employment in nearby industrial and governmental scientific and engineering organizations. Additional plans call for the provision of aids to guidance and career counseling, seminars, invitational lectures for teachers and students by outstanding scientists and engineers, and gifts and loans of laboratory equipment.

Responsibility for the conduct of the new program will be assigned to a special board representing all areas of science, mathematics, and engineering. Staff assistance to the board is under the direction of John S. Coleman, executive secretary of the Academy-Research Council's division of physical sciences.

The Arlington County pilot study is to be carried out with the cooperation of the AAAS and with the encouragement of major groups in business and industry. John R. Mayor, director of the AAAS Science Teaching Improvement Program, is working closely with Coleman in the development of the study.

News Briefs

The ten astronomical highlights of 1955 as selected by Harlow Shapley, former director of Harvard College Observatory, are as follows:

1) Announcement that the U.S. Government would sponsor the launching of at least one small artificial satellite during the International Geophysical Year, which starts on 1 July 1957.

2) Detection of "thunderbolts of Jove" or some similar strong electric effect in the atmosphere of the planet Jupiter by Bernard F. Burke and Kenneth L. Franklin of the Carnegie Institution of Washington. They discovered the radio waves from Jupiter, the first to be found from another planet in the solar system, using a radiotelescope located at Seneca, Md. The radio signals have been verified by Australian observers.

3) Discovery of the star of smallest known mass—only one-twelfth that of the sun—by Sarah Lee Lippincott of Sproul Observatory, Swarthmore, Pa. Walter Baade of Mount Wilson and Palomar Observatories photographed the discovery, which is one component of a dwarf reddish double star, by aiming the 200-inch telescope exactly where Lippincott had calculated Ross 614-B would be.

4) Renewal of discussion, in connection with the satellite program, of who owns the upper air and who has the right of way in space beyond the upper air.

5) Conclusion of a 50-year research program by many Harvard astronomers on variable stars of the Magellanic Clouds. The analysis included 3000 variable stars, three-fourths of which are Cepheids. For 1220 of them, periods and light curves have been determined.

6) Positive identification of the strong yellow line in the sun's corona as that of calcium XV, caused by calcium atoms stripped by ionization of 14 of their 20 electrons. Identification was made by Walter O. Roberts and his associates at the University of Colorado's High Altitude Observatory, and by David Layzer of Harvard.

7) The report by E. C. Slipher of Lowell Observatory, Flagstaff, Ariz., on his 10,000 photographs of the planet Mars in red, yellow, and blue light, made during 1954, when Mars was relatively close to the earth, with the University of Michigan's telescope on Naval Hill, Bloemfontein, Union of South Africa. Also, a report by Audouin and Charles Dollfus on their photoelectric observations, made from a balloon 4.5 miles above the earth's surface, of the small moisture content of the Martian atmosphere.

8) Appearance of the first section of the two-color star and galaxy atlas, which was made with the 48-inch Schmidt telescope under the auspices of Mount Wilson and Palomar Observatories and the National Geographic Society, with important technical assistance from the Eastman Kodak Company's research laboratories.

9) Occurrence on 20 June of a solar eclipse with the greatest duration of totality, 7 minutes 7.8 seconds, since A.D. 717. It will be nearly 200 years before such a long eclipse occurs again.

10) An explanation by C. F. von Weizsaecker of the reason for the sphericity of globular clusters and their freedom from interstellar dust and gas. His theory is that dust and gas have been cleaned out by frequent passage of the clusters through nebulosities in the Milky Way.

■ Discovery of the bodies of insects some 60 million years old imbedded in samples of Alaskan amber has been reported by the Arctic Institute of North America. Although fossil impressions of older insects exist, the mummified Alaskan animalcules are believed to be many millions of years older than any other insect specimens extant.

The Arctic Institute was sponsor of the successful search for Cretaceous insect relics that was conducted by Robert L. Usinger and R. F. Smith, professors of entomology at the University of California. Bedrock sources of Alaskan amber had been discovered within the past few years by the U.S. Geological Survey, but it was not until last summer that Usinger and Smith, acting on information provided by the Survey, extracted pieces of amber for study and examination. The amber was found in the Colville River valley and along the Kuk River, on the northern slope of the Brooks Range about 150 miles north of the Arctic Circle.

