Professor Julian D. Boyd, department of pediatrics, University Hospital, State University of Iowa, for studies on the arrest by dietary control of dental caries in children.

Professor A. Leroy Johnson and F. J. Stare, Schools of Dental Medicine, Medicine and Public Health, Harvard University, to aid a comprehensive investigation of the etiology and control of dental caries.

Professor Melville L. Wolfrom, department of chemistry, The Ohio State University, for a study of the non-sugar constituents of molasses.

Professor Carl Neuberg, department of chemistry, Washington Square College, New York University, for studies of dry invertase preparations and glycerol production by modified fermentations.

AWARD OF THE ROEBLING MEDAL OF THE MINERALOGICAL SOCIETY OF AMERICA

AT a special luncheon meeting of the Mineralogical Society of America to be held at noon at the Hotel Pennsylvania in New York City, on Tuesday, February 20, the Roebling Medal of the Mineralogical Society of America will be awarded to Professor Edward H. Kraus, dean of the College of Literature, Science and Arts at the University of Michigan. This award is in recognition of meritorious achievements in the fields of crystallography and mineralogy. The meeting will also commemorate the twenty-fifth anniversary of the founding of the society.

Dean Kraus received his B.S. degree from Syracuse University in 1896 and his Ph.D. from the University of Munich, Germany, in 1901. He was called to the University of Michigan in 1904 to take charge of the instruction in crystallography and mineralogy. In addition to his professorship he has held many important executive university positions. Since 1933 he has served as dean of the college. He has published more than seventy-five scientific papers and is sole author of two and co-author of three texts on crystallography, general mineralogy, gems and gem materials and tables for the determination of minerals.

In November, 1944, he was appointed by the Research Club of the University of Michigan to the Henry Russel Lectureship for 1945 for his outstanding work in his special fields of interest.

This will be the fifth award of the Roebling Medal. The four previous recipients were Professor Charles Palache, of Harvard University; Dr. Waldemar T. Schaller, of the U. S. Geological Survey; Dr. Leonard J. Spencer, of the British Museum, and Professor Esper S. Larsen, of Harvard University.

SCIENTIFIC NOTES AND NEWS

THE American Institute of Electrical Engineers gave on January 23 a dinner in honor of Dr. Ernst F. W. Alexanderson, of the General Electric Company, at which he was presented with the Edison Medal, awarded annually by the institute for achievements in the field of electricity, in recognition of his "outstanding inventions and developments in the radio, transportation, marine and power fields."

THE newly established Proctor Gold Medal Award of the Philadelphia Drug Exchange was presented at its eighty-fourth anniversary dinner in Philadelphia on January 23 to Dr. Ivor Griffith, president of the Philadelphia College of Pharmacy and Science, for his "distinguished service in the pharmaceutical field."

DR. E. O. ESSIG, professor of entomology at the University of California at Berkeley, has been awarded a bronze medal by the American Iris Society in recognition of his work in iris hybridization.

THOSE receiving Awards of Merit of the Alumni Society of the University of Pennsylvania include Colonel I. S. Ravdin, Harrison professor of surgery, who holds the Legion of Merit for outstanding services as commander of an Army hospital in India which was organized by the university, and Colonel William S. Middleton, professor of medicine and dean of the Medical School of the University of Wisconsin, who supervises all activities in internal medicine for the American forces in Europe.

DR. R. C. GIBBS, professor of physics at Cornell University, was elected president of the American Association of Physics Teachers at the recent New York meeting held in conjunction with the American Physical Society. The Oersted Medal, awarded annually "for notable contributions to the teaching of physics," was presented to Dr. Homer L. Dodge, president of Norwich University, Vermont. At this meeting Professor I. I. Rabi, of Columbia University, delivered the Richtmyer Memorial Lecture.

CHARLES H. COLVIN, engineering and management consultant of New York City, has been elected president of the Institute of the Aeronautical Sciences. He succeeds Major R. H. Fleet, of San Diego, Calif.

DR. JEAN BROADHURST, professor emeritus of bacteriology of Teachers College, Columbia University, has been elected an honorary member of the New York City Branch of the Society of American Bacteriologists.

