

without realizing it. We can, if we don't watch ourselves, permit our country to become a glorified ant hill. I do not, however, believe that this end result is inevitable. And here I take refuge in a statement which was once made by the great Disraeli. 'Circumstances,' he said, 'are beyond the control of man. But his conduct is in his own power.'"

### Cerebrovascular Disease

The U.S. Public Health Service has announced that all known types of cerebral strokes have been classified and defined for the first time in a study which provides a common language for the exchange of information among researchers throughout the nation. This pioneering classification of cerebrovascular diseases appears in the May issue of *Neurology*, published in Minneapolis for the American Academy of Neurology.

The eight-member committee that conducted the study was appointed by the National Institute of Neurological Diseases and Blindness to explore means of increasing research progress in cerebrovascular diseases. Clark H. Millikan, neurologist of the Mayo Clinic, Rochester, is the committee chairman. He emphasizes that the 2-year study is a first attempt, and many statements will undergo changes as understanding of cerebrovascular disease increases. Copies of the study, *A Classification and Outline of Cerebrovascular Diseases*, may be obtained from the National Institute of Neurological Diseases and Blindness, Bethesda 14, Md.

### NSF Grant to Yale to Improve Mathematics Instruction

The National Science Foundation has awarded \$100,000 to Yale University to initiate the work of the School Mathematics Study Group to improve instruction in mathematics in United States secondary schools above the sixth grade, including junior high schools. The study group will consider: preparation of textbook materials, together with teacher's manuals; the training of teachers in the use of such new materials; preparation of monographs designed for better students, secondary-school teachers, and the general educated public; various kinds of teaching aids, including films; experimental programs for gifted children; and psychological studies of concept formation in mathematics and of attitudes toward mathematics, and the like.

The study group, consisting of secondary school teachers and outstanding university mathematicians, will be under the direction of E. G. Begle, of Yale's mathematics department. An interim ad-

visory committee to assist Begle consists of the following: A. A. Albert, University of Chicago; R. L. Wilder, University of Michigan, and S. S. Wilks, Princeton University. An expanded advisory committee will be established by the presidents of the American Mathematical Society, the Mathematical Association of America, and the National Council of Teachers of Mathematics.

As its first activity, the study group is organizing a 4-week session at Yale, 23 June to 29 July, at which college and university mathematicians and high-school teachers, in equal numbers, about 40 in all, will be asked to prepare detailed syllabi for high-school algebra and geometry courses. The study group will cooperate with such organizations as the Commission on Mathematics and the Curriculum Committee of the National Council of Teachers of Mathematics, which have already made large contributions in this area.

### In-Service Institutes for High School Teachers

Approximately 3000 high school teachers of science and mathematics will benefit during 1958-59 from 85 in-service teacher-training institutes conducted by United States colleges and universities. The National Science Foundation has announced that grants totaling \$607,250 have been awarded to support these institutes. The funds cover travel expenses, tuition, and fees. Participants in the program must be on the faculties of high schools that are within a radius of about 50 miles of the host institution.

The in-service institutes will offer especially designed work in the subject matter of science and mathematics. Institute meetings will be held outside regularly scheduled school hours so that teachers may attend while still teaching full time in their schools. Inquiries and applications for participation should be addressed to the directors of the individual institutes; these are named in a list that may be obtained from the National Science Foundation, Washington 25, D.C.

### Deduction of Educational Expenses from Taxable Income

Many teachers in the United States at all levels—college, high school, and elementary—who have incurred certain educational expenses may be able to recover a part of their income tax payments for the years going back as far as 1955 as the result of U.S. Treasury Regulation TD 6291 announced on 4 April and published in the Federal Register for 5 April. In submitting an amended

return, the taxpayer must use the appropriate income tax form for the year's return which is to be amended. He must write at the top of page 1, "Amended," and must resubmit the return in complete detail. While many aspects of the new ruling remain to be interpreted by the Treasury, the text as it appears in the Federal Register offers nine specific cases as examples.

### Experimental Program in Secondary School Science Education

Starting in December 1955, the Research Corporation, New York, undertook an experiment concerned with the teaching of science at the secondary-school level in the state of Connecticut. While the experiment as originally designed is not yet complete, a report on the project to date provides some information that may be of value to those concerned with plans for the betterment of education.

A 3-year program has been established to learn from science teachers themselves their requirements for improving their teaching activities. Under the experimental plan, a representative visits schools throughout the state asking each science teacher what he or she needs to teach more effectively.

The teacher is encouraged to apply for a Research Corporation grant to satisfy his needs. Purposely, no application form is provided, and no particular limitations are specified about the kinds of things for which a grant might be considered or the level in funds that might be appropriate. The teacher's application is expected to take the form of a statement outlining the current situation in science at his school and indicating the improvements that would be possible with the funds requested.

Preparation of such a statement requires a certain amount of self-evaluation and considerable analytical thought. Frequently composing the statement sets off a chain reaction. Starting with an individual teacher, it often involves other science teachers at the school and their administrative superiors, sometimes even including the local board of education.

The program moves slowly. The foundation is at present receiving applications which had their origin in the stimuli applied to teachers a year or more ago. However, meanwhile the attention of individuals, groups, and even communities has been brought to bear constructively on what was needed to improve science teaching in a given school or school system.

In the 2 years that the plan has been in operation, total costs, including all fees and expenses, have amounted to a little less than \$20,000. Forty-eight grants have

been awarded, amounting to about \$50,000. It seems reasonably clear even now that the program has had a profound effect in the state of Connecticut.

