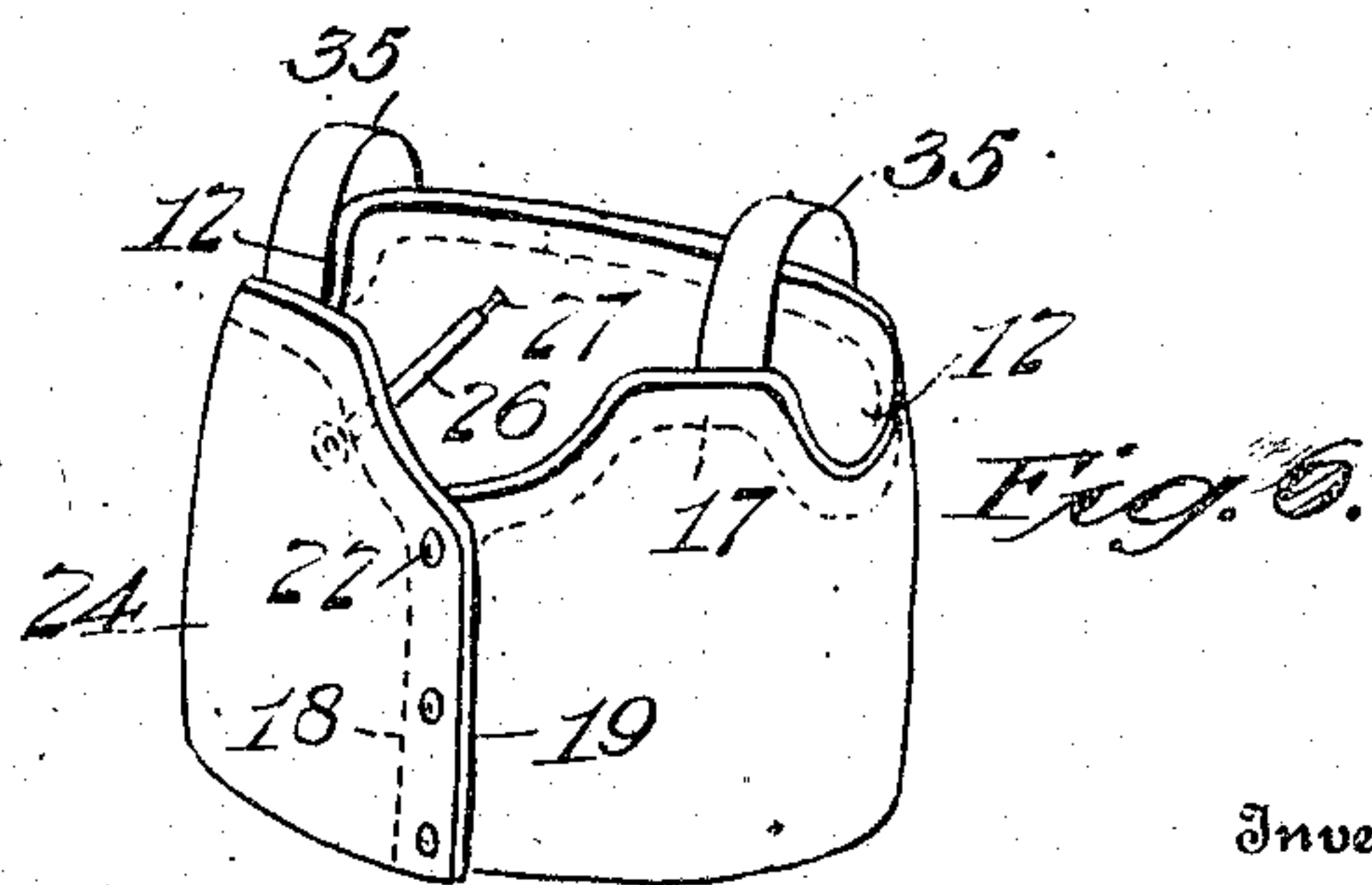
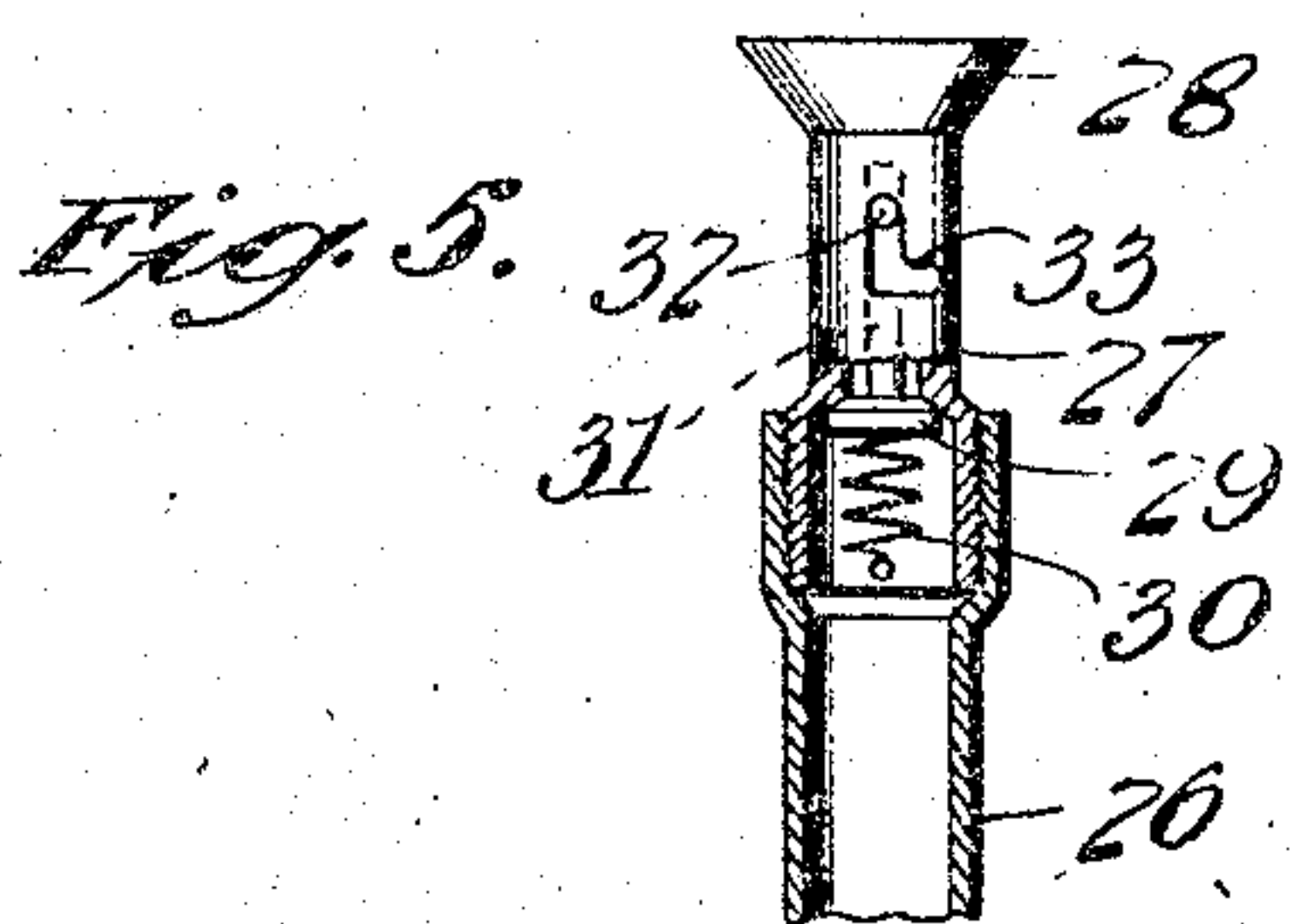
