P. McALEER.

PAPER-CUTTING MACHINE.

No. 186,262. Patented Jan. 16, 1877.

Fig. 1.

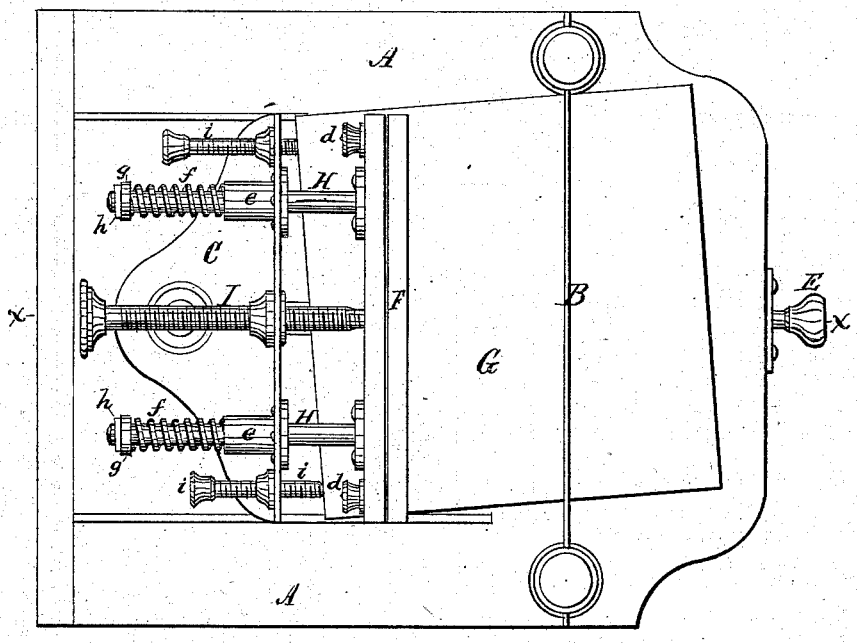
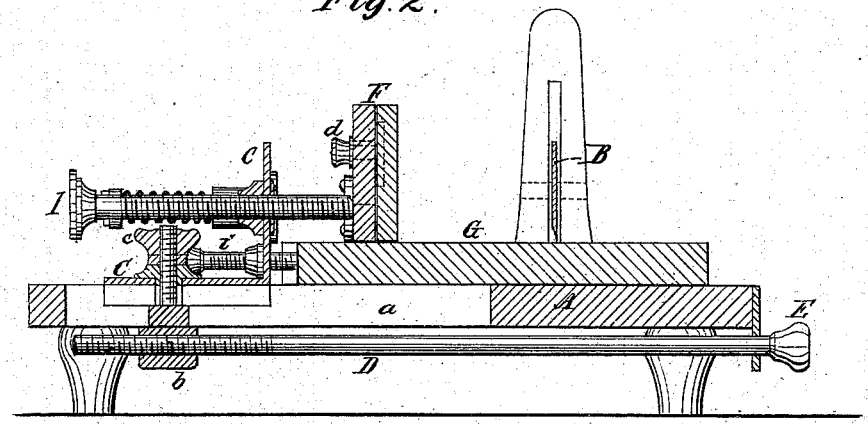


Fig. 2.



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UNITED STATES PATENT OFFICE.

PHILIP McALEER, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN PAPER-CUTTING MACHINES.

Specification forming part of Letters Patent No. **186,262**, dated January 16, 1877; application filed June 5, 1876.

To all whom it may concern:

Be it known that I, PHILIP McALEER, of Washington, in the county of Washington and District of Columbia, have invented certain new and useful Improvements in Paper-Cutting Machines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

My invention relates to a novel improvement in machines adapted to cut and trim paper, and more particularly to improvements upon what are known as the "Sheridan cutting-machine." It has for its object to avoid the cutting of a single groove in the bed or supporting-surface, which in time becomes so deep as to seriously affect the operation of the knife, and to require bushing or filling up. The only means adopted, so far as I am aware, to correct this evil has been the location on the bed or supporting-surface of the machine of a strip immediately under the knife, which, as it becomes deeply furrowed, can be removed and a new one supplied.

My invention consists in combining with the ordinary gage an adjustable spring straight edge, the base of which lies above the plane of the supporting-surface or bed of the machine, and set-screws below the bottom of the straight edge, penetrating the gage-plate, and coming in contact with an independent block or supporting-bed, which is moved in right lines with the gage, the set-screws serving to throw the rear straight edge of the independent block out of parallel with the face of the gage to any desired extent, so that the impressions or cuts made by the knife in the block, after passing through the paper, may be made to intersect each other at will by slightly setting up either of the set-screws, and thus avoid the cutting of objectionably-deep parallel grooves in the bed-block, as will be hereinafter more fully set forth.

To enable those skilled to more fully understand my invention, I will describe its construction and operation, referring by letters to the accompanying drawing, in which—

Figure 1 is a top view of so much of a cutting-machine as fully illustrates my invention, the mechanism for operating the knife being left off, as it forms no part of my invention; and Fig. 2 is a longitudinal vertical section of the same at line *x x* of Fig. 1.

Similar letters indicate like parts in both figures.

A is the ordinary bed or supporting-table of a paper-cutting machine, and B the knife operated in the usual manner. C is the straight-edge gage, provided with a vertical shank, *b*, secured thereto by thumb-screw *c* passing through a groove, *a*, in the bed A, and to which is secured underneath the table a rod, D, at right angles to the knife B, and provided at its forward end with a knob or handle, E, by which the gage C is moved toward or from the knife, to properly present the paper to the same through the medium of the spring straight edge F, which is made of two parallel sections secured by set-screws *d*, passing through vertical slots in the rear half and into the front half, in order that the latter may be dropped down, if necessary, flush with the top plane of the natural bed or table A, or raised up level with the rear half to permit an independent block or supporting-board, G, to lie under the same. This straight edge is attached to the gage C by rods H passing through bearings *e*, and provided with coil-springs *f* confined between the bearings *e*, and a washer, *g*, by pins *h*, the tendency of the springs being to draw the straight edge F up against the face of the gage C. I is an adjusting-screw, passing through a bearing in the face of the gage C, and by which the straight edge is adjusted. G is an independent block or table, which lies upon the bed A and under the edge of the straight edge F. The rear edge of this block G comes in contact with the forward ends of adjusting-screws *i* passing through the gage C, and in proportion to protrusion of either or both of said screws will the rear edge of the block G be in or out of parallel with the gage, as clearly shown in Fig. 1.

It will be seen, especially by reference to Fig. 1, that a pile of paper which is to be trimmed and divided by the knife B, if placed upon the independent block G may be pulled forward to present it to the action of the knife, to be cut in regular parallel lines, and that the impression of knife will be in parallel lines up-

on the block G. When the next operation upon another pile of paper takes place the slightest movement of either of the screws *i* will so shift the block G that the kerf of the knife will intersect those previously made, and so on, so that the knife will never strike the same line, and thus avoid the deep objectionable furrows referred to.

What I claim as new, and desire to secure by Letters Patent, is—

In a paper-cutting machine, the combination, with the gage C and straight edge F, the set-screws *i* and independent table or block G, substantially as and for the purpose hereinbefore set forth.

Witness my hand and seal this 29th day of February, A. D. 1876.

PHILIP McALEER. [L. S.]

Witnesses:
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