Oct. 30, 1923. 1,472,330

W. L. FRY

WATERPROOF GARMENT

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Fig. 3

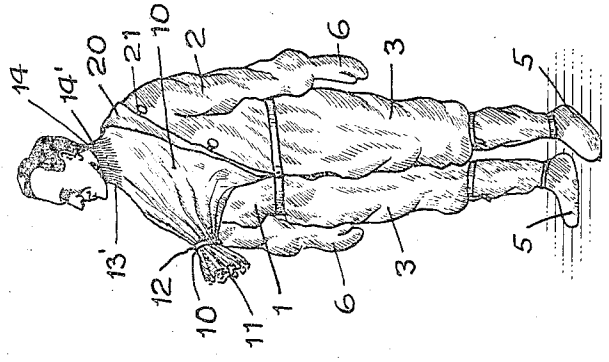


Fig. 2

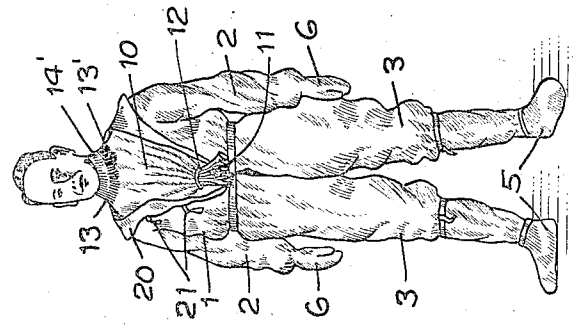
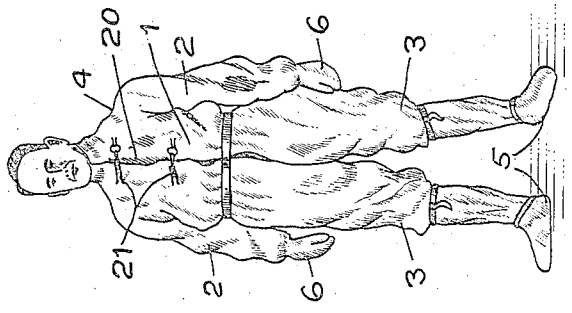


Fig. 1



Walter L. Fry. Inventor.

By his Attorneys.

Emery, Booth, Janney & Varney.

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Fig. 5

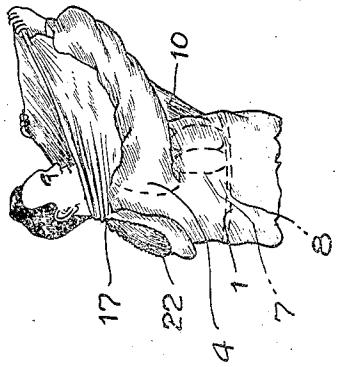


Fig. 6

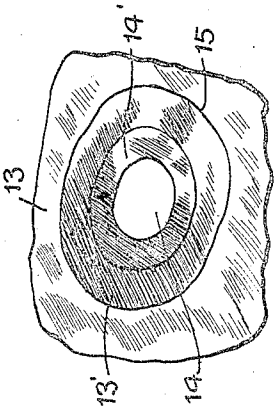


Fig. 7

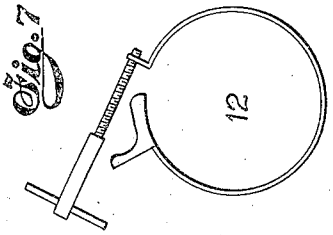


Fig. 8

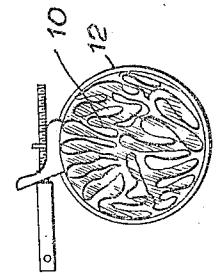


Fig. 9

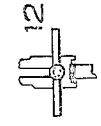
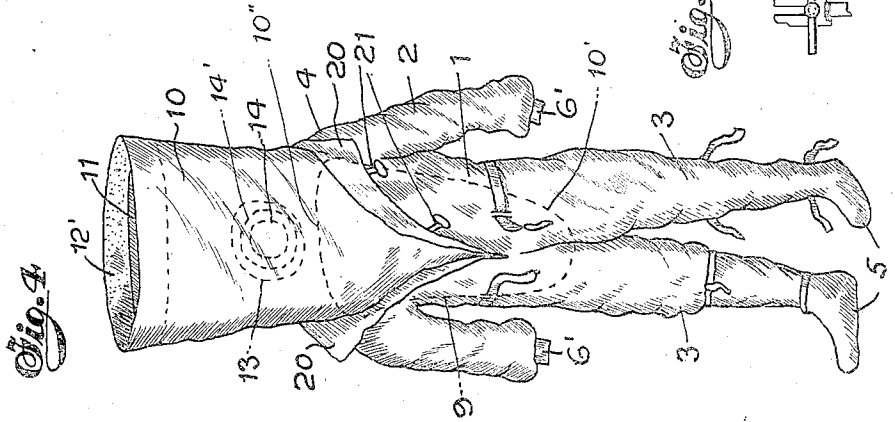


Fig. 4



Walter L. Fry Inventor.

