

J. ARKELL.
Bag and Sack.

No. 207,933.

Patented Sept. 10, 1878.

Fig. 1.

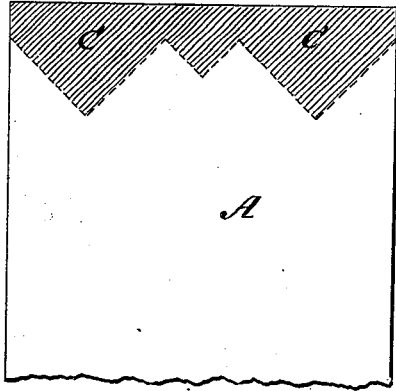


Fig. 2.

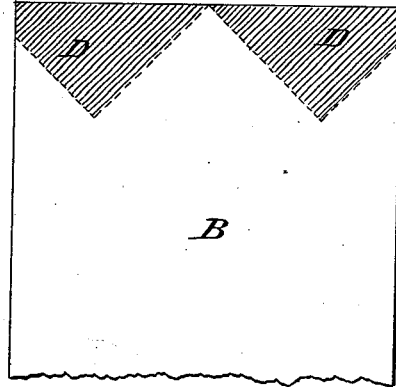


Fig. 3.

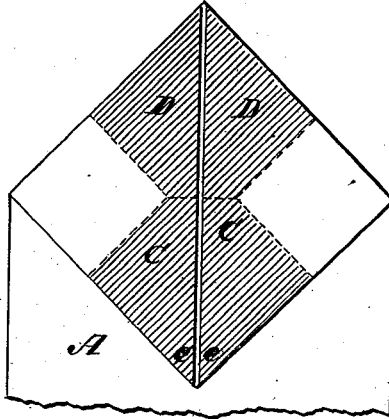


Fig. 4.

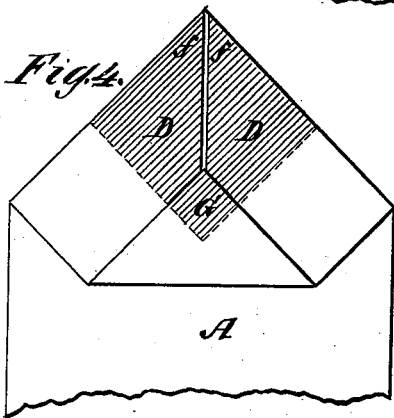
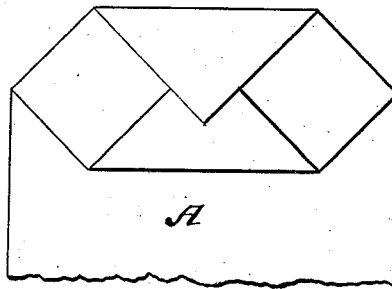


Fig. 5.



Witnesses:
E. Wolff.
Jacob Felbel

Inventor:
James Arkell
My attorney
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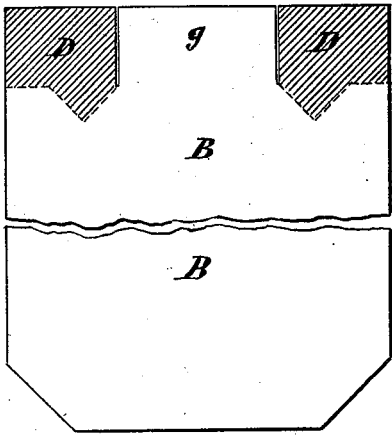


Fig. 1.

Fig. 2.

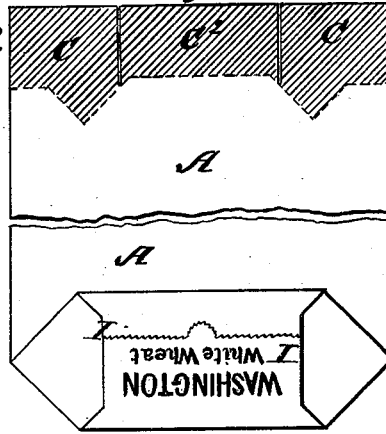


Fig. 3.

