

widely sought by workers there. Some years ago he was elected a Trustee of the Laboratory.

Brooks was responsible for the training of a number of graduate students, men who have gone out to do valuable research in the field of cellular physiology. He was loved and respected by them, as he was also by many generations of undergraduates. Everyone who knew him came to have a deep admiration for his gentle spirit and his unselfish devotion to the

cause of science. He did his research work honestly and carefully, never claiming more for it than it was worth. He was an honest scientist rather than a promoter, and though he attained no great honors or awards, his splendid achievement in the field of general physiology will speak for him long after his death.

L. V. HEILBRUNN

University of Pennsylvania

NEWS and Notes

K. Starr Chester, until recently head of the Department of Botany and Plant Pathology and director of the Research Foundation of Oklahoma A & M College, has joined the staff of the Battelle Memorial Institute, Columbus, Ohio. In his new position, Dr. Chester will direct the Institute's research program in the agricultural sciences and in plant and animal nutrition.

Geo. M. Stirrett, formerly of the Dominion Entomological Laboratory at Chatham, Ontario, has been appointed Dominion Wildlife Officer for Ontario under the Dominion Wildlife Service of the Canadian Department of Mines and Resources at Kingston, Ontario.

George C. Decker, of the Illinois State Natural History Survey, Division of Economic Entomology, has been named professor of entomology at the University of Illinois. Dr. Decker will direct graduate research in economic entomology while carrying on his regular work with the Survey.

Reginald H. Painter has obtained leave from Kansas State College, Manhattan, for 1948-49, to accept a post-doctoral fellowship in the Department of Entomology at Ohio State University. He will devote the year to research and writing a book on the resistance of crop plants to insect attack.

Irena Z. Eiger has been awarded a second U. S. Public Health Service Postdoctorate Fellowship to continue

enzyme research studies begun a year ago at the National Cancer Institute. At the Institute Dr. Eiger will work with Jesse P. Greenstein, and later with Prof. Linderstrom-Lang in Copenhagen, Denmark.

David F. Mitchell, former National Institute of Health senior research fellow at the University of Rochester, School of Medicine and Dentistry, and **Thomas D. Speidel**, dean of the Loyola University Dental School, have been appointed to the faculty of the School of Dentistry, University of Minnesota. Dr. Mitchell, who has been made associate professor of dentistry and will head the Division of Oral Pathology, plans to continue his work on experimental periodontal disease and dental caries. Dr. Speidel has been appointed professor of dentistry and chairman of the Division of Orthodontics.

Harlan N. Worthley, director of the Agricultural and Textile Chemicals Research Department, Merck & Co., Inc., was recently appointed executive director of the Committee on Chemical Warfare, Research and Development Board, National Military Establishment. Dr. Worthley will assume his new duties January 3.

Thomas D. Dublin, professor of preventive medicine and community health, Long Island College of Medicine, who was recently appointed executive director of the National Health Council, has assumed his new duties in the National Health Council Building, 1790 Broadway, New York City.

Richard C. Snyder and **Prentiss E. Parker, Jr.**, recently joined the staff of the Department of Zoology, University of Arizona. Dr. Snyder (Ph.D., Cornell) has been appointed an instructor in zoology while Mr. Parker

(M.S., Tennessee) has become an instructor in physiology.

Edward Kozicky, representative of the U. S. Fish and Wildlife Service, has joined the staff of Iowa State College to head the Iowa Cooperative Wildlife Research Unit.

Edward Larson, associate professor of pharmacology, Temple University Medical School, has been appointed professor of physiology and pharmacology at the University of Miami, Miami, Florida.

Fritz Lipmann, head of the Biochemical Research Laboratory, Massachusetts General Hospital, and associate in biochemistry, Harvard Medical School, will deliver the third Harvey Lecture of the current series at the New York Academy of Medicine on December 16. He will speak on "Biosynthetic Mechanisms."

Visitors to U. S.

Oscar Orias, director of the Instituto de Investigacion Medica "Mercedes and Martin Ferreyra," Cordoba, Argentina, has arrived to serve as visiting professor in the Department of Physiology and Pharmacology, Long Island College of Medicine. For the next year he will be engaged in both research and teaching in the College.

