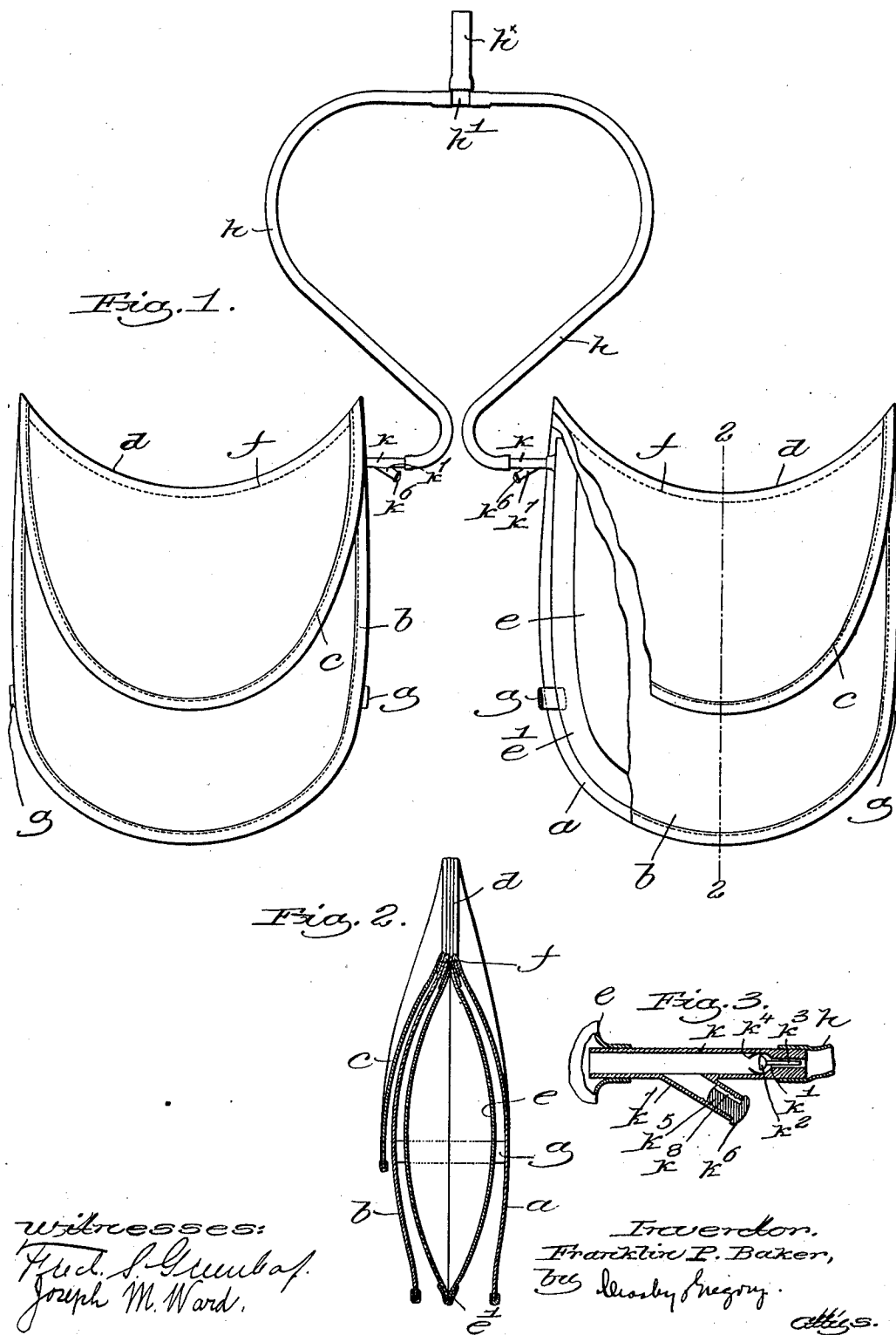


F. P. BAKER.
INFLATABLE DRESS OR SHIRT SHIELD.
APPLICATION FILED MAY 31, 1910.

1,021,176.

Patented Mar. 26, 1912.



UNITED STATES PATENT OFFICE.

FRANKLIN P. BAKER, OF MALDEN, MASSACHUSETTS.

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Specification of Letters Patent. Patented Mar. 26, 1912.

Application filed May 31, 1910. Serial No. 564,073.

To all whom it may concern:

Be it known that I, FRANKLIN P. BAKER, a citizen of the United States, and resident of Malden, county of Middlesex, State of Massachusetts, have invented an Improvement in Inflatable Dress or Shirt Shields, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention has for its object the production of a novel form of dress shield so constructed and arranged that it can be used in case of necessity as a life preserver, or as an aid to swimming.

In accordance with my invention I take an ordinary form of dress shield and between the flaps thereof I insert an inflatable bag made of thin rubber or other light, strong material suitably treated to make it air-tight, such inflatable member being attached to the shield at or adjacent the curved and connected edges of the flaps. This inflatable member is connected with a small air-tube of suitable length, and I prefer to connect the inflatable members of each shield of a pair by the air-tubes, providing the latter with a mouth-piece common to both.

The shields are attached at the arm-eyes of a shirt-waist, shirt, or similar garment, in the usual manner, the inflatable members ordinarily lying flat against the inside flaps of the shields and presenting no inconvenience to the wearer.

Should there be occasion to use the shields as life-preservers or as aids in swimming the wearer, by means of the mouth-piece inflates the bags and the shields then serve as life-preservers, and being located well up on the body sustain the wearer properly and effectively.

