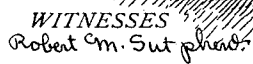


LIFE PRESERVER.

Patented Oct. 29, 1912.

~~2 SHEETS-SHEET 1.~~



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LIFE PRESERVER.

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1,042,894.

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2 SHEETS-SHEET 2.

Fig. 3

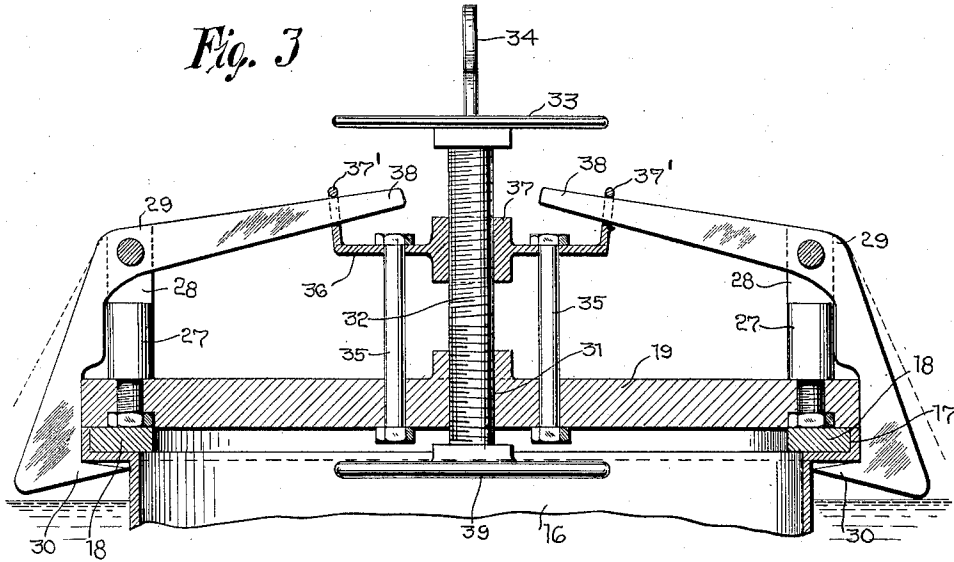


Fig. 4

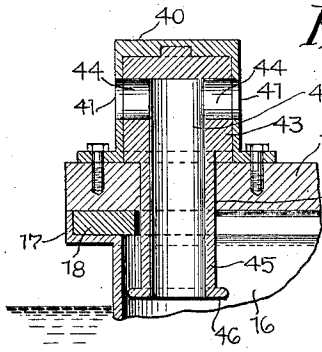


Fig. 7

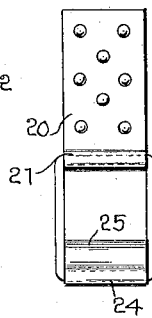


Fig. 5

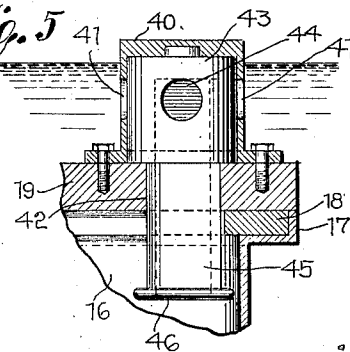
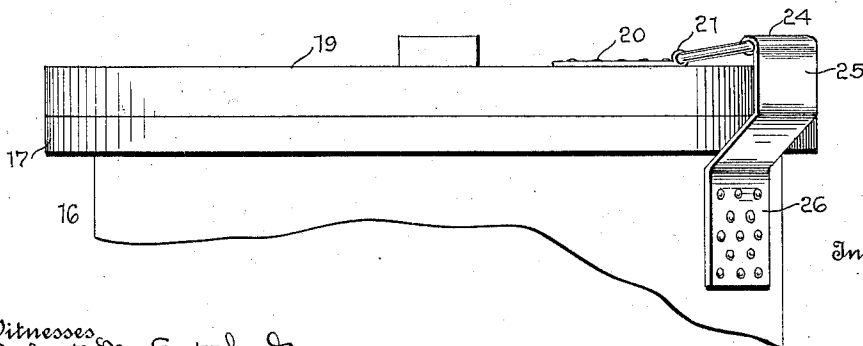


Fig. 6



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LIFE-PRESERVER.

1,042,894.

Specification of Letters Patent.

Patented Oct. 29, 1912.

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To all whom it may concern:

Be it known that we, ABNER D. CRULL and LEONARD SPANGLER, citizens of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Life-Preservers, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to life saving devices, and the principal object of the same is to provide a buoyant receptacle that can be carried by vessels and form a refuge for passengers and crew in the event of the vessel being wrecked, said receptacle being provided with a novel closure which can be released from within or without the receptacle, said closure being provided with novel ventilating means, and the receptacle being provided with a light port.

A preferred and practical embodiment of the invention is shown in the accompanying drawings, wherein:—

Figure 1 is a perspective view of the improved life saving device. Fig. 2 is a vertical sectional view thereof, the closure being shown in elevation. Fig. 3 is a vertical sectional view of the closure for the life saving device. Figs. 4 and 5 are detail vertical sectional views showing the ventilators. Fig. 6 is a fragmentary view in elevation showing the manner of hinging the closure to the body of the receptacle, the locking means and ventilating means being omitted. Fig. 7 is a detail view in plan of the hinge shown in Fig. 6. Fig. 8 is an enlarged detail view in vertical section of a portion of the top of the receptacle and a modified form of ventilator mounted therein.

