

(No Model.)

2 Sheets—Sheet 1.

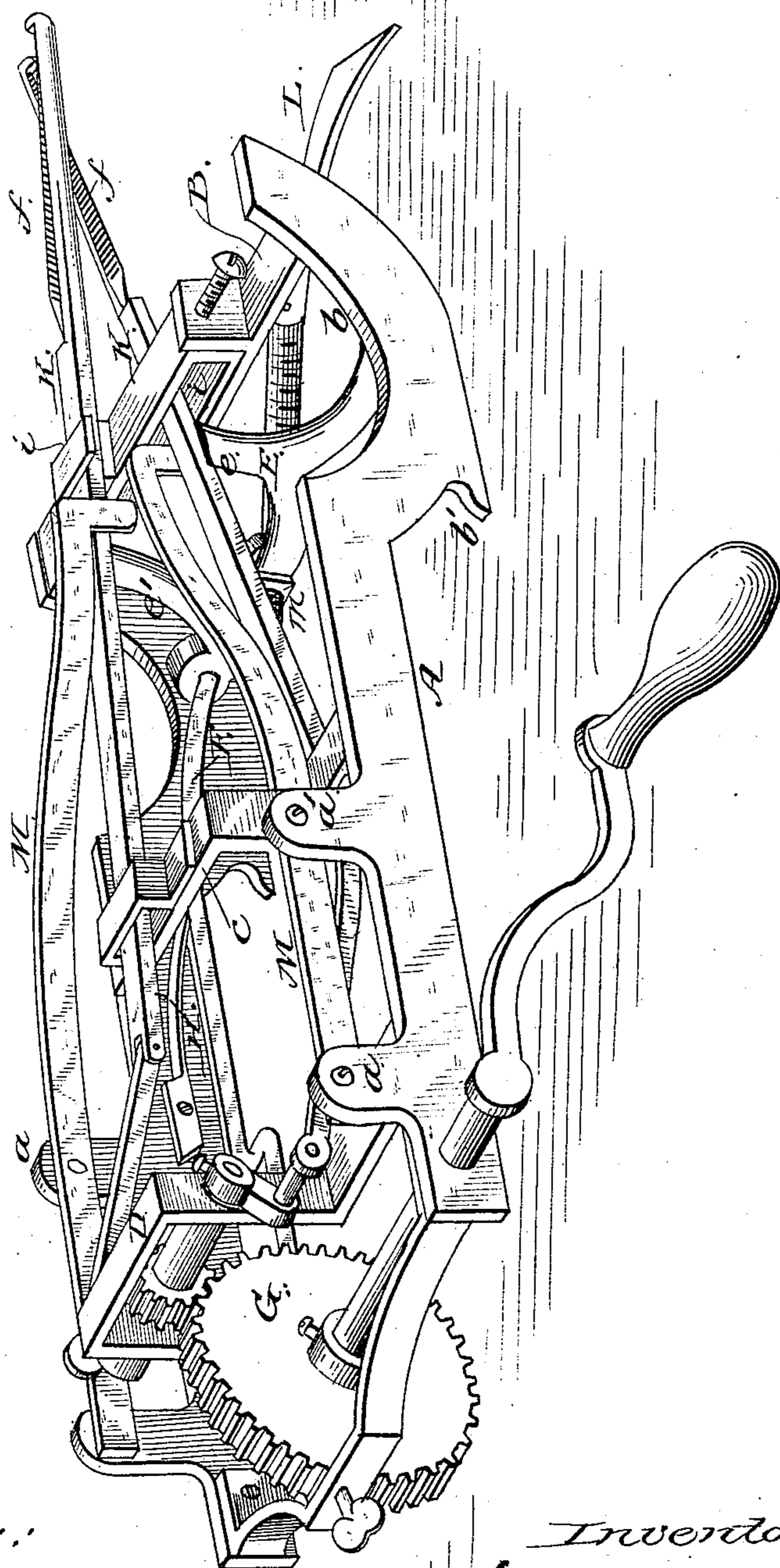
J. HARTSELL & J. H. WALTERS.

Gin Saw Filing Machine.

No. 241,006.

Patented May 3, 1881.

Fig. 1.



Witnesses:

Walter Fowler
R. K. Evans

Inventors:
Jacob Hartsell
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2 Sheets—Sheet 2.

Gin Saw Filing Machine.

