J. ATKINSON.

Scroll-Saws.

No. 144,181. Patented Nov. 4, 1873.

Fig. 1.

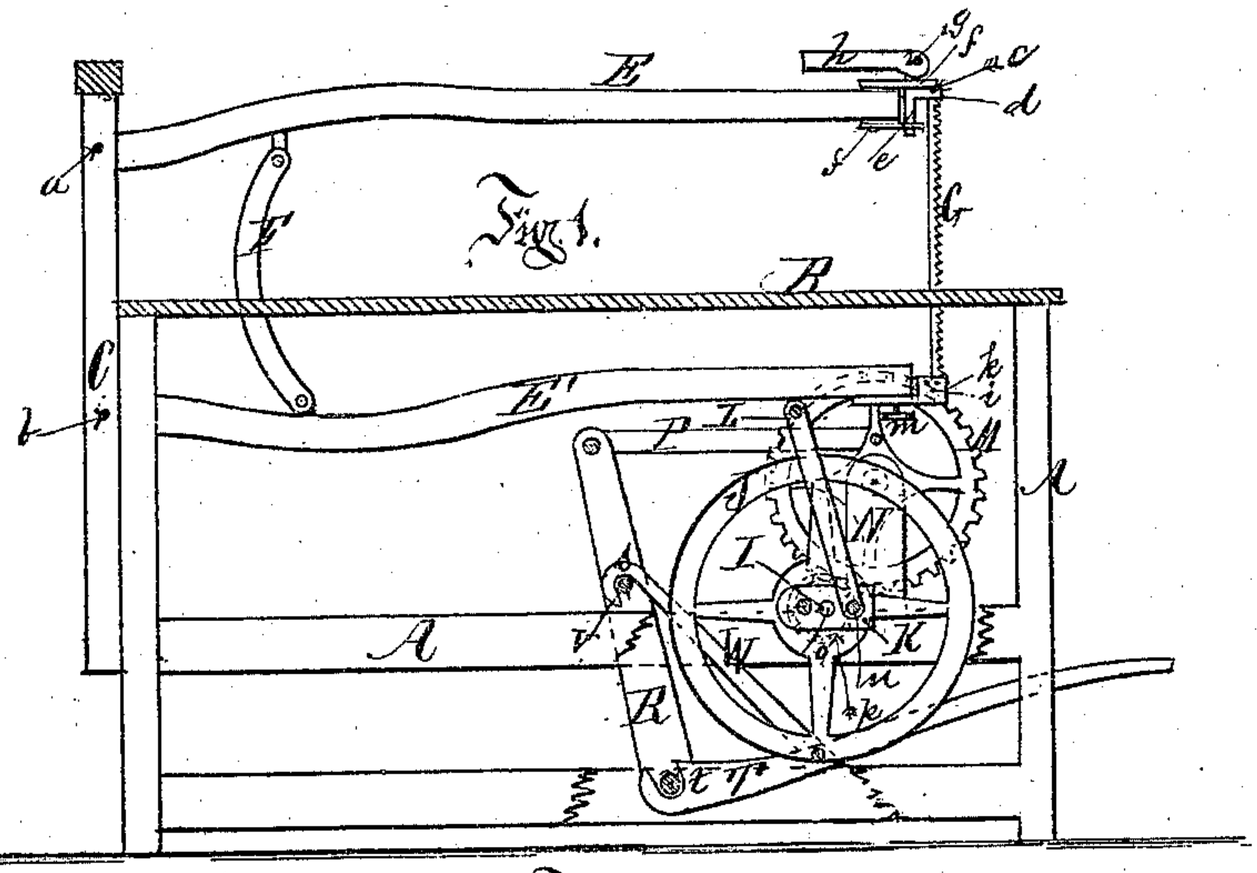


Fig. 2.