The improved life saving device comprises an outer metallic receptacle 10 having a conical neck 11 provided with a collar flange 12 and an inner metallic receptacle 13 that is retained in spaced relation to the outer receptacle by the interposed bottom and side packings 14 and 15, such as cork, or other buoyant material. The neck 16 of receptacle 13 projects through and is fastened to collar flange 12 said neck terminating in an outwardly projecting flanged seat 17 for a gasket 18.

A cover or closure 19 is seated on gasket 18 and has a flat strap 20 fastened thereon that has an end ear 21 in which a link 22 is pivotally mounted. Link 22 in turn en-

gages an end ear 24 in the upstanding angular free end 25 of a strap 26 that is carried by neck 16. The cover 19 is provided with regularly spaced upstanding lugs 27 at its outer edge, the upper ends of which are bifurcated to provide pivot ears 28. Angular locking levers 29 are pivotally connected to ears 28 and their lower ends are provided with lips 30 that engage under the seat 17 of neck 16 to lock the cover to said neck. The cover 19 is provided with a threaded central opening 31 through which an externally threaded shaft 32 projects. Shaft 32 has a hand wheel 33 at its upper end from which a handle 34 projects for lifting the cover. Vertical supporting bars 35 are centrally disposed on cover 19 and support the disk 36 which has a threaded hub 37 mounted on shaft 32. Disk 36 is prevented from rotating by bars 35, but is free to slide on said bars. Disk 36 has regularly spaced upstanding loops 37' at its outer edge through which the free upper ends 38 of locking levers 29 project so that by rotating shaft 32 in one direction, said disk will rock levers 29 to engagement with the seat 17, and by rotating said shaft in an opposite direction, the said levers will be released from said seat. The lower end of the shaft 32 projects into neck 16 and is equipped with a hand wheel 39 by means of which said shaft can be operated from within the device.

Ventilating casings 40 are carried by cover 19 and have oppositely disposed openings 41. The casings 40 are arranged over openings 42 formed through cover 19. A valve 43 is rotated in each casing 40 and is provided with horizontal ports 44 adapted to be placed in communication with the openings 41 of said casing. Said valves have hollow tubular stems 45 that project through openings 42 and terminate in outwardly projecting flanges 46 that form hand grips by means of which the valves can be rotated from within the receptacle. The stems are preferably integral with the valves and are in direct communication with the central ports 47 thereof. This type of ventilators permits the occupants to have control of the admission of air to the device, as will be readily apparent. The neck 16 is provided with one or more ports 48 which may be sealed by the windows 49. Said ports supply light to the device and also permit the

occupants to make observations. The inner receptacle is preferably lined with soft material 50.

It will be understood from the foregoing that this invention provides a life saving device that can be readily dropped from a vessel, and in which the occupants have complete control of the opening and closing of the cover and also complete control of the ventilating means.

In lieu of the ventilators hereinbefore described a modified form of ventilator may be employed such as is shown in Fig. 8 which consists of a vertical pipe 51 having a hook shaped upper end 52 with its open depending end 53 located a short distance above the cover 19 of the receptacle. The ventilator pipe 51 is secured in the cover 19 in any suitable manner, and, as here shown, preferably by means of a screw threaded end 54 which is screwed into an externally and internally threaded ring 55 mounted in an opening in the cover 19. Located in alinement with the pipe 51 and the opening into which said pipe is detachably mounted is a valve casing 56 having at its upper end a threaded tubular projection 57 which is screwed into engagement with the threaded end 55, the valve casing 56 having a passage way 57 in alinement with the passage way in the pipe 51 and the passage way in the tubular projection 58 depending from the valve casing 56. Mounted in the valve casing 56 is a rotary valve 59 having a valve opening 60 opening into the passage way in the valve casing, said valve 59 being provided with a handle 61.

It will be seen that by means of this form of ventilator, water will be less liable to be thrown through the ventilator into the receptacle by the action of the waves on the cover 19, and when desired can be quickly closed by the valve 59.

What we claim as our invention is:—

1. A life saving device comprising a buoyant receptacle provided with a neck, an out-

standing flanged seat externally surrounding said neck, a gasket in said seat, a cover hinged to said neck, locking levers pivotally connected to said cover and having lips for engaging said seat, a shaft extending through said cover, a hand wheel carried by the inner end of said shaft, means on said shaft and movable by rotating said shaft to engage the locking levers with or disengage the same from said seat, and ventilating means carried by said cover.

2. A life saving device comprising a buoyant receptacle, a cover hinged thereto and provided with openings, ventilating casings carried by said cover and arranged over said openings, said casings being provided with openings, valves rotated in said casings and provided with ports adapted to be alined with the openings in said casings, hollow stems for said valves communicating with the ports therein and extending through the openings of the cover into said receptacle, and means for locking the cover to the receptacle.

3. A life saving apparatus comprising a buoyant receptacle, a cover hinged thereto and provided with a threaded central opening, a threaded shaft engaging said opening, means carried by the outer end of said shaft for rotating the same, means carried by the inner end of the shaft for rotating the same, a disk having a threaded opening engaging the exterior portion of said shaft, bars carried by the cover and slidably engaged by said disk to prevent rotary movement of the disk, locking means operated by said disk and carried by the cover for engaging said receptacle, and ventilating means for said receptacle.

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

ABNER D. CRULL.
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Witnesses:

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