

E. SCHLENKER.
PAPER-CUTTING MACHINE.

No. 176,200.

Patented April 18, 1876.

Figure 1,

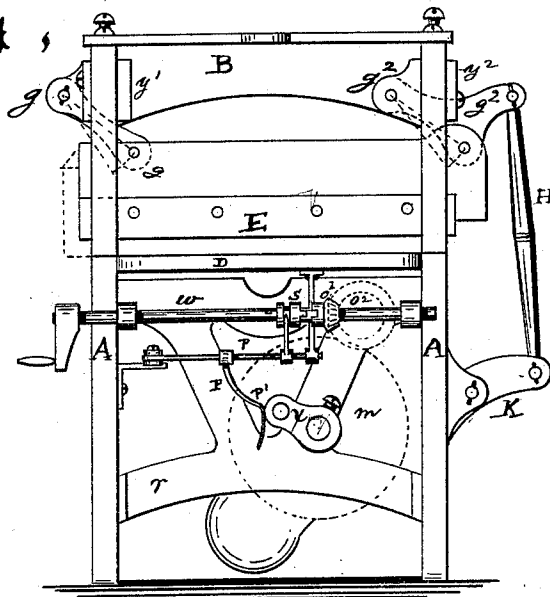
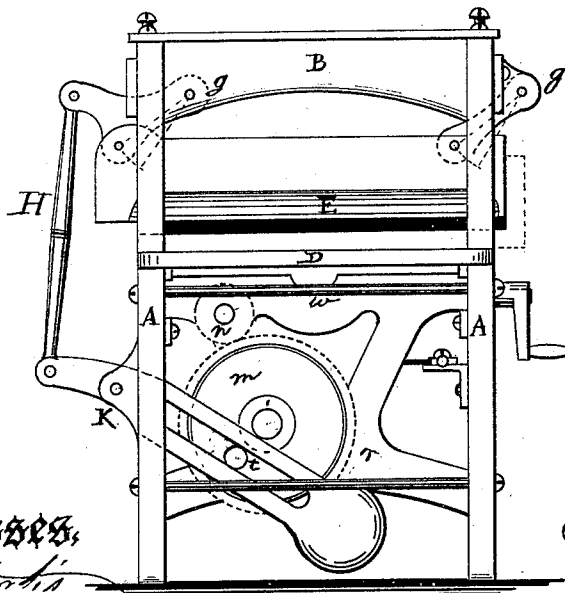


Figure 2,



Witnesses,

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IMPROVEMENT IN PAPER-CUTTING MACHINES.

Specification forming part of Letters Patent No. **176,200**, dated April 18, 1876; application filed February 2, 1876.

To all whom it may concern:

Be it known that I, ERHARD SCHLENKER, of the city of Buffalo, in the county of Erie and State of New York, have invented an Improvement in Paper-Cutting Machines, of which the following is a specification:

My invention relates to a new and improved machine for cutting paper and similar material, and especially for printers' and bookbinders' use; and consists in a novel construction, location, and arrangement of the different parts thereof.

In the accompanying drawings, Figure 1 is a rear elevation thereof, and Fig. 2 is a front elevation.

Similar letters indicate like parts of the machine.

The frame consists of two upright pieces, one on each side, designated by letters A A, with suitable extensions or branches, so as to form four legs, and give stability to the machine. At the top these side pieces are connected by a cross-piece, letter B. A table, designated by letter D, of suitable size and height, is firmly secured to said side pieces, upon which the paper or other material to be cut is placed. The knife for cutting is designated by letter E, and is firmly secured to a cross-bar, the ends of which pass through vertical slots in said upright side pieces, and said cross-bar and knife attached thereto are suspended by a link at one end, designated by letters *g g*, and a bell-crank at the other end, designated by letter *g*². Said link and bell-crank are attached to jaws, designated by letters *y*¹ and *y*², which are secured in the slot in said side pieces above the knife-bar, by means of which arrangement a draw-cut is given to the knife. The said jaws are adjustable by means of screws upon the top of the cross-bar, so that they may be moved down, and prevented from moving up beyond a certain point, so as to compensate for the wear of the knife. Letter H represents the pitman; the upper end is pivoted and attached to the bell-crank, and the other end pivoted and attached to the end of a lever, designated by letter K, which is slotted longi-

tudinally. A wrist-pin, letter *t*, inclosed within a small roller, is attached to the side of gear-wheel *m*, at a proper distance from the center of the wheel, and as the wheel revolves this pin traverses said slot in lever K backward and forward. Said gear-wheel *m* is hung upon a girt, letter *r*. Letters *o*¹ and *o*² represent a pair of bevel-wheels, which operate pinion *n*, which is hung upon the other end of the shaft to which bevel-wheel *o*² is attached, and pinion *n* gears with and operates gear-wheel *m*, by which lever K and its connections are operated. Letter *w* represents the main shaft, on which bevel-pinion *o*¹ is loosely mounted, having a clutch on the hub, connecting with clutch *s*, which slides upon a feather in the same shaft, and said clutch is operated by a fork connecting with the compound lever, represented by letter P, for throwing the machinery in and out of gear, a hand-lever being connected with said compound lever, by which it may be thrown in or out of gear, and it is automatically thrown out of gear by that part of said compound lever designated by letter P', which is operated by a crank, designated by letter *x*, which revolves on the shaft of gear-wheel *m*, which in its revolution strikes that portion of said compound lever represented by P', and throws the clutch out of gear, and stops the motion of the knife when it is raised to the proper height. The same remains stationary until thrown into gear by means of the hand-lever. The counterpoise upon lever K causes a quick return of the knife after the process of cutting.

By means of the connection of the pitman to the bell-crank, extending out from the side piece at one end, and at the other to lever K, direct action is secured, and more power obtained.

It will be observed that the gear-wheels and a large part of the machinery are located within the frame, by which arrangement greater compactness of the machine is obtained.

Having thus described my invention, what I claim is as follows, viz:

1. The combination of knife E, link *g*, and

bell-crank g^2 with pitman H and slotted lever K, operating in the manner substantially as and for the purpose specified.

2. The combination of shaft w , bevel-gear wheels o^1 o^2 , pinion n , and gear-wheel m , having eccentric pin t , for operating the lever K, in the manner substantially as and for the purpose specified.

3. The combination of the shaft w , clutch s , and compound lever P, having the arm P', operated by means of the crank x , substantially as and for the purpose specified.

ERHARD SCHLENKER.

Witnesses:

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