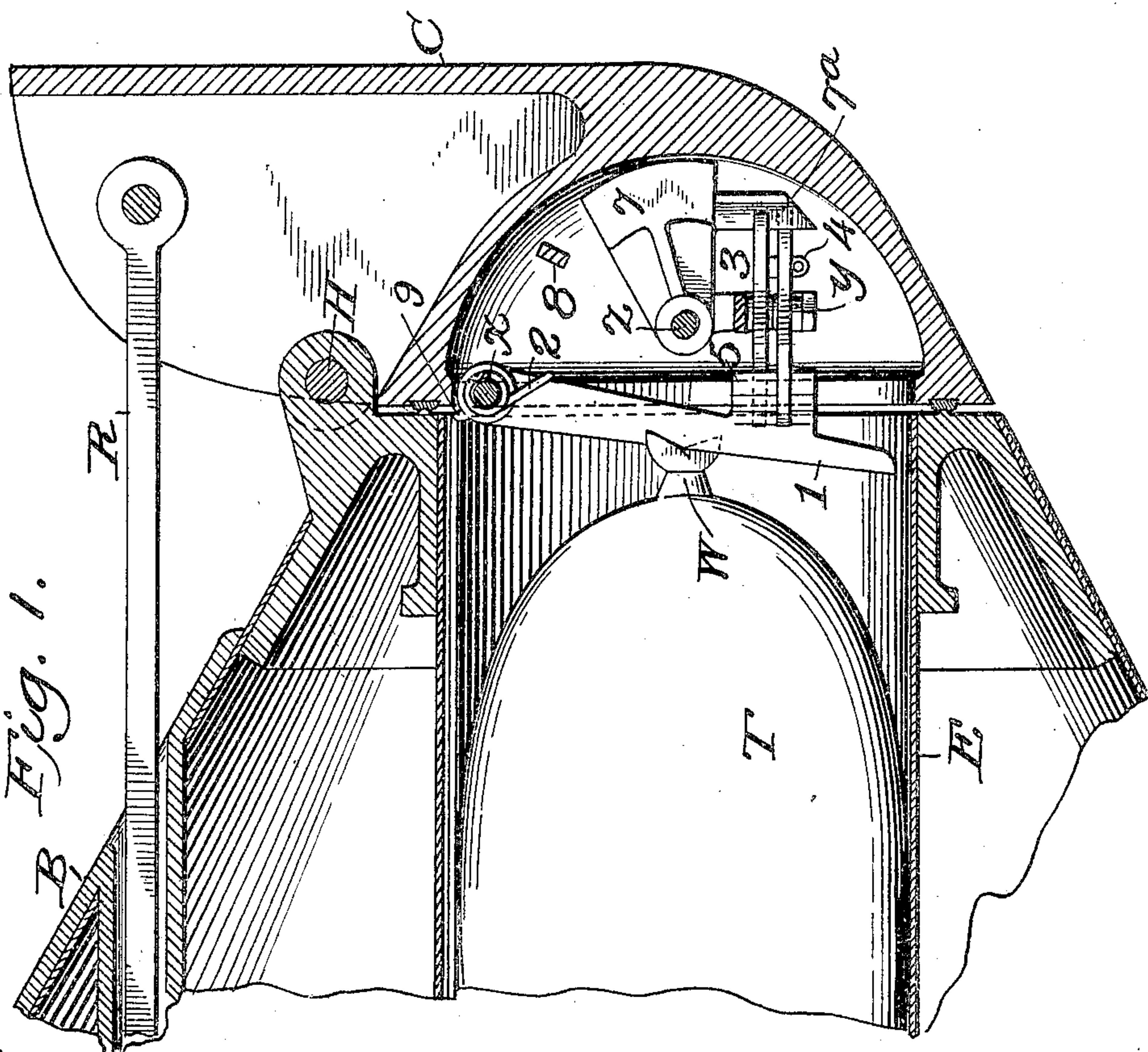
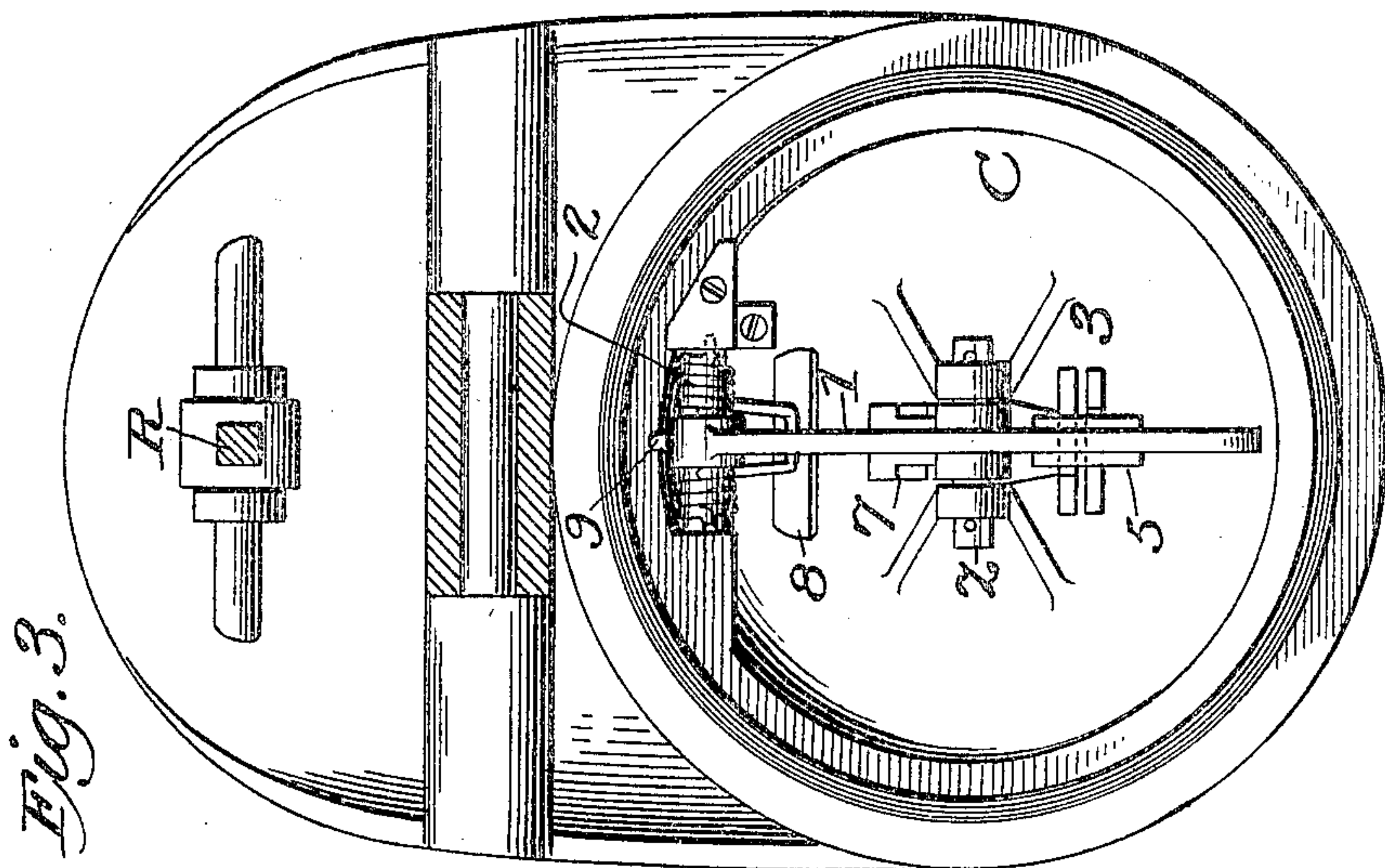


