Norton & Cottle,

Sharpening Saws.

No. 6,015. Patented Jan. 9, 1849.

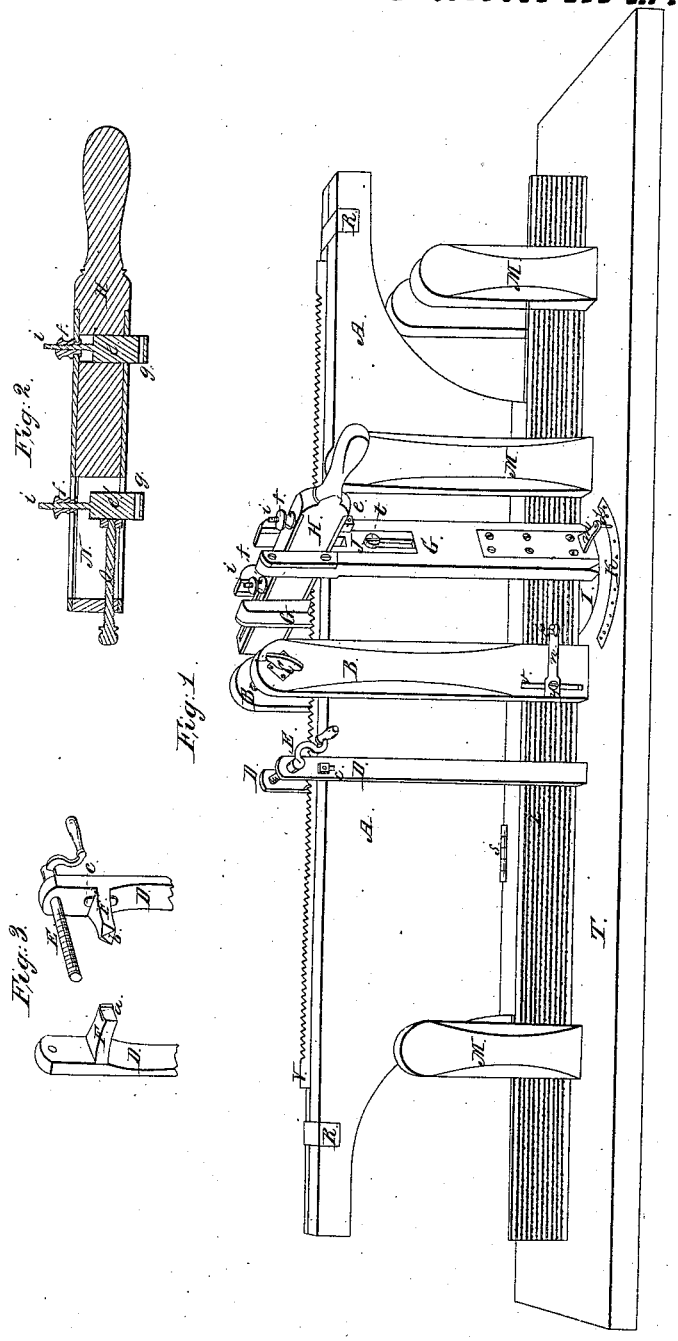

Fig. 1.

Fig. 2.

Fig. 3.

UNITED STATES PATENT OFFICE.

PRESBERY NORTON AND FRANKLIN D. COTTLE, OF TISBURY, MASSACHUSETTS.

MACHINE FOR FILING SAWS.

Specification of Letters Patent No. 6,015, dated January 9, 1849.

To all whom it may concern:

Be it known that I, PRESBERY NORTON and FRANKLIN D. COTTLE, of Tisbury, in the county of Dukes and State of Massachusetts, have invented a new and useful Apparatus for Filing and Setting the Teeth of Saws; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, is a perspective view, and Figs. 2, and 3, are representations of the same detached.

Similar letters indicate like parts in all the figures.

The saw V, to be sharpened, is placed between the clamp pieces A, and secured between the same by the clips R, R. The clamp pieces A, are supported between the standards M, M, M, rising from the platform T, between which they can be moved freely to the right or left.

