SCIENTIFIC NOTES AND NEWS

THE Bailey K. Ashford Award of $1,000 and a bronze medal of the American Society of Tropical Medicine were presented at the St. Louis meeting to Dr. Lloyd E. Rozeboom, of the Johns Hopkins University, formerly medical entomologist of the Gorgas Memorial Laboratory at Ancon, the Canal Zone, in recognition of his work in tracing malaria transmission to a variety of mosquitoes suspected, but never demonstrated, to be a carrier of the disease.

THE *Journal* of the American Medical Association reports that Dr. Arthur E. Guedel, Los Angeles, was the guest of honor at a dinner given on October 21 by the section on anesthesia of the Los Angeles County Medical Association to mark the presentation to him of the Hickman Medal by the Royal Society of Medicine, London. At the dinner a representative of the British Government made the presentation on behalf of the Royal Society of Medicine. The principal address was delivered by Dr. Chauncey D. Leake, professor of pharmacology, lecturer in medical history and bibliography and librarian of the Medical School of the University of California.

A DINNER in honor of his sixtieth birthday was given by alumni to Dr. Champion H. Mathewson, professor of metallurgy and metallography and head of the department of metallurgy at Yale University. He was presented with a commemorative volume containing nineteen technical papers on physical metallurgy written by his former students.

PROFESSOR FRITZ HOFMANN, director of the Silesian Institute for Coal Research, has been awarded the Goethe Medal for Arts and Sciences in recognition of research work in connection with the production of synthetic rubber.

DR. ELMER L. SEVRINGHAUS, of the medical division of the Wisconsin General Hospital, University of Wisconsin, has been elected honorary foreign member of the National Academy of Medicine of Buenos Aires. Dr. Sevringhaus visited Buenos Aires last March and lectured there before the academy and other medical organizations as well as in Rosario and Montevideo.

AT the last meeting of the New York City Branch of the American Society of Bacteriologists held at Columbia University on October 28, the following members were elected to hold office in 1942: *President,* Professor E. J. Keegan, St. John's University; *Vice-president,* Miss Mary Horton, Sheffield Farms; *Members of the council,* Dr. E. R. Eaton, Welfare Hospital, Dr. D. M. Rogers, Borden Farms, and Dr. W. Reiner-Deutsch, Triboro Laboratories, *chairman.*

GEORGE C. THOMAS, JR., president of the Thomas and Betts Company, Elizabeth, N. J., was elected at the New York meeting president of the National Electrical Manufacturers Association. He succeeds Earl O. Shreve, vice-president of the General Electric Company.

DR. MILLISLAV DEMEREC, who since 1923 has been a resident investigator at the department of genetics at Cold Spring Harbor, L. I., of the Carnegie Institution of Washington and who has served as assistant director of this department for the last six years, has been appointed acting director, to take the place of Dr. A. F. Blakeslee, who retires on December 1.

IT is reported in the *News Edition* of the American Chemical Society that Dr. Fred C. Koch, who recently retired as Frank P. Hixon distinguished service professor of biochemistry at the University of Chicago, will continue his researches in the field of endocrines at the Armour Laboratories, Chicago, where he will also act as consultant on research problems in biochemistry. A newly completed laboratory has been designated the F. C. Koch Laboratory and set up for his use in the chemical research department of the institute.

A DEPARTMENT of home economics research has been established at the Oklahoma College and Station with Dr. Williamina Armstrong, of the University of Illinois, as head. Dr. Armstrong will take over research in nutrition formerly conducted by Dr. Gladys Kinsman, who has resigned recently to become a member of the staff of the Women's College of the University of North Carolina at Greensboro. Research in home economics was previously administered under the department of agricultural chemistry research.

APPOINTMENTS at the Michigan College of Mining and Technology include Chester Russell, formerly a department head at the Universities of New Mexico and Denver, associate professor of electrical engineering; J. M. Crockin, assistant professor, and Dr. M. W. Bredekamp, instructor in chemical engineering and chemistry; A. B. Epple, Robert Hagen and E. W. Niemi, instructors in mechanical engineering; R. B. Oliver, instructor in metallurgical engineering; Fernando Paciotti, assistant research engineer in mineral dressing.

HELMUT R. R. WAKEHAM, of the Research and Development Department of the Standard Oil Company of California, has become associate chemist in the Section of Physical Chemistry of the Southern Regional Research Laboratory at New Orleans, La., of the U. S. Department of Agriculture.

