William Joseph Sparks

1905-1976

By Frederic A. L. Holloway

William J. Sparks, retired Scientific Advisor of the Exxon Research and Engineering Company, died on October 23, 1976, of heart failure, at his home in Coral Gables, Florida. Known and admired throughout the scientific world for his lifetime of dedicated service to his profession, he is particularly remembered for his contributions to the development of butyl rubber.

Dr. Sparks was born on February 26, 1905, in Wilkinson, Indiana, and his early life was shared between farmwork and schoolwork. When he finished high school, he was told he could have a car and work on the farm or go to college. He chose college and received a Bachelor of Arts degree with distinction from Indiana University in 1926 and a Master of Arts degree in 1929. This was followed by a doctorate in chemistry from the University of Illinois in 1936. Later in his career, he completed the Program for Management Development offered by Harvard's Graduate School of Business Administration.

Dr. Sparks was initially employed as a chemist by the Sherwin-Williams Co. After going back to school for his Master's degree, he worked for E.I. dupont de Nemours & Co. in Niagara Falls, New York, from 1929 to 1934. In 1936, he joined the Standard Oil Development Company, now Exxon Research and Engineering Company, as a research chemist at Linden, New Jersey. Except for a brief tour as Principal Chemist with the U.S. Department of Agriculture in Peoria, Illinois (1939-40), the rest of his career was

spent with Exxon. He was appointed Director of the Chemical Research Division in 1946 and served in that capacity until 1957. At that time the post of Scientific Advisor, the Company's highest technical position, was created, and Dr. Sparks was selected to fill it. He continued in this capacity until his retirement, in 1967.

Dr. Sparks received many honors for his professional accomplishments. These include the Gold Medal of the American Institute of Chemists (1954), the Distinguished Alumni Service Award of Indiana University (1956), the Charles Goodyear Medal of the American Chemical Society (1963), the Perkin Medal of the American Section of the Society of Chemical Industry (1964), and the highest award in American chemistry, the Priestly Medal of the American Chemical Society (1965). He was elected to the National Academy of Engineering in 1967. He was awarded honorary doctoral degrees by Indiana University and by Michigan Technological University.

A very active Member of the American Chemical Society, Sparks served it in many capacities, including as a Member of its Board of Directors, as a Member of the Advisory Boards for Advances in Chemistry Series and the Petroleum Research Fund, and as President in 1966. He has served as National Chairman of the Scientific Research Society of America, as Chairman of both the National Research Council's Division of Chemistry and Chemical Technology and the Armed Forces Chemical Association's Committee on Chemical and Biological Warfare. He was an active Member of the National Academy of Engineering's Project Committee, as well as the National Research Council's Division of Engineering and Industrial Research and the Office of International Relations. He has been active as an advisor to the Department of Agriculture and the Department of State.

From an Indiana farm boy, Sparks rose to become a world authority on both rubber and petroleum chemistry. Although always proud to be referred to as a chemist, he preferred to be known as an inventor. Holder of 145 patents, he never relinquished his desire to innovate, even after retirement. His love for the game of golf and his knowledge of elastomers resulted, in the several years just prior to his death, in five U.S. and seven foreign

patents for improved grips for golf clubs! A firm believer that good science should benefit the world in which we live, he contended that "Science without purpose is an art without responsibility."

In the mid-1960's Dr. Sparks was concerned that the education of the coming scientific generation did not include an awakening of social consciousness. "The scientific profession has become much larger than medicine, law or the clergy. Yet many young scientists are not taught by their professors to feel an obligation to society in their work." He believed that a heavy emphasis on the humanities is necessary to produce a truly sound scientist. To quote again, "If he [a scientist] knows the world he lives in, he will know how to serve it." His interests in chemical education led him to serve on the Chemical Advisory Committee of Rutgers University and on the Science Development Council of Rensselaer Polytechnical Institute.

William Sparks was a leader in attempting to bring the knowledge and opinions of the country's chemists to bear on national problems. As President of the American Chemical Society, he pushed the then newly formed Committee on Chemistry and Public Affairs to bring such views to the Government's attention.

A very kind and concerned man, he will be especially remembered and revered by the many younger associates whose lives he influenced.