

and Applied. The extensive and international character of the book is evidenced by the subjoined list of some of those who have already promised contributions:

United States: E. G. Acheson, W. D. Bancroft, Carl Barus, M. H. Fischer, W. D. Harkins, H. N. Holmes, G. A. Hulett, D. D. Jackson, G. F. Kunz, R. S. Lillie, D. T. MacDougal, S. E. Sheppard, A. Silverman, E. B. Spear, E. W. Washburn, A. W. Thomas, H. A. Gardner. England: E. F. Armstrong, Henry Bassett, W. M. Bayliss, E. F. Burton, W. B. Hardy, F. G. Donnan, F. E. Lloyd, A. E. Dunstan. Germany: H. Beechhold, G. Bredig, A. Fodor, H. Handovsky, A. Lottermoser, Lüppo-Cramer, R. Höber, W. Ostwald, H. Plauson, E. Stiasny, G. Tammann, H. Schade. Austria: C. Doelter, W. Pauli. Jugoslavia: M. Samec. Sweden: Sven Oden. Holland: H. R. Kruyt. Mexico: A. L. Herrera.

Many unusual experimental facts and practical applications of colloid chemical principles are unpublished, and the object of this letter is to ask any one in any field of science or experience who may have information of interest to send me a brief statement for inclusion in the book.

Contributions may consist of a paragraph, a page, or several pages, and will (unless contrary request is made) be duly acknowledged. If possible they should be submitted in English and duplicate copies will be appreciated. Authors should state their full names and titles.

The editors of scientific, technical and cultural publications in all countries are asked to disseminate this appeal.

JEROME ALEXANDER

50 EAST FORTY-FIRST STREET,
NEW YORK CITY

DR. PAUL WAGNER

ON the seventh of March, the noted German agricultural chemist and investigator, Dr. Paul Wagner of Darmstadt, will complete his eightieth year, at which time his numerous friends and pupils in Germany will hold a celebration at Darmstadt in his honor.

Fifty years ago, Dr. Wagner became director of the Experiment Station at Darmstadt, which had just been founded, and has since won for this institution a world renown, through his investigations on plant foods. He certainly deserves to receive great commendation for hav-

ing, with the help of his own method of pot experiments, substantially extended and firmly established the foundation for the use of commercial fertilizers.

He was the first to recognize and correctly estimate the fertilizing effect of the Thomas phosphate or basic slag. By a steady improvement in the methods of fertilizer experiments in the field, he succeeded in making of these field experiments a practical means of exact investigation.

Dr. Wagner, furthermore, has clearly shown the results of his investigations in the vegetation house, field and laboratory to the practical farmer, both in articles which are easily understood and in inspiring lectures; and in this way he has contributed in an enormous degree toward the proper use of commercial fertilizers in agriculture.

Here in the United States, many of Dr. Wagner's articles are known, having been translated or summarized by numerous writers to the great advantage of American agriculture.

H. A. H.

SIGMA XI LECTURES

THE following public lectures were given before the Iota Chapter of the Society of Sigma Xi, University of Kansas:

Dr. Henry B. Ward, professor of zoology, University of Illinois: January 10, "The struggle of man with the life of the wilderness in North America," and "The factors which control and direct the migration of the Pacific salmon."

Dr. A. Sommerfeld, professor of mathematical physics, University of Munich, at present holding the Karl Schurz memorial professorship at the University of Wisconsin: Jan. 20, "Atomic structure and periodic system of elements."

Officers of Iota Chapter are:

President, F. B. Dains, professor of chemistry.
Vice-president, W. S. Hunter, professor of psychology.

Secretary, Guy W. Smith, assistant professor of mathematics.

Treasurer, H. E. Jordan, assistant professor of disseminate this appeal.

In a visit to the University of Oklahoma Dr. Henry B. Ward, national president of Sigma Xi, addressed the local Sigma Xi Club on the evening of January 11 on "The struggle of man with the life of the wilderness in

North America." Dr. Ward also addressed the general student body on the morning of January 12, giving an illustrated lecture on "The factors which control and direct the migration of the Pacific salmon." He came to the University as guest of the local Sigma Xi Club.

