companying the Commission to its new location will be John M. Fowler, director, and staff physicist Ben A. Green Jr.

## William Markowitz Given Top Navy Science Award

William Markowitz, professor at Marquette University, received the Navy's highest scientific award, the Captain Robert Dexter Conrad gold Medal, at the 124th meeting of the American Astronomical Society. Markowitz, who was director of the Time Service of the US Naval Observatory from 1953 until 1966, was cited by the Secretary of the Navy for his contributions to the fields of astronomy, chronometry, geodesy, communications and navigation. The Conrad Award is named in honor of Captain Robert Dexter Conrad, who was head of the planning division of the Office of Naval Research when it was founded in 1946.

### H. Richard Crane Awarded Davisson and Germer Prize

The American Physical Society's Davisson and Germer Prize was given to University of Michigan physicist H. Richard Crane at the summer meeting of the APS in Toronto. The prize of

\$2500, sponsored by Bell Telephone Laboratories, is awarded biennially for outstanding research on the electron. It was presented to Crane for inventing a unique and direct method of measuring the g factor, the ratio of the magnetic moment and spin of the free electron.

The method consists of trapping polarized electrons in a magnetic field



CRANE

and then scattering them through a gold foil into a Geiger counter. The number scattered into the counter depends on their final direction of polarization. A plot of the intensity versus the trapping time is a cosine curve whose frequency is the difference between the orbital and spin precession frequencies. This beat frequency is a direct measure of the g-factor anomaly. In this way, Crane was able to

measure the g factor to an accuracy of two parts in  $10^8$ .

Crane, who was past president of the AAPT, was a pioneer in the development of high-energy accelerators, and during World War II did extensive work leading to the design of the proximity fuse. He is now working on the measurement of the positron g factor.

### Reynolds Receives NAS J. Lawrence Smith Medal

John H. Reynolds, professor of physics at the University of California at Berkeley, was awarded the National Academy of Sciences J. Lawrence Smith Medal for outstanding achievement in the investigation of meteoric bodies. The award is based principally on Reynold's studies of xenon isotopes in meteorites, which established with comparative precision the timing of certain events occurring in the primitive solar system before the earth was formed. By measuring the decay in meteorites of radioactive I129 into Xe129, he has established, according to one theory of element formation, that the time between the last addition of elements to the solar system and the formation of meteorites (and, by extension, of the earth and other planets) was about 60 million years-less time than was thought possible.

## Salwa Nassar, College Head, Dies After Long Illness

Salwa Nassar, president of Beirut College for Women, died on 17 Feb. after a prolonged bout with leukemia. Nassar, known on both a national and international scale as prominent mathematician and nuclear physicist, received her BA degree with distinction at American University of Beirut in 1938. Following one year of teaching physics in Iraq, Nassar attended Smith College in the US, where she received her MA. Her PhD degree was obtained from the University of California at Berkeley.

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In 1945 Nassar joined the faculty of Junior College, as Beirut College for Women was then called. During 1945–49 she established a science department at BCW and in 1950 joined the faculty of American University of

Beirut, where she served in the physics department as professor and chairman. In 1965 she took a leave of absence to preside at BCW.

For many years Nassar's pet idea was to found the Lebanese National Council for Scientific Research. She began her efforts in 1952; in 1962 the council was established. Since 1955 Nassar represented Lebanon in more than 10 international conferences, including the Atoms for Peace conferences organized by the UN.

# Francis Bitter, Authority on Magnetism, Was MIT Physicist

Francis Bitter, a leading authority on magnetism and a member of the faculty of the Massachusetts Institute of Technology for 33 years, died at the Cape Cod Hospital on 26 July. He was born in Weehawken, N. J. and received his bachelors degree from Columbia University in 1924. After a year of study in Berlin, he returned to Columbia, where he was awarded the doctorate in 1928. Bitter joined the Westinghouse Research Laboratories in 1930. Under a Guggenheim Fellowship he spent 1933-34 at Cambridge University, after which he returned to the US to become associate professor at MIT. He became full professor in 1951 and was appointed associate dean of science in 1956. He resigned in 1960 to devote full time to the planning of the National Magnet Laboratory. He was 65 years old.

At the request of PHYSICS TODAY,
I. I. Rabi wrote the following:

Francis Bitter was an example of the whole man which our colleges try so hard to produce and are so rarely successful. As a scientist he worked