C. FRED GURNHAM, a member of the department of chemical engineering of the Pratt Institute, Brooklyn, N. Y., has become associated with the firm of Fred S. Carver, New York City. He is conducting research on new applications of the operation of pressing, particularly in the field of vegetable fats and oils.

EDWARD GRAY, of the National Research Corporation, has been appointed biological chemist with Lever Brothers, Cambridge, Mass.

DR. A. EICHHORN, director of the Animal Disease Station at Beltsville, Md., recently visited England for consultations with the Ministry of Agriculture and the Agricultural Research Council.

DR. RICHARD S. BURINGTON, professor of mathematics at the Case School of Applied Science, has been granted leave of absence for the current academic year in order that he may continue his work as research mathematician and consultant in the Bureau of Ordnance of the Navy Department at Washington, D. C.

HENRY DYBAS, assistant in the Division of Insects of the Field Museum of Natural History, has returned to Chicago after collecting insects for three months in Mexico in company with Dr. Charles H. Seevers, of the department of zoology of the Central Y.M.C.A. College, and David Bergstrom. The party traveled by automobile and made stops of a few days or weeks at various localities which ranged from semi-arid country to luxurious tropical forest. Most of the collecting was done in the regions of Cordoba, Vera Cruz and the country to the south. The material obtained by Mr. Dybas numbers over 17,000 specimens. These are chiefly beetles, including three thousand fungus-dwelling beetles of the family *Ptiliidae*.

DR. VICTOR E. LEVINE, professor of biological chemistry and nutrition at the School of Medicine of Creighton University, has returned from the Arctic, where he spent the summer at King Island in the Bering Sea making vitamin C studies of Eskimo foods.

A GRANT of $5,000 has been made to the Vanderbilt University School of Medicine by the S. E. Massengill Company, Bristol, Tenn., to be used for experimental purposes in the field of menstrual disorders by Dr. John C. Burch, associate professor of obstetrics and gynecology.

DR. SETH B. NICHOLSON, astronomer at the Mount Wilson Observatory of the Carnegie Institution of Washington, delivered on October 29 at the University of California at Los Angeles the Alexander F. Morrison Lecture of the Astronomical Society of the Pacific. His subject was "Sunspots and Magnetism."

AT the meeting of the Philadelphia Section of the American Chemical Society, held on November 13 at the Franklin Institute, Dr. Colin G. Fink, head of the division of electrochemistry of Columbia University, gave an address on "Strategic Metals."

DR. THOMAS FRANCIS, JR., professor of epidemiology in the School of Public Health of the University of Michigan, will deliver on November 27 the second Harvey Society Lecture of the current series at the New York Academy of Medicine. He will speak on "Factors Conditioning Resistance to Epidemic Influenza."

DR. JAMES ALEX. MILLER inaugurated on November 13 the seventh series of the "Lectures to the Laity" of the New York Academy of Medicine with an address entitled "Tuberculosis: The Known and the Unknown." This constitutes the second Linsly R. Williams Memorial Lecture given in memory of Dr. Williams, who was the first director of the New York Academy of Medicine. A dinner to Dr. Miller preceded his delivery of the lecture. The Laity Lectures, six in number, are given one each month from November to May. They are open to the public and admission is free. Other lectures in the series are: December 11, "The Mechanisms of the Mind," by Dr. Tracy Jackson Putnam, professor of neurology and neurosurgery, Columbia University; January 22, "The Freudian Epoch," by Dr. A. A. Brill, lecturer in neurology and psychiatry, Columbia University (this is the New York Academy of Medicine Anniversary Discourse); February 26, "Creative Behavior in Child and Adult," by Dr. Arnold Gesell, director of the Clinic of Child Development, the School of Medicine, Yale University; March 26, "The History of Vitamin B," by Dr. Norman Jolliffe, associate professor of medicine, College of Medicine, New York University; April 23, "The Newer Knowledge on Nutrition," by Dr. A. J. Carlson, Frank P. Hixon distinguished professor of physiology, emeritus, University of Chicago.