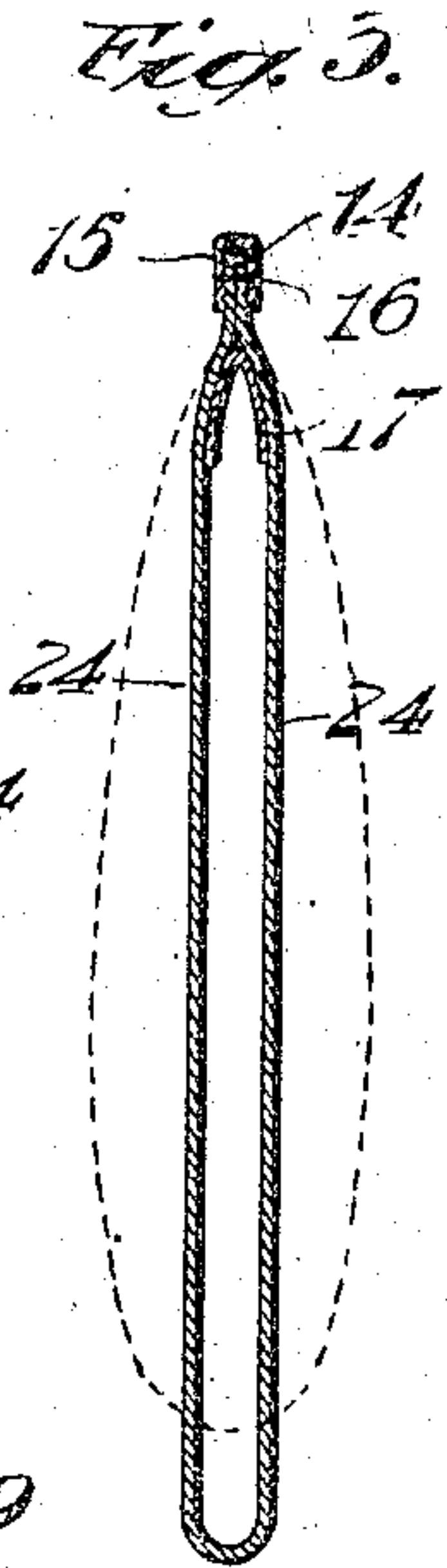
