(No Model.)

# W. S. RALYA.

## DEVICE FOR JOINTING AND DRESSING SAWS.

No. 438,181. Patented Oct. 14, 1890.

Fig. 1.

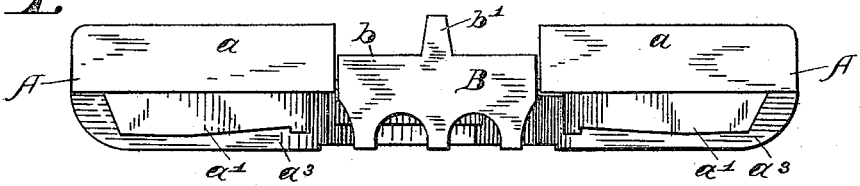



Fig. 2.

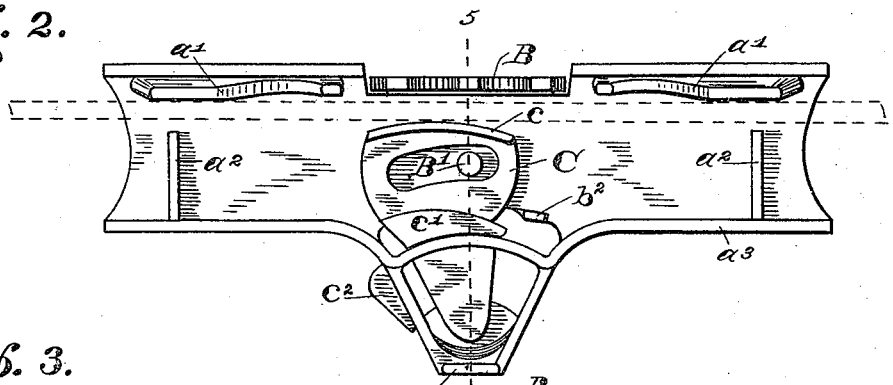



Fig. 3.

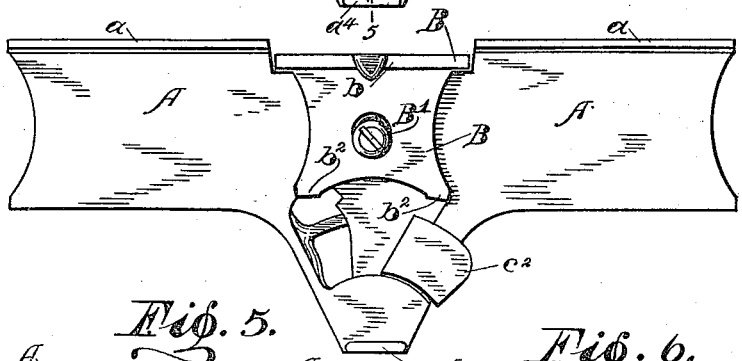



Fig. 4.

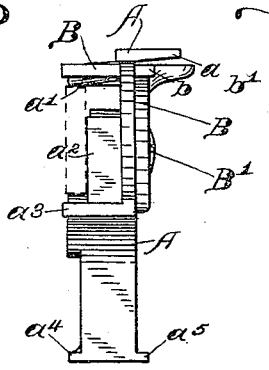



Fig. 5.

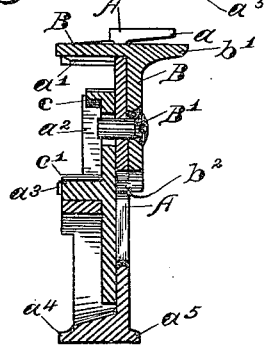
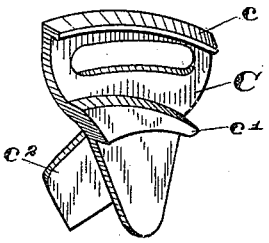



Fig. 6.

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# UNITED STATES PATENT OFFICE.

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## DEVICE FOR JOINTING AND DRESSING SAWS.

SPECIFICATION forming part of Letters Patent No. 438,181, dated October 14, 1890.

Application filed December 10, 1889. Serial No. 333,266. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM S. RALYA, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Saw-Tools, of which the following is a specification.

My said invention relates to that class of tools by which the ends and sides of the points of the cutting-teeth of saws and the ends of the points of the clearing-teeth are "jointed" or trimmed to the desired uniformity. Said invention will first be fully described, and then pointed out in the claims.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a top or plan view of the device; Fig. 2 a front elevation, Fig. 3 a rear elevation, Fig. 4 an end elevation, Fig. 5 a transverse vertical sectional view looking toward the left from the dotted line 5 5 in Fig. 2, and Fig. 6 a perspective view, of the cam-clamping device separately.

In said drawings, the portion marked A represents the main casting or frame of the device; B, the clearing-tooth gage, and C the clamping device by which the file is held in position. Said frame A is substantially in the form of a flat plate, with flanges $a$, which rest on top of the points of the teeth when the device is used for jointing the clearing-teeth, and other flanges or projecting portions $a'$, $a^2$, $a^3$, $a^4$, and $a^5$, against which the sides of the file or of the saw will rest in the various manipulations of the device, as will be hereinafter more fully explained. Its lower portion just above the projections $a^4$ $a^5$ is formed to serve as a seat for the pivot end of the swinging cam clamping device C.

