Filatov transplants tissues into the human body, thus hastening the process of recovery.

The Order of the Red Banner of Labor was awarded to the president of the Ukrainian Academy of Sciences, Alexander Bogomolets. His well-known researches in the field of endocrinology, the physiology of blood circulation and the problem of longevity have shed light upon a number of problems of modern medicine. Academician Bo-

gomolets has also carried on extensive studies in the problem of the connective tissues. Famous as a teacher, he heads the School of Soviet Pathologists and is author of a study on pathological physiology for which he was awarded a Stalin Prize.

The Order of the Patriotic War, First Class, was conferred upon 74-year-old Academician Evgeny Paton, for his services to the Soviet tank-building industry.

SCIENTIFIC NOTES AND NEWS

The Distinguished Service Award of the National Council of Geography Teachers has been conferred on Dr. Gilbert Grosvenor, president of the National Geographic Society and editor of The National Geographic Magazine, in recognition of "his outstanding contribution to educational geography." The citation emphasizes his "forty-five years of skilful leadership in the field of educational geography as editor of the magazine and twenty-five years as president of the society. Under Dr. Grosvenor the membership of the society, which has sponsored more than a hundred scientific expeditions and has generously contributed geographic material to the public and private educational institutions in this country, increased from nine hundred to a million two hundred and fifty."

The Mexican Government recently conferred on Dr. Harlow Shapley, Paine professor of practical astronomy at Harvard University, director of the Harvard College Observatory, the Order of the Aztec Eagle, third class, in recognition of "his cooperation in arranging for the installation of the telescope of the National Astrophysical Observatory at Tonanzintla."

The President of Peru has conferred the decoration of the Heraldic Order El Sol Del Peru in the class of Knight Commander on Dr. J. C. Geiger, director of public health of the City and County of San Francisco. The citation reads: "As President of the San Francisco Chapter, Pan American Society, Dr. J. C. Geiger has aided materially in fostering and cementing friendly relations between countries of the Americas; as a teacher of preventive medicine and public health in universities, medical officer of health and chief of hospitals, he has added much to the glorious chapter of the prevention of disease." The Order of the Sun of Peru was founded in 1821 by San Martin, and is the oldest in Latin America.

On the occasion of the opening ceremonies on October 10 of the annual display of roses at the Brooklyn Botanic Garden, a reception for members and guests was given in honor of Dr. George S. Avery, Jr., who was appointed recently director of the garden to succeed the late Dr. C. Stuart Gager.

WILLIAM GAERTNER, founder and active head of the

Gaertner Scientific Corporation, known for his work in the design and production of high-grade precision instruments, will celebrate his eightieth birthday on October 24.

The Genetics Society of America announces the election of the following officers for 1945: President, Dr. Barbara McClintock, of the Department of Genetics of the Carnegie Institution at Cold Spring Harbor; Vice-president, Dr. Paul C. Mangelsdorf, professor of botany at Harvard University.

At the annual meeting in Cleveland on September 12 of the American Microscopical Society, the following officers were elected for the year 1945: President, Dr. Raymond C. Osburn, the Ohio State University; First Vice-president, Dr. Charles Drechsler, U. S. Department of Agriculture; Second Vice-president, Dr. Enrique Beltrán, University of Mexico; Elective Member of the Executive Committee, Dr. L. J. Thomas, University of Illinois; and Member of the Spencer-Tolles (endowment) Committee, Dr. Paul S. Welch, University of Michigan.

At the annual meeting of the Paleontological Research Institution, held at its headquarters in Ithaca, New York, the following officers were elected for the ensuing year: President, Kenneth E. Caster, University of Cincinnati; Vice-president, Ralph A. Liddle, Fort Worth, Texas, and Ithaca, N. Y.; Secretary, Rebecca S. Harris; Treasurer, Gilbert D. Harris; Assistant-Treasurer, Katherine V. W. Palmer.

At the meeting of the American Association of Colleges of Pharmacy, held at Cleveland in September, Dr. Henry S. Johnson, dean of the College of Pharmacy of the University of Connecticut, was named president-elect for the year 1944–45.

