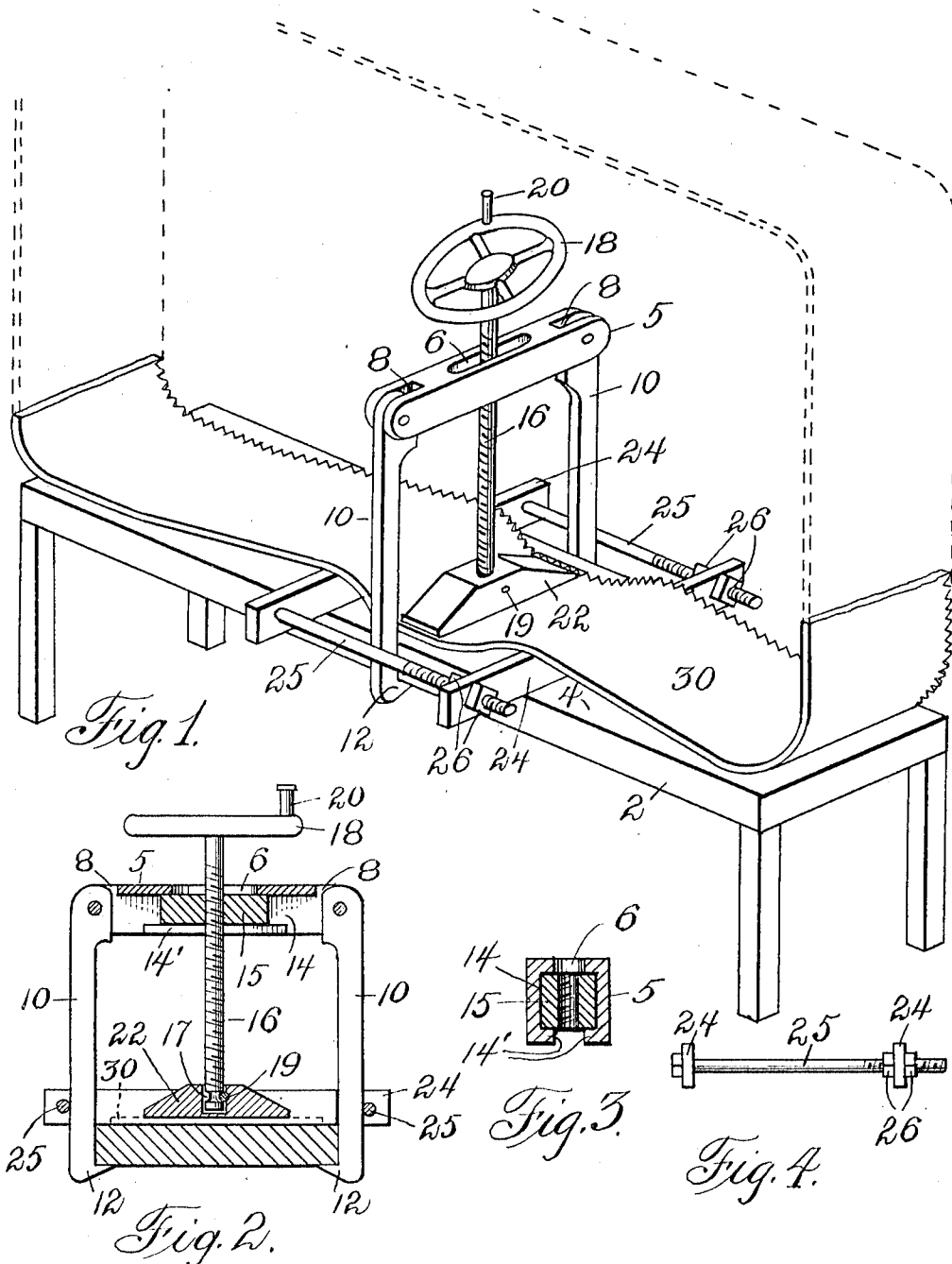


J. M. CULBERTSON.
 MEANS FOR CORRECTING IRREGULARITIES IN BAND SAWS.
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Patented Aug. 22, 1911.



WITNESSES
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UNITED STATES PATENT OFFICE.

JOSEPH M. CULBERTSON, OF DUBUQUE, IOWA.

MEANS FOR CORRECTING IRREGULARITIES IN BAND-SAWS.

1,001,580.

Specification of Letters Patent.

Patented Aug. 22, 1911.

Application filed November 17, 1910. Serial No. 592,940.

To all whom it may concern:

Be it known that I, JOSEPH M. CULBERTSON, a citizen of the United States, residing at Dubuque, in the county of Dubuque and State of Iowa, have invented new and useful Improvements in Means for Correcting Irregularities in Band-Saws, of which the following is a specification.

