Marshall & Southwick,

Stripping File-Blanks,

No. 39,775. Patented Sep. 1, 1863.

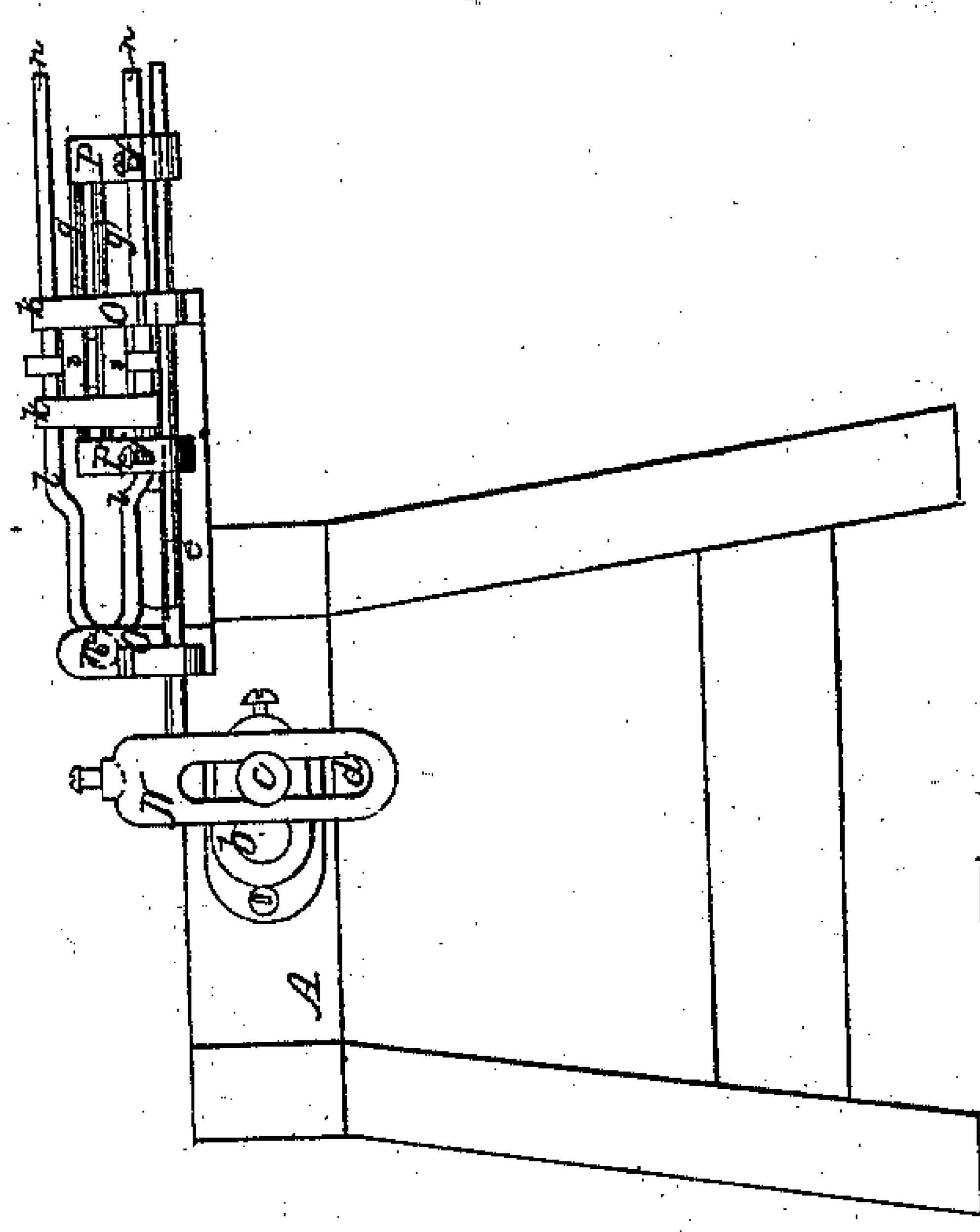

Fig. 2.

