D. Whitlock.

Paper Box Mach.

No. 58183. Patented Sept. 18. 1866.

Fig. 1.

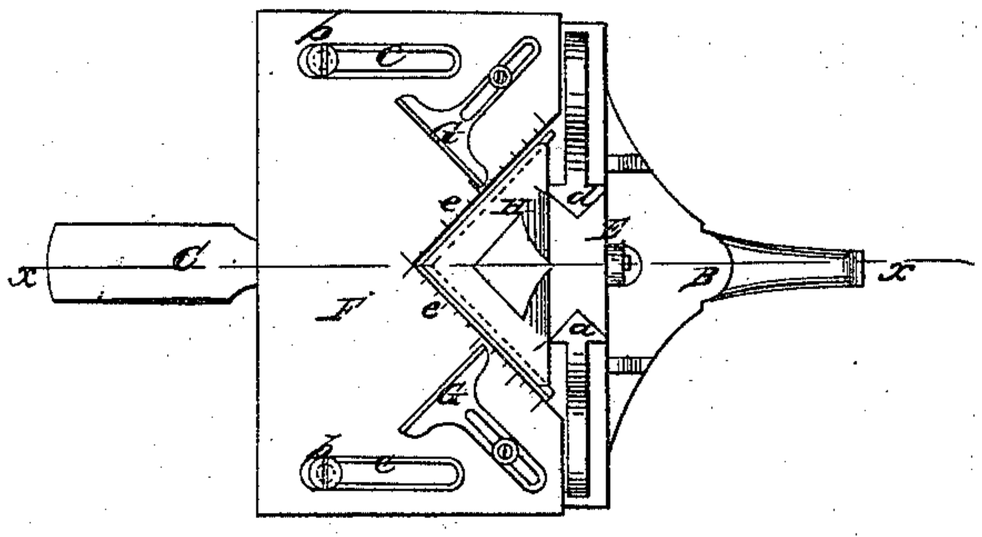


Fig. 2.

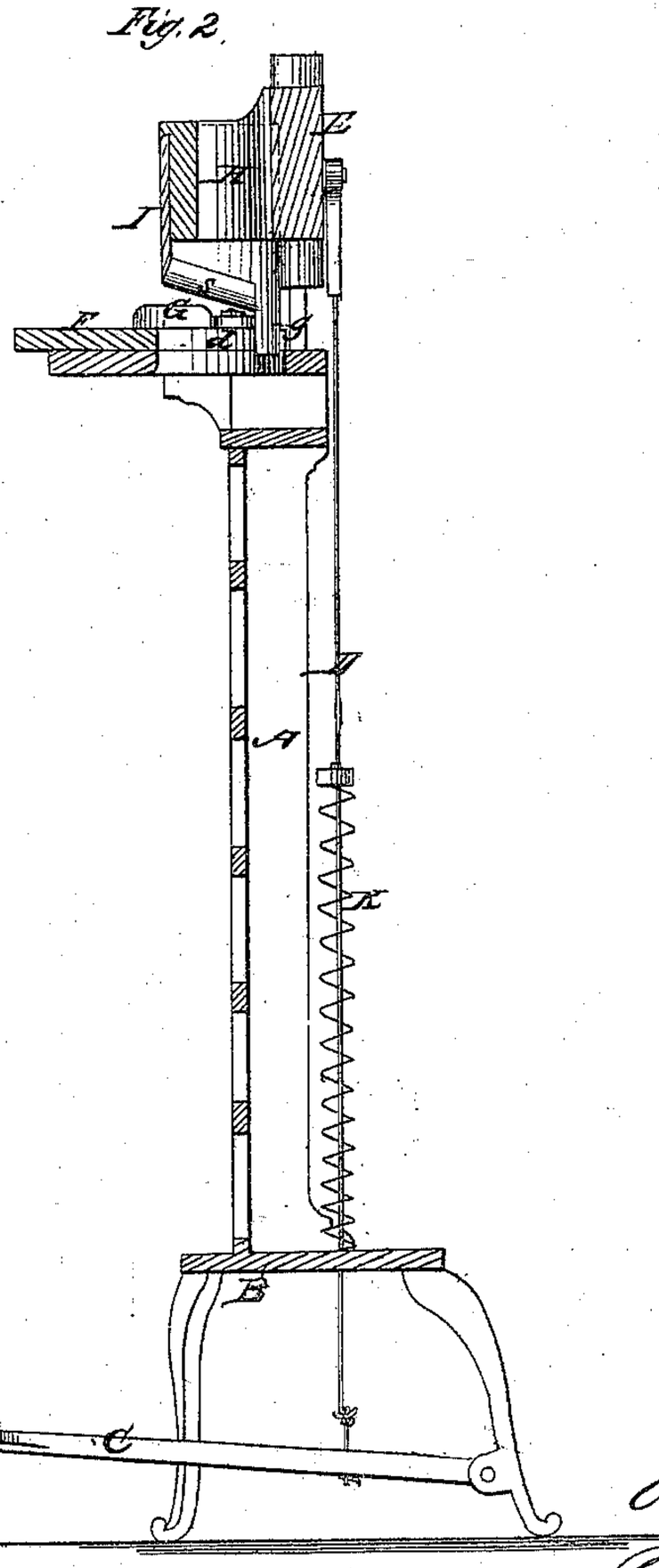
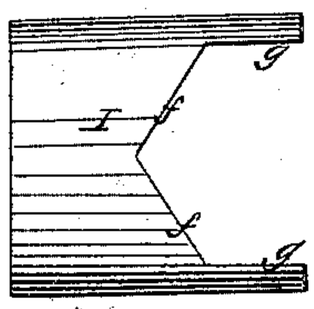


