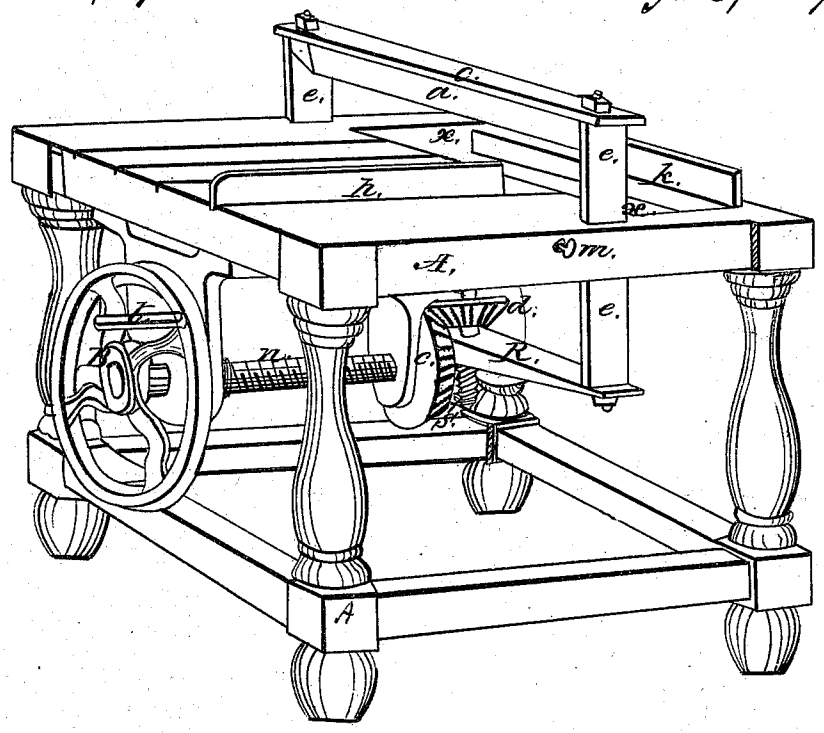
J. Bole.

Paper Cutting.

No. 105,894. Patented Aug. 2, 1870.



Witnesses.
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JOHN BOLE, OF GRAND RAPIDS, MICHIGAN.

Letters Patent No. 105,894, *dated August* 2, 1870.

IMPROVEMENT IN PAPER-CUTTING MACHINES.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, JOHN BOLE, of the city of Grand Rapids, Michigan, have invented certain new and useful Improvements in Paper and Card-Cutting Machines; and I do hereby declare that the following is a full, clear, and exact description of my invention, reference being had to the accompanying drawing and the letters of reference marked thereon, and the same are made a part of these specifications.

The figure represents a general view of my invention, in perspective, when constructed and ready for use.

The frame-work of the machine, shown in the figure by the letters A A, may be constructed of wood or any other suitable material.

The part represented in the figure by letters *e e e* and R is a strong frame, composed of iron or some suitable material, and is moved upward and downward when the machine is in operation.

The upper portion is so constructed as to receive and hold the knife *a*, as shown in the figure.

The part R is a strong metallic bar.

S is a large screw passing downward through the part R, and engaging with a screw-thread cut in that bar.

d is a beveled cog-wheel attached to the screw S in such a manner as to revolve with it, and *c* is a perpendicular beveled cog-wheel, which engages with the cog-wheel *d*.

B is an ordinary hand crank-wheel, provided with the handle *t*.

This wheel is connected with the part *c* by means of a strong rod, *n*.

In the figure, letters *h* and *k* represent adjustable gauges.

The gauge *h* is made to fit into the grooves, as shown in the figure. The gauge *k* is attached to two rectangular strips of iron, shown in the figure by *x x*, which slide under the table of the machine.

It is held in its place by means of the thumb-nuts *m m*.

In cutting cards with my invention, the card-board is placed upon the table and passed under the knife until it meets with the gauge *k*.

Then, by revolving the wheel B, the wheels *c* and *d* are put in motion, and the part R of the frame is pressed downward by the revolution of the screw S, thus drawing the knife *a* with great power upon the card-board, easily cutting through a large number of cards at the same time, when the card-boards are cut into strips of the width corresponding with the length of the cards desired.

The gauge *k* is regulated to the required distance, and the strips are placed against the gauge *h*, passed under the knife until they meet the gauge *k*, and the knife lowered as above described.

In cutting paper with my machine, the gauges *h* and *k* are removed, and an ordinary flat table is placed upon the top of the machine. The paper to be cut is placed under the knife, and the knife lowered as above described.

The cutting power of the machine may be increased by increasing the size or circumference of the cog-wheel *d*, or by diminishing the circumference of the cog-wheel *c*.

Having thus described my invention,

What I desire to secure by Letters Patent is—

A cutter, consisting of the knife *a*, secured to sliding pieces *e e* passing through the table, in connection with the cross-bar R beneath the table, secured to said sliding pieces, and with the single screw passing through the cross-bar, firmly connected to the bevel-wheel *d*, and operated by the bevel-wheel *c* upon the shaft *n*, and the crank-wheel B, substantially as set forth.

Witnesses: JOHN BOLE.

EDWARD TAGGART,
MARK M. POWERS.