(No Model.)

H. NEIDHARDT.

SAW SET.

No. 589,267. Patented Aug. 31, 1897.

Fig. 1.

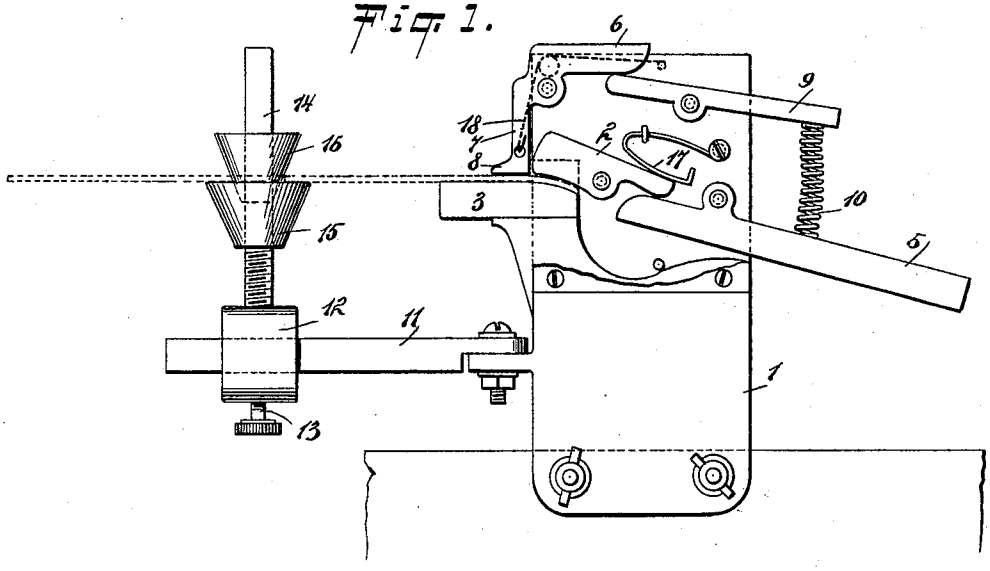


Fig. 2.

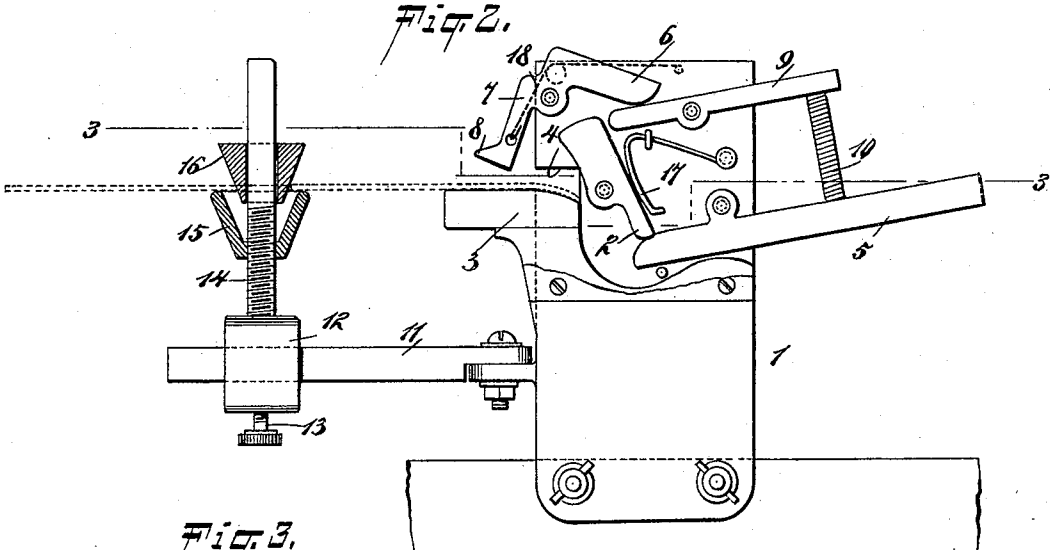
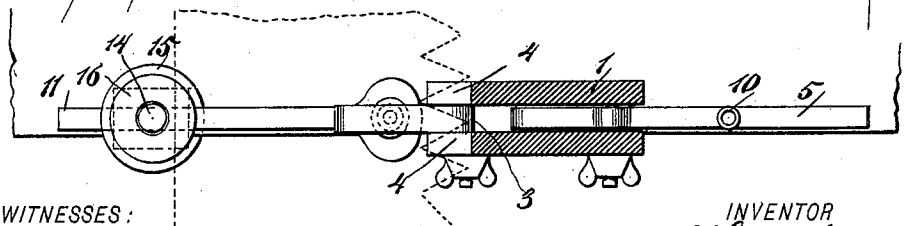


Fig. 3.



WITNESSES:

William L. Goebel.

