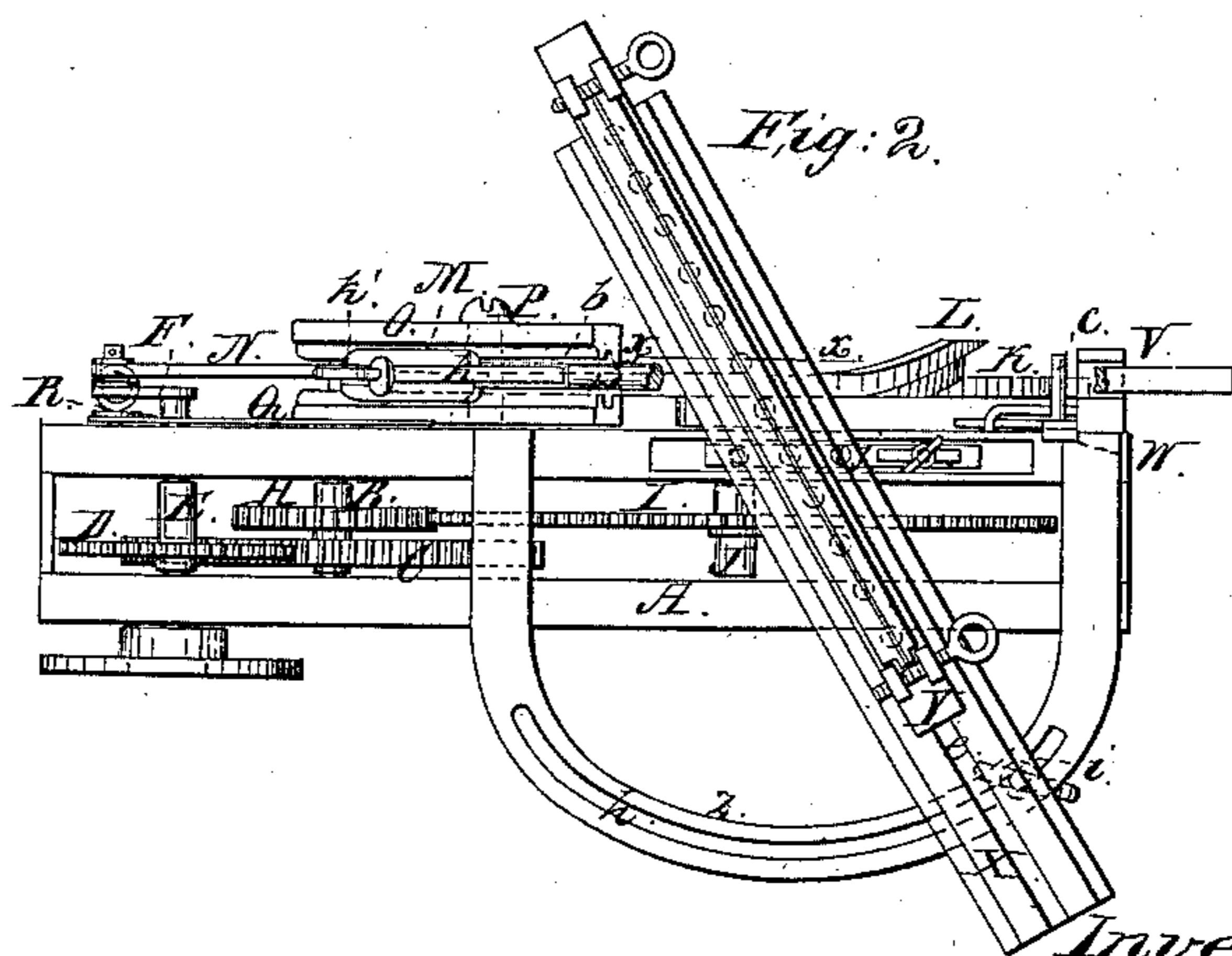