Dr. George Lynn Cross, professor of botany and chairman of the department of the University of Oklahoma, assistant dean of the Graduate College and acting director of the Research Institute, has been elected president of the university.

THE Commonwealth Fund has established a fund to bring visiting professors to the School of Medicine of the University of Louisville. Dr. Carl V. Moore,

associate professor of medicine of the School of Medicine of Washington University, was in residence from October 9 to 21, and Dr. William F. Windle, professor of neurology and director of the Institute of Neurology of Northwestern University, will be in residence during the month of November.

Dr. G. Wilson Shaffer, dean of the College of Arts and Sciences of the Johns Hopkins University, will be visiting professor of psychology at Goucher College during the first term of the college year.

Professor John E. Burchard, director of the Bemis Foundation, has been appointed director of libraries at the Massachusetts Institute of Technology. He will assume administrative direction of the library and museum system of the institute, but he will have as his immediate and major task the planning of a broadened program of library service. Included in this program is the development of plans, for which the institute hopes to secure the necessary funds, for a new library building that will not only serve as a great central scientific and technical library, but also as a center of the humanities and a broad program of cultural activities.

At the Louisiana State University, Dr. H. V. Howe, director of the School of Geology, has been made dean of the College of Arts and Sciences, and Dr. E. A. Fieger has become head of the newly established department of agricultural chemistry and biochemistry. Dr. R. L. Menville, owing to ill health, has been retired at his request as dean of the College of Chemistry and Physics. The title of dean emeritus has been conferred on him. He is succeeded by Dr. A. R. Choppin.

Dr. AMEDEO S. MARRAZZI, head of the department of pharmacology and therapeutics of the School of Medicine of Loyola University, Chicago, has been appointed professor and head of the department of pharmacology of the College of Medicine of Wayne University.

Dr. H. C. EYSTER has been promoted to an associate professorship of botany at the University of South Dakota, Vermillion.

Dr. Alton Goldbloom has been appointed chairman of the department of pediatrics at McGill University and acting physician-in-chief to the Children's Memorial Hospital, Montreal. He succeeds Dr. R. R. Struthers, who has joined the UNRRA as pediatric consultant.

DR. FREDERICK M. FEIKER, dean of the School of Engineering and professor of engineering administration at George Washington University, has been appointed a member-at-large of the National Research Council, and has been assigned to the Division of Engineering and Industrial Research.

Dr. Gustav- A. Swanson, associate professor of entomology and economic zoology at the University of Minnesota, has been appointed biologist in the Division of Wildlife Research, U. S. Fish and Wildlife Service. He is in charge of the cooperative wildlife research unit program and will serve also as liaison officer on the Pittman-Robertson research projects to correlate scientific data acquired through the expenditure of Federal aid funds. Dr. Swanson's headquarters will be in Chicago, Ill., at the central offices of the service.

Dr. Gerhard Lehmann, associate professor of pharmacology at the School of Medicine of the University of Louisville, has resigned to become pharmacologist for Hoffmann-La Roche, Inc., Nutley, N. J.

Dr. MILTON HARRIS has resigned as director of research of the Textile Foundation and the Textile Research Institute, effective on January 1. At that time he and a number of members of the staff who have been working with him will continue their activities in a research and consulting organization to serve the textile and allied industries under the name of the Milton Harris Associates.

Dr. MILTON J. FOTER has recently been appointed head of the department of bacteriological research of the Wm. S. Merrell Company.

The Harvard Alumni Bulletin reports that Stanley F. Morse, who has been in practice for twenty-five years as an agricultural consultant, is serving as chief of the American Food Mission which has been sent to French North Africa by the U. S. Foreign Economic Administration. The mission will cooperate with and assist the French Committee of National Liberation in its efforts to restore food production to its pre-war volume in Tunisia, Algeria and Morocco.

Professor Gaston Ramon, director of the Pasteur Institute in Paris, and his family are reported to be safe and in good health. Dr. Ramon is the discoverer of the diphtheria toxoid and tetanus toxoid immunization and the flocculation test of diphtheria toxin.