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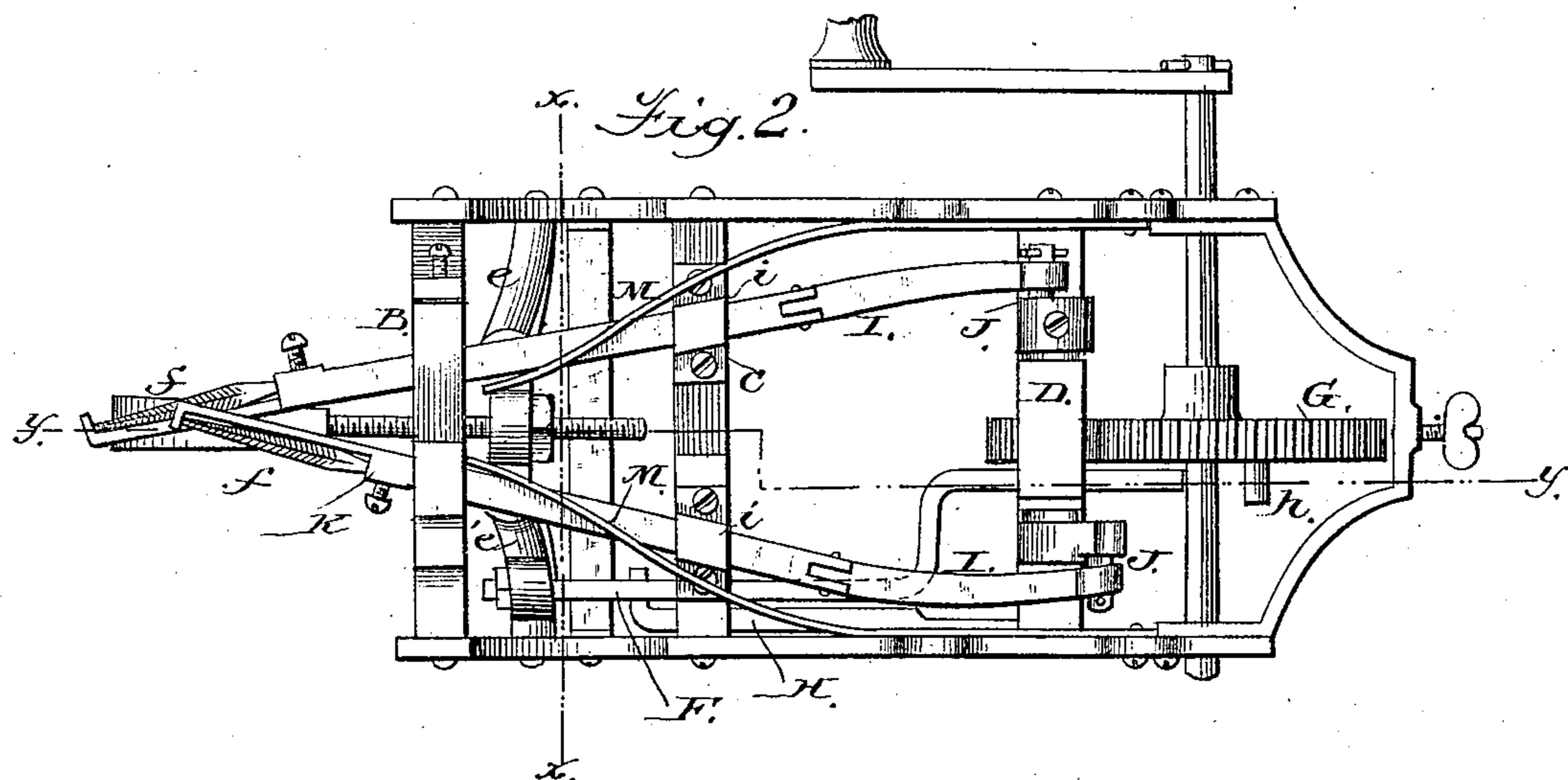


Fig. 3.

