existing. The president was authorized to communicate with the Comité d'hygiène of the League of Nations and the Rockefeller Foundation to endeavor to enlist their aid in the movement.

AN extensive trip by the department of geology of Princeton University is being planned for next summer, when the party will make a journey of more than 10,000 miles throughout the United States. Under the leadership of Professor Richard M. Field, chairman of the department, an investigation of the principal natural resources of the United States and their relation to national and international trade and transportation will be made. Besides a number of American scientific men, the party will include representatives from Germany, England, France and probably Italy and Japan. Among these will be Dr. Hans Schneiderhohn, professor of economic geology at the University of Freiberg, and Dr. Harbort, lecturer in the Technische Hochschule, Berlin.

A gift of $50,000 to the Massachusetts Horticultural Society, by its president, Albert C. Burrage, was announced at the inaugural meeting of the society. Mr. Burrage stipulates that this gift is to be divided into two funds, one amounting to $30,000 and the other to $20,000. The income from the former is to be used to purchase books for the society's library, already recognized as the largest and best horticultural library in the world. The income from the second fund is to be used for a gold cup to be awarded at the end of each year for the best exhibit which has been made at any of the society's exhibitions in the course of that year. Another gift of $2,500 came from W. N. Craig, of Weymouth, to be used for the improvement of lilies.

DISCUSSION

BACTERIUM GRANULOSIS AND TRACHOMA

TWO expeditions to Indian schools in the southwest for the purpose of confirming Dr. Noguchi's work on trachoma[1] were undertaken in May and September, 1929. The invaluable cooperation of Drs. F. I. Proctor, P. Richards and J. F. Lane in this work is hereby gratefully acknowledged.

Three types of cases have been examined: first, cases of undoubted trachoma in pupils who had been in school for some time and had received treatment in the usual way; second, similar cases which had received no treatment, and finally, untreated cases of recent onset. Noguchi's original isolations of *Bacterium granulosis,* on his expedition to the southwest in 1926, were obtained with advanced untreated cases, and our isolations have so far been obtained either from untreated cases or cases which had had no treatment for several months previous to culturing. However, it is probable that treated cases can be made to yield *Bacterium granulosis* by repeated bacteriological examination.

Our first expedition yielded two strains of *Bacterium granulosis* from two advanced untreated cases. Negative results were obtained in five advanced cases which were undergoing treatment and in three cases in which the diagnosis was uncertain. The cultures were made on horse blood agar and on the Noguchi semisolid leptospira medium and examined on our return to New York, nine days after their preparation.

Our second expedition yielded four strains, two from advanced cases, with abundant scar tissue, one from a case in which the formation of scar tissue was just beginning and one from a recent case in which no scar tissue was present. These four cases had received no treatment for six months previous to culturing. Eleven advanced cases undergoing treatment yielded no *Bacterium granulosis,* nor did six cases in which the diagnosis of trachoma was doubtful.

[1] H. Noguchi, *J. Exper. Med.,* 48, Suppl. No. 2, 1928.