

tinguished work in applied chemistry, including the development of antiknock motor fuels and safe refrigerants." The presentation speech was made by Professor Marston T. Bogert, of Columbia University, past president of the American Chemical Society, of which Mr. Midgley is now chairman of the board of directors. Dr. Robert E. Wilson, vice-chairman of the Pan-American Petroleum and Transport Company, spoke on "The Life and Accomplishments of the Medallist." Mr. Midgley gave an account of his work in his address of acceptance, which was entitled: "From the Periodic Table to Production," in the course of which he paid the following tribute to his associates:

Charles F. Kettering was a primary factor in solving the two problems for which I am rewarded. Without his guiding genius, faith, patience and financial support it is quite likely that neither Ethyl gasoline nor the Freon refrigerants would be in existence to-day. The assistance of T. A. Boyd and Carroll A. Hochwalt in the development which led to the discovery of the utility of tetraethyl lead in motor fuels can not be overemphasized. Albert A. Henne deserves fully as much credit as I do for developing the organic fluorides as refrigerants.

After graduating from the Sibley College of Mechanical Engineering of Cornell University, Mr. Midgley engaged in private research in tires until 1914, when he became superintendent of the Midgley Tire and Rubber Company, Lancaster, Ohio. Since 1920 he has worked in the General Motors laboratories in association with Mr. Kettering. He is vice-president

of Kinetic Chemicals, Inc., and has contributed widely to the knowledge of the properties of natural and synthetic rubbers and methods of making better synthetic rubbers.

He is a fellow of the American Association for the Advancement of Science and a member of the American Institute of Chemical Engineers, the Society of Automotive Engineers, the Society of Military Engineers, the American Public Health Association, the Association of Cornell Engineers, and Sigma Xi, Phi Kappa Phi and Atmos. He has received both the Longstreth and Nichols Medals in recognition of his scientific work, and is the author of nearly fifty technical papers and the holder of more than forty patents.

Former Perkin medalists besides Sir William Perkin were: J. B. F. Herreshoff, Arno Behr, E. G. Acheson, Charles M. Hall, Herman Frasch, James Gailey, John W. Hyatt, Edward Weston, L. H. Baekeland, Ernest Twitchell, A. J. Rossi, F. G. Cottrell, Charles F. Chandler, Willis R. Whitney, William M. Burton, Milton C. Whitaker, Frederick M. Becket, Hugh K. Moore, R. B. Moore, John E. Teeple, Irving Langmuir, E. C. Sullivan, Herbert H. Dow, Arthur D. Little, C. F. Burgess, George Oenslager, G. O. Curme, Jr., Colin G. Fink, Warren K. Lewis.

Dr. Vail, chairman of the American Section of the Society of Chemical Industry, presided at the meeting, in which the New York Section of the American Chemical Society participated. The event was preceded by a dinner in honor of Mr. Midgley.

## SCIENTIFIC NOTES AND NEWS

DR. RICHARD P. STRONG, professor of tropical medicine, Harvard Medical School, has been elected an honorary fellow of the Royal Society of Tropical Medicine and Hygiene, and has been invited to give the first Chadwick lecture in London during the present month.

DR. WILDER DWIGHT BANCROFT, professor of physical chemistry at Cornell University, has been appointed visiting professor of chemistry at Bowdoin College on the Tallman Foundation.

PROFESSOR G. A. MILLER, of the University of Illinois, was made an honorary life member of the Mathematical Association of America during its recent meeting at Duke University.

PRESIDENT ISAIAH BOWMAN, of the Johns Hopkins University, was granted the Distinguished Service Award of the National Council of Geography Teachers at the Syracuse meeting on December 30, in recognition of his contributions to geographic education.

DR. EDGAR ANDERSON, professor of botany at Wash-

ington University, St. Louis, and geneticist at the Missouri Botanical Garden, has been awarded the Order of the Yugoslavian Crown in recognition of his study of Balkan plants.

