

Shepard will proceed inland, probably under the direction of the British forestry officers. An attempt will be made to reach the hills in the interior. The next stop on the itinerary is the Lake Maracaibo region, where a complete collection of the woods and plants will be made. These are of particular interest to Professor Samuel J. Record, of the Yale School of Forestry, who will compare the complete wood collection from the region with those from other coastal lands. It is highly probable that many unusual specimens will be found.

After finishing the survey in Venezuela the party will sail to the region near Anachucuna Bay on the Colombia-Panama border and will attempt to reach the Caledonian Pass leading to the Pacific Ocean. The ship will proceed up the Caribbean to the Canal Zone to await the party. The homeward journey will include brief stops at many points along the Central American coast and the ship will reach New York after next July.

The botanical collection made will be shipped from time to time to the New York Botanical Garden for identification, and the garden undertakes to distribute the duplicate sets to various museums, and botanical and educational institutions as a part of its cooperative work with Mr. Cooper. Mr. Cooper has previously prosecuted successful exploring expeditions in both tropical America and tropical Africa.

THE RESEARCH LABORATORY OF THE GENERAL ELECTRIC COMPANY AND DR. WHITNEY

DR. WILLIS RODNEY WHITNEY, organizer and for thirty-two years director of the research laboratory of the General Electric Company, retired owing to poor health on November 1. He was succeeded, by appointment of Gerard Swope, president of the company, by Dr. William David Coolidge, senior associate director of the laboratory. Dr. Whitney continues as vice-president in general charge of research.

Dr. Whitney's retirement was unexpected to most of his colleagues in the laboratory, although several times recently he has been granted leaves of absence to enable him to recuperate his strength. He has been

exceptionally busy with his laboratory duties since its enlargement in 1925 by the erection of a six-story building to accommodate the expanding activities of the institution.

The research laboratory was established in 1900 through the executive foresight and courage of Edwin W. Rice, Jr., then technical director of the General Electric Company. Dr. Whitney was obtained to take charge of the work in that year, coming from Massachusetts Institute of Technology, where he was an instructor. The first work of the laboratory was done in an old barn which was then used by the late Dr. Charles P. Steinmetz as a private laboratory. A few months later the laboratory was given a small building at the General Electric works. One of the first laboratory achievements was a new type of incandescent electric lamp, developed by Dr. Whitney himself.

The growth of the laboratory began with this work, and from 1903 it was constantly expanding. In 1906 Dr. Whitney persuaded Dr. Coolidge to go to the laboratory from the Massachusetts Institute of Technology, and in 1909 Dr. Irving Langmuir went from the Stevens Institute of Technology. Through the work of these two investigators such developments as drawn, or ductile, tungsten, the gas-filled incandescent lamp, the modern high-power electronic, or vacuum tube, improved x-ray tubes and atomic hydrogen welding were brought to successful culmination.

By 1920 the laboratory staff had grown to more than three hundred persons, about half of whom were trained scientific men. The value of the laboratory had become firmly recognized long before, and its maintenance represented an expenditure of millions of dollars annually. Its fame had spread to foreign lands. To the American public it is now renowned as the "House of Magic," a name bestowed upon it by Floyd Gibbons in his radio talks.

Dr. Coolidge, the new director, is a native of Hudson, Massachusetts. He was trained at the Massachusetts Institute of Technology and the University of Leipzig. He was appointed assistant director of the laboratory in 1908, and associate director in 1928, a title also held by Dr. Langmuir.

SCIENTIFIC NOTES AND NEWS

At the meeting of the National Academy of Sciences, to be held at the University of Michigan, Ann Arbor, on November 14, 15 and 16, the evening address on the opening day will be given by Professor Arthur H. Compton, of the University of Chicago. His subject will be "A Geographic Study of Cosmic Rays."

THE Grasselli Medal for 1932 was awarded to Dr. George L. Clark, of the University of Illinois, at a

combined meeting of the New York Section of the Society of Chemical Industry, the American Chemical Society, the Electrochemical Society and the Société de Chimie industrielle, which was held on November 4. The program was as follows: "Accomplishments of the Medalist," Rosecoe H. Gerke; presentation of the medal, A. E. Marshall, and "A Decade of Applied X-Ray Research," George L. Clark.

