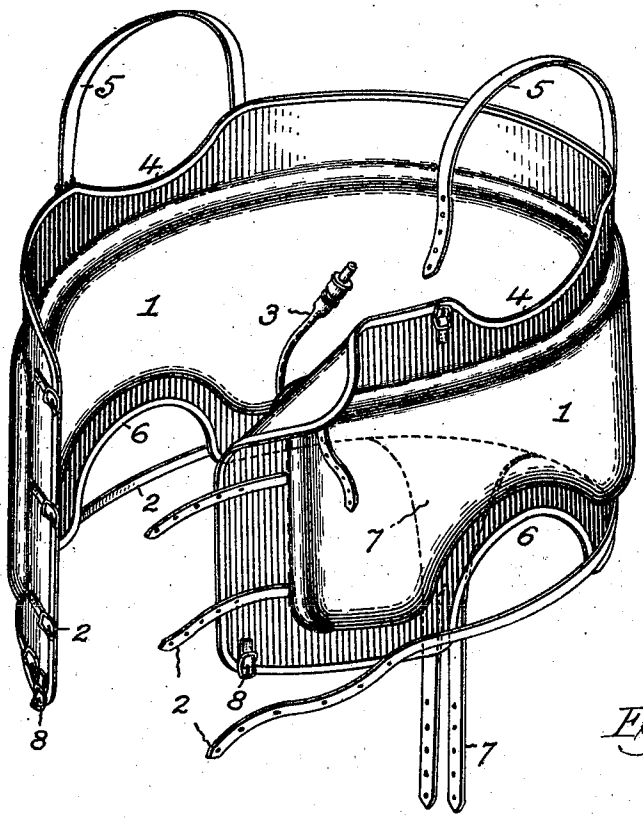
Feb. 20, 1923. 1,446,099.

H. MARKS.

LIFE SAVING BELT AND THE LIKE.

FILED JAN. 17, 1922.

Fig. 1.



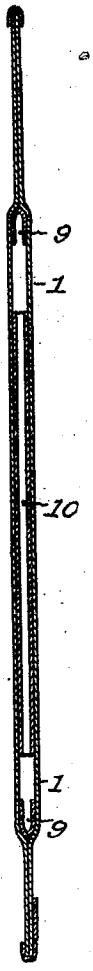


Fig. 2.

Fig. 3.

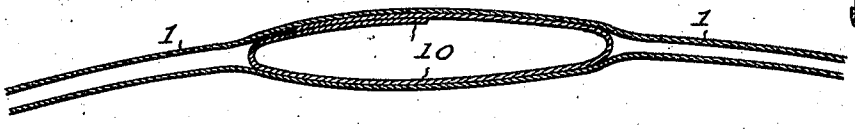
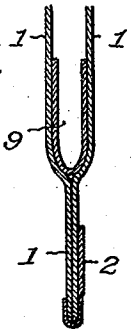


Fig. 4.



Witness:
John Enders

Inventor:
Henry Marks,
by Robert Burns.
Atty.

Patented Feb. 20, 1923. 1,446,099

UNITED STATES PATENT OFFICE.

HENRY MARKS, OF CHICAGO, ILLINOIS.

LIFE-SAVING BELT AND THE LIKE.

Application filed January 17, 1922. Serial No. 529,857.

To all whom it may concern:

Be it known that I, HENRY MARKS, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Life-Saving Belts and the like, of which the following is a specification.

This invention relates to inflatable belts or like articles adapted for application around the body of a person to afford the required buoyancy in swimming exercises or for life saving uses, and the present improvements have for their objects:—

To provide a structural formation and a combination of parts whereby the sheets of fabric forming the life belt or garment are secured together at their margins and are stayed together at such margins so as to effectively resist the heavy tearing strains to which the connections are exposed in actual use.

To provide a simple and effective formation of parts whereby freedom to flexure of the body of the wearer in lateral directions is permitted in connection with ample buoyancy in the appliance and its secure attachment in place.

