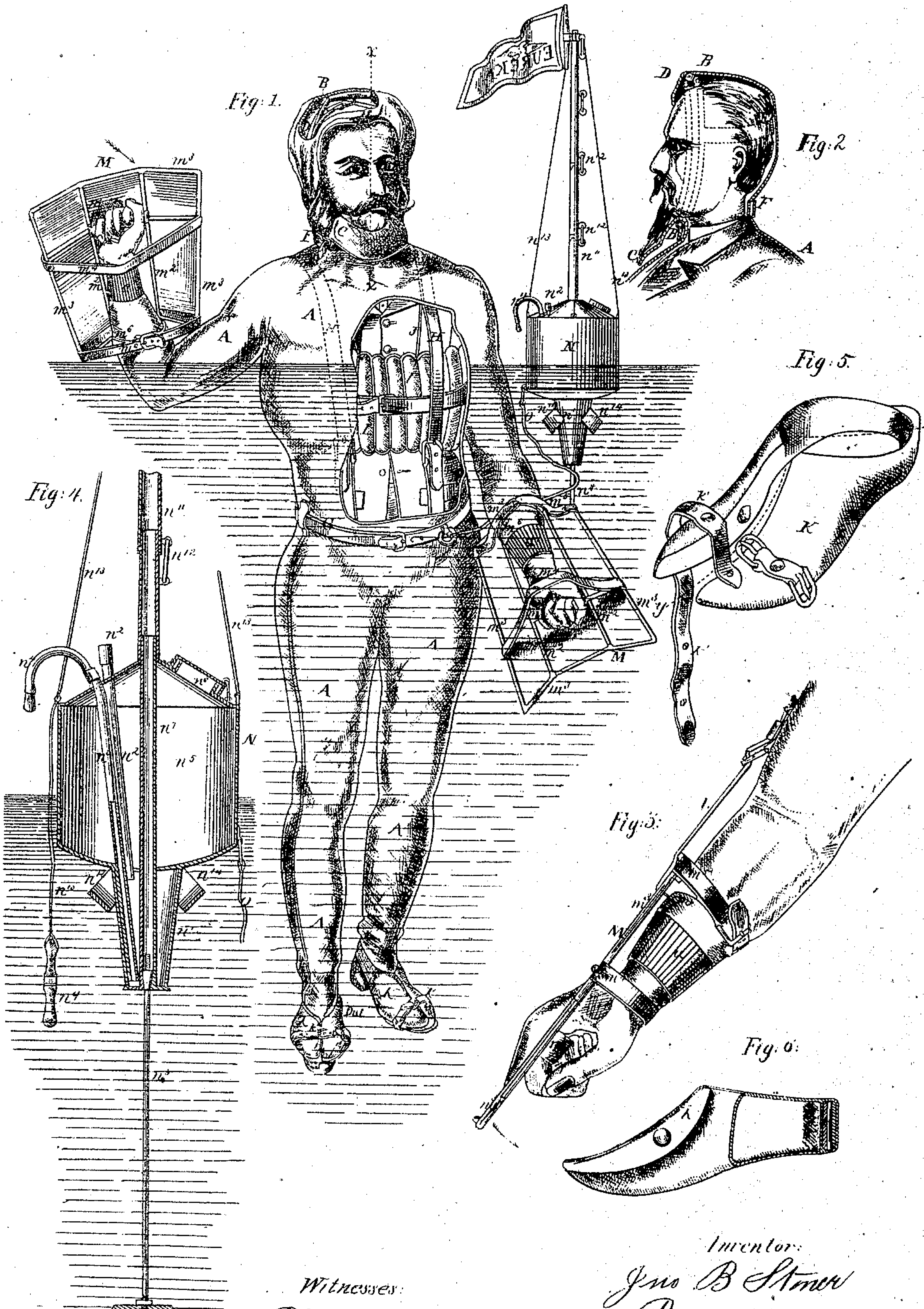
J. B. Stoner.

Life-Preserving Apparatus.

No 74168 Patented Feb. 4, 1868.



Witnesses:
Theo Tusche
Wm Trewin

Inventor:
Jno B Stoner
Per Munn & Co
Attorneys

United States Patent Office.

JOHN B. STONER, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF, L. MENDELSON, AND T. CROMMELIN.

Letters Patent No. 74,168, *aated February* 4, 1868.

IMPROVEMENT IN LIFE-PRESERVING APPARATUS.

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, JOHN B. STONER, of the city, county, and State of New York, have invented a new and improved Life-Saving Apparatus; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of my improved apparatus as applied in practical use.

Figure 2 is a detail sectional view of the same, taken through the line *x x*, fig. 1.

Figure 3 is a detail view, showing the manner in which the propelling-device is attached.

Figure 4 is a perspective view of the ballasting weight or shoe.

Figure 5 is a detail sectional view of the same, taken through the line *y y*, fig. 4.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved apparatus, by means of which persons, when compelled to commit themselves to the water, in case of accident on steamboat or shipboard, may sustain themselves for days, or until they are rescued or reach a place of safety; and it consists in the manner in which the rubber suit is secured to the wearer, the whole being constructed and arranged as hereinafter more fully described.

