News of Science

AAAS Headquarters

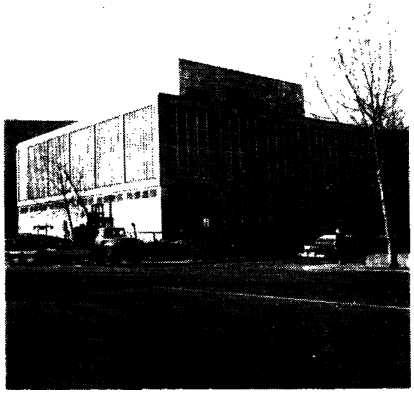
The new AAAS headquarters will be ready for occupancy late this spring. The association will use the first two floors of the building, and the third floor will be shared by several affiliated societies.

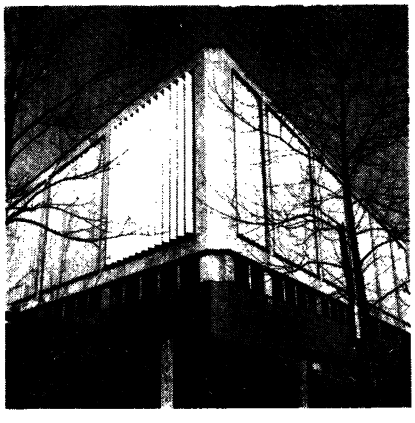
The architects, Faulkner, Kingsbury and Stenhouse, have designed the building with unusual attention to thermal controls. Three sides of the structure have two-story aluminum louvers covering the windows. These provide good natural light and at the same time reduce the cost of air conditioning by deflecting the sun's rays.

The louvers are operated by an electric motor and a clock mechanism; the angle of the aluminum panels changes with the movement of the sun. The timing device will probably have to be adjusted about six times a year so that the windows will always be shaded. The louvers have created considerable interest, for, although they have been used on the West Coast, this is the first time that they have been tried in the Washington area.

All mechanical equipment for the new structure is enclosed in the penthouse—for example, the air conditioning and heating units and the elevator shaft.

The two photographs, showing the back corner of the building at 15th and N Streets and the front corner at 15th Street and Massachusetts Avenue, were taken by Kenneth Gilmore of the *Washington Daily News*.





Radiation in Emission Nebula

The first observation of the absorption of 3.5-meter radiation in an optical emission nebula, NGC6357, was reported in the 28 Jan. issue of *Nature* by B. Y. Mills, A. G. Little, and K. V. Saeritan of the Australian Commonwealth Scientific and Industrial Research Organization. This absorption of radio waves in an emission nebula leads to an estimate of the electron temperature of the nebula that is based almost entirely on radio data.

The authors have come to the conclusion that the electron temperature in the nebula is 6500°K. This is somewhat lower than the 10,000°K that is usually assumed for such nebulae. The value could be even lower if the nebulae are "patchy." A quantitative optical study is suggested.

$2,657,434 for Medical Schools

Grants amounting to $2,657,434 were awarded to the nation's 81 medical schools for 1955 by the National Fund for Medical Education. Fifty-eight percent was contributed by corporations, through the fund's Committee of American Industry, and the balance by physicians, through the American Medical Education Foundation.

This is the largest annual award in the fund's history, 22 percent greater than in 1954, and brings to $9,589,490 the total collected by the fund since 1951, the year in which the first grants were awarded.

Each of the 75 4-year schools received $15,000 and $30 for every undergraduate medical student; each of the 6-year schools received $7500 and $30 per student. Added to these grants were the gifts of individual physicians to designated schools.

Fund grants are unrestricted, except for the provision that they cannot be used for building purposes. The money is used by the schools primarily to increase teacher salaries, fill faculty vacancies, and open new courses in areas of recent scientific progress.

Industry's support of medical education has mounted steadily since 1949, when the fund was established. Last year 1532 corporations contributed to the fund, compared with 1129 in 1954.

