

of California; Austin L. Rand, New York; Alexander F. Skutch, Maryland; Herbert G. Deignan, Washington, D. C., and S. Gilbert Emilio, Massachusetts.

The 1939 meeting will be held in the San Francisco Bay region of California from June 19 to 23. Dr. Alden H. Miller, of Berkeley, is the chairman of the local committee. Dr. Alexander Wetmore, of the U. S. National Museum, has been named president of the eleventh International Ornithological Congress, which will hold a joint meeting with the American Ornithologists' Union at the Philadelphia Academy of Sciences in May, 1942.

LAWRENCE E. HICKS,  
*Secretary.*

#### SYMPOSIA AT BROWN UNIVERSITY ON INTERMOLECULAR ACTION

A THREE-DAY meeting on "Intermolecular Action," sponsored by the Division of Physical and Inorganic Chemistry of the American Chemical Society, will be held at Brown University on December 27, 28 and 29. The members will attend the ceremonies dedicating the Metcalf Research Laboratory of the university on Wednesday afternoon, December 28.

In a series of twenty-two scientific papers, thirty-eight chemists will discuss "Gases and Pure Liquids," "Non-Polar Mixtures," "Highly Polar Mixtures," "Polar Mixtures" and "Ionic Solutions." Professor George Scatchard, of the Massachusetts Institute of Technology, chairman of the division, will preside.

Among the speakers will be Professor Joel H. Hildebrand, of the University of California, who was recently awarded the 1939 William H. Nichols Medal

of the New York Section of the American Chemical Society for his studies of liquid and solid solutions; Professor John G. Kirkwood, of Cornell University, to whom was awarded the \$1,000 American Chemical Society Award in Pure Science for original contributions in the field of intramolecular forces; Dr. F. Loudon, of the Institut Henri Poincaré, Paris, at present visiting lecturer at Duke University; and Professor Charles A. Kraus, of Brown University, president-elect of the American Chemical Society.

Dr. Niels Bjerrum, professor of chemistry at the Royal Veterinary and Agricultural College, Copenhagen, visiting lecturer at Brown University, and Dr. Frederick G. Keyes, head of the department of chemistry at the Massachusetts Institute of Technology, will deliver the dedication lectures on Wednesday afternoon. Dr. Bjerrum's subject will be "The Development of the Theory of Electrolytes," and Dr. Keyes will speak on "Contrasts."

The committee on arrangements, in addition to Professor Scatchard, includes Professors Cohn, Eyring, Hildebrand, Kraus and LaMer; Professor Farrington Daniels, of the University of Wisconsin; Dr. Louis S. Kassel, of the U. S. Bureau of Mines Experiment Station, Pittsburgh; Professor Philip A. Leighton, of Stanford University; Professor Samuel C. Lind, of the University of Minnesota; Wilber G. Parks, of Rhode Island State College; Thomas H. Roberts, of Edgewood, R. I., and Professors Earle K. Strachan and Laurence S. Foster, of Brown University. Dr. Harold C. Urey, of Columbia University, is secretary of the division.

## SCIENTIFIC NOTES AND NEWS

THE hundred and third meeting of the American Association for the Advancement of Science will be held at Richmond, Va., from December 27 to December 31. Dr. Wesley C. Mitchell, professor of economics at Columbia University, will preside, and the address of the retiring president will be given by Dr. George D. Birkhoff, professor of economics at Harvard University. The preliminary program of the meeting, edited by Dr. F. R. Moulton, permanent secretary of the association, will be printed in next week's issue of *SCIENCE*. The first event of the meeting, except the meeting of the executive committee, will be on Monday evening, when a dinner will be given to members of the National Association of Science Writers and to editors of Virginia newspapers in honor of Austin H. Clark, of the Smithsonian Institution, formerly director of the press service of the association. Sir Richard Gregory, editor of *Nature*, will be the principal speaker.

DR. BERNARD SACHS has been elected a corresponding member of the Société Suisse de Neurologie "for eminent scientific merits and the prolific influence of his research work on the progress of neurology."

DR. MORLEY FLETCHER will represent the Royal College of Physicians, London, at the opening of the Royal Australasian College of Physicians. He will be presented with an illuminated address and a replica of the silver wand or caduceus, which was presented to the college by Caius in 1556.

