A. M. BATES.

VALVE BAG.

APPLICATION FILED FEB. 2, 1903.

907,557. Patented Dec. 22, 1908.

Fig. 1.

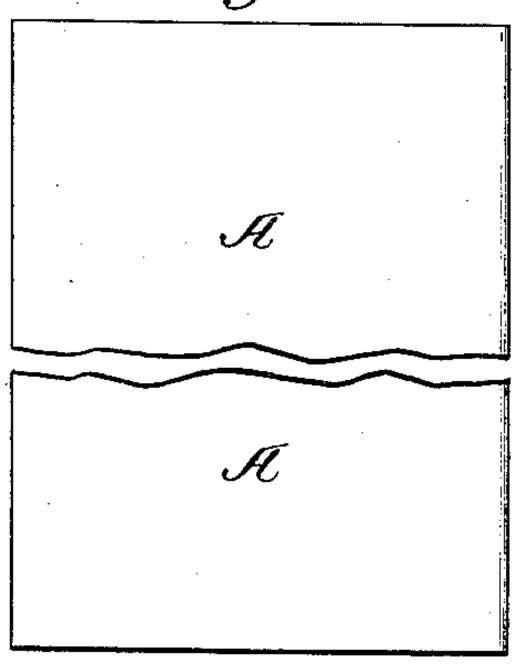


Fig. 2.

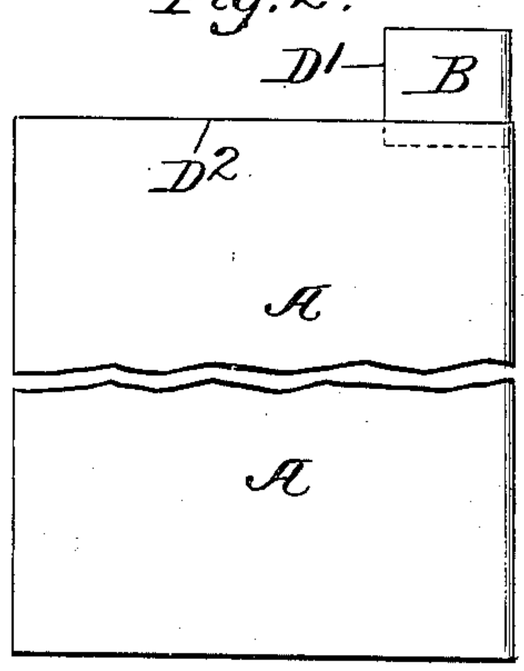


Fig. 3.

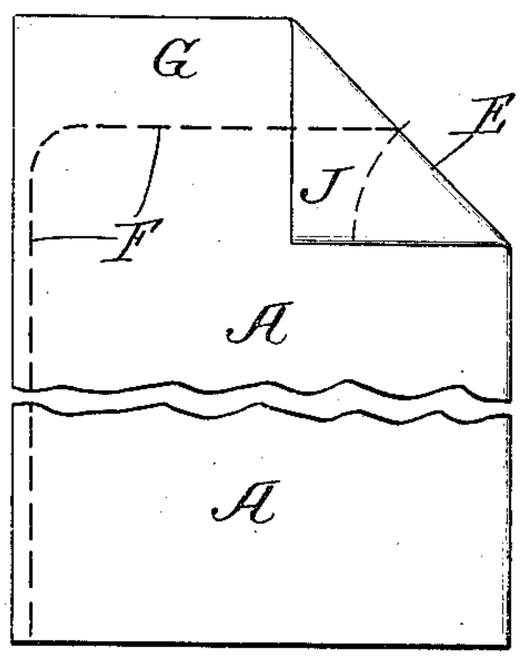


Fig. 4.