## News Briefs

The American Tobacco Company Research Laboratory in Richmond, Va., has received the Virginia Academy of Science's Distinguished Service Award as "International Leader in Tobacco Research, Befriender of Science in Community Affairs, and Outstanding Contributor to the Advancement of Science in America."

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A bull whip cracks because its tip breaks the sound barrier, according to Horace M. Trent of the Naval Research Laboratory in a paper delivered at the recent meeting of the Acoustical Society of America.

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A grant of \$1,560,000 to finance basic research in natural and physical science has been allocated by the Eugene Higgins Scientific Trust. The money will be distributed in equal shares to Columbia, Yale, Princeton, and Harvard universities. Some \$11,220,000 has been distributed for this purpose since the trust was established in 1948.

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A special symposium on catalysis was held in honor of the late Vasili I. Komarewsky on 17 May at Armour Research Foundation of Illinois Institute of Technology, Chicago. Komarewsky, who died last June, was professor of chemical engineering at the institute, a consultant to Armour Research Foundation, and a founder of the Chicago Catalysis Club, which cosponsored the event.

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The National Psoriasis Research Association is a new nonprofit organization whose purpose is to raise funds to finance research in psoriasis. Membership is open to all persons afflicted with this skin disease and to everyone who is interested in the work of the association. The association will make grants to the medical profession and to research laboratories on the recommendation of a medical advisory board. For information, write to the association at 161 Rockridge Rd., San Carlos, Calif.

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The new Hall of North American Forests at The American Museum of Natural History has been opened to the public after 10 years of preparation.

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The American Association of University Professors recently presented its first Alexander Meiklejohn award for service to academic freedom to the president and

trustees of the University of New Hampshire. Eldon L. Johnson, president, and the trustees were cited for permitting Paul M. Sweezy, an editor-lecturer, to address students at the university in the spring of 1956. At that time Sweezy was free on bail after having been convicted of contempt of court by the Supreme Court of New Hampshire. The United States Supreme Court reversed the conviction last June.

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Representative Melvin Price (D-Ill.) chairman of the Research and Development Subcommittee, Joint Committee on Atomic Energy, has announced that the subcommittee's hearings on employee radiation hazards and workmen's compensation, originally planned for the middle of June, will be postponed until early in the next session of Congress. Price also stated that he is asking the Atomic Energy Commission to submit a report on the subject to the Joint Committee by 1 January 1959; this report will serve as the basis of discussions at the hearings next session.

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An agreement has been concluded between Poland and Denmark for a telephone and telegraph cable across the floor of the Baltic Sea. The cable will be the common property of the two countries and will handle the increased telecommunications traffic between Poland, Scandinavia, and Britain. It is expected that the laying of the cable will be completed by early 1960.

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A postdoctoral fellowship for advanced study in biophysics is being established as a memorial to Robert Bruce Withrow, chief of the Division of Radiation and Organisms of the Smithsonian Institution. A pioneer in the biophysics of radiation, it was his hope to encourage research in this field by this means. Contributions may be addressed to Dr. Frederick S. Brackett, National Institutes of Health, LPB-NIAMD, Room B-4, Building 2, Bethesda 14, Md.

## Proposed Legislation

HR 11950. Amend National Science Foundation Act of 1950 to encourage the training of additional engineers and scientists and expansion of facilities for engineering and scientific education by providing scholarships and fellowships for engineering and science students. Teague (D-Texas). House Interstate and Foreign Commerce.

HR 11960. Strengthen the national security, advance the cause of peace, and assure the pre-eminence of the U.S., in the academic, scientific, and technical disciplines through programs designed to

stimulate the development and to increase the number of students of all educational levels in our schools, and to provide additional facilities therefor. Knutson (D-Minn.). House Education and Labor.

HR 11913. Amend the Public Health Service Act to authorize grants for research and teaching facilities for existing and new medical, dental, and public health schools; extend title VII of that act (re health research facilities) for an additional 3-year period. Roberts (D-Ala.). House Interstate and Foreign Commerce.

S 3609. Provide for research into problems of flight within and outside the earth's atmosphere. Johnson (D-Texas), Bridges (R-N.H.). Special Committee on Space and Astronautics.

## Scientists in the News

J. E. P. L. VIGOUREUX, senior principal scientific officer of the National Physical Laboratory, Teddington, England, will attend a conference on electronic standards and measurements at the National Bureau of Standards Laboratories at Boulder, Colo., 13-15 August.

Three representatives of the International Union of Physiological Sciences, an affiliate of the World Health Organization, are visiting South American medical schools and research facilities to discuss problems of medical education and research. The group includes: CARL F. SCHMIDT, professor and chairman of the department of pharmacology at the University of Pennsylvania; C. HEYMANS, professor of pharmacology at the University of Ghent, Belgium; and R. GRANIT, professor of physiology at the Karolinska Institute, Stockholm, Sweden.

FRANCIS HEMMING, who has held the office of honorary secretary to the International Commission on Zoological Nomenclature since 1936, has retired because of ill health. R. V. MELVILLE, a senior member of the paleontological staff of the Geological Society, London, has been released for a period of 1 year to take immediate charge of the office of the commission with the title of assistant secretary to, and director of the office of, the International Commission on Zoological Nomenclature.

The New York Zoological Park has announced the appointment of JAMES A. OLIVER as assistant director and CHARLES P. GANDAL as veterinarian. Both appointments stem from the departure of LEONARD J. GOSS, assistant director and veterinarian, who assumed the directorship of the Cleveland