AT the School of Medicine of the University of Minnesota, Dr. Gaylord W. Anderson, professor and head of the department of preventive medicine and

public health, who has leave of absence as lieutenant colonel, Medical Corps, Army of the United States, and as chief of the Division of Medical Intelligence of the Office of the Surgeon General, has been named director of the new School of Public Health. Dr. Haven Emerson, of New York, has returned to the school as visiting professor of public health to serve for the year 1945.

DR. CLARENCE H. GRAHAM, professor of psychology at Brown University, has been appointed professor of psychology at Columbia University to take effect in September. He will be in charge of graduate work in experimental psychology.

AT the Ohio University, Dr. J. R. Gentry, Dr. Gaige B. Paulsen and Dr. T. C. Scott have been promoted to full professorships of psychology.

DR. HAROLD M. SELL, associate chemist of the U. S. Field Laboratory for Tung Investigations at Gainesville, Fla., has been appointed research professor in agricultural chemistry at Michigan State College.

DR. JOHN W. GRUNER, of the department of geology of the University of Minnesota, has discovered a new manganese mineral in Minnesota iron ore deposits. The mineral is of a simple composition containing only manganese, hydrogen and oxygen. It has been named Groutite in honor of Dr. Frank E. Grout, head of the Geological Survey of Minnesota.

AT the annual meeting on January 16 of the Anthropological Society of Washington, the following officers were elected: *President,* Dr. T. D. Stewart, U. S. National Museum; *Vice-president,* Dr. Regina Flannery, Catholic University of America; *Secretary,* Dr. William N. Fenton, Bureau of American Ethnology, Smithsonian Institution; *Treasurer,* Dr. Waldo R. Wedel, U. S. National Museum. *Members of the Board of Managers:* Dr. W. M. Cobb, Howard University; Dr. William H. Gilbert, Library of Congress; Dr. Alfred Metraux, Smithsonian Institution; Dr. Maurice A. Mook, American University, and Dr. Julian H. Steward, Smithsonian Institution. Dr. T. D. Stewart was nominated as vice-president to represent the society in the Washington Academy of Sciences.

THE officers of the Association of Official Seed Analysts for the coming year are: *President,* N. G. Lewis, Calgary, Alberta; *Vice-president,* G. P. Steinbauer, Orono, Me.; *Secretary-Treasurer,* Elva Norris, Manhattan, Kans.

DR. R. P. ANDERSON, technologist of the Refining Division of the American Petroleum Institute, has retired from active service.

DR. WALLACE J. ECKERT, astronomer and since 1940 director of the Nautical Almanac Office at the United States Naval Observatory at Washington, D. C., previously professor of astronomy at Columbia University, has been appointed director of the department of pure science recently organized by the International Business Machines Corporation. His office will be at the World Headquarters Building of the corporation in New York City.

DR. WILLARD H. BENNETT, research and development officer for the Signal Corps, has been appointed director of applied research at the Institute of Textile Technology in Charlottesville, Va. He will be responsible for physical and mechanical research and its applications to textile manufacturing operations.

THE *Journal* of the American Medical Association reports that a new cancer research project is planned at the School of Medicine of Western Reserve University to investigate the curative properties of a serum evolved by Dr. Alexander A. Bogomolets, director of the Institute of Experimental Biology and Pathology in the Soviet Union. The work will be carried out under the direction of Dr. Harry Goldblatt, associate director of the Institute of Pathology at the school, who with Dr. Enrique E. Ecker, professor of immunology, has been interested in the serum.

DR. C. L. LUNDELL, director of the Institute of Technology and Plant Industry of the Southern Methodist University at Dallas, has been engaged since 1940 in the preparation of a comprehensive Flora of Texas. With the cooperation of collaborators, four parts of the descriptive flora have been published. A post-graduate research fellowship in systematic botany has now been established. The fellows will conduct research on the flora of the state and will participate in the survey of natural plant resources of the Southwest.

AT the Ohio State University, the annual series of Bownocker lectures, sponsored by the department of geology and the Society of the Sigma Xi, was delivered on January 15 and 16 by Max W. Ball, geologist and petroleum engineer, now of the Petroleum Administration for War. Mr. Ball delivered three addresses entitled "The Search for Oil," "The Athabaska Oil Sands" and "An Adventure in Statecraft." The last was an account of the achievements of the oil industry in cooperation with the Government in providing petroleum products for the war. On January 17 he spoke before the staff of Battelle Memorial Institute on "Fueling the War" and on January 29 gave a broadcast by transcription over radio station WOSU entitled "The Vital Munition."

