(2) Ω^- decaying into Ξ^0 and π^- or (3) Ω^- decaying into K^- and Λ^0. On January 31, an event of the second type was found. By February 5, the computer had verified the find, and two days later a report was dispatched across the snowy plains of Brookhaven from the AGS to the editorial offices of the *Physical Review Letters*. A week after the first find, an event of the third type was found (lower figure, page 58). The search continues for more events.

By February 21, some 150 000 photographs had been taken, with a total K^- track length of about 2×10^6 feet. The first event found (top, p. 58) shows a K^- striking a proton and the formation of a K^+, an Ω^-, and an inferred K^0. The Ω^- then decays into Ξ^0 and π^-. The Ξ^0 further decays into Λ^0 and π^0. The Λ^0 then decays into π^- and a proton, both visible. Meanwhile π^0 decays into a pair of gamma rays, each of which create an electron-positron pair. The mass of the Ω^- particle is calculated from the momenta and angles of the other particles. Since the lifetime of the Ω^- particle was found to be 0.7×10^{-10} sec, it was assumed that it decayed by a weak interaction with change of strangeness of one into a system with strangeness minus two. Since a particle with strangeness -1 would decay very rapidly into $Y + \pi$, the authors conclude that Ω^- has strangeness minus three.

The new particle may actually have been seen much earlier (1956) in a photographic emulsion exposed to cosmic rays by Y. Eisenberg, then at Cornell University.

Now that the eightfold way has received such strong experimental support, it may be expected that attempts will be made to find new families for a few known orphans (for example, ones with $J = 5/2$ or $7/2$), and new search parties will be looking for orphans missing from the new families.

The Mees Observatory

The University of Rochester has announced plans to build an astronomical observatory to be named in memory of the late C. E. Kenneth Mees. The observatory, which is expected to be completed by the end of this year, will be operated under the supervision of the University's Department of Physics and Astronomy. It is being financed partly by a grant of $102 300 from the National Science Foundation to be used for equipment, and in part by contributions from the Mees family and the Eastman Kodak Company to provide for the development of a site and the construction of buildings.

A 24-inch reflecting telescope with a focal length of 27 feet will be the major research instrument of the observatory. Of compact design, it will be housed in an 18-foot dome. Construction of the observatory, according to Robert E. Marshak, chairman of the Department of Physics and Astronomy, "will enable the University to extend and develop its research programs in observational astronomy to supplement its present program in theoretical astrophysics. It will also contribute to the training of graduate and undergraduate students in the practice of research in optical astronomy." In recent years, he pointed out, the University has found it necessary to use local amateur equipment and in some cases the facilities of the MacDonald Observatory in Texas and various California observatories in carrying out its observational programs in astronomy. "However," he said, "the steady expansion of the University's research and teaching programs in astronomy, both on the undergraduate and graduate levels, has made it necessary to acquire highly professional equipment to provide research training for students."

Research programs to be carried out with the new telescope will include M. P. Savedoff's investigations of interstellar gases and cosmic dust, H. L. Helfer's studies of galactic structure, and an extension of D. C. Schmalberger's work on the evolution of variable stars. Future plans include those for the application of advanced techniques in optics and electronics to problems in astronomy, which is a matter of interest both to the Department of Physics and Astronomy and to the College of Engineering and Science, particularly Rochester's Institute of Optics. The Department has indicated that it will cooperate fully with other in-

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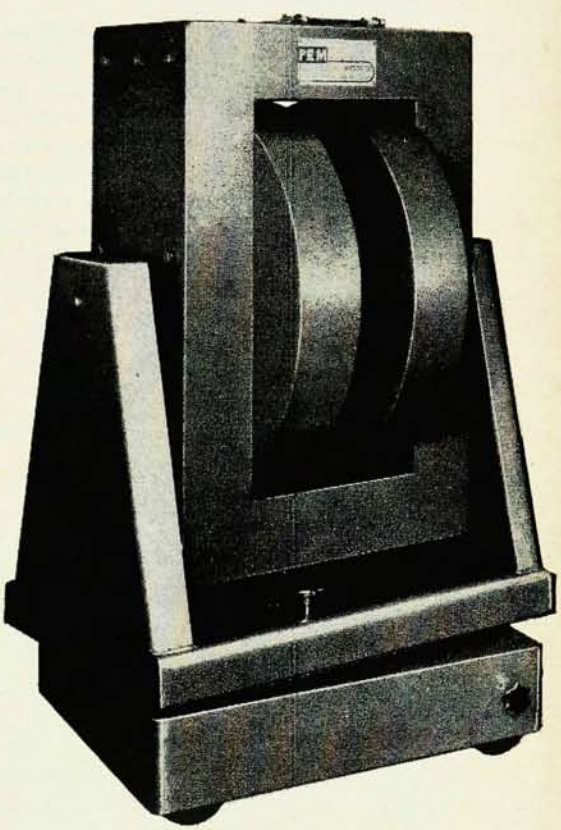

