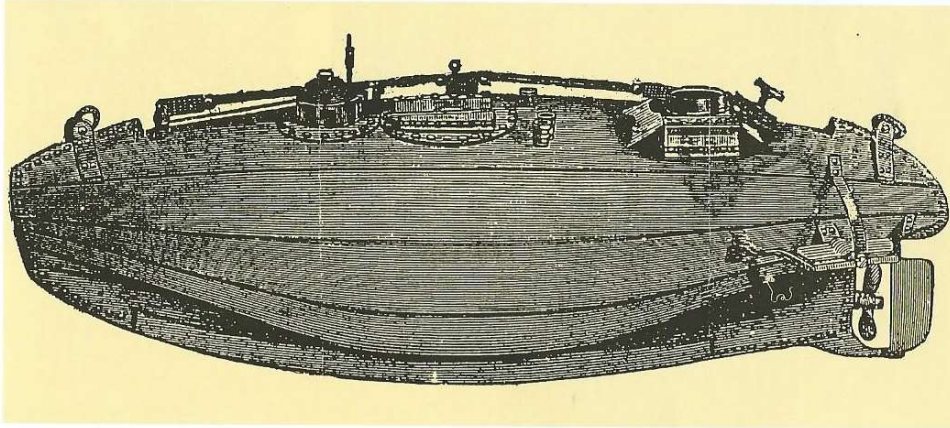


Brush provides Electric Propulsion for “Peacemaker” Submarine



The Peacemaker was built in the Delameter Iron Works in New York City, to a design by Professor Tuck (a rival of John Holland, the father of submarine design worldwide). It contained Brush storage batteries and a 12 horsepower D.C. motor and was tested in the Hudson River, off New York, in 1884, the complete submarine weighing 30 tons.

An I. R. Prentiss wrote of his time at Brush (Cleveland). “Started in 1881, and agreed to spend six months in the factory without compensation, for the privilege of spending three years in the shop, three years trouble shooting, three years in construction work, and three years in the office. With this twelve years experience I felt sure of finding out just what I would be best fitted ... it fell to my lot to try out many first installations”.

The submarine carried two operators inside. The pilot stood in a weighted diving suit in an outside well in the top, with air fed from a manual pump inside the sub. The submarine attracted the interest of representatives from all over the world. Both governments and secret agents liked the idea of being able to sneak up on ships and dockyards without being seen.

Mr Prentiss, who operated the battery and

motor controls, tells of one particular incident; the visit of a Cuban who was wanted by the authorities. The Cuban had a reward on his head of \$50,000 which was a very large sum in 1884. The visitor insisted on seeing inside the sub, but the entrance hatch was only 30 inches in diameter and he was rather large around the waistline. Prentiss said, “He got down to one garment ... even with oil and pressure, we could not get by the hatch and he was stuck tight. We had to get a steam hoist to get him out, and no doubt he carried some scars for a long time.”

The Peacemaker submarine with its Brush electric drive system did not last. Alternative prototype power plants were installed and books on submarine history refer to the Peacemaker in 1887 as having a unique caustic soda boiler for propulsion.

The Peacemaker is the first recorded electric submarine in America; having been able to dive to 40 feet and move at 6 miles per hour on the surface. In England in 1885, the J. F. Waddington Company on Merseyside built an electric submarine but the source of the power system seems unrecorded.

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