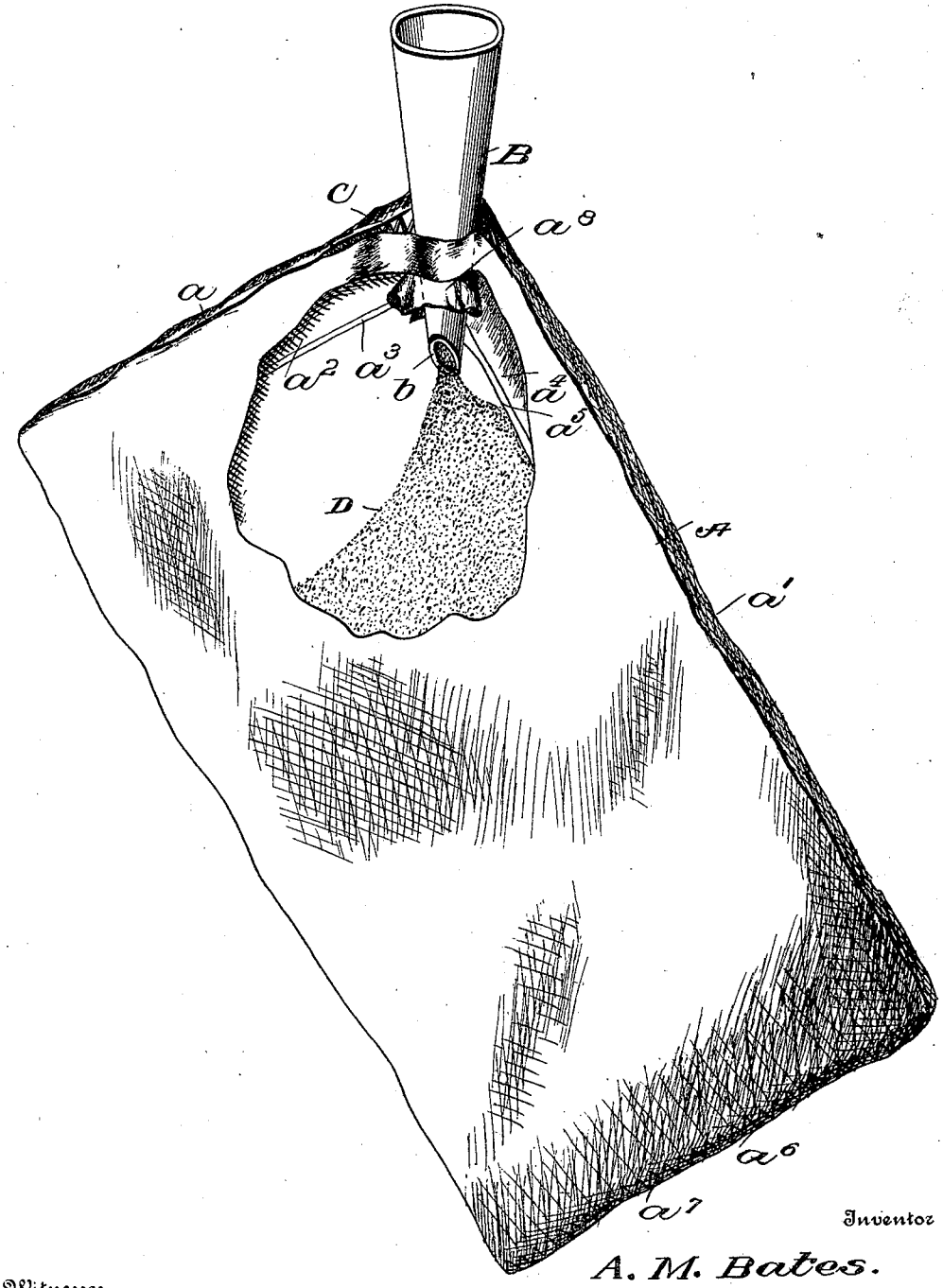
No. 683,896. Patented Oct. 8, 1901.

A. M. BATES.

VALVE BAG.

(Application filed Jan. 14, 1901. Renewed Aug 17, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

ADELMER M. BATES, OF CHICAGO, ILLINOIS.

VALVE-BAG.

SPECIFICATION forming part of Letters Patent No. 683,893, dated October 8, 1901.

Application filed January 14, 1901. Renewed August 17, 1901. Serial No. 72,383. (No model.)

To all whom it may concern:

Be it known that I, ADELMER M. BATES, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, 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 particularly to provide a bag which shall be essentially a normal or ordinary bag having any of the ordinary forms of construction, but so as in its manufacture to require only ordinary processes and in its finished state to present the appearance of an ordinary bag.