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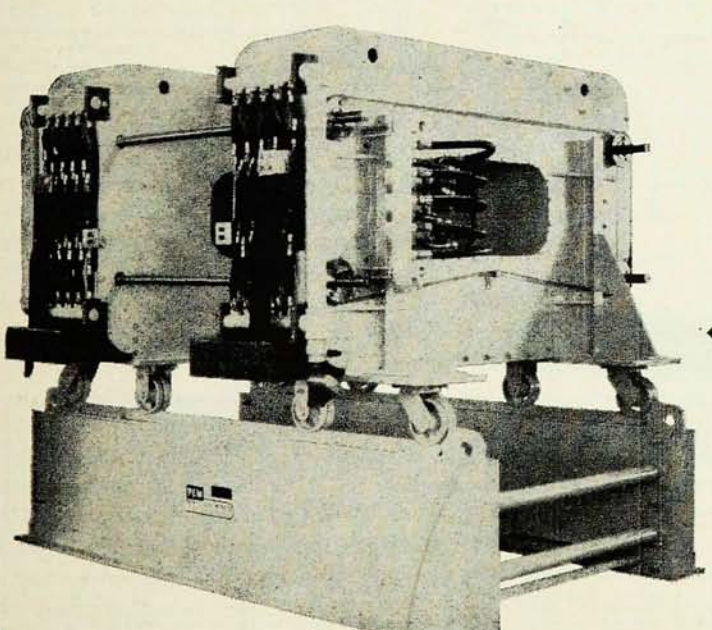

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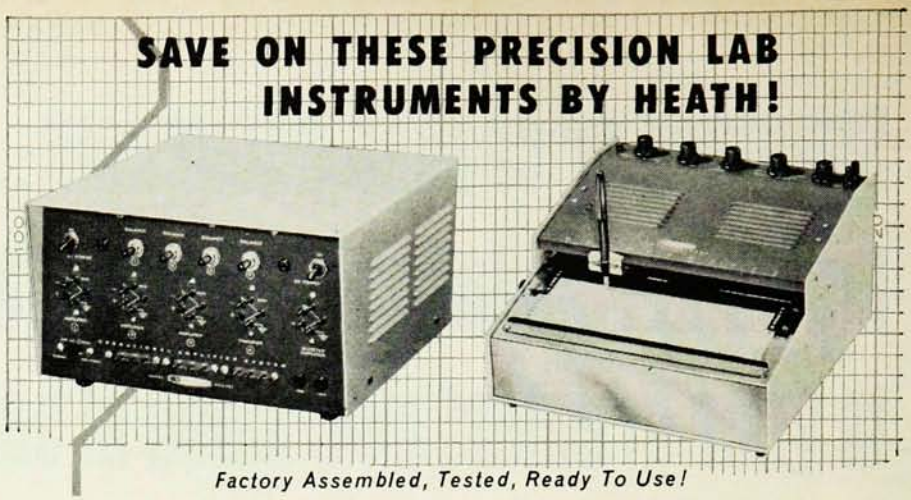

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stitutions in the Rochester area to ensure maximum use of the observatory.

Dr. Mees, whose name will be given to the new facility, was vice president for research and a director of Eastman Kodak at the time of his retirement in 1955. He had headed Kodak research for more than forty years, and during that period many special films and plates for use in astronomy were produced by the Kodak Research Laboratories. His interest in astronomy was both professional and personal, and he was active in a number of astronomical groups. In 1950, Dr. Mees was cited for "outstanding contributions to the science of astronomy" by the American Astronomical Society. He died in 1960.

MURA and the AEC

The Atomic Energy Commission has decided not to construct the 12.5-BeV high-intensity accelerator proposed by the Midwestern Universities Research Association. As a consequence, the AEC has announced, the work of MURA scientists will be reoriented toward the design of a 600- to 1000-BeV proton accelerator. The MURA group, now located at Stoughton, Wisc., will be joined in this effort by scientists from Argonne National Laboratory. After a transition period, the project will be centered at Argonne. Scientists at Brookhaven National Laboratory, where design studies for such a machine are already in progress, will also participate. According to the same announcement, the AEC is also supporting design studies at Lawrence Radiation Laboratory for a 200-BeV proton accelerator.

MURA, Associated Midwest Universities, Argonne, and the University of Chicago, according to the AEC, are exploring means for more direct participation on the part of midwestern universities in the management and use of Argonne's Zero Gradient Synchrotron.

The announcement, released on January 20, suggests that the AEC's attitude toward MURA differs from that of the Panel on High-Energy Accelerator Physics. The Panel, under the chairmanship of Norman F. Ramsey of Harvard University, had been convened at the request of the AEC and the President's Science Advisory Committee to study the problems of the future growth of high-energy physics. Its report, made public last spring, contained a number of specific recommendations, including construction of higher energy proton accelerators.

The Panel had recommended construction of a super-current accelerator by MURA "without permitting this to delay the steps toward higher energy". The MURA machine was to have been of the fixed-field alternating gradient type that has been under study at MURA for about ten years. It had been expected that the machine would produce 10^{14} protons per second at its full design energy of 12.5 BeV, and 10^{16} protons per second at 1 BeV or below. The Panel had advised that its design energy be increased from an originally proposed 10 BeV in the expectation that a single machine would then suffice for this entire energy region.

Radiation applications

A service laboratory designed to perform radiation research and processing was established by Varian Associates in February of this year. The basic device employed for radiation generation in the firm's new Radiation Applications Laboratory is an electron linear accelerator capable of producing 7.5×10^{14} electrons per second at 6 MeV. The accelerator source will be available for long-term experiments on a rental basis. Selected short-term experiments will be run for scientists at no cost.

Services to be offered by the Laboratory include radiation-effects studies, radioactivation and analysis of trace elements in materials, radiography of dense objects with large cross sections, research in crystal chemistry, and the study of samples with an EPR spectrometer while the samples are under radiation bombardment.

Inquiries should be addressed to Russell Schonberg, Manager, at Varian Associates, 611 Hansen Way, Palo Alto, Calif.