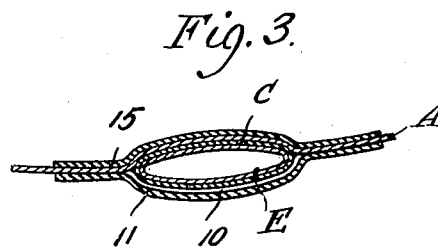
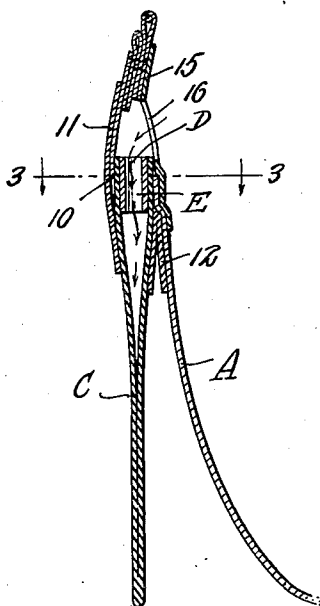
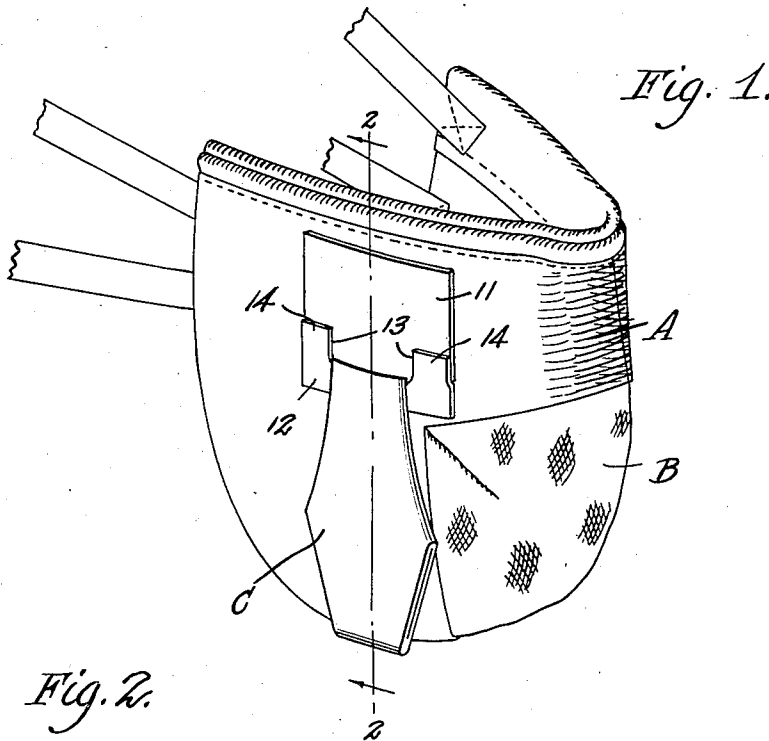


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MEANS FOR AND METHOD OF CONNECTING AN EXHALATION VALVE
SEPARATOR, OR SIMILAR ELEMENT WITH THE FACE PIECE
OF A RESPIRATOR, GAS MASK OR THE LIKE
Filed July 26, 1935



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**MEANS FOR AND METHOD OF CONNECTING
AN EXHALATION VALVE, SEPARATOR,
OR SIMILAR ELEMENT WITH THE FACE
PIECE OF A RESPIRATOR, GAS MASK, OR
THE LIKE**

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4 Claims. (Cl. 128—146)

This invention has general reference to respirators, gas masks or the like and provides an improved means for and method of connecting an exhalation, flutter valve, canister, separator or any equivalent device or element with the face piece of the mask or respirator.

The invention broadly aims to provide an improved means for and method of attaching the valve, separator or equivalent element to the face piece of the respirator or mask so as to insure a sealed, leak-proof juncture, while making for a more expeditious and less expensive assembling operation.

More specifically the means of connection resides in the arrangement of the open end of the valve or equivalent element within a slit formed in the face piece through which the open end of the valve extends and the emplacement of swatches of gas impervious material arranged over opposite sides of the valve and over the exterior of the face piece adjacent the slit and the adhesive connection of the swatches together in overlapped relation, whereby they surround and intimately engage with the valve and with the face piece at the slit.