I have shown a single application of my invention in the accompanying drawing, where I have illustrated a valve-bag with parts broken away.

A represents the bag; B, a funnel through which material is being introduced by way of the funnel; C, the threads of the stitches in proximity to the valve and funnel.

D is the material—for example, salt—which is being introduced into the bag.

a is the seam at one end of the bag; a', the seam at the side of the bag.

a^2 a^3 are the inner flaps at one end of the bag, and a^4 a^5 the inner flaps at the side of the bag.

a^6 represents the end of the bag where the stitching is external, and a^7 represents such external stitching.

a^8 indicates the inner flaps of the bag on the corner where the funnel is being introduced. b is the end of such funnel, which protrudes through the valve-opening into the bag.

In some of the valve-bags heretofore made by me difficulties are encountered in the manufacture of the bag, because of the departure from the ordinary and familiar methods of manufacture, and also in the use of the bag, because of its lack of symmetry. This lack of symmetry sometimes makes it less convenient to pack the packages or to stand them on either end or to combine them into packages with other bags of ordinary manufacture. Now in manufacturing the bag above described the ordinary blank of proper material is formed, preferably adapted to be stitched at three sides. One side and one end are now stitched by the seams a' and a, respectively, and the bag is then turned inside out, so as to bring the flaps within the bag. The lower end of the bag at a^6 is then externally stitched by the stitching a^7, and thus a completely-closed bag is formed. The stitching at C may be composed of large or loose stitches, so as to permit of their being thrust aside or separated at any desired point—as, for example, at the corner, as indicated—by the sharp point of the funnel. The parts will then assume the position shown in the drawing, and the material—as, for example, salt—can be introduced through the funnel until the bag is filled. When the bag has been filled, by giving it a sudden jolt after the funnel has been withdrawn the material will collect around the flaps where the valve had been formed and force the sides together, and thus close the aperture. The stitching a^7 can of course be run very close to the edge of the bag, thus economizing material and making a much neater bag than would otherwise be made, and this is because the stitching is done before the bag is filled. By filling from the corner the material is more easily packed into the corners of the bag. The loose or open stitching may be, however, placed at some other point than along the edge or side of the bag, if desired. When the flaps are forced together and back into position by the weight of the material which fills the bag, the tendency of the bag under the pressure of the material within it is to be pressed outwardly into its normal position and shape, whereby the loose and open stitches are again drawn tight at the point where the valve is formed. It is not necessary that this action should completely restore the stitching and flaps to their original position, for the inner flaps being inside of the bag act as a valve to prevent the falling out of the material even when the stitching and flaps are not restored to their original position. The open or loose stitching may, of course, be accomplished in many ways and may extend across the entire end of the bag or as may be found convenient. I have not attempted to show any particular form of stitching.

I do not consider it necessary to show in what manner I produce the large, loose, or open stitching, for it can of course be pro-

duced in many ways. Broadly speaking, the arrangement of the seams and stitching can be made so as to, so to speak, "interrupt" or make it possible to temporarily interrupt the continuity of the seam, thus providing a sort of aperture for the introduction of the funnel.

My invention is applicable to bags used for all kinds of powdered, granular, and like substances.

By this construction I save material in the bag and also save the expense which is involved in a departure from the ordinary methods of manufacturing such bags.

I do not wish to be limited to the precise or particular construction or arrangement shown.

I claim—

1. As a new article of manufacture, a bag closed on all sides and provided with loose or open stitching, and having flaps projecting into the bag in proximity to said loose or open stitching, the stitching adapted to open to receive the filling device and the flaps adapted to close under the action of the material in the filled bag, to close the opening.

2. As a new article of manufacture, a bag stitched or formed so as to be closed at the two sides in the usual manner, externally stitched at one end, and formed with inner flaps at the other end and internally stitched at such end by a loose or open stitching.

3. As a new article of manufacture, a bag formed of a blank, having its edges closed in substantially the usual manner but provided with a loose or open stitch and internal flaps associated with the same at some point along its edge whereby a funnel may be introduced through the open stitch and the flaps will form a valve to retain the contents when the funnel is removed.

4. As a new and useful article of manufacture a bag closed on all sides and stitched on one side by means of draw-stitching and having wide lips projecting beyond said stitching into the bag whereby the stitching may be strained apart for the introduction of a filling tube or funnel and the lips will subsequently close said opening between the stitches when the funnel is withdrawn, substantially as set forth.

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