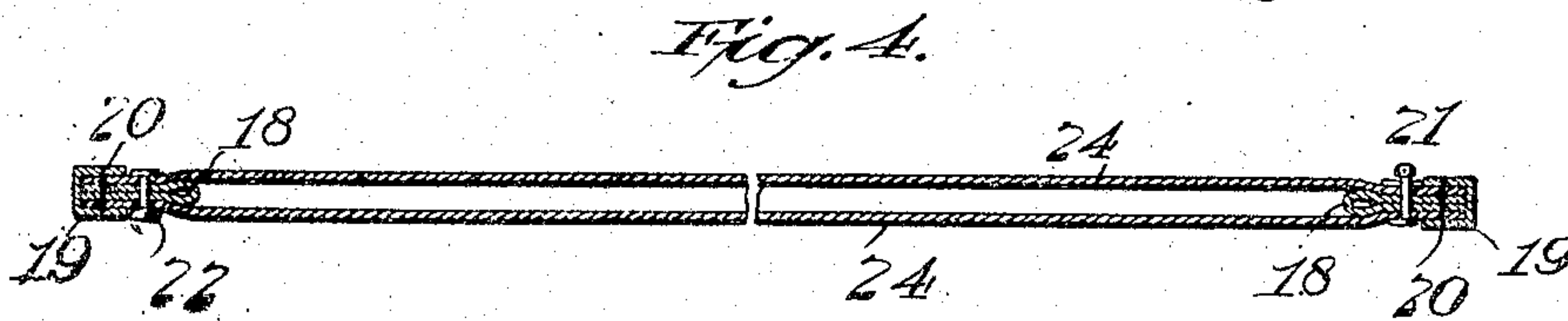
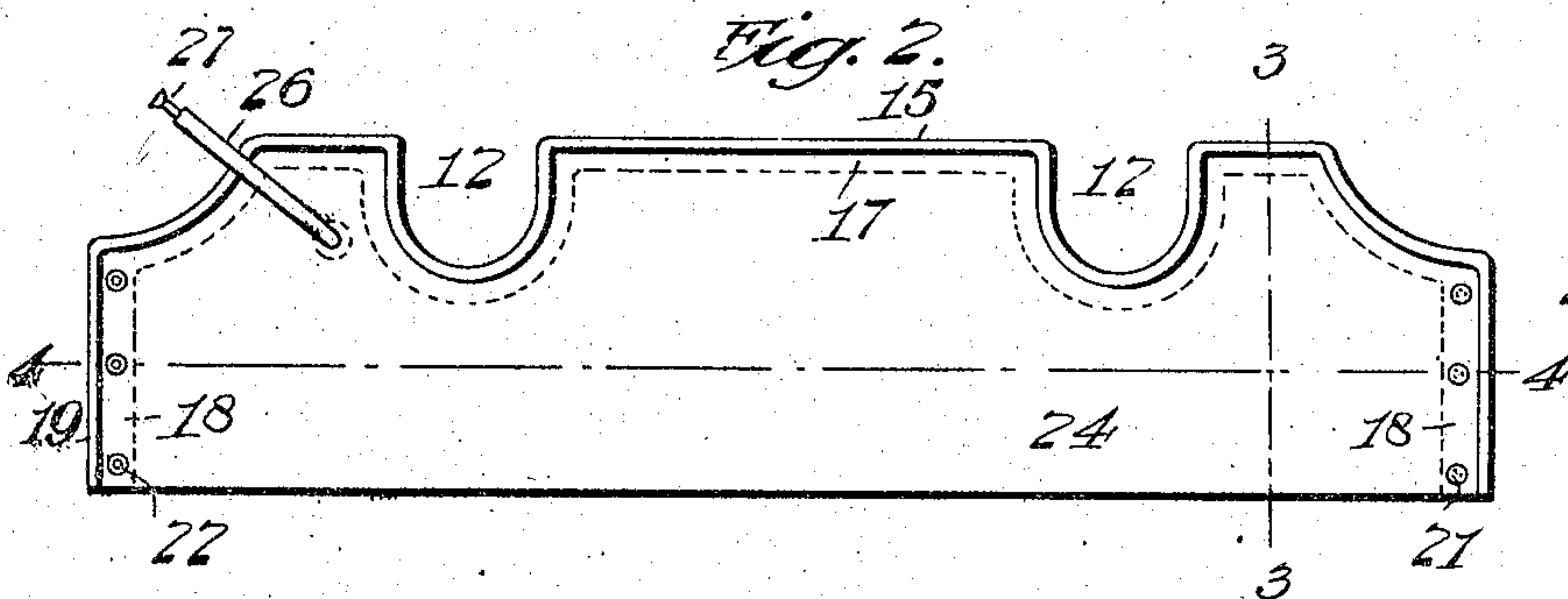
