has served as chairman of the Physics Committee in the RSNA, vice chairman of the College Commission on Radiologic Units, Standards and Protection, and as a member of the National Committee on Radiation Protection and Measurements. The author of many important papers on radiation protection, measurements, and radiation dosimetry, he is a fellow of the American Physical Society and the American College of Radiology.

Medal of Freedom

Alan T. Waterman was among 33 persons honored by President Johnson on December 6 with the Presidential Medal of Freedom, the nation's highest civilian award. His citation paid tribute to his far-sighted advocacy of federal support for the sciences, and of using government resources to improve the quality and increase the thrust of basic research.

Dr. Waterman retired last July as director of the National Science Foundation, after having headed the Foundation during the entire twelve years of its existence.

Max Planck Medal

The Max Planck Medal, awarded every year by the German Physical Society to a theoretical physicist, was recently presented to Rudolf E. Peierls of Oxford University. Dr. Peierls was born and educated in Germany and studied under Sommerfeld, Heisenberg, and Pauli. He went to England in 1933 and became professor of mathematical physics at the University of Birmingham in 1937. During World War II he served as a member of the British mission to the US atomic energy project at Los Alamos. He was recently appointed Wykeham Professor of Theoretical Physics at Oxford. Dr. Peierls' main work has been in quantum theory, including solid-state physics, nuclei, and field theory.



Luis W. Alvarez

National Medal of Science

Three American Physical Society fellows were among the five individuals who have been awarded the 1963 National Medal of Science. The awards, presented by President Johnson last month, were made on the basis of recommendations received from the thirteen-member President's Committee on the National Medal of Science.

Luis W. Alvarez was cited "for inspiring leadership in experimental high-energy physics, continuing development of the bubble chamber, discovery of many states of elementary particles, and contributions to the national defense". Dr. Alvarez is professor of physics and associate director of the Lawrence Radiation Laboratory at the University of California.

Vannevar Bush was honored "for distinguished achievements in electrical engineering in the technology of computing machines, in the effective coupling of the physical and life sciences; and in mobilizing science, engineering, and education in enduring ways in the service of the nation". Dr. Bush was director of the Office of Scientific Research and Development during the Second World War; he has also served as vice president and dean of engineering at Massachusetts Institute of Technology and as head of the Carnegie Institution of Washington.

John R. Pierce was cited "for outstanding contributions to communications theory, electron optics, and traveling wave tubes, and for analysis leading to world-wide radio communi-



Vannevar Bush



John R. Pierce

cations using artificial earth satellites". Dr. Pierce is executive director of the Bell Telephone Laboratories research-communications principles and communications systems divisions.

The two other scientists who were given the National Medal are Cornelius B. van Niel, professor emeritus, Hopkins Marine Station, Stanford University; and Norbert Wiener, professor emeritus of mathematics at MIT.

The National Medal of Science was established by the 86th Congress to be awarded by the President to individuals "who in his judgment are deserving of special recognition by reason of their outstanding contributions to knowledge in the physical, biological, mathematical or engineering sciences". The first presentation of the award was made last February to the late Theodore yon Kármán.