By his Attorneys.

Emery, Booth, Janney & Varney.

Patented Oct. 30, 1923. 1,472,330

UNITED STATES PATENT OFFICE.

WALTER L. FRY, OF NEW ROCHELLE, NEW YORK.

WATERPROOF GARMENT.

Application filed December 14, 1918. Serial No. 266,674.

To all whom it may concern:

Be it known that I, WALTER L. FRY, a citizen of the United States, and a resident of New Rochelle, in the county of Westchester and State of New York, have invented an Improvement in Waterproof Garments, of which the following is a specification.

My invention relates to waterproof protective garments, and more particularly to such as are adapted to serve as life-saving suits which, in conjunction with any suitable buoyancy-imparting means, are designed and intended not only to keep the persons using the same afloat in the water, but also to protect such persons from exposure to cold and dampness and to keep them dry.

It is the object of the present invention to provide garments of the character specified which will be simple and economical in construction, easy and expeditious to apply, and convenient and efficient in use.

For purposes of illustration I have shown a preferred embodiment of my invention in the accompanying drawings, wherein

Fig. 1 is a perspective view of the garment in closed position;

Fig. 2 is a similar view of the same in position on the wearer but partly open;

Fig. 3 is a similar view of the garment from a different angle;

Fig. 4 is a perspective view of the garment in extended position;

Fig. 5 is a similar view showing the garment being put on;

Fig. 6 is a detail view of the neck portion;

Figs. 7, 8 and 9 are detail views showing the clamping device.

While various materials may be employed for making the device of my invention, I prefer to use a light weight rubberized or similar waterproof material, which serves also as an efficient insulator to conserve the heat values of the body of the user while wearing the garment, whereby I am enabled to prevent exposure to cold and dampness.

In one of its preferred forms, here shown by way of example merely, the life-saving device of my invention comprises a unitary, waterproof garment consisting of a trunk portion 1 having body-fitting shoulder portions 4, arm portions 2, and leg portions 3. Preferably the leg portions 3 are provided with foot-receiving portions 5, while arm portions 2 are provided with the mittens or other hand-receiving portions 6. Or, if desired, as shown in Figs. 4 and 5, the arm portions, here indicated by reference character 2, may be provided with the elastic, self-sealing wrist-pieces 6'.

In the form here illustrated, the garment may be associated with buoyancy-imparting means, which may or may not be made a part of such garment. For example, as here shown, I may use an ordinary life-preserver, put on under or over the garment, and attached or unattached to the same, here shown as attached under the garment, in order to give the garment the desired degree of buoyancy. As here shown, a life-preserver 7 is illustrated attached, as by means of the strips 8, to the body of the user under the garment.

Attached to the trunk portion 1, as by means of the waterproofed seams or joints 9, is a body-admitting portion 10, comprising, preferably, a tubular, upwardly-projecting member sufficiently large in cross section and having a body-admitting opening 11 of sufficient size to freely admit the body of the wearer of the garment. For the purpose of subsequently closing the body-admitting opening 11 of the member 10, after the user of the garment has put the same on, I provide any suitable closing means, such as the clamp 12, for example.

In order to render the body-admitting portion 10 of the garment watertight, I prefer to have the upper edge along the inner side of the portion 10 adhesive, as at 12' preferably by having the rubber or similar coating on this part of the garment of a gummy or sticky consistency. This renders the opening of the body-admitting portion self-sealing, especially in co-operation with the clamp 12. The body-admitting portion 10 is, however, readily opened again by exerting a moderate pull on the folds of the same.

As already stated, the body-admitting portion 10 extends substantially upwardly, that is, longitudinally of the garment as a whole and collinearly with the same. This is a distinctly advantageous feature, greatly facilitating the application of the garment and rendering the construction of the same simple and economical.

Associated with the body-admitting portion 10, is a neck portion 13 provided with a head aperture 14. The material of the neck portion 13 is made of a heavy material of

comparatively little elasticity adjacent the body-admitting portion 10, as at 13'. On the other hand, the material immediately adjacent the aperture 14 is made of a light weight material of comparatively great elasticity, so that a snug, watertight fit about the neck of the wearer is thus readily obtained, without any tendency to stifle or choke the wearer. Furthermore this construction of the neck portion 13 enables such neck portion to readily accommodate itself to necks of different sizes, so that the number of sizes of garments required is thereby greatly reduced.