O. A. Ferguson

INVENTOR

H. Neidhardt.

BY

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HENRY NEIDHARDT, OF BROOKLYN, NEW YORK.

SAW-SET.

SPECIFICATION forming part of Letters Patent No. 589,267, dated August 31, 1897.

Application filed April 27, 1897. Serial No. 634,074. (No model.)

To all whom it may concern:

Be it known that I, HENRY NEIDHARDT, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Saw-Set, of which the following is a full, clear, and exact description.

This invention relates more particularly to setting devices for circular saws, and the object is to provide a device of this character that may be operated by comparatively little power or pressure and by means of which the teeth of a saw will be quickly and accurately set.

I will describe a saw-set embodying my invention, and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a saw-set embodying my invention with a portion of the standard removed and showing the parts in the position of setting a saw-tooth. Fig. 2 is a similar view, but showing the parts in another position; and Fig. 3 is a section on the line 3 3 of Fig. 2.

Referring to the drawings, 1 designates a standard which may be secured to any suitable support—such, for instance, as to a bench—or it may be held in a vise. In the upper portion of the standard is pivoted a tooth-setting dog 2, designed to coact with the downwardly-inclined surface at the inner end of an anvil 3, secured in the standard. The side portions of the standard have openings 4 to allow for the passage of a saw over the anvil. The inner end of the tooth-setting dog 2 engages loosely with a pressure-lever 5, fulcrumed in the standard, and preferably the end of the dog 2, bearing upon the lever, will be rounded, so as to move easily on the lever.

Pivoted in the standard 1 is a saw-holding lever consisting of a rearwardly-disposed portion 6 and a downwardly-disposed portion 7, having a foot 8 to engage upon a saw. This holding-lever is operated from the pressure-lever 5. The connection between the two levers, as here shown, comprises a pivoted lever 9, upon the inner portion of which the rearwardly-disposed portion 6 of the holding-lever engages, and the outer end of this lever 9 has a spring yielding connection 10 with the pressure-lever.

Mounted to swing laterally on the lower portion of the standard 1 is an arm 11, and mounted to slide on the arm 11 is a block 12, which may be secured as adjusted by means of a set-screw 13. Extended upward from the block 12 is a post 14, vertically adjustable, on which is a saw-support 15, having a conical cavity. To provide for an adjustment of the support 15, the opening through its lower portion is screw-threaded to engage a screw-thread on the post.

Loosely mounted on the post 14, above the support 15, is a centering-block 16. This block 16 is preferably made tapering or conical, so as to adapt it to the different sizes of arbor-holes in the saws. The object in making the saw-support adjustable on the post is to provide for adjusting it to the various thickness of saw centers—that is, a saw sometimes has a collar around its arbor-hole, and in such case the support must be lowered to hold the saw level with the anvil.

In operation the saw is to be placed upon the support 15, as indicated in dotted lines in the drawings, and then the centering-block is to be placed in the arbor-hole. With a saw-tooth on the inclined portion of the anvil the lever 5 is to be forced downward. This will cause the dog 2 to engage the upper surface of the tooth and set it on the anvil, and during the downward movement of the pressure-lever the foot 8 of the holding-lever will be moved into engagement with the saw-body, and after engaging therewith the spring 10 will permit a still further movement of the pressure-lever. After setting a tooth and upon releasing the lever 5 a spring 17, bearing upon the dog 2, will swing said dog to its open position, and a spring 18, attached to the standard and engaging with the holding-lever, will swing the holding-lever to its open position, and then the saw may be rotated to bring another tooth into setting position. Of course adjacent teeth are to be set in opposite directions.

I have described my device as particularly adapted for setting the teeth of circular saws, but it is obvious that the teeth of straight saws may be set with it.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

1. A saw-set, comprising a standard, an anvil supported by the standard, a pivoted pressure-lever, a pivoted setting-dog operated by the lever, and a pivoted holding-lever having a spring connection with and operated by the pressure-lever, substantially as specified.

2. A saw-set, comprising a standard, an anvil supported by the standard, a pressure-lever pivoted in the standard, a setting-dog pivoted in the standard and operated by the pressure-lever, a holding-lever pivoted in the standard, a lever pivoted in the standard and engaging with the holding-lever, and a yielding connection between said lever and the pressure-lever, substantially as specified.

3. A saw-set, comprising a standard, an anvil supported by the standard, a setting-dog pivoted in the standard, means for rocking the dog, a spring for moving the dog in one direction, a pivoted holding-lever actuated in one direction by the means for rocking the dog, and a spring for moving the holding-lever in its open position, substantially as specified.

4. A saw-set, comprising a standard, saw-setting devices supported by the standard, an arm extended forward from the standard, a post adjustable along said arm, a saw-support adjustable on the post, and a conical centering-block mounted loosely on the post, substantially as specified.

HENRY NEIDHARDT.

Witnesses:
BERNARD F. DIEL,
LOUIS GOTHAR.