JOHN E. BARKLEY, who recently resigned as research chemist with the Tennesseee Valley Authority, has become an associate chemist at the Armour Research Foundation, Chicago.

DR. GEORGE WELLS BEADLE, professor of biology at Stanford University, will deliver the fifth Harvey Society Lecture of the current series at the New York Academy of Medicine on February 15. He will speak on "The Genetic Control of Biochemical Reactions."

COLONEL HOWARD A. RUSK, chief of the Convalescent Training Division, Office of the Air Surgeon, Washington, D. C., was expected to deliver on February 12 at the Midwest Conference on Rehabilitation at the Drake Hotel, Chicago, the sixth Frank Billings Lecture of the Thomas Lewis Gilmer Foundation of the Institute of Medicine of Chicago. He had planned to speak on "Rehabilitation—The Challenge to American Medicine." At the request of the War Committee on Conventions, Washington, D. C., however, the conference has been cancelled.

DR. R. RUGGLES GATES gave an address on January 16 at the annual meeting of the New England Ophthalmological Society. His subject was "The Inheritance of Ocular Abnormalities."

A PRELIMINARY Conference on the Problems of Science Teaching in Southern Colleges with representatives from a number of southern institutions in attendance was held at the University of Georgia on January 12 and 13. The University of Georgia has been asked by the Work Conference of the Southern Association of Colleges and Secondary Schools to sponsor a study of instruction in the natural sciences in southern institutions, and the General Education Board has provided funds for the support of certain aspects of this study. This conference was called for the purpose of evaluating work which had been carried out by a local committee and for giving further direction to the study. A later conference, with representatives from all parts of the South, will be held at some subsequent date for the purpose of reviewing reports and recommendations and preparing a final report to the Southern Association of Colleges.

A CONFERENCE on the clinical significance of R_h factors will be held at the Medical Branch at Galveston of the University of Texas on Friday and Saturday, February 9 and 10. It has been called at the suggestion of laboratory workers and Texas military hospitals and will be under the general direction of Dr. J. G. Sinclair, professor of anatomy, and Dr. Henry H. Sweets, director of the John Sealy Clinical Laboratories.

FOLLOWING action by the Corporation of the Polytechnic Institute of Brooklyn providing for the establishment of a Highpolymer Research Bureau, a separate division of polymer chemistry has been established under the direction of Dr. Herman F. Mark, professor of organic chemistry.

THE first specialized course in the reporting and editing of science and medicine for newspapers and magazines will be given at New York University during the academic year 1945–46.

THE *Bulletin* of the U. S. Army Medical Department reports that the Surgeon General has appointed a committee to study and make recommendations concerning the Medical Department in the postwar Army. The chairman of the committee is the chief of the Operations Service, and the recorder is the director of the Special Planning Division. The committee is empowered to call for suggestions on any one connected with the Medical Department. Various subcommittees have been appointed and are already working. Consideration is being given to organization, training, medical supplies and equipment (including research and development), and personnel plans to ensure the highest type of professional medical services to the Army. Specialization will be encouraged and may include specialization in non-professional but related military medical subjects, such as command function in the field with troops, staff work, administration and medical supply duties.

DIRECTORS of the Cooperative Grange League Federation Exchange have appropriated $200,000 for the erection of a building for the School of Nutrition at Cornell University of which Dr. L. A. Maynard is director. This school was established in 1942 and has been sharing the buildings and facilities of other schools. Half the grant becomes available on call of the university and the other half will become available within four years.

THE quarterly *Alumni Bulletin* of the University of Chicago reports that the university plans to establish in the near future a Food Research Institute. In this connection an anonymous gift of $250,000 for botanical work, under the direction of Professor E. J. Kraus, chairman of the department of botany, has been made.

THE John and Mary R. Markle Foundation has made a grant of $3,300 for the support of the studies on filariasis of Dr. J. Allen Scott, associate professor of epidemiology and preventive medicine at the Medical Branch at Galveston of the University of Texas, and a grant of $2,500 for the work on blood flow and hypertension by Dr. Eric Ogden, professor of physiology.