To provide means whereby the sheets of fabric forming the main portion of the appliance are connected together intermediate their extent, to prevent undue separation or swelling of the central portions of the appliance and at the same time permit of the entire inflation of the appliance through a single inflating means.

In the accompanying drawing:—

Fig. 1, is a perspective view illustrating the general arrangement of parts in the preferred form of the invention.

Fig. 2, is a vertical section through the central rear portion of the appliance.

Fig. 3, is an enlarged detail horizontal section of said portion of the appliance.

Fig. 4, is an enlarged detail section of a border portion of the appliance and showing the present means of staying the sheets of fabric together at their margins.

Like reference numerals indicate like parts in the different views.

Referring to the drawing, 1 designates the main body of the life belt or garment, which in its open condition is of an elongated form, with its respective ends provided with fastening straps and buckles 2 or like fastening means as usual in the present type of appliances, and by which the appliance in an encircling condition around the chest and abdomen of the user is securely held in place.

The main body 1 is formed of two sheets or layers of rubberized fabric or the like, secured together at their borders or margins in manner hereinafter described, to provide an air cavity in the central and main portion of the body 1, which when inflated with air through an inflation tube 3 affords the buoyancy required in actual use.

In the preferred form of the appliance shown, the upper border portion of the body 1 is formed with curved gaps or recesses 4 adapted to permit freedom of movement of the arms of the user, and at such points straps and buckles 5 are provided, and pass over the shoulders of the user to prevent any tendency to downward displacement of the appliance in actual use. The lower border portion of the body 1 is in like manner cut away to form gaps or recesses 6 adapted to permit free lateral hip and like movements of the user's body, and in the present improvement the lower strap 2 heretofore described is arranged to span the lower portions of said gaps or recesses 6 to prevent undue spreading of the appliance at such points.

7 designates a duplex strap attached to the lower border portion of the appliance, and at the rear portion thereof. Said strap is adapted to extend between the legs of the user, and has branched forward ends or straps adapted for engagement with buckles 8 at the forward and lower corners of the main body 1, to constitute a crotch brace and prevent any tendency to an upward shift of the appliance in actual use.

The border seam or connection between the counterpart fabric sheets of the main body 1, in the present improvement is formed as follows:—

9 designates a folded stay strip of fabric inserted at a point removed from the border edges of the sheets constituting the main body 1, with the inner surfaces of said sheets cemented to the outer surfaces of the folds of the stay strip 9, and with the contacting border portions outside the stay strip 9 cemented together as illustrated more particularly in Figs. 2 and 4. With the described construction the border connection of the main body 1 is attained in a ready and sub-

stantial manner, adapted to resist sudden and violent internal stresses met with in actual use.

10 designates one or more flat tubular stays formed of fabric, and which are cemented to the inner faces of the sheets constituting the main body 1, with a view to hold said sheets from undue separation when the appliance is fully inflated and in actual use. In their preferred form the tubular stays 10 are made of a less height than the height of the air cavity of the appliance, in order that air may enter the tubular cavity of the stay 10 from either end, and so that the main air containing chamber of the appliance may be continuous throughout and capable of inflation by a single inflating means.

Having thus fully described my invention what I claim as new and desire to secure by Letters Patent, is:—

1. In an inflatable life belt and the like, the combination of inner and outer sheets of air tight fabric, a folded stay strip of fabric arranged between the border portions of said sheets with the inner surfaces of said sheets cemented to the outer faces of the folds of the stay strip, and a tubular stay of fabric arranged intermediate the width of the belt and cemented to the inner surface of the inner and outer sheets aforesaid.

2. In an inflatable life belt and the like, the combination of inner and outer sheets of air tight fabric, a folded stay strip of fabric arranged between the border portions of said sheets with the inner surfaces of said sheets cemented to the outer faces of the folds of the stay strip, and a tubular stay of fabric arranged intermediate the width of the belt and cemented to the inner surface of the inner and outer sheets aforesaid, the tubular stay being open at its respective ends.

Signed at Chicago, Illinois, this 16th day of January, A. D. 1922.

HENRY MARKS.