

L. D. BENNER.
Paper-Bags.

No. 143,321.

Patented September 30, 1873.

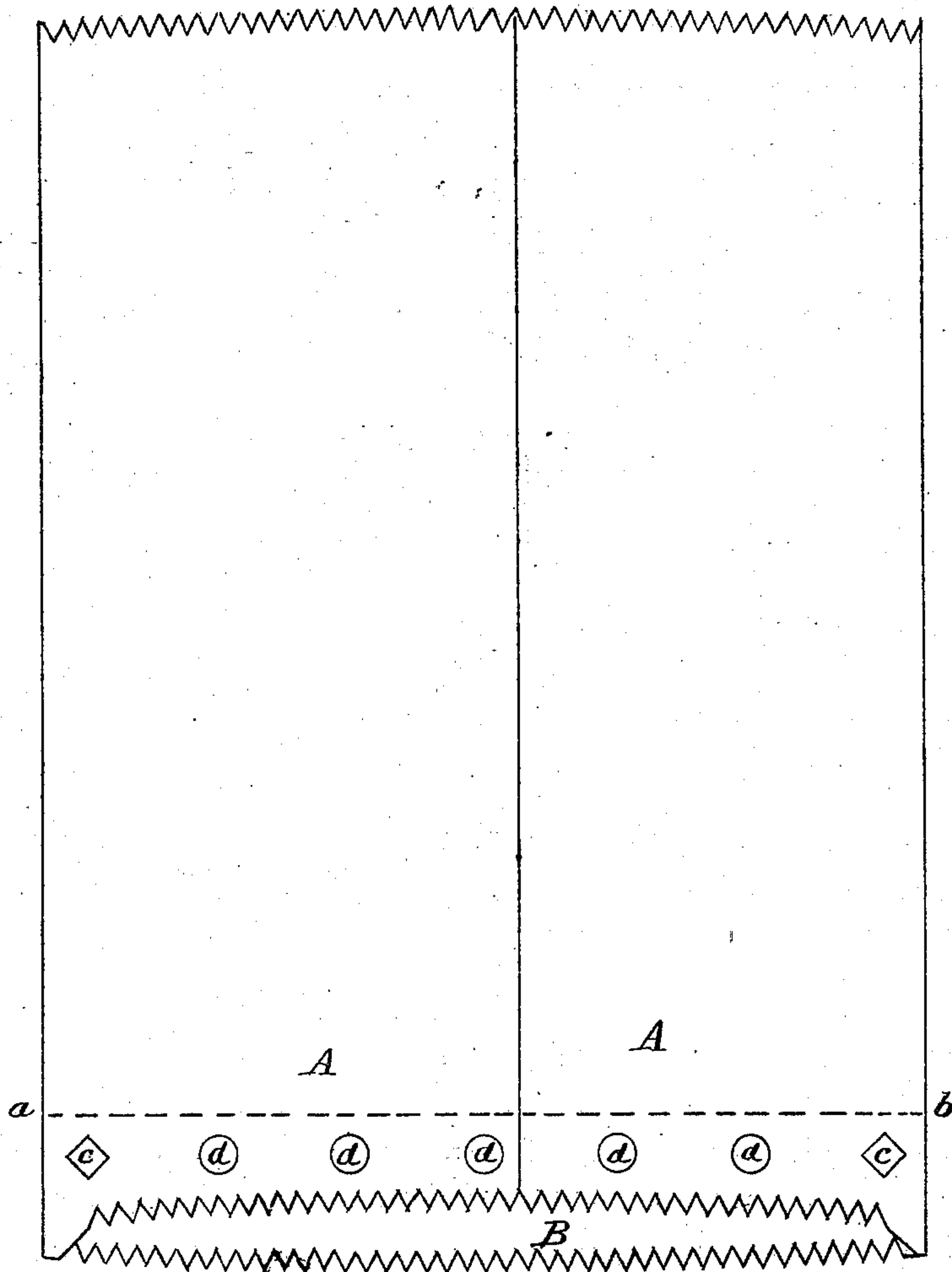


FIG. 1.

