(No Model.)

N. W. TAYLOR & F. H. KELLIHER.

PAPER BAG.

No. 439,849. Patented Nov. 4, 1890.

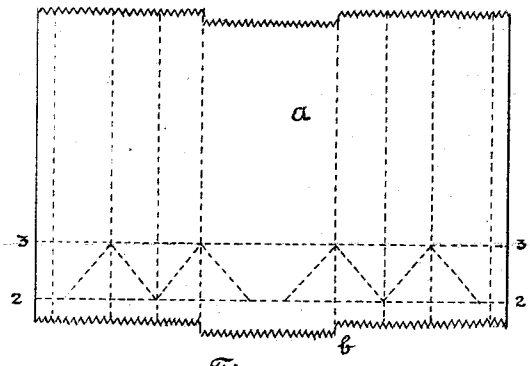


Fig. 1.

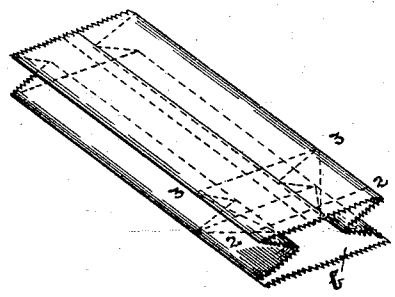


Fig. 2.

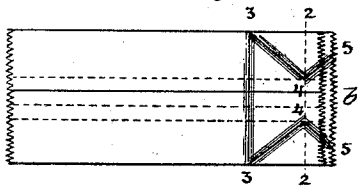


Fig. 3.

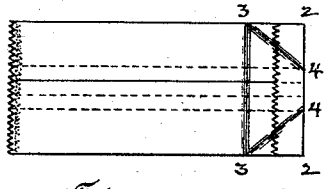


Fig. 5.

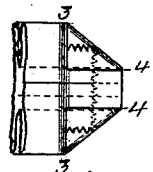


Fig. 6.



Fig. 4.



Fig. 7.

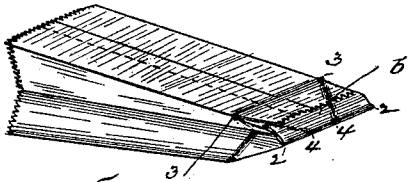


Fig. 10.

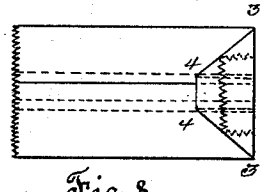


Fig. 8.

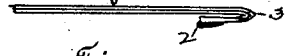


Fig. 9.

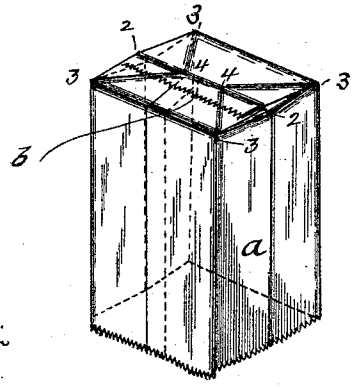


Fig. 11.

Witnesses.
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Frederick H. Kelliher,
by Lowsley & Gregory Attys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

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PAPER BAG.

SPECIFICATION forming part of Letters Patent No. 439,849, dated November 4, 1890.

Application filed January 16, 1890. Serial No. 337,102. (No model.)

To all whom it may concern:

Be it known that we, NEWTON W. TAYLOR and FREDERICK H. KELLIHER, of Cleveland, county of Cuyahoga, State of Ohio, have invented an Improvement in Paper Bags, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to provide a quick-acting bag of the class called "self-opening," or bags made to be opened by a jerk of the arm when one ply of the bag at the mouth thereof is held between the thumb and finger.

In practicing our invention a suitable blank constructed as a bellows-sided or plicated tube having one ply longer than the others to form a projecting lip, and cross-creased near such lip and having the cross-creased and lipped portion pasted, as usual, has the corners of the bottom of the tube folded over upon the tube upon diagonal creases, and the thus-folded tube folded upon itself upon a second cross-crease with the folded corners turned inwardly, as we will proceed now more particularly to set forth, and finally claim.

In the accompanying drawings illustrating our invention, in the several figures of which like parts are similarly designated, Figure 1 represents a piece of paper of the shape for one bag. Fig. 2 shows the same folded into tube form. Fig. 3 shows the tube creased. Fig. 4 is a longitudinal section of Fig. 3. Figs. 5 to 9 show different views to illustrate the different foldings of the bag. Fig. 10 shows the bag partially opened at its bottom to illustrate the creases in the bottom of the bag; and Fig. 11 shows the completed bag opened, it making a square or parallelogrammic-sided bag.

The piece of paper or blank *a*, of the shape shown in Fig. 1, is folded longitudinally on the lines therein shown to form a bellows-sided or plicated folded tube, as in Fig. 2, a lip *b*, of one ply, preferably projecting, as shown, at that end of the tube which is to form the bottom of the bag. This class of tube is old and in common use, and to complete the bottom of the bag it has been common after pasting the same to fold the tube transversely in the line 2 2.

In accordance with our invention we crease the tube (shown in Figs. 2 and 3) transversely in the line 3 3 and diagonally therefrom to the point 4, and then again outwardly in a diagonal direction to the point 5, thus forming easy-bending lines for the paper.

The bottom of the tube having been duly pasted and creased, as described, is folded in the line 2 2, Fig. 3, and brought into the condition shown in Fig. 5, where the part folded over on the line 2 2 is securely pasted to the part at the bottom of the bag on which it is folded. After this the tube, which, except the creases described in the lines 3 4 5, is old, is folded on the lines 3 4, which results in turning over the corners of the tube-bottom upon one side of the tube, as in Fig. 6, and thereafter the tube is folded transversely in the line 3 3 (see Fig. 6) a short distance from the end, leaving the bag in the condition shown in Fig. 8, in which condition the bag is ready to be packed.

On removing the bag from the package the end folded over, as represented in Fig. 8, has a tendency to turn outwardly and resume the position shown in Fig. 6, and in such position very little pressure of air in the mouth of the bag starts the corners to turn outwardly, as in Fig. 5, the bag readily assuming in succession the forms shown in Figs. 10 and 11. The lip *b* might be omitted, but its use is preferred.

The transverse crease 3 and the diagonal creases 3 4 may be produced in the tube before or after the open leading end of the tube is closed, as in Fig. 5.

A bag having its bottom folded over at the corners on the line 3 4 before folding it on the line 3 3 is more easy to open and quicker in its action than it would be if the said folds were omitted, and the bag so made is more merchantable, and therefore more valuable than without the said folds.

We claim—

A paper bag composed of a bellows-sided tube having one end folded transversely and pasted down to close the tube in the forma-

tion of the bag's bottom and having the bottom corners turned over bodily on the diagonal lines 3 4, upon one outer ply of the tube, and having the bottom end thus folded turned over bodily upon the tube on the cross-crease 3 3, so as to turn in and conceal the folded corners, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

NEWTON W. TAYLOR.
FREDERICK H. KELLIHER.

Witnesses:
GEO. W. GREGORY,
FREDERICK L. EMERY.