

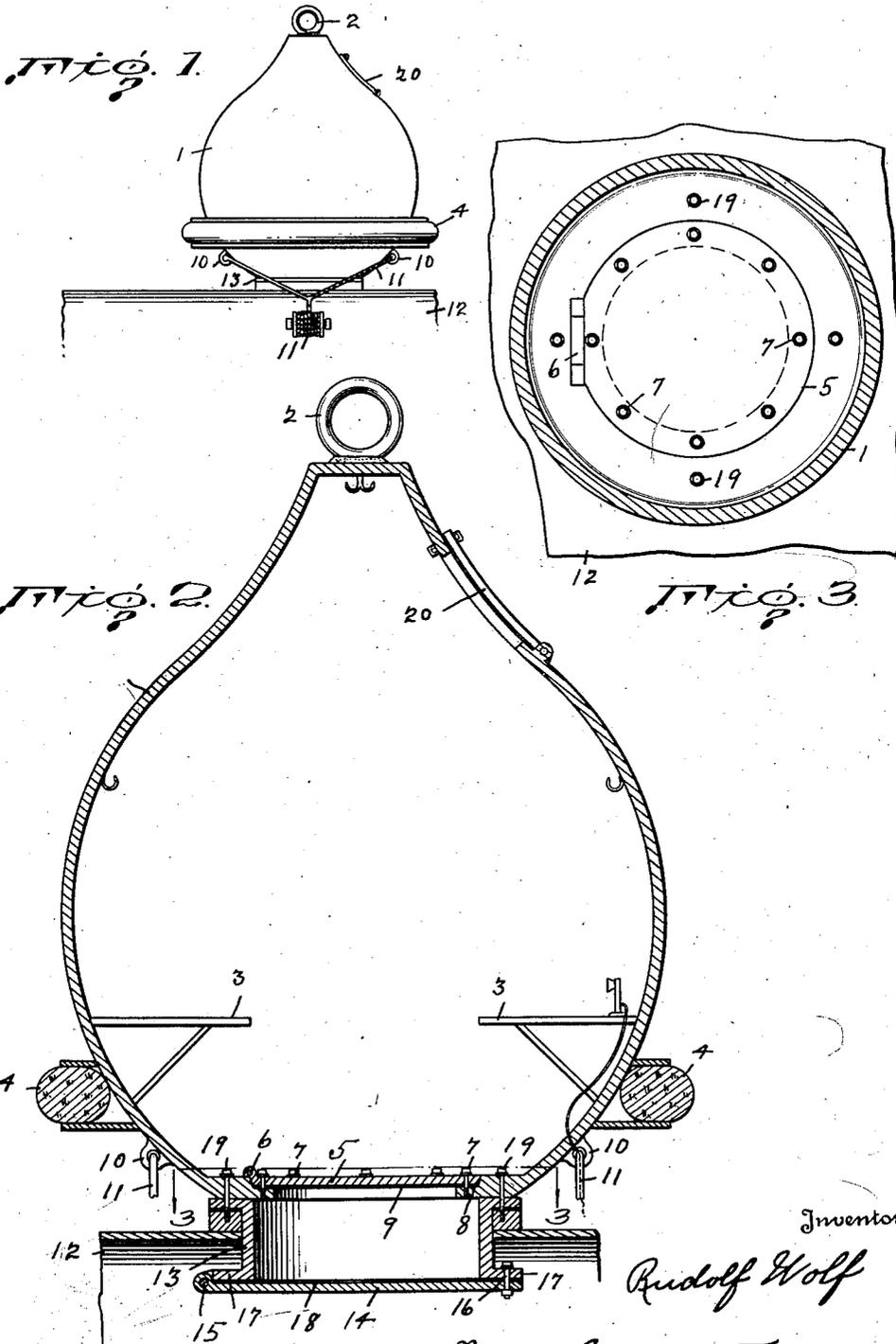
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SUBMARINE ESCAPE AND COMMUNICATION DEVICE

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## SUBMARINE ESCAPE AND COMMUNICATION DEVICE

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1 Claim. (Cl. 114—16.7)

This invention relates to a new and useful device for salvaging property and individuals from a sunken submarine. It has for its object to provide a unit that can be secured to a submarine, in such a manner that it can be released from the submarine by those entering the unit, and closed against harmful leakage, and allowed to float to the surface of the water, so the persons in it will have a good chance of being saved.