ACCORDING to the *Journal* of the American Medical Association, the State Medical Society of Wisconsin at its annual meeting in Milwaukee presented the gold seal of the society to Dr. Eben J. Carey, dean of the School of Medicine of Marquette University, and to Dr. William Shainline Middleton, dean of the Medical School of the University of Wisconsin. Dr. Carey was honored for his "high accomplishments in medical edu-

education and research" and for his "perfection of the art and dynamic use of visual education as a means of furthering the health of our citizenry." The seal was awarded to Dr. Middleton "for accomplishments and lofty inspiration in the teaching of students and practitioners, for a quarter of a century of public service and for outstanding influence in the development of a high quality of medical service for the citizenry of Wisconsin."

A DINNER in honor of Professor S. J. Holmes, of the University of California, president of the American Eugenics Society, will be given by the society at the Town Hall Club, New York City, on November 30. Professor Holmes will preside and Dr. Albert E. Wiggam will be toastmaster. The speakers and their subjects will be as follows: Frederick Osborn, "The American Concept of Eugenics"; Professor Henry P. Fairchild, "Family Limitation Necessary to Eugenics in a Democracy"; Mrs. Sidonie Matsner Gruenberg, "The Eugenic Significance of Child Study," and Ralph P. Bridgeman, "The Eugenic Significance of Parent Education."

At the October meeting of the Indiana Chapter of the Society of Sigma Xi the following officers were elected: *President*, G. S. Snoddy, psychology; *Vice-president*, R. J. Hartman, chemistry; *Secretary*, M. L. Lohman, botany; *Treasurer*, R. L. Kroc, zoology. Dr. Raymond Pearl, of the Johns Hopkins University, lectured on the subject of "Human Fertility."

DR. LEONARD J. PICCOLI, professor of materia medica, pharmacology and physiology at Fordham College of Pharmacy, has been elected the first president of the American Association for the Advancement of Professional Pharmacy.

THE Council of the Royal Society, London, at its recent meeting recommended the following for election as officers and as members of the council at the anniversary meeting to be held on November 30: Sir William Bragg, *president*; Sir Henry Lyons, *treasurer*; Professor A. V. Hill and Professor A. C. G. Egerton, *secretaries*; Sir Albert Seward, *foreign secretary*. Other members of the council: Professor F. C. Bartlett, Professor F. E. Fritsch, Professor M. Greenwood, H. L. Guy, Sir Thomas Holland, Dr. A. D. Imms, Professor C. K. Ingold, Professor G. B. Jeffery, Professor J. Mellanby, Professor J. Proudman, Dr. F. L. Pyman, Professor O. W. Richardson, Professor W. W. C. Topley, Professor D. M. S. Watson, Professor R. Whiddington, Professor R. Whytlaw-Gray.

At the annual statutory meeting of the Royal Society of Edinburgh held on October 24, the following council was elected: *President*, Sir D'Arcy Thompson; *Vice-presidents*, Professor F. A. E. Crew, Lieut.-Col.

A. G. M'Kendrick, Principal J. C. Smail, Professor J. Walton, Dr. James Watt, Professor E. T. Whitaker; *General Secretary*, Professor James P. Kendall.

DR. WILLIAM E. RITTER, who retired with the title emeritus in 1923 as professor of zoology of the University of California and director of the Scripps Institution of Oceanography, observed his eighty-second birthday on November 19.

INGE LYSE, who has resigned as research professor of engineering materials at Lehigh University, has become professor of reinforced concrete and solid bridges at the Norway Institute of Technology at Trondheim.

DR. F. A. WATERMAN, research assistant at the Ohio State University for the past year, is filling the vacancy caused by the appointment of Dr. E. L. Rice as acting president of Ohio Wesleyan University. He has been made assistant professor of zoology for a one-year period.

PROFESSOR G. F. MARRIAN, of the University of Toronto, has been appointed to the chair of chemistry in relation to medicine at the University of Glasgow, in succession to Professor George Barger, who now holds the chair of chemistry.

DR. ROBERT STEVENSON AITKEN has been appointed Regius professor of medicine in the University of Aberdeen in succession to Professor L. S. P. Davidson, who resigned recently. Since 1935 Dr. Aitken has been university reader in medicine and assistant director of the medical department in the British Postgraduate Medical School, London.

PROFESSOR A. F. BERNARD SHAW has been appointed to the joint post of professor of pathology in the University of Durham and pathologist to the Royal Victoria Infirmary, in succession to Professor Stuart McDonald.

THE Committee on Scientific Research of the American Medical Association has made a further and final grant to the University of Chicago in aid of a study of high blood pressure being carried on by Dr. Dallas B. Phemister, of the department of surgery, and Dr. Harwell Wilson, of the department of medicine. The project, which received two prior grants from the committee, is investigating methods of producing high blood pressure in laboratory animals through the nervous structure and through chemical factors.

