

M. D. WHIPPLE.

File Cutter.

No. 34,865.

Patented April 1, 1862.

Fig. 1.

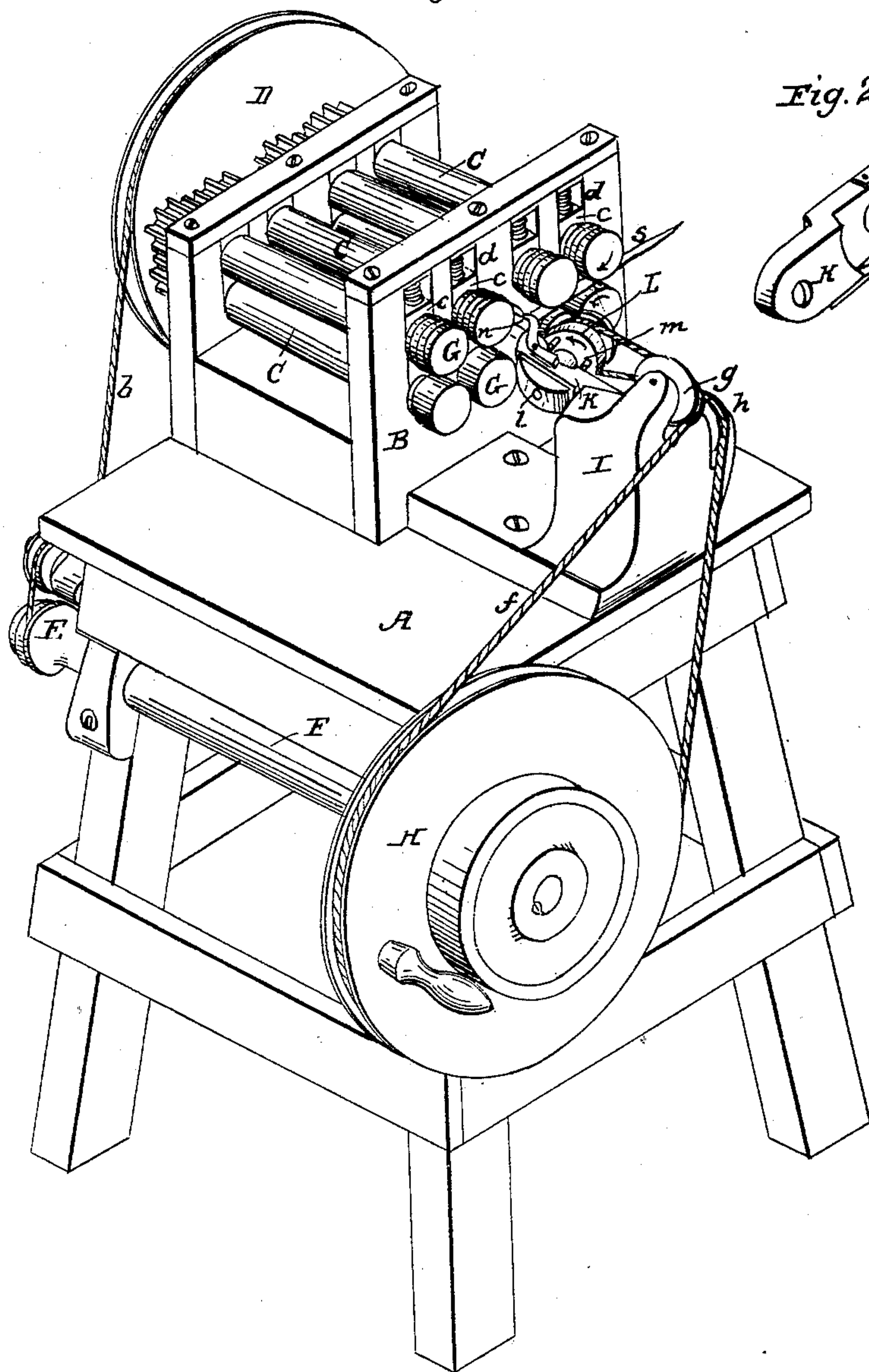
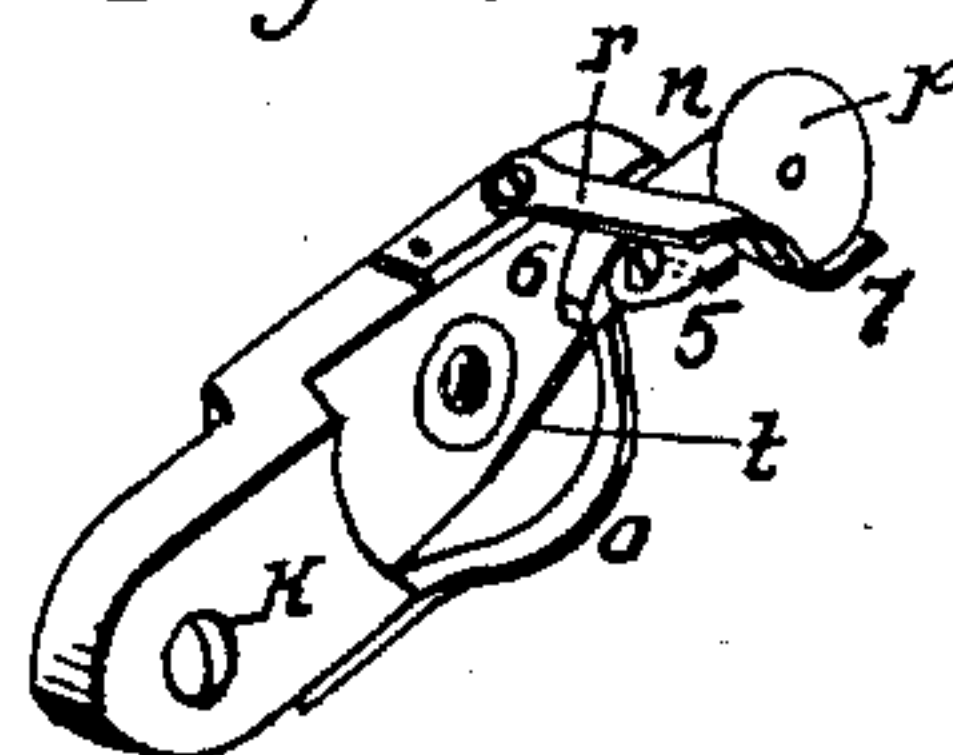


