A. Beekman,

Scroll Sawing Machine.

No. 39,790. Patented Sep. 8, 1863.

Fig: 1.

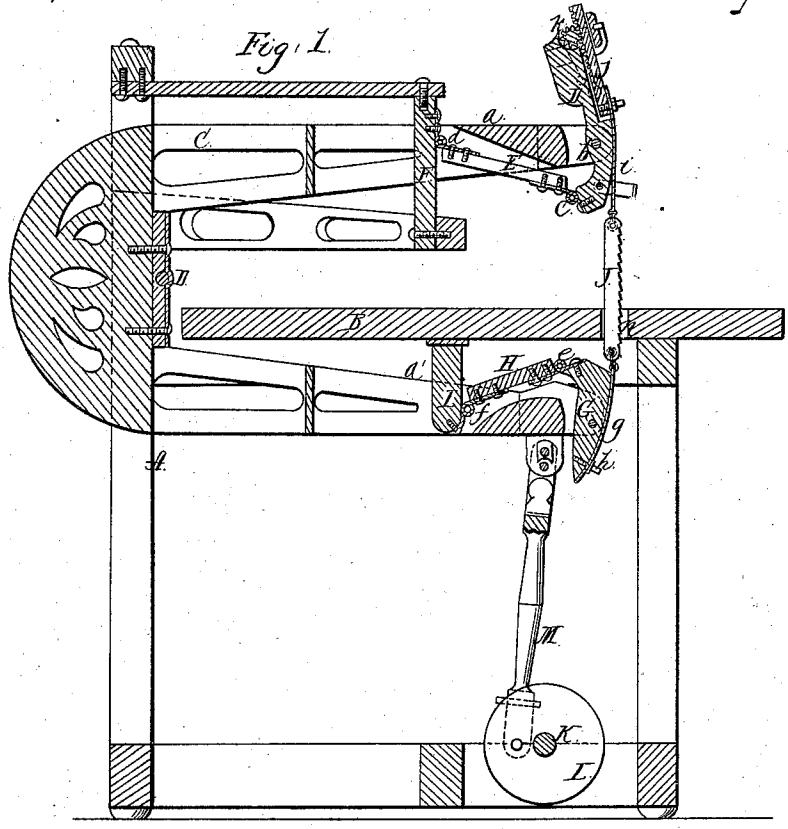
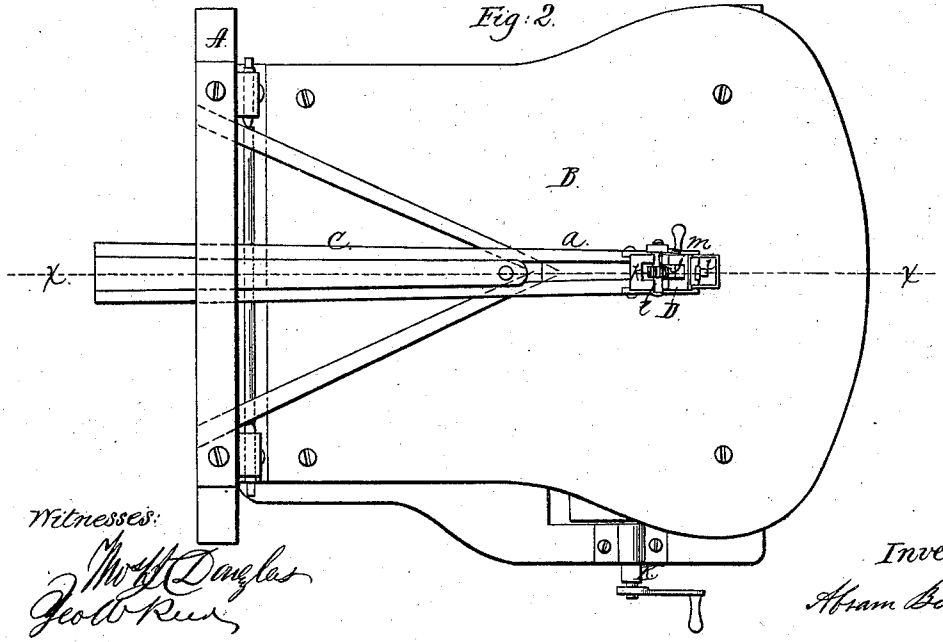


Fig: 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

ABRAM BEEKMAN, OF NEW YORK, N. Y.