DR. C. S. MYERS, successively director and principal of the British National Institute of Industrial Psychology since its foundation in 1921, retired from the active direction of its work in October. He has accepted the honorary post of scientific adviser, which will maintain his past contact with the scientific as-

peets of the industrial and vocational work and in which he will continue to supervise its research activities and publications.

WILFRED NORMAN EDWARDS, deputy keeper, has been appointed to the vacancy in the keepership of the department of geology of the British Museum, London, that will arise on the retirement on December 29 of Dr. W. D. Lang. Mr. Edwards is known for his work on fossil plants.

THE Secretary of State for Scotland has appointed J. A. Symon to represent the Department of Agriculture for Scotland on the committee appointed to advise him on matters connected with the administration of the Wild Birds Protection Acts.

DR. LANGLEY PORTER, dean of the Medical School of the University of California, is visiting medical schools of a number of universities of the United States and Canada. Dr. Chauncey Leake, professor of pharmacology, is acting dean during his absence from the university.

DR. PAUL A. ZAHL, of the Haskins Laboratory of Union College at Schenectady, N. Y., left on November 19 for British Guiana, where he will conduct a collecting expedition in the Mt. Roraima area at the tri-juncture of British Guiana, Venezuela and Brazil. Because of the unique isolation of Mt. Roraima, previous expeditions have required months of difficult transit. Dr. Zahl and his group will attempt to fly directly from Georgetown to the base of Mt. Roraima. The present trip is his third to the American tropics to collect living specimens of various Ponerine ants.

DR. GEORGE SARTON, research associate in the history of science at the Carnegie Institution of Washington, gave on November 17 a lecture entitled "Science during the French Revolution," at the Carnegie Institution of Washington. On November 22, Dr. Arthur L. Day gave an illustrated lecture on "The Hot Springs of New Zealand."

SIR RICHARD GREGORY gave early in November the first of a series of five lectures on "Religion as a Social Force" in the Senate House of the University of London. His lecture was entitled "Religion and Science." The other lecturers and their subjects are: Sir Eric Maclagan, on "Religion and Art"; Dr. T. H. W. Armstrong, on "Religion and Music"; Lord Stamp, on "Religion and Business," and the dean of St. Paul's on "Religion and Philosophy."

THE annual fall meeting of the American Mathematical Society will be held this year in Cleveland on November 25 and 26 with Case School of Applied Science and Western Reserve University acting as joint hosts. Approximately 100 delegates are expected to attend the sessions on Friday afternoon and Satur-

day morning in the Bingham Building of the institute. A convention banquet for the delegates and their wives will be held on Friday evening at 6:30 in Hayden Hall of Western Reserve University. The principal speakers for this year's meeting will be Professor C. C. MacDuffee, of the University of Wisconsin, and Professor V. G. Grove, of the Michigan State College.

THE Society of Rheology will hold its tenth annual meeting on December 28 and 29 at the Mellon Institute of Industrial Research in Pittsburgh. Technical sessions will be held on the two mornings of the meeting, and on the afternoon of December 28 there will be a joint meeting on "Fluid Mechanics" with the Chemical Engineering Symposium of the Carnegie Institute of Technology. The annual dinner will take place on the evening of December 28, and the business meeting will follow luncheon on December 29.

It is reported in *Nature* that the twenty-fourth meeting of the Australian and New Zealand Association for the Advancement of Science will be held at Canberra from January 11 to 18, 1939, under the presidency of Professor Ernest Scott, emeritus professor of history in the University of Melbourne. Six men of science from Great Britain have accepted invitations to attend this meeting. They are: Professor F. T. Brooks, Sir John Flett, Dr. Julian Huxley, Sir John Russell, Dr. N. V. Sidgwick and H. G. Wells. The presidents of the sections are as follows: Astronomy, Mathematics and Physics, Professor T. Parnell; Chemistry, W. Russell Grimwade; Geology, Professor R. Speight; Zoology, E. J. Goddard; History, Professor S. H. Roberts; Anthropology, F. E. Williams; Economics, Statistics and Social Science, L. G. Melville; Engineering and Architecture, Sir Henry Barraclough; Medical Science and National Health, Dr. E. Sydney Morris; Education, Psychology and Philosophy, J. R. Darling; Agriculture and Forestry, Dr. W. L. Waterhouse; Veterinary Science, Dr. L. B. Bull; Botany, Professor J. G. Wood; Physiology, Professor W. J. Young; Pharmaceutical Science, Dr. E. M. Watson; Geography and Oceanography, G. A. V. Stanley.