T. J. MORIARTY.

TORPEDO BOAT.

APPLICATION FILED MAR. 21, 1905.

2 SHEETS—SHEET 1.



Witnesses
James F. Duhamel
William J. Fitch

Inventor
Thomas Joseph Moriarty
By his Attorney *Wm. C. Connelley*

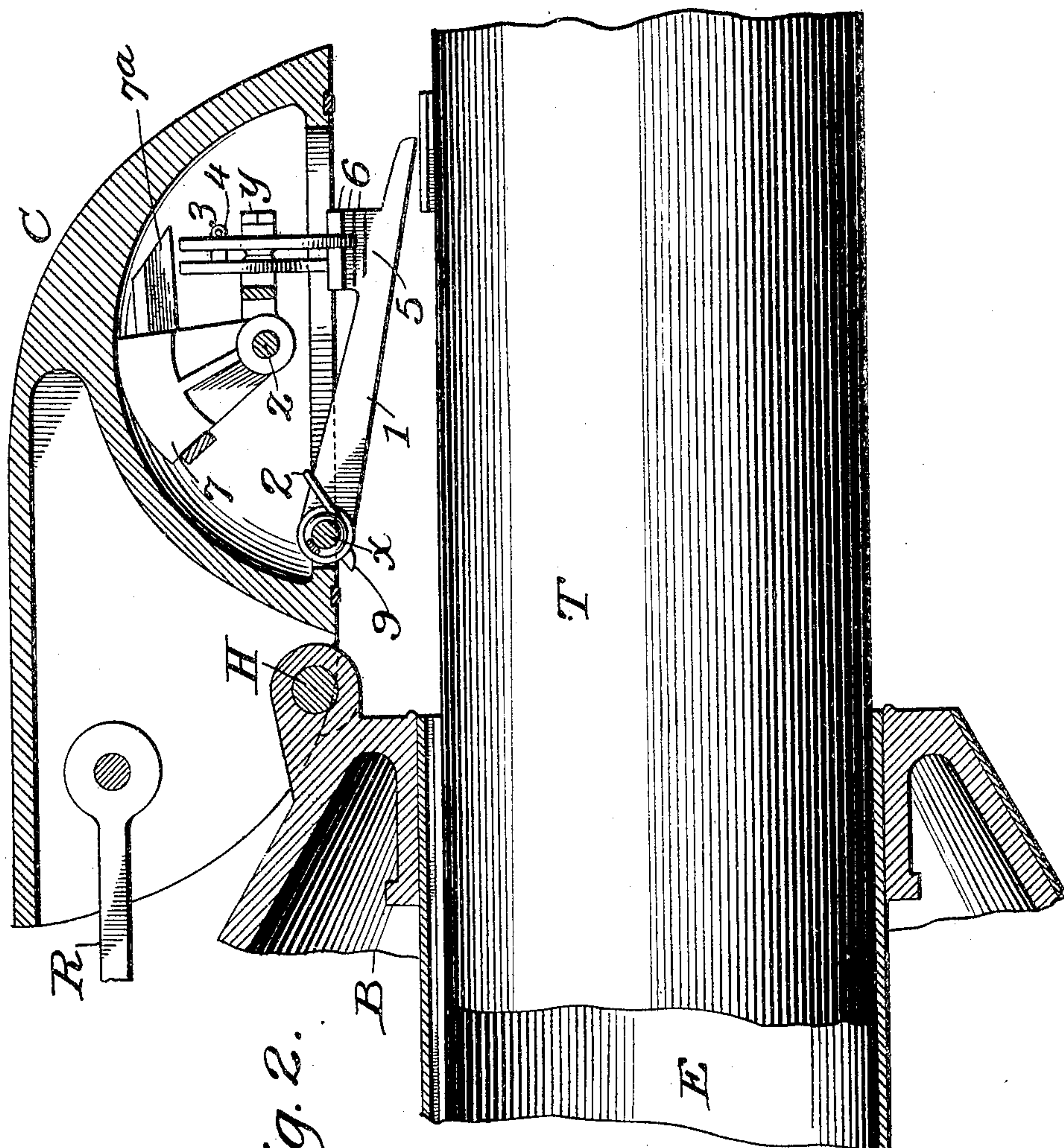
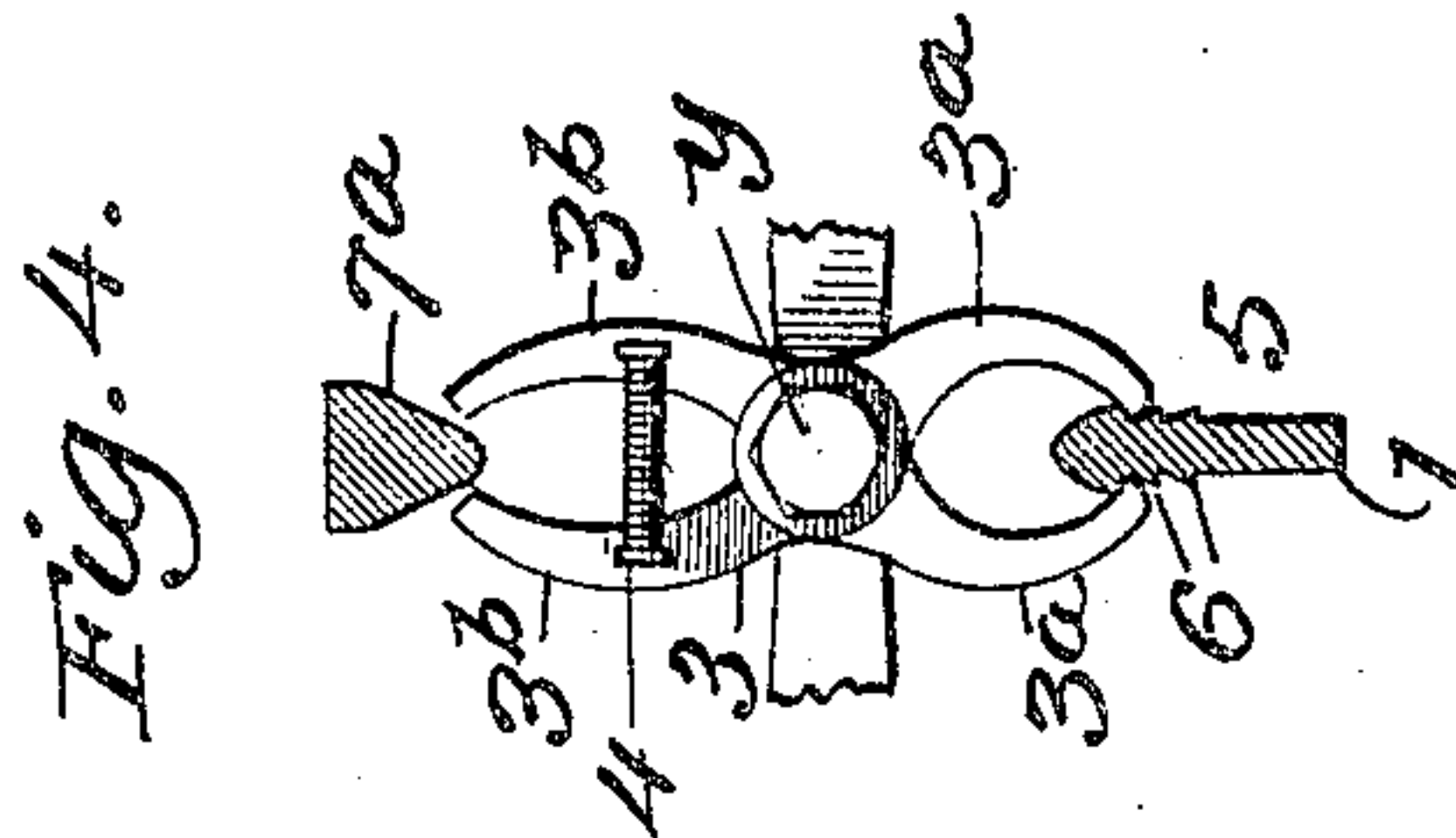
No. 807,482.