IMPROVEMENT IN SCROLL-SAWS.

Specification forming part of Letters Patent No. **39,790**, dated Sepember 8, 1863.

To all whom it may concern:

Be it known that I, ABRAM BEEKMAN, of the city, county, and State of New York, have invented a new and Improved Scroll-Sawing Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to a new and improved sawing-machine, such as are designed for sawing scroll-work; and it consists in attaching the ends of the saw to rocking-arms, which are connected to the ends of an oscillating beam or frame, all being arranged in such a manner that the saw will have a vertical movement, and by an exceedingly simple and economical means.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A represents a framing, which may be constructed in any proper manner, to support a horizontal bed-piece, B, on which the stuff to be sawed is placed, and C represents a beam or frame, which is secured on a rock-shaft, D, a trifle above the bed-piece B, at one end of it. This beam or frame C is of U shape, and it has one arm, *a*, above the bed-piece B, and the other arm, *a'*, below it, as shown in Fig. 1.

To the front end of the arm *a* of the beam or frame C there is attached, by a pin or pivot, *b*, a rocker, D, the front edge of which is of curved form, and the lower end of this rocker has a bar, E, attached to it by a joint or hinge, *c*, the back end of said bar being attached by a joint or hinge, *d*, to an upright, F, secured to the framing A, said upright passing through an oblong slot in the arm *a*, to serve as a guide for the beam or frame C. The front end of the lower arm, *a'*, of the beam or frame C also has a rocker G attached to it, similar to the rocker D. The rocker G at its upper end has a bar, H, attached to it by a joint or hinge, *e*, the back end of said bar being connected by a joint or hinge, *f*, to a pendant, I, attached to the under side of the bed-piece B, said pendant passing through an oblong slot in the arm *a'*, and also serving as a guide to the beam or frame C.

J represents the saw, the lower end of which is attached, by a metal strap, *g*, to the rocker G, as shown at *h*. (See Fig. 1.) The upper end of the saw J is attached by a metal strap, *i*, to a rack, *j*, which is fitted in the upper rocker, D, and has a pinion, *k*, gearing into it, the shaft *l* of which has a crank, *m*, attached at one end. (See Fig. 2.) The saw J is strained to the proper degree of tension by turning the crank *m*, and the rack is held at the desired point by means of a pin driven into one side of the rocker D, so as to serve as a stop for the crank *m*. Other fastenings, however, for this purpose may be employed. The saw J works through a slot, *n*, in the bed-piece B. In the lower part of the framing A there is fitted a driving-shaft, K, on the inner end of which there is secured a crank-pulley, L, to which the lower end of a pitman, M, is connected, the upper end of said pitman being attached to the front end of the arm *a'* of the beam or frame C.

From the above description it will be seen that when the shaft K is rotated an oscillating motion will be communicated to the beam or frame C through the medium of the crank-pulley L and pitman M, and that the saw J will work in a vertical line, the rockers D G compensating for the curvilinear movement of the beam or frame C. The rockers D G, in consequence of being connected by the bars E H to the fixed parts F I, are moved as the beam or frame C is oscillated, to effect this result the upper part of the rocker D being thrown outward or forward as the arm *a* descends, and thrown backward as it ascends, while the lower rocker, G, has a similar movement imparted to it by its bar H. Thus, by this simple arrangement, a very compact and economical scroll-sawing machine is obtained.

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

The oscillating beam or frame C, in combination with the rockers D G, saw J, attached thereto, as shown, and the bars E H, the latter being connected to the rockers and to the fixtures F I, and all arranged substantially as and for the purpose herein set forth.

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