physiology, Karolinska Institute and director of the Nobel Institute for Neurophysiology, Stockholm, Sweden; Leland J. Haworth, director, Brookhaven National Laboratory; John G. Kirkwood, Sterling professor of chemistry, Yale University; A. Monnier, professor of psychophysiology, University of Paris at the Sorbonne, Paris, France; John S. Nicholas, Sterling professor of biology, Yale University; I. I. Rabi, Higgins professor of physics, Columbia University; William J. Robbins, director, New York Botanical Garden; Alexander von Muralt, professor of physiology, University of Bern, Switzerland. Each of these lecturers will spend a week with the students.

As the students' interests develop, they will be encouraged to spend not less than a year in study under leading scholars in two or three other universities anywhere in the world. The institute will defray the expense of this travel and study, both as an investment in the students' future and as an aid to cooperation between universities.

Further, the institute will invite students in other graduate schools to study at the institute for brief periods during which seminars will be held in subjects relevant to their interests. Travel grants will be provided for this purpose, and the visiting students will be guests of the institute.

In October 1955 the institute enrolled an experimental class of ten students. To select this initial class, each of the presidents of a specially chosen group of liberal arts colleges, and the chairmen of some departments in large universities, were entrusted with the appointment of a 1955 graduate of his college or university to an institute fellowship. These fellowships carry an annual stipend of $2500, with an additional $1000 for travel and attendance at other universities. From Dartmouth, Amherst, Smith, Wesleyan, Yale, Union, Haverford, Pennsylvania, and Oslo came the first ten men and women to be enrolled. Next year the number of selecting universities will be increased and five graduates of medical schools will be added.

U. S. Rubber Research

Government contracts supporting synthetic rubber research, which costs about $1 million annually, should end in June 1956, according to recommendations contained in the report of the Special Commission for Rubber Research of the National Science Foundation. The commission found that the national interest no longer requires Government support of research especially directed toward synthetic rubber.

However, the commission expressed the view that basic research in general should receive a larger measure of support from the Federal Government and recommended that the National Science Foundation should, in fiscal year 1957, "support a new and more basic program made up of research projects in the general area of molecular structure and arrangement, composition and properties of high polymers, particularly elastomers, and methods of preparing such materials."

Decimals for India

In India this year, the currency system of rupees, annas, and pies—12 pies to the anna, 16 annas to the rupee—will be replaced by a decimal currency based on 100 pies to the rupee. On 2 Oct., Gandhi's birthday, the decimal currency will be introduced. Meanwhile, there will be an extensive program of village education.

Further, the system of weights and measures is to be replaced by the metric system. A recent survey of some 1000 villages by the Planning Commission of India showed that there are almost 150 different systems of weight measurement in effect and that there are even more complex systems for measurement of volume and land area.

The first place for change will be in the army, where soldiers will begin to draw rations on the metric system. Then railway markers will be changed from furlongs to kilometers. The Government estimates that at least 15 years will be required to complete the transition process.

Research Support by Private Foundations

The role played by privately endowed foundations in supporting scientific research in the United States is shown in *Scientific Research Expenditures by the Larger Private Foundations*, the report of a survey sponsored by the National Science Foundation that was released on 27 Jan. The study, prepared by F. Emerson Andrews of the Russell Sage Foundation, is one of a series which, when completed, will survey total scientific research expenditure for the nation.

Information was obtained on expenditures by 77 large endowed foundations during 1939, 1946, and 1953 for research in the life sciences, the physical, mathematical, and engineering sciences, and in the social sciences. For 1953 total expenditures of the 77 amounted to approximately $164 million, less than 4 percent of the total amount spent for philanthropy in the United States.

Of the $164 million, $26 million was spent for scientific research, less than 1 percent of the estimated national total for all research and development. Only 43 of the 77 major foundations supported scientific research.

Division of the 26 million dollars expended for scientific research was as follows: $11 million for social sciences, $12.5 million for life sciences—biological, agricultural, and medical—and $2.5 million for physical sciences. Although basic research accounted for $17 million and applied research for $9 million, the proportion of private foundation funds spent for basic research compared with applied has decreased from 96 percent in 1939, to 75 percent in 1946, to 65 percent in 1953.

Bulletin of the Atomic Scientists

The January issue of the *Bulletin of the Atomic Scientists* marks the tenth anniversary of the journal, which was established in December 1945 by Hyman H. Goldsmith, a physicist, and Eugene Rabinowitch, a physical chemist, who is the present editor. Rabinowitch's commemorative article in the anniversary issue opens with the following paragraph about the *Bulletin*.

". . . It was founded by a group of scientists whose participation in the development of the atomic bomb convinced them that, with this discovery, a radical change had come in the role of science in public affairs. They believed that mankind was entering, unawares, into a new age, fraught with unprecedented dangers of destruction. In spring 1945, this conviction led some scientists to an attempt —perhaps the first one in history—to interfere, *as scientists,* with the political and military decision of the nation. Leo Szilard's memorandum to President Roosevelt (March 1945) and the report to the Secretary of War by the so-called 'Franck Committee' on June 11, 1952, counseling, for reasons of long-range policy, against the use of atomic bombs in Japan, were the first manifestations of this new concern of scientists with public policy."

Toward the end of his article Rabinowitch says:

"As scientists, we probably all—or almost all—agree that no solution can be based on the negation of facts, or a refusal to evaluate them as objectively as possible; and that much of the world's hopes are based today on such negation and refusal. Explaining and analyzing facts, and educating public opinion to their acceptance, whether they are pleasant or not, has been one of the tasks of the *Bulletin* from its inception; and to this task it will remain dedicated.

"However, facts alone do not suggest action, unless a final aim has been set.

