

The Philadelphia Inquirer.

PHILADELPHIA, SATURDAY, MAY 18, 1861.



VILLEROI'S SUBMARINE PROPELLER--EXTERIOR VIEW.

THE SEIZURE OF VILLEROI'S SUBMARINE PROPELLER.

Never since the days of the Battle of the Kegs has the river front of Philadelphia been the scene of such a peculiar excitement as yesterday. At an early hour in the morning rumors spread like wildfire among the inflammable population crowding our wharves that a monster, half aquatic, half aerial and wholly incomprehensible, had been captured by the Harbor Police, and had been safely chained at the foot of Noble street pier.

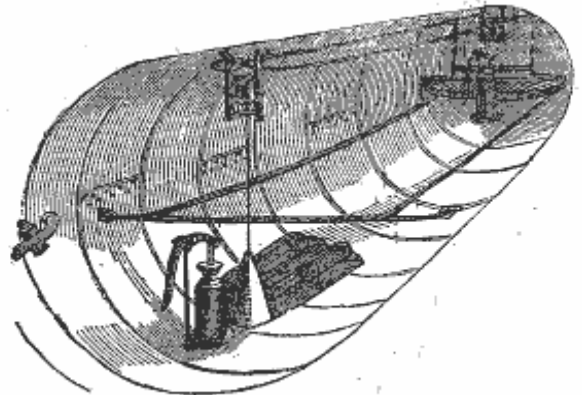
Forthwith the pier became the grand center of attraction. The crowds increased hourly, the spectators flocking to see the amphibious and ambiguous creature. All sorts of speculations were freely indulged in as to the uses and purposes of the lengthy iron circular continuance, all tending, however, to the belief that it was designed to aid and assist JEFF. DAVIS in the benevolent occupation of transferring Federal vessels of war into flying morsels of wood and iron, i.e. blowing them up, while everyone concurred in the opinion that it was "very like a whale."

The monster itself, on a close inspection, proved to be a submarine propeller, invented by Monsieur DE VILLEROI, a French gentleman, who has devoted many years to experiments in this direction. The hull was built about two years ago, at the machine works of NEALL, MATTHEWS, AND MORE, on Bush Hill, and at that time was reputed to be under the joint ownership of its inventor and MR. GIRARD, a connection of the benefactor, and one of the claimants to his vast estates. In its unfinished condition it attracted the attention of the HON. WM. H. WITTE, who induced its removal to the Penn Iron Works of RHANEY, NEAFIE & Co., where it was supplied with a propelling apparatus.

THE INQUIRER, of Monday last, contained a description of the unique vessel, which we here republish: - It is made of 3/8 -inch boiler iron, shaped like a segar, sharp at both ends, and about forty feet long by five in diameter, and is propelled by a screw, worked by hand, from the inside. On the top is a copper basin-shaped lid, which has glasses for two men to see out, and large enough for a man's head. It covers the entrance. Seven men are required to work the boat. The inside is partially filled with air pumps, force pumps &c.

It is submerged by pumping water into the lower compartment, and it is claimed can be kept under for twenty-four hours, and propelled five miles an hour. It has been down for a period of one hour and thirteen minutes. It is intended for scuttling or blowing up vessels, and report says the inventor was offered one million of dollars for it by the Russian Government, to destroy the Allied fleet during the Crimean war, but, being a good Frenchman, he declined.

The machine has attracted the attention of a number of parties at different times who imagined they discovered in the invention a speculation which would yield a handsome retain for any outlay.



VILLEROI'S SUBMARINE PROPELLER--INTERIOR VIEW.

MR. MARTIN F. THOMAS, an estimable citizen, invested capital in the project some time since, with a view of finding a means to cleanse the Great Eastern during her first visit to this country. A proposition to this effect was submitted to the Directors, and the attempt would no doubt have resulted successfully, had they not preferred an English "gridironing" to an American scraping process.

Since that time, the submarine vessel has for divers reasons been stationed in sundry places. Of these were Marcus Hook, New Castle, and Delanco on the Rancocas. A number of experiments were tried, with a view of adopting it to recovering goods from wrecks, and examining the bottoms of rivers, but from all that we can gather, the machine has proved an utter failure for all practical purposes.

The first information that the police had of the appearance of the vessel opposite our city, was that it was taking in a quantity of pig lead, which was to be used as ballast, in some experiments which were contemplated.

At the time of its seizure it was under the charge of a young Frenchman, named ALEXANDER RHODES, and HENRY KRINER, an American, who were arrested. They stated that the machine was to be taken to the Navy Yard to be examined by Government officers to ascertain whether it could be made serviceable in naval operations.

Its movements and this intention have not been kept a secret, and at any other time than the present, no excitement would have been created by its appearance. We have no doubt that all connected with it will be able to explain the objects which were contemplated by its erratic movement in our waters.

