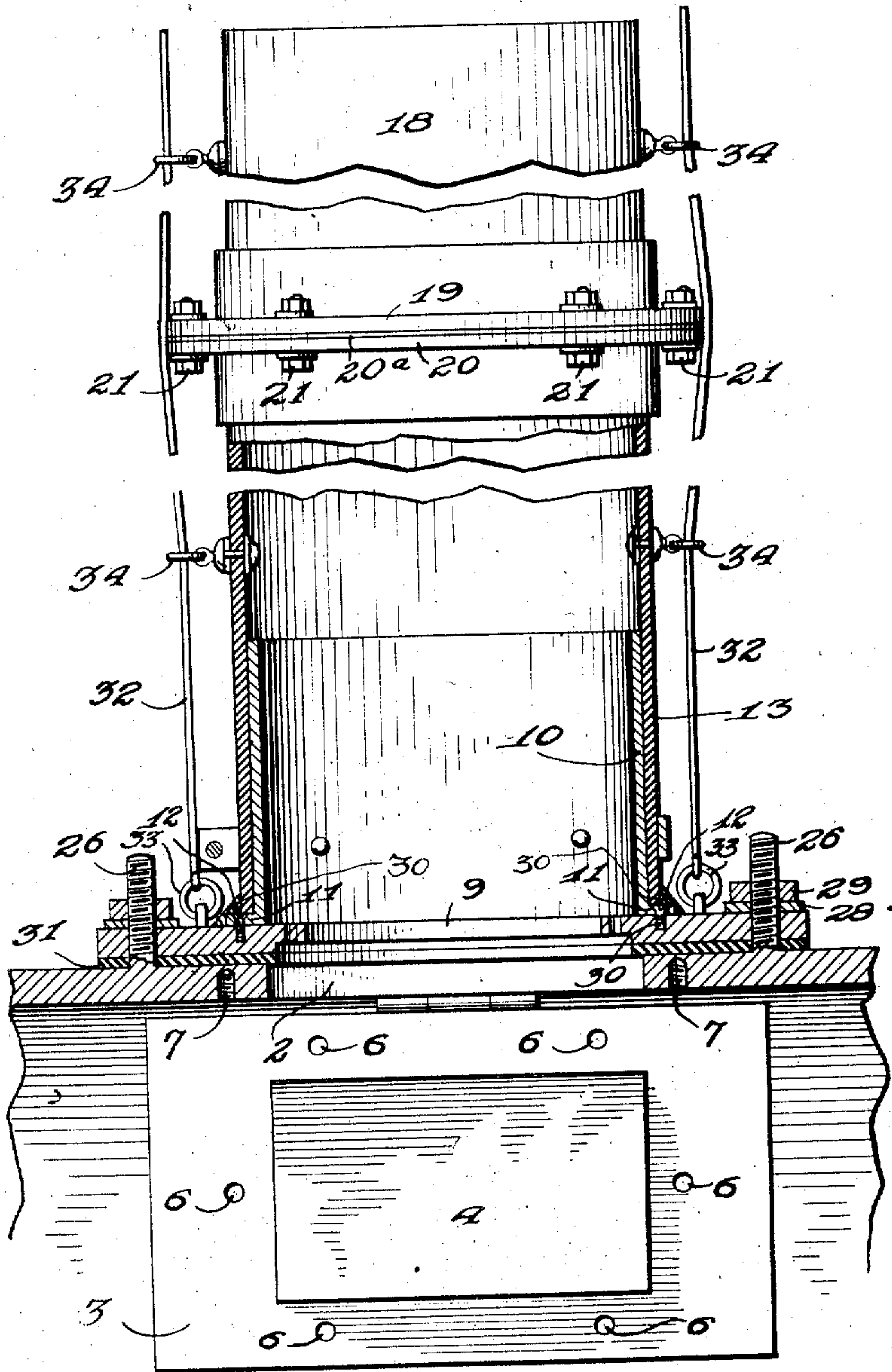


A. L. BIDEAUX.
LIFE SAVING DEVICE.
APPLICATION FILED JULY 23, 1910.

986,431.

Patented Mar. 14, 1911
2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS-SHEET 2.

Fig. 2.

