

20 days to end his studies which are concerned with pain-killing drugs. Mangun, however, maintains that his work is not a business, in the sense intended by the zoning laws, and, on this basis, plans to appeal the committee's decision.

### Telescope-Balloon Flights

A 12-inch solar telescope, equipped with a closed-circuit television link, will make a series of flights by balloon this summer. The television camera will be linked to a motion picture camera to obtain a continuous record of images that appear in the telescope reflector. Director of the project is Martin Schwarzschild of Princeton University, who directed similar balloon flights in 1957.

The purpose of sending the telescope up in a balloon is to get it above the earth's atmosphere, which obscures celestial objects. To get high-resolution photographs of the sky it is necessary to send telescopes above the tropopause, a turbulent layer at about 40,000 feet. The turbulence causes fluctuations in refraction of light from the sky. Under the best atmospheric conditions the 20-inch telescope at Mount Palomar can rarely distinguish between two points on the moon's surface less than 1800 feet apart, while it could distinguish between points only 120 feet apart if it did not have to "look" through the earth's atmosphere.

The 1957 flights, made under the sponsorship of the Office of Naval Research and with assistance from the Air Force Cambridge Research Center, resulted in the first successful attempts at high-altitude observations. The special sun telescope-camera, which with considerable modification will be used this summer, made two unmanned balloon flights and took photographs of the sun's surface that were unprecedented in clarity and detail. The photographs showed for the first time the detailed polygonal structure of the convective currents ("granulations") that bring much of the internal solar energy to the sun's surface.

### Senate Adds \$363 Million to Funds for Health Agency

The Senate, on 24 June, added \$363 million to the amount requested by President Eisenhower to operate the Department of Health, Education, and Welfare and the Department of Labor. The bill, which appropriates more than

\$4 billion for the two agencies, was approved by a vote of 83 to 10. It must now be reconciled with a bill passed by the House of Representatives, which calls for somewhat lower amounts. This is the first time this session that the Congress has gone above the President's budget figures in an appropriations bill.

The major increase was that of \$186 million in medical research funds, making \$480 million for this item. The breakdown of appropriations recommended by the Senate for the eight divisions of the National Institutes of Health for the fiscal year that begins 1 July is as follows (House figures in parentheses).

Cancer, \$110.2 million (\$83.3 million); Mental Health, \$79.9 million (\$60.4 million); Heart, \$89.5 million (\$52.7 million); Dental Health, \$10.1 million (\$9.7 million); Arthritis and Metabolic Diseases, \$51.2 million (\$37.8 million); Allergy and Infectious Diseases, \$41 million (\$30.3 million); Neurology and Blindness, \$48.9 million (\$33.6 million); and General Research and Services, \$49.6 million (\$36.4 million).

### Canadian Radar Laboratory

The Prince Albert Radar Laboratory, the Canadian Defence Research Board's new atmospheric research facility at Prince Albert, Saskatchewan, was officially opened on 6 June by Prime Minister Diefenbaker, in the presence of prominent Canadian and United States scientists and senior representatives of the armed forces of both countries. Sponsored jointly by the DRB and the United States Air Force, this new research facility will be employed for investigations of the various factors involved in radar detection of aircraft and missiles entering the auroral zone.

The most conspicuous object at the 700-acre site will be the 84-foot radar "dish" loaned to Canada by the U.S. Air Force. It will be mounted on a massive concrete base, and its top will be 125 feet from the ground. The complete installation is under construction on a high point about 7 miles west of Prince Albert. The Canadian installation is a "twin" of the U.S. Air Force's giant research radar installed at Millstone Hill near Boston by the Lincoln Laboratory. The Prince Albert installation and its U.S. counterpart will be among the largest research facilities of their kind in the Western world.

### Scientists in the News

KARL SAX is retiring as professor of botany at Harvard University. A geneticist and experimental horticulturist, he pioneered in the study of the structure and behavior of chromosomes and the effects of radiation upon them. He received his M.S. and Sc.D. degrees from Harvard University and his Ph.D. from Stanford University. For 8 years he worked at the Maine Agricultural Experimental Station before joining the faculty of Harvard in 1928, where he became professor of botany in 1935. He was formerly director of the Arnold Arboretum and supervisor of the Bussey Institution and is currently president of the Genetics Society of America. Following his retirement, Sax will join the Yale University faculty for a year as visiting professor of botany; the following year he will join the botany department at Oxford University on a Gugenheim fellowship.

VICTOR K. LA MER, professor of chemistry at Columbia University, recently left for Australia to spend 6 months with the Division of Physical Chemistry of the Commonwealth Scientific and Industrial Research Organization, Chemical Research Laboratories, Fishermen's Bend, Victoria.

EDWARD W. HAYES, Sr., associate professor of thoracic diseases at the College of Medical Evangelists, Loma Linda and Los Angeles, Calif., has received an alumni achievement award from the alumni association of Carleton College.

SHERWOOD GITHENS, director of the Internal Research Division of the Office of Ordnance Research, U.S. Army, Durham, N.C., has been named deputy chief scientist of the Office of Ordnance Research.

ARNIE J. SUOMELA, commissioner of the U.S. Fish and Wildlife Service, has been named chairman of the International Commission for Northwest Atlantic Fisheries. He succeeds K. SUNNANA of Norway.

The Hektoen Gold Medal of the American Medical Association has been awarded to a team of surgeons from Tulane School of Medicine for the best scientific exhibit at the 108th annual meeting of the association in Atlantic City, N.J. Members of the team include: