

No. 8,113.

PATENTED MAY 27, 1851.

G. W. PUTNAM.
SAW FILING MACHINE.

Fig. 1.

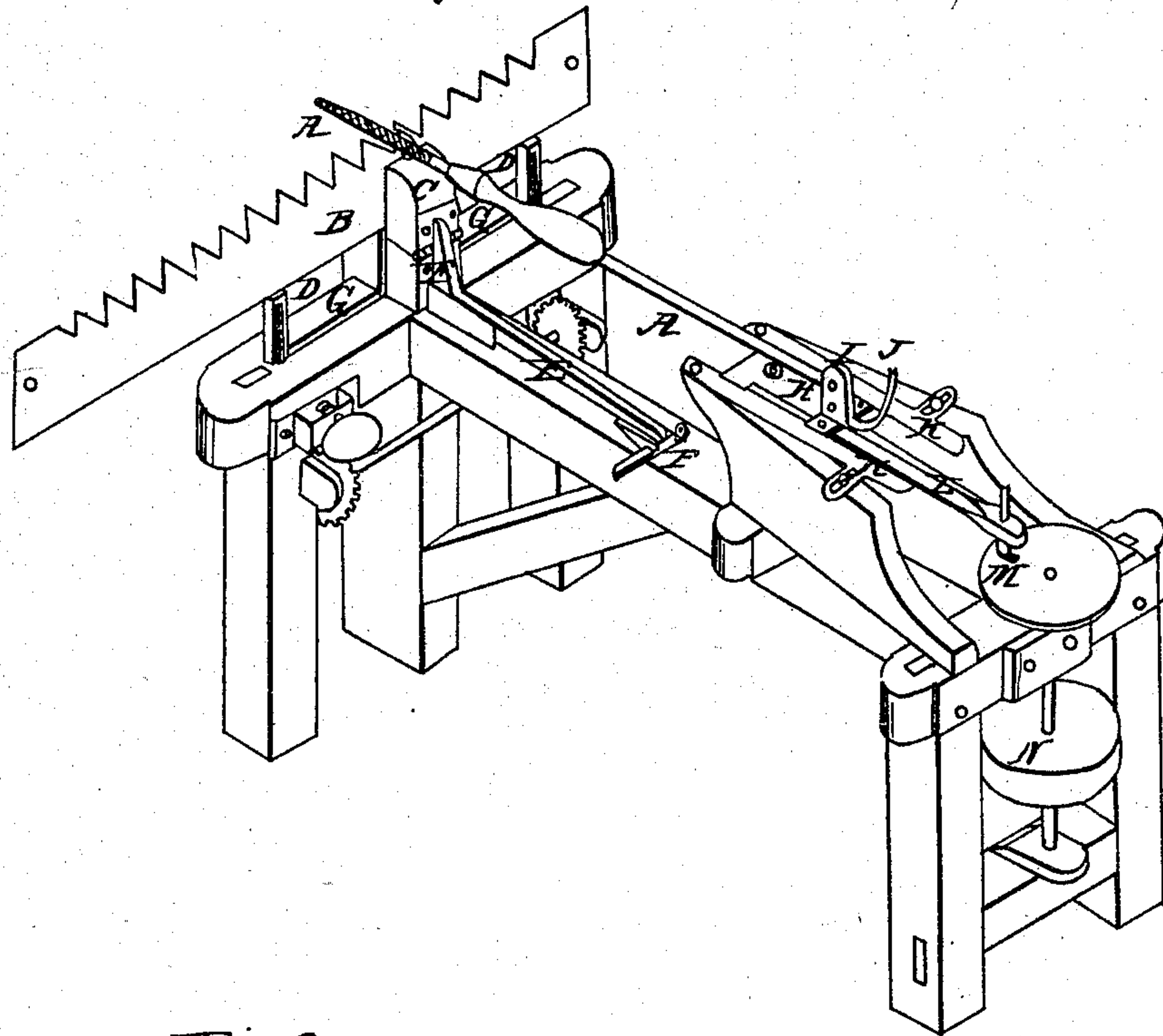


Fig. 2.

