## J. S. OSTRANDER. PAPER-BAG.

No. 181,198. Patented Aug. 15, 1876. Fig.IFig. 2 James S. Estrander
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## UNITED STATES PATENT OFFICE

JAMES S. OSTRANDER, OF DAYTON, OHIO, ASSIGNOR TO THOMAS NIXON, OF SAME PLACE.

## IMPROVEMENT IN PAPER BAGS.

Specification forming part of Letters Patent No. 181,198, dated August 15, 1876; application filed April 28, 1876.

.To all whom it may concern:

Be it known that I, JAMES S. OSTRANDER, of Dayton, Montgomery county, State of Ohio, have invented an Improvement in Paper Bags, of which the following is a specification:

My invention consists of a paper bag which. in the process of manufacture in the machine which fabricates it, is made from a strip of paper fed from a paper roll, and gradually folded and pasted into a tube, the strip, before or in the act of folding into a tube, being made to receive a transverse line of paste, which, after folding, closes the two sides at the bottom, and before or in the act of making the lap for the bottom receives another transverse line of paste, which, when the bottom lap is completed, secures said lap firmly. to the body of the bag, the object being to avoid the paper-wasting process of making the bag from short tubes cut anglewise at both ends from a tube when partly open, and to provide a bag having a bottom free from corner apertures, even when made with a very narrow bottom lap.

Figure 1 is a perspective view of the strip of paper in the act of receiving the paste, and in the process of formation into a tube. Fig. 2 is a perspective view of the bag in the act of having its bottom lap pasted against the body to complete the bag.

A is the strip of paper, which is fed in the direction of the arrow from a paper-roll, and by old and well-known drawing-rolls and outside guides drawn along a table, and gradually folded into a flattened tube, one of the edges having been previously pasted before the edges are overlapped, and the tube passed through the drawing-rolls. The letters a a' represent the lines at which the side folds are made. b represents the line at which the tube

when folded and pasted is cut off, which cutting off I do when that part of the tube has passed through the drawing-rolls and the bag is in the act of receiving its bottom fold, the bags passing bottom foremost through the machine, and receiving the bottom lap in the way common in the making of bottom seams of other forms of bags. The line c represents the line of the bottom seam. B represents a transverse line of paste, extending, preferably, to the full width of the space between the lines a a'. This line of paste may be applied by a reciprocating blade, such as is shown at C. which is made by any suitable attachment, to receive paste at the beginning of the stroke downward, termination of stroke upward, or otherwise. This line of paste may be applied either before the side folding has commenced or during the process of side folding, and its presence or provision is the distinguishing feature of this bag.

After the bag is drawn through the drawing-rolls its forward end is doubled up by the usual bottoming pasting-blade, which applies the paste-line D, and forces the bag for completion through the finishing pressing-rolls.

I claim—

A paper bag cut from a tube, and having its bottom secured by two lines of paste, B D, one of which cements the two sides of the bottom lap together, while the other cements this two-ply lap to one side of the body of the bag, substantially in the manner and for the purpose specified.

In testimony of which invention I hereunto set my hand.

JAMES S. OSTRANDER.

Witnesses:

EDGAR J. GROSS, JOHN E. JONES.