Fig. 2.



Witnesses:
Edmund Mason
P. E. Edgumaker

Inventor:
Milton D. Whipple
by his attorney,
Samuel H. Cooper
per Ranch

UNITED STATES PATENT OFFICE.

MILTON D. WHIPPLE, OF CAMBRIDGE, MASSACHUSETTS, ASSIGNOR TO
THE WHIPPLE FILE MANUFACTURING COMPANY.

IMPROVEMENT IN MACHINES FOR CUTTING FILES.

Specification forming part of Letters Patent No. 34,865, dated April 1, 1862.

To all whom it may concern:

Be it known that I, MILTON D. WHIPPLE, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented an Improved Machine for Cutting the Edges of Files, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of the machine; Fig. 2, details to be referred to.

Files which have an edge—such as “saw-files,” or those with a triangular cross-section, and “half-round” files—before they have been cut on their several faces require to be “cut” or finished on the edges. My present invention consists in a machine for doing this work.

That others skilled in the art may understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A is the frame or stand, from which rise the housings B in suitable bearings, in which run shafts C, which are placed in pairs one above the other, and are driven by suitable gears *a* from a pulley D, revolved by a cord *b* from a pulley E on the main or driving shaft F. The upper row of shafts C have each their boxes *c* at one end made to slide up and down in the housing B, and are pressed down by springs *d*. Each shaft C carries a feed-roll G, which rolls are of a proper form to suit the kind of file to be cut. Those shown here are for a three-cornered file, the lower row being smooth on the face, and the upper row grooved, so that they will keep one of the edges of the file-blank uppermost and feed it through in this position. A half-round file would require both sets to be grooved. A pulley H on the shaft F carries a cord *f*, which passes over two inclined pulleys *g h*, hung in a heavy stand-

ard I. To this standard is pivoted at *i* a heavy arm K, (detached in Fig. 2,) which carries a pulley L, hung on a spindle passing through the arm at *l*. The cord *f* drives this pulley, which is furnished on its rear end with a set of pins *m*. Another arm *n* is pivoted at *5* to the arm K. Its inner end *6* intercepts the path of the pins *m*, so that as the pulley L is revolved in the direction of the arrow the outer end of the arm *n* is raised. A spring *o*, pressing against this arm, throws it down again when released from the pin *m*. A disk cutter *p* is secured to the outer end of the arm *n*. (The cutter is made in this form, so that it may be turned round when one portion of its edge has worn.) A curved guide-bar *r* is secured to the arm K. Its end *7* is intended to rest on the edge of the file-blank *s*, Fig. 1, which is to be cut, and keep the arm K at the proper height.

A rest or stop *t* is attached to the under side of the arm K, and extends out under the arm *n* to prevent its falling down when the cutter is not operating on a file.

As the pulley L is revolved the pins on it strike the end of the arm *n* and vibrate it rapidly, the cutter *p* striking on the edge of the file-blank *s*, which is fed along under it until one edge is finished, when the file-blank is turned over and again passed through.

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

The above-described machine for cutting the edges of file-blanks, consisting, essentially, of the arm K, with its guide-bar *r*, the vibrating arm *n*, with its cutter, the feed-rolls G, and suitable gearing and mechanism for operating the parts substantially in the manner specified.

MILTON D. WHIPPLE.

Witnesses:

THOS. R. ROACH,
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