

interest to physicists has been selected. "The Application of Optical Methods and Instruments to Chemical Research" will be discussed, A. Herman Pfund presiding over the week's program. The speakers will be Dr. Pfund, George F. A. Stutz, H. E. Merwin and Ralph H. Muller.

The final week will be devoted to the subject of "Catalysis." J. C. W. Frazer will be chairman of the program for the week of July 24, and the speakers for the conference will include Paul Hugh Emmett, Dr. Frazer, Arthur F. Benton, J. A. Becker and Herbert G. Tanner.

Those interested in the conferences may register for the full five weeks, or for any part of the program that attracts them. Cottages on the shore of the Chesapeake Bay, within commuting distance of the university, are available for those who wish to combine a summer vacation with scientific study and discussion.

IN HONOR OF DR. ELIHU THOMSON

ACCORDING to the final plans for the dinner held at the Massachusetts Institute of Technology on March 29, leaders in science, engineering and education paid tribute to Dr. Elihu Thomson, dean of electrical engineers and inventor, on his eightieth birthday.

A correspondent writes: "Within the span of four score years Dr. Thomson, a pioneer in electrical science, has witnessed and played an important part in the development of the country's great electrical industry. He is the last of the magnificent 'big four,' Thomas A. Edison, Charles F. Brush and James J. Wood. Three of them gave the people electric lighting systems, Edison invented the incandescent lamp. To-day Dr. Thomson is the 'last of the first,' with more than seven hundred United States patents to his credit. From 1920 to 1922 Dr. Thomson was acting president of the Massachusetts Institute of Technology. He is a life member of its corporation and a non-resident professor of applied electricity."

On the afternoon of Dr. Thomson's birthday there was a conference at which brief lectures on the historical development of the applications of electricity, modern theories and the present trends of research were presented. According to the program, President Karl T. Compton, of the Massachusetts Institute of Technology, discussed the historical aspects of electricity

with particular reference to Dr. Thomson's achievements in this field. Dr. John C. Slater, head of the institute's department of physics, discussed modern theories of electricity, and Dr. K. K. Darrow, research physicist at the Bell Telephone Laboratories, spoke on the trends of modern research.

As part of this celebration, many models and some of the originals of Dr. Thomson's most significant inventions were on exhibition. This exhibition was open to guests on Wednesday, continuing for the public from Thursday to Sunday, from 2 to 5 p. m. The models included the frictional electrical machine made from a discarded wine bottle by Dr. Thomson when he was eleven years old, and a dynamo invented in 1878, which has all the essentials of the great modern generators. Many early types of the arc lamps designed by Dr. Thomson and his colleague, Professor E. J. Houston, are shown. One of the most significant exhibits was the Thomson recording wattmeter, forerunner of the 30,000,000 meters now installed in homes, factories and stores to record the amount of energy consumed. There were shown early types of lightning arresters, as well as Dr. Thomson's first electrical resistance welding transformer, a method which is now universally used in almost every branch of manufacturing.

It was expected that President Karl T. Compton would preside at the dinner, at which Governor Joseph B. Ely, of Massachusetts, would voice the tribute of the people of Massachusetts to Dr. Thomson. George B. Cortelyou, president of the Consolidated Gas Company of New York, was expected to speak for the electrical industries and Dr. Harry P. Charlesworth, president of the American Institute of Electrical Engineers, in the name of the engineering societies, to pay honor to the inventor. The tribute of educational institutions, many of which had bestowed upon Dr. Thomson their highest academic honors, was to be given by Dr. Vannevar Bush, vice-president of the institute and dean of engineering. Other speakers announced were Dr. Harvey Cushing, of Harvard University, who represented professions other than engineering, and Mr. E. W. Rice, Jr., honorary chairman of the board of the General Electric Company, its former president, and one of Dr. Thomson's earliest associates in the electrical industry in Lynn, for his friends and colleagues.

SCIENTIFIC NOTES AND NEWS

DR. WILLIAM H. WELCH, whose eighty-third birthday occurred on April 8, has been confined to the Brady Clinic of the Johns Hopkins Hospital since February 1. It is announced that there is a slow improvement in his condition.

DR. THEOBALD SMITH, of the department of animal pathology, Rockefeller Institute for Medical Research, Princeton, New Jersey, will deliver the Thayer Lectures at the Johns Hopkins Medical School on April 5, 6 and 7.

PROFESSOR ARTHUR H. COMPTON, of the University of Chicago, will direct courses in "Electricity and Magnetism" and on "X-Rays and Electrons" during the summer session of Columbia University.