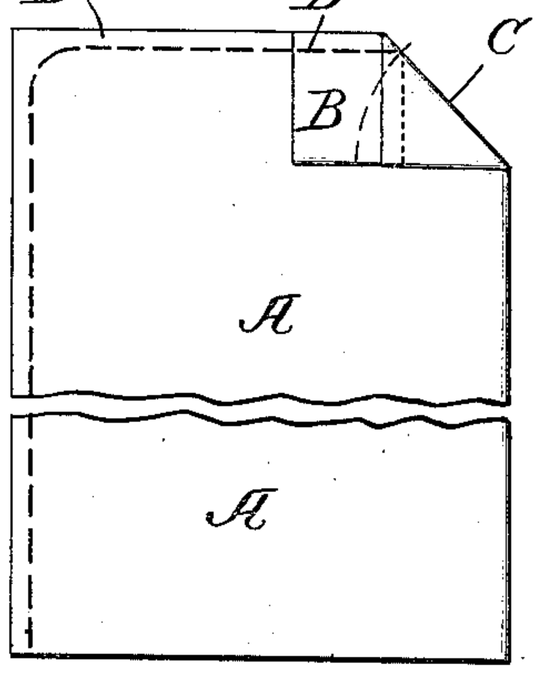


Fig. 5.

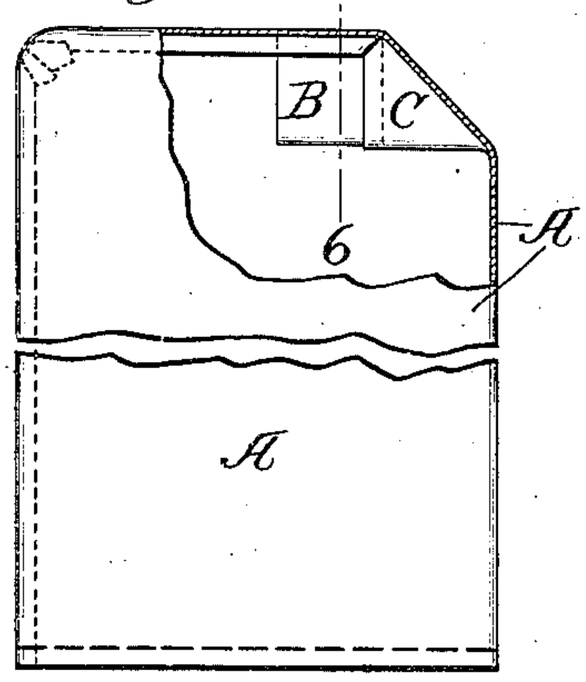
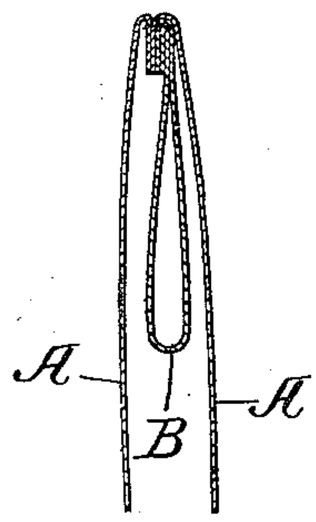


Fig. 6.



Witnesses.

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UNITED STATES PATENT OFFICE

ADELMER M. BATES, OF CLEVELAND, OHIO, ASSIGNOR TO BATES VALVE BAG COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF WEST VIRGINIA.

VALVE-BAG.

No. 907,557. Specification of Letters Patent. Patented Dec. 22, 1908.

Application filed February 2, 1903. Serial No. 141,550.

To all whom it may concern:

Be it known that I, ADELMER M. BATES, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Valve-Bags, of which the following is a specification.

My invention relates to valve bags and has for its object to provide certain new and useful improvements therein.

My invention is illustrated diagrammatically in the accompanying drawings, wherein—

Figure 1 is a side view of the bag blank; Fig. 2 is a corresponding view of the same with an extension valve piece projecting therefrom or attached thereto; Fig. 3 is a view of the bag blank of Fig. 1 folded down the necessary distance and stitched so as to form a long inwardly extending valve; Fig. 4 is a like view of a bag with a similar valve formed from the bag blank of Fig. 2; Fig. 5 is a detail view, with parts broken away, to show the inwardly extending valve of the devices of Figs. 2 and 4; Fig. 6 is a detail cross section on the line 6—6, Fig. 5.

