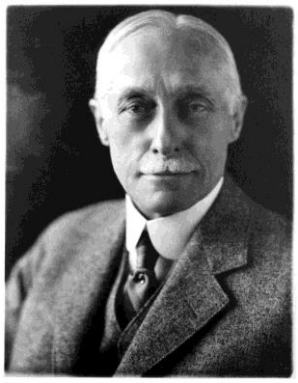
Elmer Ambrose Sperry

(1860-1930)



Elmer Sperry was born at his grandparents' home in Cincinnatus. His mother died giving birth and he was raised in Cortland primarily by his aunt, with his father playing an active role. He was precocious and extremely mechanically minded even as a child, inventing several toys and a nutmeg grater for his aunt before he was 10 years old and tools for the Cortland Wagon Company, where his Dad worked, while a teenager. He was interested in various means of power production, including windmills and waterwheels.

Sperry graduated from Cortland Normal School in 1879 and attended Cornell for just one term. "Sperry built a generator and arc light at the Cortland Wagon Company and illuminated the Christmas Festival at Cortland in 1879."[1] His father encouraged him to go to Chicago, since he believed it to be a "progressive" city. Sperry opened his first shop there on his 20th birthday. Soon he was using arc light technology to provide lights for streets, stores and restaurants in Chicago, Omaha and Council Bluffs.

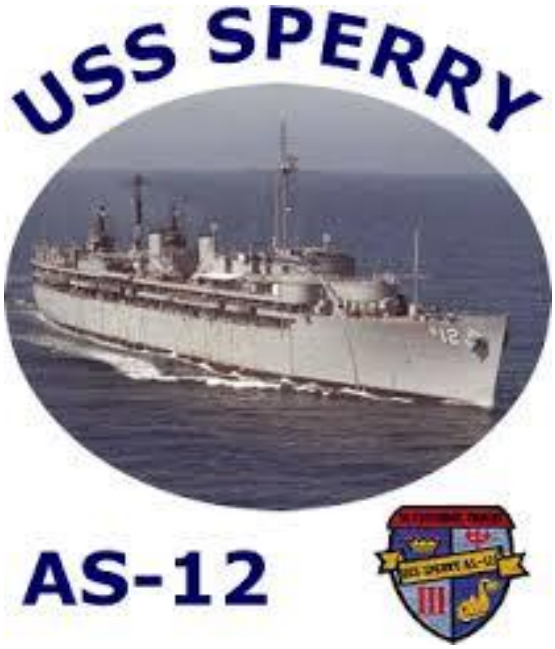
Sperry's first patent was granted in June 1882 for a "Dynamo Electric Machine". Over the next several years, he received numerous other patents for related components, including valves, regulators, tools, etc. As a natural progression to the increasing availability of electricity, he developed electric mining machines, significantly increasing coal production, and electric locomotives to bring the coal to the surface.

Elmer was interested in the gyroscope and created a gyro stabilizer for ships. While successful in concept, it was too heavy and expensive for practical use. However, his gyrocompass became the basis for automatic pilots in ships and airplanes, as well as useful for weapon targeting systems.

He returned to earlier research in 1914 to create high intensity arc lights for the US Navy on the eve of World War I. The increased range of guns required more powerful searchlights; which was also used with anti-aircraft guns during night air raids over London and Paris. The tremendous impact of "His numerous inventions, including his gyro compass, airplane stabilizer, high intensity search light, and his apparatus for accurately controlling the fire of our guns, have assisted materially in placing the Navy in first class fighting trim. It is safe to say that no one American has contributed so much to our naval technical progress."[2]

1. J. C. Hunsaker, "Biographical Memoir of Elmer Ambrose Sperry, 1860–1930," in *Biographical Memoirs. National Academy of Sciences*, **28** (1954), 229.
2. Ibid, 241, Quoting the Secretary of the Navy, Charles Francis Adams
3. Ibid, 246-247

"It is significant that Sperry was never a garret-starved inventor waiting for recognition. His ideas became enterprises, his enterprises became under his management successful businesses…His inventions and enterprises opened new fields of industrial activity which now give employment to tens of thousands."[3]



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