The neck portion 13, which is preferably of frusto-conical form, is positioned in the back of the portion 10 adjacent the trunk portion 1, and is attached, as by means of the waterproofed joint 15, to the body-admitting portion 10 of the garment A. As here shown, the portion 13' of rubberized cloth or similar material of little elasticity and the portion 14' of thin rubber or other material of comparatively great elasticity, comprising the neck portion 13, may be made integral with each other. For the desired purpose I prefer to make the member 13' of comparatively thick rubber of little elasticity, while the member 14' is made of thin rubber of comparatively great elasticity. Preferably, also, a hood is provided to shield the head of the wearer, said hood 22 being attached by means of joints 17 to the neck portion 13 of the garment A.

I provide, also, lapel or flap portions 20 which are so disposed that when the garment has been applied, on closing the flaps, as by means of straps 21, the suit will snugly fit the body and will have a neat, compact appearance, and will properly protect the portion 10 provided with the aperture 11.

The manner of using the garment described above will be substantially clear from the foregoing description. The garment is put on by passing the body through the aperture 11 of the body-admitting portion 10. This is rendered easy and convenient by the longitudinal disposition of the body-admitting portion 10. After the trunk, arm and leg portions have been properly applied, the head of the wearer is passed through the neck portion 13. The clamp 12 is then applied to the gathered folds of the portion 10, and portion 10 itself is given a few turns and folded up, so as to take up but little room, preferably, against the chest of the wearer. The flaps 20 are then drawn in and strapped together, after which the hood 22 may be put on.

It is, of course, to be understood that my invention is not to be limited to the specific embodiment thereof herein shown and described for purpose of illustration only. It is also to be understood that as shown by the dotted lines indicated by reference characters 10', 10'' in Fig. 4, the body-admitting portion 10 is joined to the trunk portion 1 along the lines 10', 10'', so that the joint designated by reference character 10'' will lie across and on top of the shoulders of the wearer. This construction is of considerable practical importance in enabling the garment to be applied conveniently and expeditiously.

What I claim is:

1. A unitary waterproof garment comprising trunk, leg, arm, and shoulder-fitting portions, and a body-admitting portion attached to said trunk portion, said body-admitting portion comprising a hollow, tubular member attached to said trunk portion so as to normally extend substantially longitudinally of the garment, the inner surface of said body-admitting portion being substantially adhesive adjacent to the body-admitting opening of said portion, to thereby provide a substantially self-sealing closure when the garment is in position on the wearer.

2. A unitary waterproof garment comprising trunk, leg, arm, and shoulder-fitting portions, and a body-admitting portion attached to said trunk portion, said body-admitting portion comprising a hollow, tubular member attached to said trunk portion so as to normally extend substantially longitudinally of the garment, said body-admitting portion being provided with a neck portion adjacent to the back of the trunk portion, the inner surface of said body-admitting portion being substantially adhesive adjacent to the body-admitting opening of said portion, to thereby provide a substantially self-sealing closure when the garment is in position on the wearer.

3. A unitary waterproof garment comprising trunk, leg, arm, and shoulder-fitting portions, and a body-admitting portion attached to said trunk portion, said body-admitting portion comprising a hollow, tubular member attached to said trunk portion, so as to normally extend substantially longitudinally of the garment, said body-admitting portion being provided with a neck portion adjacent to the back of the trunk portion, said neck portion consisting of a base portion of comparatively little elasticity and a neck-fitting portion of comparatively great elasticity, the inner surface of said body-admitting portion being substantially adhesive adjacent to the body-admitting opening of said portion, to thereby provide a substantially self-sealing closure when the garment is in position on the wearer.

4. A unitary waterproof garment comprising trunk, leg, arm, and shoulder-fitting portions, and a body-admitting portion attached to said trunk portion, said body-admitting portion comprising a hollow, tubu-

lar member atached to said trunk portion, said body-admitting portion being provided with a neck portion adjacent to the back of the trunk portion, said neck portion consisting of a base portion of comparatively little elasticity and a neck-fitting portion of comparatively great elasticity, the inner surface of said body-admitting portion being substantially adhesive adjacent to the body-admitting opening of said portion, to thereby provide a substantially self-sealing closure when the garment is in position on the wearer.

5. A unitary waterproof garment comprising trunk, leg, arm, and shoulder-fitting portions, and a body-admitting portion attached to said trunk portion, said body-admitting portion comprising a hollow, tubular member attached to said trunk portion so as to normally extend substantially longitudinally of the garment, said body-admitting portion being attached to said trunk portion on a line which lies along and on top of the shoulders of the wearer when the garment is in position.

6. A unitary waterproof garment comprising trunk, leg, arm, and shoulder-fitting portions, and a body-admitting portion attached to said trunk portion, said body-admitting portion comprising a hollow, tubular member attached to said trunk portion so as to normally extend substantially longitudinally of the garment, said body-admitting portion being provided with a neck portion adjacent to the back of the trunk portion, said body-admitting portion being attached to said trunk portion on a line which lies along and on top of the shoulders of the wearer when the garment is in position.

In testimony whereof, I have signed my name to this specification this 10th day of December 1918.

WALTER L. FRY.