UNITED STATES PATENT OFFICE.

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SUBMARINE RESCUE CRAFT.


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To all whom it may concern:

Be it known that I, ALBERT JOHN COLLINS, a subject of the King of Great Britain, and resident of the town of Amherst, in the Province of Nova Scotia, Dominion of Canada, have invented certain new and useful Improvements in Submarine Rescue Crafts, of which the following is a specification.

This invention relates to improvements in submarine rescue crafts and the objects of the invention are to provide a simple and effective device which will enable the lives of those trapped in a disabled and submerged submarine to be saved, by providing means by which they may not only rise to the surface but may progress on the surface to a safe distance.

Further objects are to provide a device of as efficient and simple character as possible, which will not interfere with the normal operation of the submarine nor occupy an undue amount of space either within or without the same.

It consists essentially of one or more water tight rescue crafts releasably held in inverted position on the deck of the submarine, having passageway to the submarine which may be closed both from within the submarine and from within the craft, together with other features always hereinafter more fully set forth and described in the accompanying specification and drawings.

In the drawings:

Figure 1 is a side elevation indicating a submarine partially submerged with the rescue craft thereon.

Fig. 2 is a side elevation indicating a submarine lying on the bottom and the rescue craft detached therefrom and floating on the surface.

Fig. 3 is a sectional elevation through one of the rescue crafts.

Fig. 4 is a plan view of one of the rescue crafts with certain of the covering plates removed.

Fig. 5 is a detail in section of one of the clamping bolts, which is also designed to serve as an oar lock.

Fig. 6 is a sectional detail through the connecting passageway or conduit between the craft and the submarine.

Fig. 7 is a sectional detail on the line y—y, Fig. 4.

Fig. 8 is a sectional detail through one of the clamping bolts for retaining the craft on the submarine.

Fig. 9 is a sectional detail on the line y—y, Fig. 8.

Fig. 10 is a sectional detail through another form of clamping bolt which may be used.

In the drawings like characters of reference indicate corresponding parts in all the figures.

Referring to the drawings, A indicates a submarine of any approved type and B the rescue craft thereon, of which two are shown in the drawings, extending forwardly and rearwardly from the conning tower C, being normally held in such position by means of suitable clamping bolts such as shown in Figs. 8, 9 and 10. In the form of bolts shown in Figs. 8 and 9, a bolt 10 is provided having a hand wheel 11, the bolt extending through a packing box 12 in the wall 13 of the craft B, the end of the bolt being T shaped or formed with a cross bar 14 adapted to pass through a slot 15 in a retaining member 16 on the deck 17 of the submarine.

It will be seen that when the cross bar 14 has been inserted and is turned across the slot 15, it will retain the rescue craft in position on the submarine.

In the alternative form of clamping member shown in Fig. 10, the bolt 18 extends through a packing box 19 and is provided with a hand wheel 20 on the inside of the craft, the outer end of the bolt being screw threaded and designed to engage a suitably threaded socket 21 on the deck 17 of the submarine. Either one or both forms of securing bolts may be used.

To enable the persons to be rescued to pass from the submarine to the rescue craft, a connecting member D is provided, tubular in shape and extending through the deck 17 of the submarine, being suitably connected thereto as by the flange 22 which is bolted to the deck. This connecting member is formed with closing means on opposite ends.

On the inner end I have shown a covered plate 23 retained in position by swing bolts 24 of usual shape and adapted to be closed from the interior of the rescue craft after the passengers have passed into the same, these bolts being normally left disconnected.

The connecting member is provided with an opening 25 which registers with an open-
ing 26 in the wall 13 of the rescue craft, the opening 25 being designed to be closed by a cover plate 27 which is suitably bolted in position, while the opening 26 may be closed by a cover plate 28 which is also suitably bolted in position.

It will be observed that the opening 25 is narrower than the opening 26, which permits the bolt securing cover plate 27 to be attached in position after the passengers have passed into the rescue craft, whereby the submarine may be closed after the passengers have left it.

Each rescue craft is preferably formed after the manner of a boat provided with a tapered bow 29 and a gunwale 30 may be provided on the deck. In it suitable compartments are provided, 31, 32, 33 and 34, designed to contain water, provisions, sails, oars and other stores.

To enable the craft to be navigated when it reaches the surface a relatively large hatchway 35 is provided therein, normally covered by a plate 36 bolted in position and releasable from the interior. In the hatchway a socket 37 may be provided for a mast or the like and a suitable guard rail or flange 38 may be provided around the edge of the hatchway to prevent splashing of surface water into the same.

In addition to the hatchway 35, I also provide openings 39 at the side of the craft B closed by suitable cover plates 40 bolted in position thereon, which may provide a place for oarsmen, seats 41 being provided below the opening. The cover plates 40 are maintained in position by suitable bolts and one of the bolts is conveniently a hand bolt 42 of the form shown in Fig. 5 and having an oval handle 43 which may serve as an oar-lock when the cover plate 40 is removed.

The forward craft B will generally extend over the torpedo hatch 44 of the submarine, and to avoid blocking this and to still enable torpedoes to be passed through the same, I may provide a passageway or conduit extending through the craft B.

Referring to Fig. 3, it will be seen that an inclined tubular member 45 is provided extending from the deck 46 to the bottom 47 and designed to register with the opening of the torpedo hatch 44. This tubular member is provided with cover plates 48 and 49 by which it may be closed at both ends, these cover plates being suitably bolted in position and being removed when it is desired to load torpedoes into the submarine.

When it is desired to use the rescue craft, the cover plate 28 being opened, the cover plate 27 is released, the cover plate 28 being previously in disengaged position. The passengers pass from the submarine into the rescue craft, closing the cover plate 28 behind them and finally clamping the cover plate 28 in position, thus completely closing the craft B. The retaining bolts 10 are then released, which will permit the rescue craft to float to the surface and assume an upright position as indicated in Fig. 2, when the cover plates 36 and 40 may be removed and the craft navigated.

As many changes could be made in the above construction and many apparently widely different embodiments of my invention, within the scope of the claims, constructed without departing from the spirit or scope thereof, it is intended that all matter contained in the accompanying specification and drawings may be interpreted as illustrative and not in a limiting sense.

What I claim as my invention is:

1. In combination with a submarine, a water tight rescue craft releasably engaged with the submarine, a connecting member between the craft and submarine adapted to permit the passage of passengers from the submarine to the craft, having means for closing the same from within the craft, the said craft having side openings for oarsmen and cover plates covering the openings.

2. In combination with a submarine, a water tight rescue craft releasably engaged with the submarine, a connecting member between the craft and submarine adapted to permit the passage of passengers from the submarine to the craft, having means for closing the same from within the craft, certain of the bolts for the cover plates being adapted to serve as oar-locks.

3. In combination with a submarine, a water tight rescue craft releasably engaged with the submarine, a connecting member between the craft and submarine adapted to permit the passage of passengers from the submarine to the craft, having means for closing the same from within the craft, the said craft having an opening with a guard rail around the same and a releasable cover plate for the opening.

4. In combination with a submarine, a water tight rescue craft releasably engaged with the submarine, a connecting member between the craft and submarine adapted to permit the passage of passengers from the submarine to the craft, having means for closing the same from within the craft, the said craft having a passageway for torpedoes through the same when in position on the submarine.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ALBERT JOHN COLLINS.

Witnesses:

ELMA SHERIDAN LIVINGSTON,
ANDREW ANDERSON McDoNALD.