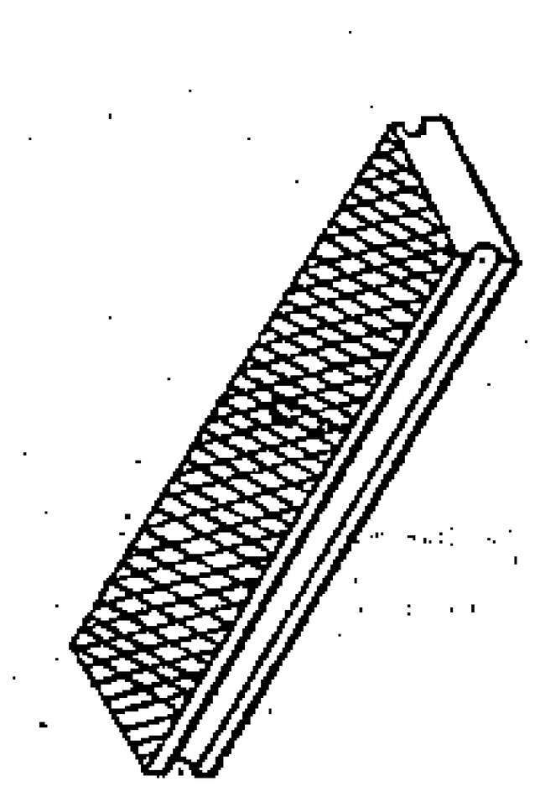

Fig. 4.

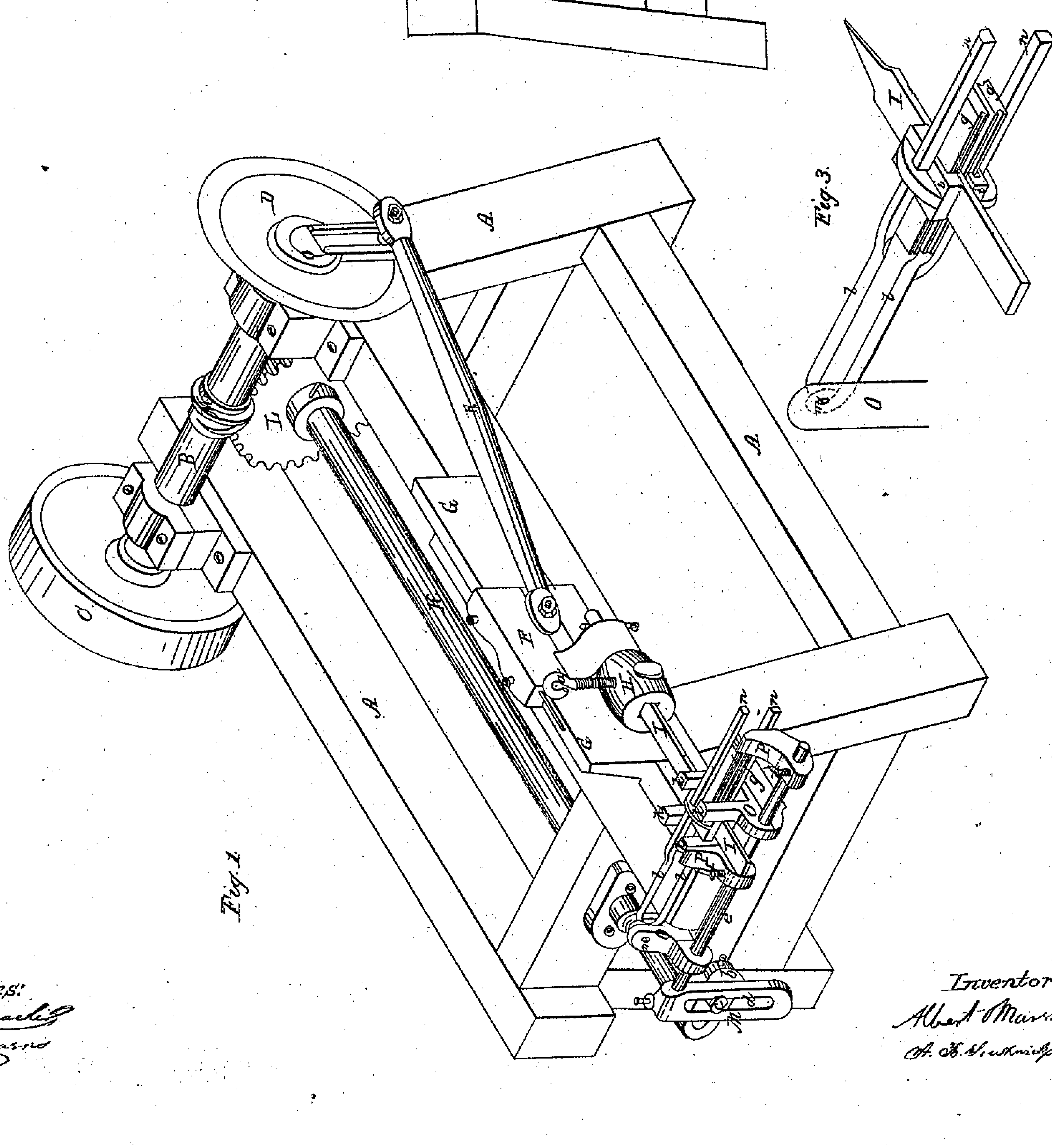

Fig. 3.