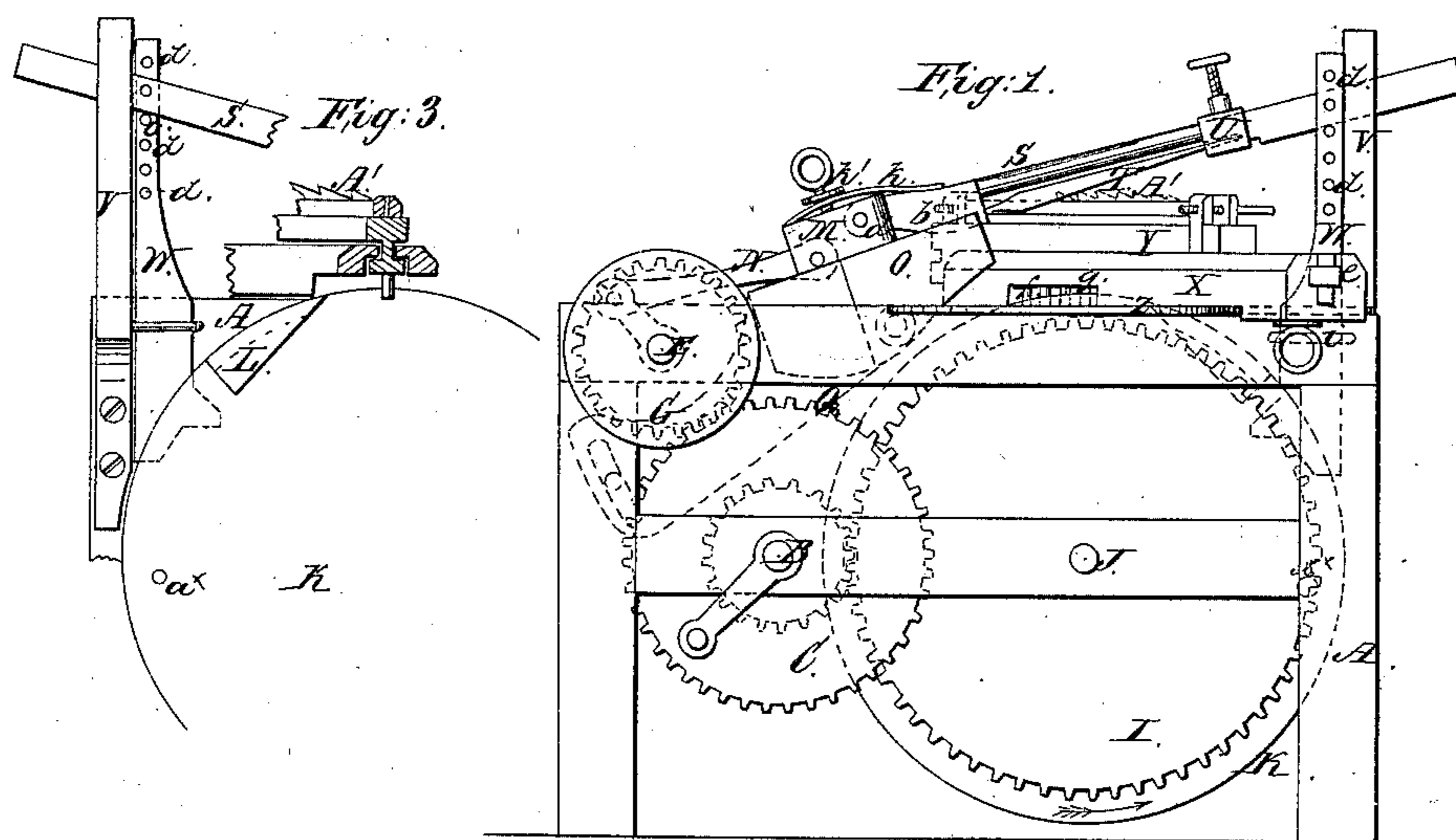