Henry G. Booker, British authority on the propagation of electric waves, has been appointed professor of electrical engineering at Cornell University, effective this month. Dr. Booker will be associated with Charles R. Burrows and others in the development of the research program and in the academic activities of the School of Electrical Engineering. A former U. S. visitor in 1937-38, when he was associated with the Department of

Terrestrial Magnetism, Carnegie Institution of Washington, Dr. Booker has recently been associated with Cambridge University, in addition to acting as scientific adviser to the British Broadcasting Corporation and as a technical editor.

M. J. Thirumalachar, lecturer in mycology and plant pathology, Mysore University, Bangalore, India, who has been engaged in research on certain grass smuts in the Department of Plant Pathology, University of Wisconsin, and has visited several pathological and mycological institutions in the U. S. during the last two years, has now returned to India. Returning by way of England, he stopped at the Commonwealth Mycological Institute and Kew Herbarium, Kew, Surrey. While in this country he presented research papers at the annual meeting of the American Phytopathological Society and the Mycological Society of America and also contributed several articles on rusts and smuts to American journals.

Grants and Awards

The National Health Council has been granted the sum of \$225,000 from the Rockefeller Foundation to promote its program of strengthening the public health movement in the U. S. over a three-year period. The Council's current program emphasizes the enlistment of more active public participation, in partnership with professional workers, in the field of public health. It is now engaged in aiding local professional and citizen groups in their attempts to bring about full-time, professionally staffed, health departments where these do not exist, and to strengthen the health services of existing departments. The Council's staff is also working with local groups and individuals engaged in forming community health councils to bring together all interested organizations in planning community health.

The American Academy of Arts and Sciences, Boston, recently presented its Francis Amory Prizes for 1947 to Alexander B. Gutman, New York City; Charles B. Huggins, Chicago; Willem J. Kolff, Kampen, Holland; Guy F. Marrian, Edinburgh; George N. Papanicolaou, New York City; and Selman A. Waksman, New

Brunswick, New Jersey. Dr. Huggins presented an address at the meeting entitled "Medical Significance of the Amory Prize Researches" in their relation to the sick patient.

The Academy's Committee on the Permanent Science Fund has since October 1, approved grants-in-aid amounting to \$6,800 to the following: Virgil P. Sydenstricker, School of Medicine, University of Georgia, for his continuing study of cell and tissue changes in certain dietary deficiencies (\$1,800); Edmund Schulman, University of Arizona, for field study of tree-ring cores in the Patagonian Andes (\$1,500); Robert J. Menzies, Pacific Marine Station, for a taxonomic study of the genus *Limnoria* on the Pacific coast (\$1,000); and R. B. Lindsay, New England School Science Council, to assist the Council in its 1948-49 work (\$2,500).

The George Washington Carver Foundation, Tuskegee Institute, has received three new research grants from the Continental Can Company, the Corn Products Refining Company, and an anonymous sponsor for establishment of research fellowships. The Foundation, established in 1940 by the late George W. Carver, is engaged in research in the natural sciences and agriculture.

The Society for the Psychological Study of Social Issues has announced a contest open to all social scientists here and abroad for the best research analysis on reducing international tensions. According to Ronald Lippitt, president of the SPSSI, the Edward L. Bernays International Tensions Award for 1949-50, a \$1,000 U. S. Government bond, will be presented to the individual or group contributing "the best action-related research on some aspect of the problem of reducing international tensions in relations between nations." The Award will be presented to the winner in 1950 at the annual convention of the American Psychological Association, of which the SPSSI is a division.

All research published or completed during 1949 and 1950 will be considered eligible as well as unpublished manuscripts reporting completed research. The contest, which closes July 1, 1950, will be judged by a committee composed of leading American social

scientists. All reports and studies submitted for the Award are to be sent in duplicate before the contest deadline to the chairman of the judges, Robert MacLeod, head, Department of Psychology, Cornell University, Ithaca, New York.

Inquiries about the Award should be addressed to Ronald Lippitt, president, SPSSI, Research Center for Group Dynamics, University of Michigan, Ann Arbor, Michigan.