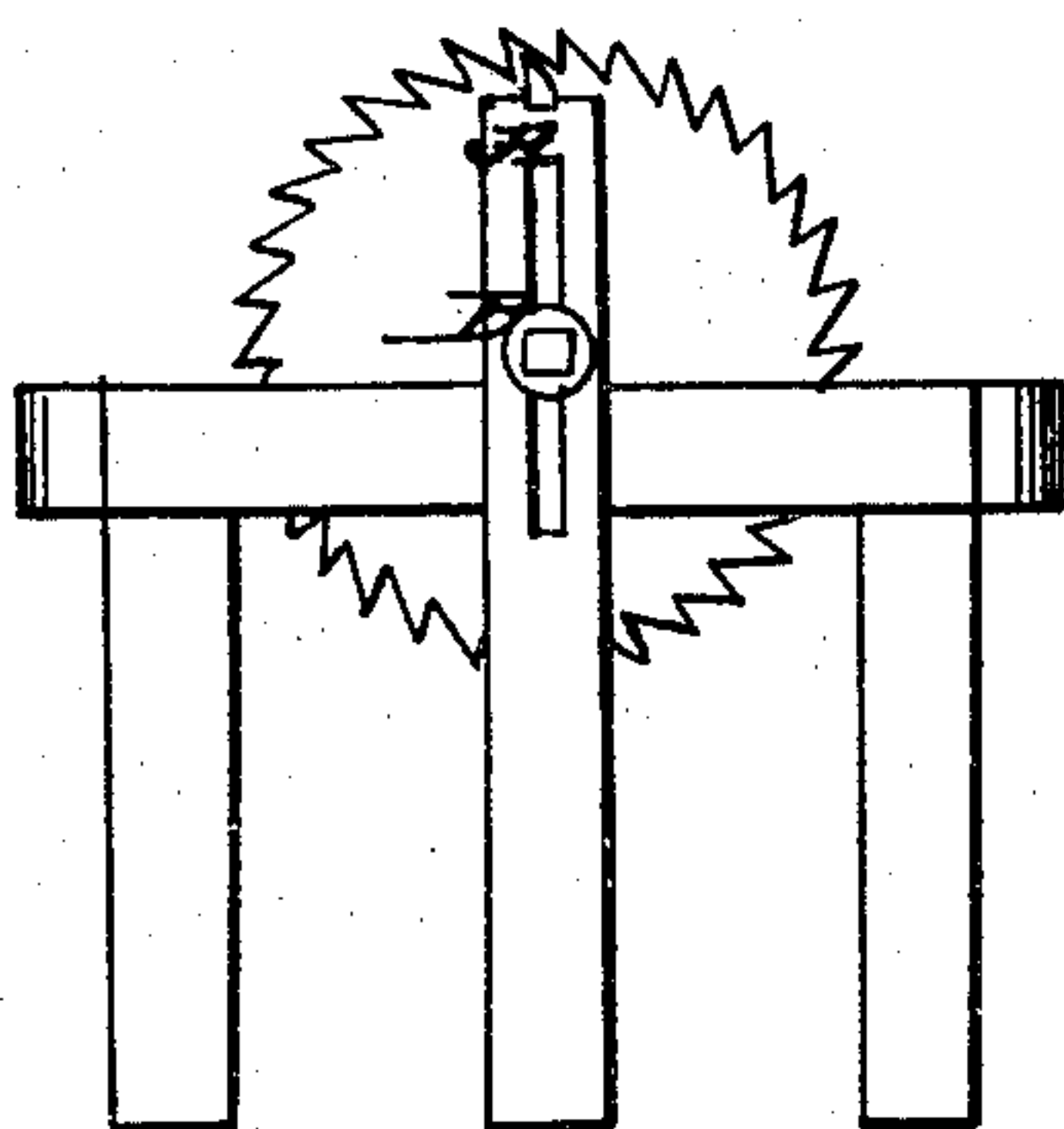


Fig. 4.

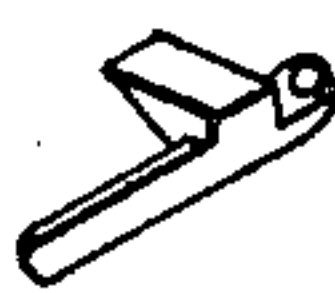


Fig. 3.

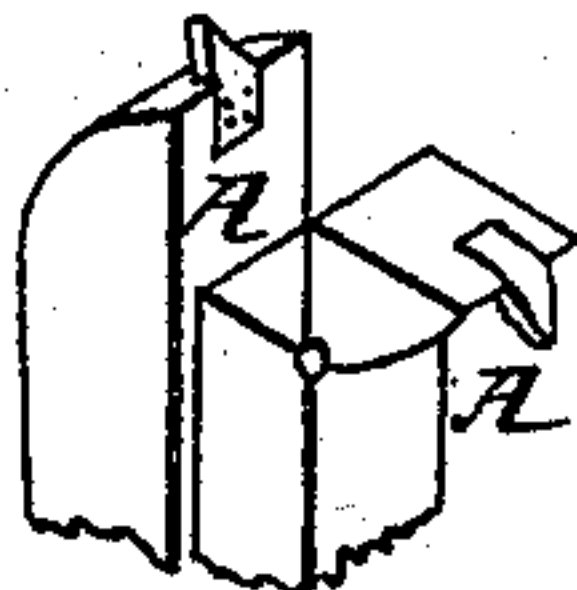


Fig. 5.