Fig. 1.

Witnesses:
[illegible]
[illegible]

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UNITED STATES PATENT OFFICE.

ALBERT MARSHALL, OF LAWRENCE, AND A. B. SOUTHWICK, OF BALLARDVALE, MASSACHUSETTS, ASSIGNORS TO THE WHIPPLE FILE MANUFACTURING COMPANY.

IMPROVED MACHINE FOR STRIPPING FILE-BLANKS.

Specification forming part of Letters Patent No. **39,775,** dated September 1, 1863.

To all whom it may concern:

Be it known that we, ALBERT MARSHALL, of Lawrence, and A. B. SOUTHWICK, of Ballardvale, both in the county of Essex and State of Massachusetts, have invented a new and improved machine for the purpose of "stripping" or "draw-filing" file-blanks, 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 perspective view of our machine; Fig. 2, an elevation of one end of the same; Fig. 3, a detached view of the rods *l* and files *g*, with their holders and with a blank between the files; Fig. 4, a view of one of the stripping-files.

File-blanks, after they are forged and ground, require to be stripped or draw-filed in order to file out any irregularities that may have been left by the grindstone and to render their surfaces smooth and uniform. This operation is sometimes performed after the file has been cut in one direction, and before the final cut is made, in order to remove the burr made by the first cut, the machine in such case being so arranged as to file more or less deep, as may be required. In general, however, the blank is stripped before the cutting is commenced, and for this purpose the machine is arranged, as represented in the accompanying drawings, in which—

A is the frame-work which supports the operating parts of the machine in suitable bearings on which runs the driving-shaft B, which carries at one end the driving-wheel C and at the other a crank-wheel, D. To this wheel is pivoted the connecting-rod E, which is attached at its other end to the sliding carriage F, which is furnished with dovetailed grooves and runs on the piece G, attached to the frame-work. To this carriage is secured by the pin *o* the file-holder H, in a mortise in which the tang of the file-blank I is inserted, and held in place by the screw *a*, and thus, as the wheel C is revolved, the blank, through the connections already explained, is vibrated back and forth, as required.

K is a shaft running in the frame work A. This shaft carries at one end the cog-wheel L, in which works the worm-wheel M on the driving-shaft, and at the other a crank, *b*, the crank-pin *c* of which plays in the slot *d* of the hanger N. From this hanger projects the rod *e*, which plays in the pieces O, attached to the frame-work. To this rod are attached by screws *f* the ears P, between which are secured the ends of the files *g*. which smooth off the blank, and thus, as the rod *e* is vibrated back and forth by means of the crank *b*, the files *g* are carried slowly back and forth, so that the whole of their surfaces shall be uniformly exposed to wear. The files *g* are kept in contact with and pressed against the upper and under surfaces of the file-blank in the following manner, (referring particularly to Fig. 3:) *i i* are two blocks or holders which are mortised out, as seen in Fig. 3, leaving tenons which fit into grooves in the edges of the files *g*. These blocks are held from moving transversely by the four posts *k*, rising from the frame-work. *l l* are two rods or levers pivoted at *m*. These rods pass through projections on the blocks or holders *i i*, and their outer ends *n*, are grasped by the operator, who, by this means, causes the files *g* to bear with more or less pressure on the file-blank, as it is vibrated back and forth between them. The connecting-rod E is made adjustable in grooves in the carriage F and wheel D, so as to shorten or lengthen the stroke in accordance with the length of the file-blank being operated upon.

The files *g* may be of any suitable length, the ears P, between which they are held, being made adjustable on the rod *e* for this purpose, and when adjusted are held in place by the set-screws *f*.

The wire *s*, attached to the carriage F, is for the purpose of preventing the screw *a* from catching over the end of the piece G in case the file-holder H should turn.

It is obvious that the mechanism employed for the purpose of vibrating the blank, as well as that used for holding the files *g*, and for moving them slowly across the file, may be varied to a considerable extent without departing from the spirit of our invention.

What we claim as our invention, and desire to secure by Letters Patent, is—

The machine, substantially herein described, for stripping file-blanks, consisting, essentially of the mechanism for holding and vibrating the file-blank, or its equivalent, in combination with the mechanism for holding and vibrating the files *g*, or its equivalent, operating in the manner substantially as herein set forth.

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Witnesses:
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