At a ceremony at the University of Michigan, presided over by President Alexander G. Ruthven, on September 28, a portrait of Dr. Albert M. Barrett, director of the Psychopathic Hospital, was presented to the university by friends, alumni and associates of Dr. Barrett. It is the work of John Koch, of Ann Arbor.

THE twenty-fifth anniversary of the appointment of Professor S. O. Mast to the faculty of the Johns Hopkins University was celebrated at a dinner given in his honor at the Morton Hotel in Atlantic City on December 29. About forty of his present and former students and several of his colleagues and old college friends were present, as well as Mrs. Mast and two of their daughters. An oil portrait of Dr. Mast done by Hans Schlereth, of Washington, was unveiled. In addition, a bound volume of testimonial letters and a

handsome three-volume set of his 130 reprints were presented to him. Dr. H. S. Jennings acted as toastmaster, and toasts were given by Drs. C. Ladd Prosser, C. E. Bills, S. W. Geiser, W. N. Hess, O. S. Reimold, L. M. Bertholf, J. P. Visser and W. L. Dolley, Jr.

At the annual meeting of the Genetics Society of America held at Atlantic City officers for 1937 were elected as follows: E. M. East, Harvard University, *president*, and L. J. Cole, University of Wisconsin, *vice-president*. The secretary of the society is M. Demerec, Carnegie Institution of Washington, Cold Spring Harbor, New York.

THE Botanical Society of America, at its thirty-first annual meeting held at Atlantic City from December 29 to 31, elected the following officers for the ensuing year: *President*, Edmund W. Sinnott, Columbia University; *Vice-president*, Loren C. Petry, Cornell University; *Secretary*, George S. Avery, Jr., Connecticut College. Chairmen of the sections of the society elected or announced at this meeting are: *General*, E. N. Transeau, the Ohio State University; *Physiological*, E. F. Hopkins, Cornell University; *Systematic*, T. G. Yuncker, De Pauw University. A new section for paleobotany was organized, with the following officers: *Chairman*, A. C. Noé, University of Chicago; *Secretary*, W. C. Darrah, Harvard University. At the same meeting the following botanists were elected to corresponding membership: Dr. N. I. Vavilov, director of the State Institute for Experimental Agronomy, Leningrad; Dr. Agnes Arber, sometime fellow of Newnham College, Cambridge, England, and Dr. Lorenzo R. Parodi, professor of botany in the University of Buenos Aires.

THE American Microscopical Society held its fifty-fifth annual meeting at Atlantic City on December 30. The following officers were elected for 1937: *President*, Dr. W. W. Cort; *first vice-president*, Dr. O. E. Jennings; *second vice-president*, Dr. J. W. Scott; *secretary* (3 years), Dr. J. E. Ackert; *elective member of executive committee*, Dr. A. B. Dawson (3 years). Dr. Henry B. Ward, Dr. H. N. Lyon and William E. Dresher, who have served the society for fifty years, were elected to honorary membership. Dr. J. E. Ackert and Dr. A. M. Chickering were named to represent the society on the council of the American Association.

THE following members of the Indiana Academy of Science have been appointed divisional chairmen for the year 1937: *Archeology*, Glenn A. Black, Indianapolis; *Botany*, C. L. Porter, Purdue University; *Chemistry*, Paul D. Wilkinson, Indiana State Teachers College; *Bacteriology*, H. M. Powell, Eli Lilly Company, Indianapolis; *Geology and Geography*,

Leroy Perkins, Indiana State Teachers College; *Mathematics*, C. K. Robbins, Purdue University; *Physics*, Leslie I. Steinbach, Central Normal College, Danville; *Psychology*, P. R. Hightower, Butler University; *Zoology*, W. P. Allyn, Indiana State Teachers College. Chairmen of the following standing committees have also been appointed: *Archeological Survey*, E. Y. Guernsey, Bedford; *Biological Survey*, B. E. Montgomery, Purdue University; *Library*, J. E. Potzger, Butler University; *Program*, Edward Kintner, Manchester College; *Publication of Proceedings*, J. J. Davis, Purdue University; *Relation of Academy to State*, F. N. Wallace, Department of Conservation. Dr. H. E. Enders, dean of the School of Science, Purdue University, has been selected as representative for the academy on the Council of the American Association for the Advancement of Science and as chairman of the Junior Academy of Science.