PATENTED DEC. 19, 1905.

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Witnesses
James F. Duhamel
William J. Firth

Inventor
Thomas Joseph Moriarty
By his Attorney, Henry Connors

UNITED STATES PATENT OFFICE.

THOMAS J. MORIARTY, OF NEWPORT, RHODE ISLAND.

TORPEDO-BOAT.

No. 807,482.

Specification of Letters Patent.

Patented Dec. 19, 1905.

Application filed March 21, 1905. Serial No. 251,251.

To all whom it may concern:

Be it known that I, THOMAS JOSEPH MORIARTY, residing at Newport, in the county of Newport and State of Rhode Island, have invented certain new and useful Improvements in Torpedo Boats or Vessels, of which the following is a specification.

This invention relates to such vessels as carry torpedoes and expelling means therefor, and particularly to that class of such boats where the expulsion-tube is below the level of the water of flotation.

The object of the invention is to provide the cap of the expulsion-tube with means for controlling at the time of expulsion the rotation of the firing-head of the torpedo, and thus obviate danger of premature explosion of the torpedo, which is liable to take place under certain conditions.

In the accompanying drawings, which illustrate an embodiment of the invention, Figure 1 is a vertical axial section of the forward end of a submarine torpedo-boat, its expulsion-tube, and the outboard-cap for same, the cap being shown as closed and the parts in their normal position. Fig. 2 is a similar view, but showing the cap thrown open and the torpedo partly expelled. Fig. 3 is a face view of the cap looking toward the right in Fig. 1. Fig. 4 is an illustrative view showing the tongs or nippers detached and in plan.

