

T. W. GRINTER.

Paper-Bag.

Patented Jan. 26, 1875.

No. 159,029.

Fig 1.

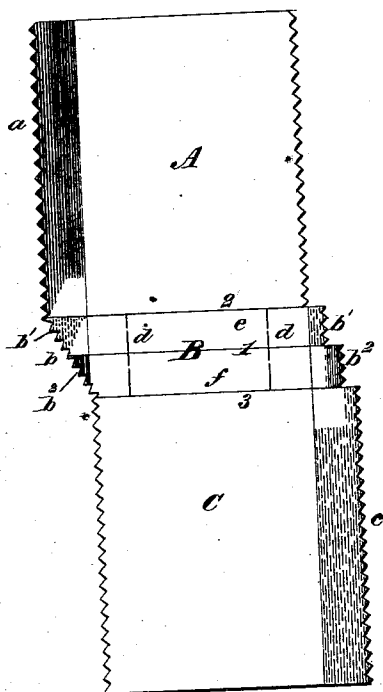


Fig 2.

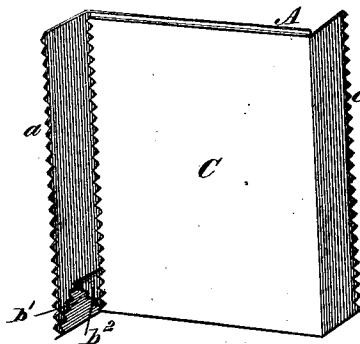


Fig 3.

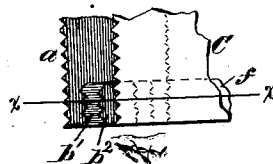
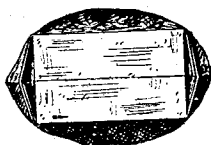


Fig 5.



WITNESSES

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By

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INVENTOR

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UNITED STATES PATENT OFFICE.

THOMAS W. GRINTER, OF CINCINNATI, OHIO, ASSIGNOR TO HIMSELF AND
JOSEPH F. JEWETT, OF SAME PLACE.

IMPROVEMENT IN PAPER BAGS.

Specification forming part of Letters Patent No. **159,029**, dated January 26, 1875; application filed
April 15, 1874.

To all whom it may concern:

Be it known that I, THOMAS W. GRINTER, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Paper Bags, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which make part of this specification, and in which—

Figure 1 represents a blank from which my improved bag is formed, the side shown being the one which forms the inner side of the bag. Fig. 2 shows the same partially folded. Fig. 3 shows one corner thereof, Fig. 4 a section therethrough on the line *x x* of Fig. 3. Fig. 5 is a bottom view of the bag when opened out, as in use.

The blank is cut by suitable mechanism, and in the form shown in Fig. 1. Its edges may either be straight or indented, as shown. The indentation of the edges facilitates the pasting, and causes the folds to adhere better than they would with straight edges. I therefore prefer the indentation. The central portion, B, of the blank, it will be noted, has one edge, *b*, cut diagonally, and the other cut into steps *b*¹ *b*². In practice I prefer the straight diagonal cut for both edges, but the effect is the same in either case, the purpose being to secure an overlapping pasted surface for the corners of the bottom folds. Paste is applied to those edges *a c* of the blank which are intended to overlap to form the side seams. The dark lines in Fig. 1 show the pasting, which, when the flap C is folded over upon the other flap, A, comes next the operator. The lighter broken shading shows the pasted portions which go on the opposite side. Two parallel creases, *d d*, are made in that portion of the blank which is to form the bottom of the bag at a distance from the edge of the completed bag about equal to half the width of the bag-bottom, for a purpose hereinafter explained. A transverse crease, 1, is then formed in the center of the blank, and a parallel crease, 2, 3, is made on each side thereof, to form the bottom bellows fold, which is done by turning the fold *e* over upon the flap A, doubling the fold *f* back upon this flap, and then folding

the flap C over upon the flap A, when the parts will present the appearance shown in Fig. 2. The side flap *a* of the part A is turned over and pasted upon the outer side of the part C, and the corresponding flap *c* of the part C is pasted upon the outer side of the flap A.

Fig. 3 shows the way in which the steps *b*¹ *b*² of the bottom folds lie before being turned over. The dotted lines of that figure show their position when pasted down. Fig. 4 shows, on an enlarged scale, the position of the respective folds.

When the bag is opened to be filled, and the bottom is distended, the bottom fold opens and the ends draw in on the lines of the creases *d d*, thus forming a square bottom, on which the bag may stand while being filled, which is a great convenience to the user.

The bags may either be made automatically or by hand. I have devised mechanism for making such a bag, for which I purpose applying for Letters Patent.

By using a blank of the form shown, I economize paper, prevent undue overlapping of the folds or flaps, and am enabled to obtain the requisite adhesion of the pasted surfaces by pasting one side only of the blank.

The finished bag, it will be observed, has a bellows-fold satchel-bottom, with a seam on the sides of the bag only, and with only a single thickness of the overlapping flaps, except at the bottom corners, where strength is desirable.

I disclaim the form of the blank, as that is old.

I claim—

The bellows-fold satchel-bottom paper bag herein described, made from a blank of the form shown, with side seams only, with only a single fold of paper in the overlapping side flaps, and with additional folds of paper in the bottom corners, as set forth.

In testimony whereof I have hereunto subscribed my name.

THOMAS W. GRINTER.

Witnesses:

GEORGE E. JEWETT,
C. W. NAGEL.