M. HEATH.

LIFE BELT.

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1,425,475.

Patented Aug. 8, 1922.

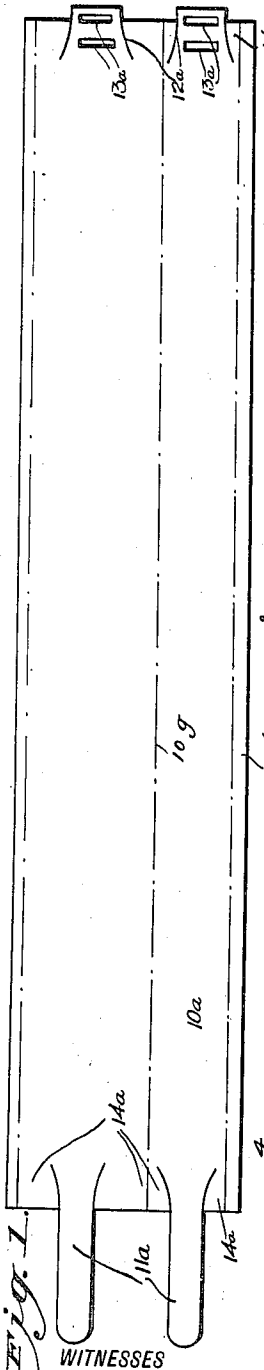


Fig. 1.

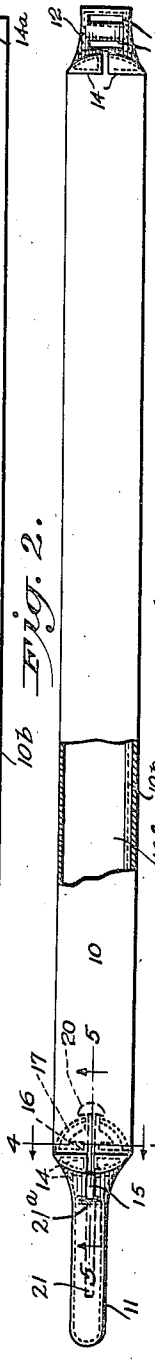


Fig. 2.

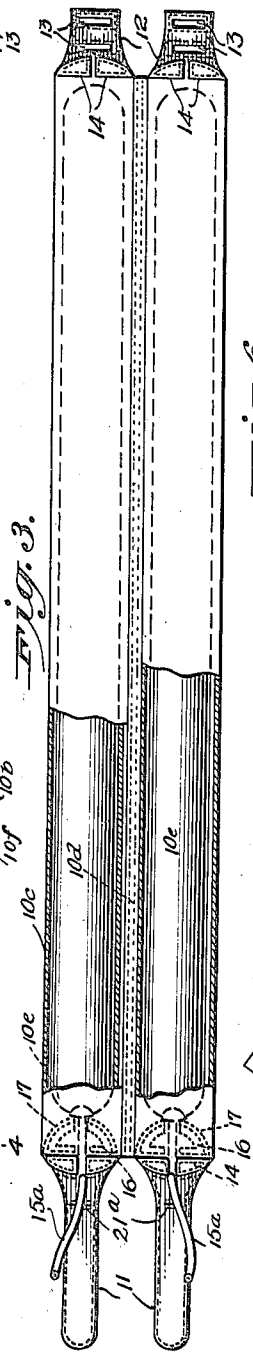


Fig. 3.

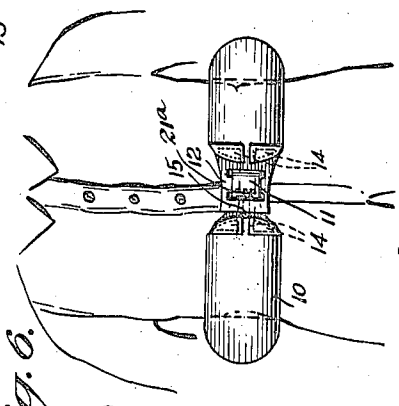


Fig. 6.