F. H. Spedding, director of the Iowa State College Institute for Atomic Research, was the first recipient of a new "Iowa Medal" from the Iowa Section, American Chemical Society, at its meeting December 3 at the State University of Iowa. Established in 1947, the award will be presented annually to an Iowa chemist or chemical engineer for meritorious achievement in these fields.

A. Chester Beatty, English mining administrator, received the Egleston Medal, awarded him last April by the Columbia Engineering School Alumni Association, at a recent dinner in his honor in New York City. The award citation recognizes Mr. Beatty for "his outstanding achievements in the low-grade copper mines in this country, the exploration and mining of African diamond deposits, and his vision and leadership in the large-scale exploration and development of the northern Rhodesia copper fields, as well as in the development of lead-zinc mines in Yugoslavia."

Stephen S. Visser, Indiana University, received the Distinguished Service Award of the National Council of Geography Teachers at its recent Chicago meeting. Dr. Visser was cited for his contributions to the field of geography as well as his outstanding services in educational geography.

Colleges and Universities

Yale University School of Forestry will issue its first report on the study of the adaptability of tropical woods for structural and industrial uses early next year. Twenty-five tree species from Central and South America will be covered. The study was initiated in April 1947, under the sponsorship of the Office of Naval Research, to discover new sources of

high-grade lumber. The samples have been subjected to tests for strength and toughness, hardness and fire resistance, and mineral or ash content. The latter property determines whether the species will dull woodworking tools. Certain species have been tested for marine borer resistance to learn if they might be used for constructing wharves. The concluding series of tests evaluated ability to hold paint, accept glue, resist decay, and withstand extreme weather conditions. Dean George A. Garratt is in charge of the project.

The provost of the University of Minnesota, Duluth Branch, Dr. Raymond Gibson, recently turned the first spade of soil in the excavation for an all-science building. The event was a memorable one, for it marked the beginning of a brand new campus on the 160-acre tract donated to the University by the citizens of Duluth. The first structure to be built is the \$600,000 first phase of the building which, when completed, will house the Division of Sciences. This week's cover carries a drawing of the proposed structure by A. Reinhold Melander and Roy C. Jones, architect and advisory architect for the project.

The African research program, carried on for more than a decade by the Department of Anthropology, Northwestern University, is to be expanded and intensified in the next three years through a program made possible by a grant of \$30,000 from the Carnegie Corporation of New York. The program will be directed toward an understanding of all aspects of contemporary African culture, with particular reference to the changes in native life as a result of the increasing influences of outside forces upon the African.

The training of research personnel for the African area will be a primary objective. Students will be prepared for field study and aided in working up field materials in special seminars to be set up under Melville J. Herskovits and W. R. Bascom. The extensive collections of anthropological Africana in Deering Library will be broadened by the acquisition of works dealing with other aspects of the African

scene, especially periodicals and government reports. A faculty and advanced graduate interdepartmental seminar will be instituted to provide for an integrated attack on the problems, both scientific and practical, of present-day Africa. It is planned to invite Africanists working in anthropology, economics, education, geography, missions, politics, and public health to discuss before the seminar the aspects of African life falling in their special fields, with the aim of providing Africanist work in other schools and departments of the University.

As an initial step in furthering this program of African studies, S. F. Nadel, professor of anthropology, King's College, Durham University, England, will lecture at the University during the summer of 1949 on Africanist and related fields.

The University of Delaware has been awarded a \$7,000 research contract by the Office of Naval Research for fundamental research on the stability of polyvinyl formal compositions. It is hoped that the study, under Harold C. Beachell, assistant professor of chemistry, will provide information on the thermal deterioration of insulation compositions. Dr. Beachell's research will also include a study of infrared absorption of polyvinyl formal, the kinetics of accelerated age testing, and a study of insulation compounds.

The Iowa State College Library is establishing a special collection of leading genetics books and journals as a memorial to E. W. Lindstrom, late head of the Genetics Department (see *Science*, November 19, p. 572). To be known as the E. W. Lindstrom Genetics Memorial Library Fund, genetics volumes bearing nameplates of the collection will be purchased to supplement books now in the Library. Before his death, Dr. Lindstrom had requested that those desiring to express sympathy do so in the form of contributions for such a collection.

