H. R. Howlett,

Sharpening Reciprocating Saws.

No. 15,940. Patented Oct. 21, 1856.

Fig. 1.

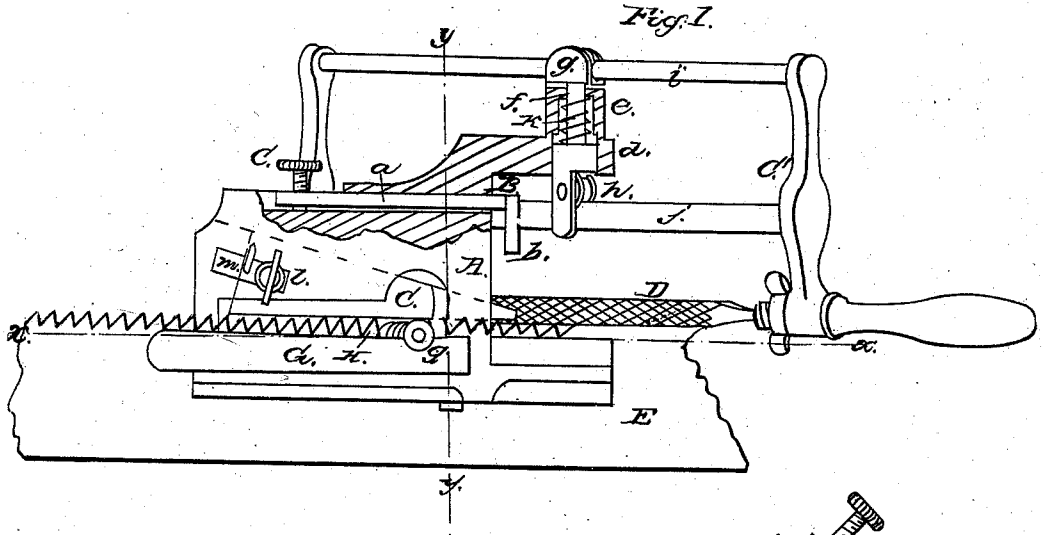


Fig. 2.

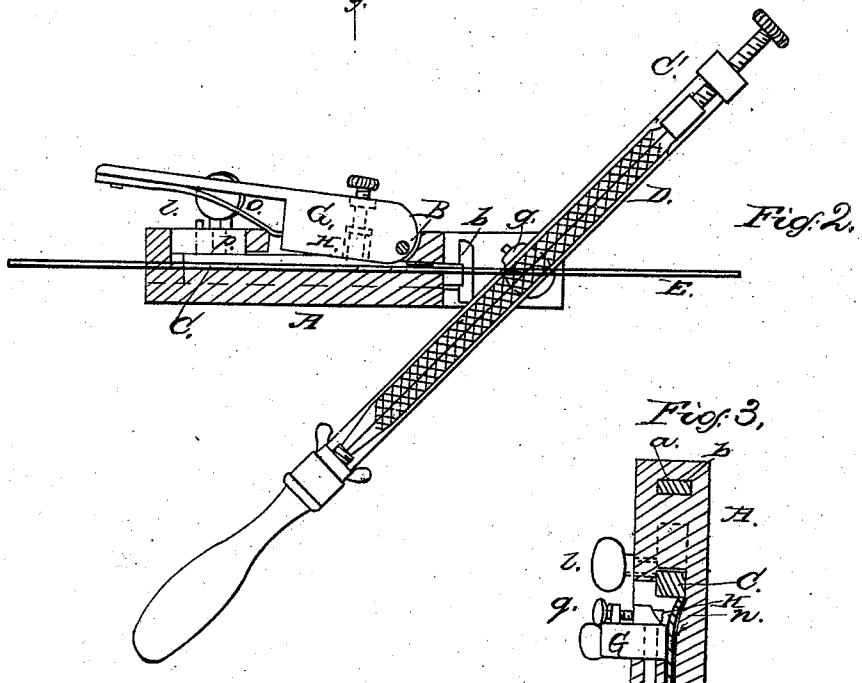
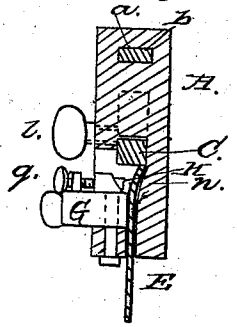


Fig. 3.