Size of the Antiproton

The antiproton, newly discovered particle of negative matter [*Science* **122**, 1222 (23 Dec. 1955)], is twice the size scientists expected, according to Owen Chamberlain of the University of California in a report that he delivered at the recent meeting in New York of the American Physical Society. In connection with this finding, Edward Teller, also of the University of California, has predicted the future discovery of two new particles. He says that the undiscovered particles are needed to explain the large effective size of the antiproton.

Chamberlain reported that more examples of the antiproton are now being found, for investigators are learning exactly where to place the emulsions on which the negative particles register as nuclear stars. One star, discovered by Gerson Goldhaber and associates, is especially important. It has eight prongs, with three protons and five pions. One pion decays into a mu meson and an electron. Total visible energy of this star is 1230 Mev, an amount that is in excess of the rest mass of either the proton or antiproton, which is 938 Mev.

This excess energy gives the best evidence yet that the antiproton annihilates either a neutron or a proton. This is demonstrated by the fact that the visible energy exceeds that of one particle. The difference between 1230 Mev and the 1876 Mev of two particles is the energy of neutral particles not visible that emerge from the star.

The Berkeley group is collaborating with Eduardo Amaldi and his coworkers in Rome. The antiproton star reported by Amaldi's group showed a visible energy of 826 mev.

News Briefs

■ A report on venereal disease that was released jointly by the Association of State and Territorial Health Officers, the American Venereal Disease Association,

and the American Social Hygiene Association shows that in 1955 25 states and 14 major cities had increases in the attack rate of syphilis or gonorrhea, or both. The record was published in an effort to persuade the Congress to appropriate a minimum of $5 million to combat venereal disease in 1957. The current budget requests $3.5 million, which is the same as the amount authorized for 1956.

■ The Franklin Institute Laboratories for Research and Development are constructing an especially long infrared cell and spectrometer to be used for studies of air pollution and smog in the Los Angeles area. The infrared equipment will be housed in a special mobile laboratory. It is hoped that construction work will be completed by September, when Edgar R. Stephens, group leader for air pollution research at the institute, plans to direct field studies.

■ Gerard P. Kuiper of Yerkes Observatory, Williams Bay, Wis., reported recently that the solar system has eight planets, not nine. Kuiper says that Pluto, regarded as the ninth planet, "in reality is only one of Neptune's satellites or moons, which broke away untold millions of years ago." He bases his conclusion on his own findings and on those of Merle Walker and Robert Hardie of the Lowell Observatory at Flagstaff, Ariz. Pluto differs from genuine planets in its small size, its eccentric orbit, and its comparatively slow rotation.

■ A technique for soldering aluminum, stainless steel, glass, and ceramics without special equipment has been developed at the Los Alamos Scientific Laboratory. The new method of joining these materials is expected to be much more economical than the ultrasonic method that is now in use.

■ For the general use of science, industry, and administration, a computation center is to be opened this spring in Frankfurt, Germany. A Remington Rand UNIVAC, the first in Europe, will be installed in the Battelle Institute.

■ Acheson Industries, Inc., New York, has announced that 9 Mar. is the 100th anniversary of the birth of Edward G. Acheson, known internationally for his discovery of methods for producing silicon carbide, synthetic graphite, and colloidal graphite, which revolutionized industry. Acheson, who died in 1931, was a fellow of the AAAS.

Another centennial celebration is that of the discovery of the first synthetic dye. In 1856 William Henry Perkin produced crystals of mauve, a development that proved to be the foundation upon which the existing aniline dye industry was built. Lead by the American Association of Textile Chemists and Colorists and supported by 27 chemical, technical, and scientific societies, the centennial will be observed by chemists throughout 1956.

■ Creation of the American Sanitary Engineering Intersociety Board has been announced by representatives of several major national engineering and public health organizations. They constitute a Joint Committee for the Advancement of Sanitary Engineering, under the chairmanship of Earnest Boyce, head of the University of Michigan Department of Civil Engineering.

