June 7, 1932. H. R. WILLIAMS 1,861,995

VALVE BAG CLOSURE

Filed June 20, 1929

Fig. 1.

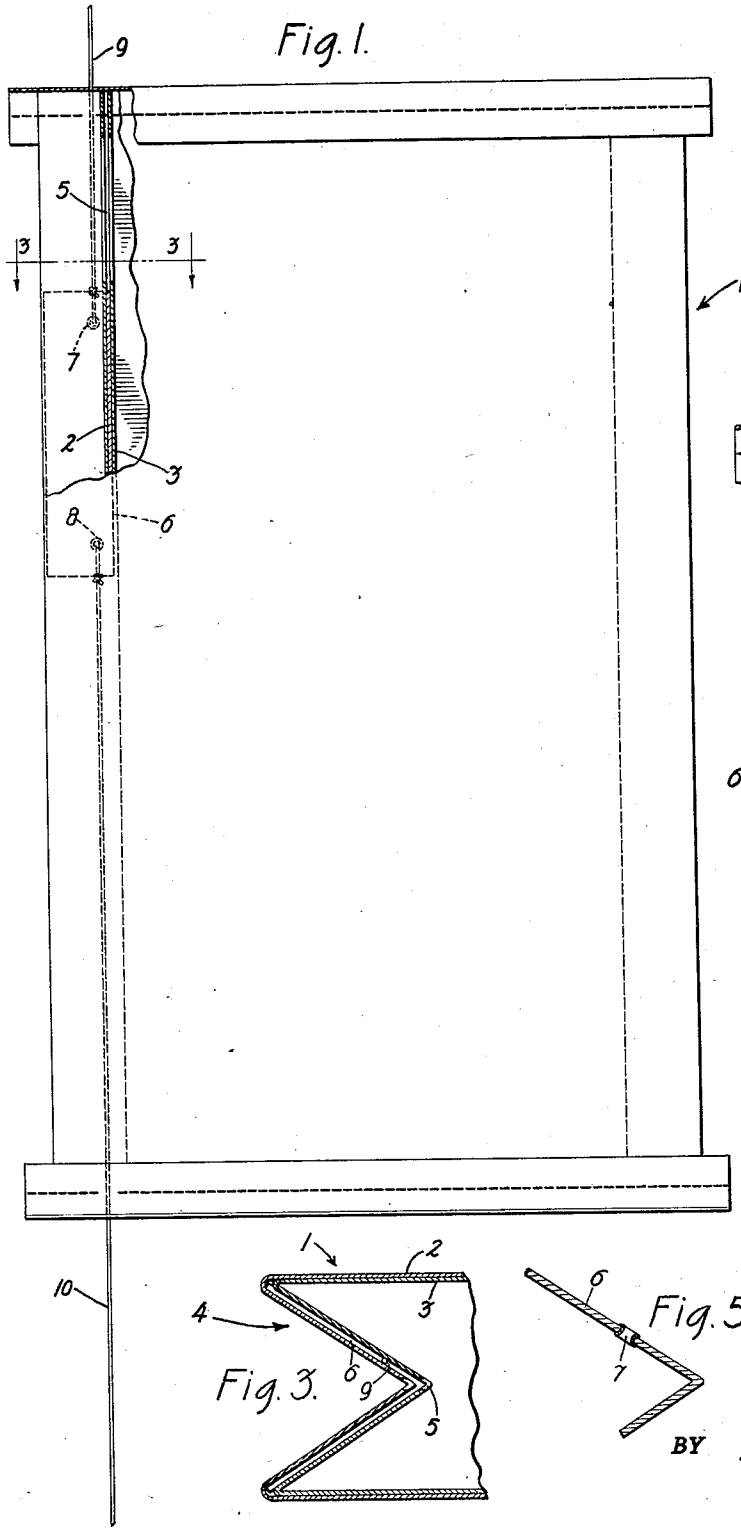


Fig. 2.

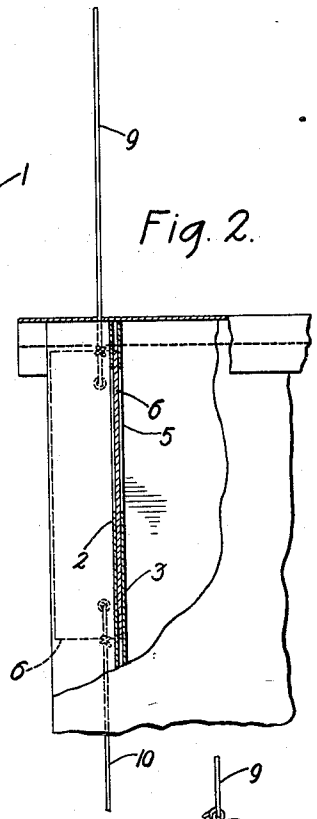


Fig. 4.