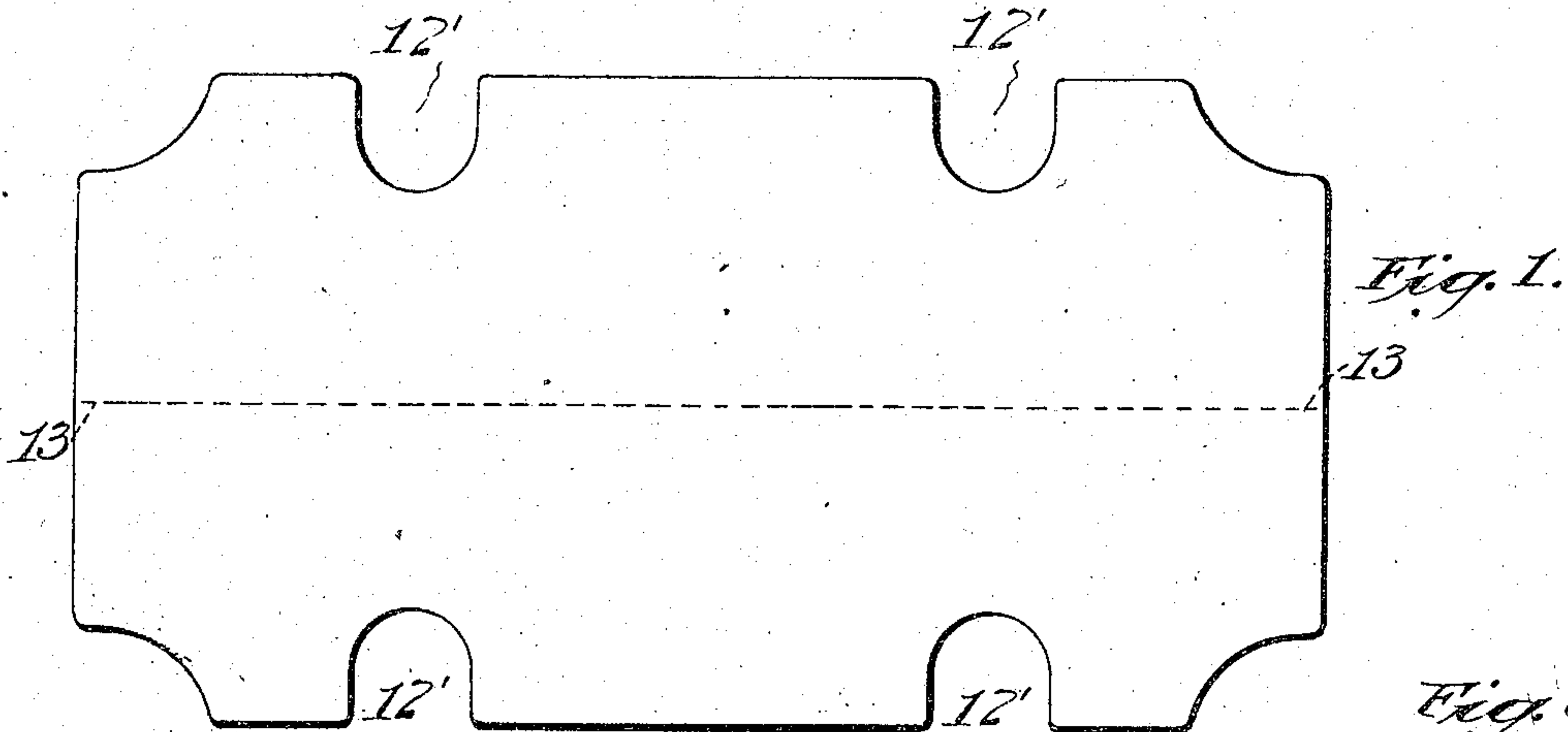