Like parts are indicated by the same letter in all the figures.

A A are the sides of the bag.

B B are extension pieces formed integral with or preferably attached to the side portions of the bag.

C indicates the turned down corner of the bag blank, which is associated with the valve extension B.

D is the seam which is formed along the edge D^1 of the extension piece and the edge D^2 of the bag blank, when they are folded together as shown in Fig. 4. Thus, obviously, a valve opening is provided which passes through the corner of the bag blank and between the two sides of the extension piece B.

E is the turned down corner portion of the bag of Fig. 3 and F the seam through the same.

G is the projecting unused portion of the bag blank and J that portion of the bag blank corresponding to the extension piece B to form the inwardly projecting valve of Fig. 3.

These several drawings are intended simply to diagrammatically illustrate my invention and not to indicate that it cannot be applied except as here shown.

My invention is made use of to provide relatively long and narrow valve and to do this with little or no waste of goods. If we desire to have a valve the depth of which, measured in the direction leading toward the inside of the bag, is substantially greater than the diagonally arranged valve opening; we must obviously do this by extending the valve inwardly. This can be accomplished as indicated in Fig. 3, where however there is a great waste of material, for the part G would be entirely useless.

By attaching to the bag the valve extension piece B, which may be either sewed or gummed to the body of the bag, or which might of course be formed integral with the body of the bag, we get all the benefits and obviate all the difficulties of the other devices. When the extensions are turned down and brought into the proper position, as indicated in Fig. 4, we have a long extension valve, but it is composed entirely of the extension piece. This extension piece may of course be of any desired material and may be made of scrap and waste. It is desirable of course in all such bags to have uniformity and symmetry. The uniformity of size, shape and construction of the valve is important because the bags are filled by machinery, and symmetry is important both to make the goods sell readily and also for ease and convenience in packing, shipping and handling. By means of the extension device here illustrated, these several objects are all accomplished. When the extension piece is folded over, its edges are brought into alinement with the edges of the bag body, and when this is done, obviously, if the extension pieces are all of the same size, the valves produced will always be in the same relative position and of the same relative size. These features of construction herein referred to are not so important in small bags, but they become important in large bags and they also become important in the case of small bags when they are made of certain materials. By the system here shown any depth of valve can be obtained and the extension may be of such length as to proceed nearly to the other edge or side of the bag, if that be desired. The extension which I have here shown is intended preferably for use in connection with cloth or similar bags, though of course it is applicable to any kind of bag.

I claim:

1. A valve bag, comprising a bag body and an inwardly projecting valve tube, consisting of an extension at one corner of the bag body folded over upon such body and secured along one edge to the bag body.

2. A valve bag, comprising a body portion and an extension, with a downwardly turned corner said extension being carried with such downwardly turned corner and a seam extending from said downwardly turned portion across the end of the bag, associated therewith so as to leave a valve tube of a length greater than the length of the opening.

3. A valve bag, comprising a body portion and an extension, with a downwardly turned corner said extension being carried with such downwardly turned corner and a seam extending from said downwardly turned portion across the end of the bag, associated therewith so as to leave a valve tube of a length greater than the length of the opening, said seam being substantially at right angles to the length of the bag.

4. A valve bag comprising a bag body, with an inwardly extending valve tube composed in part by inwardly turned portions of the bag body and in part by an extension piece secured thereto.

5. In a valve bag, the combination of a bag body, with an inwardly projecting valve extension forming a tube, said extension secured to the bag body at the end and along one side of the tube.

6. In a valve bag, the combination of a bag body, with an inwardly projecting valve extension piece folded over upon itself, said extension piece being secured to the bag body along the superimposed edges of said extension piece.

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