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(No Model.)

H. D. STIMSON.

MACHINE FOR CUTTING PAPER BOXES, &c.

No. 341,700.

Patented May 11, 1886.

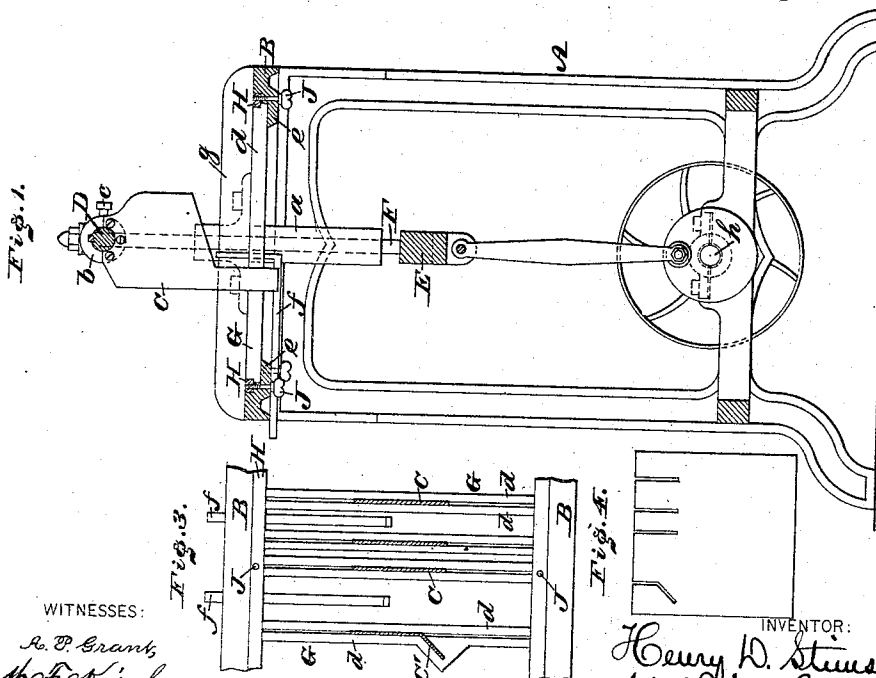
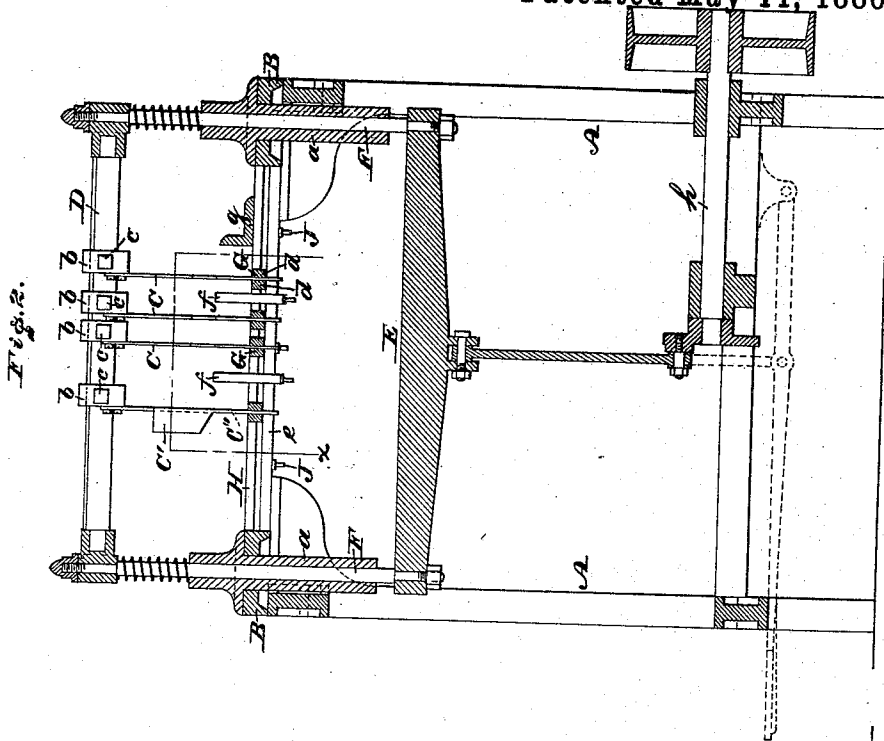


Fig. 3.

