J. E. EMERSON.

Handle for Cross-Cut Saws.

No. 161,105. Patented March 23, 1875.

Fig. 6.

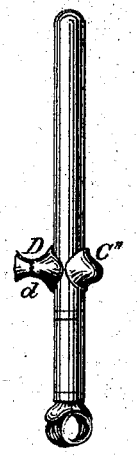


Fig. 1.

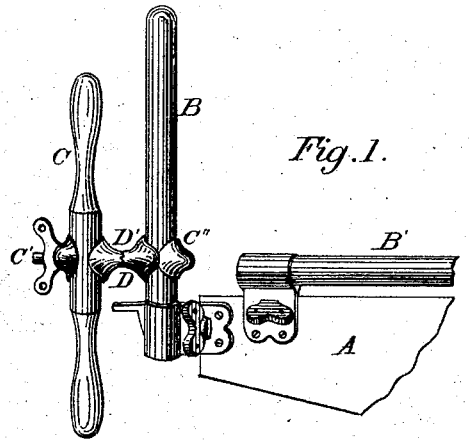


Fig. 3.

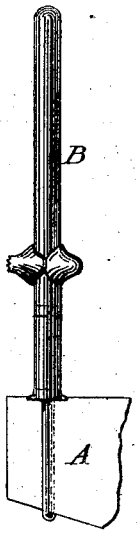


Fig. 2.

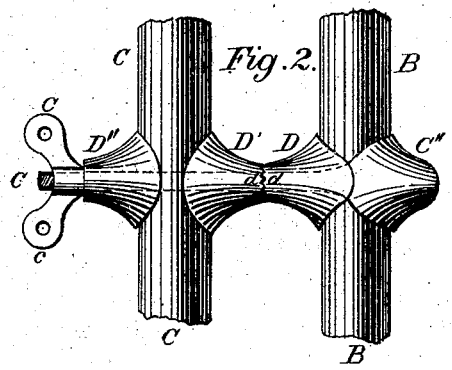


Fig. 4.

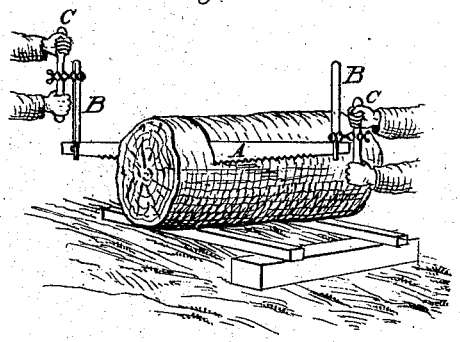
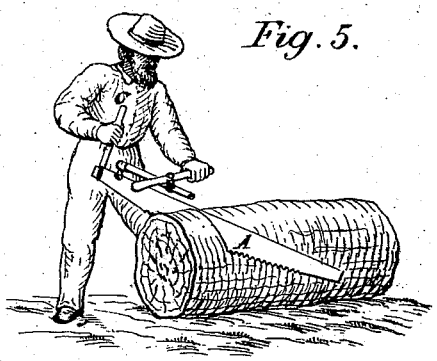


Fig. 5.



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UNITED STATES PATENT OFFICE.

JAMES E. EMERSON, OF BEAVER FALLS, PENNSYLVANIA.

IMPROVEMENT IN HANDLES FOR CROSSCUT-SAWS.

Specification forming part of Letters Patent No. **161,105**, dated March 23, 1875; application filed January 20, 1875.

To all whom it may concern:

Be it known that I, JAMES E. EMERSON, of Beaver Falls, in the county of Beaver in the State of Pennsylvania, have made certain Improvements in Handles for Crosscut-Saws, of which the following is a specification:

In the use of crosscut-saws in sawing timber it frequently occurs that the timber is in the position that one of the two men who work the saw has to be on much higher ground than the other; hence in order to have both the men work easy and retain as near as possible their natural position in sawing, the one on the upper side must apply the power he exerts even higher than the top of the fixed handle, while the one on the lower side must apply his force to the lowest part of the fixed handle, and in order to successfully accomplish such result is the object of this invention; and the invention consists in a device to be attached to the fixed saw-handle by which the object is attained, as will be hereinafter fully described.

In the drawings, Figure 1 represents the side of a broken saw with a fixed handle attached, both in horizontal position and the device attached to the upright handle. Fig. 2 is a broken but enlarged view of the device. Fig. 3 is a differently-fixed handle to the saw from Fig. 1. Fig. 4 shows the device attached to the handles of a saw where the work is on an incline. Fig. 5 shows how the device is attached in a one-man saw. Fig. 6 is an intermediate part for different attachments.

A is the crosscut or other saw. B is the fixed handle, which may be attached to the saw in different ways, as seen in Figs. 1 and 3. B′ shows the handle B turned down upon and secured to the back of the saw. C is the auxiliary handle. C′ is a screw-bolt with a loop or eye part, C″, that surrounds the handle B, then forms the bolt part that passes through handle C. D and D′ are intermediate collars with nearly half-circles on their opposite ends to receive handles B and C, and holes through them to allow screw-bolt C′ to pass entirely through, and serrations *d d* at their meeting surfaces, as seen in Figs. 1 and 2, so that when the parts D and D′ are brought together and the teeth *d d* interlock, and the screw-nut *c* screwed tight upon collar or washer D″, which is similar in construction to collars D and D′, the handle C can be held at any angle with relation to handle B that may be desired, or the handle C can, by unscrewing nut *c*, be placed at any desired part of the length of handle B by sloping the loop C″ on handle B; or if handle C is always to be used parallel with the handle B, the two collars D and D′ can be made in one piece.

When the sawyers are working on a log that lies on a declivity or on a side hill the attachment will be applied to the fixed handles of the saw, as seen in Fig. 4; or if the saw is what is termed a "one-man saw" it will be attached to a handle, B′, that is turned down parallel with the back of the saw, and seen in Figs. 1 and 5, or the intermediate piece, Fig. 6, can be applied to the fixed handle by sliding the loops at its lower end over the fixed handle B and applying the handle C to it in the manner seen in Fig. 5. This attachment will also be convenient in crosscutting timber that lies out of horizontal position longitudinally as the handles C can be set to the angle at which the log lies, and then the sawyers will hold them in a perpendicular position in sawing, which will give a cut at right angles with the log.

As the attachment can be placed in any desired position upon the fixed handle of the saw, or to any temporary intermediate handle, it will be seen that either sawyer can adjust it to suit his own convenience without affecting his fellow-sawyer's mode of adjusting the handle as may suit him, and in a one-man saw it greatly assists the sawyer in guiding the saw as well as relieves him from a fixed position in operating it.

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

1. The combination of the adjustable and removable handle C and its intermediate devices with the fixed handle B of a saw, substantially as and for the purposes described.

2. The collars D and D′, with their serrations or teeth *d*, in combination with the handles B and C, as and for the purposes described.

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