A is a rubber suit, made in one piece, the lower parts or feet being made thicker than the other parts, and in the same manner that rubber shoes are now made. The suit A is made large enough to be put on over the ordinary clothing of the wearer, his shoes only being removed. The only openings in the suit A are at the upper end or head and at the wrists, for the exposure of the face and hands of the wearer. The openings at the wrists are provided with elastic cuffs or bands *a'*, made in a piece with the suit, to confine the edges of the openings closely around the wrists of the wearer to prevent the entrance of water. To the under side of the edge of that part of the upper or top opening that comes upon the top of the wearer's head, is secured an elastic band, B, which I prefer to make tubular in form, and which passes under the chin of the wearer, beneath the chin-flap C. To the inner edge of the under side of the upper opening is attached an open elastic band, D, which I prefer to make in the form shown in fig. 2, that is to say, formed by connecting two elastic tubes longitudinally with an elastic membrane, so as to leave a space or channel between the two tubular edges of said band. The band D is buckled over the head of the wearer, and is prevented from slipping forward by an auxiliary band, E, attached to it, and which passes around the back of the head of the wearer, as shown in fig. 2. The elastic tubular band B is then sprung into place beneath the chin of the wearer, passing also beneath the chin-flap C in such a way as to lie in the space or channel between the tubular edges of the elastic band D, as shown in figs. 1 and 2. The slack of the upper opening is gathered into a roll, and placed in the hollow between the jaws and neck of the wearer, as shown in fig. 1, where it is confined and secured by a strap, F, secured in proper position to the outer side of the suit, and which is buckled around the neck of the wearer. The flap C projects forward, beneath the chin of the wearer, and is intended to protect his mouth and nose from the splash of the water.

The upper or top opening of the suit A must be made so large that the wearer can conveniently insert his body through it. The suit A is secured to the body of the wearer by a strap, G, secured to the rear part of the suit, and buckled around his body. The suit is still further supported by straps or suspenders H, secured to the lower part of the body of said suit, and passing over the shoulders of the wearer, as shown in fig. 1. I is a cork vest or jacket, made by sewing two pieces of canvas, or other suitable material, together, in such a way that when stuffed with pulverized cork, or other suitable material, it may be smooth or flat upon the inside, and corrugated upon the outside, as shown in fig. 1. The vest or jacket I is worn beneath the rubber suit A, is buckled around the waist of the wearer, and is prevented from slipping down by shoulder-straps, J, passing over the shoulders of the wearer, as shown in fig. 1. When not in use, the vest I can be folded into a very small bulk. K are metal shoes or weights, fitting upon the feet, the greater part of the weight (about five pounds) being collected upon the instep. The shoes K are made in two parts, hinged to each other at the heel for convenience in putting them on, and secured to each other by a strap or straps, *k'*, buckled around the said

shoes, and around the feet of the wearer. The forward parts of the shoes or weights are kept from slipping or working upon each other by one or more dowel-pins or projections formed upon the edge of the one part, and entering holes or cavities in the other part. The shoes K should be lined or padded upon their inner sides and edges, to prevent them from chafing the wearer, and they should be galvanized or wholly covered with rubber to prevent the corrosive action of the water.

M is the propelling or swimming-device, in which m^1 is a bar or handle, to be grasped in the hand of the wearer, and to the ends of which are attached the wire bars m^2. m^3 is a wire framework, hinged or pivoted to the bars m^2, as shown in fig. 1. The entire framework, m^2 m^3, is covered with rubber, as shown in the drawings. When the hand, with the device M attached to it, is moved through the water in one direction, the wings fold down, so as to encounter less resistance from the water; but when moved through the water in the other direction, the wings expand into a horizontal position, beyond which they are prevented from passing by the straps m^4 and m^5. The strap m^4 passes beneath the hand or wrist, and its ends are attached to the outer edges of the wings. m^6 is a strap, the middle part of which is attached to the under side of the upper end of the middle part of the device M, and which buckles around the arm of the wearer, to secure the upper part of said device to the arm. The outer ends of the straps m^5 are attached to the outer edges of the upper parts of the wings, and their inner ends are secured to the strap m^6, near the point at which it is buckled. Or, if desired, the straps m^5 may be made in one piece passing beneath the arm, and having its ends secured to the outer edges of the said wings. L is a cord or strap, attached to the upper part of the device M, and to the sleeve of the suit A, so that the said device, when detached from the hand, and allowed to float upon the water, cannot float away and be lost.

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

1. The chin-protector C, constructed and applied as herein shown and described.

2. The combination of the open elastic band D, formed of two elastic tubes connected longitudinally by an elastic membrane, the outer elastic tube, B, auxiliary band E, and the upper part of the suit A, as herein described, for the purpose specified.

JOHN B. STONER.

Witnesses:

WM. F. MCNAMARA,

JAMES T. GRAHAM.