

E. M. BOYNTON.  
CROSS-CUT SAW-HANDLES.

No. 173,442.

Patented Feb. 15, 1876.

Fig. 1

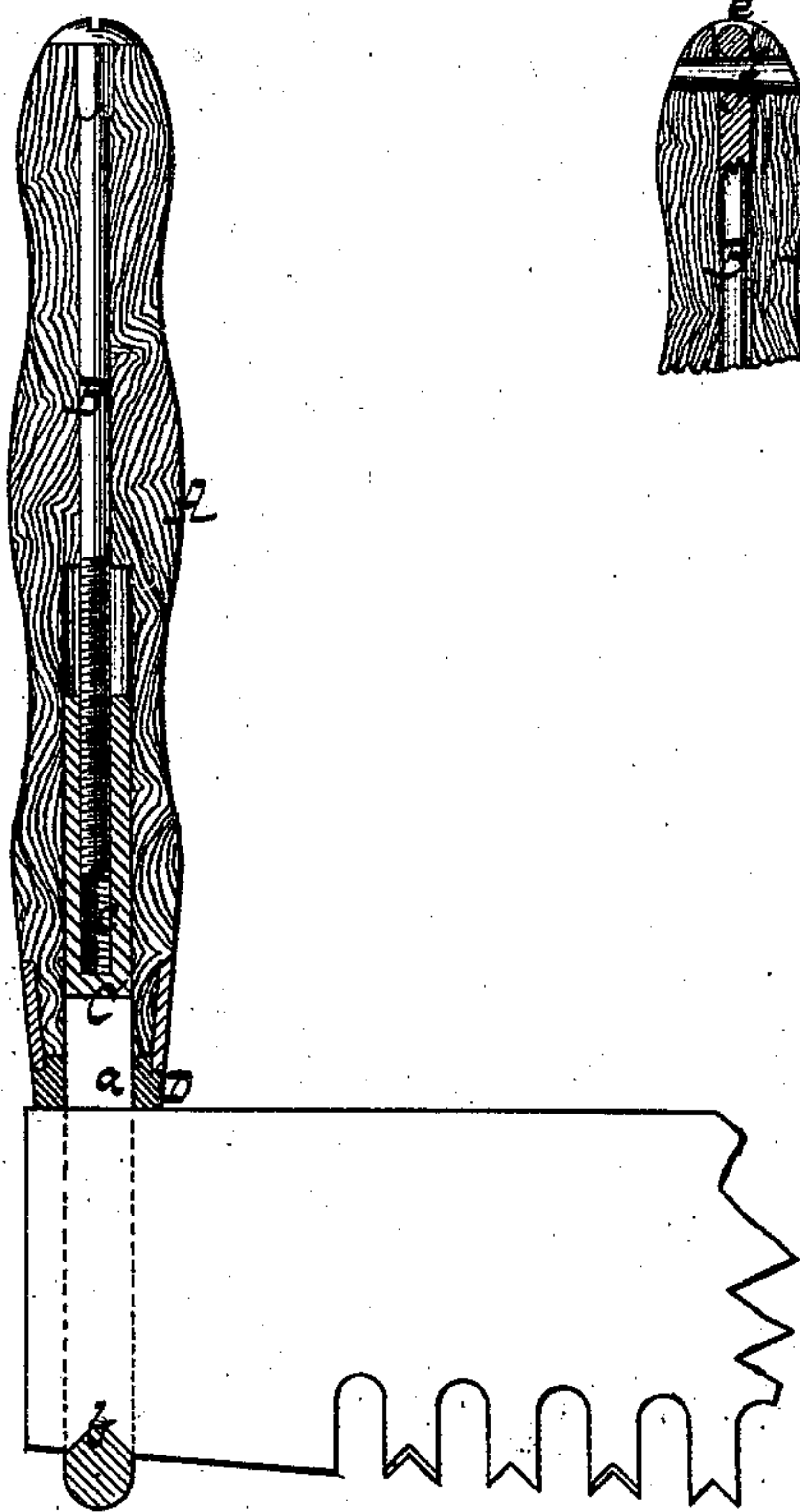


Fig. 2



Fig. 2



Fig. 3.

