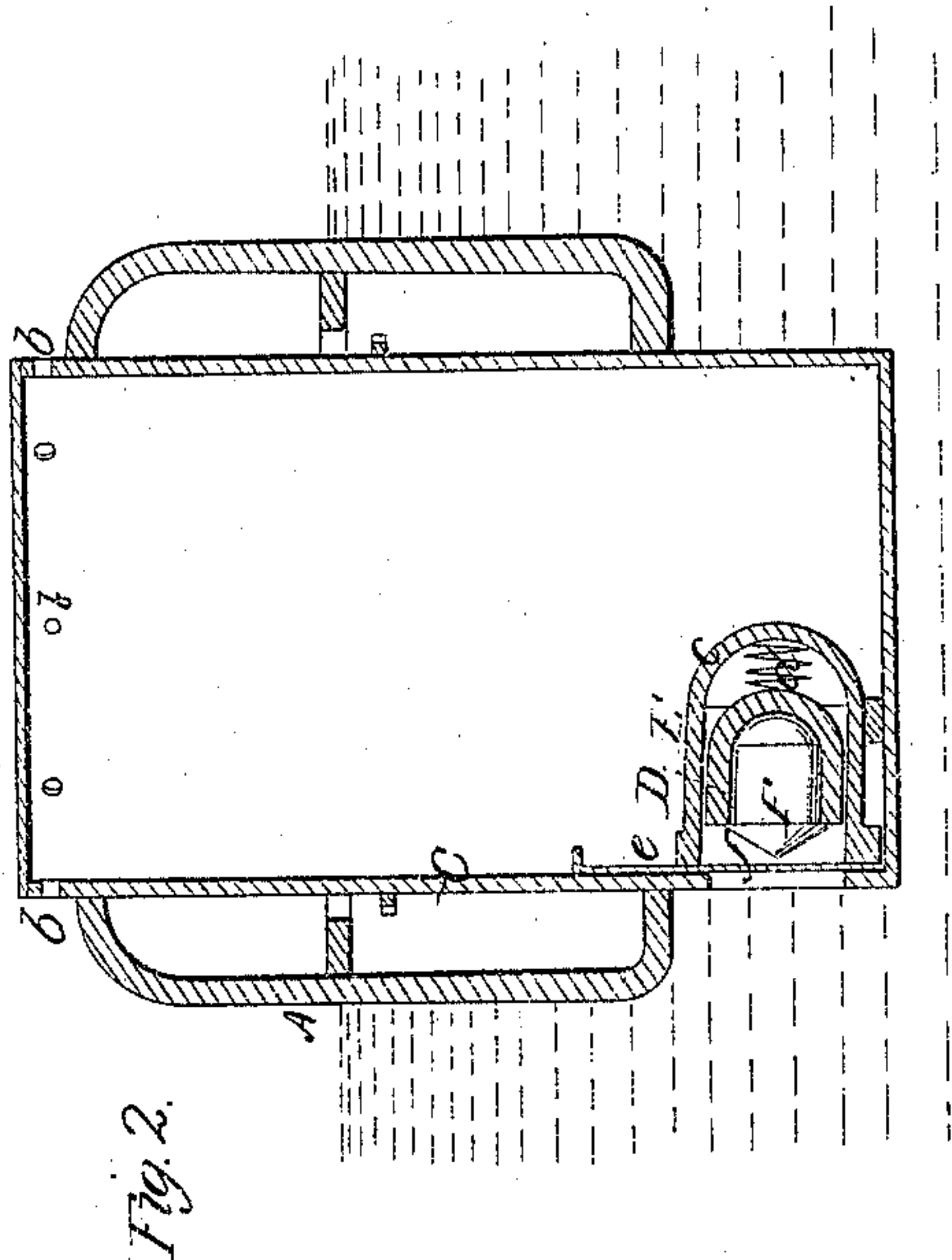
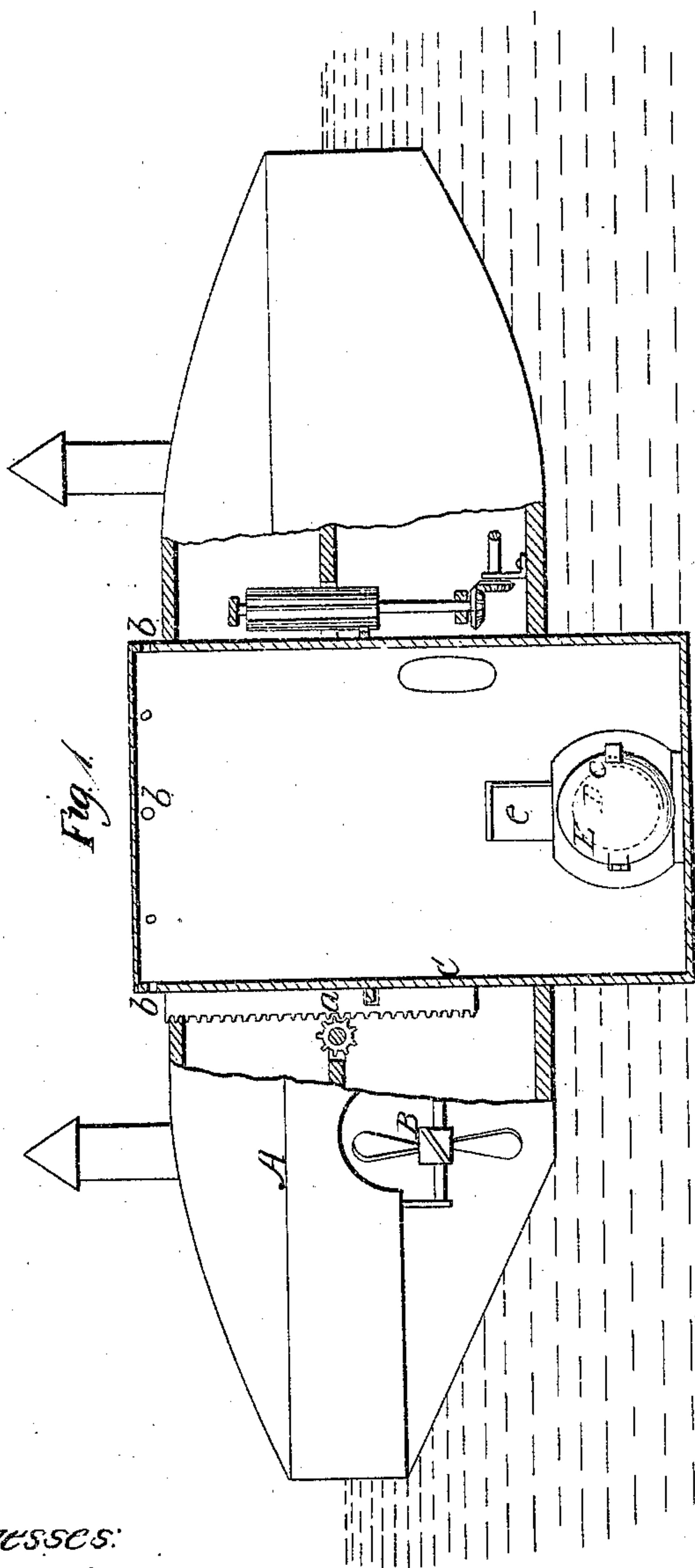