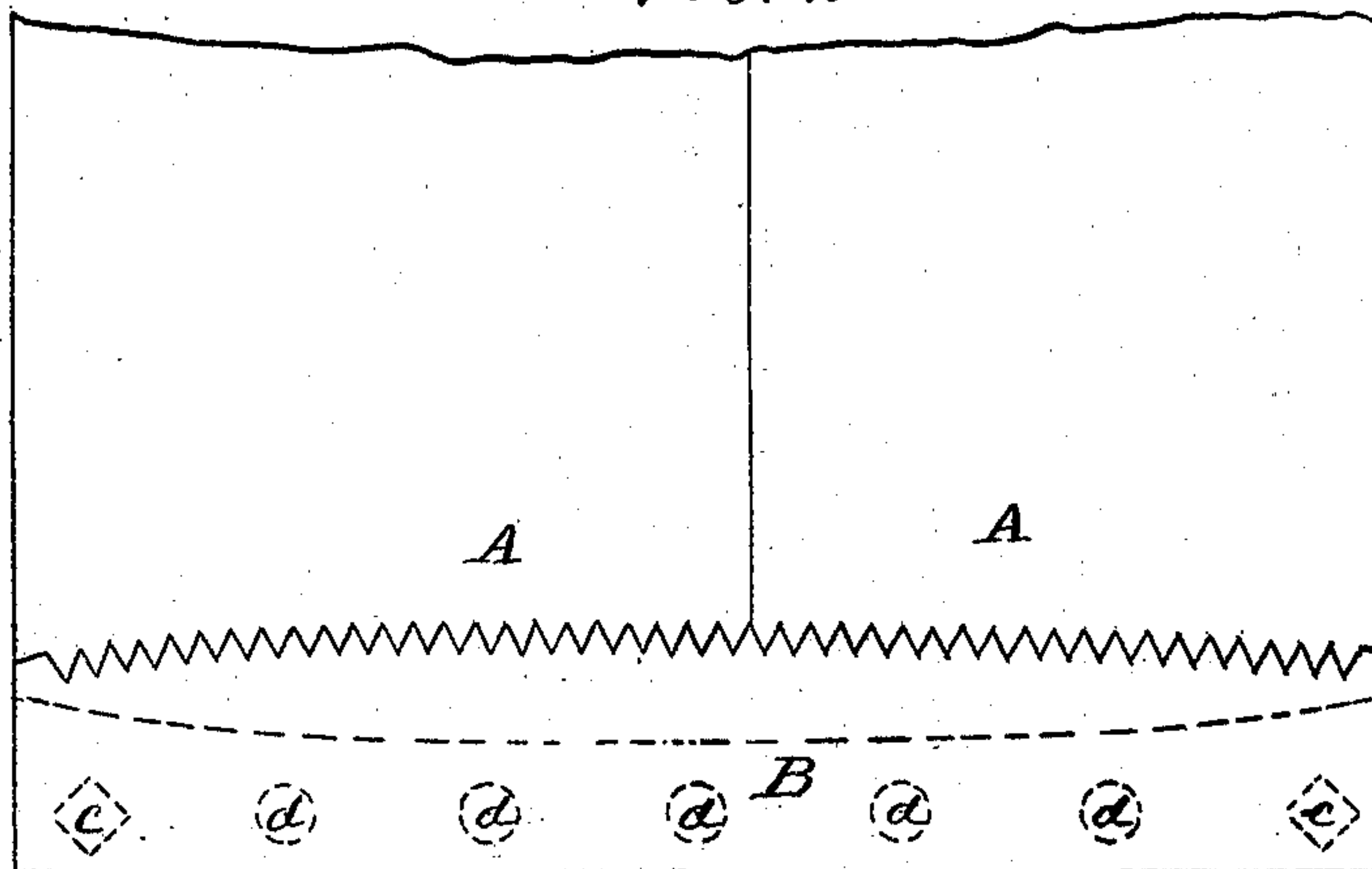


FIG. 2.

Witnesses.

John J. Turner
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LORENZO D. BENNER, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN PAPER BAGS.

Specification forming part of Letters Patent No. **143,321**, dated September 30, 1873; application filed August 4, 1873.

To all whom it may concern:

Be it known that I, LORENZO D. BENNER, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Paper Bags, of which the following, taken in connection with the accompanying drawings, is a specification:

Most of the paper bags now in use are made by folding a strip of paper around a former, or in some way bringing the two edges together so that one will overlap the other, and pasting them together so as to form a tube, and cutting therefrom pieces of the proper length to form a bag, the cut being made obliquely, or in such a manner as to make one side of the tube project beyond the other side, the bag being completed by laying a line of paste across one end of said tubular piece and folding it over onto the body of the bag, a portion of both sides of the tube being folded over; but, there being no paste interposed between the two parts or sides of the tube, it follows that the longer or lip side of the tube is secured to the other side, to form the strength of the bottom of the bag, only by the paste that is applied to the surface of that side which projects beyond the other side, and as this projection or lip is always narrow, being only about one-quarter of an inch in the middle, and sometimes diminishing to almost nothing at the corners of the bag, it very often happens that the bottoms of such bags is imperfectly secured.

To obviate this difficulty and strengthen the attachment of the bottoms of paper bags is the object of my invention; and it consists in making a series of perforations, of any desirable shape, in the inner or short side of the tubular pieces between its end and the line of fold, through which the paste when applied may reach the inner surface of the longer side of the tube, and thus cause said side to be secured to the shorter side, when folded over onto the same, at several points in addition to the surface exposed to the paste by one side of the

tube being cut longer than the other, thus materially strengthening the bottom of the bag, especially at the corners.

In the drawing, Figure 1 is an elevation of a section of a tube from which a bag is to be formed by pasting and folding over one end thereof upon itself, and illustrating my invention. Fig. 2 is a partial elevation of the same with the bottom pasted and folded.

The tube is made and cut into pieces of suitable length to form a bag, in any well-known manner, the side A of the tube being cut somewhat shorter at the lower end than the side B, as usual. The dotted line *a b* represents the line of fold. A series of openings, *c d*, are cut through the side A between its end and the line of fold *a b*, so that when the paste or other adhesive material is put upon that part of the tube outside of the line of fold, the side B will receive paste through said openings in A, as well as upon that part projecting beyond the end of the side A, and when the tube is folded over on the line *a b*, and pressed down upon the side A, by passing between pressure-rolls, the side B will be firmly secured to A at all the points where paste has been applied to B in an obvious manner. The openings in A may be square as at *c*, or round as seen at *D*, or they may be of any other desired form, and any desired number of them may be used.

What I claim as new, and desire to secure by Letters Patent of the United States, is as follows:

A paper bag having a series of perforations made near the edge of the paper at the end of the bag to be folded, in order that the paste may pass through to the outer fold to seal both flaps from one application of paste, as set forth.

Executed at Boston this 1st day of August, 1873.

LORENZO D. BENNER.

Witnesses:

JOHN J. TURNER,
N. C. LOMBARD.