laboratory when the latter becomes a reality, which may account for the hostility of its detractors.

For the record, it should be noted that the Berkner report was an outgrowth of the sincere efforts of a group of American scientists to gain Federal and particularly State Department recognition of the important part played by the scientific community in world affairs. The subsequent establishment of the State Department's Science Office and the addition of science officers to our diplomatic posts abroad have been imaginatively interpreted in some quarters as an attempt to create an American overseas scientific espionage network. In actual fact these science attaches are assigned openly to the staffs of U. S. diplomatic missions where they serve as observers of scientific matters bearing upon American foreign policy just as the ordinary diplomatic officer acts as an observer of political matters. The United States, it might be recalled, was late in introducing such an innovation. Several European nations have had scientists attached to their diplomatic missions for many years. A fundamental tenet of the Berkner report to the State Department was that "Since science is essentially international in character, it provides an effective medium by means of which men can meet and exchange views in an atmosphere of intellectual freedom and understanding; it is, therefore, an effective instrument of peace." This motivation is scarcely debatable—except, perhaps, in the countries of Eastern Europe.

In proposing three years ago that a European physics laboratory be established, I. I. Rabi, Nobel physicist and professor of physics at Columbia University, stated emphatically that the construction and operation of the laboratory should be supported financially by the participating European countries rather than by Unesco. The United States has not been involved in planning the laboratory and will not be involved in its operation. A main argument for creating the laboratory, by the way, has been that the absence of high-energy particle accelerators on the Continent has forced young European physicists to travel abroad if they want to work with such equipment. A European laboratory in Switzerland housing the largest accelerator in the world would hardly increase the necessity for European physicists to come to the United States in order to study or conduct research in modern physics.

The AD-X2 Case

Committee Asks PO to Kill Fraud Order

Last April, Senator Edward J. Thye of Minnesota, chairman of the Senate Small Business Committee, announced that he was cancelling some previously-planned committee hearings on the battery additive AD-X2. In view of plans to establish an independent committee of scientists to investigate the case, he said, any committee hearings "might well becloud the issue at this time rather than clarify it". In June Senator Thye abruptly cancelled the cancellation and for two weeks the issue was beclouded and testimony was heard from a parade of witnesses (most of them favoring AD-X2). On July 1st, the Senate committee met in executive session and just as abruptly adjourned the hearings. A letter was then sent to Postmaster General Arthur E. Summerfield asking why and on the basis of what information had a fraud order been issued against the manufacturer of the additive and why had the order later been suspended. Senator Thye has made it clear that he believes the fraud order should be killed to permit the manufacturer to continue in business during the time his product is being investigated.

The Jeffries Committee

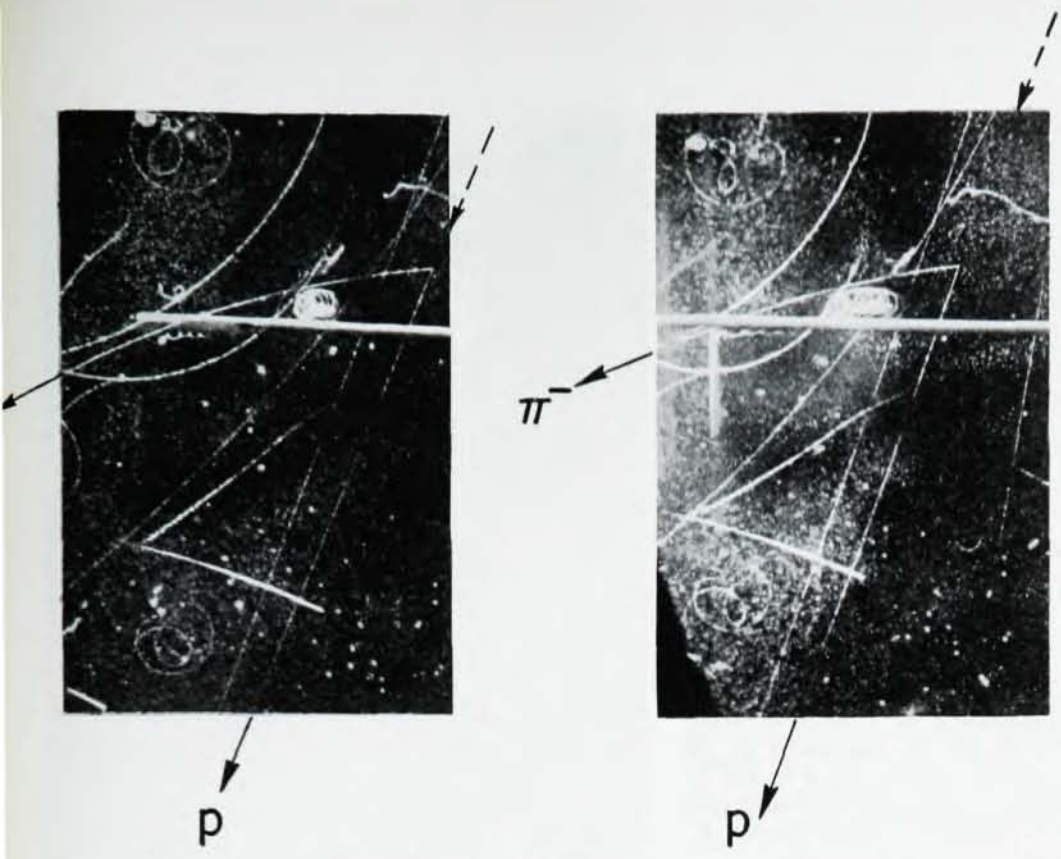
The National Academy of Sciences has named Zay Jeffries, retired vice-president of the General Electric Company, who was formerly in charge of the G-E chemisty department, as chairman of the committee to look into the testing procedures used by the National Bureau of Standards in its evaluation of AD-X2. The other committee members are E. K. Bolton, retired director of DuPont's department of chemistry; W. G. Cochran, professor of biostatistics at The Johns Hopkins University; Victor K. LaMer, professor of chemistry at Columbia University; J. G. Kirkwood, professor of chemistry at Yale University; L. G. Longsworth, physical chemist at the Rockefeller Institute; Joseph E. Mayer, professor of chemistry at the University of Chicago; and John C. Warner, president of the Carnegie Institute of Technology.

