(No Model.)

# M. COVEL.

## DEVICE FOR STRAIGHTENING SAWS.

No. 522,316. Patented July 3, 1894.

Fig. 1.

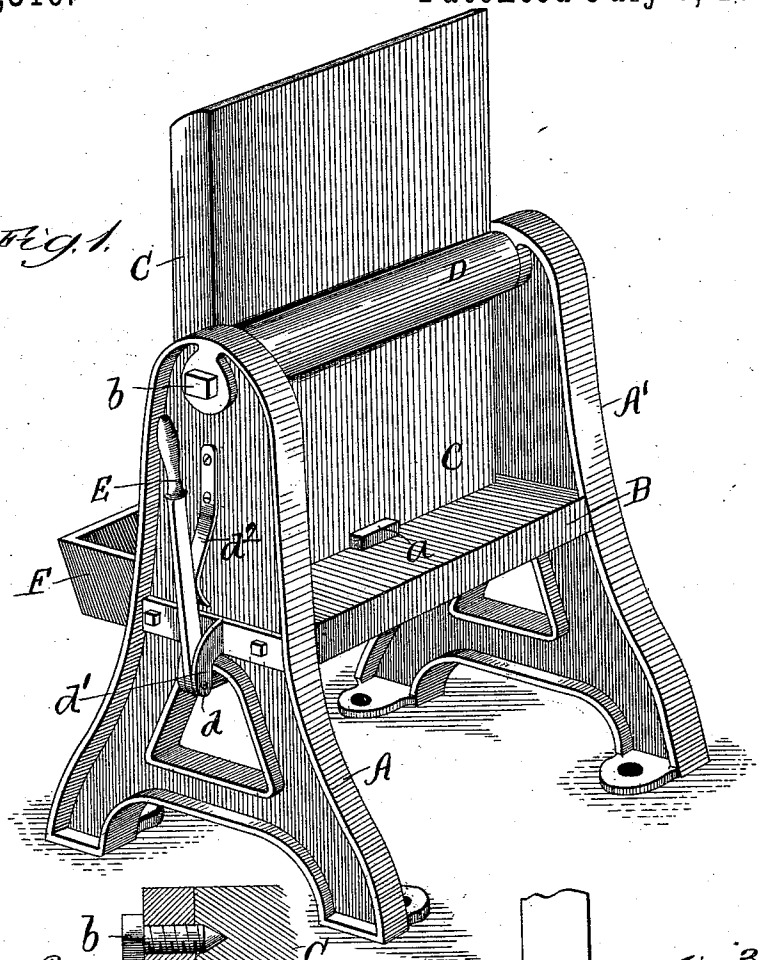


Fig. 2.

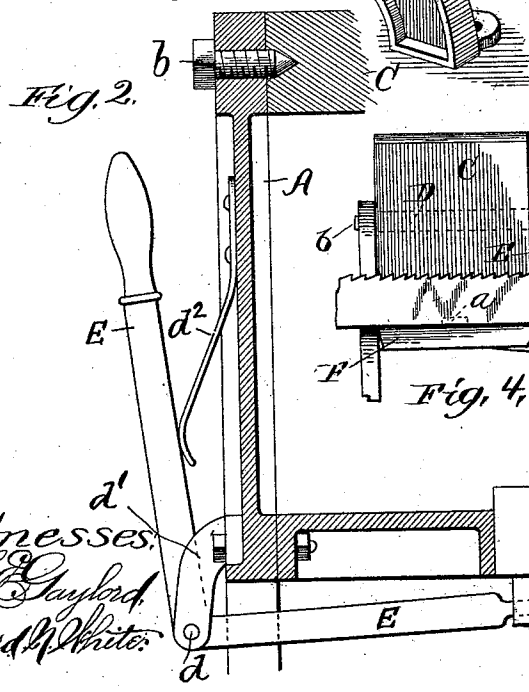


Fig. 3.

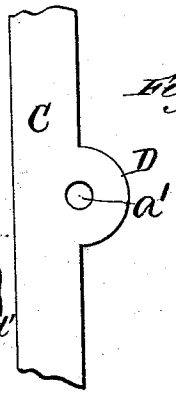


Fig. 4.




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# UNITED STATES PATENT OFFICE.

MILO COVEL, OF CHICAGO, ILLINOIS.

## DEVICE FOR STRAIGHTENING SAWS.

SPECIFICATION forming part of Letters Patent No. 522,316, dated July 3, 1894.

Application filed June 16, 1891. Serial No. 396,465. (No model.)