THE Penrose Medal of the Geological Society of

America, named in honor of its founder, the late Dr. Richard Alexander Fullerton Penrose, Jr., is to be awarded this year to Dr. Edward Oscar Ulrich, who for the past twenty-five years has been geologist of the U. S. Geological Survey. The medal, which is of gold, is awarded for an outstanding contribution in geologic science, and is to be given to Dr. Ulrich in recognition of his researches in Paleozoic stratigraphy. Presentation will be made at the forty-fifth annual dinner of the society, to be held at Harvard University on December 29. Dr. Ulrich is the fifth recipient of the medal, the first award having been made in 1927 to the late Professor Thomas Chrowder Chamberlin. Awards have also been made to Dr. J. J. Sederholm, of Finland; Dr. F. A. A. Lacroix, of France, and Professor William Morris Davis, the dean of American physiographers. Dr. Penrose, founder of the medal and a former president of the Geological Society of America, died in July, 1931, leaving to science virtually his whole estate, amounting to \$10,000,000. The Geological Society, with headquarters at Columbia University in New York, and the American Philosophical Society in Philadelphia were named joint residuary legatees, each receiving over \$4,000,000.

The first four of a series of portraits of distinguished engineers and scientific men which are being painted under the sponsorship of Mr. and Mrs. Henry A. Wise Wood, of New York, were formally presented to the Massachusetts Institute of Technology on October 25. The subjects of the portraits are Dr. Elihu Thomson, the electrical engineer, a member of the corporation of the institute; Dr. Ambrose Swasey, the mechanical engineer; Rear Admiral David Watson Taylor, who from 1914 to 1922 was chief constructor of the United States Navy, and Joseph Priestley, the chemist, discoverer of oxygen. These portraits are the work of Miss Margaret Fitzhugh Browne, the Boston artist. They now hang in the various departments of the institute in which the achievements of these men have special significance.

EDWARD BAUSCH, president of the Bausch and Lomb Optical Company, Rochester, New York, will be guest of honor at the thirty-fourth annual dinner of the Society of the Genesee at the Hotel Commodore, New York City, on Monday evening, January 23, 1933, according to an announcement made by Elon H. Hooker, president of the Hooker Electrochemical Company and president of the society. Head of the organization founded by his father, Mr. Bausch's life-work has been the manufacture of lenses and microscopes. He is the author of a text-book on the construction and manufacture of the microscope and is an inventor of optical instruments.

DR. CHARLES HASKINS TOWNSEND completed on

November 2 thirty years as director of the New York Aquarium. After the doors of the aquarium were closed the twenty-nine co-workers and employees made a presentation to Dr. Townsend at a reception given in his honor.

DR. HAVEN EMERSON, New York, was named president-elect of the American Public Health Association at the close of the annual session in Washington, D. C., on October 26. Dr. John A. Ferrell, New York, was installed as president. Vice-presidents elected were Drs. Arthur T. McCormack, Louisville; John Sundwall, Ann Arbor, and William P. Shepard, San Francisco. Indianapolis was chosen as the next meeting place.

At a meeting of the council of New York University, held on October 24, Dr. Samuel A. Brown, formerly dean of the University and Bellevue Hospital Medical College, was given the honorary title of dean emeritus. Dr. Austin Flint's resignation as professor of obstetrics was accepted and he was given the honorary title of professor emeritus of obstetrics.

PRESIDENT BRADFORD KNAPP, of the Alabama Polytechnic Institute, has been appointed president of the Texas Technological College at Lubbock.

DR. ROLAND P. DAVIS has been elected dean of the Engineering College of West Virginia University, to succeed Clement R. Jones, who has retired with the title of dean emeritus.

DR. C. LEONARD O'CONNELL, associate dean of the University of Pittsburgh School of Pharmacy for the past two years, has been elected dean. He succeeds Dr. Julius Arnold Koch, who has become dean emeritus after forty-one years' service as dean and fifty years with the school.

DR. SANTE MATTSON, professor of soils and associate soil chemist of Rutgers University and the New Jersey Experiment Station, has resigned to accept an appointment as professor of soil chemistry in the University of Upsala, Sweden.

DR. HAROLD J. STEWART has been appointed associate professor of medicine at Cornell University Medical College and attending physician at the New York Hospital. Dr. James Lionel Alloway has been appointed assistant professor of bacteriology in the medical college.

DR. FRANCES KRASNOW, for fifteen years on the staff of the department of biological chemistry, Columbia University College of Physicians and Surgeons, has joined the staff of the School for Dental Hygienists, Guggenheim Dental Clinic.