GRANTS FOR RESEARCH MADE BY THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

THE Committee on Grants held its annual meeting in New York on December 31, 1922, and distributed four thousand dollars which was assigned by the council of the association for the year. Two members of the committee, Messrs. Moulton and Lamb, having retired at the end of the year 1922, the present organization of the committee is: Robert M. Yerkes, *chairman*; William D. Harkins, *secretary*; E. G. Conklin, C. Judson Herrick, George T. Moore, E. L. Nichols, Frank Schlesinger and David White. The committee elected a secretary for a term of four years.

The grants made for the year 1923 are listed below:

ASTRONOMY

No. 102: W. W. Campbell, Mt. Hamilton, Cal., \$225 for assistance in constructing an interferometer for use in measuring double stars.

No. 103: Bernhard H. Dawson, LaPlata, Argentina, \$300 for assistance in preparing catalog of 7,800 southern stars.

BOTANY

No. 104: S. M. Zeller, Corvallis, Oregon, \$250 for aid in study of Humenogastrales of North America.

No. 105: John T. Buchholz, Fayetteville, Ark., \$125 for aid in continuing work in quantitative studies of pollen tube growth, etc.

No. 106: Alkart R. Sweetser, Eugene, Ore., \$125 for aid in work on flora of the Kerby Quadrangle.

CHEMISTRY

No. 107: A. W. Rowe, Evans Memorial, Boston, Mass., \$300 for providing apparatus for studying rate of oxidation of ether.

No. 108: S. A. Mahood, Tulane University, New Orleans, La., \$200 for assistance in study of cellulose chemistry.

No. 109: H. I. Schlesinger, University of Chicago, \$300 for part payment of Hilger quartz spectrograph.

GEOLOGY

No. 110: V. C. Allison, Bureau of Mines, Pitts-

burgh, Pa., \$150 for assistance in study of rate of growth of stalagmites.

No. 111: Ferdinand Canu, Versailles, France, in collaboration with R. S. Bassler, U. S. National Museum, Washington, D. C., \$250 for aid in continuation of study of recent Bryozoa in Gulf of Mexico, etc.

No. 112: Taisia Stadnickenko, Poughkeepsie, New York, \$200 to assist in micro-chemical study of oils, shales and coal.

MEDICINE

No. 113: H. V. Atkinson, University of Texas, Galveston, Texas, \$200 to continue study of changes of blood under influence of drugs.

No. 114: M. S. Fleisher, St. Louis School of Medicine, St. Louis, Mo., \$200 for expenses in studying yeast-like organisms in human beings.

No. 115: O. F. Kampmeier, University of Illinois Medical School, Chicago, Ill., \$100 for assistance in completing monograph on morphology of lymphatic systems of vertebrates.

PSYCHOLOGY, PHILOSOPHY, EDUCATION

No. 116: Kline and Carey, Skidmore College, Saratoga Springs, N. Y., and Duluth, Minn., \$300 for aid in constructing measuring scale for free-hand drawing.

No. 117: S. L. Pressey, Ohio State University, Columbus, O., \$200 for assistance in X-O emotional tests.

PHYSICS

No. 118: L. Thompson, Kalamazoo College, Kalamazoo, Mich., \$100 for constructing chronographs.

ZOOLOGY

No. 119: F. B. Hanson, Washington University, St. Louis, Mo., \$250 for assistance in studying experimental modification of the germ plasm.

No. 120: Raymond Pearl, Johns Hopkins University, Baltimore, Md., \$225 for partial payment of X-ray apparatus for studying *Drosophila*.

W. D. HARKINS,

Secretary

UNIVERSITY OF CHICAGO

SCIENTIFIC NOTES AND NEWS

DR. ARTHUR A. HAMERSCHLAG, former president of the Carnegie Institution of Technology, has been elected to the presidency of the Research Corporation. Its principal office is in New York City and Dr. Hamerschlag will give part of his time to its work, although he will retain his residence and office in Pittsburgh. The Research Corporation, it will be remembered, has been endowed by the gift of the