H. H. THORP.

Paper-Cutting Machines.

No. 150,802. Patented May 12, 1874.

Fig. 1

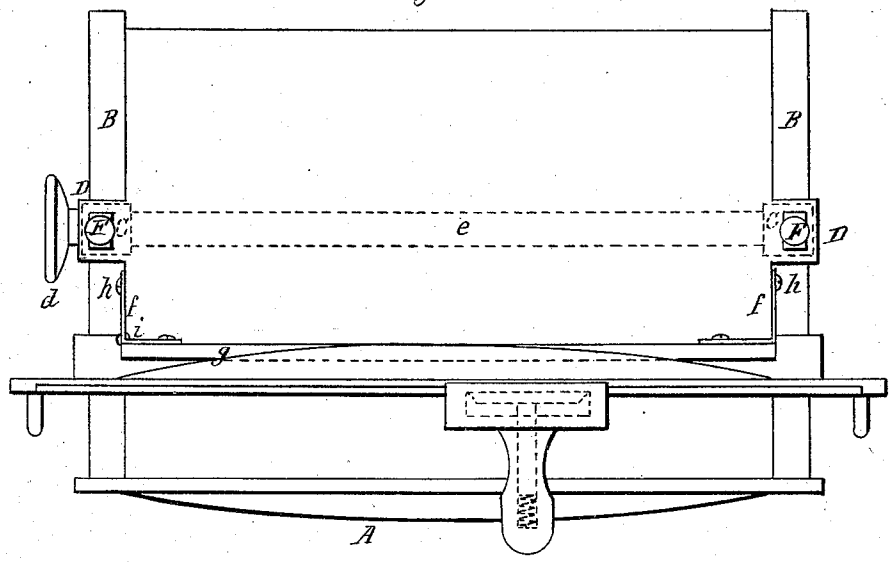


Fig. 2

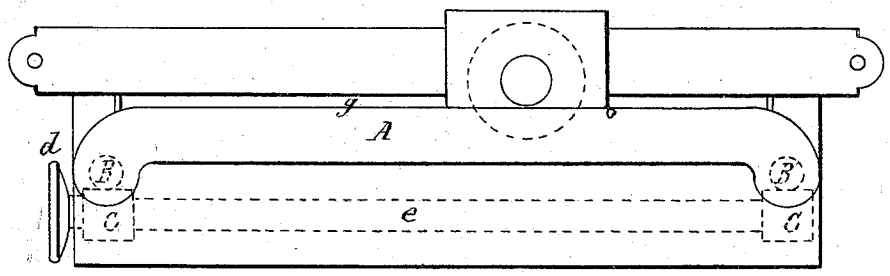


Fig. 3

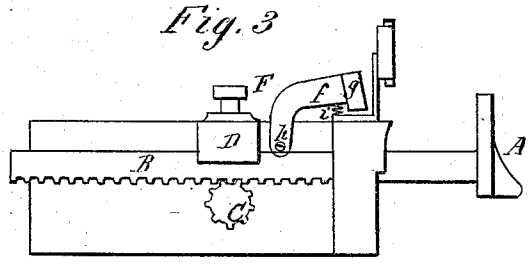
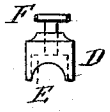


Fig. 4



Witnesses

Wm. A. Bents

Geo. S. Kain

Inventor

Henry H. Thorp.

UNITED STATES PATENT OFFICE.

HENRY H. THORP, OF CLEVELAND, OHIO.

IMPROVEMENT IN PAPER-CUTTING MACHINES.

Specification forming part of Letters Patent No. **150,802**, dated May 12, 1874; application filed August 26, 1872.

To all whom it may concern:

Be it known that I, HENRY H. THORP, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain Improvements in Paper-Cutting Machines, of which the following is a specification:

My invention relates, first, to an improved means of moving or adjusting the gage relative to the cutting-edge, whereby the two are maintained in perfectly parallel positions; second, to an improved clamp for holding the paper firmly while being cut; and, third, to a means for securing the gage fixedly in position when properly adjusted.

Figure 1 is a top or plan view of a machine embodying my invention. Fig. 2 is a front view, Fig. 3 is an end view, Fig. 4 is a detached view, of the box and set-screw which bear upon rack-rods.

A, Figs. 1, 2, and 3, is the gage to regulate the size of the card being cut. To each end of this gage are attached rack-bars or rods B B, which are moved by the pinions C C attached to or cut upon the shaft *e*, which is rotated by the hand-wheel *d*. In suitable boxes cast with or attached to the bed are certain friction-blocks E, shown in Fig. 4, which are faced with leather or other suitable material. These blocks adjust vertically by means of the set-screws F F, for the purpose of taking up the wear of the racks and pinions, and by their friction keeping the gage in a proper position or parallelism to the cutting-edge. I is a clamp-bar for holding the card, it is hinged to the bed at its ends by side arms *f f*, and is held in a slightly raised position by the spiral spring *i*, which admits of its being pressed down by hand upon the card while making the cut, and immediately returning to position when the pressure is removed, allowing the free movement of the card under it to the gage for the succeeding cut. While I have shown a reciprocating rotating cutter, it is obvious that any other well-known form, as a hinged shear, &c., may be used with my improved gage.

I claim as my invention—

1. The combination of the gage A, rack-bars B B, and pinion-shaft *e*, with the bed of a paper-cutting machine, the said rack-bars being at opposite sides of the bed and operated simultaneously, whereby the parallelism of the gage and cutting-edge is insured.

2. The clamp-bar *g* hinged to the bed, and provided with retracting-springs *i*.

3. In combination with the rack-bars B B, the friction-blocks and set-screws, for holding the gage in any desired position, and compensating for the wear of the rack-bars or their pinions.

HENRY H. THORP.

Witnesses:

GEO. S. KAIN,

G. A. YOUNG.