

(No Model.)

3 Sheets—Sheet 1.

P. BROTHERHOOD.  
SUBMARINE TORPEDO GUN.

No. 261,662.

Patented July 25, 1882.

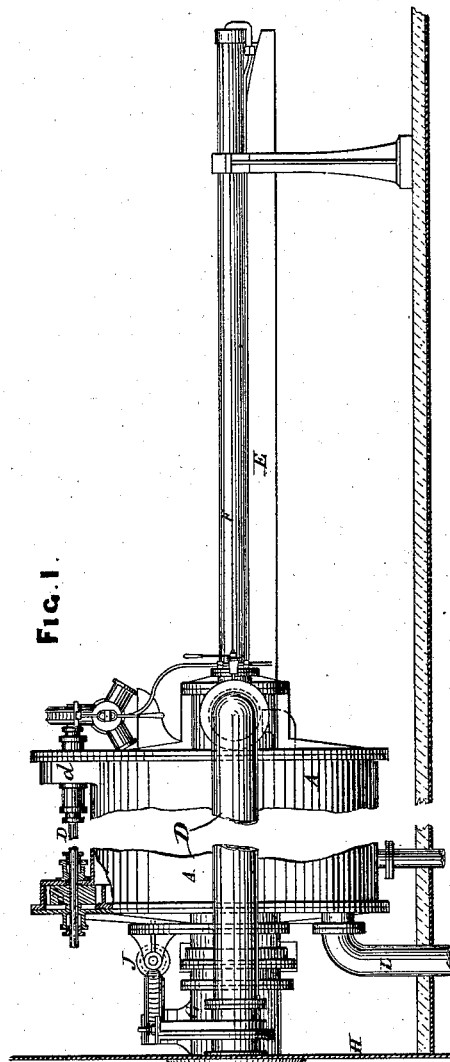


FIG. 1.

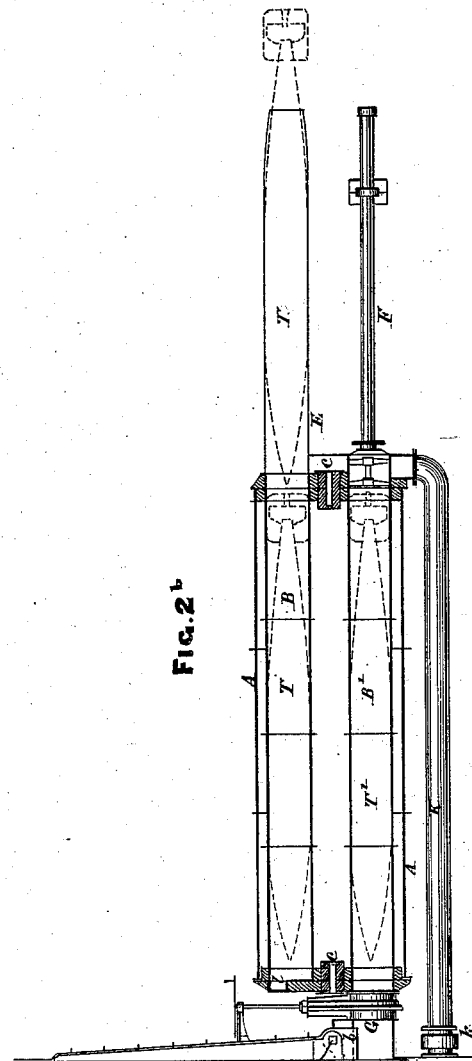


FIG. 2.

