

G. W. SMITH.
Paper-Cutting Machine.

No. 228,686.

Patented June 8, 1880.

Fig. 1.

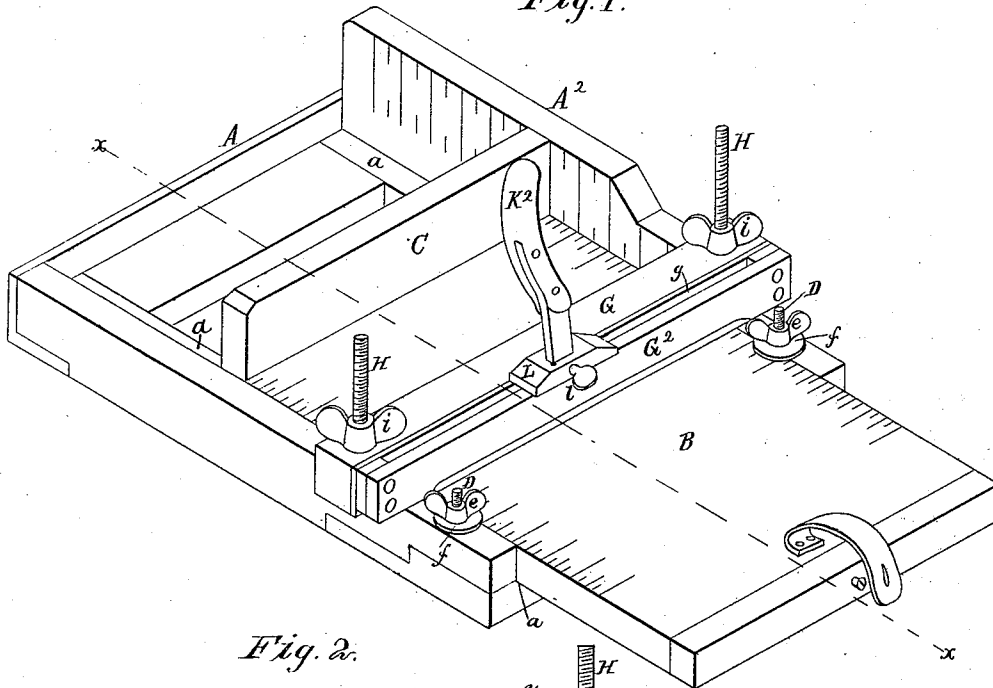


Fig. 2.

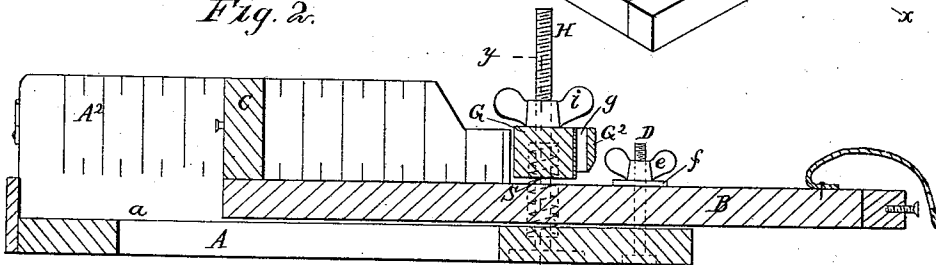


Fig. 3.

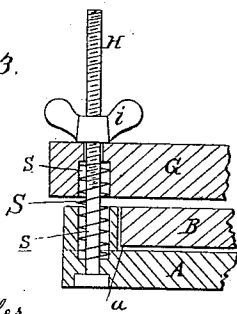
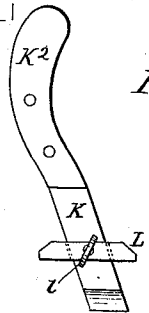


Fig. 4.



WITNESSES:

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GRANGER W. SMITH, OF CHILI, NEW YORK.

PAPER-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 228,686, dated June 8, 1880.

Application filed February 20, 1880.

To all whom it may concern:

Be it known that I, GRANGER W. SMITH, of Chili, in the county of Monroe and State of New York, have invented a new and useful Improvement in Paper-Cutting Machines, of which the following is a specification.

My invention relates to a machine for trimming the edges of magazines, pamphlets, or books, and for cutting paper into sheets of different sizes, and for other similar purposes.

The invention consists in a novel construction, arrangement, and combination of an adjustable table for holding the book or paper to be trimmed or cut, a frame for supporting said table, an adjustable bar for clamping the book or paper, and a knife used for the trimming or cutting process, all as hereinafter particularly described.

In the accompanying drawings, Figure 1 is a perspective view of an apparatus embodying my improvements. Fig. 2 is a section taken in the line *x x*, Fig. 1. Fig. 3 is a detail sectional view. Fig. 4 is a view of the knife.

Similar letters of reference indicate corresponding parts.

A represents a frame provided with ways *a a*. B represents a board, which I call the "table," resting on the frame A and sliding on the ways *a a*. C is a board attached to one edge of the table B at a right angle with the upper surface thereof. D D are screws set in the frame A, and provided with thumb-nuts *e e* and washers *f f*. G is a bar resting on the frame A, above the table B, transversely to the line of travel of said table. G² is a bar attached to the bar G in such a manner as to leave a slot, *g*, between the two parts. If desired the two parts G G² may be all in one piece. I prefer, however, to make the bar G of wood and the bar G² of metal, with its lower edge beveled upward and outward.

H H are screws set in the frame A, and provided with thumb-nuts *i i*. These screws pass through holes in the bar G, and are surrounded by spiral springs S S, working in seats *s s* in said bar G and in the frame A.

The table B and an upright board, A², on the frame A are marked with a scale representing inches and fractions thereof, in order to facilitate the adjustment of the table, as hereinafter described.

The knife or cutter used in connection with this apparatus consists of a blade, K, having a diagonal chisel-edge, and provided with a handle, K², particularly adapted to be grasped by the hand with the thumb uppermost. It is furnished with a gage consisting of a slotted block, L, provided with a thumb-screw, *l*. This gage-block slides on the blade K, and is held at any desired point thereon by tightening the thumb-screw.

In using this apparatus the book or paper to be trimmed or cut is laid upon the table B with the upper left-hand corner of the paper fitting in the corner formed by the junction of the boards A² and C. The table is then adjusted to such a position as to bring the slot *g* exactly over the line where the cut is to be made. The table is then secured in position on the frame by tightening the nuts *e e*, so that the washers *f f* will bear firmly on both the frame and the table, and the book or paper is secured in position by tightening the nuts *i i*, so as to press the bar G firmly down upon it. The gage-block L being adjusted to correspond with the distance from the top of the slot *g* to the surface of the table B, the blade K is inserted in the slot *g*, and the cutting is performed by grasping the handle K² and drawing it toward the person.

The bar G² touches the work only sufficiently to prevent the paper from being torn, and the beveled lower edge of the bar enables the cuttings to be readily pushed outward away from the blade as the operation proceeds.

When the cutting or trimming is completed the nuts *i i* are loosened, when the springs S S raise the bar G, so as to allow the work to be removed.

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

In a paper-cutting machine, the combination of the blade K, having a diagonal chisel-edge and handle, K², the slotted sliding gage-block having screw *l*, the slide-table B, having board C, and the block G G², held by screws H and nuts *i*, as shown and described.

GRANGER WHEATON SMITH.

Witnesses:

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