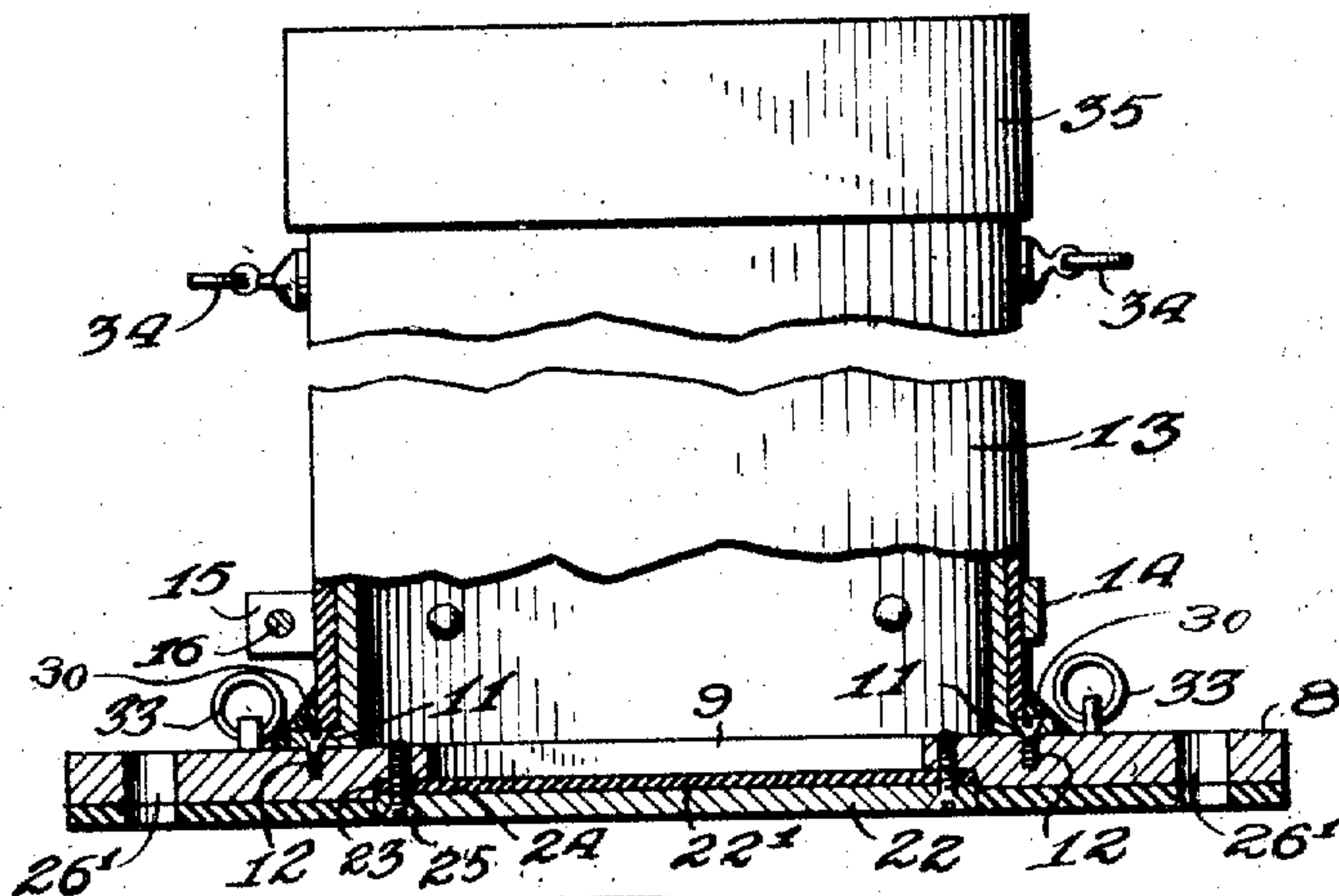


Fig. 3.

