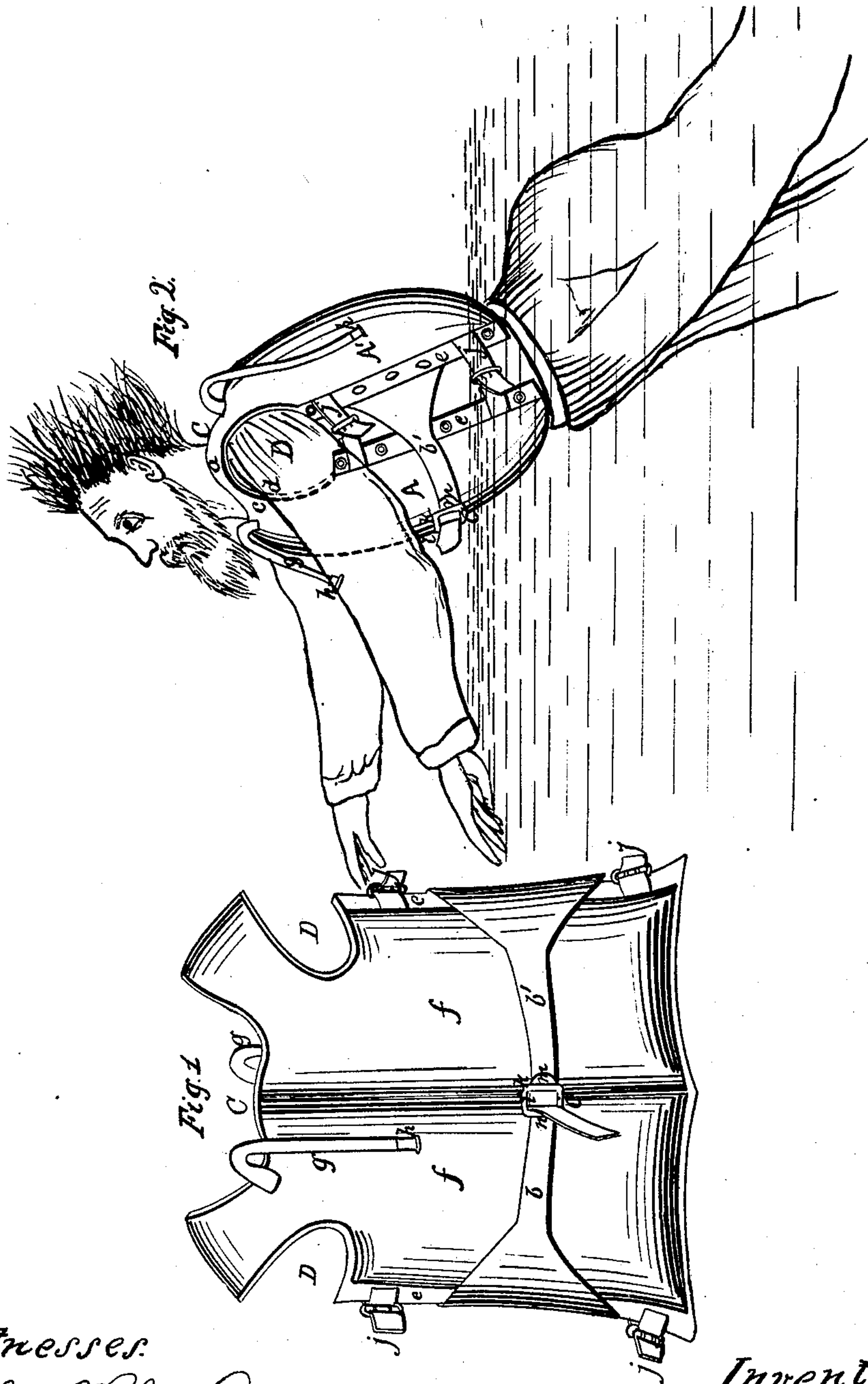


**A. GREGORY.**  
**LIFE PRESERVER.**

No. 89,402.

Patented Apr. 27, 1869.



Witnesses:  
Phil. F. Larner,  
Geo. W. Rodwell

*Inventor.*

A. Gregory

By Frederick Horn  
Atty.



# United States Patent Office.

ALFRED GREGORY, OF NEW YORK, N. Y.

Letters Patent No. 89,402, dated April 27, 1869.