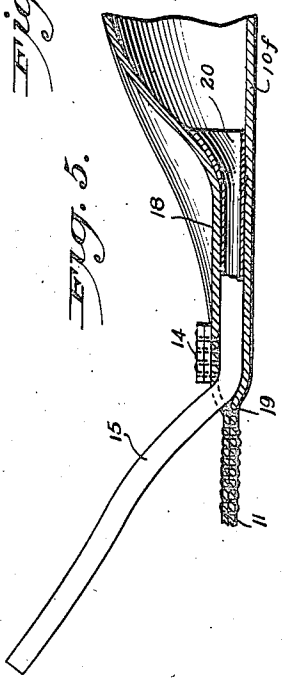


Fig. 5.

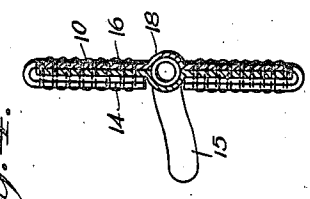


Fig. 4.

WITNESSES

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LIFE BELT.

1,425,475. Specification of Letters Patent. Patented Aug. 8, 1922.

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To all whom it may concern:

Be it known that I, MARY HEATH, a citizen of the United States, and a resident of Yonkers, in the county of Westchester and State of New York, have invented a new and Improved Life Belt, of which the following is a description.

My invention relates to life belts adapted to be secured about the waist of the user to be worn on shipboard for example, or on other occasions where life belts are required or deemed a wise precaution, such belts being used also in swimming.

The invention more particularly relates to pneumatic or inflatable life belts and has for its general object to provide a belt improved in various particulars more especially with respect to the forming of the belt in a simple manner to give strength and durability as well as to provide a novel arrangement of inflating tube with a view of incorporating the same in the belt in a manner to insure that said tube will not be accidentally compressed and closed against the ready entrance of air when it is desired to inflate the belt.

Reference is to be had to the accompanying drawings forming a part of this specification, it being understood that the drawings are merely illustrative of practical examples of the invention.

Figure 1 is a plan view of a blank for forming a single inflatable belt;

Figure 2 is a front elevation of the completed belt, part being broken out;

Figure 3 is a similar view of a double inflatable belt;

Figure 4 is an enlarged cross section on the line 4—4, Figure 2;

Figure 5 is an enlarged longitudinal section on the line 5—5, Figure 2;

Figure 6 is a front elevation of the belt inflated showing the same in use.

The single belt is formed from a blank as shown in Figure 1 which consists generally of an oblong strip 10^a of water and airproof material. The blank is produced at one end with elongated strap or billet elements 11^a, respectively at the sides of the medial line, so that when the strip is folded on the line 10^c and finished it will form the inflatable belt body 10, while the elements 11^a will lie one against the other to be joined into a billet 11. At the opposite end the blank is produced with tab elements 12^a corresponding in position with the elements 11^a, said tabs having each a pair of transverse holes 13^a. With the folding of the blank on the line 10^c and the finishing thereof including the forming of the seams by use of cement in the usual manner, the tab elements 12^a will lie against each other to form a tab 12 in the finished belt, the transverse openings 13^a of the respective elements 12^a registering to produce the billet openings 13 for fastening the belt about the body as in Figure 6.

At the bases of the elements 11^a, 12^a the blank is produced with curved cuts to thereby present corners 14^a at opposite sides of the respective elements and in the forming and finishing of the belt the corner elements 14^a are turned over onto the body of the belt so as to produce reinforcing members 14 at the bases of the billets 11 and tabs 12. In practice, advantageously, the opposed side edges 10^b of the blank are turned over and brought together to be secured by cementing and other processes practiced in the art and the opposed surfaces of the elements 11, 12 are similarly secured by cementing or the like. Stitching is employed in addition to cementing and vulcanizing for securing the elements forming the billet 11, and tabs 12, as well as for uniting the reinforce members 14 to the body of the belt by cementing in accordance with the usual practice of uniting portions of waterproof articles.