DR. JOHN E. MERRILL has been appointed curator of astronomy at the Buffalo Museum of Science. Dr.

Merrill has been research associate at the Warner and Swasey Observatory, the Case School of Applied Science, and assistant professor of astronomy at the University of Illinois.

DR. STEFAN KOPEĆ, formerly chief of the department of experimental morphology in the Government Institute for Agricultural Research at Pulawy, Poland, has been appointed professor of biology at the University of Warsaw.

DR. G. S. ADAIR, King's College, London, has been appointed assistant director of physiological research at the University of Cambridge.

THE Robert Gair Fellowship at the Mellon Institute, Pittsburgh, Pennsylvania, for research on moisture-proofing and grease-proofing paper-boards for cartons and boxes, has been renewed, with Dr. Marion D. Coulter in charge.

PROFESSOR SAMUEL C. LIND, director of the School of Chemistry of the University of Minnesota, has been appointed editor of the *Journal of Physical Chemistry* to take effect on December 1. A board of eight assistant editors, four in this country and four in England, have been appointed. Dr. Lind succeeds Professor Wilder D. Bancroft, of Cornell University, who established the journal thirty-six years ago and has since been its editor.

DR. HOWARD T. KARSNER, professor and director of the Institute of Pathology of Western Reserve University, Cleveland, has been elected the United States member of the executive committee of the International Society for Geographic Pathology. The other members are Professors Askanazy, Switzerland; Aschoff, Germany; de Josselin de Jong, Holland, and Roussy, France.

DR. HERBERT E. LANDES, of Chicago, has received a grant from the Committee on Scientific Research of the American Medical Association on Medical Research for his work on the "Mechanics Underlying the Development of Residual Urine." A grant has also been received from the committee by the Department of Pharmacology, College of Medicine, Syracuse University, in support of the research of Dr. Jane Sands Robb on the blood supply of the individual muscles of the heart.

PROFESSOR J. A. CROWTHER, professor of physics in the University of Reading since 1924, has been elected honorary secretary of the Institute of Physics, in succession to Professor A. O. Rankine.

DR. G. A. COOPER, assistant curator of invertebrate paleontology of the U. S. National Museum, has returned from an extensive field trip in eastern Canada and eastern New York. In Canada Dr. Cooper collected Ordovician, Silurian and Devonian fossils.

ACCORDING to *Museum News*, Colonel Seymour Sewell, director of the Indian Museum at Calcutta, will lead an oceanographical expedition to study the Indian Ocean during the period of August, 1933–April, 1934. The investigation will include the Arabian Sea and the Gulfs of Omar and Aden. Funds are to be provided by the trustees of the late Sir John Murray. The committee organizing the expedition consists of Admiral Douglas, representatives of the Natural History Museum (London), the Royal Society, and the Plymouth Marine Station, with J. C. Murray as chairman and J. Stanley Gardiner as secretary.

DR. IVAN M. JOHNSTON, research associate of the Arnold Arboretum of Harvard University, recently appointed to a Guggenheim fellowship, sailed on November 10 for a year of study in England, Argentina and Chile. He will assemble data for a discussion of the extent and significance of the trans-equatorial relationship existing between the floras of the more or less arid regions of North and South America.

DR. REGINALD RUGGLES GATES, since 1921 professor of botany, King's College, London, opened the 1932–1933 series of De Lamar lectures in hygiene at the School of Hygiene and Public Health of the Johns Hopkins University with three lectures on October 19, 20 and 21. His subject was "The Principles of Heredity and Their Application to Human Society."

DR. COLIN G. FINK, head of the division of electrochemistry at Columbia University, will give an address on "The Electrochemist in Art and Archeology" on November 11, before a meeting of the American Institute of Chemists at the Chemists' Club, New York City.

THE first regular meeting of the Middletown, Conn., Scientific Association, which was held on November 1, was addressed by Dr. O. Winge, professor of genetics at the Royal Veterinary and Agricultural College at Copenhagen. His subject was "Heredity and Society." Bradford Washburn, leader of the Mt. Fairweather Expedition in Alaska, and Professor Charles P. Berkey, Newberry professor of geology at Columbia University, are expected to speak at subsequent meetings.

