greatest number. The next phase—the next great mission of our educational system—should be to introduce more extensively into our system of mass education the opportunities and means for differentiation in order to permit the fullest encouragement and development of our high talent.

"We need to fight the mucker pose that it is smart to be anti-intellectual. We must set greater store by intellectual achievement and the senses of the first-rate in all education."

Rickover stresses importance of factual knowledge. "We should not have to support schools if we want no more than "adjustment" of children to life as it is. A child is being properly educated only when he is learning to become independent of his parents. We have schools because we know that in today's world everyone is daily called upon to make decisions for which he needs a background of general knowledge, not obtainable merely by "learning through living." To acquire such knowledge, fact upon fact, takes time and effort. If we try to spare our children mental effort and to protect them against disappointments or personal failures through flunking exams, we send them ill prepared into a competitive world. The degree of ignorance which a democracy can tolerate varies in inverse ratio to the advance of the nation toward higher cultural and scientific levels.

"Our elementary and secondary education must, thus, provide first, for the average and below-average student, a sufficiently broad terminal education to fit him into a modern technological society; and second, for the talented student, it must provide a solid underpinning for subsequent professional education. Neither of these two objectives is achieved in the majority of American public school systems. Unlike all other Western countries of similar civilization, we lack a national standard for curricula, for school-leaving examinations, for diplomas, or for teacher qualifications. There is a wide variety in the school systems of different states, even for different cities in the same state."

Radiation Hazards Program

A program at New York University–Bellevue Medical Center concerned with hazards of radiation as they are to be found in the environment has been made possible through a $500,000 grant from the Rockefeller Foundation. The grant, for use during the 10-year period beginning January 1958, will provide salaries for additional staff required for development of a program of both research and teaching within a new unit.

The unit's work will be directed by Norton Nelson, head of the center's Institute of Industrial Medicine and professor and chairman of the department of industrial medicine in N.Y.U. Post-Graduate Medical School. An important contribution to the effectiveness of this program will come from the recently established arrangement between the Institute of Industrial Medicine and the U.S. Atomic Energy Commission's Health and Safety Laboratory which provides a basis for cooperative research and teaching between the two units. The Health and Safety Laboratory is under the direction of S. Allan Lough. Members of the Health Safety Laboratory have for a number of years served on the faculty of the institute.

Grants, Fellowships, and Awards

Botany. The Committee on the Darbaker Prize of the Botanical Society of America will accept nominations for an award to be announced at the annual meeting of the society in 1958. Under the terms of the bequest, the award is to be made for meritorious work in the study of algae. Nonmembers of the society are eligible. The committee will base its judgment primarily on the papers published by the nominee during the last two full calendar years previous to the closing date for nominations. At present, the award will be limited to residents of North America. Only papers published in the English language will be considered. Nominations for the 1958 award, accompanied by a statement of the merits of the case and by reprints of the publications supporting the candidacy, should be received before *1 May* by the chairman of the committee, George F. Papenfuss, University of California, Berkeley.

Cardiological Reporting. The American Heart Association has announced the opening of the sixth annual competition for the Howard W. Blakeslee Awards for outstanding reporting in the field of heart and blood vessel diseases. The association's Awards Committee will make its selections from among newspaper and magazine articles, books, radio and television programs, and films published or produced between 1 March 1957 and 28 February 1958. The deadline for entries is *1 May*. The awards which carry an honorarium of $500 each, will be presented in the fall. Entry blanks and rules folders may be obtained from local Heart Associations or from the American Heart Association, 44 E. 23 St., New York 10, N.Y.

Earth Sciences. The Earth Sciences Program of the National Science Foundation is now receiving proposals for research grants that will be made in October 1958. The deadline for the receipt of proposals for work to begin in the fall or early winter is *15 May*. There are no formal application blanks, but a foundation pamphlet describes the method of making application and outlines the information needed in a proposal. This pamphlet may be obtained by writing to the National Science Foundation, Washington 25, D.C. Attention: Earth Sciences Program.

Use of Satellites for Research in Life Sciences

Methods by which artificial earth satellites can be used to further basic research in the life sciences will be the subject of a symposium, 14–17 May, to be sponsored jointly by the National Academy of Sciences, the American Institute of Biological Sciences, and the National Science Foundation. Attendance at the symposium, which will probably take place in Washington, D.C., will be by invitation only; invitations will be sent to about 200 biologists, biochemists, biophysicists, psychologists, medical scientists, and others. About 30 papers will be presented.

A steering committee—composed of representatives of the three sponsoring organizations and of appropriate scientific disciplines—has announced three main objectives: (i) to exchange information concerning the technical feasibility and scientific importance of various experiments with living organisms in the satellite environment; (ii) to discuss methods and techniques for conducting such experiments, including associated laboratory work; and (iii) to stimulate thinking that will lead to a sound program of research in the life sciences through the use of earth satellites.

Geology Neglected?

The American Geological Institute has released a statement entitled "Government Weakness Apparent in Mineral Security Area" that includes the following comments:

"The American Geological Institute is deeply concerned over the current neglect by the Federal Government of problems relating to our national mineral security. Minerals and the mineral fuels are the raw material base on which our great scientific and technologic advances have been founded. In our current zest to conquer space, the government is unfortunately showing little concern over a strong mineral research policy to match growth and needs of science and technology.

"Dr. Robert C. Stephenson, Executive Director of the American Geological Institute, a federation of fourteen scientific societies in the area of the geological sciences, representing over 30,000 geoscientists, has recently, by letter, brought

this to the attention of Dr. James R. Killian, Scientific Advisor to the President, Dr. Alan T. Waterman, Director of the National Science Foundation, [and others]. . . .