Duke University has completed plans for a new \$120,000, four-story addition to its medical research building. This addition, the first of several contemplated when the original

building was constructed, will provide additional space for research projects in the Departments of Medicine, Surgery, Physiology, and Physiological Chemistry. According to Wilburt C. Davison, dean of the Medical School, the new research facilities will enable the Medical School and hospital to expand their program, which is financed largely through outside grants. Such grants are available for varied research work, but at present there is a severe shortage of space for such activity.

It is reported that the lowest temperature ever reached in the U. S. has been achieved by staff members of the Ohio State University Department of Physics and Astronomy. Working with a magnetic cooling device, or "cryomagnetic generator," the group obtained temperatures as low as five one-hundredths of a degree above the unattained absolute zero. The generator, just recently put into working condition, was operated by John G. Daunt, Maurice C. Desirant, and two graduate students, Clifford V. Heer and A. A. Silvidi. The Ohio State physicists regard their achievement as a step toward still lower temperatures. Plans and preliminary experiments on a nuclear cryomagnetic generator with which temperature estimated at one part in a million above the absolute zero may be attained have already been undertaken. It is felt that the new development will facilitate a detailed study of nuclear problems. At extremely low temperatures all molecular and atomic motions are virtually "frozen out," a condition which permits research into the properties of the atomic nucleus and its interaction with other nuclei.

Meetings and Elections

The 60th annual meeting of the American Association of Economic Entomologists begins on December 13 in the Hotel New Yorker, New York City. Registration facilities will be located in the Grand Ballroom Foyer. The sessions, including many joint meetings with the Entomological Society of America, will extend over a four-day period, ending on Thursday, December 16.

The meeting will open on Monday morning with an address by S. A. Rohwer, president of the AAEE, while the afternoon will be occupied by concurrent meetings of the Sections on Plant Pest Control and Quarantine, Apiculture, and Medical Entomology. The latter section will meet again in the evening at the same time as the Biometrical Clinic on Entomological Problems, sponsored jointly with the Biometric Society, Eastern North America Region.

The Sections on Insecticides and Extension Entomology will meet on Tuesday. In the morning a symposium will be held on the Toxicity of Insecticides to Plants and Animals Other Than Man, and the afternoon will include a paper-reading session relating to Insects Affecting Forests, Ornamentals, Florists' Crops, and Turf.

Wednesday's program will include a panel discussion on Formulation of Insecticides and two general sessions, Insects Affecting Cereal and Forage Crops and Insects Affecting Fruit Crops. Of special interest on Wednesday afternoon will be a joint meeting of the Section on Teaching Entomology with the ESA. The annual banquet, at which Harlow B. Mills, chief of the Illinois Natural History Survey, will speak on "The Eaters and the Eaten," will be held at 7:00 P.M. on Wednesday in the Grand Ballroom.

Industrial associations have been invited to present papers on Thursday morning, the concluding day. That afternoon will be devoted to sessions on Insecticides and Application Equipment, Insects Affecting Vegetable Crops, and miscellaneous papers.

The Fourth Annual Analytical Symposium, sponsored by the Analytical Division of the Pittsburgh Section of the American Chemical Society, will be held January 20-21 at the Hotel William Penn, Pittsburgh. One feature of the symposium will be a talk on "The Role of Reaction Kinetics in Analytical Chemistry," by I. M. Kolthoff. At the symposium banquet, scheduled for the evening of January 20, Dean Burk, of the National Cancer Institute, will speak on "Cobalt and Iron Chelation in Biochemical Function and Antibiosis." The complete program will be published in an early January issue of *Chemical and Engineering News*.

Copies of the program and abstracts may be obtained from Dwight L. Deardorff, Mellon Institute, Pittsburgh 13, Pennsylvania, after January 1.

Members of the AAAS and the staffs of St. Olaf College and Carleton College met on the night of October 12 to commemorate locally the founding of the Association. Victor Johnson, director of the Mayo Foundation for Medical Education and Research, delivered the principal address, "Methods of the Scientist," which was recorded and later broadcast over the St. Olaf College radio station, WCAL.