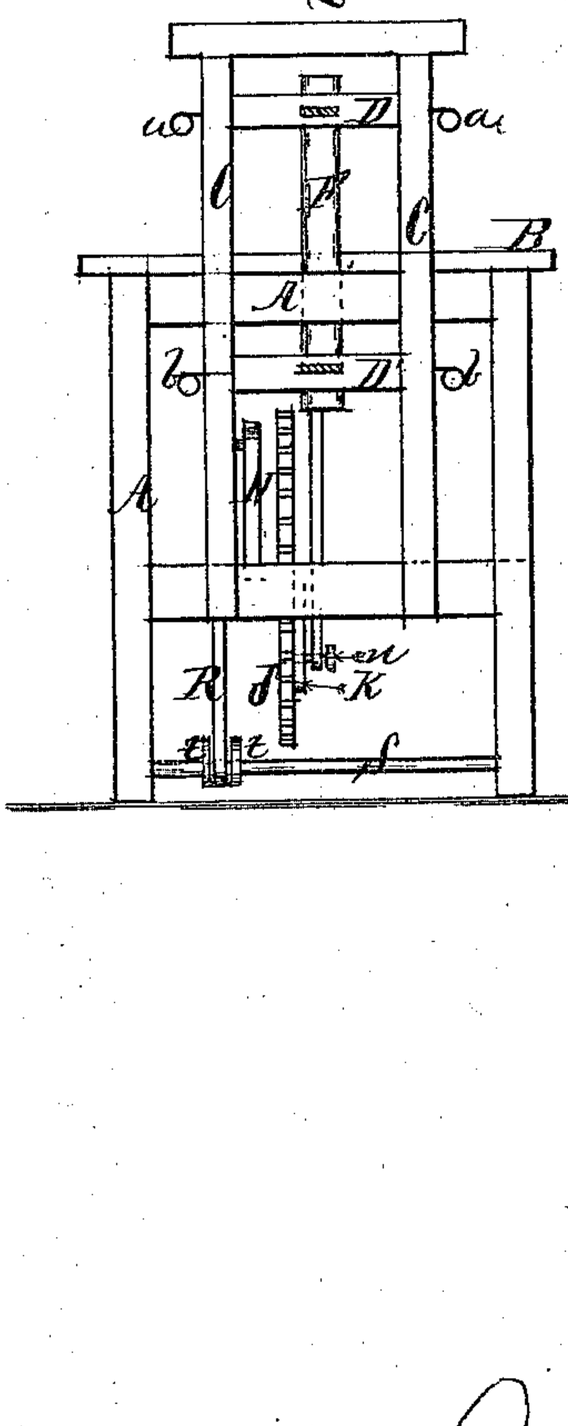


Fig. 3.

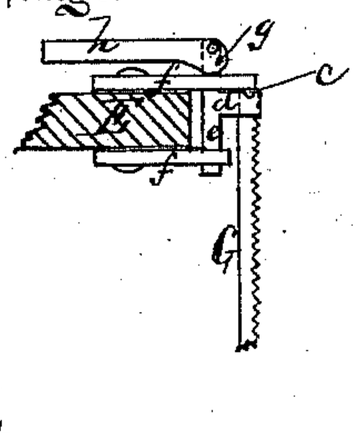
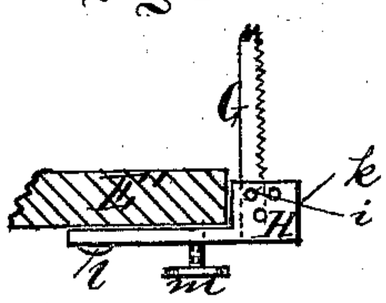


Fig. 4.



Witnesses.
Richard Gerner
Franklin Barrett

Inventor.
Joseph Atkinson
Per Henry Gerner
Atty.

UNITED STATES PATENT OFFICE.

JOSEPH ATKINSON, OF BURLINGTON, NEW JERSEY.

IMPROVEMENT IN SCROLL-SAWS.

Specification forming part of Letters Patent No. **144,181**, dated November 4, 1873; application filed March 15, 1873.

To all whom it may concern:

Be it known that I, JOSEPH ATKINSON, of Burlington, county of Burlington, State of New Jersey, have invented certain Improvements in Scroll-Saws, of which the following is a specification:

The nature of my invention consists, first, in placing the saw-arms in such a position that they will not pass below a horizontal line, which avoids a rounding cut of the wood operated upon; secondly, in the shortening and lengthening of the pitman-rod, by which the stroke of the saw is also lengthened and shortened, as coarse or fine work may require; thirdly, in using on the upper arm a lever eccentric on the end, by aid of which the saw is more readily removed and placed in position, and also removed, while the other end of the saw is placed in a groove of the lower arm-head, which is pierced with a number of holes to give the saw any desired movement, perpendicular or sloping, as may be desired. A set-screw is placed under the lower arm-head in such a position that it presses against the lower arm, and thus serves to give any desired tension to the saw; fourthly, in making the treadle adjustable, that it may be used either at the front or rear of the saw-bench, as desired.

In order to describe my invention more fully I refer to the accompanying drawing forming a part of this specification.

Figure I is a side elevation of a scroll-saw embodying my invention. Fig. II is a back view of the same. Fig. III is a detached enlarged view of the saw-fastener on the upper arm. Fig. IV is a detached enlarged view of the saw-fastener on the lower arm.

A is a frame, on which the table B is placed. On the back end of the frame A are placed the two standards C, between which the two rock-shafts D D′ are placed, and vibrate on the set-screws *a* and *b*. To these rock-shafts are connected the two arms E E′, which are held parallel to each other by aid of the curved arm F, pivoted to the said arms. The saw-blade G is held between the ends of the saw-arms E E′, and is held to the upper arm by aid of a pin, *c*, passing through the end of the saw-blade and resting on the arms *d d* on the slide *e*, which is held to the arm E by the plates *f f*. To the upper end of the slide *e* is pivoted the eccentric *g*, to which the lever or arm *h* is connected. The saw-blade is placed in the groove K and held to the lower arm E′ by aid of the pin *i*, which is inserted in one of the holes in the fastening H. Said fastening is held to the arm by aid of the screw or rivet *l*. A set-screw, *m*, passing through the fastener and pressing against the arm, serves to give the saw the required tension. I is the main shaft. J is a fly-wheel. K is a crank. L is an adjustable pitman between the crank and arm E′. By placing the crank-pin *n* in the holes *o o* made in the crank K, the stroke of the saw-blade A is lengthened and shortened. On the main shaft I is fastened a cog-wheel, *p*, the cogs of which mesh into the cogs of the wheel M, pivoted to the standard N. A pitman, P, and lever R, pivoted to the connection-rod S, serve to gives the machinery motion when a treadle is employed. T is a treadle, held to the rod S and lever R by aid of hooks *t t* on the treadle T, and *s s* on the arm W. Said hooks are placed over the pin *v* passing through the lever R.

Having thus described my invention, I desire to claim—

Holding and adjusting the saw-blade G by aid of the pin *c*, arms *d d*, slide *e*, plates *f f*, eccentric *g*, lever or arm *h*, pin *i*, fastener H, screw or rivet *l*, and set-screw *m*, in combination with the arms E E′, substantially as and for the purpose set forth.

JOSEPH ATKINSON.

Witnesses:

H. MOFFETT,

DANL. P. NAYLOR.