The various novel features of my invention will be fully described in the subjoined specification and particularly pointed out in the following claims.

Figure 1 is a front view of a pair of dress shields embodying my invention, showing the connected means for inflation, the outer flaps being broken out to show the inflatable member or air-bag beneath; Fig. 2 is a sectional detail of one of the shields, on the line 2-2, Fig. 1; Fig. 3 is an enlarged sectional view of a convenient form of valve used in connection with my invention.

The shields may be in general of any

usual or suitable construction, and herein I have shown each shield as composed of two large flaps *a*, *b*, and a smaller flap *c*, all connected by stitching along the upper edge *d*, which is curved to fit the arm-scy, as usual, the flaps being made of suitable material commonly used for the purpose.

I make the middle flap *b* of the same size and shape as the under flap *a*, and between these two flaps I interpose a light inflatable member or bag *e*, made of india-rubber or light textile material suitably treated to make it air-tight, this inflatable member preferably having a stout edge binding *e'*, and such member is secured in place along its curved upper edge by the line of stitches *f*.

As will be seen by reference to the drawing the inflatable member is concealed by the flaps *a* and *b*, the middle flap being employed for that purpose, as a covering. To limit the separation of said covering flaps *a* and *b* when the bag is inflated I connect the front and rear edges of said flaps by short strips *g*, preferably of elastic webbing, which will give or stretch somewhat when the bag is inflated to its full capacity, and at such time the covering flaps also serve to strengthen the bag. These strips thus prevent the bags from bursting when blown up with too much force.

Each bag is provided with a length of small flexible tubing *h*, Fig. 1, the free ends of the tubing being connected by a coupling *h'* with a suitable mouth-piece *h''*. The tubing *h* is connected with an inflatable bag *e* by a suitable automatic valve which will admit the air to the bag during inflation thereof but which automatically closes to prevent exit of air from the inflated bag, and a convenient form of valve for the purpose is shown in section, Fig. 3. Said valve comprises a tubular casing *k* having a valve-seat *k'* with which coöperates a valve *k²* guided in its movements by its stem *k³*, the unseating movement of the valve being limited by a guard *k⁴*. When air is forced through the tube *h* valve *k²* is unseated, permitting the air to pass through the casing *k* into the bag *e*, but the air pressure within the bag instantly seats the valve when the pressure on its outer side ceases. To empty the bag the outlet valve *k⁵* is opened, said valve being conveniently made as the threaded shank of a thumb-nut *k⁶*, the shank screwing into a branch *k⁷* of the casing *k*,

the shank being slabbed off or flattened, as at h^s , Fig. 3, to form an air passage. When the nut h^6 is turned outward from the end of the branch h^7 the air in the bag e is permitted to escape along the flattened portion of the shank.

I make no claim herein to the particular structure of the valve, as any other suitable form of valve may be used.

Should either of the inflatable members e be ruptured it can be shut off by merely pinching or making a sharp bend in its supply tube h , and the other member can be used, when said members e have been properly inflated the air will be held therein by the controlling valves in the supply tubes h , as will be apparent.

The shields are attached to the shirt, dress waist, or other garment in the usual manner, and ordinarily perform the usual functions of dress shields. Should the wearer desire to use them as life-preservers all that is necessary is to inflate the members e , as shown in Fig. 2, and then the wearer will be buoyed up if in the water. These shields can be worn with bathing suits and when the members e are blown up the shields will prove very useful in imparting confidence to children or timid persons when learning to swim. The position of the shields beneath the arms of the wearer insures the maintenance of the head above the water, which is important in a life preserver.

My invention is not restricted to the precise construction and arrangement herein shown and described, as various changes in details of construction and arrangement may be made by those skilled in the art without departing from the spirit and scope of my invention as set forth in the claims annexed hereto.

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

1. A dress shield composed of superposed flaps connected at their upper, curved edges, a normally deflated airtight receptacle interposed between the flaps and attached

thereto adjacent its upper edge, a flexible inflating tube connected with the receptacle, whereby the latter may be filled with air, and a controlling valve to govern the exit and ingress of air to such receptacle.

2. A dress shield composed of superposed and connected flaps, a flexible, normally deflated air-tight receptacle interposed between and covered by the flaps, a flexible inflating tube connected with said receptacle, to fill the latter with air, and straps connecting the front and rear edges of the covering flaps, to limit separation thereof when the receptacle is inflated.

3. A combined dress shield and life preserver composed of superposed flaps curved at their upper edges and connected together, a normally deflated air-tight receptacle interposed between the flaps and curved at its upper edge and connected to the flaps whereby the device may be worn beneath the arms and attached to the garment of the wearer in concealed position, a flexible inflating tube connected with the receptacle whereby the latter may be filled with air to constitute a life preserver.

4. A combined dress shield and life preserver composed of superposed flaps curved at their upper edges and connected together, a normally deflated air-tight receptacle interposed between the flaps and curved at its upper edge and connected to the flaps whereby the device may be worn beneath the arms and attached to the garment of the wearer in concealed position, a flexible inflating tube connected with the receptacle whereby the latter may be filled with air to constitute a life preserver, and strips connecting the front and rear edges of the said superposed flaps to limit separation thereof and prevent the bursting of the receptacle when inflated.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

FRANKLIN P. BAKER.

Witnesses:

JOHN C. EDWARDS,

THOMAS J. DRUMMOND.