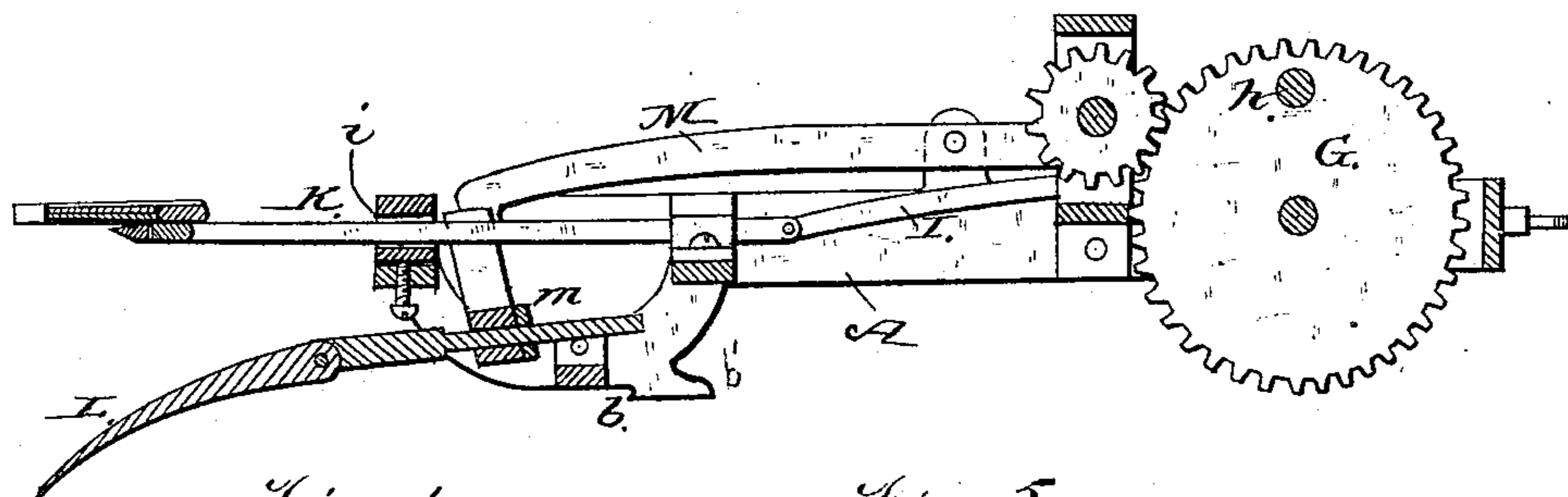


Fig. 4.

