E. NUGENT & J. BURNS.

Manufacture of Paper-Bags.

No. 213,773 Patented April 1, 1879.

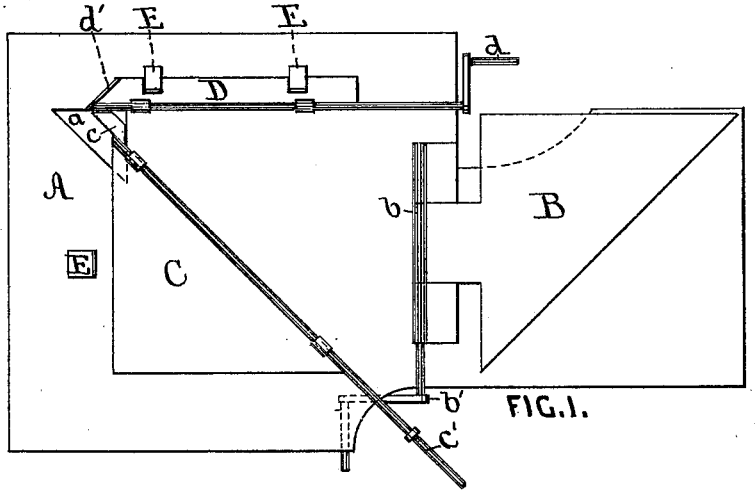

FIG. 1.

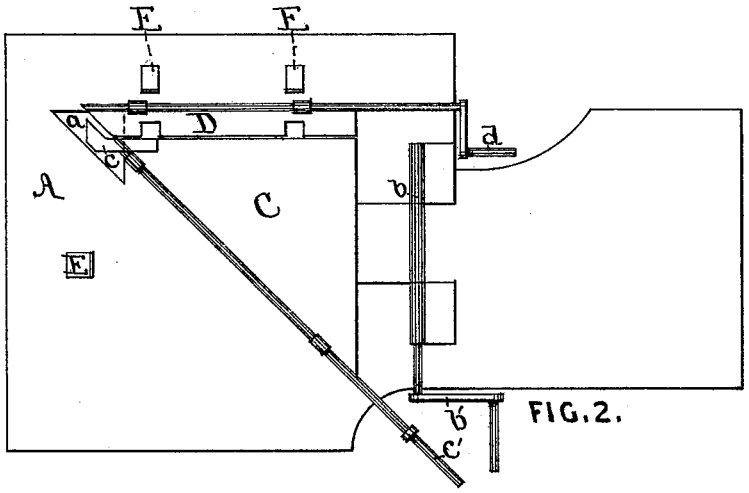

FIG. 2.

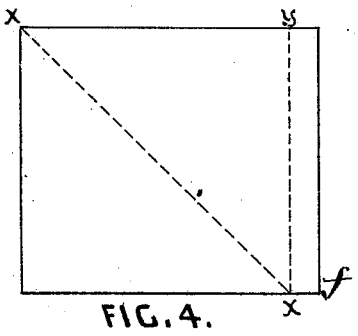

FIG. 4.

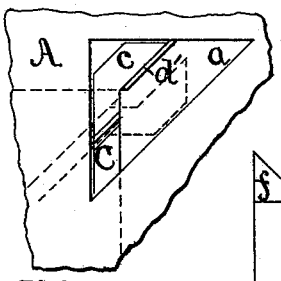

FIG. 3.

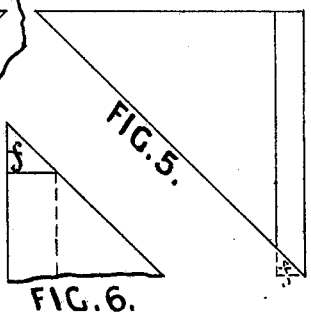

FIG. 5.

FIG. 6.

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UNITED STATES PATENT OFFICE.

EDWARD NUGENT AND JAMES BURNS, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN MANUFACTURE OF PAPER BAGS.

Specification forming part of Letters Patent No. **213,773**, dated April 1, 1879; application filed August 27, 1878.

To all whom it may concern:

Be it known that we, EDWARD NUGENT and JAMES BURNS, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in the Manufacture of Paper Bags, of which the following is a full and exact description.

