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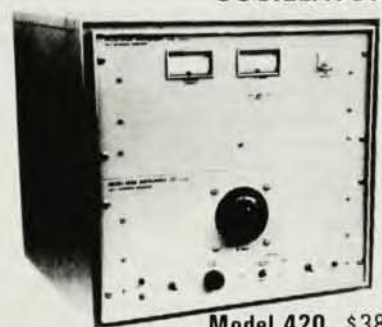
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proaches to the problem of how stars die and return mass to the interstellar medium.

Tinsley's activities at Yale were central to its present eminence in the fields of stellar and galactic evolution. The breadth of her interests unified the Yale department scientifically and helped to create an atmosphere in which a wide variety of research projects flourished. In her role as Director of Graduate Studies, Tinsley was warmly appreciated by the Yale students, for whose needs she showed special concern. Women graduate students received much encouragement. Perhaps as a result of her attentions, Yale produced several talented women PhDs during her tenure.

No tribute to Beatrice Tinsley would be complete without emphasizing her strongly positive, even inspirational, impact on colleagues and students. Those around her were enlivened by Beatrice's obvious zest for her own scientific endeavors, a joy she never relinquished even during her long illness. Equally stimulating was her enthusiasm for research going on around her. Always interested in new results, she plied one with astute questions, all the while radiating appreciation and encouragement. In relation to my own work, for example, Beatrice's critique was the one I could always count on and the one I valued most highly.

SANDRA FABER  
University of California  
Santa Cruz



BOZORTH

try and physics was conferred in 1922. In 1923 he joined the engineering department of Western Electric, which developed into Bell Telephone Laboratories in 1925.

After his retirement from Bell Laboratories in 1961 he continued to be active in his field, spending more than a year as Fulbright research professor at the Institute of Solid State Physics of the University of Tokyo and half a year at Claredon Laboratory, Oxford, as a UK senior visiting research fellow. He also engaged in collaborative research in a consultant capacity at IBM and the Naval Ordnance Laboratory.

In his early work at Caltech Bozorth bridged the fields of chemistry and physics in his x-ray studies of crystal structures. He was thus among the first of the crystallographers at Bell Laboratories, and I have been told that it was he who took the Laue photographs of the nickel target used by Clinton Davisson and Lester Germer when they discovered electron diffraction in 1927.

Coming to the field of magnetism with this crystallographic background, Bozorth approached the analysis of magnetic properties with effective insight. During his first 20 years at Bell Labs he was the primary source of information on magnetism and a promoter of systematic magnetics research. With his coworkers he investigated the effects of annealing iron-cobalt-nickel alloys such as Perminvar in a magnetic field and showed that a square hysteresis loop could be obtained. His more than one hundred published papers deal with such aspects as ferromagnetic anisotropy, the analysis of the Barkhausen effect, domain structure, and magnetostriction.

The first magnetic susceptibility measurements of the high-temperature superconductor  $Nb_3Sn$  were made by Bozorth and his group at Bell Labs. In

## Richard M. Bozorth

Richard Milton Bozorth, long an international figure in the field of magnetism, died on 24 January 1981.

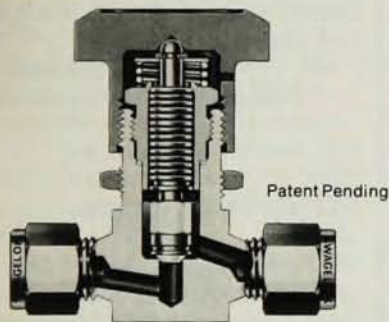
The 25 000 copies of his compendium *Ferromagnetism*, published in 1951 and reprinted many times, are in use throughout the world. It is a comprehensive compilation of the results of world-wide research on the properties of ferromagnetic materials prior to 1950. Those who have it are still finding this 30-year-old book useful and are unwilling to part with their dog-eared copies. In the December 1969, issue of the *IEEE Transactions on Magnetism*, which was dedicated to Bozorth, John H. Van Vleck relates that he tried to buy a copy of the book in Japan, where it was reprinted in English but found that it was sold out.

Born in Salem, Oregon, on 10 April 1896, Bozorth got his BA at Reed College in 1917. After two years in the army he went to Caltech for graduate study. There he was successively teaching fellow (1918-20), DuPont fellow (1920-21) and research fellow (1922-23). His PhD degree in chemis-



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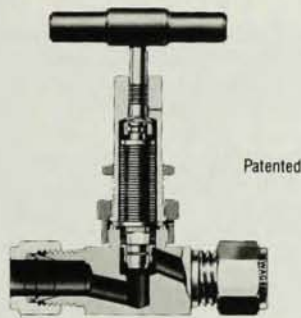


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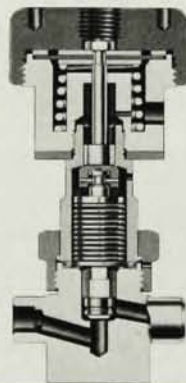


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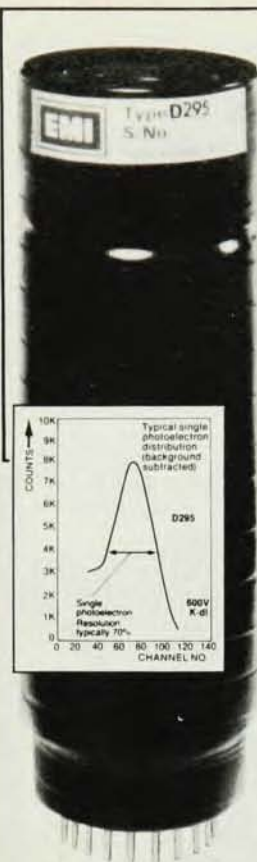
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02 REV. A

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a paper published in *Phys. Rev. Letters* in 1960 they showed that, in addition to having a critical temperature of 18 K, it also had an exceptionally high critical field. Superconduction in some parts of the specimen persisted to about 70 000 Oe.

He was associate editor of the *Journal of Applied Physics* and chairman of various research panels. His most outstanding organizational contribution was the initiation of the annual Conference on Magnetism and Magnetic Materials, sometimes known as the M<sup>3</sup> or Bozorth Conference. It was started in 1955 and quickly became a major national scientific event which has continued with undiminished popularity for twenty-five years.

ELIZABETH A. WOOD

Bell Telephone Laboratories, retired

## Willis H. Flygare

Willis H. Flygare died 18 May 1981 at the age of 44 after a long debilitating illness. He contributed significantly to our knowledge of molecular properties and structure in an amazing variety of ways.

After receiving his PhD at the University of California, Berkeley, in 1961, Flygare joined the chemistry faculty at the University of Illinois in Urbana. During the twenty years he worked here, he produced over 200 research publications and in 1978 completed his comprehensive treatise entitled *Molecular Structure and Dynamics*.

Flygare originated the technique of molecular Zeeman spectroscopy with which he measured most of the known molecular quadrupole moments and magnetic susceptibility anisotropies. By improvements affecting line widths, he and his students also built a microwave spectrograph with probably the best resolution in the world. Flygare determined structures of many chemi-

FLYGARE