CHEMICALS wanted by the National Registry of

Rare Chemicals of Armour Research Foundation, Chicago, are sodium alpha naphthalene sulfonchloramide, 3-p′-tolueneazo-p-cresol, 3-m′-tolueneazo-p-cresol, 2,3,4- or 2,3,5-trimethyl pyrrole, thorium iodide, o- or p-tolylhydrazine hydrochloride, 2,2,3,3-tetramethyl butane, triphenyl aluminum or antimony, triethyl antimony, tin or thallium, tetraethyl or tetrabutyl tin, d-arabo ascorbic acid, arachidonic acid, allyl cyanamide, 1-allyl piperidine, boroethane, 1-benzyl piperidine or morpholine, bilobol, coenzyme II, 5,6-cyclopenteno-1,2-benzanthracene, and masurium or its compounds.

DISCUSSION

PIGMENT AND BIOCHROME

MY colleague, Professor Fox, has dragged into the open a feud which has been smoldering between us for many years.[1] While the mores of our species, both as to the use of words, and the use of pigments themselves, are little influenced by arguments, it has seemed to me worth while to put some of my contentions in this field on record again.

I have long been irked by some of the prevailing uses, in biology, of the word "pigment." Dr. Fox admits the force of these objections, in part, though he insists upon retaining this word as a convenient vernacular (?) term. For more accurate scientific usage, he has adopted the suggestion of a professor of Greek, and substituted a new word "biochrome."

Whether it is reasonable to set up, as a special class, all the colored substances which can be extracted from animals or plants, in contrast with those substances which do not happen to be colored, is decidedly debatable. However, if we grant the desirability of such a term, "biochrome" would seem to meet the requirements pretty well. That "pigment" does not do so, I have already argued.[2] For this word has a definitely functional connotation, which we can hardly escape. In the inorganic world, colored substances are "pigments" only in so far as they are used as such. Thus lead chromate is (or may be) a pigment; copper sulfate never is. Save for an unfortunate precedent, I can see no excuse for applying any different criterion in the organic world. Why every colored substance, derivable in any way from a living organism, should forthwith become a "pigment" is difficult to understand.

Needless to say, I am offering no general protest against the use of the word "pigment" in biology. I have used the word freely, in connection with my own studies and shall continue to do so. But I believe that the word, when transferred to the organic world, should retain its functional significance. There is no propriety in calling a substance a "pigment" except in so far as it is used by the organism to influence its color scheme. I trust that it is no longer necessary to insist that the *appearance* of an animal is at times one of its important biological assets. Thus, melanin, the carotenoids, guanine and some other substances, occasionally even hemoglobin, may play the functional role of pigments. In so saying, let us repeat, we are not thereby assigning these substances to a definite physical and chemical category.

My chief protest against current usage in this field relates to the expression "respiratory pigment." We are here combining words belonging to two utterly different vocabularies. It is like talking about a "locomotor enzyme" or an "invertebrate catalyzer"! Dr. Fox, in his recent communication to SCIENCE, has given some theoretical reasons for believing that the same features of molecular organization which give to certain substances their color may likewise render them available as oxygen carriers. But even if this association between these attributes should prove to be true, we should hardly be justified in such a bit of semantic miscegenation as we have in "respiratory pigment"! Nor would "respiratory biochrome" be much better.

F. B. SUMNER

SCRIPPS INSTITUTION
OF OCEANOGRAPHY,
LA JOLLA, CALIF.

1 SCIENCE, November 24, 1944.
2 *Scientific Monthly*, April, 1937.

LATENT VIRUSES IN STONE FRUITS[1]

RESEARCH workers in the field of stone-fruit viruses have become aware of the presence of latent or hidden viruses or virus complexes in cherry trees. These viruses have been demonstrated by placing apparently healthy sweet or sour cherry buds in various peach varieties, in which case the inoculated peach tree becomes dwarfed, rosetted, with split or cracked bark, ring spots in the foliage or various combinations of the above symptoms. Some trees recover after the initial shock, while others die, apparently depending on the strain or variety of virus present. The more severe strains are easily detected on peach, but the mild strains may cause only a slight dwarfing, with rapid recovery, or may show only an occasional leaf with ring spotting. The Kwanzan and Shirofugen

1 Published as Technical Paper No. 446 with the approval of the director of the Oregon Agricultural Experiment Station. Contribution from the Botany Department.