At a dinner in celebration of the seventy-fifth anniversary of the Pathological Society of Philadelphia on March 9, honorary membership was conferred on Drs. Harvey Cushing and Frank B. Mallory, of the Harvard Medical School; on Dr. James Ewing, of Memorial Hospital, New York, and Dr. Karl Landsteiner, of the Rockefeller Institute. Dr. Fielding H. Garrison, of the Johns Hopkins University, and Dr. David Riesman, of the University of Pennsylvania, were the principal speakers.

DR. FRITZ VON WETTSTEIN, professor of botany at Munich, has been elected a member of the Bavarian Academy of Sciences. Corresponding members have been elected as follows: Dr. Franz Meyer, professor of mathematics at Königsberg; Dr. Kurt Hensel, professor of mathematics at Marburg; Dr. Paul Guthnick, professor of astronomy at Berlin, and Professor Hans Ludendorff, director of the Astrophysical Observatory at Potsdam.

THE Royal Aeronautical Society has awarded its gold medal to Sir Richard Glazebrook, from 1899 to 1919 director of the British National Physical Laboratory. This medal has been awarded six times previously: to the Wright brothers, Octave Chanute, Professor Bryan, E. T. Busk, Professor Lanchester and Professor L. Prandtl. Sir Richard Glazebrook has been chairman of the Aeronautical Research Committee since its formation as the Advisory Committee for Aeronautics in 1909. He is retiring from the position next month.

At the fifty-fifth annual general meeting of the Institute of Chemistry, held in London on March 1, the Meldola Medal was presented to Dr. Leslie Ernest Sutton, of Oxford, and the Sir Edward Frankland Medal and Prize to Dr. Leslie Young, of the Royal College of Science. Dr. Jocelyn Field Thorpe, professor of organic chemistry in the Imperial College of Science and Technology, London, was elected president in succession to Dr. G. C. Clayton, director of Imperial Chemical Industries.

DR. WILLIAM BOWIE, chief of the division of geodesy, U. S. Coast and Geodetic Survey, was reelected honorary president of the Pan-American Institute of Geography and History at the congress held last December in Rio de Janeiro, Brazil.

THE officers of the Harvey Society for 1933-34 are as follows: *President*, Alfred F. Hess; *Vice-president*, R. Keith Cannan; *Treasurer*, T. M. Rivers; *Secretary*, Edgar Stillman; *Council*, S. R. Benedict, Robert F. Loeb and Wade H. Brown.

DR. ARTHUR B. LAMB, president of the American Chemical Society, was the speaker at a luncheon meeting of the writers of abstracts and the assistant editors of *Chemical Abstracts* on March 28. Dr. Charles E. Munroe, who was honorary chairman of the Washington meeting of the American Chemical Society and who has served as an assistant editor of *Chemical Abstracts* since its beginning in 1907, was also a guest of honor.

DR. CHARLES FREDERICK ROOS, formerly assistant professor of mathematics at Cornell University and later permanent secretary of the American Association for the Advancement of Science, has been awarded a Guggenheim fellowship. He plans to write a book on dynamical economics in consultation with European scholars.

DR. A. R. MOORE, research professor of general physiology, University of Oregon, sailed from San Francisco for Japan on March 24, to spend a year as visiting professor of biology in the Tohoku Imperial University at Sendai. He will be in the Biological Institute of the university, the director of which is Professor Shinkishi Hatai. The visiting professorship is maintained by the Rockefeller Foundation.

PROFESSOR J. PROUDMAN has been appointed to the chair of oceanography at the University of Liverpool, vacant through the death of Professor J. Johnstone.

HERBERT L. DAVIS, for the past four years a Heckscher research assistant to Professor W. D. Bancroft at Cornell University, has been appointed assistant professor of chemistry at Westminster College, New Wilmington, Pennsylvania.

DR. CORNELIA T. SNELL has left the Fifth Avenue Hospital to take a position at the College of Physicians and Surgeons of Columbia University. She will work with Drs. T. F. Zucker and Benjamin Berg in connection with their studies of diabetes.

PROFESSOR RALPH J. FOGG, formerly head of the department of civil engineering at Lehigh University, is serving as a technical expert under the National Transportation Committee.

DR. OTTO APPEL, director of the Federal Biological Experiment Station at Berlin, Germany, will visit the Wisconsin potato sections this summer following his visit to the Century of Progress Exposition in Chicago.

DR. R. E. COKER, professor of zoology at the University of North Carolina, who is on leave of absence from the university on the Kenan Foundation during 1932-33, is working at the University of Paris.

A PAPER by Dr. M. A. Tuve and L. R. Hafstad on "Atomic Nuclear Studies at the Department of Ter-

restrial Magnetism," was presented before the Philosophical Society of Washington on March 25.