Artificial *V* Particles

Produced at Brookhaven Cyclotron

When the Cosmotron at the AEC's Brookhaven National Laboratory was put into operation last year it was announced that one of the first matters to be investigated was the possibility of producing *V* particles artificially rather than depending only upon their chance discovery in cloud-chamber photographs of cosmic-ray events. A Brookhaven group consisting of W. B. Fowler, R. P. Shutt, A. M. Thorndike, and W. L. Whittemore has recently obtained cloud-chamber photographs providing clear evidence that the mysterious and unstable neutral *V* particles can indeed be produced by the high-energy neutrons emitted from an internal target in the Cosmotron, or possibly by secondaries of the neutrons.

Since their discovery by Rochester and Butler in 1947 *V* particles have been the subject of numerous investigations using cosmic rays as a source. Many hundreds of *V*-particle decay events have been recorded, but their nature is still somewhat uncertain. The characteristic inverted *V*-shaped tracks observed in cloud chambers represent the decay in flight of energetic unstable particles. Some involve the decay of a neutral particle, called a V^0, to form two charged particles, while some represent the decay of a charged particle, called a $V^{\pm}$, to give one charged and one or more neutral secondaries. The V^0's are the more common. In some cases the decay products of V^0's are $p + \pi^- + 37$ Mev, in some cases $\pi^+ + \pi^- + 214$ Mev, but still different products probably result occasionally. Thus there are at least



The first V particle identified at the Cosmotron appears above the sweeping field electrode in the center of the picture, at the point indicated by the arrow. Two stereo views are shown. The sweeping field electrode is actually closer to the camera than the sensitive region, and the tracks pass behind it, not through it.

two kinds of V°'s. Much less is known about the rarer $V^\pm$'s, but there are probably two or more kinds of them as well.

Before the observations at Brookhaven were made a search for V° particles had been carried out at the University of Chicago synchrocyclotron, the highest energy machine previously available. The results were inconclusive, although some events were recorded in emulsions that may have been V° decays.

The events recorded at Brookhaven closely resemble the V°-particle decays observed in cosmic rays. The V°'s were produced in lead or steel by the neutron beam emerging at 0° from a carbon target bombarded by 2.25 Bev protons and were detected in a hydrogen filled cloud chamber with a magnetic field of 11000 Gauss. No $V^\pm$ particles have been observed as yet. So far in two cases the momenta of both secondary particles could be measured and the event analyzed in some detail. One of these is shown in the accompanying illustration. In each case the density of ionization and momentum of the negative secondary indicate that it is a meson, while those of the positive secondary give a slight indication that it is a proton. If it is assumed that the decay products are $p + \pi^-$ in each case, the Q values are calculated to be 39 ± 16 and 37 ± 8 Mev in excellent agreement with the accepted figure of 37 Mev for such a decay process. Consequently it seems fairly certain that these events represent the decay of a V° to form $p + \pi^-$ in exactly the same way as those observed in cosmic rays. (The details of measurements on these events have been published in the June 15th issue of *The Physical Review.*)

Under the present conditions of operation V° particles are observed at a rate of about 1 per 1000 cloud chamber photographs at the Cosmotron. Work is continuing to secure additional examples.

Strauss Named AEC Chairman

President's Adviser Succeeds Dean

Lewis L. Strauss, President Eisenhower's adviser on atomic energy matters, has been selected as the new chairman of the Atomic Energy Commission. Mr. Strauss, a New York financier and rear admiral in the United States Naval Reserve, was an original member of the Commission, having been appointed to the AEC in 1946. He returned to private business in 1950. Gordon Dean, the previous chairman of the Commission, declared that it was his intention to retire some months ago, but delayed the date of his resignation until June 30th to give the President time to select a new chairman.

Mr. Strauss is understood to have been an early proponent of hydrogen bomb development by the AEC and to have been noted during his earlier term as a commissioner for the great emphasis he placed upon security problems. He was vigorously opposed to a proposal to export radioisotopes for use by a military research unit in Norway some years ago and was the sole dissenter in the Commission's 4-to-1 decision that the isotopes be sent.

Russian Physics Reports

NSF-Columbia Translation Project

The National Science Foundation has entered into a contract with the Slavic Language Department of Co-