

(Model.)

G. WALSH.

COMPOUND SAW DRESSING TOOL.

No. 244,959.

Patented July 26, 1881.

Fig. 1.

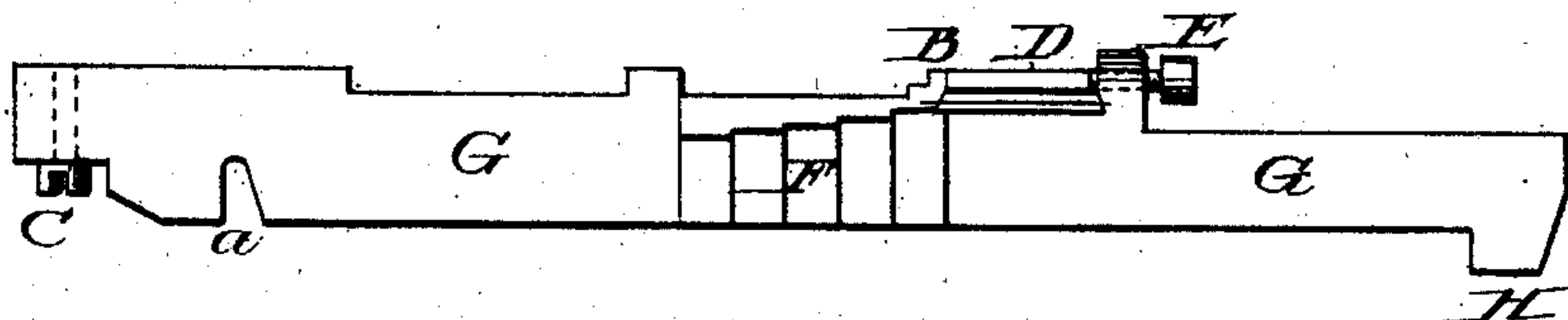


Fig. 2.

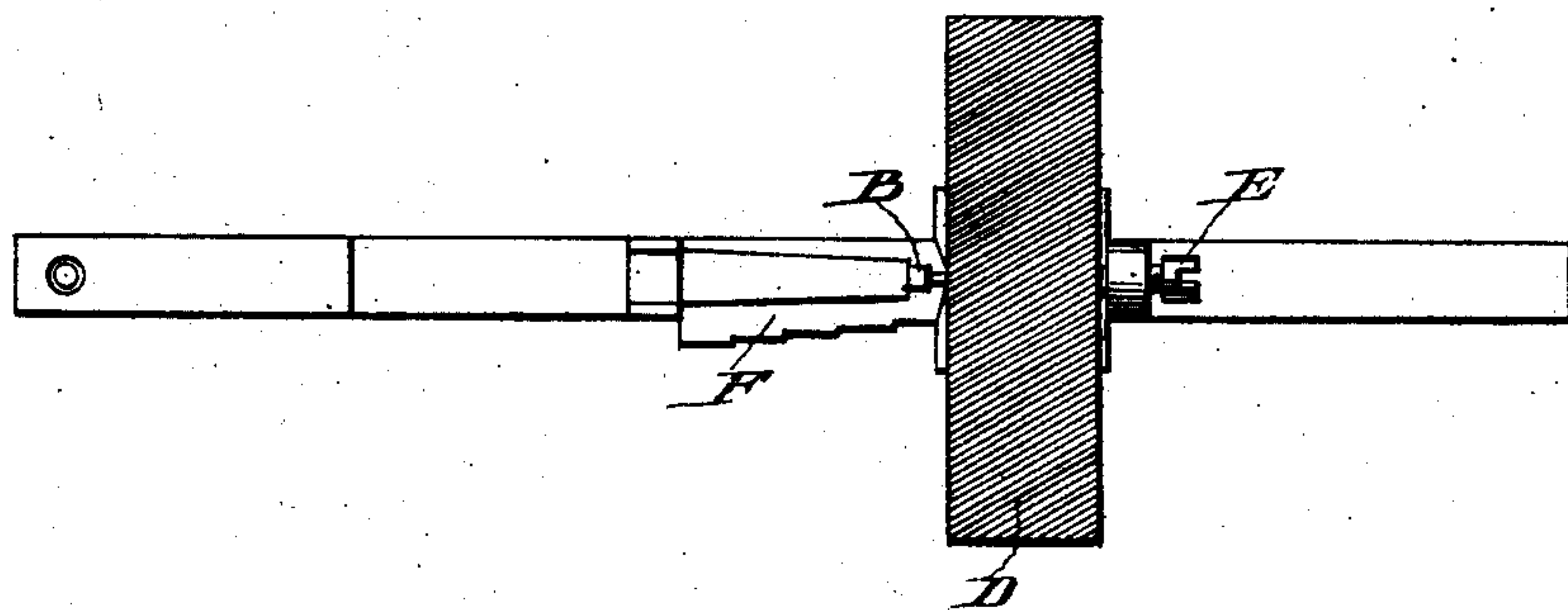


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE WALSH, OF BROCKWAYVILLE, PENNSYLVANIA.

COMPOUND SAW-DRESSING TOOL.

SPECIFICATION forming part of Letters Patent No. 244,959, dated July 26, 1881.

Application filed September 18, 1880. (Model.)