Witnesses,  
*John A. Rutherford*  
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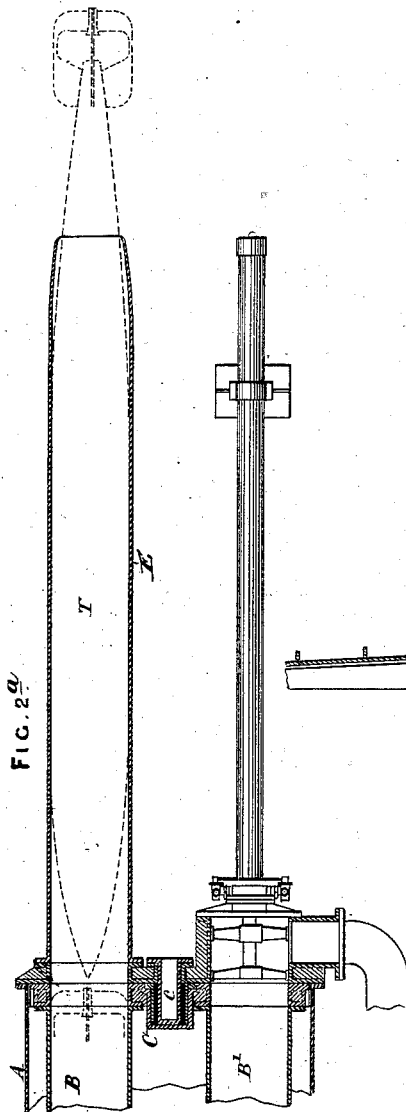
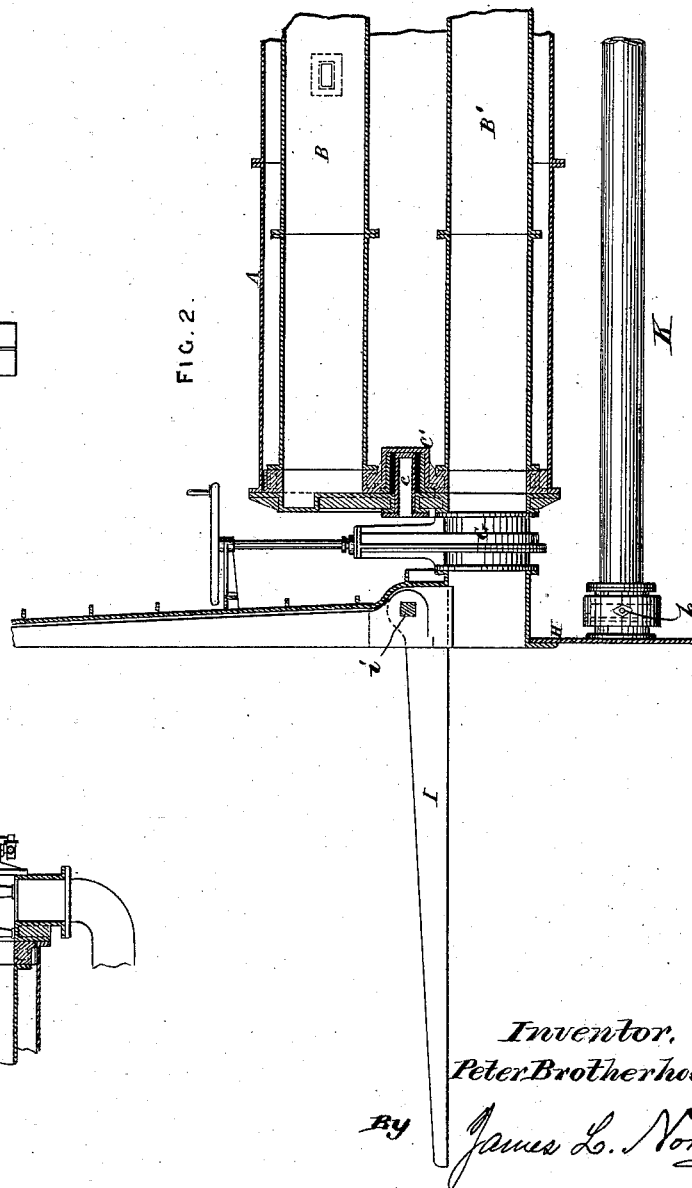


FIG. 2.