Dr. WILLIAM DEB. MACNIDER, Kenan research professor of the School of Medicine of the University of North Carolina, delivered the commencement address at the University of Louisville School of Medicine on September 8. On August 25, Colonel R. Arnold Griswold, head of the department of surgery, who is on leave of absence with the Army, chief of the surgical service at Walter Reed General Hospital, delivered the Alpha Omega Alpha lecture.

THE four hundred and seventh meeting of the American Mathematical Society will be held at Columbia University on October 28. There will be sessions at

10:30 A.M. and 2:00 P.M. By invitation of the Program Committee, Professor Gordon Pall, of McGill University, will deliver an address entitled "The Arithmetical Invariants of Quadratic Forms."

THE Albert and Mary Lasker Foundation, Inc., has established the Lasker Award of \$1,000 to be given annually through the National Committee for Mental Hygiene "for outstanding service in the field of mental hygiene." It will be conferred at the annual meeting in the autumn of each year. The purpose of the award is to recognize significant contributions for the promoting of mental health and to making the field of mental hygiene more familiar to the general public. Each year the award will be made for a contribution in the special aspect of the subject which seems to be of the most immediate and current significance. The recipient will be selected by an anonymous jury chosen annually for its competence to judge accomplishment in a particular field. 'The award this year will be for work in mental hygiene related to the war.

THE Ordnance Distinguished Service Award has been presented to the American Standards Association "in recognition of outstanding and meritorious engineering advisory services, in war and peace, for the development, manufacture and maintenance of ordnance materiel."

A SCIENTIFIC fungus farm—one of the first of its kind—has been established at the Works Laboratory at Schenectady of the General Electric Company so that engineers, by studying the characteristics of fungi, may prevent interference with the best performance of war equipment.

The Michigan College of Mining and Technology has established an assistantship in engineering English, to give training in the teaching of speech, technical writing and literature to engineering undergraduates. The assistant will be aided by the engineering staffs in studying the application of language skills to engineering work. He will do a considerable amount of classroom teaching, will assist in the editing of technical papers, and will otherwise familiarize himself with the major problems of English instructors in technical colleges.

WITH a view to assisting scientific men and scientific institutions to become acquainted with the work of their Latin American colleagues, the Division of Intellectual Cooperation of the Pan American Union is publishing a tentative directory of journals dealing with the natural, physical and mathematical sciences published in Latin America.

Industrial Standardization states that the Argentine Government recently published a decree creating the Instituto Nacional de Tecnología. It is expected to have two sections, one for research and the other for technical matters, each with a managing director. Reports from Argentina indicate that the organization will be administered by a board composed of a general manager and the directors of the two sections. Industrial firms and business houses may become members, as well as other organizations that have been approved by the executive power of the nation.

A GRANT of 3,000 rupees per annum has been sanctioned by the Government of Travancore to the Indian Institute of Science, Bangalore, for three years from 1120 (1944-45), for a lectureship in the department of applied chemistry, to be called "The Maharajah of Travancore Lectureship in Applied Chemistry."

WITH Lord Nuffield's approval the trustees of the Nuffield Foundation have decided to allocate £10,000 a year for a period of ten years for a chair of child health in the University of London. The financial assistance provided by the foundation will enable a post-graduate Institute of Child Health to be established for teaching and research. It is proposed that the institute be associated with the Hospital for Sick Children, Great Ormond Street, and the Obstetric Department of the British Post-Graduate Medical School at the Hammersmith Hospital.

The British Medical Journal reports that the terms of reference of the Scottish Scientific Advisory Committee have been revised and are now as follows: "To advise the Secretary of State on the application of the results of scientific research to public health administration and to promote medical investigations designed to assist the Secretary of State in the discharge of his responsibilities for the health services in Scotland." Membership of the committee has been widened in the interests of medicine generally and includes Sir John Orr (chairman), Professor D. Cappell, Professor F. A. E. Crew, Professor E. W. H. Cruickshank, Professor D. K. Henderson, Professor J. Hendry, Sir A. S. M. Macgregor, Professor T. J. Mackie, Professor J. W. McNee, Professor C. Mc-Neil and Professor Noah Morris. Dr. I. N. Sutherland, of the Department of Health for Scotland, is medical secretary. Normally the appointment will be for four years, but to provide for rotation five of the members now appointed will retire after two years. The chairman of the Medical Advisory Committee, Sir John Fraser, and the secretary of the Medical Research Council, Sir Edward Mellanby, are ex-officio members of the committee.