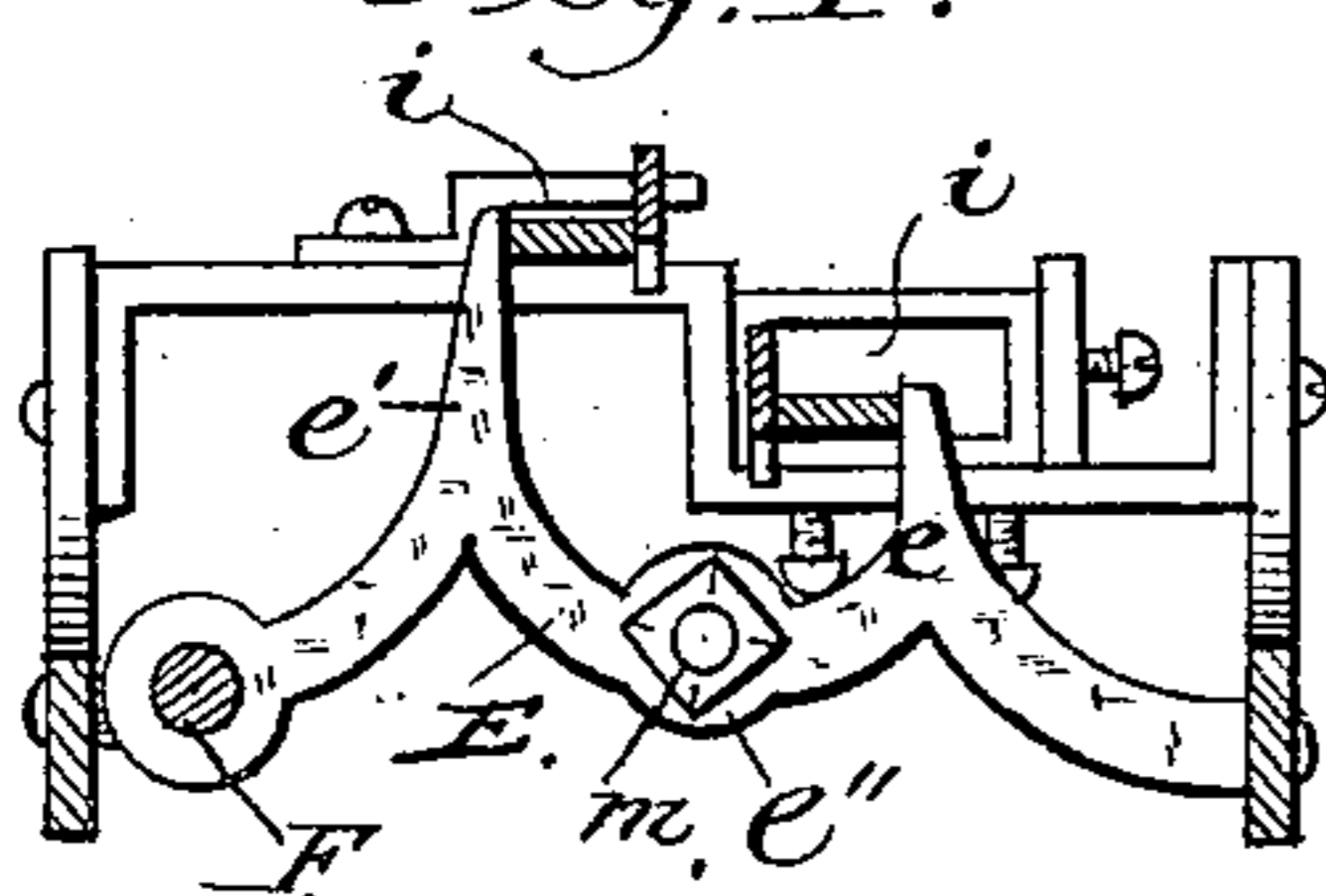
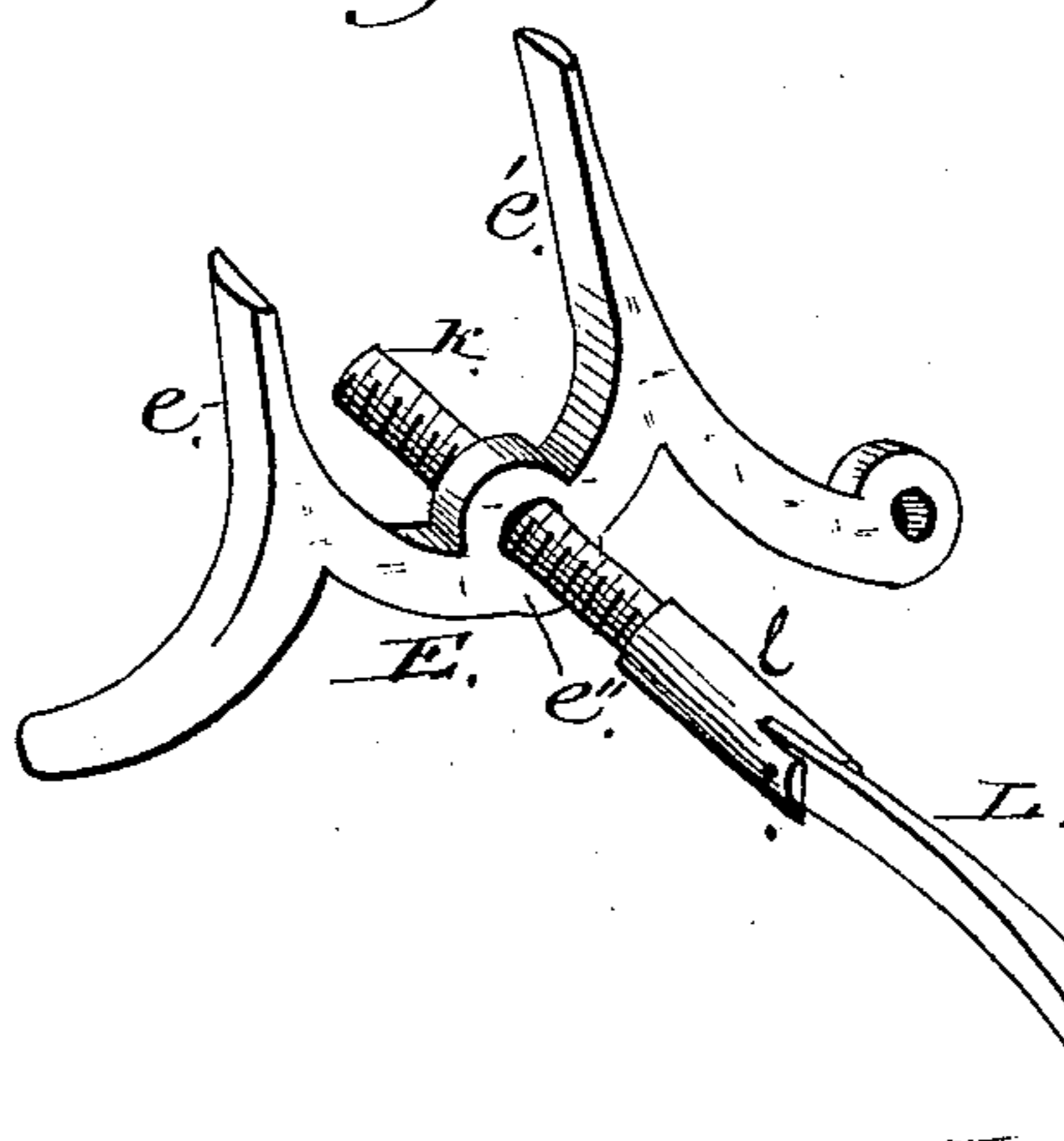


Fig. 5.



