

America will be held at the University of Wisconsin on Monday and Tuesday, September 4 and 5.

The meetings of the American Mathematical Society will begin on Tuesday afternoon. A series of three colloquium lectures to be delivered by Professor M. H. Stone, of Harvard University, on "Convex Bodies" will be given on Wednesday morning, on Thursday afternoon and on Friday. A second series of four lectures by Professor A. A. Albert, of the University of Chicago, on the "Structures of Algebras" are planned for Tuesday afternoon, Wednesday, Thursday and Friday mornings. Sessions for the presentation of papers will be held on Tuesday and Thursday after-

noons and on Wednesday, Thursday and Friday mornings.

A joint dinner of the society and the association will be given on Thursday evening at 6:30 at the Loraine Hotel. The charge will be \$1.25 per plate.

Wednesday afternoon will be left open for recreation. No formal excursions are being planned, but boat rides, picnics, visit to the Forest Products Laboratory of the United States Government, a visit to the Banta Publishing Company or visits to near-by scenic spots may be planned. There will be informal teas in the refectory building on Monday and Tuesday afternoons, following the meetings.

SCIENTIFIC NOTES AND NEWS

AN oil painting of Dr. James B. Conant, president of Harvard University, previously Sheldon Emory professor of organic chemistry, has been presented to the university by the class of 1914, of which he was a member. The gift was made in connection with the twenty-fifth reunion of his class. It is planned to hang the painting in the faculty room of University Hall.

DR. JOSEPH SWEETMAN AMES, of the Johns Hopkins University, who became president-emeritus in 1935 and who, before his election to the presidency in 1929, was professor of physics, celebrated his seventy-fifth birthday on July 3.

MEMBERS of the American Committee for Democracy and Intellectual Freedom and others have signed a letter congratulating Dr. Franz Boas, professor emeritus of anthropology, Columbia University, on the occasion of his eighty-first birthday, which occurred on July 9. Messages have also been sent to him by President Roosevelt and Secretary Wallace.

A LUNCHEON in honor of Dr. Charles F. Kettering, president of the General Motors Research Corporation, will be given by the Chamber of Commerce of Los Angeles on July 18. Dr. Kettering will make an address entitled "Industry's New Horizons."

M. MARC TIFFENEAU, professor of pharmacology and materia medica in the faculty of medicine of the University of Paris, has been elected a member of the section of chemistry of the Paris Academy of Sciences, in succession to the late Professor G. Urbain.

THE degree of doctor of music was conferred at the commencement exercises of the University of Chicago on Dr. Carl E. Seashore, research professor of psychology and emeritus dean in the State University of Iowa, in recognition of "his contributions to the science of music."

THE honorary degree of doctor of science was conferred by Williams College at commencement on Dr.

Louis Frederick Fieser, professor of chemistry at Harvard University.

BATES COLLEGE, Lewiston, Me., conferred on June 19 the degree of doctor of science on Dr. Herbert E. Walter, emeritus professor of biology at Brown University, and on Dr. H. O. Whitnall, professor of geology at Colgate University.

DR. GEORGE T. HARGITT, professor of zoology at Duke University, received the degree of doctor of science at the commencement exercises of Syracuse University.

TRINITY COLLEGE, Hartford, Conn., conferred on June 19 the doctorate of science on Dr. Willard Cole Rappleye, dean of the College of Physicians and Surgeons of Columbia University, who was the commencement speaker.

IN conferring the doctorate of laws on Dr. William Herbert Hobbs on June 17 at the University of Michigan the following citation was made by President Ruthven: "Professor of geology and director of the Geological Laboratory for twenty-eight years; since 1934 Professor Emeritus, whose achievements in science and influence in research will remain memorable in the annals of the University. To every task undertaken he brings an informed opinion and resolute will. His scholarly publications, many in number, range literally from pole to pole. Learned societies have elected him to office; mountains and glaciers bear his name; explorers buffeted by ice and storm value his share in their unending quest."

THE College of Physicians of Philadelphia awarded on July 14 the Alvarenga prize to Dr. Harry Goldblatt, professor of experimental pathology and associate director of the Institute of Pathology, of the School of Medicine of Western Reserve University, for his "contributions to the pathogenesis of hypertension." This prize was established by the will of Pedro Francisco

daCosta Alvarenga, of Lisbon, Portugal, an associate fellow of the College of Physicians, to be awarded annually on each anniversary of the death of the testator, July 14, 1883, "to the author of the best memorial upon any branch of medicine, which may be deemed worthy of the prize."