UNITED STATES PATENT OFFICE.

H. R. HOWLETT, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND A. W. GOODELL.

FILING AND SETTING SAWS.

Specification of Letters Patent No. 15,940, dated October 21, 1856.

To all whom it may concern:

Be it known that I, HORACE R. HOWLETT, of the city, county, and State of New York, have invented a new and Improved Device for Filing and Setting Saws; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a side view of my improvement, Fig. 2, is a horizontal section of ditto, looking upward; *x*, *x*, Fig. 1, showing the plane of section. Fig. 3, is a transverse vertical section of ditto; *y*, *y*, Fig. 1, showing the plane of section.

Similar letters of reference indicate corresponding parts in the several figures.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, represents what may be termed the stock of the implement or device; this may be formed of two plates of metal secured together by screws, a space being allowed between the two plates to receive a sliding gage B, and also a sliding guide C.

The gage B, is placed in the upper part of the stock, and is formed of a bar, *a*, having a vertical plate *b*, on its outer end; the bar *a*, is allowed to slide within the stock A, and may be secured at any desired point by a set screw, *c*, as shown clearly in Fig. 1.

To the upper part of the stock A, and at one end, there is a projecting piece, *d*, having a vertical socket, *e*, at its outer end, in which socket a rod, *f*, is placed, said rod having a forked or slotted head, *g*, on its upper end, and a grooved friction roller, *h*, in its lower end. The rod, *f*, is allowed to turn freely in the socket, *e*.

C^1, represents a frame which is constructed similarly to an ordinary band or scroll-saw frame; the upper rod, *i*, of this frame is fitted and works in the slotted head, *g*. The lower rod, *j*, bears against the under surface of the friction roller, *h*. A spiral spring, *k*, is fitted within the socket, *e*, and around the rod, *f*, said spring pressing the rod, *f*, and frame, C^1 downward. In the lower part of the frame C^1, a file D is fitted, in the same manner as a scroll saw is fitted in its frame.

A sufficient space is allowed between the lower parts of the two plates of the stock to receive the saw, E, shown in blue.

The guide C is a triangular or wedge-shaped plate fitted in the stock A, and having a set screw *l*, passing into it through an inclined slot, *m*, in one of the plates of the stock. This guide may be moved obliquely in the stock, A, and secured at any desired point by the set screw, *l*. The guide rests upon the top of the teeth of the saw, and determines their depth or length. The inner side of the back plate of the stock opposite the teeth of the saw is beveled or inclined as shown clearly at, *n*, Fig. 3.

G, represents a horizontal lever, one end of which is pivoted to the lower part of the stock A,—a spring, *o*, is attached to this lever, said spring leaning against a projection, *p*, in the stock A. In the lever G, a saw set H, is fitted. Said set being a die or punch fitted within a hole in the lever and having a set screw, *g*, at its outer end, by which screw the die or punch may be moved farther in or out from the lever in order to give the required set to the saw.

The operation will be readily seen. The saw E, is secured in a clamp or vise and the stock A is fitted upon it, the guide C being adjusted so that the file D, may cut the required depth and the proper length given the teeth. The file is pressed down between the teeth by the spring, *k*, and as the rod, *f*, is allowed to turn freely in its socket the file may be turned obliquely either to the right or left, the gage B, determining the distance. The stock A is moved along on the saw as the teeth are filed, and the teeth are set by operating the lever G, with the hand that grasps the stock, the filing and setting of the teeth being done at one operation. It will be seen, of course, that every alternate tooth is first filed and set. The saw is then turned and the intermediate teeth are filed and set.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is,

The file frame C^1 attached to the stock A, in connection with the gage B, guide C, and lever G, with saw set H attached; the whole being arranged as shown and described, for the purpose specified.

H. R. HOWLETT.

Witnesses:
W. TUSCH,
I. F. BUCKLEY.