Frank Kille, dean of Carleton College, states that "one of the most interesting features of the meeting was the fact that the scientists of various fields both at St. Olaf and at Carleton were called together in a common meeting. Since the close of the war no other occasion has brought together such a large number of the scientists of the two colleges."

The French Government, in association with UNESCO and with the assistance of the Swiss League for the Protection of Nature, invited 42 governments to be represented at a Conference for the Establishment of an International Union for the Protection of Nature, which was held at Fontainebleau from September 30 to October 7. This was in accord with the final resolutions of the International Conference for the Protection of Nature held at Brunnen, Switzerland, June-July 1947. Each country was also requested to send a delegation of representatives of invited scientific and technical groups concerned with the protection of nature.

The U. S. group was as follows: Ira N. Gabrielson, president, Wild Life Management Institute, Washington, D. C., chairman of the U. S. Government delegation and private conservation organizations; Harold J. Coolidge, executive secretary, Pacific Science Board, NRC, U. S. Government delegate and representative of private conservation organizations; William Vogt, chief, Conservation Section, Pan-American Union, observer and representative of private conservation organizations; and George Brewer, vice-president, Conservation Foundation, New York City, representative of private conservation organizations.

tative of private conservation organizations.

The following U. S. organizations interested in conservation, as well as international organizations, accepted the official invitation to the Fontainebleau Conference and authorized one or more of the four U. S. delegates to represent them officially at the foundation meeting of this new International Union: American Committee for International Wild Life Protection, American Geographical Society (represented by W. Phelps of Venezuela), American Nature Association, American Ornithologists' Union, Boone and Crockett Club, Conservation Foundation, Izaak Walton League of America, National Association of Audubon Societies, National Parks Association, National Research Council, National Wildlife Federation, New York Zoological Society, Pan-American Union, Smithsonian Institution, Standing Committee for the Protection of Nature in and Around the Pacific, Wilderness Society, and Wild Life Management Institute.

Countries sending either governmental delegates, delegates of private or semiprivate organizations or societies concerned with nature protection, or both, to the Conference are listed below ("G" = government; "S" = societies or organizations):

Argentina, G & S; Australia, S; Austria, G & S; Belgium, G & S; Bolivia, G; Brazil, G & S; Canada, S; Denmark, S; Dominican Republic, G; Egypt, G; Finland, G & S; France, G & S; Great Britain, G & S; Greece, G; Iran, G; Italy, G & S; Luxembourg, G & S; Monaco, G; Netherlands, G & S; New Zealand, S; Nicaragua, G; Norway, S; Panama, G; Peru, S; Poland, G & S; Siam, G; Sweden, G; Switzerland, G & S; Syria, G; United States, G & S; Venezuela, G & S.

International organizations officially represented were: United Nations, UNESCO, Pan-American Union, International Office for the Protection of Nature, International Union of Directors of Zoological Parks, International Council of Scientific Unions, International Union of Biological Sciences, International Committee for Bird Preservation, and Pacific Science Association—Standing Committee for the Protection of Nature in and Around the Pacific.

The 130 members of the Conference from 31 countries represented 123 pri-

vate or semigovernmental societies or organizations from many parts of the world and 9 international organizations with a common interest in conservation or nature protection. The attendance at the meeting not only manifested a wide interest in the subject but was also a tribute to the preparations for the meeting made by the Swiss League for the Protection of Nature, over a long period of time, and particularly to its secretary-general, Mr. J. Buttikofer. The preparations for the Conference were also a tribute to the Organizing Committee of the French Government under the chairmanship of Dr. Achille Urbain and with the assistance of UNESCO.

The plenary session was opened by a gracious welcome on behalf of the French Government and the city of Fontainebleau, followed by a speech by the director-general of UNESCO, Dr. Julian Huxley, who expressed the hope that the new Union would be established on a broad base.

Dr. Ch. J. Bernard, president of the Swiss League, was elected president of the Conference, and after four days of meetings devoted to drawing up a constitution, the Union was founded and held its first General Session at which all who provisionally signed the constitution for governments or societies were invited to participate. The U. S. delegation, following official instructions, did not sign even provisionally on behalf of our Government, but they did so for the 15 private organizations that they represented.