UNITED STATES PATENT OFFICE.

GEORGE W. PUTNAM, OF MOREAU, NEW YORK.

VICE-JAW FOR SAW-FILING MACHINERY.

Specification of Letters Patent No. 8,113, dated May 27, 1851.

To all whom it may concern:

Be it known that I, GEORGE W. PUTNAM, of the town of Moreau, in the county of Saratoga and State of New York, have invented new and useful Improvements on Saw-Filing Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the improved machine; Fig. 2 an end view; Fig. 3 a perspective view of a portion of the vise; Fig. 4 a perspective view of the wedge; Fig. 5 a view of the screw.

The machine is constructed and operates as follows: A bench or frame of a size and strength suitable for the kind of work intended is first made for supporting the machinery, the front or forward end of which is composed of and supported by three posts and the opposite end by two posts. The posts at each end of the frame are united by a beam passing transversely across the tops, and the ends of the frame are connected by a beam passing from the center of one to the center of the other of said transverse beams supported by a brace passing from near the foot of the center post at the front end of the machine backward to, and connecting with the connecting beam near the center.

The top end of the center post in the front of the machine is a vise as seen at C in Fig. 1, the inner jaw of which is worked upon a hinge as seen distinctly in Fig. 3.

The vise is worked with a lever as seen at E E in Fig. 1 and a wedge as seen in F in same figure. The lever is in the shape of an L moving on a pivot or bolt at the elbow between E and E. The wedge is affixed to a shaft or bar, one end of which is attached to the connecting beam of the frame on the top thereof near the back end of the lever with a bolt upon which the shaft or bar is worked backward and forward by the hand or knee of the workman, the wedge being thus by a second lever power forced under the back end of the first lever to close the vise, or drawn back to open it.

In the transverse beam at the front of the machine is an opening as seen at G, G, in Fig. 1 for the purpose of admitting a circular saw which may be seen inserted in Fig. 2.

At B in Fig. 2 is a bolt, to hold the circular saw, fastened with a nut and screw in

a mortise to be moved up or down according to the size of the saw.

Affixed to the top of each jaw of the vise and forming a part thereof is a strong plate of iron or steel corresponding in shape to a saw tooth as seen at A A in Fig. 3, which holds the tooth of the saw firm and prevents a trembling motion which would otherwise break the teeth of the file, retard the operation of filing, and give to the teeth an irregular edge.

The common straight saw when inserted in the vise as seen at B in Fig. 1 is supported by two or more slides as seen at D, D, in same figure. In each slide is inserted a segment and gear wheels attached to a shaft passing under the connecting beam of the frame work into each segment and by means of a screw running in the gear wheel the slides are raised and lowered at pleasure thus raising or lowering the saw and bringing the teeth into proper position for filing.

On the top of the frame is placed a horizontal gate as seen at H in Fig. 1 the outer edges of which are grooved and run on plates as seen at K K in same figure. Under this gate runs a pitman as seen at L in same figure, one end of which is attached to the gate by means of a bolt fastened in a mortise with a nut and screw on which the pitman works; the other end of which is attached in a similar manner to a balance wheel as seen at M in same figure, forming with the balance wheel a crank. By moving the bolts which attach the pitman at either end in the mortises a greater or less stroke may be given to the file when in motion.

Attached to and running downward from the balance wheel is a shaft to which is affixed a drum as seen at N in Fig. 1 over which a belt is made to run to drive the machine by the application of any common motive power.

The file and handle as seen at A A in Fig. 1 are affixed to a rod with a ball at the end which works in a socket between two plates as seen at I in same figure.

In the forward end of the file handle is inserted a nut fixed permanently in the handle into which a split tapering screw as seen in Fig. 5 is inserted the file being first set into the screw. By turning the file and screw into the handle it becomes fast and centered.

At J in Fig. 1 is represented a fork which supports the file handle when thrown back from the saw.

The file when the machine is in motion is guided by the hand.

What I claim as my invention and desire to secure by Letters Patent is—

- 5 The jaws of the vise shaped to correspond to the shape of the saw teeth and support the same, so as to prevent vibration during the operation of filing as herein set forth,

whereby a better edge is given to the tooth, the wear of the file is diminished and the process of sharpening is expedited.

GEO. W. PUTNAM.

Witnesses:

T. SMITH,
M. B. BROWN.