

## **Herty, Charles Holmes** <sup>[1]</sup>

### **Herty, Charles Holmes**

by Maury York, 1988

**4 Dec. 1867–27 July 1938**



Photograph of Charles Holmes Herty. Image from the Library of Congress.

<sup>[2]</sup>Charles Holmes Herty, chemist, the son of Bernard and Louisa Turno Herty, was born in Milledgeville, Ga. He attended Middle Georgia Military and Agricultural College for four years before enrolling in the University of Georgia <sup>[3]</sup>, where he received the Ph.B. degree in 1886. Four years later he was awarded a Ph.D. by Johns Hopkins University. During 1899 and 1900 he studied under Otto N. Witt at the University of Berlin and Alfred Werner at the University of Zurich.

Herty's varied career was characterized by service to his state and to the South. He was an assistant to the state chemist of North Carolina in 1888, and served in the same capacity at the Georgia Agricultural Experiment Station in Athens in 1890–91. From 1891 to 1902 he taught at the University of Georgia and from 1905 to 1916 at The University of North Carolina <sup>[4]</sup>, where he was Smith Professor of General and Industrial Chemistry, dean of the School of Applied Science (1908–11), and a member of the athletics committee. At both schools he stressed the importance of applied chemistry as a solution to the South's economic problems.

While working for the U.S. Forestry Bureau <sup>[5]</sup> from 1902 to 1904, Herty designed a cup-and-gutter method for collecting rosin from pine trees. His new technique replaced the old practice of collecting rosin from boxes cut into the base of the trees, thereby saving the turpentine <sup>[6]</sup> industry millions of dollars. With grants from the Chemical Foundation, the state of Georgia, and the city of Savannah, Herty in 1931 began research in Savannah concerned with the production of rayon and paper from the cellulose and pulp of the southern pine tree. He successfully demonstrated that newsprint could be made from pine pulp, previously thought to be too resinous. This discovery stimulated the paper industry <sup>[7]</sup> throughout the southern coastal region.

Herty attained a position of national prominence in his field, serving as president of the *American Chemical Society* <sup>[8]</sup> for two terms (1915–16) and of the Synthetic Organic Chemical Manufacturers Association (1921–26), as well as editor of *The Journal of Industrial and Engineering Chemistry* (1917–21). From 1926 to 1928 he was adviser to the Chemical Foundation, and in 1928 he opened a consulting office in New York City. In addition to several separate publications, Herty wrote numerous articles for such periodicals as the *Journal of the Elisha Mitchell Scientific Society* <sup>[9]</sup>, *American Chemical Journal*, *Journal of the American Chemical Society*, *Journal of Industrial and Engineering Chemistry*, and *Science*. His honors included an LL.D. degree awarded by The University of North Carolina (1933); degrees from the University of Florida, the University of Georgia, Duke University, Colgate University, the University of Pittsburgh, and Oglethorpe University; and the medal of the American Institute of Chemists (1932). On 17

Dec. 1946 a bronze memorial to Herty was unveiled at the Georgia capitol in Atlanta.

On 23 Dec. 1895, Herty married Sophie Schaller of Athens, Ga. They had three children: Charles Holmes <sup>[1]</sup>, a metallurgist; Frank Bernard, a businessman; and Sophie Dorothea, a plant physiologist. An *Episcopalian* <sup>[10]</sup>, Herty created while in Chapel Hill a retirement plan for clergy of the local parish; a system based on it was adopted by the entire denomination in 1917. He died in Savannah, and his cremated remains were buried in the old city cemetery in Milledgeville.



Professor Charles H. Herty demonstrating his cup-and-gutter system of turpentine gathering in a 1907 magazine article. Image from Archive.org.

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