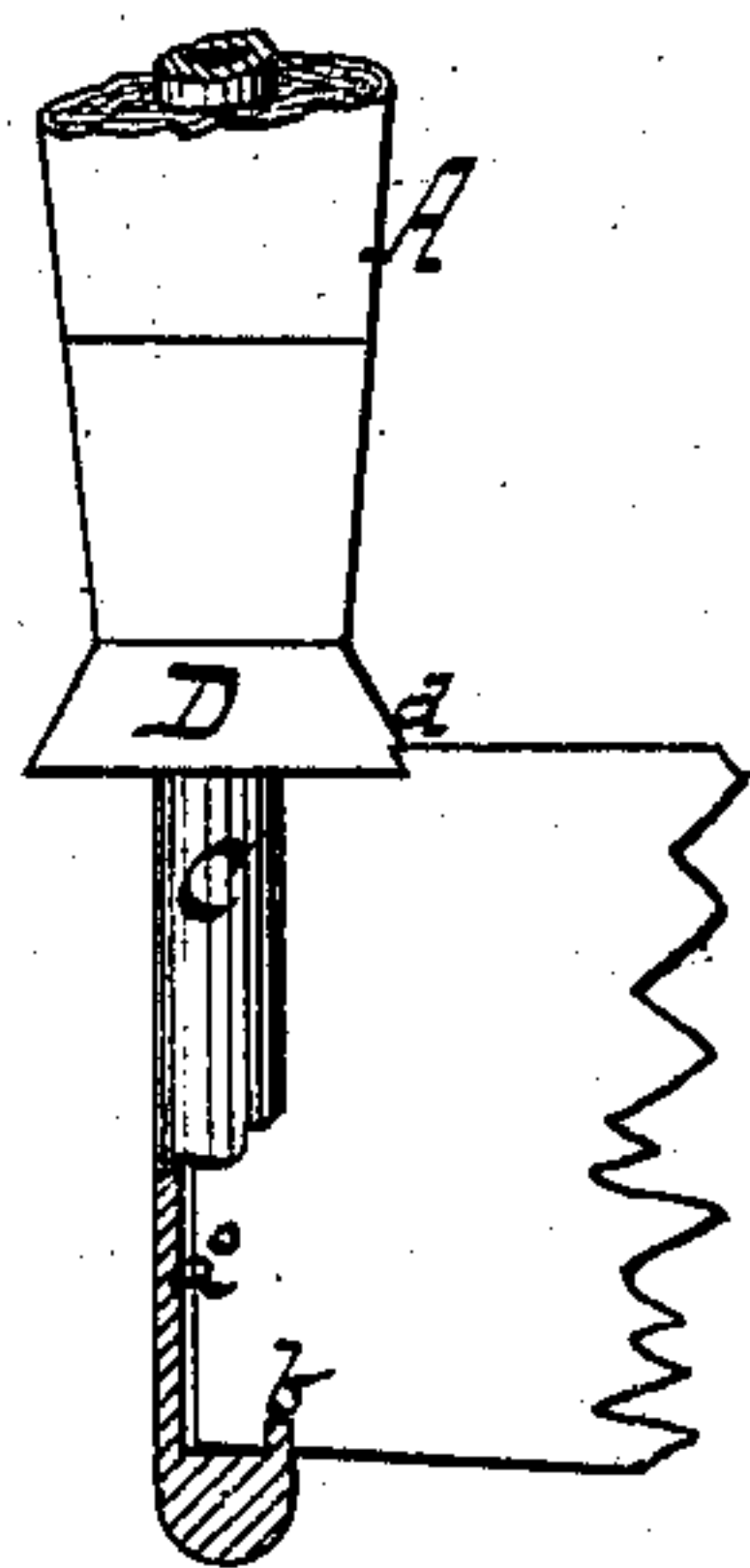


Fig. 4.



Witnesses.

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EBEN M. BOYNTON, OF WEST NEWBURY, MASSACHUSETTS.

## IMPROVEMENT IN CROSSCUT-SAW HANDLES.

Specification forming part of Letters Patent No. 173,442, dated February 15, 1876; application filed January 21, 1876.

*To all whom it may concern :*

Be it known that I, EBEN M. BOYNTON, of West Newbury, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Crosscut-Saw Handles, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a vertical central section of my handle. Fig. 2 is a front view of the same. Fig. 3 is a sectional side view of a modification of the same. Fig. 4 is a horizontal section of the same.

