Jan. 13, 1942. W. E. HAHN 2,269,849

VALVE BAG

Filed March 6, 1940

Fig. 1.

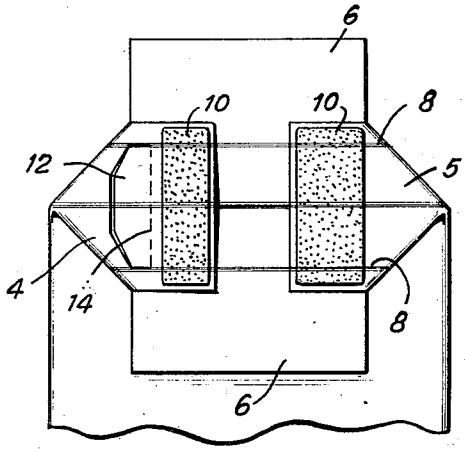


Fig. 2.

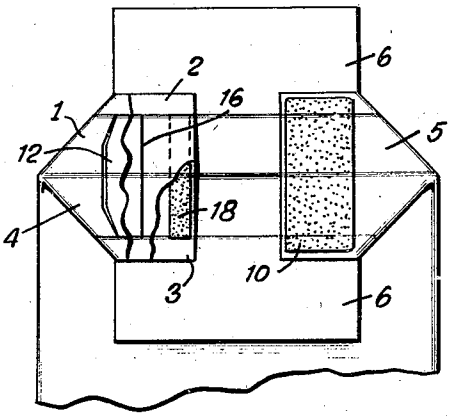


Fig. 3.

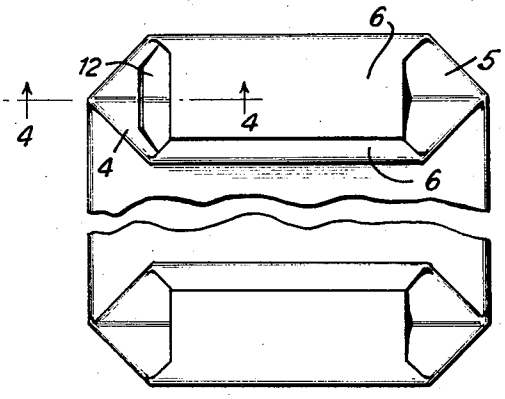
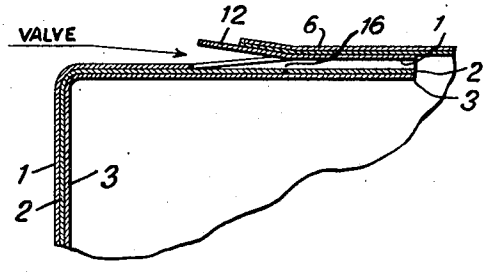
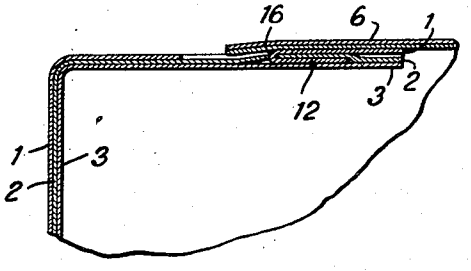


Fig. 4.

Fig. 5.





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VALVE BAG

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Application March 6, 1940, Serial No. 322,469

5 Claims. (Cl. 229—62.5)

The present invention relates to bags, and has special reference to multi-ply valve bags.

One of the objects of the present invention is to provide a multi-ply valve bag having a valve of novel and improved construction.

Another of the objects of the invention is to provide a multi-ply valve bag in which the valve may be easily and conveniently closed after the bag is filled so as to prevent sifting through the valve opening.

The preferred form of the invention is illustrated, by way of example, in the accompanying drawing, in which:

Figure 1 is a side view of one end portion of the bag with the end partially closed;

Fig. 2 is a similar view with certain of the plies partly broken away;

Fig. 3 is a side view of the completed bag with the central portion broken away to save space;

Fig. 4 is a detail sectional view on an enlarged scale, taken on the line 4—4 of Fig. 3; and

Fig. 5 is a similar view after the bag is filled and the valve closed.