Ancient insects have been preserved in amber over the centuries because they became trapped in the resinous matter from which amber is formed. All the great amber deposits of the world (with one exception) are from the Oligocene epoch of some 30 to 40 million years ago. But Alaskan amber, according to specialists of the U.S. Geological Survey, unquestionably dates from Cretaceous time, and any insect specimens it contains may contribute materially to entomology and to the general field of evolution. Detailed study will be required to determine the nature of the insects in the amber samples brought home by Usinger and Smith, but preliminary examination has revealed that they contain specimens in a fine state of preservation. The field work in Alaska was based at the Arctic Research Laboratory of the Office of Naval Research at Point Barrow.

■ In the 1 Sept. issue of *Umschau,* G. Jaeger of Degussa, Frankfort, Germany, presents a brief report of a new synthetic gem that simulates lapis lazuli. The material is made by sintering spinell that is colored blue by the addition of cobalt. The resulting synthetic gem has a much greater Mohs hardness, 8 to 8½, than a natural lapis lazuli and its color is not affected by either heat or light.

■ The Slovenian Academy of Sciences and Arts has released the second series of reports of the J. Stefan Institute of Physics in Ljubljana, Yugoslavia. The new institute, erected in honor of the Austrian physicist who first stated the law that the total radiation from a black body is proportional to the fourth power of its absolute temperature, is now equipped with a 31-Mev betatron, a 2-Mev van de Graaf accelerator, and a neutron generator that uses the deuterium-tritium reaction as a neutron source.

The institute also has the auxiliary instruments and facilities necessary for research in cosmic rays and nuclear physics, such as mass spectrometers, counters, and a nuclear-plate laboratory. In addition, work on physicochemical problems is in progress.

■ People in the farm states of the midwest live longer than those in other areas of the United States, according to a report by the Metropolitan Life Insurance Company. Expectation of life at birth in the West North Central area at midcentury was 67.8 years for white males and 73.3 years for white females. The next best record for males is found in New England—66.9 years—and for females, on the Pacific Coast—72.9 years.

Average length of life increased substantially in every section of the country during the decade of the 1940's, according to life tables computed by statisticians from data provided by the National Office of Vital Statistics and the Bureau of the Census. The largest gains were made in the areas that formerly had the least favorable records. For example, in the Mountain States the increases were 4.4 years for white males and 5.9 years for white females. This compares with increases of 2.6 and 4.1 years, respectively, in the West North Central region.

■ The Navy is testing a miniature meteorological instrument that can substitute for permanent weather stations. The device is designed to record data automatically in both total darkness and under severe weather conditions. It weighs 6 pounds and is 23 inches high.

The instrument measures and records surface atmospheric pressure, temperature, relative humidity, wind speed, and wind direction. The equipment was developed for the Navy Bureau of Aeronautics by the Friez Instrument Division of the Bendix Aviation Corporation.

■ The World Health Organization, as one of the specialized agencies of the United Nations, helped to promote the celebration of United Nations Day on 24 Oct. This was the tenth anniversary of the day on which the U.N. Charter came into force in 1945.

The operations of WHO are now decentralized in six regional offices. In the western hemisphere the Pan American Sanitary Bureau serves also as WHO's regional office for the Americas. In the October issue of the *United Nations Review*, M. G. Candau, director-general of WHO and formerly assistant director of the Pan American Sanitary Bureau, reviews the work of WHO and PASB in an article entitled "The role of health in guaranteeing a secure world."

Scientists in the News

HAROLD S. VANCE, former chairman of the executive committee of the Studebaker-Packard Corporation, South Bend, Ind., was sworn in as a member of the U.S. Atomic Energy Commission on 31 Oct. Vance's interim appointment for the term ending 30 June 1960 was announced recently by President Eisenhower.