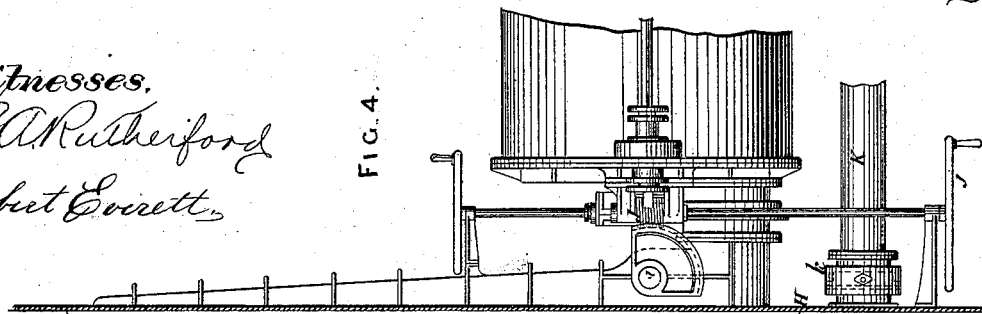


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*Robert Lovett*

FIG. 4.



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FIG. 3

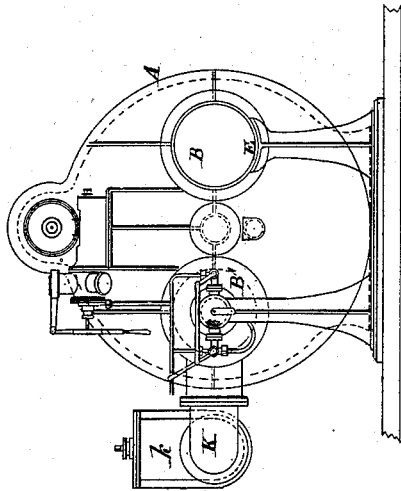
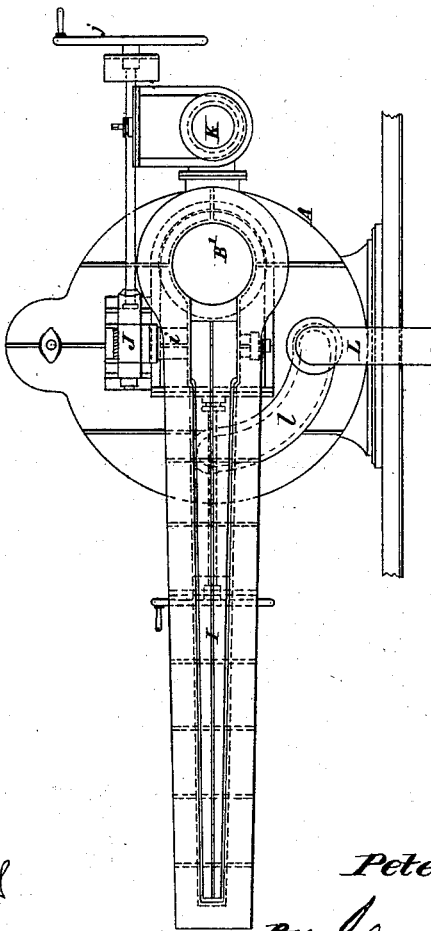


FIG. 5



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# UNITED STATES PATENT OFFICE.

PETER BROTHERHOOD, OF LAMBETH, COUNTY OF SURREY, ENGLAND.

## SUBMARINE TORPEDO-GUN.

SPECIFICATION forming part of Letters Patent No. 261,662, dated July 25, 1882.

Application filed May 10, 1882. (No model.) Patented in England October 12, 1881, No. 4,451; in France October 31, 1881, No. 145,592; in Italy December 31, 1881, No. 13,655, and in Denmark March 21, 1882, No. 2,572.

*To all whom it may concern:*

Be it known that I, PETER BROTHERHOOD, a citizen of England, residing at Belvidere Road, Lambeth, in the county of Surrey, England, have invented a new or Improved Apparatus for Discharging Torpedoes Under Water, (for which I have obtained patents in Great Britain, dated October 12, 1881, No. 4,451; in France, dated October 31, 1881, No. 145,592; in Denmark, dated March 21, 1882, No. 2,572; and in Italy, dated December 31, 1881, No. 13,655,) of which the following is a specification.

My invention relates to apparatus for discharging torpedoes under water from a vessel, as I will explain.

