tion, rather than spontaneous decay, takes place when negative mesons come to rest in different substances. A partial answer to the very important problems of the energy of decay electrons was given by the results of Anderson and by the measurements of R. W. Thompson described by Rossi.

Another subject which was discussed at great length was that of the nuclear interactions, which now appear to play a much more important role in all cosmic ray phenomena than had been realized in the past. Cloud chamber pictures of these interactions were presented by Fretter, by Rochester, and by Rossi, the last reporting work done at MIT by C. Y. Chao. Electrical methods for their detection were described by Korff and by Rossi. The production of mesons in nuclear interactions was discussed by Schein and by Rochester. It was shown by Rossi that these nuclear interactions are responsible for most of the electrons and photons observed in the atmosphere.

The still puzzling phenomenon of air showers was the subject of the reports by Auger and by Cocconi. New and more accurate measurements of the meson mass were reported by Brode. The very recent data obtained at Berkeley on artificially produced mesons (both ordinary and heavy mesons) were described by Lattes.

A very important subject of discussion was the existence in cosmic rays of mesons different from the so-called 'ordinary meson' and 'heavy meson.' There was general agreement as to the evidence for the existence of a neutral meson of mass approximately equal to 90 electron masses. The existence of mesons still heavier than the heavy mesons was strongly indicated by experimental results reported by Brode, by Leprince-Ringuet, and by Rochester. The appearance of electronic radiation in nuclear interactions reported by Rossi was linked to the possible production in these interactions of a heavy neutral meson of very short lifetime.

Important new information concerning the nature of the primary cosmic radiation was also presented during the meeting. Frank Oppenheimer reported on the evidence obtained at Minneapolis and at Rochester for the existence of heavy nuclei among primary cosmic rays. Rossi described the work of R. I. Hulsizer at MIT which shows that high energy electrons or photons are not present in any appreciable amount in the primary radiation.

The connection of solar phenomena with sudden changes in cosmic ray intensity was analyzed by Vallarta. The theoretical interpretation of the fundamental cosmic ray phenomena was discussed by Heitler, by Robert Oppenheimer, and by Wheeler.

B. R.

Condon Cleared

The Atomic Energy Commission made public on July 15, in a memorandum, its decision on the continued security clearance of Dr. Edward U. Condon, whose position as Director of the National Bureau of Standards and other related atomic energy activities required his reinvestigation under the Atomic Energy Act. After examining reports compiled in two FBI investigations and other relevant information, the five Commission members agreed that they have "no question whatever concerning Dr. Condon's loyalty to the United States" and that they consider his continued clearance in the best interests of the atomic energy program.

This action does not dispose of the general charges that he is a security risk, made by the House Un-American Activities Committee. Dr. Condon's efforts to answer these charges before the Committee have so far met with no success.

High-Voltage High School

Benjamin Siegel's 1948 seniors at El Cerrito High School in California rivaled the work of the 1947 seniors whose construction of a cyclotron last year he described in the August Physics Today. This year's group built a Van de Graaff electrostatic generator with a capacity of one hundred thousand volts, a cloud chamber, a wind tunnel, and a six-inch reflecting telescope—all at a cost of about fifty dollars.

Awards

Herbert H. Hoover, research pilot for the National Advisory Committee for Aeronautics, received the Octave Chanute award for 1948 from the Institute of Aeronautical Sciences for "his contributions to the application of flight test procedures to basic research in aerodynamics, and development of methods for scientific study of transonic flight."

Eli Franklin Burton

Eli Franklin Burton, chairman of the department of physics at the University of Toronto, died on July 6 at the age of 69. Dr. Burton was internationally known for his work in developing the electron microscope.

Jean P. Cooley

Jean P. Cooley, 54, for twenty years a member of the physics faculty of New York University's Washington Square College, and in charge of the Army's short-wave research project there during World War II, died on July 19.

Harry Diamond

Harry Diamond, chief of the electronics division of the National Bureau of Standards, died suddenly at his Washington home on June 21, 1948. He was one of the inventors of the radio proximity fuse.

Charles Tobias Knipp

Charles Tobias Knipp, emeritus professor of physics at the University of Illinois and noted for his pioneer experimental work in rain-making, died on July 6 at the age of 78. His other work included research on the conduction of electricity through gases.

Frank Rieber

Frank Rieber, geophysicist, whose seismic devices greatly advanced the exploration for oil, died of a heart attack at the age of 57 on June 30.