B, B, are standards rising above the saw, with their upper ends connected by a set screw C, the object of which is to retain the saw in its proper position while it is operated upon by the file.

H, is a handle or holder to which the file for operating on the saw is secured as follows: *e*, *e′*, are adjustable heads having horizontal apertures *g*, *g*, which receive the ends of the file; the head *e*, works in a vertical mortise through H, and the head *e′*, works in a vertical slot N, near the end of H; O, is a set screw passing through the end of H, into the slot N, having a collar on its inner end which presses against the head *e′*: by turning the screw O, in one direction, a file can be secured between the heads *e*, *e′*, and by turning it in an opposite direction the heads will be separated and the file can be removed.

i, *i*, are screws rising from the heads *e*, *e′*, by which they can be elevated and depressed by means of the nuts *f*, *f*, as represented in Fig. 2. The file holder H, works in mortises in the upper ends of the adjustable standards G, G, rising on each side of the clamp A. The lower end of the standards G, G, are permanently secured to a circular metallic plate or turntable I, let into the center of the base piece or platform T, and so secured that it can be freely turned upon its axis; the standards G, G, are placed a sufficient distance from the sides of the clamp A, to enable them to be turned into such positions as to bring the file into any desired angle with the saw,— secured within the clamp A. The standards G, G, are retained in any desired position by means of the point *d*, desceding from the extremity of the spring arm *m*, projecting from one of the standards G, taking into one of the apertures in the curved scale plate K, let into the platform T. The file handle H, rests and slides upon the upper ends of the adjustable metallic plates J, J; the bearing plates J, J, are let into the sides of the standards G, G, and secured in any desired position by means of the set screws *t*, passing through slots in the plates, into nuts let into the standards.

By means of the adjustable bearing plates J, J, one end of the file can be elevated and the other end depressed,— by which means the file can be operated at any angle of inclination that may be desired.

The movement of the clamp A, upon the platform T, is regulated and adjusted to suit the space between the teeth of the saw to be sharpened, and set by means of the horizontal perforated gage plate L, secured to one side of the base of the clamp, in combination with the adjustable metallic point *p*, projecting from the elastic arm *n*, secured to one of the standards B, by the set screw *y*, as represented in Fig. 1. The scale plate L, has longitudinal series of perforations one above the other, the distance between the apertures of each series gradually increasing from the uppermost to the lower one, so graduated as to suit the distance between the teeth of the various descriptions of saws. As the clamp is moved upon the platform, the elastic point *p*, takes into one of the apertures in the plate L, and retains the same, (in combination with the standards B, B,) in the proper position for the file to operate upon the saw and for the projections F, F′, to set the teeth. The teeth of the saw are set by means of the elastic metallic standards D, D, having projections F, F′, on their inner sides, near their upper ends, (as represented in Fig. 3,) and being connected by a set screw E. The projection F, has an inclined recess *a*, on its inner end, and the projection F′, has an inclined face 3, on its inner end corresponding therewith. The faces of the projections F, F′, are sufficiently inclined to give to the saw teeth their proper position, by turning the

set screw E, and closely embracing the teeth between the same. The projection F′, is secured to its standard by means of a slot and set screw in such a manner that it can be elevated or depressed to correspond with the height of the saw teeth placed in the clamp.

One half the teeth of a saw—every other one—are first set in their proper positions, the saw is then taken out of the clamp, and its position being reversed and again secured in the clamp, the other half of its teeth are set in the same manner.

We generally place friction rollers in the base of the saw clamp for the purpose of giving to the same greater freedom of motion upon the platform.

Having thus fully described our apparatus for filing and setting the teeth of saws, what we claim as our invention and desire to secure by Letters Patent, is—

The combination and arrangement of the operating file handle H, the adjustable standards G, G, rising from the turn table I; the adjustable bearing plates J, J; (secured to the standards G, G;) the elastic arm *m*, point *d*, and curved gage plate K, with each other and with the saw clamp A, substantially in the manner and for the purpose herein set forth.

PRESBERY NORTON.
FRANKLIN D. COTTLE.

Witnesses:
BARTLETT ALLEN,
BENJAMIN MORAN.