F. A. De Mey
Submarine Battery
N^o 38,814. Patented Jun. 9, 1863.



Witnesses:
W. S. Partridge
Daniel Robertson

Inventor
F. A. de Mey

UNITED STATES PATENT OFFICE.

F. A. DE MEY, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN SUBMARINE REVOLVING BATTERIES FOR WAR-VESSELS.

Specification forming part of Letters Patent No. 38,814, dated June 9, 1863.

To all whom it may concern:

Be it known that I, F. A. DE MEY, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Submarine Battery; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a longitudinal vertical section of my invention. Fig. 2 is a transverse vertical section of the same.

Similar letters of reference in both views indicate corresponding parts.

This invention consists in extending the turret of a vessel or floating battery through the deck and bottom of said vessel in such a manner that a gun or mortar placed in the bottom of the turret can be fired below the water-line.

It consists also, in combining with the turret a mechanism for raising and lowering, in addition to and entirely independent of the ordinary mechanism for producing a rotary motion of the same, in such a manner that one or more guns placed at the bottom of said turret can be fired under water in any desired direction.

To enable those skilled in the art to make and use my invention, I will proceed to describe it.

A represents a vessel built in the ordinary shape of iron-clad gun-boats, or in any manner suitable for the purpose for which it is intended. Said vessel is propelled by two screw-propellers, B, running in suitable recesses at or near the stern, and it is provided with a turret, C, which occupies the middle portion of the same. This turret extends clear through the vessel above and below, and, besides the ordinary machinery for revolving the same, it is provided with a toothed rack, *a*, acted upon by a pinion so that it can be raised up or lowered in the water whenever it may be desired. I have represented the toothed rack as one of the means which may be used for this purpose, but I do not wish to confine myself to any particular mechanism, since the same effect can be produced by a great many different devices. When lowered, the top of the turret projects very little above the upper deck of the vessel, and it is perforated with a number of small holes, *b*, which serve as loop-holes, through which observations can be taken necessary to direct the motion of the vessel, or small-arms can be

discharged through them if the enemy should make an attempt to board the vessel. The turret C contains one or more guns or mortars, D, placed on its bottom in such a position that when the turret is lowered the mortars or guns are entirely submerged, and shots fired therefrom hit an opposing vessel below that line to which vessels are generally protected by iron armor. Each gun or mortar D is inclosed in a case, E, which is firmly secured to the inside of the turret, and which must be perfectly water-tight to prevent the entrance of the water into the turret. Said case is provided with a lid, *c*, at its inner end, and by opening this lid access can be had to the interior of the case and to the gun. One or more springs, *d*, inserted into the lid and bearing on the breech or butt-end of the gun, serve to take up the recoil. Before the lid is opened, a slide, *e*, is introduced in front of the case E, to exclude the water while the gun is taken out and reloaded. When ready for firing, the slide is withdrawn, and the gun is fired by an electric or galvanic battery, or in any other desirable manner.

If several guns or mortars are used in the turret, they ought to be placed in different elevations so as to give different upward directions to the shots.

The cartridges or shells F used in my guns are provided with flanges *f*, which project over the bore of the gun, as clearly shown in Fig. 2 of the drawings. These flanges prevent the water from entering the barrel.

When desired, an additional deck may be arranged in the upper part of the turret to receive guns to be fired above the water in the ordinary manner.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. Extending the turret of a vessel or floating battery through the deck and bottom of said vessel, in the manner and for the purpose substantially as herein shown and described.

2. Combining with the said turret so extending through the bottom of the vessel a mechanism for raising and lowering, in addition to and independent of the ordinary mechanism for revolving said turret, substantially as and for the purpose specified.

F. A. DE MEY.

Witnesses:

M. S. PARTRIDGE,
DANIEL ROBERTSON.