

1,202,197.

Fig. 1.

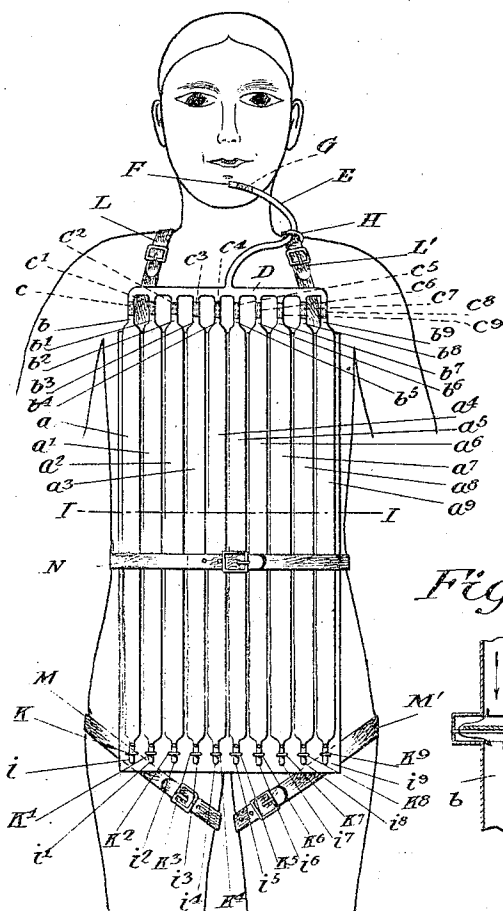


Fig. 4.

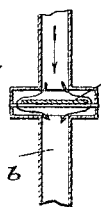


Fig. 2.

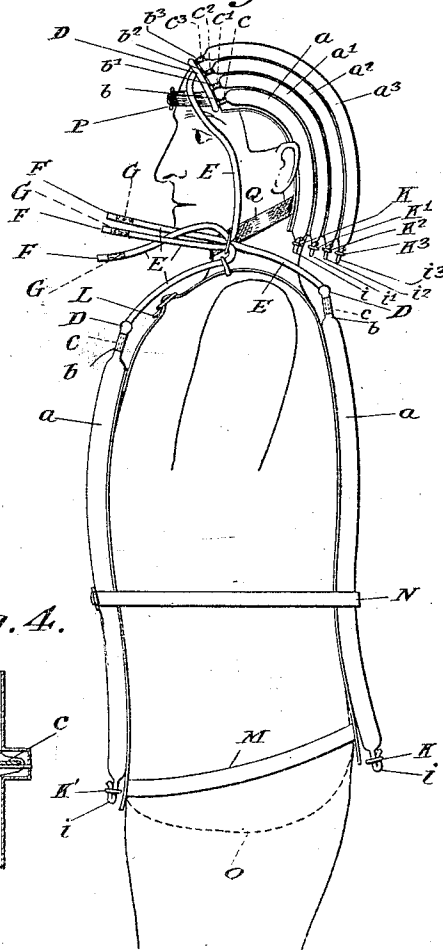


Fig. 3.

A perspective view of a chain of nine links, labeled a^1 through a^9 . The links are connected in a series, with dashed lines indicating the continuation of the chain.

Fig. 5. ∇T

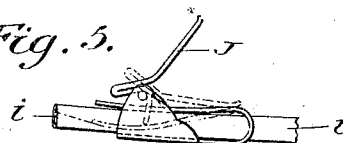


Fig. 6.

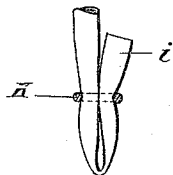
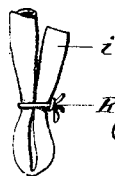


Fig. 7.



Inventor:

John W. Lippincott

UNITED STATES PATENT OFFICE.

JOHN W. LIPPINCOTT, OF LITTLE ROCK, ARKANSAS, ASSIGNOR OF ONE-HALF TO CARRIE A. LIPPINCOTT, OF LITTLE ROCK, ARKANSAS.

LIFE-PRESERVER.

1,202,197.

Specification of Letters Patent.

Patented Oct. 24, 1916.

Application filed March 20, 1916. Serial No. 85,515.

To all whom it may concern:

Be it known that I, JOHN W. LIPPINCOTT, a citizen of the United States, residing at Little Rock, in the county of Pulaski and State of Arkansas, have invented a new and useful Improvement in Life-Preservers, of which the following is a specification.

My invention relates to improvements in pneumatic life preservers, and consists of pneumatic tubes (or compartments) connected in series (or multiples) with means of inflating and deflating each series separately, and the objects of my improvements are first to provide a substantial and reliable support for a person while in the water, second to provide an easy method for any one to apply this support before or after getting into the water, and third to allow the person so supported perfect freedom of arms and legs, and I attain all these objects by the means illustrated in the accompanying drawings, in which—

Figure 1 is a vertical front view of a single series of pneumatic tubes (or compartments) connected in multiple by inflating means as it would appear on a person. Fig. 2 is a vertical side view of a series of pneumatic tubes (or compartments) on the front, another series on the back, and another on the head, and each series connected separately but in multiple by inflating means as they would appear on a person. Fig. 3 is a sectional view through the line 1—1 of Fig. 1. Fig. 4 is a detail view of a valve. Figs. 5, 6, and 7 are detail views showing various means of closing open ends of tubes.