THE corporation of the Massachusetts Institute of Technology on January 7 elected, under a change in the corporation by-laws, five special-term members. The Technology Alumni Association nominates three term-members annually. The new members are: Edmund C. Mayo, president of the Gorham Manufacturing Company, Providence, R. I.; Gordon S. Rentschler, president of the National City Bank of New York; Ralph E. Flanders, president of the Jones and Lamson Machine Company, Springfield, Vt.; Frank D. Comerford, president of the Edison Electric Illuminating Company, Boston, Mass., and Halfdan Lee, president of the Eastern Gas and Fuel Associates.

PROFESSOR C. L. METCALF, head of the department of entomology at the University of Illinois, has been appointed chairman of the division of biological sciences, composed of the departments of bacteriology, botany, entomology, physiology, psychology and zoology.

ASSISTANT PROFESSOR W. D. BATEN, of the University of Michigan, has been appointed associate professor of mathematical statistics and research associate in statistics at Michigan State College. His work will include that of statistical adviser in the State College Experiment Station.

PREVIOUS awards from the Elizabeth Thompson Science Fund were reported in SCIENCE on November 29, 1935, and earlier. Since the last report the following awards have been made. At the meeting of April 8, \$200 was awarded to Kurt G. Stern, Yale University, for an investigation of the chemical constituents of the enzyme catalase; \$60 to Arthur Jacot, Appalachian Forest Experimental Station, Asheville, N. C., for duplicating Thomas Say's collection of mites and determining what were his species; \$200 to Dr. H. S.

Jennings, of the Johns Hopkins University, to be administered in behalf of Dr. T. T. Chen's studies on the mechanism of heredity in unicellular organisms; \$400 to Walter C. Michels and A. L. Patterson, Bryn Mawr College, for studies of the effects of x-rays on cell division and for crystal analysis.

DR. N. H. DARTON has been retired from the U. S. Geological Survey, after serving as geologist for more than fifty years. He will continue scientific work at the survey and will also engage in private practice with headquarters in Washington.

DR. WILLIAM THOMAS CALMAN retired from the British Museum (Natural History) on December 29, the day on which he reached the age of sixty-five years. Dr. Calman, who is president of the Linnean Society and secretary of the Ray Society, entered the museum in 1904, and has been keeper of the department of zoology since 1921. His special subject is the study of the crustacea. On the day of his retirement a number of his friends and colleagues presented him with a pencil portrait of himself, drawn by W. T. Monnington. The retirement on account of ill health is also announced of Guy Coburn Robson, deputy keeper in charge of mollusca in the department of zoology.

ALBERT PÉRARD, who has been connected with the International Bureau of Weights and Measures since 1905, since 1931 as assistant director, has been appointed director. He succeeds Dr. Charles-Edouard Guillaume, who has retired after serving in the bureau for fifty-three years and as its director since 1915. The title of "honorary director" has been bestowed upon Dr. Guillaume.

*The British Medical Journal* records the following retirements and new appointments: Professor Sobernheim, director of the Institute for Hygiene and Bacteriology at Berne, has retired and been succeeded by Dr. Kurt Hallauer, of Basle. Dr. Marinescu, professor of neurology at Bucarest, has been succeeded, on reaching the age limit, by Dr. Paulian, director of the Central Neurological and Psychiatric Hospital. Professor C. Kronacher, director of the Institute for Animal Breeding and Domestic Animal Genetics of the University of Berlin, has been given charge of the German Society for Animal Psychology, an institution created earlier this year. Dr. Leopold Arzt, professor of dermatology at Vienna, has been elected rector of the university; Dr. André Trèves has been elected president of the Paris Surgical Society.