P. S. Ochiltree, W. S. Weir, Jr., & N. P. Baymount,

Sharpening Reciprocating Saws.

№ 44,647.

Patented Oct. 11, 1864.



Witnesses:

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UNITED STATES PATENT OFFICE.

S. P. OCHILTREE, W. S. WEIR, JR., AND N. P. BAYMOUNT, OF MONMOUTH, ILLINOIS.

IMPROVED SAW-FILING MACHINE.

Specification forming part of Letters Patent No. 44,647, dated October 11, 1864.

To all whom it may concern:

Be it known that we, S. P. OCHILTREE, W. S. WEIR, Jr., and N. P. BAYMOUNT, of Monmouth, in the county of Warren and State of Illinois, have invented a new and Improved Machine for Filing Saws; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view of our invention; Fig. 2, a plan or top view of the same; Fig. 3, a view of one portion of the side opposite to that shown in Fig. 1, the saw carriage and bed being in section, as indicated by the line *x x*, Fig. 2.

Similar letters of reference indicate like parts.

This invention relates to a new and improved machine for filing saws, whereby the work may be done in a very accurate manner by simply turning the driving-shaft of the machine, all the parts operating automatically and in a perfect and efficient manner.

A represents a framing, which may be constructed in any proper manner, to support the working parts of the machine; and B is a driving-shaft, placed horizontally in the framing A, and having a toothed wheel, C, upon it, which gears into a pinion, D, on a shaft, E, the latter having a crank, F, at one end of it and a fly-wheel, G, at the opposite end. On the driving-shaft B there is fitted a pinion, H, which gears into a toothed wheel, I, on a shaft, J, the latter having a wheel, K, at one end of it, which is provided with an oblique projection, L, near its periphery. (Shown in Figs. 2 and 3.)

M represents a slide, which is connected by a pitman, N, to the crank F of the shaft E. This slide M is fitted and works in a guide, O, which is attached to the framing A by a single bolt, P, which passes through the lower part of O about in line with its center. The guide O has a metal plate, Q, attached to it, which has a curved slot made in it near its outer end, and through which slot a set-screw, R, passes into the framing.

To the slide M there is attached, by a joint, *a*, a bar, S, to which a file, T, is secured, the

point of the file being secured to the bar by a slide, U, and the shank of the file fitted in a shoulder, *b*, of the bar S. (See Fig. 1.) The front end of the bar S works in a guide, V, attached to the framing A, and rests on a pin, *c*, which is fitted in any of a series of holes, *d*, in an upright slide, W, on the framing.

X is a bed, which is provided with a longitudinal groove, *e*, in its upper surface, to receive a carriage, Y, in which the saw A' to be filed is clamped. The under side of this carriage Y is provided with teeth *f*, which extend through a slot or opening, *g*, in the bottom of the bed, as shown in Fig. 1.

Z is a semicircular plate, which is attached horizontally to the upper part of the framing A, and has a slot, *h*, made in it, through which a set-screw, *i*, passes into the bed. By means of this set-screw and slotted semicircular plate the bed X may be adjusted and secured in a more or less oblique position relatively with the file, as may be required. This bed may also be adjusted laterally on the framing by means of a set-screw passing through the bed. This set-screw may serve as a fulcrum, instead of the fixed screw *j*, on which the bed X is turned or adjusted, and said set-screw may pass through a slotted plate in the framing to admit of the lateral adjustment alluded to.

The shaft B is rotated by any convenient power, and a reciprocating movement communicated to the file T by means of the crank F. The file may be made to work in a more or less inclined position by adjusting the guide O through the medium of the set-screw R, which passes through the plate Q. The file is pressed upon the saw by means of a spring, *k*, which is attached to the slide M by means of a graduating-screw, *l*, and bears on the bar S. The saw is fed along at the termination of the filing of each tooth by the oblique projection L of wheel K acting against the teeth *f* of the saw-carriage Y. The saw is fed along at each movement the distance of two teeth, so that every alternate tooth will be filed, and the file is raised free from the saw just previous to each feed movement of the latter by means of a pin, *a*^x, on the wheel K striking the lower end of the slide W, the carriage and saw being moved while the file is being raised, the slide W dropping so that

the file may come in contact with and act upon the saw at the termination of each feed movement of the latter. When the alternate teeth of the saw are all filed during the first longitudinal movement of the same, the carriage is moved back to its original position and the intermediate teeth filed, the saw being previously reversed in its clamp.

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

1. The adjustable pivoted guide-rest O, in connection with the slide M, crank F, and pit-

man N, for giving motion and a proper direction to the file T, substantially as and for the purpose set forth.

2. The slide W, provided with the pin c, in combination with the pin a^x of wheel K, for the purpose of raising the file during the feed-movement of the saw, as set forth.

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