Six Albert Lasker awards for outstanding achievement in medical research and public health administration have been announced by the American Public Health Association in New York. Presentation of the $1000 prizes will be made on 17 Nov. during the 183rd annual meeting of the APHA in Kansas City, Mo. Given for the 10th year and considered among the nation's highest medical honors, the 1955 Lasker awards will be conferred on:

KARL PAUL LINK, professor of biochemistry, University of Wisconsin, for "fundamental contributions to our understanding of the mechanism of blood clotting and for the development of methods for the improved treatment of thrombo-embolic conditions." Link is the discoverer of the anticoagulant, dicumarin.

ROBERT D. DEFRIES, director, Connaught Research Laboratories, University of Toronto, Canada, for "distinguished leadership" in the development of preventive medicine and public health in Canada. Connaught, under Defries, prepared and supplied nearly all the virus used in the field trials of the Salk poliomyelitis vaccine in 1954.

C. WALTON LILLEHEI, associate professor of surgery, University of Minnesota, jointly with MORLEY COHEN, HERBERT E. WARDEN, and RICHARD L. VARCO, of the same institution, for "advances in cardiac surgery making possible more direct and safer approaches to the heart." Lillehei and his associates originated the "cross-circulation" surgical technique for the correction of congenital heart defects.

Menninger Foundation and Clinic, Topeka, Kan. group award citing KARL A. and WILLIAM C. MENNINGER for "a sustained and highly productive attack against mental diseases, bearing fruit in better hospitals, better trained staffs and greatly improved care of the patient."

Nursing Services of the U.S. Public Health Service, Washington, D.C., group award citing LUCILE PETRY LEONE, PEARL MCIVER, and MARGARET ARNSTEIN, for "distinguished contributions to the advancement and well-being of the nation" through their leadership in public health nursing.

A team of tuberculosis researchers, group award to WALSH MCDERMOTT and CARL MUSCHENHEIM, New York Hospital–Cornell University Medical Center, New York, EDWARD H. ROBITZEK and IRVING J. SELIKOFF, Seaview Hospital, New York, together with Hoffmann-La Roche Research Laboratories, Nutley, N.J., and The Squibb Institute for Medical Research, New Brunswick, N. J., for "contributions of the first order to our knowledge of the principles of the treatment and control of tuberculosis" with the isoniazid drugs.

SAMUEL L. MEYER, head of Botany and director of the Marine Station of Florida State University, has resigned those posts to become dean of Central College, Fayette, Mo.

W. MALCOLM REID has joined the poultry department at the University of Georgia to carry out a research program in poultry parasitology. Reid recently returned from Egypt, where for 3 years he was head of the Poultry Unit under the Point Four program.

RONALD N. BRACEWELL has been appointed associate professor of electrical engineering at Stanford University. He was a research officer for a number of years with the Commonwealth Scientific and Industrial Research Organization at Sydney, Australia; last year he served as a visiting faculty member at the University of California.

MERVIN J. KELLY, president of Bell Telephone Laboratories and GORDON RADLEY, director general of the British Post Office, were selected by the City of Genoa, Italy, to receive the first Christopher Columbus International Communication prize, which was conferred in Genoa on Columbus Day. Kelly and Radley received the prize in recognition of "the planning, now being placed into practice, of the submarine telephone cable which will make it possible to establish 36 telephone circuits across the Atlantic between Scotland and Canada with extension to New York, 'intending furthermore to reward hereby the numerous scientists, research workers and engineers who have contributed in the planning, production and placing in operation of the intercontinental submarine telephone line.' "

HOWARD F. HUNT has been appointed chairman of the University of Chicago department of psychology. A member of the faculty since 1948, Hunt specializes in animal psychology. He has done extensive work on the psychological and physiological effects of electroconvulsive shock treatment in animals.

JOHN S. BURLEW has been named director of the Franklin Institute, Philadelphia, Pa. HENRY B. ALLEN continues as executive vice president and secretary. Burlew joined the institute in July of 1954 from the Cambridge Corporation, Cambridge, Mass., where he was technical director.

EDGAR C. BRITTON, director of the Edgar C. Britton Research Laboratory of the Dow Chemical Company, Midland, Mich., and past president of the American Chemical Society, is to receive the highest award in American industrial chemistry, the Perkin medal of the American Section, Society of Chemical Industry. The award will be the 50th impression of the Perkin medal, which is bestowed annually for outstanding