

Aug. 10, 1948.

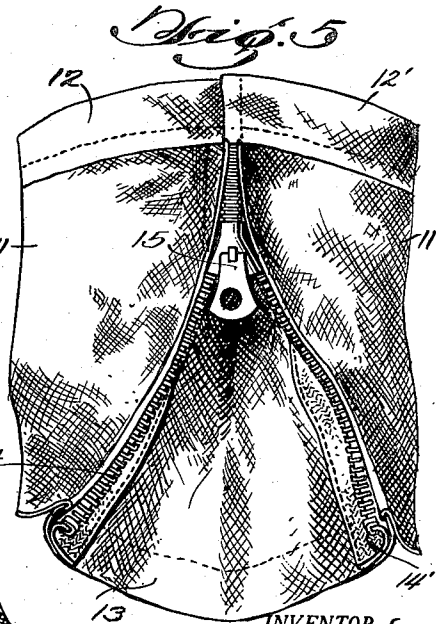
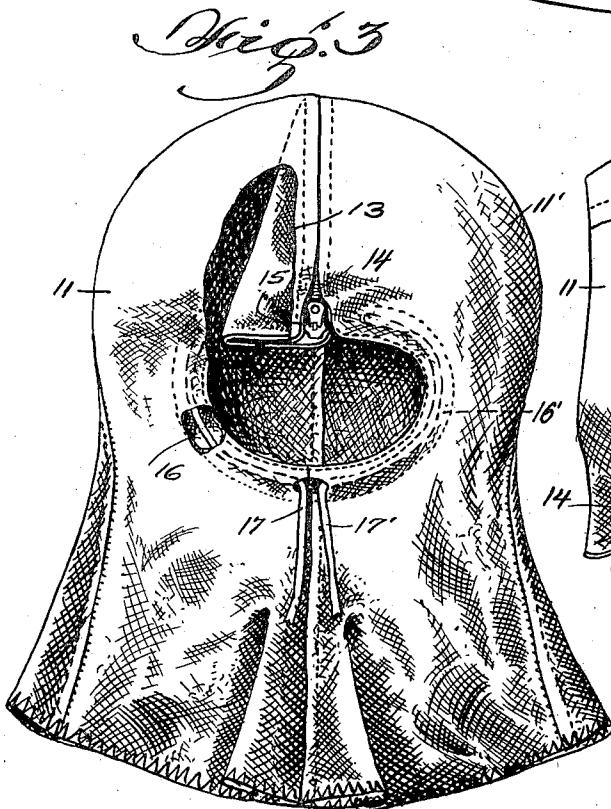
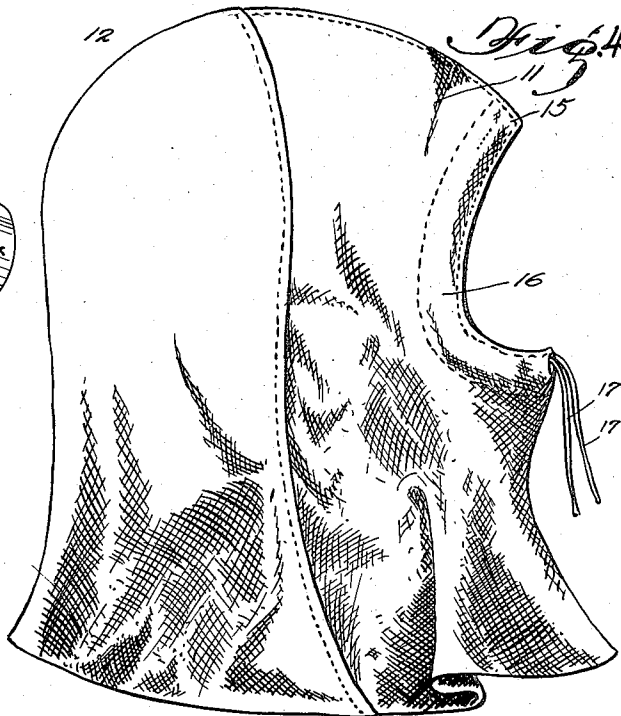
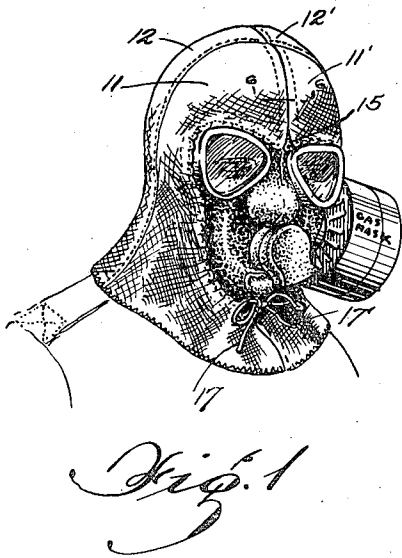
J. DE GRAZIA ET AL