THE New York Academy of Sciences has reduced the active membership dues from ten to five dollars a year, to take effect on January 1. Also a new grade of membership has been established for active members desiring to continue their present support of the academy, to be known as sustaining membership. The annual dues for this grade will be ten dollars a year. Such members will receive, each year, a part of the Puerto Rico Survey, in addition to all current numbers of the annals and other publications of the academy, which active members will continue to receive as formerly. After having paid annual dues of ten dollars

for twenty-five successive years, sustaining members have the additional privilege of requesting transfer to the life membership class without further payment of dues.

LORD NUFFIELD has given £25,000 towards a fund to enable the British Institution of Production Engineers, of which he is the president, to proceed at once with the creation of its proposed Production Engineering Research Department, under the charge of Professor Georg Schlesinger.

THE University of Oregon Medical School at Portland, one unit of the Oregon State System of Higher Education, is the recipient of three substantial gifts for instructional and research facilities. The Julius L. Meier family has given \$50,000 as a memorial to former Governor Julius L. Meier to be used in supplementing a state appropriation of \$110,000 and a PWA grant of \$130,909 in the erection of a tuberculosis hospital on the campus of the Medical School and as a part of the university hospitals and clinics. Margaret M. Widmer and Gertrude D. Widmer, graduates of the university, have given the Medical School a farm valued at \$30,000, the income to be used in research on heart disease and cancer, the endowment to be known as the "Widmer Memorial Research Fund of the University of Oregon Medical School." Dr. John E. Weeks, of Portland, recently gave \$100,000 toward the construction of a medical library, auditorium and laboratory building. This gift was matched by the Rockefeller Foundation, and a grant was secured from the Public Works Administration for an additional \$163,350, thereby making it possible to erect a building costing \$363,350. The structure will provide the most modern facilities for a large medical library, an auditorium seating six hundred for student and professional gatherings, and a laboratory unit for medical research. Construction on the new tuberculosis hospital and the library, auditorium and laboratory building is now under way.

THE Hall of Pharmacy at the New York World's Fair of 1939, constructed at the cost of \$1,000,000, was dedicated on the afternoon of Sunday, November 13. The hall occupies 45,000 square feet of space, sufficient to accommodate several score exhibitors.

THE Kansas State Herbarium has now been transferred to a large fireproof vault on the grounds of Kansas State College, at Manhattan. This herbarium

was started in the 1870's by W. A. Kellerman, greatly augmented by A. S. Hitchcock up to 1901, and further enlarged under its present curator, F. C. Gates, during the past twenty years. The collection contains about 90,000 sheets and is particularly full from each of the various counties of Kansas.

At the U. S. Geological Survey, plans have been made for starting immediately the construction, repair and improvement of river measurement stations, for which \$590,000 of Public Works funds have been allocated. Such work will be performed in practically every state in accordance with the approved allotments by states and handled through the district offices of the Geological Survey. Similar arrangements have been made for commencing immediately the Public Works program relating to the surveys of floods and droughts for which \$100,000 has been appropriated. Field work has been started on the following PWA projects of the Geologic Branch: Investigations of manganese deposits in the Olympic Mountains, Washington; of phosphate deposits in Wyoming; and of mineral deposits in Strawberry Valley, Utah, and in the Henry Mountains, Utah; and classifications of coal lands in Wyoming and Montana. These projects are in charge of C. F. Park, W. W. Rubey, A. A. Baker and Charles Hunt, respectively.

THE *Journal* of the American Medical Association reports that committees representing Cornell University Medical College and the University of Havana Faculty of Medicine have arranged for exchange students and teaching staff for periods of study. Four undergraduate students and/or members of the teaching staff of Cornell will study parasitology, tropical diseases or any other subject of special interest for six weeks in the summer in Havana under the auspices of the university. Three undergraduates in medicine and/or members of the teaching staff of the University of Havana will have the opportunity of studying at Cornell for a period of eight weeks, one each in the fall, winter and spring. Each university agreed to grant to each visitor on satisfactory completion of the work a certificate covering the studies pursued and the time employed thereon. The studies at the respective schools will be supervised by special committees. Dr. Wilson G. Smillie is chairman of the committee at Cornell and Dr. Alberto Inclán of the one in Havana. The agreement is in effect for one year.

## DISCUSSION

### WHY WE SELDOM SEE A LUNAR RAINBOW

THE fact that we see the lunar rainbow only once to the hundred times, more or less, that we see the sun-caused, or solar, bow, we instinctively attribute

to the great difference between the brightness of the sun and that of the moon. The brighter the light the brighter the bow, of course, other things being equal, and the brighter the bow the more likely we