Dec. 2, 1930. E. W. MENKE ET AL 1,783,624

SIFTPROOF VALVE BAG

Filed Jan. 28, 1929

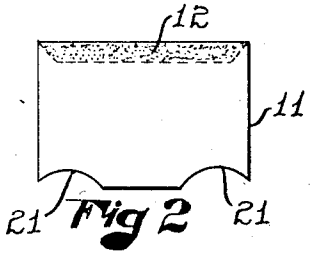


Fig 2

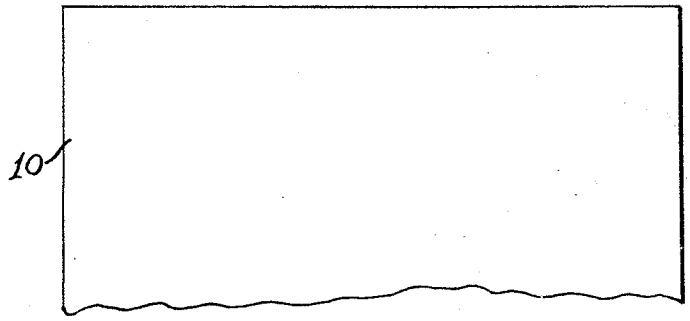


Fig 1

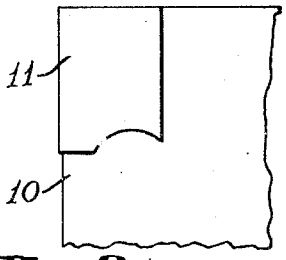


Fig 3

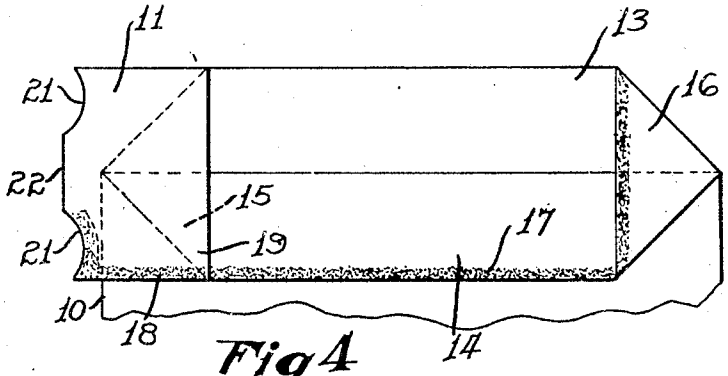


Fig 4

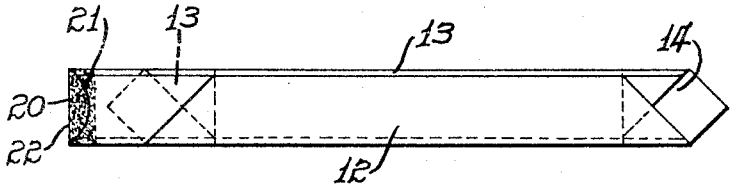


Fig 5

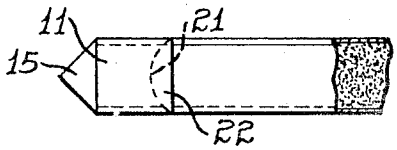


Fig 6

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UNITED STATES PATENT OFFICE

EDWARD W. MENKE, OF CHICAGO, AND JOHN C. REDINGTON, OF GENEVA, ILLINOIS, ASSIGNORS, BY MESNE ASSIGNMENTS, TO ST. REGIS PAPER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK

SIFTPROOF VALVE BAG

Application filed January 28, 1929. Serial No. 335,518.

This invention relates to valve bags, and particularly to valve bags where the inlet opening is securely closed after filling.

The object of the invention is to provide a bag which can be filled through a restricted opening which is provided with a valve adapted to close against the exit of material, and in which means is provided to prevent the final escape of any material that may sift through the valve.

In the accompanying drawings, forming a part of this specification, there is shown one embodiment of the invention.