The numeral 15 indicates the inflating tube which in practice is made of rubber. At the ends of the belt adjacent to the members 14 transverse stitching 16 is resorted to for reinforcing the belt as well as crescentic rows of stitching 17, the stitching however not meeting at the center but terminating short of the folding line. Between the stitching 16, 17 at opposite sides of the folding line there is produced in the body of the belt, a tubular casing 18. The casing 18 extends outwardly beyond the members 14 and has a lateral opening 19 through which the inflating tube 15 passes at the base of the billet 11, the thicknesses of the material at the billets 11 and reinforced members 14 adjacent to the hole 19 preserving the belt intact at this region to maintain the tube 15 always in position by preventing rupture of the belt adjacent to said tube. At the inner end of the tube the same is

formed with a securing flange 20 which is vulcanized to the body of the belt at the interior.

In the manufacture of the belt the end having the billet 11 is finished first, the opposite end being left open for the subsequent finishing of the tabs 12 and reinforcing members 14 and to incorporate the tube 15 in the belt, said tube is passed into said open end and through the casing 18, the free end of the tube protruding through the opening 19 a sufficient length for convenient inflation, it being understood in practice that the known expedients usually practiced for closing the tube 15, such as bending and tying the same may be employed to retain the air in the belt when inflated. The tube 15 having been positioned, the flange 20 will lie against the sides of the belt at the interior adjacent to the inner end of the casing 18 and will be cemented and vulcanized to the belt body to thereby prevent the possibility of the tube being pulled from the belt.

In Figure 3 a double inflatable belt is shown in which two longitudinal inflatable compartments 10^c are provided, separated by longitudinal partition or joint 10^d. I may employ as shown in the double inflatable compartments of Figure 3 separate inflatable inner tubes 10^e each provided with an inflating tube 15^a corresponding with inflating tube 15. Aside from the employment of the inner tubes 10^e, the construction of the double belt in Figure 3 is the same as Figures 2, 4 and 5; hence in Figure 3 the parts which correspond with those of Figure 2 bear like reference numbers.

To house and protect the projecting end of the inflating tube 15 or 15^a the belt is made with a pocket 21, the character 21^a indicating the entrance to said pocket. The arrangement is such that the projecting end of the tube may be entered into the pocket 21 or said tube readily withdrawn, when required, for the inflation of the belt.

I would state in conclusion that while the illustrated examples constitute practical embodiments of my invention, I do not limit myself strictly to the mechanical details herein illustrated, since manifestly the same can be considerably varied without departure from the spirit of the invention as defined in the appended claims.

Having thus described my invention, I claim:

1. As a new article of manufacture, a belt of the class described including an inflatable body, an inflating tube on the body adjacent to an end thereof, the tube projecting beyond the end of said body, a billet at that end of the body adjacent to the inflating tube and presenting a longitudinally disposed pocket for receiving said tube, and a coacting member on the body at the opposite end from the billet to engage the latter for fastening the belt about the wearer.

2. As a new article of manufacture, a belt of the class comprising an inflatable body, a billet on said body at one end, and a tab on the body at the opposite end adapted to engage said billet, the sides of said body adjacent to an end thereof being formed into an internal longitudinal housing having an opening leading from one end thereof to the exterior of the belt; together with an inflating tube disposed in said housing and extending through said opening, the inner end of said tube having a flange thereof secured to the sides of the body, there being external turned-over integral reinforcing members on the body at opposite sides of said housing and tube, and said sides of the body being secured together at opposite sides of the housing inward from said reinforce members.

3. As a new article of manufacture, a belt of the class described including an inflatable body having coacting means at the ends for securing the same in position, the sides of the body being formed into an internal housing disposed longitudinally at one end and having an opening leading to the exterior of the belt, and an inflating tube extending from the exterior of the belt through said housing to the interior of the belt, there being a flange on said tube at the inner end secured to the body.

MARY HEATH.