"The Administration and Congress have declared themselves all out for science and technology and are voting vast sums for research. Yet, the U.S. Geological Survey, one of the oldest and most respected government research organizations, is facing in the next fiscal year beginning July 1 a material decrease in the funds available for its research programs in the mineral resources field.

"Science is not divisible into several exclusive categories because it is a cross-fertilization of many skills. . . . In government, the geological scientists charged with our mineral research efforts are being relegated to the role of 'second rate scientists' along with biologists and other minority groups of scientists who have not benefited from pay increases granted most scientists and engineers. The high morale of geologists in government service is being adversely affected by this discriminatory practice and a general loss of scientific prestige is resulting. . . .

"The American Geological Institute urges that our Nation take positive and immediate steps to correct the current imbalance plaguing the geological scientists and geological research. Our mineral future must be secure if science and technology are to advance."

El Salvador's Tropical Institute

The Tropical Institute of Scientific Research in San Salvador was established by the University of El Salvador in 1950 to encourage research in the seven faculties of the university—law, medicine, dentistry, pharmacy and chemistry, engineering (civil, architectural, agronomic, and electrical-mechanical), economics, and humanities (philosophy, psychology, literature, and languages)—and to provide facilities for the use of visiting scientists desiring to study the tropical environment.

El Salvador is the most densely populated of the five Central American republics, having compressed within its 8600 square miles more than 2 million inhabitants. The country is principally of volcanic origin, with one volcano still active. The volcanic character of the soil contributes to its high fertility. The principal product of the country is coffee, which provides almost 80 percent of the national income. The country's economy is sound. Its monetary unit, the colon, has for 25 years remained at a fixed value of $0.40 U.S.

The climate of El Salvador ranges from hot in the coastal plains to moderately cool in the highlands. The institute is located in University City on the outskirts of the country's capital, San Salvador. This city, which has a population of more than 200,000 inhabitants, is situated on a plain some 2000 feet above sea level. Its climate is pleasant, with a mean annual temperature of approximately 72°F with extremes of from 46° to 96°F. It is 14° north of the equator and 89° west of the Greenwich meridian.

Almost all of the research conducted by the institute is under the supervision of visiting scientists sent to the country by institutions of learning and research in the United States and Europe. Before a visitor is accepted by the institute, he submits a plan of the type of study he wishes to undertake. If his proposed research is of a nature which will be useful not only to him but to El Salvador, his application is accepted. Board and room are provided without charge at the institute's boarding house, the visitor is given laboratory facilities, transportation, reference materials, and other necessary assistance. Many public and private institutions cooperate with the institute in helping the visitors carry out their research programs. However, if very expensive equipment of limited usefulness is needed, the visitor or his sponsor is asked to provide this as a loan to the institute during the period that the visitor is in residence. When the proposed research requires more than 1 year to complete, the institute pays transportation for the visiting scientist to El Salvador and return and also provides him with $30 per month for personal expenses. Research assistants are usually Salvadorean high-school graduates interested in research who, by working with the visiting scientists, prepare themselves for research careers or for scholarships abroad.

The principal research conducted by the institute since its foundation has been in the fields of zoology, botany, geology, soil sciences, hydrology, meteorology, archeology, anthropology, economics, tropical medicine, and chemistry. In return for the facilities offered by the institute, visiting scientists are asked to submit complete reports of the studies; if specimens have been collected, the institute expects to receive a complete set of the materials collected, properly classified.

Usually from six to eight visitors are in residence at the institute, although at times the entire capacity of the boarding house (14 visitors in eight guest rooms) has been in use.

Among the works published in book form by visitors of the institute are: *Birds of El Salvador,* by Austin L. Rand and Melvin A. Taylor of the Museum of Natural History, Chicago; *Farinosa of El Salvador,* by Otto Rohweder, University of Hamburg; *Amphibia and Reptiles of El Salvador,* by R. Mertens, Frankfurt-am-Main, Germany. The institute publishes a quarterly, *Communicaciones del Instituto Tropical de Investigaciones Científicas de la Universidad de El Salvador, C.A.* Much of the research carried on by the visiting scientists is reported in this journal, especially when the reports are not of book length.

The institute is anxious to receive applications from scientists and scientific institutions who desire to carry on tropical research in any scientific field. More detailed information may be secured by writing to the Director General, Instituto Tropical de Investigaciones Científicas, Apartado 740, San Salvador, El Salvador, Central America.

ARISTIDES PALACIOUS
Tropical Institute of Scientific Research, University of El Salvador

Bureau of Standards and National Academy Advisory Program

The National Bureau of Standards and the National Academy of Sciences–National Research Council have announced an expanded plan for coordination of the bureau's technical advisory committee program by the Academy–Research Council in cooperation with a number of the major professional scientific societies of the United States. The NBS advisory committee program grew out of the recommendations of a committee appointed by the Secretary of Commerce in 1953. Since that time, advisory committees appointed by various professional scientific societies have helped to keep the bureau informed of the needs of the nation's scientific and technological community and have evaluated the bureau's work in areas of interest to their professions. At the same time they have provided an effective link whereby the scientists and engineers of the country have gained increased awareness of the scientific contributions and services available from the bureau.

The new plan for coordination of these advisory activities by the Academy–Research Council will strengthen the current program by allowing more complete coverage of the bureau's diversified research activities, and by providing for the coordination of recommendations from the various professional interests which the bureau serves.

Under the new arrangement, the scientific societies will nominate representatives from among their membership to serve as advisers to the bureau. From the base provided by these society delegations, the Academy–Research Council will assemble a number of advisory panels, each of which will have respon-