DR. WILFRED H. OSGOOD, chief curator of zoology at the Field Museum of Natural History, sailed on January 9 from Vancouver for French Indo-China to collect birds and mammals for the museum. The chief

objectives of his expedition are specimens for a proposed habitat group of gibbons and for a group of Argus pheasants. Dr. Osgood will also collect a wide variety of small mammals, birds, reptiles, etc. He will remain in French Indo-China and neighboring territory for four months or more, working principally in the southern regions.

PROFESSOR ELLINOR H. BEHRE, of the Louisiana State University, is taking the place during the first semester of Dr. Elizabeth Adams, of the department of zoology at Mount Holyoke College, who is absent on leave. Dr. Adams is visiting laboratories where endocrine investigations are in progress, including McGill University, the University of Buffalo, the University of Chicago, the Mayo Clinic, the University of Iowa and the Johns Hopkins University.

VISITORS to the College of Natural Science of Yenching University, Peiping, China, during the autumn of 1936 included: Dr. O. R. McCoy, professor of parasitology at the School of Medicine and Dentistry of the University of Rochester; Miss Carey D. Miller, of the Nutrition Laboratory of the University of Hawaii; Dr. A. C. Fraser, professor of plant breeding at Cornell University; Dr. P. G. Rahm, visiting professor of biology at Fu-Jen University, and Dr. B. Suzuki, professor of biological chemistry at Tokyo Imperial University.

DR. GEORGE W. CORNER, professor of anatomy in the University of Rochester, has returned from England. During his visit there he presented, in addition to the Vicary Lecture of the Royal College of Surgeons, a series of lectures on the ovarian hormones, under the auspices of the University of London and Guy's Hospital Medical School on December 7, 8, 9 and 11. He lectured also at the University of Manchester on December 14, and at the Edinburgh Obstetrical Society on December 15, on "The Corpus Luteum and its Hormone," and at the University of Edinburgh on December 15 on "The Ovarian Hormones and the Menstrual Cycle."

DR. R. SCHOENHEIMER, assistant professor of biological chemistry of the College of Physicians and Surgeons, Columbia University, will deliver the fourth Harvey Society Lecture of the current series at the New York Academy of Medicine on January 21. He will speak on "The Investigation of Intermediary Metabolism with the Aid of Heavy Hydrogen."

THE sixty-sixth annual meeting of the American Public Health Association will be held in New York City from October 5 to 8. The last annual meeting took place in New Orleans last October. It attracted an attendance of 1,650 health authorities representing forty-five states, Canada, Cuba, Mexico and nine other

foreign countries. The National Organization for Public Health Nursing will meet with the association in 1937 for the first time. This organization will, it is expected, add another thousand members to the registration lists. The following related societies will meet with the association as usual: The American Association of School Physicians; International So-

cietiy of Medical Health Officers; Conference of State Sanitary Engineers; Conference of State Laboratory Directors; Association of Women in Public Health and Delta Omega. Dr. Reginald M. Atwater is the executive secretary of the association, and the headquarters offices are at 50 West 50th Street, New York, N. Y.

## DISCUSSION

### THE DISTRIBUTION OF BLACK WIDOW SPIDERS

IN a recent article by D. C. Lowrie<sup>1</sup> the geographic distribution of the black widow spider, *Latrodectus mactans* (Fabr.), is discussed. The author adds Indiana to the list of states from which the spider is known and refers to the records given two weeks previously by L. H. Townsend<sup>2</sup> for Illinois and Oregon as though they were the first for those states. Moreover, he makes a statement to the effect that it has not yet been recorded from the following states: Minnesota, Iowa, Virginia, Delaware, New Jersey, Connecticut, Rhode Island and Vermont. A few weeks later Jeffers<sup>3</sup> recorded the spider from Virginia. There is no doubt that it occurs in all these states, as it has been found in the regions bounding them. As a matter of fact, records for some of them have been available in entomological literature. For the benefit of those interested who may not have access to this literature I repeat them here.