2,446,530

EXPANSIBLE HOOD

Filed Sept. 20, 1945

2 Sheets-Sheet 1



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EXPANSIBLE HOOD

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2 Sheets-Sheet 2

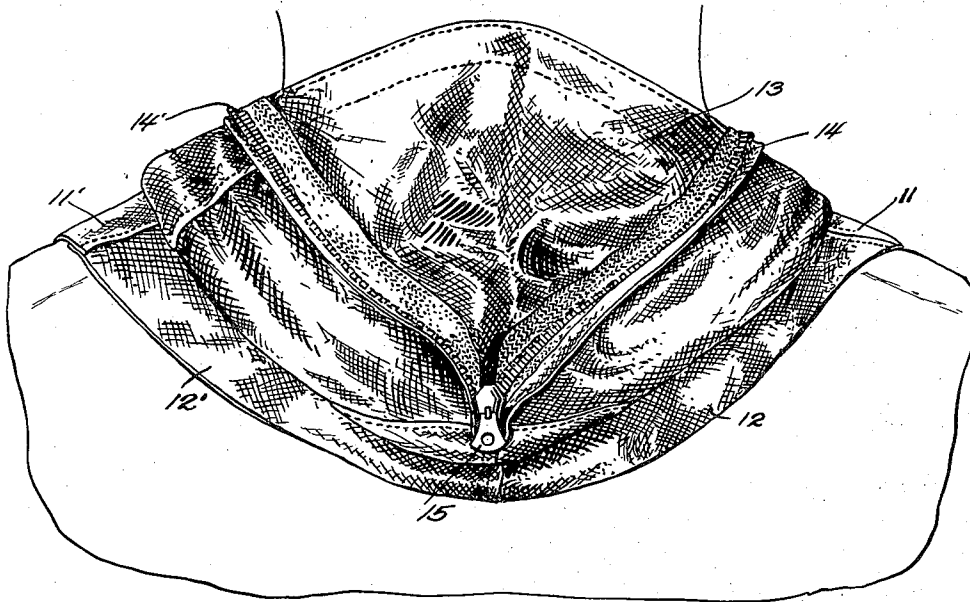


Fig. 2

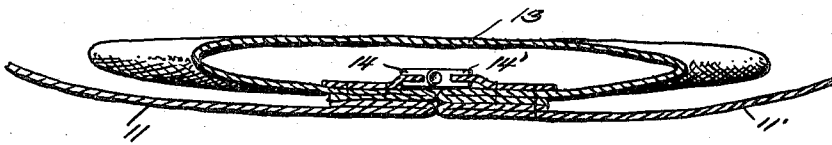


Fig. 6

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UNITED STATES PATENT OFFICE

2,446,530

EXPANSIBLE HOOD

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Application September 20, 1945, Serial No. 617,662

2 Claims. (Cl. 2—205)

(Granted under the act of March 3, 1883, as
amended April 30, 1928; 370 O. G. 757)

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The invention described herein, if patented, may be manufactured and used by or for the Government for governmental purposes, without the payment to us of any royalty thereon.

This invention relates to an expansible hood, specifically for use in connection with a gas mask.

Personnel operating in vesicant gas contaminated areas or in areas liable to gas attack is protected by gas masks and gas-impervious clothing. It has been customary to issue impregnated shoes, socks, gloves, trousers and jackets or overalls; but no satisfactory means have heretofore been provided for protecting exposed portions of the neck and head which are not covered by the face-piece of the gas mask and by the helmet. One-piece decontamination suits which cover the wearer from head to foot are extremely uncomfortable because of the exclusion of air from the body, and therefore are put on only immediately prior to entering gas contaminated areas.

Our invention briefly consists of a hood which can be expanded in order to be pulled over gas mask on the head of the wearer, and then tightened in order to provide a gastight seal. The forehead portion of our hood is split vertically, the edges of the split being joined by a wide triangular gusset and by fastening means, preferably of the slide fastener type.