The new body has been organized and incorporated "to improve the practice, elevate the standards and advance the cause of sanitary engineering; to grant and issue to engineers, duly licensed by law to practice engineering, certificates of special knowledge in sanitary engineering or in any field thereof." Headquarters have been opened in the Engineering Societies Building, 33 W. 39 St., New York.

Scientists in the News

The annual report of the Borden Company Foundation, Inc., lists the recipients of the $1000 research awards for 1955 and the organizations that administer them: American Dairy Science Association, CLIFFORD W. DUNCAN, Michigan State University, for contributions in the area of biochemistry and nutrition in dairy animals, and FRANK V. KOSIKOWSKI, Cornell University, for studies in the area of cheddar cheese ripening; American Chemical Society, FRED HILLIG, Food and Drug Administration, for his role in the development of chemical methods of analysis for dairy products; American Institute of Nutrition, ALBERT G. HOGAN, University of Missouri, for research on vitamin requirements and the discovery of vitamin B_c; American Academy of Pediatrics, L. EMMETT HOLT, JR., New York University College of Medicine, for contributions to infant nutrition; Association of American Medical Colleges, CHARLES HUGGINS, University of Chicago, for research on the relationship between the endocrine glands and cancer; American Veterinary Medical Association, HARRY E. KINGMAN, Wyoming Hereford Ranch Foundation (retired), for contributions to the knowledge of fertility and disease in cattle; Poultry Science Association, MARLOW W. OLSEN, U.S. Department of Agriculture, for studies of hatchability and fertility in poultry; American Home Economics Association, PEARL P. SWANSON, Iowa State College, for fundamental studies of the basic problems of human nutrition.

SYLVAIN J. PIRSON, who since 1949 has been a special research associate for the Stanolind Oil and Gas Company, Tulsa, Okla., and a special lecturer in petroleum engineering at the University of Tulsa, has joined the faculty of the University of Texas petroleum engineering department.

GEOFFREY W. RAKE, medical research consultant to the E. R. Squibb and Sons Division of the Olin Mathieson Chemical Corporation and research professor of microbiology at the University of Pennsylvania School of Medicine and Veterinary Medicine, has been appointed scientific director of the International Division of Olin Mathieson. In his new post Rake becomes responsible for all pharmaceutical, medical, and veterinary research conducted outside of the United States by the company's Squibb International Division.

The following ten physicians and surgeons have each received *Modern Medicine*'s citation for distinguished achievement in medicine: I. S. RAVDIN and PAUL GYORGY of the University of Pennsylvania; STANLEY COBB and JOHN F. ENDERS of Harvard University; WARREN H. COLE of the University of Illinois; FRANK H. KRUSEN of the Mayo Clinic; IRVINE H. PAGE of the Cleveland Clinic; JONAS E. SALK of the University of Pittsburgh; GEORGE H. WHIPPLE of the University of Rochester; and IRVING S. WRIGHT of Cornell University.

JOHN C. GRIFFITHS, professor of petrography in the College of Mineral Industries at Pennsylvania State University, has succeeded P. D. KRYNINE as head of the department of mineralogy.

NORMAN W. KARR, for the past 3 years director of clinical research at Riker Laboratories, Los Angeles, Calif., has joined the Squibb Institute for Medical Research, New Brunswick, N.J., as an assistant to the director of the research and development laboratories.

BYRON T. SHAW, administrator, Agricultural Research Service, U.S. Department of Agriculture, has been designated United States member of the Technical Advisory Council of the Inter-American Institute of Agricultural Sciences. CLAUD L. HORN, agricultural attaché, American Embassy, San José, Costa Rica, has been named alternate U.S. member of the council.

The purpose of the Inter-American Institute of Agricultural Sciences is "to encourage and advance the development of agricultural sciences in the American Republics through research, teaching and extension activities in the theory and practice of agriculture and related arts