



Beatrice A Hicks

BEATRICE HICKS

1919-1979

BY HENRI G. BUSIGNIES

THE BRILLIANT CAREER OF Beatrice Hicks ended on October 21, 1979, when she died at the age of sixty, but the effects of her contributions will be permanent. Early in her studies she developed a strong interest in technical matters and their impact on society. She pursued a successful education and started quickly to solve important, complex technical problems. She became the 1952 Woman of the Year, the Conference Director of the First International Conference of Women Engineers and Scientists in 1964, and served as first President and a member of the Board of Trustees of the Society of Women Engineers.

She was born on January 2, 1919, in Orange, New Jersey, and received a B.S. in chemical engineering in 1939 from the Newark College of Engineering, now New Jersey College of Engineering. She later received an M.S. in physics from the Stevens Institute of Technology in 1949, and in 1953 she enrolled at Columbia University's school of continuing education for the purpose of influencing women's involvement in engineering and management. Dr. Hicks was a registered engineer in New Jersey, New York, Pennsylvania, and the District of Columbia.

In the first years of her active engineering work, Dr. Hicks invented the gas density switch. She pioneered in the design, development, and manufacture of pressure and gas density controls for aircraft and missiles. She acted as a consultant to encourage women in engineering and sparked the local chapter of the Society of

Women Engineers into a very viable society. Under her stimulus, a 123 percent increase was achieved in eight years. In 1971 Dr. Hicks was invited to participate in the Old Masters Program at Purdue University. The response of faculty and students was enthusiastic. Dr. Hicks and her husband, Rodney D. Chipp, were selected by the National Society of Professional Engineers (NSPE) to represent the society as Project Ambassadors on a fact-finding and goodwill tour of South America. After her husband's death Dr. Hicks continued her worldwide tours to aid countries (including Brazil, Argentina, Uruguay, Chile, and Peru) with small business management problems.

Dr. Hicks received many honors and awards, which included the honorary Doctor of Science degree from Hobart and William Smith colleges, 1958; the honorary Doctor of Engineering from the Rensselaer Polytechnic Institute (**RPI**), 1965 (she was the first woman to receive an honorary degree from **RPI**); Woman of the Year in Business for 1952, *Mademoiselle* magazine; NSPE, member and corecipient of the Project Ambassador Award; Alumna of the Year, Newark College of Engineering, 1962; and invited guest to the Old Masters Program, Purdue University, 1971. She was elected a member of the National Academy of Engineering in 1978.

Her numerous technical papers included those on molecular density sensors; "Ingenieros de Sudamerica," written with Rodney D. Chipp, *American Engineer*, June 1960; "Sealed in Atmospheres," *Product Engineering*, February 29, 1960; "How to Specify and Apply Pressure and Gas Density Switches," *Space Aeronautics*, June 1960; "Density Switches Detect Leakage from Gas-Filled Transformers," *Power Engineering*, February 1961; "Great Expectations-The Science of Choice As It Affects Humanity's Future," *PE. Lex et Scientia*, Volume 9, Number 2, April-June 1971. In addition, Dr. Hicks served as U.S. Delegate to the International Management Congress, Sao Paulo, Brazil, 1954; Paris, 1957; Australia, 1960; and New York, 1963. She was a member of the Defense Advisory Committee on Women in Services, 1960-1963, and Director of the First International Conference of Women Engineers and Scientists, Carnegie Institute of Technology.

Dr. Hicks was thirty-one years old and the Vice-President and

Chief Engineer of Newark Controls Company in Bloomfield, New Jersey, when she was elected the first President of the Society of Women Engineers. The society itself consisted of sixty persons, a number that doubled by the next year. In 1963 the society honored her with its highest award, the Achievement Award, presented "in recognition of her significant contributions to the theoretical study and analysis of sensing devices under extreme environmental conditions, and her substantial achievements in international technical understanding, professional guidance and engineering education." In addition to the Society of Women Engineers, she participated actively in professional societies such as the Institute of Electrical and Electronics Engineers; Eta Kappa Nu; National Society of Professional Engineers; American Society of Mechanical Engineers; American Society of Heating, Refrigerating, and Air-Conditioning Engineers; and Women's Engineering Society.

In 1966 Dr. Hicks became President of the firm that her father had founded, and a dozen years later found herself also the owner of the consulting firm operated by her late husband, Rodney D. Chipp.

Dr. Hicks knew how to be effective in advising small business and also was an able adviser to larger organizations as well as international operations. She could design complex systems and keep them operating. In spite of the positions of strength and value that she attained, Dr. Hicks retained her charming personality and was always helpful and understanding of others; she had a heart of gold.

All her friends deeply miss her.