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UNITED STATES PATENT OFFICE.

JACOB HARTSELL AND JAMES H. WALTERS, OF BIG LICK, N. C.

GIN-SAW-FILING MACHINE.

SPECIFICATION forming part of Letters Patent No. 241,006, dated May 3, 1881.

Application filed February 9, 1881. (No model.)

To all whom it may concern:

Be it known that we, JACOB HARTSELL and J. H. WALTERS, of Big Lick, in the county of Stanley and State of North Carolina, have invented a new and Improved Machine for Sharpening Gin-Saws; and we hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of the machine. Fig. 2 is a plan view. Fig. 3 is a vertical section on the line *y y* of Fig. 2. Fig. 4 is a vertical section on the line *x x* of Fig. 2, looking toward the front of the machine. Fig. 5 shows details, to be referred to.

Our invention relates to machines for sharpening gin-saws, and it is an improvement on Letters Patent No. 221,813, issued to Jacob Hartsell, November 18, 1879.

Our invention consists in sundry details of construction, as hereinafter more fully described and claimed, whereby the operation of the machine is facilitated and its cost in construction materially reduced.

In order that those skilled in the art may make and use our invention, we will proceed to describe the manner in which we have carried it out.

In the said drawings, *A A* represent the castings for the sides of the frame, and are provided near their rear with upwardly-projecting lugs *a a'*, and near their forward ends they are curved, as shown at *b*, and provided with a downwardly-projecting square-faced lug, *b'*. Cross-bars *B C D* are secured between the pieces *A*, as shown, and serve as bearings for the driving-shaft and the reciprocating bars which operate the files *f f*.

In the forward part of the frame is a rock-shaft, *E*, cast with two upwardly-projecting studs, *e e'*, and a central bearing, *e''*, for the feed device, which moves the saw so a fresh tooth will be brought between the files. A lever, *F*, passes back from rock-shaft *E*, and has its end so located that upon each revolution of the driving-wheel *G* a pin located on its face at *h* will depress it and move the lugs and the feeding-pawl in the arc of a circle. A spring,

H, having one end secured to the side piece, *A*, has the other end bearing beneath lever *F*, so that lever *F* and the rock-shaft *E* are returned to their normal positions as soon as pin *h* releases the end of the lever.

The pitmen *I* are driven by the cranks *J J*, and reciprocate the file-carriers *K K*, which rest in guides *i i*, which are made properly adjustable.

The feeding-pawl *L* is adjusted by means of a screw, *k*, on its sustaining-rod *l*, and when in proper position a jam-nut, *m*, is forced up against the rock-shaft and holds the rod *l* rigidly.

Springs *M*, secured to lugs *a a'*, have their ends bearing against the sides of the file-holders, so as to force the files together, and the lugs or studs *e e'* bear against the opposite sides of the file-holders, so that when they are rocked back by the shaft they overcome the tension of springs *M M*, and by forcing the holders together force the files apart, in order that the feeding-pawl may throw another saw-tooth between the files. In adjusting the machine for use on the gin-saws, which need not be removed from the machine, the face of the lug *b'* is forced or pushed snugly against a piece of scantling or other timber lying across the face of the gin.

The operation of our improved machine is as follows: The gin-saws being mounted in the gin and the lugs *b* of the frame pressed against a piece of timber lying across the face of the gin, the face or edge of the saw being between the files *f f*, and the end of the feeding-pawl *L* resting on a tooth of the saw below its horizontal center, by turning the shaft the crank-shaft will be turned through the medium of the gears, thus reciprocating the files across the teeth of the saw at each revolution of the shaft, and at each revolution thereof the saw is turned by the vibration of shaft *E* and consequent impulse of pawl *L*, so as to bring the teeth successively in position to be operated on.

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

1. In combination with a mechanism for sharpening gin-saws, the supporting side pieces, *A A*,

provided at their rear ends with upwardly-projecting lugs *a a'*, and curved at their forward ends and provided with the steadying-lugs *b'*, substantially as described, for the purpose set
5 forth.

2. The rock-shaft E, cast with the studs *e e'*, in combination with the file-holders K K, lever F, and driving-wheel provided with pin *h*, all constructed, arranged, and operated as set
10 forth.

3. The rock-shaft E, in combination with the screw-rod *l*, pawl L, and jam-nut *m*, substantially as and for the purpose described.

JACOB HARTSELL,
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Witnesses:

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