Similar letters refer to similar parts throughout the several views.

The pneumatic tubes *a a'*, etc., are tapered at each end to smaller tubes or stems *b b'*, etc., at the top ends and *i i'*, etc., at the lower ends. The stems *b b'*, etc., are provided with valves *c c'*, etc., and said stems *b b'*, etc., being connected by and through said valves *c c'*, etc., to a header D from which extends a mouth stem or tube E the end of which terminates in a mouth piece which is supplied with a valve G, and said stem E is held by a holder H in a position convenient to the mouth of the wearer. The function of the stem E carrying the valve G, and the header D is to connect the mouth of the wearer through the valves *c c'*, etc., in the stems *b b'*, etc., with the pneumatic tubes *a a'*, etc., and permit the inflation of

said pneumatic tubes *a a'*, etc., by the wearer blowing the breath through said tubes and valves in the direction indicated by the arrows. The stems *i i'*, etc., which constitute the lower or open ends of the pneumatic tubes *a a'*, etc., are purposely left open, so that normally the tubes *a a'*, etc., are in a deflated condition, but may be closed by means of clamps J Fig. 5, or by tying a string R Fig. 7 tightly around each, or by bending the stems and slipping the bent parts into rings or loops K, as shown in Figs. 1 and 2 and in detail in Fig. 6, when the pneumatic tubes *a a'*, etc., may be inflated, and when it is desired to deflate the tubes it is only necessary to remove the clamps, strings, or rings. Adjustable shoulder straps L and L', adjustable thigh straps M and M', and an adjustable belt N are to hold the body supports in position when only one series of tubes is used, but if two are used, *i. e.* one on the front and another on the back, an adjustable crotch strap O should be used instead of the thigh straps. P an adjustable head strap and Q an adjustable neck strap are to hold the head support in position. If the life preserver is worn under the clothing the belt may be desirable, but it is not a necessity. If the belt is used however, then either the crotch or thigh straps would be desirable but not a necessity. The tendency of this life preserver will be to creep upward on a body; hence it is necessary to hold it in position, and if worn on the outside of skirts or a long coat it is obvious that a belt would have to be used.

A very valuable feature of my invention is that several series of these pneumatic tubes may be used on the front of a person, or on the back, or the entire body may be surrounded with them, but each series should consist of several of these pneumatic tubes (or compartments) and be connected in multiple by the inflating means so that each series will be independently inflatable; hence the wearer will not be entirely dependent on any particular series for sufficient buoyancy to keep afloat, and as each tube is valved to hold inflation independently of each other it is obvious that each tube is independently deflatable, and therefore if one or more tubes of any particular series should leak the other tubes of this series could still be inflated by pinching the stem *b* of the leaking

tube tight enough to close it, and if the header D or the mouth stem E should leak said leak could in all probability be seen or felt, and that particular series could still be
5 inflated by pinching with the fingers directly over the split or perforation, or if the header D or mouth stem E was entirely destroyed the tubes *a a'*, etc., of that particular series
10 could still be inflated by blowing directly into the stems *b b'*, etc., which carry the valves *c c'*, etc. While the body supports are to be mainly depended upon I consider the head support of great value should the
15 wearer desire to float or swim on the back. Accessibility, convenience, and comfort are worthy of consideration also in this life preserver. By making them of suitable material one or more series may be carried in a
20 man's pocket or a woman's hand bag in a deflated condition as it would only take a few seconds to put them on and a few puffs of breath into the mouth stem to get sufficient buoyancy to keep afloat, or one or more series may be worn constantly under the clothing,
25 or on the head either inflated or deflated as they are easily inflatable after getting into the water. Still another feature of this life preserver is utility in that it will be a great help in learning to swim, as a
30 beginner will not be so much afraid of going

under the water when equipped with one and will not have to waste any energy in keeping afloat but can concentrate the mind on learning correct swimming strokes and utilize available energy to propelling. Good
35 swimmers as well as very ordinary swimmers when equipped with this life preserver will be greatly benefited also for the reason that no energy will be required to keep afloat and all their energy can be devoted to propelling which will enable them to swim much
40 faster than when not so equipped.

Having thus described my invention what I claim and desire protected by Letters Patent is:

1. The combination in a life preserver of body and head supports, each composed of a series of tubes, a separate inflating means for each series connected in multiple with the tubes thereof.

2. The combination in a life preserver of body and head supports, each composed of a series of tubes and a separate inflating means for each series connected in multiple with the tubes thereof, and said tubes being separately deflatable.

JOHN W. LIPPINCOTT.

Witnesses:

T. E. HALE,
F. B. FORD.