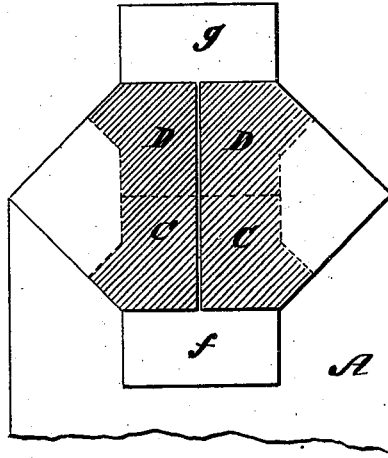


Fig. 4.

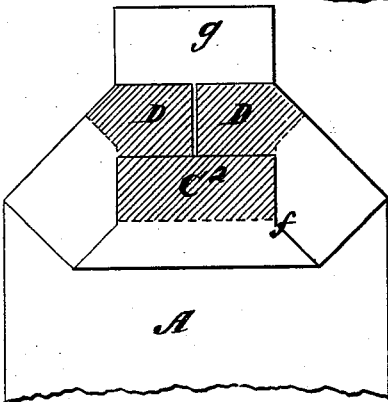
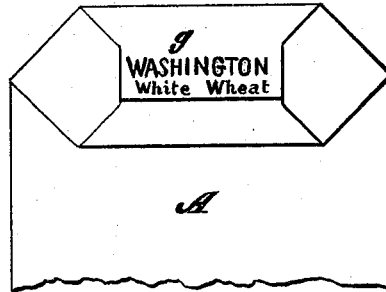


Fig. 5.



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UNITED STATES PATENT OFFICE.

JAMES ARKELL, OF CANAJOHARIE, NEW YORK.

IMPROVEMENT IN BAGS AND SACKS.

Specification forming part of Letters Patent No. **207,933**, dated September 10, 1878; application filed July 2, 1878.

To all whom it may concern:

Be it known that I, JAMES ARKELL, of Canajoharie, in the county of Montgomery and State of New York, have invented certain new and useful Improvements in Bags and Sacks; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

In the use of paper and other sacks and bags for the putting up of flour and other material it has become customary to close the mouth end of the bag by folding over and pasting or cementing down the material of the bag at the mouth end after the sack has been filled, so as to produce a package about rectangular in form, the bags used for such purposes being of that kind known as "satchel-bottom" bags. But in the use of the ordinary satchel-bottom bags much time and labor have to be expended by the packer in properly applying the paste or other cementing substance to the right spots to accomplish the sealing up of the mouth ends of the bag, for, as will be readily understood, if the paste be not applied in sufficient quantities and at all the requisite places, the package will not be closed perfectly, so as to prevent leakage of any materials, as flour, while, if the cementing substance be applied in superfluity or at improper localities, some parts of the folded-in mouth end will be pasted to the contents; and, besides, the unsealing of the package to use its contents will be rendered unnecessarily difficult.

To avoid to the user of the bags any such inconveniences, but principally to provide for use a bag or sack in the filling or packing and sealing up of which no pasting or cementing material need be applied by the packer, are the main objects of my invention, which, to this end, consists in a self-sealing bag or sack—that is, a paper or other sack or bag having some suitable adhesive substance applied at both sides of the bag-mouth to the material of which the manufactured article is composed, in such manner that when the bag-mouth shall be folded up to close the bag in a rectangular form of package it is only necessary to moisten the self-adhesive parts of the bag with a wetted sponge or otherwise to effect the perfect sealing up of the package.

To enable those skilled in the art to make

and use my invention, I will proceed to more fully explain the mode of making and using a bag or sack embodying the same, referring by letters to the accompanying drawings, which make part of this specification.

In the two plates or sheets are illustrated two forms of application of the invention, and in the several figures of each sheet the same letter of reference denotes the same part.

Plate 1 represents the embodiment of my invention in that kind of satchel-bottom bags in which the bottom flaps are of that shape known as V-shaped flaps, and so carried out, by preference, that the mouth end of the sack, when sealed up, presents a contour, structure, and appearance about similar to those of the bottom of the sack.

In the several figures of plate 1, A and B represent, respectively, the two sides of an ordinary satchel-bottom flour-sack in the flattened condition in which this well-known article of manufacture is supplied to the flour-manufacturer or other merchant for use; and in the figures of this plate I have illustrated the bag as having the mouth-end folded and sealed up while the bag is in the flattened condition.