Similar letters indicate corresponding parts.

This invention consists in the combination, with a saw-handle, of a bolt which extends down through said handle, and with a bar which extends up through and turns loosely in said handle, and which is provided at one end with a recess or slot for the reception of the saw, and at its opposite end with a screw-socket to fit the screw-thread cut on the bolt, so that when the saw is placed in the recess of the retaining-bar and the bolt is turned the saw is firmly clamped between the handle and the bottom edge of the recess in the retaining-bar. It consists, further, in the combination, with a saw-handle, of a bolt which extends down through said handle, and is firmly secured therein with a retaining-bar, which extends up through and turns loosely in said handle, and which is provided at one end with a recess or slot for the reception of the saw, and at its other end with a screw-socket to fit the screw-thread cut on the bolt, and with a notched washer, which is placed loosely against the lower end of the handle, so that by turning the handle in the proper direction the bolt is caused to screw into the socket of the retaining-bar, and the saw is firmly clamped in position.

In the drawing, the letter A designates the handle of a saw, which is bored out, so that from one end can be inserted the bolt B, and from its opposite end the retaining-bar C. This retaining-bar is either provided with a slot, *a*, extending clear through it, as shown in Figs. 1 and 2, or it is provided with a recess, *a'*, extending partly through it, as shown in Figs. 3 and 4, said slot or recess being wide enough to admit the saw. On the bottom end

of the retaining-bar is formed a nose, *b*, which engages with a corresponding groove in the saw-blade, and on the upper end of said retaining-bar is formed a screw socket, *c*, tapped to receive the thread cut on the bolt B. The retaining-bar and the screw-socket may be made in one solid piece, or they may be connected by a screw or otherwise, so that the retaining-bar can be lengthened or shortened and be adapted to saws of different width. Against the bottom end of the handle A is placed a washer, D, which is provided with a notch, *d*, in its face, to engage with the back edge of the saw.

The bolt B may be made to turn freely in the handle, and if the saw is adjusted in the recess of the retaining-bar, and the bolt is turned in the proper direction, the saw is firmly clamped between the bottom end of the handle and the nose *b* of the retaining-bar. In this case the washer D may be dispensed with.

The bolt B may, however, be firmly secured in the handle, so that by turning the handle the bolt is also turned. In this case the washer D must be used, and after the saw has been adjusted in the recess of the retaining-bar, the notch *d* of the washer is caused to engage with the back of the saw, and by turning the handle, together with the bolt B, the saw is firmly clamped between the washer D and the nose *b*.

It will be seen that in either case the handle is bored out simply in the direction of its axis, no transverse mortise is required for the reception of a nut, and considerable time and labor are saved in the manufacture of my handle, as compared with similar handles in which a slotted retaining-bolt is used, with a nut secured in a transverse mortise in the body of the handle.

If the bolt B is to be firmly secured in the handle, I prefer to make its shank square or partly square, as shown in Fig. 1, so that when the same is driven into the handle, and the handle is turned round, the bolt is compelled to turn with it. If the bolt is to work loosely in the handle, I provide the same with an eye, *e*, as shown in Fig. 2, so that by passing a pin or the end of a file through said eye the bolt can be turned and the saw secured



with the requisite force. If it is desired to fasten the eyebolt in the handle, I push the same down to the position shown in Fig. 2\*, and pass a pin, *f*, transversely through the handle and the eye. By this arrangement the bolt can be readily fastened to or released from the handle.

I do not claim the use of end or cap screw-nuts or inserted nuts.

What I claim as new, and desire to secure by Letters Patent, is—

1. A saw-handle for fastening to saws by an extension-rod expanding or contracting by screwing together endwise, substantially as shown and described.

2. The slotted retaining-bar C, provided with the projection *b* and screw-sleeve *c*, in combination with the rod B, handle A, and notched bearing-plate D, as and for the purpose specified.

3. The combination of a pin, *f*, with the handle A, eyebolt B, and retaining-bar C, substantially as shown and described.

In testimony that I claim the foregoing, I have hereunto set my hand and seal this 11th day of January, 1876.

E. M. BOYNTON. [L. s.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.