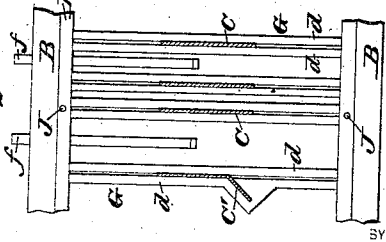
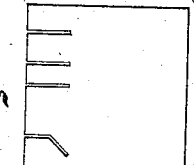


Fig. 4.



WITNESSES:

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MACHINE FOR CUTTING PAPER BOXES, &c.

SPECIFICATION forming part of Letters Patent No. 341,700, dated May 11, 1886.

Application filed September 29, 1884. Serial No. 144,202. (No model.)

To all whom it may concern:

Be it known that I, HENRY D. STIMSON, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Machines for Cutting Paper Boxes, &c., which improvement is fully set forth in the following specification and accompanying drawings, in which—

10 Figure 1 represents a central transverse vertical section of a paper-box-cutting machine embodying my invention. Fig. 2 represents a central longitudinal vertical section thereof. Fig. 3 represents a horizontal section in line *x x*, Fig. 2. Fig. 4 represents a blank, one side of which is cut by the machine, the same being on a reduced scale.

Similar letters of reference indicate corresponding parts in the several figures.

20 My invention consists of a machine adapted for cutting paper for paper boxes embodying laterally-adjustable knives and shears and other details, as will be hereinafter fully set forth:

25 Referring to the drawings, A represents the frame of the machine, and B represents the table thereof.

C represents knives or cutters, which are connected with a frame formed of the upper 30 cross-head, D, the lower cross-head, E, and vertical rods F, connecting said heads, the rods passing through guides *a* on the frame of the machine. On the upper cross-head, D, are bosses *b*, to which the knives C are screwed or bolted, said bosses being laterally movable 35 on the cross-head, whereby the knives may be set nearer to or farther from each other, and thus adjusted relatively to requirements, the bosses being provided with set-screws *c*, 40 for purposes of holding the knives in their adjusted positions.

G represents the bed knives or shears, each formed of two sharp-edged bars, *d*, between 45 which a cutter, C, moves during the cutting operation. The shears are supported on flanges or ledges *e* of the table B, and held by bars H, which occupy recesses on the upper faces of the ends of the shears, said bars H being clamped against the shears by screws 50 J, which are fitted to the table B.

It will be seen that by loosening the screws

J the shears may be laterally shifted on the table and adjusted relatively to the knives C, after which the clamping-bars H are tightened by the screws J, and thus the shears are securely 55 held.

As knives or cutters of various thicknesses are required for producing cuts in the paper of different widths, provision is made to adjust the shears relatively thereto by the formation of the same of separable bars *d*, each 60 of which is movable and adjustable relatively to the knife or cutters. The separable bars also permit the ready removal and sharpening of the shears and reapplication of the same 65 to the table of the machine.

For cutting an angular slot in the paper I employ an angular knife or cutter, C', having a shank, C'', which passes between and is guided by the two bars forming the bed-knife or shears 70 G, the said bed-knife being of coincident form, (see Fig. 3,) the slot being shown in Fig. 4, forming a locking-tongue in the fold or flap of the box. The paper to be cut is properly located in the shears and rested against gages 75 or guides, forms of which are shown at *f f* and *g*. Power is then applied to the machine, so as to lower the knives, and as they descend they cut through the paper and pass through the shears, thus making a clean and sharp cut. 80 The knives then rise and the cut paper is reversed, so as to cut another side thereof, or removed, so that a fresh blank or piece of paper may be applied, and the knives are again lowered, and the subsequent operation is similar 85 to those just above stated.

The knife-carrying frame may have a pitman connected with it, the same being operated by a crank-shaft, *h*, which is provided with a power-pulley; or, in lieu thereof, a foot-treadle may be employed. To either feature, 90 however, I do not limit myself, as any suitable means for lowering and raising the frame may be adopted.

Having thus described my invention, what 95 I claim as new, and desire to secure by Letters Patent, is—

1. A paper-cutting machine having a bed knife or shears composed of two bars and a blade formed with a shank guided between 100 said bars, substantially as and for the purpose set forth.

2. A paper-cutting machine having laterally-adjustable shears and a clamping-bar therefor, substantially as and for the purpose set forth.

5 3. A paper-cutting machine having laterally-adjustable blades or cutters, a rising and falling frame carrying the same, and laterally-adjustable shears formed of separable parts, said blades being formed with bosses, which

encircle the cross-head of the frame and provided with set screws and said shears being supported on the table or frame of the machine and secured by clamping-bars, substantially as and for the purpose set forth.

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Witnesses:

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