May 19, 1925. 1,538,484

S. H. HAHN ET AL

LIFE BELT

Filed Nov. 8, 1924

Fig. 1.

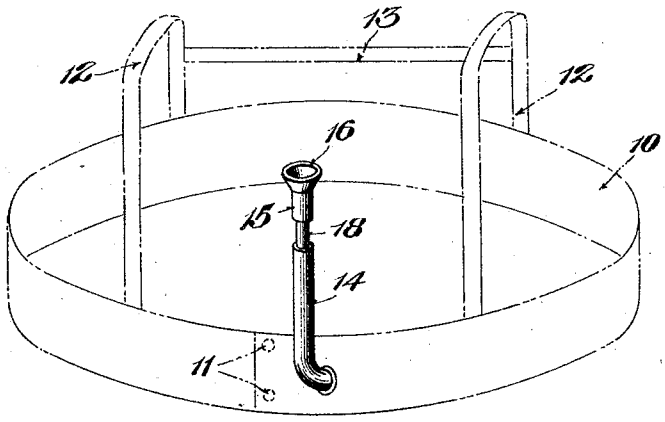


Fig. 2.

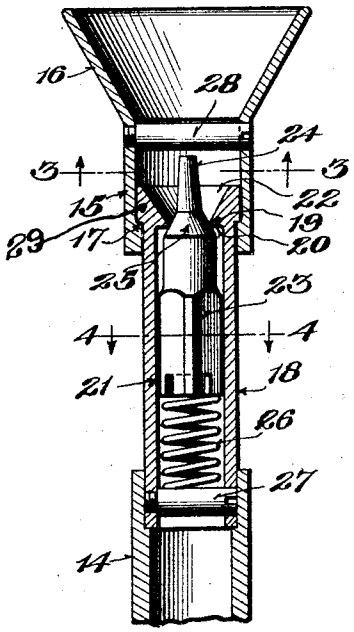


Fig. 3.

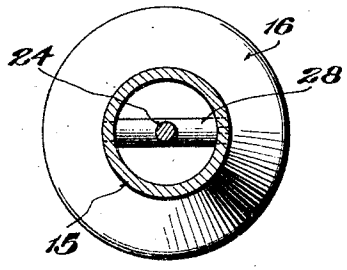
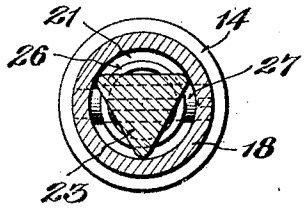


Fig. 4.



Inventors
Samuel H. Hahn,
and Fred Morse,
By Guy E. Hall
Attorney

Witness:-
Chas. L. Griesbauer

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UNITED STATES PATENT OFFICE.

SAMUEL H. HAHN AND FRED MORSE, OF NEW HAVEN, CONNECTICUT.

LIFE BELT.

Application filed November 8, 1924. Serial No. 748,756.

To all whom it may concern:

Be it known that we, SAMUEL H. HAHN and FRED MORSE, citizens of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Life Belts, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to a new and improved life belt of the type that is normally deflated and generally inflated after being attached to the body.

It is the object of our invention, among other things, to provide a device of this character that may be readily inflated under conditions of stress with the minimum labor and knowledge of the structure and operation of the belt, and which will not become disarranged in its parts or leak when not in use even under the most adverse conditions.

The improvements in the details and arrangement of parts will be apparent from an inspection of the accompanying drawings in connection with the description hereinafter contained, wherein a preferred embodiment of the invention is disclosed for the purpose of imparting an understanding of the same.

In the drawings;

Figure 1 is a perspective view of a life belt constructed in accordance with our invention;

Figure 2 is a transverse sectional elevation of the valve mechanism;

Figure 3 is a transverse sectional view thereof, taken generally upon line 3—3 of Figure 2; and

Figure 4 is a transverse sectional view thereof, taken generally upon line 4—4 of Figure 2.

Having more particular reference to the drawings, in connection with which like characters of reference indicate corresponding parts; 10 designates the life belt, which is of conventional form, the ends being secured together by buttons 11 or other fastening means, and having suitable straps 12 to support the belt upon the shoulder, which are joined by the band 13. This belt constitutes no part of the present invention which may be adapted equally as well to any other type or form of life belt.

Our invention relates more particularly to the means whereby the belt may be inflated either before or after being placed on the body, although it is usual to inflate the same after being positioned. This inflation may take place even though the wearer is in the water.

The invention consists essentially of a body portion 18 having a chamber 21 therein connected with the belt 10 by the tube 14 and terminating at its upper end in a shoulder 20, from which there is continued an outwardly flaring port 22, the juncture between this port and shoulder forming a suitable valve seat 19. Movable endwise upon this body portion 18 is a mouth piece 15 having a shoulder 17 thereon, which engages a shoulder upon the underside of the head 29 on the body 18 and thus limits its outward movement. This mouth piece terminates at one end in an outwardly flaring throat portion 16 and has a threadably secured pin 28 that extends across the opening therethrough.

Movably mounted within the bore of the body member is a valve 23 having a conical portion 25 near one end, and a tip 24 adjacent thereto. The opposite end is substantially angular in cross section, as shown in Figure 4, so as to provide ample means for the passage of air through the chamber 21. This valve is normally held with the conical portion 25 against the seat 19 by a spring 26, which engages the transverse pin 27 secured in the body 18.

In operation, after the belt is positioned, the wearer places the large end of the throat portion 16 against his lips and the pressure thereon moves the mouth piece 15 parallel with the axis of the body 18. During this movement the pin 28 engages the tip 24 and moves the valve 23 longitudinally within the body 18 against the tension of the spring 26 and the conical portion 25 thereof away from the seat 19 permitting air to pass through the chamber 21 and tube 14 into the belt 10. After the life belt has been inflated, the pressure of the spring 26 returns the valve 23, and the conical portion 25 thereon again engages its seat 19, thus automatically sealing the life belt against escape of air therefrom.

Having described our invention, what we claim as new and desire to secure by Letters Patent, is:—

1. Mechanism of the class described, comprising a body member having a valve seat near one end thereof, a valve within the

body member, yielding means for moving the valve upon its seat; and a mouth piece slidably connected with the body member having a part connected therewith which during its movement in one direction engages the valve and moves it off its seat.

2. In mechanism of the class described; a body member having a chamber therein, which terminates at one end in a valve seat; a part fixed in the body member and projecting into the chamber; a valve within the body member; a flexible element between said part and valve for normally holding the same upon its seat; a mouth piece slidably connected with the body member; and a part fixed in the mouth piece in line with the valve, whereby the same will be engaged thereby and moved off its seat by the relative movement of the mouth piece.

3. In mechanism of the character described; a body member having a head portion at one end and a chamber therein, which terminates in a valve seat; a valve movably mounted within the chamber and having a part thereon that engages the valve seat and closes the opening therethrough; a pin connected with and projecting across the chamber; a yielding member between the valve and pin, which normally exerts its tension so as to hold the valve on its seat; a mouth piece slidably mounted upon the body member having an inwardly turned shoulder thereon which engages a shoulder upon the head of the body member and thereby limits the movement of the mouth piece in one direction; and a pin fixed in the mouth piece and projecting across the opening therethrough in line with the valve, whereby it will engage and move the valve when the mouth piece has movement in one direction relatively to the body member.

In testimony whereof we have hereunto affixed our signatures.

SAMUEL H. HAHN.
FRED MORSE.