MR. JOHN RUEL MANNING, in charge of technological investigations, Bureau of Fisheries, Washington, addressed the Alpha Mu chapter of Tri Beta at Western Maryland College on March 21, on "The Nutritional Value of Marine Products."

PROFESSOR JAMES WESTFALL THOMPSON addressed the History of Science Club at the University of California in Berkeley on March 3 on German science in the fourteenth and fifteenth centuries, giving a presentation of the mathematical achievements and the interconnections of Jordanus Nemorarius, Georg Purbach, Regiomontanus and Cardinal Nicholas of Cusa.

THE Bruce-Preller lecture of the Royal Society of Edinburgh will be delivered by Professor C. H. Lander, on October 23. His subject will be "The Utilization of Coal."

A SYMPOSIUM on the utilization of coal, arranged by the British Science Guild, was held on March 27 at the Royal Institution under the chairmanship of Mr. H. T. Tizard. The speakers included Captain B. Acworth, S. Lacey, Eng.-Rear-Admiral W. Scott Hill and A. C. Hardy. The discussion was opened by Dr. O. M. W. Sprague.

DURING February and March the following visitors gave clinics at the Duke Hospital of the Duke University School of Medicine: Dr. Addison G. Brenizer, of Charlotte, on "The Evolution of Thyroidectomy"; Dr. Hugh Trout, of the Jefferson Hospital, Roanoke, on "The Surgical Treatment of Pulmonary Tuberculosis"; Dr. W. W. S. Butler, Jr., of the Jefferson Hospital, Roanoke, on "Transurethral Resection of Prostate"; Dr. Thomas M. Rivers, of the Hospital of the Rockefeller Institute, on "Filterable Viruses in Relation to the Practice of Medicine"; Dr. B. C. Willis, of the Boyce-Willis Clinic, Rocky Mount, North Carolina, on "Perforated Wounds of the Abdomen."

THE fifth lecture to the faculty and students of the School of Medicine, the George Washington University, on the Smith-Reed-Russell Society series was given on March 16 by Dr. Maurice C. Hall, chief of the Zoological Division of the Bureau of Animal Industry, U. S. Department of Agriculture. Dr. Hall's subject was "Drama Anthelmintica." The next lecture in this series, to be given on April 6, by Dr. William H. Howell, chairman of the National Research Council, is entitled "Recollections of a Physiologist during the Past Half Century." The regular faculty seminar for March was given by Professor Charles S. White, of the department of surgery, who spoke on "Chronic Peptic Ulcer in Childhood."

DR. BRONISLAW MALINOWSKI, professor of anthropology in the School of Economics of the University of London, gave a series of lectures on the Messenger Foundation at Cornell University during March on "The Development of Culture: an Enquiry into the Function, Origins and Evolution of Human Beliefs, Customs and Social Organization." The Messenger lectures on the evolution of civilization were inaugurated in 1925, the first lecturer being Professor James H. Breasted, whose subject was the origins of civilization. Other lecturers have been Robert A. Millikan, H. J. C. Grierson, Thomas F. Toot, Edward L. Thorndike, Roseoe Pound, Thomas H. Morgan and Frank Jewett Mather, Jr.

THE Rutgers University chapter of Sigma Xi adopted last year the plan of having monthly lectures, sometimes by members of the university faculty, describing their own research work, and sometimes by visitors. The same plan has been in effect this year, and the complete program is as follows: October, Dr. S. A. Waksman, New Jersey Agricultural Experiment Station, "Humus"; November, Dr. Hugh S. Taylor, Princeton University, "The Concept of Speed in Chemical Reactions"; December, Dr. T. C. Nelson, Rutgers University, "A Comparative Study of the Feeding Mechanism of American and European Oysters"; January, Dr. J. W. Shive, New Jersey Agricultural Experiment Station, "The Role of Iron in Plants"; February, Dr. C. G. Abbot, Smithsonian Institution, "The Sun"; March, Dr. T. J. Headlee, Rutgers University, "Some Effects of High Frequency Electrostatic Fields on Insects"; April, Dr. Homer W. Smith, New York University Hospital, "The Physiological Evolution of the Kidney."

PUBLIC lectures to be given on Saturday at 3:30 p. m. at the New York Botanical Garden are as follows: "Spring Wild Flowers," Dr. John Hendley Barnhart, bibliographer and administrative assistant; "Floral and Scenic Features of the Bahamas," Dr. Marshall A. Howe, assistant director; "Minute Marvels of Aquatic Life," Mr. Robert Hagelstein, honorary curator of Myxomycetes; "Sex in the Fungi," Dr. B. O. Dodge, plant pathologist; "Variegated Plants," Dr. A. B. Stout, director of the laboratories; "Floral and Scenic Features of Porto Rico," Dr. H. A. Gleason, head curator; "Travels through the Mountains of Colorado, Wyoming and South Dakota," Dr. Fred J. Seaver, curator; "A Trip to the Philippines," Dr. Elmer D. Merrill, director-in-chief; "Mushrooms," Dr. William S. Thomas, physician.