THE forestry program recommended to the British Government by the Forestry Commission for adoption after the war proposes that in the interests of national security the country's forest area be increased by 5,000,000 acres. This plan provides for the afforestation of 3,000,000 acres of bare land which has little agricultural value, and for the "dedication" to forestry by the owners, or acquisition by the State, of 2,000,000 acres of existing woodlands in private

ownership. The Forestry Commission now owns 1,250,000 acres of land, of which 779,000 acres are plantable and 440,000 acres are already planted. The proposed future program, which would be spread over fifty years, would mean the acquisition of about 2,000,000 acres more for afforestation.

DISCUSSION

THE UTILITY OF MAJOR FOREIGN LAN-GUAGES IN PHYTOPATHOLOGY

The check lists, listing literature received by the U. S. Department of Agriculture, published successively as "Botany Current Literature," "Plant Science Literature" and "Bibliography of Agriculture," represent comparable and extensive cross-sections of the world literature in the plant sciences. To determine the trend in numbers of publications in phytopathology in each of the major foreign languages, counts were made of the foreign language papers in this field included in these check lists for the years 1931, 1935, 1942 and 1943. The results of these counts are given in Table 1.

TABLE 1

NUMBER OF PHYTOPATHOLOGICAL PAPERS LISTED IN EACH
FOREIGN LANGUAGE

Year	German	French	Russian	Spanish	Portuguese
1931	210	149	$\begin{array}{c} 67 \\ 107 \\ 17 \\ 2 \end{array}$	49	6
1935	209	118		42	19
1942	7	2		69	41
1943	27	3		84	25

The marked decrease in German, French and Russian papers from the levels of 1931 and 1935 to those of 1942 and 1943 is evidently due mainly to total mobilization for military purposes with consequent curtailment of scientific investigation, and to a more limited extent to interference with receipt of journals in America. This decrease is all the more significant when we consider that of all the botanical sciences, phytopathology is most closely linked to war production, a fact that is seen in heightened activity in this field in both Great Britain and the United States during both world wars. These low levels of scientific production are likely to last long after the termination of the war because of a necessary lag in the restoration of a psychological, economic and political equilibrium which will permit and encourage a resumption of research, and because of a deficit of trained scientists.

In contrast, there has been a steady increase in the numbers of Spanish and Portuguese papers, indicating an increase in agricultural research in South America, inasmuch as few of the papers listed originated in either Spain or Portugal. This increase is

likely to continue in the future because of the almost certain extensive development of agriculture in South America, because of the encouragement of science in South America by the United States which is evident in many forms, e.g., exchange scholarships, fellowships and professorships, and outright grants to South American countries for scientific purposes, and because of the probable absence of handicaps from postwar adjustments in South America.

In the future, Spanish and Portuguese may become more useful languages to scientists than French, for several reasons: (1) an increase in the quality and number of publications from South America can be expected; (2) the effects of the psychological, economic and political disruption in France are shown by the paucity of phytopathologic contributions from that country since 1940, when hostilities ended in France, and these effects are so deep-rooted that many years may be required before the pre-war level of productiveness can be expected in France; and (3) of the four principal Romance languages used in scientific publication, Spanish, Portuguese and Italian are more closely related to one another than is French to any of the other three, so that familiarity with any one of the first three has broader usefulness than French as a key to the other Romance languages.

Prior to the outbreak of the war, the number of technical papers in Russian was accelerating, whereas publication in French and German had reached more constant levels. The high degree of organization of agricultural research in Russia and the advantages of being a victorious participant in the war, coupled with the pre-war acceleration of research and the great diversity and extent of hitherto unstudied agricultural problems in Russia, all point toward the increasing importance of scientific contributions from that country after the war in comparison with France and Germany.

The present and potential increase in numbers of Spanish and Portuguese contributions from South America and the potentialities of Russian agricultural science following the war indicate a need for the revaluation of the utility of languages in the graduate training programs of agricultural scientists. A practical application of this would involve substitution of