B designates the forward part of a submarine torpedo-boat; E, the expulsion-tube mounted therein; C, the cap closing the outboard end of the expulsion-tube and hinged to the boat at H; R, the rod by which said cap is thrown open from the interior of the boat; T, a torpedo in the expulsion-tube, and W the war-head thereon. All of these features and their mode of operation are now well understood by those skilled in the art, and no more minute description of them will be required.

The novel features of the invention and their operation will now be described.

Hinged at x in the cap C at its upper end is a locking or detent arm 1, provided at its hinge with a spring 2, which holds the detent-arm, as seen in Fig. 1, normally in engagement with the war-head W of the torpedo, and this keeps it from rotating until the said arm is displaced. In the head back of the arm 1 is mounted a pair of tongs or nippers 3, Fig. 4, the members of which are crossed and pivotally connected at y . The

jaws 3^a of these nipper members are drawn together yieldingly by a spring 4 and under certain conditions are adapted to grasp a projecting lug 5 on the back of the arm 1, this lug having on its faces ribs 6 to facilitate the grasp of the nipper-jaws.

Pivotally mounted at z in the cap C is a weighted wedge 7, the wedge portion 7^a of which normally, as in Fig. 1, occupies a position between the arms 3^b of the nippers 3 and by wedging them apart releases the jaws 3^a from their grasp on the lug 5 of the locking-arm.

Let us suppose that a torpedo is to be expelled. Through the medium of the rod R the cap C is thrown open to the position seen in Fig. 2. The water rushes into the expulsion-tube; but the war-head W is held against rotation by the locking-arm 1, which is free from the nippers 3 when the cap is thrown open, and said arm remains in its locking position, being merely moved a little longitudinally by reason of its point of attachment x to the cap being moved upward and outward to some extent when the cap is opened. When, however, the cap is thrown open, the wedge 7 will disengage itself from the nippers 3 (see Fig. 2) by reason of its weighted part being carried over by momentum to a stop on the cap. The torpedo T is now expelled, and as it moves rapidly out of the tube, its rounded surface lifts or throws upward the arms 1, and by momentum the lug 5 thereon is made to enter between the jaws of the nippers, (seen in Fig. 2,) which hold it up and out of contact with the torpedo. After the expulsion when the cap is being closed the weighted wedge 7 falls back by gravity, engages between the arms 3^b of the nippers, and opens the jaws 3^a of the same, thus releasing the arm 1, which is permitted to assume its locking position under the influence of its spring 2. The spring will swing the arm 1 in until it is arrested by a shoulder 9 thereon engaging the cap C if there is no torpedo in the tube, and when a fresh torpedo is inserted its war-head will engage the arm, as seen in Fig. 1.

Having thus described my invention, I claim—

1. A torpedo-boat, having an expulsion-tube, a hinged outboard-cap therefor, a pivotally-mounted spring locking-arm to engage the war-head of a torpedo in the tube, nippers in the cap to grasp and uphold the said locking-arm when the latter is thrown up by the

expelled torpedo, and automatic means for opening the jaws of said nippers when the cap is closed.

2. A torpedo-boat, having an expulsion-tube, a hinged outboard-cap therefor, a pendent spring locking-arm mounted in the cap in position to engage the war-head of a torpedo in the tube, spring-nippers mounted in the cap in position to grasp and hold said locking-arm when the latter is thrown up by the expelled torpedo, and a weighted, pivotally-mounted wedge in position to automatically open the jaws of the nippers when the cap is closed.

3. A torpedo-boat, having an expulsion-tube, a hinged outboard-cap therefor, a pendent spring locking-arm hung in the cap in position to engage the war-head of a torpedo in

the tube, and provided with a ribbed lug 5, nippers 3, having two crossed members and pivotally mounted in the cap, the jaws of the nippers being in position to grasp the said lug when the locking-arm is thrown up, and the weighted wedge 7, pivotally mounted in the cap, said wedge having a wedge portion 7^a in position to engage the nipper-arms by gravity when the cap is closed and spread apart the jaws thereof.

In witness whereof I have hereunto signed my name, this 18th day of March, 1905, in the presence of two subscribing witnesses.

THOMAS J. MORIARTY.

Witnesses:

WILLIAM J. FIRTH,
HENRY G. HOSE.