By reference to Figs. 1 and 2 it will be seen that the adhesive material has been applied (in the process of manufacture) to both sides, A and B, of the bag. The peculiar contours of the surfaces covered with adhesive material are shown by the section-lined portions of Figs. 1 and 2 at C and D, and when the mouth end of the bag shall have been folded down after the fashion of making the satchel-bottom of a sack, as illustrated at Fig. 3, these adhesive surfaces will present the appearance seen at C C and D D of said figure, a small part of the adhesive surface of the side A of the bag being unseen because underneath the point of one of the flaps at the point e.

When the lowermost flap (looking at Fig. 3) shall have been folded over into the position seen at Fig. 4, the adhesive surfaces of said flap will be pasted to themselves, and also partially onto the adhesive surfaces at D D, and when thereafter the other flap shall be folded over, as seen at Fig. 5, the surfaces D D, Fig. 4, will be pasted onto themselves, and also, at the points f f, to the adhesive surface at G, which was brought uppermost, as seen at Fig.

4, by the folding over and pasting down of the first-folded flap.

Of course, the adhesive surfaces are assumed to have been properly wetted by the application to them of water from a sponge or brush either before any folding over of the bag-mouth or as the folding progresses, and it will be understood that such mere wetting operation or operations may be done very rapidly, it being only necessary to make sure of wetting all the adhesive surface, and it being immaterial whether any other part be wetted also.

It will be seen that after having folded over and sealed up the mouth end of the bag, as shown at Fig. 5, it will present the same contour, structure, and appearance precisely as the bottom of a common V-shaped satchel-bottom bag, such as now commonly used, and as such bag appears in its flattened marketable condition.

It will be understood, of course, that in the closing up of the mouth of my improved self-sealing bag on the contents of the latter the appearances as to shape after each fold will be different from what is seen in the drawing, where I have illustrated the folding and pasting as done in the flattened-out condition of the bag, and will be the same as if folded and the cement properly applied, as usual, at the time of the folding up and sealing.

At Plate 2 I have shown my invention embodied in that kind of satchel-bottom bag known in the market as the "Arkell & Smith's" bag, and having a slitted mouth end made according to an invention constituting the subject of separate application for Letters Patent by me. In this Plate 2 the same part of the bag will be found designated in the several figures by the same letter of reference, and in the several figures A and B are respectively the two sides of the flattened bag, on each of which, near the mouth-edge, is applied the adhesive material, as indicated by the section-lined portions C C² and D D. Now, when the bag-mouth is folded down, while the bag is flat, as seen at Fig. 3, the adhesive surfaces of both sides will appear as at D D and C C of said figure, the portion C² of the side

A being unseen, as it is on the under side of flap *f*. The adhesive surfaces being properly wetted, if flap *f* be now folded over, as shown at Fig. 4, parts of the surfaces C C will stick together, and to other parts of C C will stick the non-adhesive surface of flap *f*, the adhesive surface C² of said flap being brought uppermost, as seen at Fig. 4. The other flap, *g*, may now be folded over, as seen at Fig. 5, when part of its non-adhesive surface will adhere to the adhesive surface C² of flap *f*, the rest of it adhering to surfaces D D, which also, at certain points, adhere to each other, and the mouth end of the bag will have been made up into a form precisely similar to the satchel-bottom seen at I, Fig. 2.

In like manner to the two kinds of satchel-bottom bags shown, my invention may be applied to the sealing of the mouths of bags having satchel-like bottoms of other structure or form (where it is desired to have the sealed mouth end similar to the bottom) by applying the paste on both sides of the flattened bag in such peculiar manner as may be necessary to produce the desired result. I therefore do not wish to limit myself, in the practice of my invention, to either of the forms of satchel-bottom bags shown, nor to the peculiar shapes of the adhesive surfaces of either side of said bags; but,

Having so fully explained the making and using of bags or sacks embodying my invention that any person skilled in the art can understand and practice my invention, what I claim as new, and desire to secure by Letters Patent, is—

A satchel-bottom bag having self-adhesive surfaces adapted to effect the sealing up of its mouth end, so as to form a top end corresponding in contour with such bottom, substantially as described and set forth.

In testimony whereof I have hereunto set my hand and seal this 27th day of June, 1878.

JAMES ARKELL. [L. s.]

In presence of—

L. F. ALLEN,
GEO. F. HILLER.