This aim is, to our mind, the survival and progress of civilized society; and the analysis of the facts of the atomic age seems to show convincingly that this survival depends on the development of ethical standards at once broader and higher than practical men have been prepared to accept and live by—broader in that they have to embrace all mankind and not just a single nation; and higher, in that they have to renounce selfishness and the resort to naked power, not only in relations between individuals within a nation, but also between nations."

Sea Water Conversion

Progress toward low-cost conversion of sea water and brackish inland waters to fresh water was reported by Secretary of the Interior Douglas McKay in his annual report to the President and the Congress on the conversion program. McKay stated that:

"Estimates of the probable cost of large-scale conversion of sea water show that it is approaching the maximum existing costs of municipal water in the United States and is considerably below those of industrial water, although still several times higher than those of currently used irrigation supplies. At the same time economical improvement of brackish waters for many irrigation uses, which is inherently less expensive than conversion of sea water, is definitely in sight."

During the past year, eight additional research contracts were entered into, bringing the total to 30. In all, 25 projects were in progress during part or all of the year. With few exceptions, the contracts call for specific performance. Their duration generally is for a year or less. Investigations are being carried out on distillation and sealing; performance of membranes, both electric and osmotic; solar distillation; freezing processes; and several processes not yet fully explored, including chemical, physical, and electric.

U.S. Population, 1955

The population of the United States, including the Armed Forces overseas, reached 166,740,000 by the end of 1955. This marked an increase of 2,810,000 during the year, only 13,000 less than the record set in 1954. Thus, the high rate of population growth that began in 1946 has continued unabated for a decade. About 26 million people have been added to our population in the past 10 years, a larger number than in the preceding 21 years.

Infant mortality declined to a new low rate of 26.4 per 1000 live births. This is about 1½ percent below the previous minimum established the year before and 30 percent under the rate in 1945. The death rate for the population as a whole was about 9.3 per 1000, or only a shade above the all-time low of 9.2 recorded in 1954.

Scientists in the News

AHMED MUSTAFA, organic chemist and a professor at Cairo University, Cairo, Egypt, is spending a semester at Indiana University as a research associate under the auspices of the U.S. State Department. He is participating in a research program on organic sulfur chemistry.

During the next semester, Mustafa will be at the University of Rochester for research on photochemical aspects of organic sulfur chemistry. Mustafa has held guest fellowships at Massachusetts Institute of Technology, 1948–49, and at Columbia University, 1949–50.

CHARLES OBERLING, Roussy Institut anti-cancereuse, Ville Juif, Paris, France, is another of the participants in the decennial review Conference of the Tissue Culture Association that will take place in Woodstock, Vt., 8–12 Oct. [*Science* **122**, 32 (6 Jan. 1956)].

MORRIS M. LEIGHTON, chief emeritus of the Illinois State Geological Survey, was honored on 11 Oct. at a dinner commemorating the survey's 50th anniversary. He was presented with a bound volume of nearly 200 letters from the mineral industries of the state and from colleagues throughout the nation expressing their appreciation of his services and scientific contributions during the past 36 years.

HARRY F. OLSON, director of the acoustical and electromechanical research laboratory of the R.C.A. Laboratories, David Sarnoff Research Center, Princeton, N.J., has received the John Scott award for a 25-year-old invention —the velocity microphone. This instrument revolutionized the technique of sound pickup in the early 1930's and is still the standard microphone throughout the broadcasting and motion picture industries. The $1000 prize was presented during a dinner meeting of the Engineers' Club of Philadelphia. The award, which is administered by the city of Philadelphia, was established in 1816 by John Scott for "ingenious men and women who make useful inventions."

HANS J. TRURNIT, for more than 8 years staff scientist at the Medical Laboratories, Army Chemical Center, Md., has joined RIAS, Inc.

HENRY B. BIGELOW, oceanographer and professor emeritus of Harvard University, was honored on 24 Jan. on the occasion of the 25th anniversary of the Woods Hole Oceanographic Institution, which he helped to found. He served as its first director from 1930 to 1940.

A leatherbound copy of the *Bigelow Volume,* a collection of 48 original scientific contributions that was prepared by colleagues and former students, was presented to Bigelow by Columbus O'D. Iselin in a ceremony that took place in the Museum of Comparative Zoology at Harvard, where Bigelow has been working since the early 1900's. The 500-page honorary volume is a supplement to *Deep Sea Research* and will be distributed to all who subscribe to that periodical.

SAMUEL MARTIN will assume his new post as head of the department of medicine in the College of Medicine at the University of Florida on 1 Apr. He also will be coordinator of the J. Hillis Miller Health Center Study, which is supported by the Commonwealth Fund of New York.

At present Martin is associate professor of medicine and assistant professor of bacteriology at Duke University School of Medicine, where he was a Markle scholar from 1950 to 1955. He has conducted research on leukocytes and on tissue reaction to infection.

FRED HONKALA, associate professor of geology at Montana State University, was appointed chairman of the department on 5 Jan.

THOMAS COCKBURN, who has been in charge of research projects at the Communicable Disease Center, Atlanta, Ga., has accepted an appointment with the World Health Organization. During the next 2 years he will be epidemiologist to a communicable disease control project in Colombo, Ceylon. Cockburn left the United States early in January; communications should be sent care of the Ministry of Health, Colombo.

MARK W. ALLAM, dean of the School of Veterinary Medicine of the University of Pennsylvania, has left for Mexico as international consultant to the National School of Veterinary Medicine there. His assignment is being carried out under the auspices of the Pan American Sanitary Bureau, Regional Office of the World Health Organization. At the invitation of Latin American countries, a project is being established that is designed to assist in raising the teaching levels within the schools of veterinary medicine and to incorporate more practical aspects into the curricula.