The new Union elected its officers and Executive Board, established a budget, appointed standing committees, drew up a program of work, appointed its secretary-general, and determined that the seat of the Union, upon invitation of the Belgian Government, would be in Brussels. The Union also elected Mr. P. G. Van Tienhoven, of Holland, its first honorary member and paid special tribute to the work of Mr. J. Buttikofer in connection with the preparation of the Conference and the beautiful and useful magazine, *Pro Natura*, of which he is founder and editor.

During several days of the meeting a valuable technical symposium, with Prof. Roger Heim as chairman, was held under the auspices of UNESCO.

Organized by its Natural Sciences Division, this symposium dealt with 6 subjects of special interest: Legislation and Action by Governments to Preserve Nature, The Scientific Management of Wild Life, Big Game Conservation in Africa, Concepts of National Parks and Conservation Areas, Fauna Conventions and International Legislation, and Relationship of the UNSCUOR to the Proposed UNESCO Conference.

The meetings were held in the magnificent Palace at Fontainebleau, and there were excursions to the Forest and beautiful nearby chateaux, as well as receptions and entertainments characteristic of warm French hospitality. There was also a presentation of "Tovarich" by a famous troupe of actors from Paris, and a state banquet was arranged by the hosts as the climax to the Conference. This was greatly enjoyed by everyone. The Conference was followed by a week of field excursions to important nature areas such as the forests, parks, or reserves in many parts of France.

Perhaps the most important American contribution, aside from trying to establish the kind of a Union that can hopefully expect wide support from nations, private societies, and international organizations everywhere, was the writing into the constitution of the Union of a very much broader definition of Nature Protection, and a greater emphasis on conservation education than was contemplated in the widely circulated Brunnen provisional draft. The U. S. version included a preamble opening with the following definition of "The Protection of Nature" which was constantly mentioned in quotation marks throughout the entire document:

"Whereas the term 'Protection of Nature' may be defined as the preservation of the entire world biotic community or man's natural environment which includes the earth's renewable natural resources of which it is composed and on which rests the foundation of human civilization."

There is reason to hope that the 18 governments that provisionally signed the constitution, as well as many more, will soon ratify this document, that the 123 private or semigovernment societies and organizations represented

at the Conference will ratify their signatures within the specified time, and that additional appropriate organizations will apply for early admission. The private society dues are established at 200 Swiss francs (about \$40) a year.

The first elected officers of the Union are: president, Dr. Charles Jean Bernard (Switzerland); vice-presidents, Mr. Harold J. Coolidge (U.S.A.), Mr. Henry G. Maurice (United Kingdom), and Prof. Roger Heim (France); members, Dr. Boze Benzon (Denmark) ICPB, Dr. Nils Dahlbeck (Sweden), Prof. Walery Goetel (Poland), Dr. J. K. van der Haagen (Netherlands), Prof. H. Humbert (France), Prof. V. Van Straelen (Belgium), Dr. Vellard (Peru), Prof. Renzo Videsott (Italy), Mr. William Vogt (U.S.A.), and Dr. José Yepes (Argentina); secretary-general, Mr. Jean-Paul Harroy (Belgium).

All inquiries should be addressed to the secretary-general at the office of the Union, 21 Rue Montoyer, Brussels, Belgium.—H. J. C.

Correction: In the article on "Natural Resources Problems in Japan," by Lt. Col. Hubert G. Schenck (*Science*, October 8, pp. 367-372), the last sentence of paragraph 2, page 369, should read: "Production has been increased from the 1945 level of 4,000,000,000-5,000,000,000 pounds to more than 7,000,000,000 pounds which is about as much as the present fishing area can support." In the article the pounds were erroneously given in millions instead of billions.

Make Plans for—

In last week's issue (p. 642) we erroneously reported that the **Mycological Society of America**, the **Botanical Society of America, Inc.**, and the **American Society of Plant Physiologists** were scheduled to hold meetings in December of this year. The next annual meetings of these societies are scheduled to be held in 1949 in connection with the **AAAS meetings in New York City**. We regret that this error occurred.

Gerontological Society, January 8-9, Hotel Commodore, New York City.