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE

DANIEL WHITLOCK, OF NEWARK, NEW JERSEY, ASSIGNOR TO HIMSELF AND JAMES M. SEYMOUR, OF SAME PLACE.

MACHINE FOR CUTTING THE CORNERS OF PAPER IN THE MANUFACTURE OF BOXES.

Specification forming part of Letters Patent No. **58,183**, dated September 18, 1866.

To all whom it may concern:

Be it known that I, DANIEL WHITLOCK, of Newark, in the county of Essex and State of New Jersey, have invented a new and Improved Machine for Cutting the Corners of Paper for the Manufacture of Paper Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan or top view of my invention; Fig. 2, a side sectional view of the same, taken in the line *x x*, Fig. 1; Fig 3, a detached view of the cutter pertaining to the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved machine for cutting out the corners of rectangular pieces of paper for the manufacture of rectangular paper boxes.

The invention consists in a novel construction of the knife or cutter, whereby the same is made to work in proper position at all times, being prevented from getting out of place under the resistance offered to it by the paper.

The invention also consists in the employment or use of an adjustable bed, and in graduating the bed, so that by means of adjustable gages used in connection with the bed the openings at the corners of the pieces of paper may be cut larger or smaller, as occasion may require.

A represents an upright framing or support, which rests upon a suitable base, B, the latter having a treadle, C, fitted in it, which is connected by a rod, D, with a slide, E, the latter being fitted between suitable guides *a a* on the top of the framing A.

F represents a horizontal bed-piece, which is also secured on the top of the framing A by screws *b b* passing through oblong slots *c c* in the bed-piece into the top of the framing, so that the former may be adjusted farther forward or backward, as may be desired, to compensate for wear. (See Fig. 1.) This bed-piece F has a V-shaped opening, *d*, made in its inner edge, the two sides of said opening forming a right angle. The bed at the sides of this opening is graduated, as shown at *e* in Fig. 1, and upon the bed-piece F there are placed two sliding or adjustable gages, G G, which are movable or adjustable in lines at right angles to each other, as will be understood by referring to Fig. 1.

The slide E has a cutter-stock, H, attached to it, said cutter-stock being of V form in its transverse section, corresponding to the form of the cutter or knife I, which is also of V form in its transverse or horizontal section, and is secured to the stock H by screws or otherwise.

The lower edge of the cutter or knife I, which is the cutting-edge, is inclined, as shown at *f*, Figs. 2 and 3, so as to operate with a drawing cut, and the rear ends of the cutting-edge *f* are provided each with pendent bars *g*.

The size of the knife or cutter I corresponds with the size of the opening *d* in the bed-piece F, the cutting-edge *f* of I, when the latter is pressed down, working snugly over the edges of the opening *d* in the bed-piece F.

The pieces of paper are presented to the cutter or knife on the bed-pieces F between the gages G G, the latter being adjusted according to the size of the opening to be made. The cutter or knife is brought down and the cut effected by pressing down the treadle C, the cutter or knife being raised after the cut is made by a spring, K, on the rod D.

The pendent bars *g g* of the cutter or knife I prevent the latter being forced or pressed forward under the resistance offered to it by the paper—a result attending the machines now in use for cutting the corners of paper for boxes, and which occasions considerable difficulty, frequently destroying the edge of the cutter or knife and injuring the bed-piece. The lower ends of the bars *g g*, it will be understood, never rise above the opening *d*.

The adjustability of the bed-piece and the graduating of the edges of the opening *d* is also important, as it facilitates the adjustment of the gages G G to cut different-sized openings in the corners of the paper.

I do not claim the V-shaped cutter or knife separately or in itself considered, for that has been previously used; but

I do claim as new and desire to secure by Letters Patent—

1. The providing of the knife or cutter I with pendent bars *g g*, to serve as guides for the same, substantially in the manner as and for the purpose set forth.

2. The adjustable bed-piece F, in combination with the knife or cutter I, substantially as and for the purpose specified.

3. The graduating of the edges of the opening *d* in the bed-piece F, in combination with the adjustable gages G G, substantially as and for the purpose set forth.

DANIEL WHITLOCK.

Witnesses:
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