

S. Orth.
Cutting & Scoring Paper
N^o 49910. Patented Sept. 12. 1865

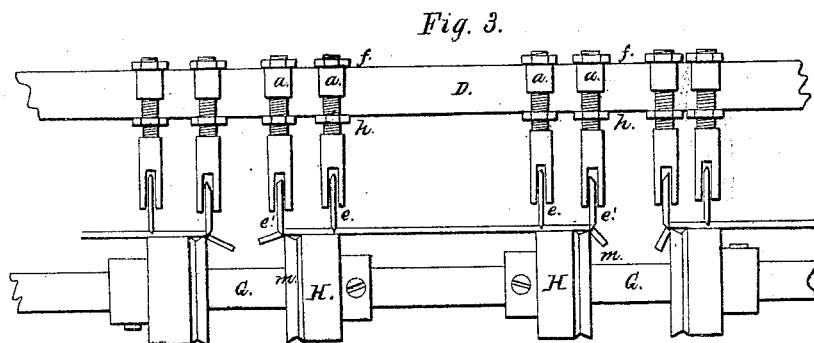
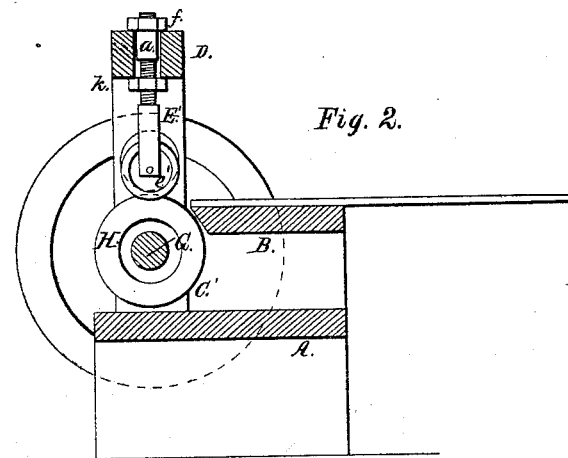
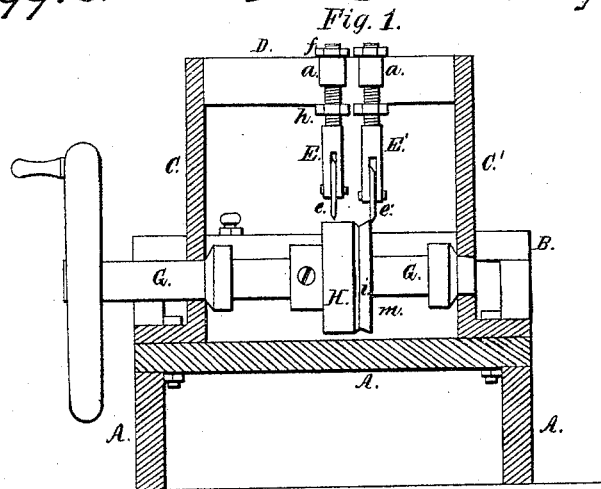


Fig. 4

Witnesses.

W. Albert
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Att'y for S. Orth

UNITED STATES PATENT OFFICE.

SAMUEL ORTH, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN MACHINES FOR CUTTING AND SCORING PASTEBOARD.

Specification forming part of Letters Patent No. 49,910, dated September 12, 1865.

To all whom it may concern:

Be it known that I, SAMUEL ORTH, of Philadelphia, Pennsylvania, have invented a Machine for Cutting and Scoring Pasteboard; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists of certain machinery or apparatus, fully described hereinafter, for cutting and indenting or scoring sheets of pasteboard preparatory to the same being formed into paper boxes.

In order to enable others to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a sectional view of my machine for cutting and scoring pasteboard; Fig. 2, a transverse vertical elevation, and Figs. 3 and 4 views serving as further illustrations of my invention.

Similar letters refer to similar parts throughout the several views.

A is a table, above which is a platform, B, for receiving the pasteboard to be operated on.

To the table A are secured the two side frames, C and C', connected together at the top by a cross-bar, D, having a longitudinal slot in which the square portions *a* of the carriers E E' fit snugly, but so as to slide freely, each carrier having two nuts, *f* and *h*, one above and the other below the cross-bar D, and each carrier having at the lower end a rotary cutter, the cutter *e* of the carrier E being beveled on both sides and the cutter *e'* of the carrier E' on one side only, as seen in Fig. 1.

G is a shaft turning in the opposite side frames, C and C', and a roller, H, is so secured to this shaft as to be readily adjusted longitudinally.

An angular recess, *i*, is cut in the roller H, so that a sharp cutting-edge, *m*, may be formed on one end of the roller, the rotary cutter *e'* being in contact with this end of the roller and overlapping the said cutting-edge, while the

rotary cutter *e* is situated directly above the roller H, its cutting-edge being close to the roller without being in contact with the same.

In preparing pasteboard for making paper boxes it is necessary to cut the board to the proper dimensions and to indent or partially cut through, or, as it is technically termed, "score" the board at the points where it has to be turned up to form the edges of the box. A number of the carriers E and E' are secured to the cross-bar D, and a number of rollers, H, to the shaft G, as seen in Fig. 3. A sheet of pasteboard is placed upon the platform B and directed toward the cutters and rollers of the machine, as seen in Fig. 2. While the outer edges of the board are being severed by the combined action of the cutting-edges *m* of the rollers H and those of the rotary cutters *e'* the cutters *e* partially sever or score the board, the portion of the latter between the cutters *e e* forming the bottom of the box, while the portions between the cutters *e* and *e'* form the sides of the same. (See Fig. 4.)

As each of the carriers can be adjusted to any desired position on the bar D, and the position of the rollers H on the shaft G can be altered at pleasure, it will be evident that the machine can be readily adjusted for preparing sheets of pasteboard for boxes of different dimensions, both as regards their width, depth, and length.

I claim as my invention and desire to secure by letters Patent—

The adjustable carriers E, with their scoring-cutters *e*, and the adjustable carriers E', with their severing-cutters *e'*, in combination with the rollers H and their cutting-edges *m*, the whole being arranged and operating substantially as and for the purpose herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL ORTH.

Witnesses:

JOHN WHITE,
CHARLES HOWSON.