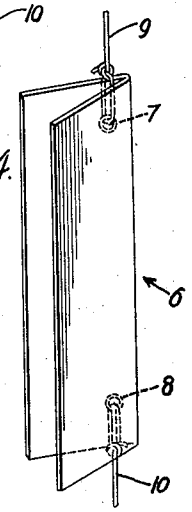


Fig. 3.

Fig. 5.

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UNITED STATES PATENT OFFICE

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VALVE BAG CLOSURE

Application filed June 20, 1929. Serial No. 372,276.

This invention relates to valve bags, and has for its principal object the provision in such a bag of a valve-control element slidable between the plies of the bag gusset to open and close the bag valve.

Another object of the invention is the provision of means for readily operating the valve-control element.

The invention will best be understood by reference to the accompanying drawing, wherein is illustrated the present preferred embodiment thereof and in which

Figure 1 is an illustration of a paper bag embodying the invention, a portion of said bag being shown as broken away in order to disclose the structural features and the position of the valve-control element when the valve is open.

Figure 2 is a fragmentary view similar to Figure 1, but showing the bag valve as closed.

Figure 3 is a sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a perspective view of the valve-control element.

Figure 5 is a fragmentary detailed view of the valve-control element illustrating one of the eyelets with which the same is provided.

Referring to the drawing, the paper bag here illustrated and designated generally by the reference numeral 1 is of the multiple-ply type, the ends thereof being folded over and sewn in order to close the same.

The two plies of the bag are indicated respectively by the reference numerals 2 and 3. It should be understood that instead of the two plies 2 and 3 many plies may be used. These plies are folded to form a gusset extending along one side of the bag and denoted generally by the reference numeral 4. The apex of the gusset is perforated near one end thereof to provide a valve or opening 5, through which a filler-tube may be inserted. Slidable in the pocket formed by the walls of the gusset 4 is a valve-control element preferably made of cardboard or similar material, and designated generally by the reference numeral 6. This valve-control element is folded longitudinally in order to conform generally to the pocket defined by the gusset walls, and has mounted in one of its leaves two eyelets 7 and 8. Passing through eyelet 7 and tied therein is a valve-closing cord 9; and similarly tied in eyelet 8 is a valve-opening cord 10. As appears from Figs. 1, 2 and 4, these cords are installed in the pocket formed by the gusset walls, the valve-closing cord 9 extending beyond the top of the bag body and the valve-opening cord 10 extending beyond the bottom thereof. Pulling of cord 10 results in the opening of the valve, as shown in Fig. 1, in order that it may be filled or discharged; while pulling of cord 9 results in the closing of the valve to prevent leakage of the bag contents.

The invention provides a valve bag which is simple in construction, economical to manufacture, and which readily and effectually may be opened and closed.

I have described what I believe to be the best embodiment of my invention. I do not wish, however, to be confined to the embodiment shown, but what I desire to cover by Letters Patent is set forth in the appended claims.

I claim:

1. A bag provided with a gusset having an aperature therein, a dihedral valve member straddling the gusset, and a control element for said valve slidable longitudinally of the gusset.

2. A bag provided with a multiple-ply gusset apertured to form a valve and control means for said valve slidable in a pocket defined by the plies of said gusset.

3. A bag provided with a gusset apertured to form a valve, a control element for said valve slidable along the gusset, and means extending through opposite ends of the bag for manipulating said control element to open and close the valve.

4. A multiple-ply bag provided with a gusset apertured to form a valve, an opening and closing element for said valve, and cords extending through opposite ends of the body of the bag for actuating said opening and closing element between valve closing and valve opening position.

5. A bag provided with a multiple-ply gusset apertured to form a valve, the walls of said gusset defining a pocket, and a folded cardboard element slidable in said pocket and constructed and arranged to open and close said valve.

6. A bag provided with a filling and discharge aperture, a folded element interfitting with a bag fold and slidable along the same for controlling said aperture, and cords for manipulating said slidable element.

7. A bag provided with a filling and discharge aperture and a slidable cardboard element for controlling said aperture, said cardboard element being provided with a plurality of eyelets and with cords tied therein for manipulating said element to open and close said aperture.

8. A bag having a multiple-ply gusset apertured to provide a filling and discharge valve and a manually-operable slidable control element for said valve substantially coextensive in width with the gusseted wall of the bag.

9. A bag having a multiple-ply gusset apertured to provide a filling and discharge valve and a manually-operable control element for said valve slidable between the plies of said gusset.

10. A bag having a multiple-ply gusset apertured to provide a filling and discharge valve and a control element for said valve constructed and arranged to conform to the space defined by the walls of said gusset and slidable in said space.

11. A bag provided with a multiple-ply gusset apertured to form a valve, and a folded cardboard control element for opening and closing said valve, said control element having a plurality of eyeleted apertures with cords tied therein and extending beyond the body of the bag.

In testimony whereof I have affixed my signature.

HARRISON R. WILLIAMS.