**John Philip Holland
“The Father of the Modern Submarine”**

Often called “The Father of the Modern Submarine,” New Jersey inventor John Philip Holland successfully launched his *Holland Boat No. 1* into the Passaic River at Paterson on May 22, 1878.

Born in Ireland, Holland came to the United States in 1873. His first design, a submersible powered by foot pedals, was rejected by the U.S. Navy. Much to Holland’s dismay, however, the Navy released his plans without his permission.

In the first test run of the *Holland Boat No. 1*, the vessel descended to a depth of twelve feet and returned safely to the surface. Holland kept the submarine at the bottom for an hour during the second trial. When he knew that was successful, he stripped the boat of usable equipment and scuttled it in the Passaic River by cutting a hole to make it sink. He wanted to be sure that no one could steal his invention!

After two years of work, the *Holland II* (also known as *Fenian Ram*) was launched in 1881. The submarine was tested as far south as the Narrows (the water between Brooklyn and Staten Island), being submerged as deep as fifty feet in the ocean.

The next vessel, the *Holland III,* had an accident during the launching; it was repaired and carried out several sea trials, but eventually was sold.

Over the next few years, John Holland designed several other submarines, winning two more Navy competitions. In 1887, while living in Newark, Holland entered the U.S. Navy’s competition for the design of a submarine torpedo boat. The boat had to meet the following requirements: it had to speed of 15 knots on the surface and 8 knots while submerged and a total underwater endurance of 150 feet for two hours. Holland’s design won, but the shipyard he had contracted with reneged (refused to built it as promised).

He convinced his associates at the Holland Torpedo Boat Company to build a new submarine, the *Holland VI*, as a private venture with no Navy requirements. So, in late 1896 the keel of the *Holland VI* was laid down at the Crescent Shipyard in Elizabethport, New Jersey. Work went quickly, and she was launched on May 17, 1897. She was finally ready for sea trials in February 1898 and dived and surfaced successfully off Staten Island on St. Patrick’s Day, March 17, 1898. Finally in November 1899, the *Holland VI* performed flawlessly before the Naval Board of Inspection and was purchased by the U.S. Navy for $165,000. It cruised to Washington via the Delaware and Raritan Canal in New Jersey.