THE one hundred eighty-fourth regular meeting of the American Physical Society will be held in Washington on April 27, 28 and 29. The Thursday and Friday sessions will be held at the Bureau of Standards and the Saturday sessions at the National Academy

Building. Subsequent meetings are: Salt Lake City, June 15-16, 1933, Pacific Coast; Chicago, June 19-24, 1933, a joint meeting with the American Association for the Advancement of Science; Cincinnati, December 1 and 2, 1933; December, 1933, Pacific Coast, time and place to be announced later; annual meeting, December, 1933, Boston.

THE Canadian Institute of Mining and Metallurgy will meet at Toronto on April 4, 5 and 6. The program calls for some forty addresses by authorities on various phases of mining. For the first time, the Institute of Mining and Metallurgy of London will send its president, Dr. Sydney W. Smith, to confer with the Canadian Association. R. B. Bennett, prime minister, will be the chief speaker at the annual dinner. Other speakers will be Robert C. Stanley, president of the International Nickel Company; Wesley Gordon, federal minister of mines; Charles McCrea, minister of mines for Ontario, and Dr. Smith.

ARRANGEMENTS are being completed for the holding of the 1933 meeting of the Canadian Phytopathological Society at Regina, Saskatchewan, in July. A committee under the chairmanship of Dr. P. M. Simmonds, Saskatoon, has been appointed to look after local arrangements.

THE International Museums Office, on the invitation of the Spanish government, has called a conference to be held in October at Madrid for the study of museum problems.

THOSE interested in forming a Society for Research on Meteorites, whose purpose shall be to promote the discovery, collection, investigation and preservation of meteorites and to advance the science of meteoritics and related sciences through the increase and diffusion of knowledge concerning meteorites, are invited to communicate with the acting secretary of the prelim-

inary organization, Professor H. H. Nininger, director, The Nininger Laboratory, 1955 Fairfax St., Denver, Colorado, or with Frederick C. Leonard, acting president, Department of Astronomy, University of California at Los Angeles, California.

THE following message was sent by President Roosevelt to the fourth congress of the Pan-American Medical Association, which opened at Dallas, Texas, on March 21: "I extend to you and your fellow members of the Pan-American Medical Congress, on behalf of the government, cordial greetings on the opening of the fourth congress, the first to be held in an English-speaking country. The medical profession is deeply interested in the accomplishment of this meeting, which means so much to the health and welfare of the nation, to say nothing of the promotion of friendly relations and mutual understanding between the United States and her sister republics of Latin-America. I am confident that you will find a most hearty welcome by the medical profession and an earnest desire to cooperate with you in every way in furthering the high object of the congress. I wish the members of the fourth congress every success in their great undertaking."

THE Marqués Sánchez Dalp, of Seville, has presented to the Institute of Agrarian Reform his large estates on the banks of the Guadalquivir, covering nearly 10,000 acres and containing 200,000 olive trees and several model farms linked by 56 miles of roads. The Marqués has improved his lands for 40 years and they are now valued at 30,000,000 pesetas (about £700,000). The object of the gift is to help the Spanish government with its schemes of agrarian reform, the intention being that the estates with all the installations on them, such as olive-oil factories and maize and bean sorting and packing machinery, should be used as a school for agriculture.

DISCUSSION

PATENTS ARE ETHICAL

THERE has recently been considerable discussion of the propriety of members of a university faculty taking out patents based on their discoveries. Such comments as I have seen have tended to the view that, if patents are obtained, they should ethically be transferred to the university.

With this view I very decidedly disagree; and my opinion is based, not on theory, but on extensive practical experience.

In the first place very few inventions are financially remunerative. If the university is to take the profit, it should also pay the expenses; and if it did pay the expenses, it would generally have a net loss.

If an occasional patent does return more than the fees to the U. S. Patent Office and lawyers, the inventor is not thereby tempted to an enervating luxury. As a member of a university faculty, he generally needs an increase of income over and above his university salary. A good invention is as proper a source of income as the authorship of a good book. If the holder of the patent is freed to some extent from financial stringency and care, he will be the better able to devote himself to further scientific discoveries and useful inventions. Bread, or even a little butter on the bread, for a man and his family is one of the prime requisites for research, although this nutritional feature of productive scholarship is often overlooked.