DR. WILLIAM WASHINGTON GRAVES, director of the department of neuropsychiatry at St. Louis University School of Medicine, has received the St. Louis Medical Society award of merit "in consideration of the results of his studies on inherited variations in relation to the problems of the human constitution."

THE Melchett Medal for 1939 of the British Institute of Fuel has been conferred on H. A. Humphrey, formerly consulting engineer to Imperial Chemical Industries, Ltd., for his work in "the development of fuel and appliances in connection therewith."

THE retirement from the faculty of Princeton University is announced of Professor Ulric Dahlgren, who has been connected with the university since his graduation in 1894, since 1911 as professor of biology.

AFTER serving for thirty-eight years as head of the department of chemistry of DePauw University, Dr. William M. Blanchard has relinquished his teaching duties, but will continue to serve for a time as dean of the College of Liberal Arts. Dr. Jesse L. Riebsomer has been appointed acting head of the department of chemistry for next year. Dr. J. C. Cowan, of the University of Illinois, has been appointed instructor in organic chemistry.

THE title of Dr. R. M. Ogden, dean of the College of Arts and Sciences at Cornell University, has been changed from professor of education to professor of psychology, and he will be in future a member of the department of psychology. He remains dean of the college.

DR. W. HALSEY BARKER, son of Dr. Lewellys F. Barker, of Baltimore, has been appointed to the newly established position of assistant dean of the School of Medicine of the Johns Hopkins University. He will aid Dr. Alan M. Chesney, dean, chiefly in the field of student relations. He will serve also as a member of the Committee on Admissions of the Medical School.

EDWARD SLATER SHEIRY, for six years head of the department of civil engineering in Robert College, Istanbul, has been appointed head of the department of civil engineering of Cooper Union, New York City, with the rank of full professor. He succeeds Professor Fred E. Foss, who retired in 1938 at the age of seventy-six years after serving for twenty-nine years. Assistant Professor Ray C. Brumfield has been acting head of the department during the past year.

M. G. EVANS, lecturer in physical chemistry in the

University of Manchester, has been appointed to the chair of physical chemistry at the University of Leeds, in succession to the late Professor H. M. Dawson.

DR. JAMES WILFRED COOK, professor of chemistry in the University of London, has been appointed Regius professor of chemistry in the University of Glasgow, to succeed the late Professor George Barger.

PROFESSOR FRANK HORTON, university professor of physics at Royal Holloway College and a member of the Senate of the University of London since 1925, has been elected vice-chancellor for the year 1939-40. Professor A. W. Reed has been made deputy vice-chancellor. Lord Dawson of Penn, who has hitherto been a representative of the faculty of medicine on the senate, has been appointed a coopted member in place of the late Sir Frank Dyson.

DR. WILLIAM W. SKINNER has been appointed associate chief of the Bureau of Agricultural Chemistry and Engineering of the U. S. Department of Agriculture. In association with the chief of the bureau, Dr. Henry G. Knight, he will assist in the supervision and direction of all scientific, technical, engineering and administrative work, including the four Regional Research Laboratories authorized by the Congress to search for new and wider industrial outlets for agricultural commodities. Dr. Skinner has been a member of the Department of Agriculture since 1934.

DR. CHRISTIAN A. RUCKMICK, formerly professor of psychology at the State University of Iowa, is now associated with the C. H. Stoelting Company of Chicago, for fifty-three years manufacturers of and dealers in psychological and physiological apparatus and supplies. He has been appointed to the position of secretary and general sales manager formerly held by W. C. Wideman.

DR. ALEXIS CARREL, who is retiring as a member of the Rockefeller Institute for Medical Research, sailed for Europe on July 6.

DR. WALTER C. LOWDERMILK, chief of the division of research of the U. S. Department of Agriculture, who was invited by the Palestine Government to investigate the situation of conservation, has spent some weeks in making observations, which have extended into the Negeb and to the Aqaba area of Transjordan.

DR. FRED N. BRIGGS, associate professor of agronomy at the Agricultural College at Davis of the University of California, has sailed for Europe. He has leave of absence for six months which he will spend in visiting plant-breeding stations. He plans to attend the International Genetics Congress to be held this month in Edinburgh, Scotland.

DR. E. I. WHITE and W. N. Croft, both of the British Museum (Natural History), J. A. Moy-

Thomas, of Oxford, and J. Brough, of the University of Manchester, left England on June 24 to join the English, Norwegian and Swedish Geological Expedition to Spitsbergen. They expect to be away until towards the end of September. The expedition plans to collect remains of primitive vertebrate animals in the Wijde Bay area, from which little or nothing has hitherto been collected.

