

leading to the Bachelor's degree and to the Master of Arts in Teaching is available to undergraduates at Harvard and Radcliffe Colleges. Now, under the joint MIT-Harvard project, the five-year plan is being broadened to include future science and mathematics teachers whose work will begin at MIT.

#### APPLIED SCIENCE AT HARVARD

Last year a special panel under the chairmanship of Vannevar Bush issued a report proposing a new approach to the teaching of applied science and engineering at Harvard University. The main objectives embodied in the suggestions of the panel were to forge a strong link between science and engineering in Harvard's training program and to produce applied scientists who might be more versatile than usual in many fields of science. The panel placed particular emphasis upon the development of that branch of the field concerned with the properties of materials. In July of this year, the University announced the appointment of John H. Van Vleck, Harvard mathematical physicist and Hollis professor of mathematics and natural philosophy, as dean of applied sciences in the faculty of arts and letters. At the same time, Albert Haertlein, Gordon McKay professor of civil engineering, was appointed associate dean of applied science. Their administrative duties, according to University spokesmen, will be to carry out the proposals of the Bush panel. The area to be covered will include such fields as applied mathematics and physics, electronics, mechanical engineering, soil mechanics, and sanitary engineering. Special emphasis will be given to research and teaching on the properties of materials. Work in this field, which was stimulated by the appointment last fall of Harvey Brooks as Gordon McKay professor of applied physics, is expected to range from solid state physics through metallurgy and fluid dynamics to applied mechanics. The Bush panel was appointed to study the most appropriate use of the income of an endowment established by the will of the late Gordon McKay, which expressed a desire "to promote applied science". New research facilities will be available in the Gordon McKay Laboratory of Applied Science, now under construction.

#### GOVERNMENT RESEARCH

##### NBS BASIC INSTRUMENTATION PROGRAM

A program in basic instrumentation research is under way at the National Bureau of Standards, cooperatively sponsored by the Office of Naval Research, the Office of Air Research, and the Atomic Energy Commission, according to information from the Bureau. Excellent opportunities, it is reported, exist for qualified scientists and engineers in a broad variety of basic instrumentation problems in connection with the research program, which involves theoretical and experimental research, development, design, evaluation, and technical reference work in the entire field of measurement and control instrumentation. Further information concerning these positions and the program can be obtained from W. A.

Wildhack, Chief, Office of Basic Instrumentation, National Bureau of Standards, Washington 25, D. C.

#### FEDERAL AID FOR FLIGHT RESEARCH

A bill authorizing an appropriation of over thirteen million dollars for improving and expanding five flight research laboratories operated by the National Advisory Committee for Aeronautics was passed by the House of Representatives in June. The NACA laboratories involved are the Edwards Station at Muroc, California; the Lewis Flight Propulsion Laboratory at Cleveland; the Wallops Island Station and the Langley Aeronautical Laboratory, both at Langley, Virginia; and the Ames Aeronautical Laboratory, Moffett Field, California.

#### GRANTS AND AWARDS

##### SHELL RESEARCH GRANTS

Two programs in support of research, administered by the Shell Fellowship Committee, have been renewed for the academic year 1951-52. The first, initiated last year, provides for a series of fundamental research grants to university science departments. Twelve grants of \$5000 each have been made (in the fields of chemistry, chemical engineering, geology, mechanical engineering, metallurgy-corrosion, and physics) to the California Institute of Technology, the Carnegie Institute of Technology, the University of Chicago, Harvard University, the Massachusetts Institute of Technology, Princeton University, Stanford University, and Yale University.

The second, Shell's graduate fellowship program, is designed to assist outstanding students to obtain advanced scientific degrees and provides for awards to universities in the fields of chemistry, chemical engineering, geology, geophysics, mechanical engineering, petroleum production engineering, physics, and plant science. Students recommended by the colleges as Shell Fellows receive a stipend of \$1200 for the academic year. Their tuition and fees are paid, and a special fund of \$300 is allocated to each school for related research expenses. Candidates in their final year of doctorate study are given preference, but awards may be made to other graduate students. Forty-five fellowships are to be awarded, totaling \$75,000, during 1951-52.

The fellowship committee is made up of a group of senior executives representing the Shell Oil Company and other Shell organizations. Further information may be obtained from the committee at 50 West 50th St., New York 20, N. Y.

##### NEXT YEAR'S FULBRIGHT AWARDS

Seven hundred Fulbright awards for graduate study or research will be available during the 1952-53 academic year, thus making it possible for students in a wide variety of fields to study in foreign institutions. The awards, which generally provide for round-trip transportation, living expenses, and a limited allowance for necessary books and equipment, have benefited some 1900 Americans during the first three years of the



Fulbright Program. Further details may be obtained either from the Institute of International Education, 2 West Forty-fifth Street, New York City, or from the graduate student's local Fulbright committee.