The clearing-tooth gage B is formed, as usual, with its upper surface hardened to resist the wear of the file. It is secured to the frame A by the screw or bolt B′. Its upper portion or flange, which projects transversely across the top of the frame A, is fitted to rest directly upon said frame when adjusted to one position, and at its lower portion it has two small projections $b^2$, which extend transversely across and are adapted to rest against the adjacent portion of the frame A when said clearing-tooth gage is adjusted in the other position. This provides two definite and positive adjustments for the clearing-tooth gage, which are all that are ordinarily necessary—viz., one for use when a saw is being fitted to cut soft wood and the other for use when it is being fitted to cut hard wood. In the drawings (see particularly Figs. 2 and 5) it is shown in the position it occupies when adjusted to fit the saw for cutting hard wood—that is, elevated to its highest position—while the points $b^2$ are shown in contact with the body of the frame. The slot through which the screw or bolt B′ passes is long enough to permit these adjustments, which are effected by simply loosening said screw or bolt, moving the clearing-tooth gage in the desired direction, and again tightening said screw or bolt. By forming this device in this manner, so that the adjustments are certain, less care is needed on the part of the operator, and thus the damage which might otherwise result from its unskillful use by careless or inexperienced workmen is guarded against.

The cam-clamping device C is mounted in the frame A, as shown, with its lower or pivot end extending into a seat in the lower portion of the frame A, and is provided with two cam surfaces or flanges $c$ $c'$. The metal is cut away in the body of this device C to accommodate the point of the screw or bolt B′, thus forming a slot, as shown. It also has a wing or handle portion $c^2$, which projects out through the edge of the downwardly-projecting portion of the frame A and serves as a handle by which it may be moved up against the file when it is desired to clamp said file in position, and thus prepare the tool for operation.

Said operation and the use of the tool may be described as follows: One of these cams $c$ is adapted to clamp the file between itself and the flanges $a'$ on the frame A when the file is set into the device edgewise, as indicated by the dotted lines in Fig. 2, and the tool is thus arranged to joint the ends of the points of the teeth. The other cam-flange $c'$ is arranged to hold the file between itself and the same flanges $a'$ when the file is put into the position flatwise, and is thus arranged to joint the sides of the points of the teeth. As will

be noticed by an examination of the drawings, particularly Fig. 5, the cam-flange $c'$ projects considerably beyond the cam-flange $c$, and said cam-flange $c$ is thus permitted to be behind the file out of the way when the cam-flange $c'$ is in use. When the file is placed in the frame in the first-described position, its edge rests against the flat surface of the main plate of the frame A, past the upper ends of the flanges $a^2$, but when it is in the second-described position its side rests against the front edges of said flanges $a^2$, thus bringing its surface out substantially flush with the front edges of the flanges $a^3$. When the device is used for jointing the ends of the points of the teeth, the flange $a^3$ and the point or short flange $a^4$ rest against the side of the saw-plate, holding the tool in the proper relation thereto. Said flange or point $a^4$ also rests against the saw-plate when the file is in the other position ready for jointing the sides of the points of the teeth; but in this case there is no second support, as the file forms its own support, so far as any is needed.

When the device is used for jointing the ends of the points of the clearing-teeth, it is turned around and the flanges $a$ rest on the top of the points of the cutting-teeth, while the points of the clearing-tooth to be operated upon project just above the top of the clearing-tooth gage B, between said two flanges $a$, and rest against the slight flange $b$ at the top of said clearing-tooth gage, while the flange or point $a^5$ rests against the side of the saw-plate, as will be readily understood.

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

1. The combination, in a saw-tool, of the frame A, having appropriate rests for one side or edge of the file, and a swinging clamp C, pivoted below the file seat or space and having a cam edge or flange adapted to clamp the file in position, substantially as set forth.

2. The combination, in a saw-tool, of the frame A, having projections or flanges adapted to serve as jaws to hold one side or one edge of the file, and a clamping device C, having two cam edges or flanges, one of which serves as the other jaw of the file-clamp when the file is inserted edgewise in the tool, and the other of which serves similarly when the file is inserted flatwise, substantially as set forth.

3. The combination, in a saw-tool, of the frame A, containing a seat or space for the file and having flanges which serve as one jaw of the clamp, and the swinging pivoted clamp C, serving as the other jaw and provided with a handle $c^2$, which extends to the outside of the saw-frame, substantially as set forth.

4. The combination, in a saw-tool, of the frame A, having the several flanges $a'$, $a^2$, $a^3$, and $a^4$, and the swinging cam clamp C, having the two clamping flanges or edges $c$ $c'$, substantially as set forth.

5. The combination, in a saw-tool, of the frame A and the clearing-tooth gage B, secured thereto, said clearing-tooth gage being formed with flanges or projections which pass transversely of two portions of said frame, whereby two certain adjustments of said clearing-tooth gage are provided, substantially as set forth.

6. The combination, in a saw-tool, of the frame A and the clearing-tooth gage B, provided with flanges or projections at its upper and lower portions which pass transversely across the body of the frame A, and a bolt or screw whereby said parts are secured together, substantially as set forth.

7. The combination, in a saw-tool, of the frame A and the clearing-tooth gage B, having a flange at its upper portion and two projections $b^2$ $b^2$ at its lower portion, said flange and said projections being arranged to serve as stops to limit the adjustment of said clearing-tooth gage, substantially as set forth.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 4th day of December, A. D. 1889.

WILLIAM S. RALYA. [L. S.]

Witnesses:

CHESTER BRADFORD,

JAMES WALSH.