Fig. 1 shows an open end of a bag;

Fig. 2 shows a sleeve-forming sheet;

Fig. 3 shows the sheet of Fig. 2 applied to the bag of Fig. 1;

Fig. 4 shows the bag-end opened out preparatory to closing the end;

Fig. 5 shows the closed end of the bag after the bag has been filled;

Fig. 6 is a view similar to Fig. 5, showing the position of the sleeve which insures against sifting.

The drawings show the invention applied to a bag 10, which may be of paper of one or more plies. A sheet 11 is provided with adhesive 12 and placed on one corner of the bag, as shown in Fig. 3. Thereafter the bag-end is opened out in the usual manner, by spreading the sides to form flaps 13 and 14 and folding in the corners to form flaps 15 and 16. Sheet 11 having been adhered to the corner forming flap 15, the sheet is opened out when the bag-end is spread.

While Fig. 3 indicates the sheet applied to the collapsed bag, as described above, it is sometimes preferable to apply the sheet to the end of the bag when it is in the position in which it is shown in Fig. 4. This avoids the necessity of folding the sheet before it is formed into a sleeve.

Adhesive is applied along line 17, and flap 13 is folded down and then flap 14 is folded up onto flap 13 and adhered thereto by adhesive 16. The line of adhesive is extended along the edge of sheet 11 at 18. The sheet forms, in effect, an extension of flaps 13 and 14, and is folded and adhered with them.

No adhesive is provided between flap 15 and the outer flaps 13 and 14, and therefore there is an opening over flap 15 and under flap 13. Sheet 11 is positioned in this opening, except for a corner 19 which is between flaps 13 and 14, and when the edges of the sheet are folded over and adhered together, it forms a sleeve. Material may then be filled into the bag through this sleeve, and flap 15 and the inner side of the sleeve tend to close the opening against the exit of material from the bag. But some materials sift through such a valve to an objectionable extent.

In order to make the valve sift-proof, the end of the sleeve may be folded over and adhered in folded position. This may be done by applying adhesive 20 to the end of the sleeve, as shown in Fig. 5, and then folding it to, and pressing it down in, the position in which it is shown in Fig. 6. This prevents any sifting of material out through the sleeve.

In order that both walls of the tube may be adhered to the end of the bag and held in valve-closing position, it is preferable to provide sheet 11 with notches 21 which are superposed when the sheet is folded into sleeve-forming position. This notch allows the unnotched portion 22, which forms the other wall of the sleeve, to be adhered to the end of the bag, so that the end of the sleeve is closed as well as being held in folded-back position. The material is stopped largely by the valve flap, and the little that sifts out into the sleeve is not likely to pass around the bend or fold in the sleeve; but when the end of the sleeve is closed in the manner described, none of the material can sift out, even when it is of a character that flows like water.

The sleeve might be folded over and the end adhered to the sleeve instead of to the bag wall, and it might be folded downward or to one side instead of upward. In any case where the notch is provided in the end of the sleeve, it will be positioned in accordance with the direction in which the sleeve is to be folded, so as to permit the adhesion of the outside wall of the folded end of the sleeve through the notch to the surface

against which the end of the sleeve is folded. When a notch is formed in one side of the sleeve, the result is that the other side of the sleeve extends further, and this result might be brought about by a tab on that other side of the sleeve, instead of by a notch.

It will be obvious that the sleeve may be formed in other ways and placed in position in other ways, and may be applied to valves variously formed, and other departures from the specific disclosure may be made within the scope of the appended claims.

What we claim is:

1. A valve bag having a sleeve projecting from its valve, said sleeve having one wall extending farther than the other.

2. A valve bag having a sleeve projecting from its valve and having a flat pasted end closure, the upper side of the sleeve extending, for at least a portion of its width, a less distance than the lower side of the sleeve, whereby the sleeve may be folded over onto said end closure and both walls of the sleeve adhered to the end closure.

In testimony whereof we have hereunto signed our names to this specification.

EDWARD W. MENKE.
JOHN C. REDINGTON.