Our invention relates to the manufacture of triangular paper bags, as herein described, from rectangular blanks; and it consists of the improved machine herein described and claimed for folding said blanks in the manner hereinafter set forth; and it also consists in making a triangular paper bag from a rectangular blank by giving it one diagonal and one longitudinal fold, both of said folds radiating from a common center, so as to produce a sharp point at the bottom of the bag, the flap produced by the longitudinal fold being arranged to overlap and adhere to the face of the diagonal flap in the manner hereinafter described.

In the accompanying drawings, which form a part of this specification, and to which reference is herein made, Figure 1 is a plan view of the table of the folding-machine, showing the folders thrown open; Fig. 2, the same, showing the folders closed; Fig. 3, an enlarged plan view of part of the under side of the table and folders; Fig. 4, a blank for the bag, showing the lines of the folds; Fig. 5, a folded bag; and Fig. 6, an enlarged view of the bottom point of the bag, showing the manner of securing the point of the longitudinal flap.

As shown in the drawings, A is the table of the machine, which may be supported by any suitable frame-work or legs; B, a former, over which the bag is made. It is hinged to the table by the hinge-joint *b*, and is moved by a crank, *b'*, secured to the hinge-pin, to extend either toward or from the folding mechanism, as occasion requires. C is a triangular folder, hinged to the table A, and having its hinged edge arranged diagonally across the table, so as to make the diagonal fold in the blank in the manner hereinafter described.

The size and form of this folder is made to correspond with the outline of the finished bag, minus the width of the longitudinal flap. Secured to its shaft or hinge-pin, and extending therefrom in an opposite direction, there is a supplementary folder, C, whose function will be hereinafter explained.

Suitable provision is made for the movement of this supplementary folder by forming an opening, *a*, in the table. A crank, *c'*, attached to the shaft of the folder C, furnishes the means for working it. D is another folder, hinged to the table A, and worked by the crank *d*. Its width is sufficient to cover the longitudinal flap of the bag. At its lower end it is provided with a diagonal lip, *d'*, which shuts over the lower point of the former B in the manner and for the purpose hereinafter described.

E, guide-stops arranged on the table, for the purpose of fixing the blanks in the proper position for folding.

In order to operate the machine, its former and folders should be thrown open, as shown in Fig. 1. A blank, with fresh paste applied to the edge on which the longitudinal flap is formed, is then laid, with its pasted side uppermost, on the table A and against the guide-stops E, after which the *modus operandi* is as follows: The former B is turned on its hinged joint so as to bear upon the blank, to retain it in place and give proper direction to its folds. The triangular folder C is next turned to give the blank a diagonal fold, (indicated by the dotted line *x x* in Fig. 4,) after which the folder D is turned to make the longitudinal flap, (at the fold indicated by the dotted line *x y* in Fig. 4,) so as to overlap the edge of the triangular flap, to which it attaches itself by the adhesive preparation on its face, the adhesion being promoted by the pressure applied by the folder D. In turning down the folder D the point *f* of the longitudinal flap, extending beyond the diagonal edge of the bag, as indicated by the dotted lines in Fig. 5, is pressed down by the diagonal lip *d'* of the folder, so as to break it over the edge of the former. While the pressure is still retained on the folder D the folder C is thrown back into its opened position. In performing this operation its supplementary folder *c* engages with the point *f*, and folds it over against the face of the bag, to which it adheres, thereby greatly strengthening the point of the bag. The positions of the supplementary folder *c* and diagonal lip *d'* while

performing the last-named operation are shown in Fig. 3. The folder D is then returned to its opened position, the former B, carrying the completed bag, is thrown back, and the bag is removed from the former, leaving the machine in condition for a repetition of the operation.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a machine for folding triangular paper bags, the combination, with the table A, of the triangular former B, hinged to said table, triangular folder C, provided with a supplementary folder, *c*, as herein described, and folder D, having a diagonal lip, *d'*, all substantially as and for the purpose specified.

2. As an improved article of manufacture, a triangular paper bag made from a rectangular blank, folded diagonally at the line *x x*, and longitudinally at the line *x y*, and having the longitudinal flap, overlapping and secured to the outer face of the diagonal flap, and the point *f* folded over the diagonal flap, substantially as described.

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