

fessor R. C. Gibbs extended cordial greetings on behalf of the Cornell group and announced the plans for the meetings. At this session Professor L. A. DuBridge, of the University of Rochester, presided, and papers were presented on the determination of atomic masses. Professor K. T. Bainbridge, of Harvard University, discussed the most recent work on the determination of atomic masses with a mass spectrograph, and Professor M. S. Livingston, of Cornell University, presented a paper, which had been prepared in collaboration with Professor H. A. Bethe, also of Cornell, on the determination of atomic masses from nuclear disintegrations. At the afternoon session, Dr. G. L. Locher, of the Bartol Foundation, presided, and reports were presented by Dr. H. R. Crane, of the University of Michigan, on gamma rays from nuclear transmutations and by Dr. J. J. Livingood, of the University of California, on nuclear disintegrations and radioactivity observed with deuteron bombardment.

At the Friday morning session, Professor E. U. Condon, of Princeton University, presided and papers were presented by Professors H. A. Bethe, of Cornell University, and G. Breit, of the University of Wisconsin. Professor Bethe discussed the information now known about the forces between nuclear particles and the structure of the lighter nuclei. Professor Breit discussed the theory of proton-proton scattering. Professor G. B. Pegram, of Columbia University, presided at the afternoon session, which was devoted to the discussion of experiments with neutrons by Professors E. Fermi and F. Rasetti, of the University of Rome. Professor Fermi presented the results of some of the recent experiments performed in Rome, and also the interpretation of these results. Professor Rasetti discussed experiments carried out in this country, largely at Columbia University, where he has been working during the past year.

Professor Fermi presided at the final session of the symposium on Saturday morning. Papers were presented by Dr. T. W. Bonner, of the California Institute of Technology, and by Dr. L. R. Hafstad, of the Carnegie Institution of Washington. Dr. Bonner discussed the energy relations of the disintegrations observed when light nuclei are bombarded with protons and deuterons. Dr. Hafstad presented the results of the work recently done at Washington on the proton-proton scattering.

In addition to the regular sessions there were informal discussion groups devoted to "Beta-ray spectra," "Nuclear moments" and "Cyclotron technique" as well as a meeting of those particularly interested in nuclear theory.

THE THIRD WORLD POWER CONFERENCE

THE third World Power Conference and the concurrent second Congress on Large Dams will open in Washington in Constitution Hall on the evening of September 7, when Secretary of State Cordell Hull will deliver the main address.

Dr. William F. Durand, of Stanford University, who is acting as general chairman, will preside and will address the delegates in four languages—English, French, German and Spanish. Representatives of Argentina, Mexico and Canada will also speak as joint hosts. The representatives of the following countries will then respond to the welcome: Germany, Poland, Belgium, Denmark, Roumania and Russia. Conference sessions will open at 2:00 P. M. on Monday with a discussion of the coal and oil industries.

On Tuesday afternoon the group will travel to Mt. Vernon for a reception and tea. On Wednesday evening a dinner will be held at the Congressional Country Club for the International Executive Council and the International Second Congress on Large Dams, with Director O. C. Merrill acting as host.

Other speakers on this occasion will be Sir Harold Hartley, international chairman of the conference; M. Gustav Mercier, international chairman of the Second Congress on Large Dams, and Chairman Frank McNinch, of the Federal Power Commission, and representatives of China, Lithuania, Ireland, Uruguay, Greece and others.

On Thursday evening a banquet will be held in the main hall of the Union Station. On this occasion the president of the National Academy of Sciences will pay tribute to the memory of the pioneers of science who created the foundations on which rests the structure of modern power development. Secretary of the Interior Harold L. Ickes will speak next, being followed by representatives of France, South Africa and a South American nation. Floyd L. Carlisle, chairman of the board of the Consolidated Edison Company of New York, will speak next, representing the utility industry, joint sponsors of the conference. Speakers representing Great Britain, Austria and Sweden will follow Mr. Carlisle. Owen D. Young, chairman of the board of the General Electric Company, will be the next speaker, representing the electrical manufacturing group, which is also supporting the conference. He will be followed by speakers representing Japan, Switzerland and Cuba.

President Roosevelt will speak at a general meeting on Friday afternoon, September 11. During his speech he will push a button starting the generation of power and the flow of water through the needle valves at Boulder Dam. The President's speech will be broadcast nationally as will the activity at the dam.