The invention consists of the novel construction and arrangement of the parts and combination of parts hereinafter more fully set forth in the following specification and pointed out in detail in the appended claim.

In the accompanying drawing:

Figure 1 is a side elevation of the invention secured to the upper portion of the shell of a submarine;

Figure 2 is an enlarged vertical section of Figure 1; and

Figure 3 is a section along the line 3—3 of Figure 2.

Referring to the accompanying drawing, forming a part of this specification indicating by way of example a form of this invention, and in which similar reference numerals designate like parts throughout the several views thereof, 1 designates the hollow body structure of an escape chamber unit having walls of pear-shaped form. The lower portion termed the bottom is partially rounded and has an opening closed by a door 5, hinged at 6, resting on a gasket 9 placed on a flange 8 formed at and around the opening and allowing a recess to be provided in which the door can closely fit within. This flange has screw-threaded holes arranged around in a circle, and aligning with holes in the door, so that bolts 7 may be threaded into same from the inside of the unit to hold the door 5 closed tightly when the unit is being detached from the submarine 12. The submarine has an escape hatch consisting of a manhole frame 13 with flanges 17, gasket 18, door 14, hinge 15 and door holding bolts 16. The bolts 19 pass through holes in the bottom of the unit and thread into the structure combined with the escape hatch. They are to be removed from the inside of the escape chamber. The bolts 7 extend through to the hatch-way so they may be accessible to and from there, should it be necessary. When the chamber is loosed from the submarine the bolts will be accessible from the outside, in case the inmates are unable to unthread them. There are several ways of removing these bolts from the

outside, such as by cutting a slot in them and using a screw driver to remove them; by burning them out with a torch, etc. A relief door 20 covers an opening in the upper wall of the unit, and is locked by a bolt. A rigid lifting ring 2 is attached to the flat upper end of the unit. Seats 3 are provided interiorly near the bottom of the chamber for the inmates to rest on. Eye members 10 are mounted on the outside of the chamber wall near the bottom for fastening a cable 11 thereto, and using a winch to wind the same up if the occasion permits. The lower portion of the chamber wall has extending external channel plates projecting horizontally from the chamber for holding a buoyant ring 4 of cork, inflated rubber or other suitable material, which extends beyond the edges of the plates and serves as a resilient bumper therefor, and also to dampen the tendency of the unit to rock as it rises and floats to the surface. The shape of the unit gives a low center of gravity to the device and tends to keep its ring end up, when it floats free from the submarine. The door and bottom are flat and serve to make that portion of the chamber convenient to the users. The seat is erected near the widest part of the unit so that the passengers sitting on same will have plenty of room and their bent legs coming towards the central axis of the chamber will not be incommoded by the walls converging to the bottom door, and will assist in balancing the chamber on the waves.

Having thus described the invention what is claimed is:

35 In combination with a submarine having an escape hatch frame formed on its external wall and having bolt holes therein, of an escape chamber unit, comprising a pear shaped hollow structure converging and tapering about its vertical axis gradually from the bottom portion thereof to an upper end flattened and restricted end portion, with the bottom formed with a horizontal closeable opening therein flanged for bolting on and around the said escape hatch to provide access to and from the interiors of the unit and submarine, bolts for removably attaching the flanged portion to the hatch operable from the interior of the unit, a door for closing the said opening hinged to bottom of the said structure and having holes therein for bolts to pass through same accessibly over the hatch frame, bolts for said last mentioned holes for securing the door tightly to the bottom of the structure and preventing leakage therethrough, a door in the side wall of the chamber near the

upper end thereof for facilitating the removal of passengers from the interior thereof when floating at sea or water level when detached from the submarine, spaced channel plates formed peripherally and externally about the structure disposed below but adjacent to the widest portion of the structure, a resilient buoyant member held to the structure by the said plates and

extending out therefrom for facilitating the floating of the unit and dampening tendencies to rock, and means inside the structure for supporting passengers therein near the bottom thereof and close the door therein, and a rigid ring in the flat upper end of the structure.

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