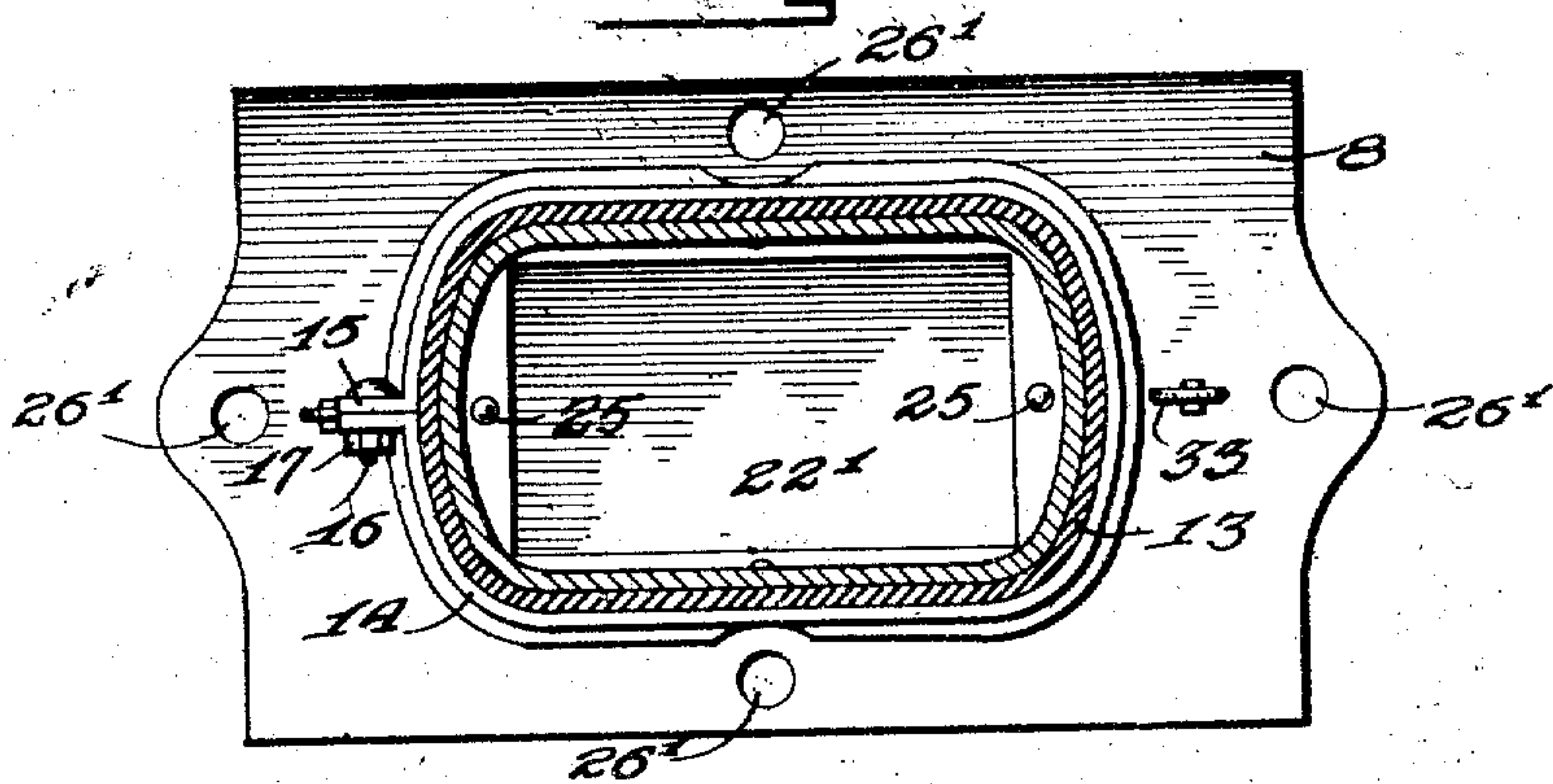
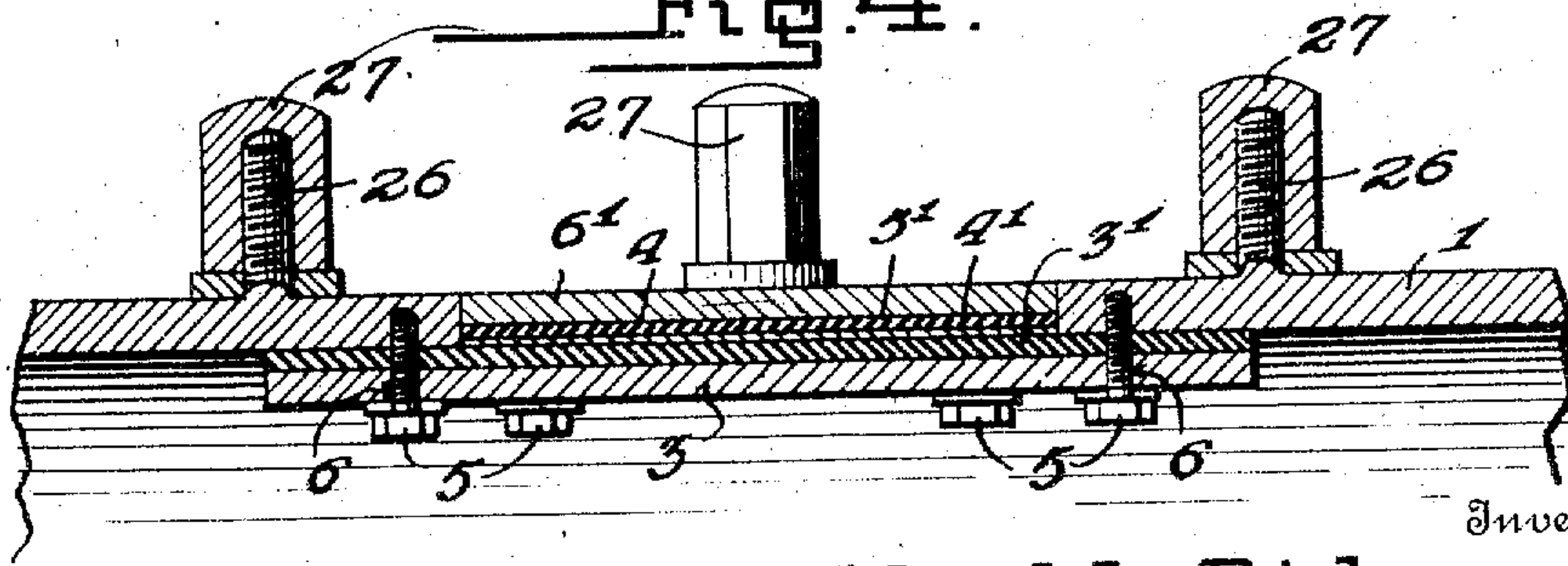