For Virginia the spider was first recorded by J. H. Emerton<sup>4</sup> in 1875, from Hog Island. It has also been recorded as abundant in the Norfolk area by L. D. Anderson and H. G. Walker,<sup>5</sup> and from various localities by C. R. Willey.<sup>6</sup> Moreover, Dr. Bogen<sup>7</sup> cites cases of arachnidism from this state and gives three medical references. In a supplementary paper<sup>8</sup> two more references are added.

For Illinois the spider has been recorded by W. J. Spicer<sup>9</sup> from near Pittsfield, near Springfield and from Barry. For Oregon, by H. H. Stage<sup>10</sup> from Klamath Falls, and by D. C. Mote<sup>11</sup> from Roseburg and elsewhere.

For New Jersey the spider has been recorded by C. H. Hadley<sup>12</sup> from Moorestown, and by R. C. Cassel-

bury<sup>13</sup> from near Ocean City. For Rhode Island a specimen from Cranston has been recorded by A. E. Stene.<sup>14</sup> Specimens have been collected in Connecticut at Killingworth on May 16, 1933, by Dr. A. Petrunkevitch; at North Plains on October 28, 1934, by Dr. S. C. Ball; at Norwichtown on June 25, 1935, by A. Latham, and at Leetes Island on September 29, 1935, by D. S. Riggs. These have all been recorded by Dr. W. E. Britton.<sup>15</sup>

In addition to the above the following records are published for the first time. In Connecticut a specimen was taken by P. G. Howes at Stamford in 1912; by V. R. Short at Westbrook on June 8, 1935; by Mrs. W. Harrington at Woodbridge on October 7, 1936; by Mrs. I. J. Longo in Bridgeport on September 15, 1936, and two were found by D. S. Riggs in the nest of a mud dauber wasp at Cheshire on August 19, 1936. In Vermont specimens were collected in June, 1935, by Miss E. B. Bryant at Brandon and by C. H. Paige at Woodstock.

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### THE BLACK WIDOW SPIDER IN VIRGINIA

AS G. W. Jeffers states in SCIENCE for December 11, 1936, it is rather surprising that the black widow spider *Latrodectus mactans* has not been recorded officially in Virginia, although this is the case, according to D. C. Lowrie in SCIENCE for November 11, 1936. Jeffers finds it fairly common at Farmville, Va., and concludes that it probably occurs elsewhere in the state.

The writer has found it under boards at Arlington Farm, Va., near Washington, D. C., in the Alleghenies at Camp Todd, Augusta County, Va., at 1,000 feet, and at the foot of Walker Mountain near Deerfield, Augusta County, Va., all within the last two years.

Many years ago the writer found it very abundant at Thompsons Mills near Hosehton in northern Georgia. At this time little mention was made of this spider and the writer strongly doubted the venomous nature of its bite. Several attempts were made to test its bite between the fingers, but he could not get it to use its fangs.

<sup>13</sup> Entom. News, 46: 260-261, December, 1935.

<sup>14</sup> Insect Pest Surv. Bul., 16: 306, August, 1936.

<sup>15</sup> Conn. Agr. Exp. Sta. Bul., 383: 350. April, 1936.

<sup>1</sup> SCIENCE, 84: 437, November 13, 1936.

<sup>2</sup> Ibid., 84: 392-393, October 30, 1936.

<sup>3</sup> Ibid., 84: 533-534, December 11, 1936.

<sup>4</sup> Occ. Papers Boston Soc. Nat. Hist., 2: 153, 1875.

(In reprint of N. M. Hentz's "Spiders of the United States.")

<sup>5</sup> Insect Pest Surv. Bul., 12: 404, November, 1932.

<sup>6</sup> Ibid., 14: 296, November, 1934.

<sup>7</sup> Arch. Int. Med., 38: 623-632, November, 1926.

<sup>8</sup> Ann. Int. Med., 6: 375-388, September, 1932.

<sup>9</sup> Insect Pest Surv. Bul., 15: 419, November, 1935.

<sup>10</sup> Ibid., 14: 164, July, 1934.

<sup>11</sup> Ibid., 14: 209, August, 1934.

<sup>12</sup> Ibid., 15: 389, October, 1935.