AT the eighth annual post-graduate day of the Medical Institute of the University of Toledo on October 31, instead of the usual program of prepared papers, the conference method was used. The subjects under discussion were "Digitalis—New Light on an Old Drug," "The Management of Heart Failure," "Circulatory Stimulants and Shock." There were three outside speakers, all from the faculty of the Cornell University Medical College—Dr. Eugene F. DuBois, Dr. Harry Gold and Dr. McKeen Cattell. All three speakers appeared at each session, the last half of each period being devoted to discussion. The first part of the session in the evening was devoted to a memorial to the late Dr. Lyman A. Brewer, who had served as professor of surgery and dean of the

Toledo Medical College. He was chief of staff at the time of his death at the age of seventy-seven years on January 16, 1939.

THE Fourth South American Chemical Congress, sponsored by the Chilean Government, will be held at Santiago in January. At that time the University of Santiago will celebrate its founding in 1504.

THE forty-third annual meeting, the two hundred and forty-sixth regular meeting, of the American Physical Society will be held at Princeton University on December 29, 30 and 31. The preliminary arrangements for the program include a joint session with the American Association of Physics Teachers for Tuesday afternoon. At this session it is hoped that President G. W. Stewart, of the State University of Iowa, will deliver his retiring presidential address, that Professor W. F. Magie, of Princeton University, will speak on the life work of Joseph Henry, and that Professor Arthur H. Compton, of the University of Chicago, will deliver the first Richtmyer Memorial Lecture of the American Association of Physics Teachers on "Wartime Problems of the Physics Teacher."

THE sixth annual meeting of the Florida Academy of Sciences and the Florida Junior Academy of Sciences was held at Florida Southern College, Lakeland, on November 20, 21 and 22. In addition to the general sessions the academy met in three sections—Biological, Physical and Social Sciences. Sixty-one papers were presented. The program of the Junior Academy was held in the Lakeland High School building. Frank Brigham, superintendent of public instruction of Polk County, gave the address of welcome. There was a message from the Academy of Sciences, papers and demonstrations by members of the Junior Academy and a motion picture on vitamins in human nutrition by Professor L. L. Rusoff, of the university. Field trips, a football game and banquets for both academies were held.

PLANS for the construction by the General Electric Company of a plant to be built at a cost of $1,000,000 for the manufacture of synthetic phenol have been announced by William H. Milton, Jr., the newly appointed manager of the plastics department. The action was taken to counteract a shortage of phenol, used by the government for production of plastic parts. The new plant is expected to be in operation in 1942.

DISCUSSION

THE POLARIZATION OF ATMOSPHERIC HAZE

THE article by George M. Byram in SCIENCE for August 22, pp. 192–193, seems to require some amendments in view of research I have conducted in the field of atmospheric polarization.[1] The statement, that "when viewed through a combination polarizing screen and red filter, the visual range of distant objects may be considerably increased, because under favorable conditions this filter combination removes a large part of the atmospheric haze," must allude to the presence of a light-colored object in front of a dark background.

The visual range is a function of the contrast between the sighted object and its background. Disregarding the influence of color and form contrast and other physiological factors, there is still the contrast between the apparent brightness of the object and its background to be considered. The apparent brightness of the object consists of the light reflected by the object and the light scattered by the air and its suspensions between the observer and the object, the so-called air-light. With regard to the apparent brightness of the background, two possibilities are encountered: If the background consists of a solid object, as, *e.g.*, a mountain range, its apparent brightness is a function of light reflected on it and the air-light. In case wooded mountains (albedo 0.07) form the background to a light object, such as a light-colored smoke column, an improvement can be obtained by viewing through a red filter and polarizing screen, since the short-wave air-light which is partially polarized is absorbed and thus the contrast between the light object and its dark background is increased. The same holds true for white clouds which have blue sky for a background, as the combination filter greatly reduces the short-wave, partially polarized, sky-light and thus allows the white cloud to stand out much better in front of the dark appearing sky. In these cases the improvement is in visibility rather than in visual range.

The other possibility under consideration is a dark object with the light from the clear sky near the horizon, the so-called horizon-light, as a background. In this case the resulting conditions are entirely different. The apparent brightness of the dark object is mainly a function of the air-light. The horizon-light consists of the light scattered by the air column from the observer to the boundary of the optically effective atmosphere, tangent to the earth's surface at the point of observation.

The air column involved in the production of the horizon-light is necessarily longer than that producing

[1] *Arch. d. Deutsch. Seewarte*, 56: 6, 1–53, 1936.