To all whom it may concern:

Be it known that I, GEORGE WALSH, a citizen of the United States, residing at Brockwayville, in the county of Jefferson and State of Pennsylvania, have invented certain new and useful improvements in saw-set, gage, contrivance for holding a file to true up the set, gage for chisel-teeth, and instrument for turning a hook on the points of the chisel-teeth of crosscut-saws, combined in one instrument; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

My invention is a compound saw-dressing tool. Its objects are to produce, first, a set for the fleam-teeth of saws; second, a gage to measure the set in order to obtain uniformity; third, a contrivance for holding a file to a fixed gage to file off the slight irregularities of the points of the fleam-teeth when set and gaged; fourth, a gage for length of the chisel-teeth of crosscut-saws as compared with the fleamers; and, fifth, a contrivance for turning a slight hook on the points of the chisel-teeth. I attain these objects by the mechanism illustrated in the accompanying diagram, Figures 1, 2, and 3.

In Fig. 1, G G represent a side view of the instrument. At a, Figs. 1 and 3, are seen side and front views of slot used in setting the teeth. At B may be seen the gage-point for the fleam-teeth, with screw C, by which it is regulated. At D, Figs. 1 and 2, are seen end and face views of file held in place even with gage-point B by screw E. At F, Figs. 1 and 2, are seen front and side views of five elevated plane surfaces used for gaging the length of the chisel-teeth, and at H is shown an offset or shoulder for turning a slight hook on the chisel-teeth.

I construct the various parts of the instrument in the following manner: I make it of steel, about six inches long by one-half inch in width and one-fourth inch in thickness.

I. I cut a slot three-fourths of an inch from the end, as shown at a, Figs. 1 and 3, one-

fourth inch in depth, one-sixteenth inch wide at bottom, and one-eighth inch wide at the mouth. The outer jaw is a plane surface and at right angles to the instrument. The inner jaw is oval, and slopes outward from the bottom of the slot to its mouth in order to admit saws of varying thickness. The operator slips the slot in the set over the tooth on its side, leaving the point of the tooth projecting beyond the slot about one-sixteenth ($\frac{1}{16}$) of an inch, then draws the handle or opposite end of the instrument toward the back of the saw. This rolls the tooth on the oval side of the slot and sets the point of the tooth out.

II. On the straight side of the instrument, G G, Figs. 1 and 2, (opposite the set,) I make a point, B, about one-twentieth of an inch below the line of the side of the instrument, or lower than its bearing, (the file D supposed to be removed.) I make a screw, C, pass through from the opposite side and near the end of the instrument. The operator places the side of the instrument against the flat side of the saw with the point B opposite the tooth, turns the screw C so that the point B will be brought as near the tooth as he desires to set it; then, as he sets the teeth by applying the instrument in this way, the set of each tooth is regulated to this gage. By the point B and the screw C, and the bearing of the side of the instrument near point B, a gage for any desired width may be obtained.

III. I insert a flat file, D, Figs. 1 and 2, (or piece of a flat file,) at right angles to the instrument, between the point used as a gage-point, B, and the end of the set-screw E, and fasten by means of the set-screw E across the instrument on a level with the point B. The operator, wishing to file off any irregularities in the teeth after they are set, (which practically will occur in setting saws) places the instrument against the saw with the file opposite the points of the teeth. He then, by means of the set-screw C, moves the file nearer to or throws it away from the points of the teeth until he gets it where it will, in passing along, take off just enough so that each point of the tooth will be in exact line with all the others. This may be done while the crosscut-saw is stationary, or on circular saws while in motion.

IV. The chisel, clearing, or hooker teeth of

crosscut-saws are the teeth which cut out the bottom of the kerf between the outside lines cut by the fleam-teeth, and they are made, and in dressing should be kept, slightly shorter than the points of the said fleam-teeth. On the straight plane side of the instrument, G G, Figs. 1 and 2, I make five plane elevations about one-fourth inch in width, extending across the side of the instrument, as seen at F. They are made from the lowest, about one-fortieth of an inch in height, to the highest, about one-sixteenth of an inch above the plane surface of the side of the instrument. The operator, in dressing or sharpening the clearing-teeth, chooses one of these plane elevations, according to the length to which he wishes to gage these teeth as compared with the fleam-teeth, places the instrument lengthwise with the saw, with its side on the points of the fleam-teeth, and with the elevated space chosen over the tooth to be measured or gaged, and in this way may gage them all to a uniform length.

V. About a half an inch from the end, and on the narrow side or edge of the instrument, G G, Fig. 1, I make a square shoulder or offset at H, about one-fourth inch deep, at right angles to the instrument. The operator, when the hooker, clearing, or chisel tooth has been filed sharp and of proper length, places the instrument against the flat side of the saw with

this shoulder or offset H on the point of the chisel-tooth, holding the instrument about quartering across the saw, or at such an angle as desired, and by striking the end of the instrument a slight blow with a wooden mallet forms a slight hook on the extreme point of the tooth.

I claim as my invention jointly with the stock or bar G—

1. The tooth-setting notch A, of the form described and shown.

2. The point or projection B, jointly with the screw C, for the purpose specified.

3. The file D and the device for clamping it, jointly with screw C, for the purpose set forth.

4. The series of graduated projections or shoulders F on the flat side of the bar, for the purposes set forth.

5. The offset or shoulder H on the end of the bar, for the purpose and to be used in the manner set forth.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE ^{his} × WALSH.
mark.

Witnesses:

R. O. MOORHEAD,
J. G. DAILEY.