The ceremonies at Boulder Dam, including the sounds of the first generation of power there, will be brought back by radio to the Auditorium and broadcast there over the amplifying system.

Also scheduled to speak at this special session are Lewis Mumford, the writer, on "Power and Culture"; Arthur Surveyer, eminent Canadian authority, on "Power and Social Progress," and Senor Joa Marques dos Reis, Brazilian Cabinet Minister, on "Power and the State."

The closing session will be held on Saturday afternoon when an impressive ceremony will mark the transfer of the presidency of the World Power Conference from the hands of a German to a representative of the hosts, an American. Dr. Julius Dorpmueller, head of the Reich Railroads, has served as president of the conference since the death of Oskar von Miller, who was elected at the 1930 meeting in Berlin.

THE HARVARD TERCENTENARY CONFERENCE OF ARTS AND SCIENCES

AN article giving full details in regard to arrangements for the Harvard Tercentenary Conference of Arts and Sciences appeared in the issue of *SCIENCE* for April 3.

The conference began on August 31, and continues until September 12. The program of papers in the biological sciences to be given next week is as follows:

Tuesday, September 8

"The Fundamental Nature of the Respiratory Rhythm." Sir Joseph Barcroft, professor of physiology, University of Cambridge.

"The Influence of Chemical Thought on Biology." Sir Frederick Gowland Hopkins, professor of biochemistry, University of Cambridge.

"Diabetes as a Disturbance of Endocrine Equilibrium." Bernardo Alberto Houssay, professor of physiology, University of Buenos Aires.

"Insect Polyembryony and its General Biological Aspects." Filippo Silvestri, professor of general and agricultural zoology, Regia Scuola Superiore di Agricoltura, Portici.

"Plants and Civilizations." Elmer Drew Merrill, professor of botany, Harvard University (late director of the New York Botanical Garden. Invited, before his appointment in Harvard University, to take part in the Tercentenary Conference.)

"The Biology of Whales." Johan Hjort, professor of marine biology, University of Oslo.

Wednesday, September 9

"Relations of Symmetry in the Developing Embryo." Ross Granville Harrison, professor of biology, Yale University.

"Über die Wirkungsweise des Organisators." Hans Spemann, professor of zoology, University of Freiburg.

Thursday, September 10

"Serological and Allergic Reactions with Simple Chemical Compounds." Karl Landsteiner, member of the Rockefeller Institute for Medical Research.

"The Trend of Prevention, Therapeutics and Epidemiology of Dysentery since the Discovery of its Causative Organism." Kiyoshi Shiga, Kitasato Institute, Tokyo.

"The Use of Isotopes as Indicators in Biological Research." August Krogh, professor of zoophysiology, University of Copenhagen.

"Formation of Enzymes." John Howard Northrop, member of the Rockefeller Institute for Medical Research.

"Protein Molecules." The Svedberg, professor of physical chemistry, University of Upsala.

SCIENTIFIC NOTES AND NEWS

THE Hayden Memorial Geological Award of the Academy of Natural Sciences of Philadelphia has been presented this year to Dr. Andrew Cowper Lawson, professor of geology emeritus at the University of California, for his "fundamental geological studies concerning . . . the foundation of the North American continent, . . . significant studies of the classification and internal structures of rocks, . . . of the mechanisms of eruptions of lava, the origin of the Sierra Nevada and Coast Range, seismic phenomena of the Pacific Coast region, and the topographic evolution of arid regions." The award consists of a gold medal endowed in 1888 by Mrs. Hayden as a memorial to Dr. Ferdinand V. Hayden.

ANDREW W. MELLON, formerly Secretary of the Treasury, will receive the Pittsburgh award for out-

standing service to chemistry at the ninety-second meeting of the American Chemical Society in Pittsburgh on September 9. The award will be shared posthumously by his brother, the late Richard B. Mellon. The honor was voted in recognition and appreciation of their work in connection with the Mellon Institute of Industrial Research.

DR. J. FRANK DANIEL, chairman of the department of zoology at the University of California, has been created a knight of the Legion of Honor by the Government of France. Last year Dr. Daniel represented the university and the California Academy of Science at the celebration of the three hundredth anniversary of the founding of the National Museum of Natural History in Paris.

DR. EDWARD BARTOW, of the State University of