Fig. 4.



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UNITED STATES PATENT OFFICE.

ALFRED L. BIDEAUX, OF BROOKLYN, NEW YORK.

LIFE-SAVING DEVICE.

986,431.

Specification of Letters Patent.

Patented Mar. 14, 1911.

Application filed July 23, 1910. Serial No. 573,497.

To all whom it may concern:

Be it known that I, ALFRED L. BIDEAUX, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Life-Saving Devices, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to an apparatus for enabling persons imprisoned in sunken submarine vessels to be rescued.

The object of this invention is to provide an apparatus by means of which access may be had to persons imprisoned in a sunken submarine vessel and assistance given such persons and means provided for removing said persons from the sunken submarine vessel.

The invention consists of an apparatus for rescuing persons imprisoned in sunken submarine vessels and the details of construction thereof as hereinafter set forth and claimed.

Referring to the accompanying drawings:—Figure 1 is view in elevation partly in vertical section and broken away showing the apparatus, constructed in accordance with this invention, applied to a submarine vessel. Fig. 2 is a detail view in elevation, partly in longitudinal section and broken away, of a portion of the apparatus employed in accordance with this invention. Fig. 3 is a plan view, partly in horizontal section of the base portion of the device shown in Fig. 2. Fig. 4 is a detail view in longitudinal section of a portion of the apparatus employed in accordance with this invention.

Referring to the drawings 1 indicates a portion of the hull of a submarine boat provided with a man hole 2 which is adapted to be closed by a suitable cover or hatch 3. It is preferably hinged on the side of the hull of the submarine boat at one side of the opening 2 and is adapted to be swung up and close said opening.

In order to make a water tight joint with the opening 2 the hatch or cover 3 is provided with a packing 4 which fits into the

opening 2. The hatch cover 3 is fastened over the opening 2 in any suitable manner as is here shown preferably by means of screw bolts 5 which project through holes 6 in the hatch 3 and are held in threaded engagement with socket 7 in the wall of the hull of the boat. The hatch 3 overlaps the sides of the opening 2 and has on its upper surface and secured thereto in any suitable manner a water proof sheet 3' which bears against the under side of the inner wall of the hull of the submarine boat to form a water tight joint. The packing 4 is preferably composed of a thin sheet of wood 4' secured to the top of the water proof sheet 3', a sheet of water proof material 5' secured to the top of the wooden sheet 4' and a thick wooden plate 6' secured to the top of the sheet 5', the whole forming a packing which fills the opening 2 and forms a water tight joint by reason of the edges of the water proof sheet 5' bearing against the side of the opening 2, all as shown in Fig. 4. This construction, as shown in Fig. 4, remains in such position while the submarine boat is in use.

In order to have access to the persons within the submarine boat when it has sunk an apparatus is provided constructed and arranged and secured to the submarine boat as follows: 8 indicates a metallic plate preferably of oblong rectangular shape, as shown in Fig. 3, and provided with a central opening or man hole 9. Upon the plate 8 is mounted a vertical tube preferably constructed as follows: 10 indicates a vertical short section of the tube having formed at its lower end a circumferential flange 11 by means of which the tube 10 is secured to the plate 8 in any suitable manner, as for instance by means of screws 12. Extending over the vertical tube 10 is the lower end 13 of a pipe which is of considerable length and is preferably formed in sections. The pipe 13 and the tube 10 are secured together by rivets and are also clamped together by means of a metallic strap 14 extending about the pipe 13 and having ears 15 which are clamped together by means of a bolt 16 and nut 17. As heretofore stated the main