P. B. GAUDET.
PNEUMATIC LIFE JACKET.
APPLICATION FILED APR. 3, 1909.

931,009.

Patented Aug. 10, 1909.



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PNEUMATIC LIFE-JACKET.

No. 931,009.

Specification of Letters Patent.

Patented Aug. 10, 1909.

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To all whom it may concern:

Be it known that I, PETER B. GAUDET, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Pneumatic Life-Jackets, of which the following is a specification.

This invention has for its object to provide a pneumatic or inflatable life jacket adapted to surround the human body under the arms, and to be inflated by the wearer, the jacket being of simple and durable construction, and composed of a single sheet of flexible material which is impervious to air, and which forms an air chamber practically surrounding the wearers body, and adapted to be inflated after adjustment to the body.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification,—Figure 1 represents a side view of the sheet or blank from which the improved pneumatic jacket is made. Fig. 2 represents a side view showing the completed jacket, minus the shoulder straps, opened or extended. Fig. 3 represents a section on line 3—3' of Fig. 2. Fig. 4 represents a section on line 4—4' of Fig. 2. Fig. 5 represents a side view of the inflating tube valve, and a sectional view of a portion of the inflating tube. Fig. 6 represents a perspective view of the jacket closed and in the form it assumes when in use.

The same reference characters indicate the same parts in all the figures.

In making my improved jacket, I cut from a single sheet of flexible material, which is impervious to air, a blank of the general form represented in Fig. 1, the length of the blank being such that it is adapted to surround a body beneath the arms, and overlap at the end portions which form the shorter edges of the blank. The longer edges of the blank are provided with recesses 12', 12' arranged in pairs, the form and arrangement of the recesses being such that when the blank is doubled or folded upon itself midway between its longer edges, the recesses in one edge will coincide with those in the other edge, and form the arm-receiving recesses 12 shown in Figs. 2 and 6.

The material employed may be any suitable textile fabric treated with rubber in such manner as to make the fabric impervious to

air. The blank formed as shown in Fig. 1 is next folded longitudinally midway between its longer recessed edges, the direction of the fold being indicated by the dotted line 13—13 in Fig. 1.

The longer edges of the blank are brought together and united by an air-tight seam which follows the contour of the longer edges including the recesses 12'. Said seam is preferably formed by first cementing the longitudinal edges together at 14 (Fig. 3) and then applying a binding strip 15 which bears on the outer sides and extends across the edges of the cemented portions, and may be secured to the latter by cement and by stitches 16 (Fig. 3). Before the described seam is formed, I cement to the inner sides of the folded blank a reinforcing strip 17 which is substantially V-shaped in cross section, and extends across the cement joint 14, as indicated in Fig. 3.

The shorter ends of the folded blank are connected by air-tight seams, preferably of the following construction:—

18 represents a folded reinforcing strip which is interposed between the end portions of the sides of the blank, and is cemented to the inner surfaces of said sides. 19 represents a binding strip which bears on the outer surfaces of the end portions of the sides and extends across the edges of said portions, and the edges of the folded reinforcing strip 18, said binding strip being secured by cement and by stitches 20, as indicated in Fig. 4. The width of each reinforcing strip 18 is such that it is adapted to receive a series of fastening members, the strip 18 at one end receiving a series of stud fastening members 21, while the strip 18 at the opposite end receives a series of socket fastening members 22 adapted to detachably engage the stud members 21. The members 21 and 22 may be of the construction commonly employed in so-called stud and socket fastening members for garments, etc., and so arranged that when the jacket is adjusted to the body of the wearer, they will cooperate in securing together the end portions of the jacket, as indicated in Fig. 6.

