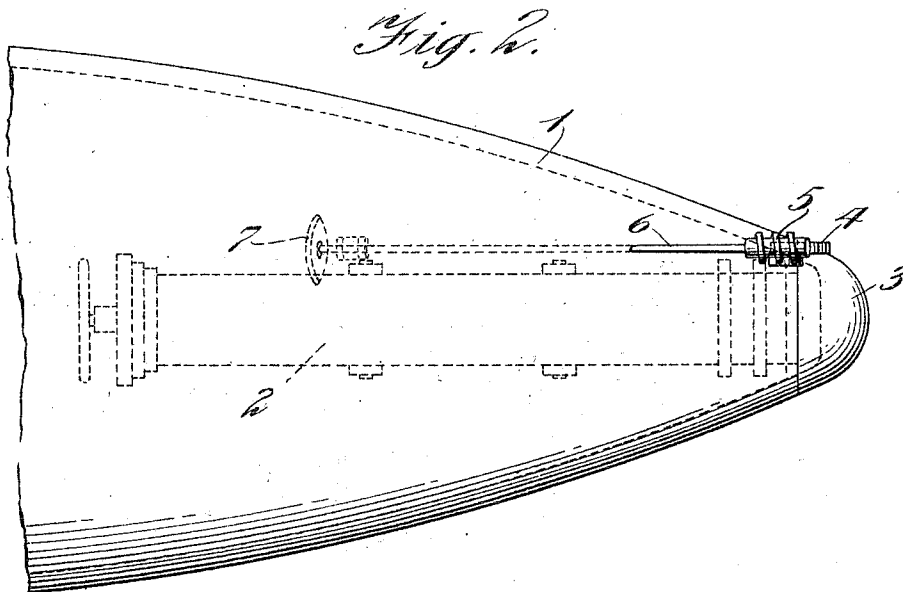
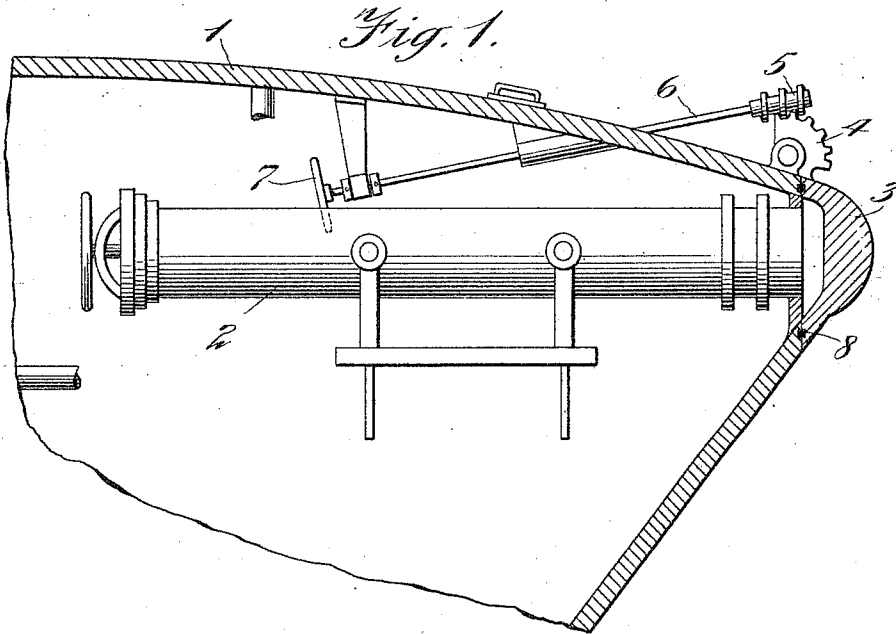


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TORPEDO TUBE CAP.
APPLICATION FILED DEC. 24, 1909.

1,006,212.

Patented Oct. 17, 1911.



WITNESSES:
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HARRY HERTZBERG AND MAURICE J. WOHL, OF BROOKLYN, NEW YORK, ASSIGNORS
TO ABBOT A. LOW, OF HORSESHOE, NEW YORK, AND MAURICE J. WOHL AND HARRY
HERTZBERG, OF BROOKLYN, NEW YORK, TRUSTEES.

TORPEDO-TUBE CAP.

1,006,212.

Specification of Letters Patent.

Patented Oct. 17, 1911.

Application filed December 24, 1909. Serial No. 534,857.

To all whom it may concern:

Be it known that we, HARRY HERTZBERG and MAURICE J. WOHL, citizens of the United States, and residents of the city of New York, borough of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Torpedo-Tube Caps, of which the following is a specification.

The subject matter of this application is the construction and arrangement of a device for opening and closing the end of a submarine vessel to provide for operating a torpedo tube.

In vessels of this type the torpedo tube is usually located at the forward end of the vessel and has its mouth filling an opening provided therefor. It is necessary to provide a cover which will close this opening from the outside when the torpedo tube is not in use and it is important that this cover be so constructed as to be readily opened or closed from the interior of the vessel.

The novel features of construction of the cover or cap and means for operating the same will be more fully described in connection with the description of the embodiment of the invention illustrated in the accompanying drawings in which similar parts of the several views have been given the same reference numerals.

Figure 1 is a sectional side elevation of a portion of the forward end of a submarine vessel. Fig. 2 is a plan view of the same.

The hull or body portion of the vessel is shown at 1, having a torpedo tube 2 of the usual constructed mounted therein with its mouth filling an opening in the forward end of the hull 1.

A cap 3 is hinged to the hull 1 in the manner shown in the drawings. When the cap 3 is closed the opening in the forward end of the hull 1 and the mouth of the torpedo tube is closed thereby against the entry of water.

Attached to the cap 3 is a segment of a worm-gear 4 meshing with a worm 5 which is mounted upon and operated by a shaft 6. The shaft 6 extends from the exterior to the interior of the vessel, as shown, and is provided at its inner end with a hand-wheel 7.

It will be understood that other suitable means for operating the shaft 6 may be provided if desired.

The cap 3 is provided with a thickened central portion which when the cap is closed is opposite the mouth of the torpedo tube 2. This thickened portion is important when the torpedo tube is located at the forward end of the vessel for the reason that, on account of its force, the cap forming the nose of the vessel would receive the full compact and shock if the vessel were driven against any obstruction.

In order to further provide for the opening the mouth of the torpedo tube being closed against the entry of water when the cap is closed, a packing ring 8 is positioned between the cap and hull of the vessel.

It will thus be seen that a simple and substantial means for closing the mouth of the torpedo tube when not in use is provided and that the device, which is necessarily located on the outside of the vessel, is readily operated from the interior thereof.

What we claim is:

In combination with a submarine vessel having an opening at one end thereof, of a torpedo tube having its mouth filling said opening, a hinged cap having a thickened central portion and provided with a gear attached thereto outside of said vessel and arranged to cover said opening and the mouth of said torpedo tube, the exterior surface of said cap being formed to conform to the exterior surface of the vessel, the said surfaces together providing a continuous uniform exterior surface for the vessel when said cap is closed, a shaft extending from the outside to the inside of said vessel and provided with a worm at the outer end thereof meshing with said gear, and a means positioned within said vessel for rotating said shaft and worm to operate said cap.

Signed at Brooklyn, N. Y. city, in the county of Kings and State of New York, this 14th day of December, 1909.

HARRY HERTZBERG.
MAURICE J. WOHL.

Witnesses:

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