AT the School of Medicine of The George Washington University a new society named in honor of Theobald Smith, Walter Reed and Frederick F. Russell, all former professors of bacteriology in the institution, has been formed. The students in the school of the upper three classes whose scholastic average is 86 or above are eligible for membership. The Smith-Reed-Russell Society is sponsoring a series of lectures during the present academic year. Professor Robert W. Hegner, of the Johns Hopkins University, was the

first speaker on this series and other speakers during the year will be Professor Edwin O. Jordan, Professor William H. Howell, Professor Stanhope Bayne-Jones, Dr. Maurice C. Hall, Professor James W. Jobling and Dr. Warren C. Vaughn. These lectures are given once a month to the faculty and student body in the School of Medicine.

DR. ARTHUR H. RING, secretary-treasurer of the American Academy of Physical Therapy, writes that the tenth annual meeting of the academy was held in the Hotel Walton in Philadelphia on October 12, 13 and 14. The first session was devoted to papers and discussions concerning the value of sunlight, cli-

mate and spa treatment of various diseases. There were reported in considerable detail the results of the studies on rheumatic heart disease in children, carried on the past two years under the general direction of Dr. Paul D. White, of Boston. On Wednesday afternoon there was a demonstration and discussion of the various lesions of arthritis and latest methods of treatment. Thursday and Friday were devoted to other papers on physical therapy of interest to members of the medical profession. There were clinics daily at the University of Pennsylvania Hospital, Jefferson Medical College Hospital and Temple University Hospital.

DISCUSSION

RADIO STUDIES DURING THE LEONID METEOR SHOWER OF NOVEMBER

16, 1932

THE Leonid meteor shower of this November promises to afford the best opportunity for testing the hypothesis^{1,2} of a meteoric effect on radio transmission that has occurred since the advent of radio or that is likely to occur again until 1965. This is the year of maximum in the present 33 year cycle of this group of meteors. Because of the importance of studies of upper atmospheric ionization it is hoped that those who have suitable radio apparatus available will take advantage of the opportunity.

The Leonids are the swiftest of recurring meteors and therefore have the most energy for ionization.

Although the shower did not occur in 1899, because of the perturbations of the group due to the near approach of Jupiter, the excellent return exhibited last November and recent calculations based on their orbit and period lead to the hope of a truly great shower this year.

It is difficult to predict so far in advance (six weeks) the magnetic character of the day. November 16 falls near a sequence of magnetic storms and it is possible that if one occurs it will not start until the 17th or 18th. To offset the effects of a possible disturbance, radio observations outside of the auroral zones would be particularly advisable.

C. C. Wylie³ has calculated the probable time of maximum for the shower to be November 16 at 1900 G. C. T. If it does occur at this time, stations in the Pacific are most favorably located for both radio and visual observation. For America the best time for

observation would be the early morning hours of November 16th and for Europe those of the 17th.

BELL TELEPHONE LABORATORIES A. M. SKELLETT
NEW YORK, N. Y.

GEOLOGY—AN EASIER STUDY FOR BOYS OR FOR GIRLS?

FOR ninth-grade students, Victor C. Smith¹ concludes that physiography is not appreciably easier for boys than for girls. For a group of older students, who may be considered on the border-line between boys and girls and men and women, I find that physical geology is markedly easier for boys.

The group in question consists of 473 young men and women (214 and 259), whom I have had in an introductory, one-semester course in physical geology during the past four years. Nearly all are first or second semester college freshmen, 17 to 20 years of age. Instruction consists of lectures, laboratory work and field trips. No text-book is used, but students are encouraged to supplement class work by outside readings in all recent texts available. As the average size of a class is 25, there is considerable personal contact between instructor and student, especially in the laboratory and in the field. Grading for the course is on the following basis: A—exceptionally good, B—distinctly good, C—fair, D—unsatisfactory, E—failure. The individual student is graded on his work with no conscious effort to follow a distribution curve for the grades of the class as a whole. Tabulation of grades attained furnishes results given in the accompanying table.

The number of students doing exceptionally good work is too small to be of much significance, but, considering distinctly good work as well as that which is not satisfactory, the boys make much the stronger

¹ A. M. Skellett, *Phys. Rev.*, 37, 12, 1668. June, 1931.

² A. M. Skellett, J. P. Schafer and W. M. Goodall, forthcoming papers in *Proc. I. R. E.*

³ *Pop. Astron.*, 40, 2, 97.

¹ Victor C. Smith, "Sex Differences in the Study of General Science," *SCIENCE*, lxxv, 1932, 55-57, January 8, 1932.