*To all whom it may concern:*

Be it known that I, MILO COVEL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Devices for Hammering and Straightening Saws, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to improvements in that class of machines used in hammering and straightening saws, and is more especially intended for dressing band-saws.

The object of this invention is to provide a device of this kind embodying a reversible anvil-block; the position of which is adapted to be conveniently changed so that the operating face may be presented to either side of the saw.

The endless band-saw to be dressed is usually mounted or supported on two companion wheels or pulleys, rotating in a horizontal plane, thus enabling the saw to be moved with facility along the face of the anvil-block and both sides operated upon in the one revolution without having to pass the saw around the second time. The defects to be remedied are just as liable to be on one side of the saw-blade as the other, hence the necessity for, and the advantage of, an adjustable anvil.

In the drawings: Figure 1 is a view in perspective; Fig. 2, a broken-away part elevation and part section; Fig. 3, a broken-away detail of the anvil-block; and Fig. 4, a broken-away detail, showing a part of a saw in position to be operated upon.

A A′ represent two end parts and B a connecting-table forming a supporting-frame.

An anvil-block C is pivotally mounted between the ends of the frame and above the table, so that it may be swung on its pivot and changed end for end so as to present a hammering face, first on one side of the saw and then on the other, as may be required.

The anvil-block is provided on one side with a boss or bearing-hub D so that the anvil is hung or mounted eccentrically; the heaviest part being on that side favoring the reversing movement, thus requiring less hand power and greatly facilitating the anvil adjustment. The anvil being mounted out of center also has the effect of holding the lower end normally against the locking or stop-bolt *a*, which retains the anvil in its vertical working position shown in Fig. 1.

The anvil-block is provided, in its respective edges, with an aperture or bearing-recess *a′* to receive the inner ends of the companion pivot-bolts *b*, inserted through the upper ends of the supporting-frame.

A hand-lever E is provided with a fulcrum-bearing *d* in a bracket *d′*, bolted to the frame. This lever extends underneath the table B, and is connected to the lower end of locking-bolt *a* which projects up through said table (Figs. 1 and 2) in position to bear against and hold the anvil in place.

By throwing the handle-end of lever E inwardly, the locking-bolt is retracted or withdrawn just far enough below the surface of the table to clear the anvil, when the same may be turned end for end by a swinging movement under the saw and bringing the anvil into a working position on the opposite side. Thus the upper end of the anvil shown in Fig. 1, becomes the lower end, bringing the locking-bolt on the opposite side from that shown. The face of the anvil (Fig. 1) below the pivotal center now becomes the working-surface; the operator taking his position on the corresponding side of the saw.

A spring $d^2$ serves to automatically return the lever E to its normal position and hold the locking-bolt *a* in engagement.

F represents a box secured to one side of the frame, which provides a convenient receptacle for a set of tools.

The relative position of a saw and anvil is shown in Fig. 4; the saw being moved along parallel to the working-face.

By way of illustrating some of the advantages over a stationary anvil in dressing saws, suppose that the saw, to be operated upon, is forty feet in length, it will require not less than three persons to handle the saw during the operation of dressing the same. The saw being stretched on its carrying-wheels, the device is set so as to bring the hammering-surface of the anvil-block in the pathway of the saw, when the work can be done better and more expeditiously by one person. Often there are compound imperfections in the saw-

blade that require skillful and careful attention at the same place on both sides. With this adjustable anvil, first one side and then the other can be dressed and the anvil reversed as often as may be necessary to remedy the defect at any one particular point, thus doing much better work than would be possible were the saw to be rotated and gone over a number of times; thus not only doing more perfect work, but also saving much valuable time and labor, and otherwise greatly facilitating the operation.

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

1. In a device of the kind described, the combination with a supporting frame, of a reversible anvil-block, pivotally and eccentrically mounted in said frame and adapted to be turned end for end, for the purpose of presenting the operating-surface on either side of a saw or other object lying parallel to the face thereof, and means for locking said anvil in its working position, substantially as set forth.

2. In a device of the kind described, the combination with the supporting frame, of a reversible anvil-block, provided on one side with a boss or hub, the pivot-bolts, projecting into the respective edges or boss-part of the anvil and supporting the same eccentrically, a locking-bolt, adapted to retain the anvil in its working position, and means for retracting said bolt, substantially as set forth.

3. In a device of the kind described, the combination with the supporting frame, of a reversible anvil-block, pivotally mounted therein, a locking-bolt, a retracting lever, connected to said bolt, and a spring, bearing against the handle-end of said lever, whereby said bolt is normally held in a locking position, substantially as set forth.

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