A hood in accordance with our invention may be sewn along its lower margin to the neck and shoulder portion of a coat or jumper impregnated with a gas-resisting material, and is normally worn thrown back over the shoulders of the wearer in collar-like fashion, with the fastening means in open position. Upon the sounding of a gas alarm, or upon entry into a gas contaminated area, the individual puts on his gas mask, and pulls the hood over his head and closes the fastener, thereby providing complete gas protection. The fabric of the hood is impregnated against the penetration of gas.

It is thus an object of our invention to provide an expansible protective hood which can be worn over a helmet and gas mask.

Another object of our invention is a hood forming a part of an outfit of gas-protective clothing, which can be worn without discomfort as a collar when there is no danger of poison gas, but which is instantaneously available for protection of exposed neck and head portions of the wearer upon the sounding of a gas alarm.

A further object of the present invention is a hood of light weight material, having a split forehead portion and an insert connecting the split edges, and fastening means along the split

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edges, for the purpose of expanding the size of the hood at will.

Still other objects of our invention will readily appear from the following description and appended drawings.

In the drawings, which illustrate a preferred embodiment of our invention,

Figure 1 is a perspective view of a hood in accordance with our invention, worn over a gas mask;

Figure 2 is a rear view of the shoulders of the wearer, showing our hood in opened position, while not in use;

Figure 3 is a front elevation of our hood, partly broken away, in closed position;

Figure 4 is a side view corresponding to Figure 3; and

Figure 5 is a detailed showing in front elevation of the forehead portion of our hood in open position.

Figure 6 is a sectional view along line 6—6 on Figure 1.

In greater detail, our hood consists of left and right front portions, 11, 11', and left and right back portions, 12, 12', joined together by vertical seams, except at the forehead portion of the hood. A semi-circular recess in front portion 11 and a corresponding semi-circular recess in front portion 11' define a face opening. The left and right edges of the face opening are bordered by arcuate channels, 16, 16', wherein are housed drawstring means 17, 17', for adjusting the contour of the face opening so as to provide gas-tight contact with the face piece of the gas mask. The inner edges of front portion 11 and 11' intermediate the crown of the hood and the upper edge of the face opening are not sewn together, but are each joined to one of the equal sides of an isosceles triangle 13 which thus forms a gusset. Adjacent the seams which join gusset 13 to front portions 11 and 11' are two slide fastener runways 14, 14', which likewise extend from the crown of the hood to the face opening; a slide 15, slidable from the crown of the hood to the face opening, permits selective joining and separating of the front portions 11 and 11' along the forehead part. It will be noted that when the edges are separated by the opening of the slide fastener, gusset 13 still provides a junction between parts 11 and 11'. When the slide fastener is closed, gusset 13 folds up inside the hood, as is clearly shown in Figure 3.

Means for tightening the hood around the neck of the wearer (not shown) may be provided if desired.

It will be understood from the foregoing de-

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scription that it is in the nature of an illustration of a preferred embodiment of our invention, and that other modifications within the scope and spirit of our invention will readily occur to the expert for the carrying out of our objects. We thus wish to claim our invention broadly and to be limited only by the appended claims.

We claim:

1. In an expansible hood of substantially gas-impervious flexible material, a front portion defining a face opening, drawstring means for adjusting the size of said face opening, an arcuate housing for said drawstring means bordering the edge of said face opening, split edges in the crown of said hood, said split edges extending substantially longitudinally through the forehead portion of said hood to said face opening, a slide fastener for selectively joining and separating said split edges, and a triangular gusset of gas-impervious flexible material connecting said split edges, said gusset being foldable beneath said slide fastener to provide a gas-impenetrable seal when said slide fastener is closed.

2. In an expansible hood of substantially gas-impervious flexible material, a front portion defining a face opening adapted to overlie the face piece of a gas mask, drawstring means for adjusting the size of said face opening to provide sealing contact with the face piece of said gas

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mask, an arcuate housing for said drawstring means bordering the edge of said face opening, split edges in the crown of said hood, said split edges extending substantially longitudinally through the forehead portion of said hood to said face opening, a slide fastener for selectively joining and separating said split edges, and a triangular insert of gas-impervious flexible material having two sides connected to said split edges and its third side overlying said face opening, said insert being foldable beneath said slide fastener to provide a gas-impenetrable seal when said slide fastener is fully closed and to provide sealing contact with the face piece of said gas mask when said slide fastener is not fully closed.

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