Approximately two hundred and thirty awards for university lecturing and advanced research are also to be made this autumn for the 1952-53 academic year, according to an announcement by the Committee on International Exchange of Persons of the Conference Board of Associated Universities. Applications, which must be mailed not later than October 15, 1951, may be obtained from the executive secretary of the Committee at 2101 Constitution Avenue, Washington, D. C. Countries participating in the Fulbright Program include the United Kingdom and its colonial dependencies, Norway, the Netherlands, Belgium and Luxembourg, France, Austria, Italy, Greece, Egypt, Turkey, and Iran. The 1952-53 competition for participating countries in which the academic year begins in the spring of early summer closed on April 15. These countries are Australia, New Zealand, India, Pakistan, Burma, and Thailand.

#### THE MAX PLANCK MEDAL

The Max Planck medal, highest award of the German Physical Society, has been given to James Franck, professor emeritus of physical chemistry in the University of Chicago's Institute for Radiobiology and Biophysics. Although beginning his work in physics, in recent years he has devoted himself to a study of the effects of photosynthesis, the process by which plants create the basic foods for all living things. Professor Planck, who jointly with Gustave Hertz won the 1926 Nobel prize in physics for the discovery of the laws governing the collision of an atom with an electron, is the second American in two years to receive the medal. It was awarded to Peter Debye of Cornell last year. Previous recipients of the medal have been Albert Einstein, who first received it a quarter of a century ago, Otto Hahn and Lise Meitner, noted for their studies of nuclear fission, and Max von Laue, who first discovered that x-rays could be diffracted by passing through crystals. The medal, which has been awarded annually since the middle 1920's, was named in honor of Max Planck, founder of the quantum theory.

#### RESEARCH GRANT TO BE SHARED

The Eugene Higgins Scientific Trust for scientific research and education has set aside a one million dollar fund to be distributed equally during the 1951-52 academic year among Columbia, Harvard, Princeton, and Yale Universities. At Columbia, the funds will be applied to the University's research programs in atomic, nuclear, and molecular physics. Part of Princeton's share will help to support work in physics and mathematics, with the largest part of the remainder to be used for research in biology, geology, and engineering. Harvard and Yale will apply the funds mainly to research in the medical sciences.

#### KODAK OFFERS FELLOWSHIPS

A total of twenty Eastman Kodak Company fellowships have been offered to educational institutions for the year 1951-52, the company has announced. The fellowships, which are for doctoral work, provide stipends of \$1,200 for one year in addition to payment of tuition and fees. The group includes three fellowships for study in physics to be carried out at the California Institute of Technology, Ohio State and Princeton.

#### Vilhelm F. K. Bjerknes

V. F. K. Bjerknes, leading Norwegian physicist and founder of the Bergen School of Meteorology which has played a pioneering role in the history of meteorological research, died in Oslo on April 9th. His age was eighty-nine. Educated at Paris and Bonn, Professor Bjerknes received his PhD in physics at Oslo in 1892. He was appointed professor of mechanics and mathematical physics at Stockholm the following year. In 1907 he accepted a professorship at Oslo and five years later went to Leipzig to direct the Geophysical Institute in that city. From 1917 until 1926 Professor Bjerknes led the work in meteorology at Bergen which provided much of the foundation for the application of hydrodynamics to meteorological science. He left Bergen upon being appointed 'Extraordinary Professor of Mechanics and Mathematical Physics' at the University of Oslo. Professor Bjerknes was named a foreign member both of the Royal Society (London) and of the National Academy of Sciences in this country. He was also associated with the Carnegie Institution of Washington.

#### John Zeleny

John Zeleny, emeritus professor of physics at Yale, died in New Haven on June 19, at the age of 79. Born in Racine, Wisconsin, he graduated from the University of Minnesota in 1892, and received his doctorate in 1906. He also studied at the University of Berlin and received a bachelor's degree from Cambridge in 1899. Professor Zeleny served on the University of Minnesota faculty from 1892 to 1915 and for seven years during this period he headed the department of physics. He joined the Yale faculty in 1915 as chairman of the department and director of graduate studies in physics. He retired from active teaching in 1940, but during the second World War, when there was an acute shortage of teachers, he returned to Yale to teach in the Navy V-12 program from 1941 to 1943. Professor Zeleny, one of the country's outstanding teachers of physics, was perhaps best known for his work on electrical conduction through gases. In 1940 he was elected president of the American Physical Society. He was also a member of the American Association for the Advancement of Science, the American Academy of Arts and Sciences, the American Association of Physics Teachers, and numerous other organizations.