THE School of Medicine of the Johns Hopkins University and the Johns Hopkins Hospital will receive more than \$1,000,000 by the will of the late Victor Morawetz, a New York attorney.

APPLICATIONS must be on file with the U. S. Civil Service Commission at Washington, D. C., on July 31 for the positions of meteorologist, at a salary of \$3,800 a year; of associate meteorologist, at \$3,200 a year, and of assistant meteorologist, at \$2,600 a year. To become eligible, applicants must qualify in one or more of the following optional branches: eligibles are particularly desired who qualify in both Option 2 and Option 4, or who qualify in Option 2 and are trained in hydrology, or who qualify in Option 4 and are trained in oceanography: (1) Radiometeorography, (2) Synoptic Meteorology (Air Mass Analysis), (3) General Meteorology and Climatology, (4) Physical and Dynamical Meteorology, (5) Statistical Meteorology, (6) any other well-defined specialized branch of meteorology.

THE Cemenstone Corporation of Pittsburgh has established an industrial fellowship in Mellon Institute for conducting fundamental chemical and physical research on precast concrete units such as are being manufactured by the company. The main objective of

the investigation is to develop practical methods and techniques that will be of wide applicability in production. Donald R. MacPherson, for the past five years a member of the research staff of the Portland Cement Association in Chicago, has been appointed to the fellowship.

THE third International Congress for Microbiology will be held in New York at the Waldorf-Astoria Hotel from September 2 to 9. More than six hundred papers on a variety of subjects will be presented: for example, papers on bacterial variation and taxonomy, microbiological chemistry and physiology, viruses and viral diseases, rickettsiae and rickettsial diseases, fungi and fungous diseases (including bacterial diseases of plants), protozoology and parasitology, medical and veterinary bacteriology (including chemo- and serotherapy), industrial and agricultural microbiology and immunology. Any one interested in these subjects may attend the meetings. A registration fee of \$5.00 will be charged. Those wishing to attend should communicate with the treasurer, Dr. Kenneth Goodner, Rockefeller Institute, York Avenue and 66th Street, New York, N. Y.

THE tentative program has been issued of the public health and nutrition section of the sixth Pacific Science Congress, of which Dr. K. F. Meyer is chairman, to be held from July 24 to August 12 at Berkeley, Stanford University and San Francisco, California. The program will be divided into four sections, as follows: Epidemiology of Diseases of the Pacific Basin; Nutritional Problems of the Pacific Basin; Industrial Hygiene; Health Education (to meet in joint session with the tenth annual meeting of the Western Branch of the American Public Health Association).

DISCUSSION

THE LUMINESCENCE OF SUGAR WAFERS

If a "necco" wafer with a wintergreen flavor is broken in a dark room, a bright greenish flash of light appears, easily visible with dark-adapted eyes. This phenomenon is well known and is undoubtedly connected with the triboluminescence of sugar. The unusual aspect is the influence of the wintergreen flavor, for necco wafers with chocolate, liquorice and cinnamon flavors give no luminescence when broken and those with lemon, lime, clove and sassafras flavor give only a fair flash, about like that of lump sugar. The color of the wafer may be partly responsible for lack of luminescence, since dark-colored chocolate and liquorice-flavored wafers are not luminescent. However, the pink-colored sassafras-flavored wafer gives a fair luminescence, while the light orange cinnamon flavor gives none.

One necessity to obtain luminescence on breaking candy wafers is to have a mass of small sugar crystals,

which are white, like snow. Thus, white "life savers" of wintergreen or clove flavor luminesce on breaking, but the mint, lime or cherry variety which are translucent and glass-like do not. Neither do "beehnut drops" of any flavor, also glassy, nor various taffies such as butter-scotch.

In a previous article¹ I pointed out that many triboluminescent crystals, such as salicylamid, salophen and uranyl nitrate, when crushed or shaken in a low pressure atmosphere of neon gas, still showed the bright greenish or colorless triboluminescent sparks with no trace of red which might indicate that the triboluminescence was an electrical discharge exciting the surrounding neon gas. Reddish electrical discharges can occur, however, when non-triboluminescent substances, such as chitin, diatomaceous earth or KClO_3 crystals, are broken in the neon atmosphere. Of special interest are sugar (rock candy) crystals, which

¹ SCIENCE, 89: 460, 1939.