It will be seen from the foregoing, and by reference to Figs. 2 and 3, that a double-fold band is provided adapted to surround the human body and fit under the arms, one end of the band being adapted to overlap

and be secured to the other. The said band or jacket comprises outer and inner side members 24 connected by a neck 25 which is integral with said members, and constitutes the lower edge of the band or jacket.

The inner side member is provided with a flexible inflating tube 26 having at its outer end a valve casing 27 which may be provided with a mouth piece 28. Within said casing is a valve 29 which is normally held closed against its seat by a spring 30, the valve having a stem 31 provided with a stud 32 which projects outwardly into an angular slot 33 in the casing 27. When the valve is closed by the spring, the stud 32 occupies the outer end of the slot 33, as shown in Fig. 5. When the valve is opened, it may be held in an open position by swinging the stud into the shorter arm of the slot 33. It will be seen, therefore, that the user of the device, after inflating the same, can quickly close the valve by imparting a slight lateral pressure to the stud 32, the ease and quickness with which the valve may be closed preventing the liability of failure to properly close the valve after the jacket has been inflated.

By making the jacket of a single piece of impervious fabric which is doubled or folded to form the lower end 25 of the jacket, I reduce to the minimum the number of parts employed and the length of the air-tight seams or joints formed by bringing together parts of the blank, the liability of leakage through imperfections of said seams or joints being correspondingly reduced. The absence of a seam or joint at the lower end of the garment makes said lower end flexible and conformable to various degrees of distention of the garment, as indicated by a comparison of the full and dotted lines in Fig. 3, the dotted lines indicating a greater distention than is indicated by the full lines.

The jacket is preferably provided with shoulder straps 35 adapted to bear on the shoulders of the wearer.

I claim:

1. A pneumatic life jacket comprising a sheet of flexible material, impervious to air, doubled on itself longitudinally to form the sides of the jacket and a fold constituting the lower end of the jacket, the longitudinal edges and the end portions of the sides being united by air-tight seams to form an air chamber, and a tube to inflate said chamber.

2. A pneumatic life jacket comprising a sheet of flexible material, impervious to air, doubled on itself longitudinally to form the sides of the jacket and a fold constituting the lower end of the jacket, the longitudinal edges and the end portions of the sides being united by air-tight seams to form an air chamber, and a tube to inflate said chamber provided with a valve casing and a spring-closed valve therein, the valve and casing

having complementary means for holding the valve open.

3. A pneumatic life jacket comprising a sheet of flexible material, impervious to air, having arm-receiving recesses in two opposite edges, and doubled on itself longitudinally to bring together the recessed edges and form the sides of the jacket and a fold constituting the lower end of the jacket, the longitudinal edges and the end portions of the sides being united by air-tight seams to form an air chamber between the inner and outer sides of the jacket, and a tube to inflate said chamber.

4. A pneumatic life jacket comprising a sheet of flexible impervious material doubled on itself longitudinally to form the sides of the jacket and a fold constituting the lower end of the jacket, the longitudinal edges of the sides being united by an air-tight seam, reinforcing strips interposed between and cemented to the end portions of the sides, binding strips covering the edges of said end portions and reinforcing strips, and fastening members secured to the reinforcing strips, and to the end portions cemented thereto.

5. A pneumatic life jacket comprising a sheet of flexible impervious material doubled on itself longitudinally to form the sides of the jacket and a fold constituting the lower end of the jacket, the end portions of the sides being reinforced and united to form air-tight ends, which are provided with fastening members, a V-shaped reinforcing strip cemented to the inner surfaces of the sides adjacent to their longitudinal edges, said edges being cemented together to form a joint outside the V-shaped strip, and a binding strip covering the said longitudinal edges.

6. A pneumatic life jacket comprising a sheet of flexible impervious material doubled on itself longitudinally to form the sides of the jacket and a fold constituting the lower end of the jacket, reinforcing strips interposed between and cemented to the end portions of the sides, binding strips covering the edges of said end portions and reinforcing strips, fastening members secured to the reinforcing strips and to the end portions cemented thereto, a V-shaped reinforcing strip cemented to the inner surface of the sides adjacent to their longitudinal edges, said edges being cemented together to form a joint outside the V-shaped strip, and a binding strip covering the said longitudinal edges.

In testimony whereof I have affixed my signature, in presence of two witnesses.

PETER B. GAUDET.

Witnesses:

C. F. BROWN,
A. H. BROWN.