The views which we present in THE INQUIRER are of the interior and exterior. They will convey to our readers a better idea of the novelty than any written description.

Transcribed by Alice M. Smith, Riverside Historical Society
Delran, New Jersey -- 9/3/2004

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Commander Henry K. Hoff, USN, July 7, 1861
CITATION: NARA RG71, Misc. Ltrs. Sent and Recd, Bureau of Yards and Docks
1861-1863, Report on deVilleroi Sub, 7/7/1861
Report on deVilleroi Sub
Summary/Transcript Dated: 7/7/1861
Copy Navy Yard Phila: July 7th 1861

Sir

In obedience to your order of May 3rd 1861, the Diving Machine of Mr. de Villeroi being reported ready for inspection, we proceeded to Delanco, New Jersey to examine it and have the honor to make the following report.

The Submarine Propeller submitted to our investigation consists of an iron cylinder, cone shaped at the two extremities about thirty three feet in length and four feet at its greatest diameter. It is propelled by means of a screw in the stern with two (?) Prinions, one on either side, resembling somewhat a whale in external form and appearance. Light is communicated to the interior by means of glass bulls eyes on the back, thirty six in number. An ellipsoidal section eight inches in height, opening at will affords entrance and exit for a crew of from six to twelve men, according to the speed required; A corresponding section at the bottom of the boat admits the egress of the divers, who, breathing by means of tubes attached to the boat are enabled to perform submarine operations, such as raising sunken cargoes, and attaching torpedoes to the bottoms of hostile vessels. An artificial atmosphere perfectly respirable by the men is generated by the inventor by a chemical process so that the submerged boat is executes its maneuvers without any connection with the surface. Its entire apparatus is contained in the interior and invisible from the outside.

In justice to Mr. de Villeroi we should state that the boat in question was constructed for salvage purposes and not for war uses, (for the latter, he proposes if his services are accepted by the Government to construct another on a larger scale whose greater capacity would afford additional facilities for the maneuvers of the men while it would also be provided with greatly increased power of propulsion) so that in the experiment we have considered the machine employed simple as a model to demonstrate the principles to be established by the inventor.

From the experiments we have witnessed, corroborated by those made previously, we consider that Mr. de Villeroi has demonstrated the following principles:

- 1st The ability to remain submerged for a length of time without communication with the surface or external atmosphere and without the least fatigue or exhaustion to the men.
- 2nd That of sinking and raising his boat at pleasure making repeated immersions and emersions.
- 3rd Ability of the men to leave and return to the boat while under water.
- 4th Ability of a man leaving the boat to live for a length of time, breathing by means of a tube connected with the boat.

The services of this distinguished Engineer would be very valuable to the Government and the possession of his invention would be an acquisition of the greatest importance. It is evident that in the event of war, with a foreign power the mere knowledge that we possessed such a mysterious invisible engine of destruction, would have the effect of production great caution on the part of invading fleet in our waters, causing apprehension and alarm in the minds of those on board as to their safety while lying at anchor in a river or a roadstead.

The examination of the Telescope called for in your order, has not been made, it having been brought to our note by the inventor.

Signed
Henry K. Hoff, Commander
Chas. Steadman, Commander
Robert Danby, Chief Engineer

To: Capt. S.F. Dubont, Commanding U.S. Naval Station, Philadelphia.

Brief History of the Alligator Junior

Brutus de Villeroi's 33-foot long submarine propeller was built in Philadelphia in 1859 for the purpose of marine salvage. At the outbreak of the Civil War in April of 1861, de Villeroi determined to sell his invention to the US Navy in defense of the nation. Apparently, when the submarine made a sudden appearance in the waters off the Philadelphia Navy Yard on May 18, 1861 the Naval Department took notice. Commander Henry Hoff was sent to observe trials of the Alligator in the Rancocas Creek in Delanco on June 20, 1861. Hoff's report to his superior is reproduced above.

The navy engaged de Villeroi to build a new, 44-foot long submarine based on de Villeroi's plans. Because it was green in color and cruised low and slow in the water, the ship was nicknamed Alligator by a reporter. From this point, the prototype was referred to as Alligator Junior because of its smaller size. Once the navy took over the project, the original Alligator Junior was abandoned. Legend has it that the submarine was left on the Riverside bank of the Rancocas where it sat for many years before it disappeared. It might still be found today... *if we knew where to look.*

For more information on the Alligator submarine, contact Alice M. Smith, President Riverside Historical Society

Additional articles can be found on line at:

National Marine Sanctuaries: <http://sanctuaries.noaa.gov/alligator/welcome.html>

Navy & Marine Living History Association: <http://www.navyandmarine.org/alligator/story.htm>