Referring to the accompanying drawings, Figure 1 is a side view. Figs. 2 and 2<sup>a</sup> are sectional plans of the two ends of the apparatus, a general sectional plan of which is shown to a reduced scale by Fig. 2<sup>b</sup>. Fig. 3 is an end view. Fig. 4 is a plan of the front part, showing the mechanism for working the external guide-bar; and Fig. 5 is a front view thereof, the side of the ship being supposed to be removed to show the internal construction.

Within a stationary cylindrical casing, A, I provide two tubes, B B', open at both ends and fixed parallel to each other to two end disks, C C', which are fitted to revolve on stationary trunnions c c, projecting inward from the ends of the casing A. A shaft, D, worked by worm or other suitable gearing, has on it pinions d d', which gear with teeth on the disks C C', so that by turning the shaft D these disks, along with the tubes B B', can be caused to revolve within the casing A. When the tubes are in one position, as shown in Figs. 2, 2<sup>a</sup>, and 2<sup>b</sup>, a torpedo, T, which is laid on a guide-trough, E, can be pushed into the one tube, B, through a hole in the one end of the casing A, and another torpedo, T', which is in the other tube, B', can, by means of a propelling apparatus, F, be pushed out through a hole in the opposite end of the casing A, which hole is connected by a pipe provided with a sluice-valve, G, to the side H of the vessel. When the torpedo T' has been discharged the tubes B B' are turned half a revolution round their common axis, and the torpedo T, in its tube B, is

thus brought into position for being discharged, while the empty tube B' is brought into position for receiving a fresh torpedo. On the outside of the vessel I provide a recess in which a guide-bar, I, lies while the torpedo apparatus is not in use. This bar is fixed to an axis, i, which extends upward through a stuffing-box and has fixed on it a toothed sector gearing with a worm, J. By turning this worm by means of a hand-wheel, j, the bar I is caused to move to the position shown in Fig. 2, in line with the discharge-tube. The bar I has a groove along it corresponding with a groove in each of the tubes B B', which serves as a guide to the torpedo, a stud on the side of the torpedo passing along this groove.

A pipe, K, furnished with a sluice-valve, k, leads from the external water to the end of the casing A, into which it opens in line with the tube B'. This admits water behind the torpedo as it is urged along the tube. A pipe, L, leading to the bilge of the vessel has a segmental opening, l, into the casing A, so that when the tube B', from which a torpedo has been discharged, and which is then full of water, is moving round to the position of B for receiving a fresh torpedo it is emptied of its water by the pipe L.

The propelling apparatus F may be of any known kind—such as a combination of telescopic tubes—in which compressed air is employed for propulsion, as is well understood.

When the torpedo apparatus is not in use the guide-bar I is folded back into the recess and the sluice-valves G and k may be closed, so that the apparatus can be removed or access can be had to it for cleansing or repair, all communication with the external water being cut off.

Having thus described the nature of my invention and the best means I know of carrying it out in practice, I claim—

1. In an apparatus for discharging torpedoes under water, the combination of a series of tubes rotating on an axial bearing, a trough for receiving the torpedoes and directing them into the tubes, a torpedo-propelling rod at the receiving ends of the tubes, a pipe for introducing water or other fluid into the tubes in

rear of the torpedo, and a pipe at the discharge end of the tubes for emptying them of water, substantially as described.

2. In an apparatus for discharging torpedoes  
5 under water, the combination of a stationary cylindrical casing, rotating perforated heads at the ends thereof, parallel tubes secured to the heads in line with the perforations, a trough for directing the torpedoes to the tubes, a tor-  
10 pedo-propelling rod, and pipes connecting respectively with the receiving and discharging ends of the tubes for supplying and discharging fluid to and from the tubes, substantially as described.

3. The combination, with the tubes rotating 15 on a supporting-axis, of a torpedo-guiding bar pivoted at the discharge end of the tubes, and mechanism for swinging said bar on its pivot into or out of line with the tubes, substantially as described. 20

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 28th day of April, A. D. 1882.

PETER BROTHERHOOD.

Witnesses:

JNO. P. M. MILLARD,  
OLIVER IMRAY.