Band saws, especially such as are used in sawing heavy lumber, will frequently be rendered temporarily useless by reason of the formation of buckles, kinks, twists and other irregularities therein and since the saws are made of resilient steel, it has been previously considered impracticable and of little use to attempt to remove the irregularities by the ordinary mode of straightening iron bars and the like by pressure, and hence the usual mode of removing these irregularities has been by hammering the saw on flat, iron surfaces, but this mode is unsatisfactory and expensive, as such hammering is mainly done by experts, and often the life of the saw is materially lessened and frequently entirely destroyed.

The object of my invention is to provide means for overcoming these difficulties and to straighten the saw and remove all the irregularities by pressure and without injury to the saw. The manner of accomplishing this will be fully set out in the following specification when taken in connection with the drawings accompanying the same and forming a part hereof.

Figure 1 is a perspective view showing the device upon a table with a saw thereon. Fig. 2 is a vertical section of Fig. 1. Fig. 3 is a transverse sectional view taken through the yoke, and Fig. 4 is a side elevation of the adjustable frame.

Referring to the drawings 2 represents a metal table, having a flat upper surface 4, on which the saw to be operated upon rests. Above and across the table is a yoke 5, which is provided with a slot 6 in its center and the slot 8 at each end. In the slots 8 are pivoted arms 10 which are each provided with a hook 12 adapted to preferably engage the under side of the table. The yoke 5 is recessed on its under side forming a trough 14 and in this trough is a block 15. The block 15 is provided with a screw threaded hole. Through the slot 6 and the block 15 is inserted a screw 16 which is provided with a wheel 18 and a handle 20. At the lower end of the screw 16 is a foot 22

which is rotatably attached to the screw 16 and adapted to be turned in different directions independent of the screw. A convenient mode of attaching the foot is by forming a groove 17 around the screw 16 near its lower end and also an opening in the foot on a plane with the groove and inserting in said opening a pin 19. By this mode of construction, the foot may be turned in any direction without turning the screw 16.

Around the arms 12 is adjustably secured a frame consisting of the side plates 24 and the cross rods 25. One end of each cross rod is provided with a nut 26, whereby the plates 24 may be adjusted to different positions relative to the foot 22.

The manner of operating my device is substantially as follows: The saw 30 to be straightened and corrected is placed upon the table 2 above the plates 24 and underneath the foot 22, then the operator grasps the handle 20 and rotates the wheel 18 which in turn rotates the screw 16 and, since the foot 22 is attached to the screw 16, the screw will force this foot 22 down onto the saw between the plates 24 and a still further rotation of the screw 16 will bring the saw, at the point of an irregularity, down upon the table and straighten it out. If it be found that when the screw 16 is released the same buckle or irregularity appears and the saw springs back to its former irregularity, then the nuts 26 are adjusted till the plates 24 are brought nearer together, which action, when the foot has pressed the saw onto the table, will raise the portions of the saw on opposite sides of the foot and give the saw a different angle relative to the surface of the foot and the surface of the table, and the nearer the plates 24 are adjusted toward the foot, the higher the portion of the saw on opposite sides of the foot will be raised and the greater will be the angle of the saw to the foot. Then the rotation of the screw will cause the foot to press the irregularities beyond the normal position and when the foot 22 is released, the saw will then spring back to a horizontal plane and the irregularities will have been forced out. If the irregularities be in the form of a twist or kink extending to different positions across the saw then the screw 16 may be moved along in the slot 6 and the block 15 in the recess 14 and on flanges 14' to such position at either edge of the saw that will bring the foot 22 upon the part of the saw to

be corrected also the foot may be turned to such angle as desired. In this manner by the adjustment in the yoke 5 and the adjustment of the position of the saw to the foot by the rods 24 all irregularities may be pressed out of the saw without any injury to the saw and leave it in a horizontal plane the same as new.

Having now described my invention what I claim is:—

1. In a device of the character described, a table, a yoke, arms pivotally attached to the yoke and engaging the opposite sides of the table, a frame having end plates on opposite sides of said arms and cross-rods holding said arms engaged with the sides of the table one end plate being adjustable, and a pressing means carried by said yoke and movable toward and away from the table at a point intermediate the said adjustable end plates of the frame.

2. In a device of the character described, a table, a yoke, a pair of arms pivoted to each end of the yoke and having hooked free ends adapted to engage beneath the table, a screw plunger movable toward and away from the table, a nut slidable in the yoke, said plunger being threaded in said nut, a pair of plates, one on each side of the said arms, a pair of bolts adjustably connecting said plates and each bolt engaging the outer portion of one of the arms to retain the hooked ends thereof in engagement with the table.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH M. CULBERTSON.

Witnesses:

M. M. CADY,
A. B. HANSHAW.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."