Biography of Margaret B. Hays

Margaret B. Hays died December 26, 1987 at the age of 85, in Smyrna, GA. The funeral was held in the chapel of Monongahela Cemetery in Pittsburgh, PA, her hometown.

Miss Hays, a resident of Philadelphia for thirty years, was head of the Textile Branch, High Polymer Division of Material Testing at the Philadelphia Naval Base. She was honored for her work in developing fire retardant material for flight clothing and space suits, and nonslip leather gloves for naval fliers. Miss Hays received her A.B. in Physics from Oberlin College in 1924. A Master of Science in Physics followed in 1925, from the University of Pittsburgh. She was a Fellow in Physics at Bryn Mawr College 1927–1929. From 1929 to 1941 she was Textile Physicist at the Department of Agriculture, Washington, DC. She served in the WAVES 1944–46. After the war, she served in the Naval Reserve and retired as a Lt. Commander in 1969.

Miss Hays was a charter member of Rho (Philadelphia) and Gamma Alpha (Athens, GA) Chapters. She served as National Treasurer of SDE/GWIS 1966–68.

She held membership in the AAAS, American Association of Textile Chemists and Colorists, American Association for Textile Technology, and American Association for Testing Materials.

(This first appeared in the Winter 1988 Bulletin.)

AN INTERVIEW WITH MARGARET HAYS: The Evolution of a Physicist to Materials Engineer (Fibrous Material)

I was born in Swissvale, Pennsylvania (one mile from Pittsburgh), May 27, 1902. I graduated from Oberlin College in 1924 with a major in physics. I returned to the family home in Pittsburgh to search for work. My only experience was grading papers and helping lab classes.

One lab superintendent said, "I'd hire a woman for a job so routine, a man wouldn't stay." Finally, the Director of Mellon Institute suggested I do graduate work at the University of Pittsburgh and conduct thesis work on a Koppers Fellowship. Thus, I was introduced to industrial research. By August 1925 I had an M.S., with a thesis on "Thermal Conductivity of Coke".

After teaching in high schools that winter, I went to Hollins College to teach college algebra and assist in the Physics Department. I needed more education, so I applied for a fellowship in physics at Bryn Mawr College.

After two years I still had not completed the work for the Ph.D. so when an offer came from the Department of Agriculture, Bureau of Home Economics, to do research on wool as a physicist, I went to Washington. I published work on "Absorption Spectrum of Bromine". In spite of good intentions, I never got around to finishing the degree work.

I started working July 29, 1929, before the market crash of September brought on the Great Depression. But I was working. My title changed to Textile Physicist and my work expanded to utilization of farm products in the home, in other words, consumer textiles.

World War II resulted in a military furlough that sent me to Midshipmen School for Commission in the Navy as Lt. (j.g.) in March 1944. I was stationed at the Clothing Depot in Brooklyn. As Officer for Sales and Survey, I received roll-back materials from around the world. It was a liberal education.

In February 1946, after the war was over, I transferred to Philadelphia Aero Materials Laboratory. With strokes of a typewriter, I became "Materials Engineer (Fibrous Material)". That meant industrial textiles for protective clothing and safety equipment. At the end of my military furlough in 1946, I moved to Naval Air Material Command as a civil servant. My title was changed many times. I also joined a volunteer reserve unit and eventually made 20 years in the Reserves.

I've always been afraid of fire. So after two years, I had permission to add fire retardant to summer flight coveralls. It meant giving up water repellant studies, but cockpits were no longer open to rain so that was no great loss. The greatest joy was working on HT-1, a fire resistant fiber without melt drop. When commercially available, it became known as Nomex. Race car drivers love it, and when used in flight coveralls it has saved lives, as recorded by the Navy Safety Center. A letter from Navy Safety Center states "the Nomex flight suit prevented or minimized injuries.... I would like to acknowledge the significant contributions of Ms. Hays. Please pass to her my personal best wishes, sincere thanks and a belated but well-deserved Navy 'Well Done!'"

I retired in May 1969 with just under 6 weeks of making 40 years civil service pension.

I was one of the 7 members to petition to set up Rho Chapter (Philadelphia, PA) of SDE/GWIS and was its first treasurer. I was SDE/GWIS National Treasurer 1966–68, and in 1968–72 (as past Treasurer) I worked with Marjorie Knowlton to get National's charter reinstated. I continued to serve on the national Finance Committee until 1982.

A broken hip in 1974 plus arthritis has curtailed my activity. The big deal now is knitting bonnets for Navy Relief layettes.

(Editorial Note: Though Margaret is a bit incapacitated, her enthusiasm and zest for life are evident to all who know her.) (This appeared in the Fall 1986 Bulletin.)

back to top

back to main history page