The bag illustrated in the drawing, is made of three plies 1, 2 and 3 of paper, but the number of plies may be varied. The ends of the bag may be closed by the usual type of satchel end closure which comprises inwardly folded corners or end flaps 4 and 5, and side flaps 6 which are folded over on lines 8 and pasted to the end flaps and to each other, areas of glue or paste 10 being previously applied to the end flaps.

In accordance with the present invention, the outer ply of the end flap is cut to form a flap 12 which has its free end directed outwardly and its inner end positioned a distance beneath the lateral ends of the side flaps 6. The inner end of said ply flap 12 may be creased on a line 14.

The next ply 2 of the end flap 4 is provided with a transverse slit 16 which is arranged directly beneath the inner end crease 14 of the flap 12, and is of such width as to be adapted to receive the outer end of the flap 12.

The plies 2 and 3 of the end flap 12 have their inner ends secured together by adhesive 18 so that when the flaps of the satchel ends are folded over and pasted, a pocket is formed between the plies 2 and 3, the pocket opening out through the slit 16.

With this construction in filling the bag, the filling nozzle may be easily inserted beneath the ply flap 12, between the plies 1 and 2 and into the interior of the bag. When the bag is filled and the filling nozzle is withdrawn, the ply flap 12 may be easily inserted or tucked through the slit 16 and into said pocket formed between the inner plies 2 and 3.

Such tucking in of the flap 12 may be easily and conveniently accomplished as the filling nozzle is withdrawn. The tucking in of the flap 12 securely and tightly closes the valve opening so as to obviate the danger of finely divided material sifting out through the opening. Also, the walls of the slit 16 and the overlying side flaps of the bag, securely hold the valve flap in place.

While the invention is illustrated as embodied in a pasted or folded ended bag, it will be apparent that except as defined in the claims certain features thereof may be employed in other types of bags.

As will be evident to those skilled in the art, my invention permits various modifications without departing from the spirit thereof or scope of the appended claims.

What I claim is:

1. A bag having walls comprising a plurality of layers of paper and having an end closure formed by folding upon each other flaps formed from said end of the bag walls, one of the underlying flaps having a flap cut in its outer ply having its free end directed outwardly to form a valve opening through which a filling nozzle may be inserted beneath the flap and between said ply and the underlying ply and into the interior of the bag, said underlying ply having an opening therein in which the end of said ply flap may be inserted to close the valve opening.

2. A multi-ply bag having a satchel type closure formed at one end, one of the corner flaps of the closure having a flap cut in its outer ply having its free end directed outwardly and its other end positioned beneath said side flaps of the closure to form a valve opening through which a filling nozzle may be inserted beneath the ply flap and between said ply and the underlying ply, said underlying ply having an opening through which the end of the ply flap may be inserted to close the valve opening.

3. A bag having walls comprising a plurality of layers of paper and having an end closure formed by folding upon each other flaps formed from said end of the bag walls, one of the underlying flaps having a flap cut in its outer ply having its free end directed outwardly to form a valve opening through which a filling nozzle may be inserted beneath the flap and between said ply and the underlying ply and into the interior of the bag, said underlying ply having an opening therein and having its under side secured to the ply beneath to form a pocket into which the end

of said ply flap may be inserted to close said opening.

4. A multi-ply paper bag having a flap cut in its outer ply to form a valve opening therein through which a filling nozzle may be inserted between said ply and the underlying ply and into the interior of the bag, said underlying ply having an opening, and said flap being adapted to be inserted through said opening and between said underlying ply and the ply beneath.

5. A multi-ply paper bag having one end closed and a corner thereof folded inwardly to form an inwardly directed flap, said corner flap having a flap cut in its outer ply having its free end directed outwardly to form a valve opening through which a filling nozzle may be inserted beneath the flap and between said ply and the underlying ply into the interior of the bag, and an opening in the underlying ply into which the end of the flap may be inserted between said ply and the ply beneath.

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