pipe should be formed of several sections and 18 indicates one of the sections partly broken away and secured to the lower section 13 of the pipe, said sections, 18 and 13, each having at their lower adjacent ends a circumferential flange 19 and 20 respectively, between which is located a water proof packing 20^a, said parts being clamped together by means of nuts and bolts 21. A pipe so formed in sections may be of any length desired in order to reach from the surface of the water to a sunken submarine vessel resting on the bottom of the ocean. The pipe may be lengthened or shortened by assembling a preferred number of sections secured together as hereinbefore explained. This structure herein before described is lowered from the deck of a battle ship or cruiser to the sunken submarine boat and secured thereto.

In order that water may not ooze up into the pipe when it is lowered, the lower end thereof is closed as follows. A hatch or plate 22 with a water proof packing 22' on the top thereof is placed over the opening 9 in the plate 8, said packing and plate or hatch 22 fitting into a shoulder 23 in the plate 8 and is secured in place in any safe manner, as for instance, by means of screws 25 extending through the plate 22, packing 22' and into the plate 8. The plate 8 is secured to the hull of the submarine in any suitable manner and as here shown preferably by means of a number of threaded bolts 26 which when the pipe is not secured to the hull of a submarine are covered by means of cap 27 secured to the same.

When it is desired to secure the pipe to a submarine, divers descend from a cruiser, remove the caps 27, and the pipe being located over the man hole 9, the bolts 26 project up through holes 26' in the plate 8 and the latter is secured firmly in place by means of washers 28 and nuts 29.

In order to make a water proof joint on the lower end of the tube 10 a water proof cement 30 or other suitable material is placed over the flange 11 and covers the screws 12. In order to form a water tight joint between the plate 8 and the hull of the submarine a water proof packing 31 is interposed between the plate 8 and the hull of the submarine and held tightly in place by means of the nuts 29 and the bolts 26.

The pipe formed in sections as herein before described may be lowered and raised by any suitable means and as here shown, preferably by means of the rods 32 secured at their lower ends to the rings 33 fastened to the plate 8 and extending up through rings 34 mounted on the sides of the sections of the pipe.

When it is desired to have access to and rescue the crew of a sunken submarine boat imprisoned therein, divers descend and attach the pipe as herein before described to the submarine over the opening 9. The divers then tap on the side of the submarine for a signal to the persons imprisoned therein and the latter then remove the bolts 5 and open the door or hatch 3, remove the screws 25 from the hatch or plate 22 and remove the latter from the opening 9. Access may then be had to the inside of the submarine and the people on the battle ship or cruiser can send food and other material to the men in the submarine and can carry on telephonic connection therewith if desired. It will be seen that the pipe extending from the submarine above the surface of the water brings air to the persons down in the submarine.

The pipe can be of any suitable size and if desired of sufficient diameter to enable men to be drawn up through the same to the deck of the battle ship. The top of the pipe is provided with a detachable cover 35 which may be employed in putting the pipe into place so that in case it slips water can not enter same. Of course, when communication has been made with the inside of the submarine the cover 35 is removed.

It will be seen that by means of this apparatus a water tight closure is provided for submarine boats which may be readily unfastened, and also, a water proof pipe is provided which is adapted to be securely fastened to the submarine and permit of communication being made with the persons imprisoned therein.

Having described the invention I claim:—

1. In an apparatus of the character described, a submarine boat having a man hole, a hatch detachably secured on the under side of said man hole and having a water proof packing filling said man hole, a water proof packing with a central opening surrounding said man hole and located on the outer side of said submarine boat, a plate extending over said waterproof packing and having a central man hole communicating with the manhole of the submarine boat, a hatch with a water proof packing covering said man hole in said plate and detachably secured on the under side thereof, means for detachably securing the plate located on the outside of said submarine boat and a vertical stand pipe formed in detachable sections and secured to said plate and communicating with said man hole.

2. In an apparatus of the character described, a stand pipe formed in sections, a short tube having an external annular flange at its lower end, said tube fitting within the lower end of said stand pipe and having

its flange bearing against the lower end of said stand pipe, a plate having a man-hole located at the lower end of said short tube, said plate extending beyond the annular
5 flange of said short tube and detachably secured thereto, and provided with means for securing it to the hull of a torpedo boat, hoisting means connected to said plate, and attached to the sides of said stand pipe, and

a detachable hatch extending over and seated in the man-hole of said plate.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

ALFRED L. BIDEAUX.

Witnesses:

BENJ. T. HOCK,

JOHN G. AUVERIN.