## IMPROVEMENT IN LIFE-PRESERVERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ALFRED GREGORY, of the city, county, and State of New York, have invented a new and useful Improvement in Life-Preservers; and I do hereby declare the following to be a full, clear, and exact description thereof, sufficient to enable those skilled in the art to which my invention appertains to fully understand the same, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a front view of the life-preserver, and Figure 2, a side view of the same applied.

My invention consists in the improved construction of an inflatable life-preserver, to be buckled around the upper part of the body of a person, to sustain him in the water, as hereinafter fully described.

In order that others may so understand my invention as to be able to make and use my improved life-preserver, I will now proceed to describe the same in detail, referring to the accompanying drawing, wherein similar letters indicate like parts in the two figures.

I construct my life-preserver of double India rubber, or other material suited for the purpose.

It consists of two similar parts, A A', connected together at the top, to form shoulder-straps a.

b b' represent the breast-strap, made in two pieces, one of which is attached to each side of the back part, A.

The strap b' is provided with a buckle, c, for securing the other strap, b. I purpose making these straps in one piece with the body of the preserver.

The sheets of rubber are cut so that each shall form either the outer sheet c' of the entire life-preserver, or the inner sheet d, together with the straps b b' and the shoulder-straps.

These sheets are then cemented together at the sides and edges e, forming spaces f f, to be inflated with air through the tubes g, which communicate with said air-spaces, and are provided with mouth-pieces h h, one part of each of which is adapted to be screwed into the other, in order to prevent the escape of air.

The material composing the back and front sections A A' is made thicker than the remainder on the line i, running from top to bottom of each section. This does not separate the portions f f of each section into independent air-spaces, but simply serves to prevent the bulging out of the sections on the line i, thus giving a rounded appearance to each side f f. The object of this is to make the life-preserver conform to the shape of the human form as much as possible.

The material is so cut as to leave a central opening, O, for the head to pass through, and side openings D D, for the arms.

j j represent short straps, either formed with or secured to the edges of the back-section, and adapted to be buckled to short straps, affixed to or forming part of the front section. If desired, these straps may be dispensed with, as they are not necessary when the main strap b b' is employed.

The buckle on this main strap is of peculiar construction. It consists of a rectangular frame, k, hav-

ing a rigid longitudinal bar, l, nearer to one side than the other.

This frame is secured to the strap by a clasp, m, riveted to said strap, and loosely enclosing the bar l.

This clasp extends beyond the bar, and forms a cam, which presses the strap against the side n of frame k, and holds it securely.

This is a very simple fastening-device, and is especially adapted for use on a life-preserver as I have shown it.

To apply my life-preserver, the air is exhausted, the main strap b b' loosened, and also the side-straps, (if they are used.)

The device is now put on over the head, the arms passing through their appropriate openings.

The wearer now applies his mouth to the tubes g, and inflates the sections A A', one at a time, or both simultaneously, if communication is established between them and only one tube is used.

The sections of the mouth-pieces are immediately screwed together to prevent the escape of air. Then the main strap b b' is tightened, as are also the side-straps j, (if used.)

The wearer is now prepared to plunge boldly into the water, as it will be impossible for him to sink, unless some outside power is exerted to hold him down or draw him under.

The construction of my preserver is such that it will readily adjust itself to the person, and it fits so easily as not to cause the least uneasiness.

Constructed substantially as above described, a life-preserver is produced which can be furnished at little cost, conveniently carried and stored, simple and durable, and applicable in a moment to the person of almost any one.

It is invaluable in case of accidents at sea or in rivers, and will also be found very useful as a source of safety to bathers.

By constructing the sections A A' as described, in contradistinction to the employment of air-cells, more air can be introduced into said sections, and consequently the life-preserver is rendered more buoyant; and other advantages of cheapness and saving of material are attained by my construction of life-preserver.

I do not claim, broadly, an inflatable life-preserver, as I am aware that such have been made—some of India rubber—and adapted to be worn around the upper part of the body; but having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The life-preserver, constructed of the sections A A', extending over the entire back and front, in contradistinction to the use of air-cells, inflated through the tubes g, shoulder-straps a, and straps j, b, and b', all constructed, arranged, and operated in the manner and for the purpose set forth.

ALFRED GREGORY.

Witnesses:

PHIL. F. LARNER,

GEO. W. ROTHWELL.