The method more particularly resides in slitting the mask body, inserting the open end of the valve or equivalent element through the slit, adhesively applying swatches of gas impervious material over the slitted portion of the face piece and over opposite sides of the valve or equivalent element adjacent the slit and then adhesively joining the swatches together in overlapped relation.

With the above and other objects and advantages in view, the invention in one of its forms, is set forth in more detail in the following specification, the accompanying drawing and the appended claims, while it is to be understood that variations and modifications thereof which fall within the scope of the claims are also covered thereby.

In the drawing:

Fig. 1 is a perspective view of a respirator provided with an exhalation or flutter valve attached thereto in accordance with the invention.

Fig. 2 is an enlarged vertical fragmentary sectional view taken approximately on the line 2—2 of Fig. 1.

Fig. 3 is a fragmentary transverse sectional view taken approximately on the line 3—3 of Fig. 2.

Referring to the drawing by characters of reference, A designates the face piece of a respirator of any approved construction having an in-

halation filter B. The exhalation or flutter valve C is also of any approved standard construction and is provided with an open end D which is maintained in expanded condition by a sleeve E. The improved means for connecting or attaching the valve C with the face piece so that the open end D is in communication with the interior thereof, comprises a slitted portion 10 of the face piece through which the open end D extends.

In order to seal the valve in place and provide a leak-proof juncture, a swatch of rubber or other gas impervious material 11 is adhesively applied to the face piece of the respirator A over the slitted portion and over the outerside of the valve C. A similar swatch 12 of rubber or other gas impervious material is applied to the exterior of the face piece below the slitted portion 10 and doubled upon itself and adhesively applied to the inner side of the valve C, the laterally protruding portions of the swatches 11 and 12 are also overlapped and adhesively joined together and if desired the swatch 12 may be slitted along the lines 13 and the upturned space portions 14 adhesively secured to the swatch 11. In order to provide a smooth finish within the face piece, an inner swatch 15 may be applied adhesively where the open end D of the valve communicates with the interior of the respirator, the swatch 15 being provided with an opening 16.

The method of connecting the exhalation or flutter valve with the face piece consists in forming a slit therein, inserting the open end of the valve through the slit, adhesively applying swatches of material to the exterior of the face piece in the region of the slitted portion and over the opposite sides of the valve adjacent said slitted portion and then adhesively joining together the overlapped portions of the swatches to seal the juncture of the valve with the face piece.

While the invention has been illustrated in the drawings and particularly described in the description as applicable to an exhalation or flutter valve, it is to be understood that within its scope the invention is equally applicable to means for and method of connecting a canister, separator or equivalent device or element with the face piece of a gas mask, or respirator to establish a sealed leak proof juncture therewith.

What is claimed is:

1. In a respirator, gas mask or the like, a face piece having a slit, an element having an open end extending through said slit, swatches of gas impervious material adhesively applied to the exterior of the face piece adjacent said slit and

adhesively joined to said element and to each other.

2. In a respirator, gas mask or the like, a face piece having a slit, an element having an open end extending through said slit, a swatch of gas impervious material adhesively applied to the face piece above the slit and extending downwardly therebelow and adhesively joined to the outer side of the element and a second swatch of gas impervious material doubled upon itself and adhesively joined to the exterior of the mask body below the slit, to the inner side of the element and having portions overlapping and adhesively joined to the first mentioned swatch.
3. In a respirator, gas mask or the like, a face piece having a slit, an element having an open end extending through said slit, a swatch of gas impervious material adhesively applied to the face piece above the slit and extending downwardly therebelow and adhesively joined to the outer side of the element and a second swatch of gas im-

pervious material doubled upon itself and adhesively joined to the exterior of the mask body below the slit, to the inner side of the valve and having portions overlapping and adhesively joined to the first mentioned swatch, and a swatch of gas impervious material having an opening applied to the interior of the face piece with the opening in registry with the slitted portion of the face piece and with the open end of the element.

4. A method of connecting an element with the face piece of a respirator, gas mask or the like, consisting in slitting said face piece, inserting the open end of the element through the slit, adhesively applying swatches of material to the exterior of the face piece in the region of the slit, adhesively joining said swatches to opposite sides of the element in surrounding relation to the slit and adhesively joining said swatches together in overlapped relation.

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