D. E. FABUN.

SAW SET.

APPLICATION FILED AUG. 16, 1909.

977,722. Patented Dec. 6, 1910.

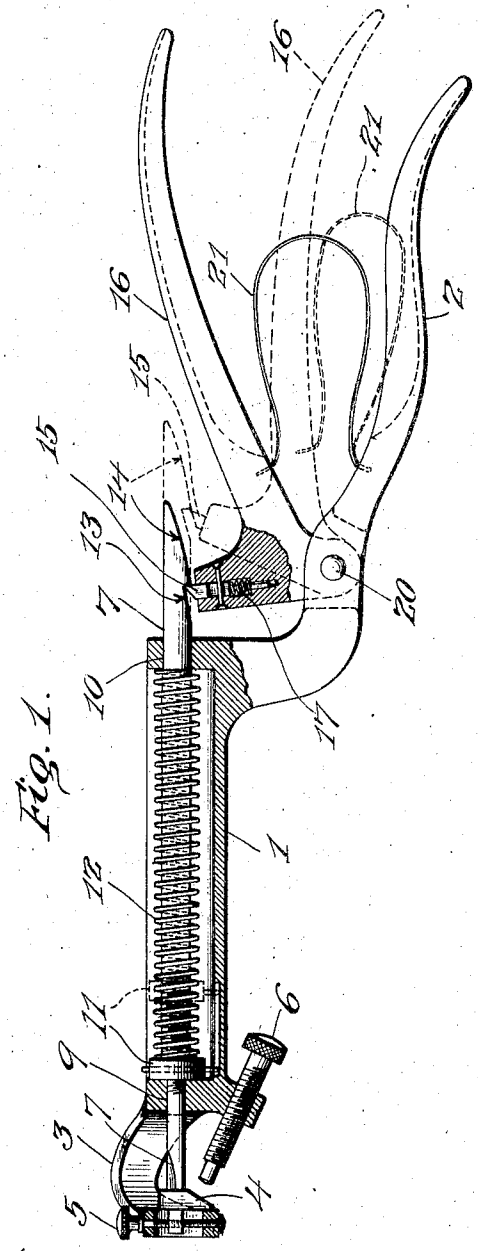

Fig. 1.

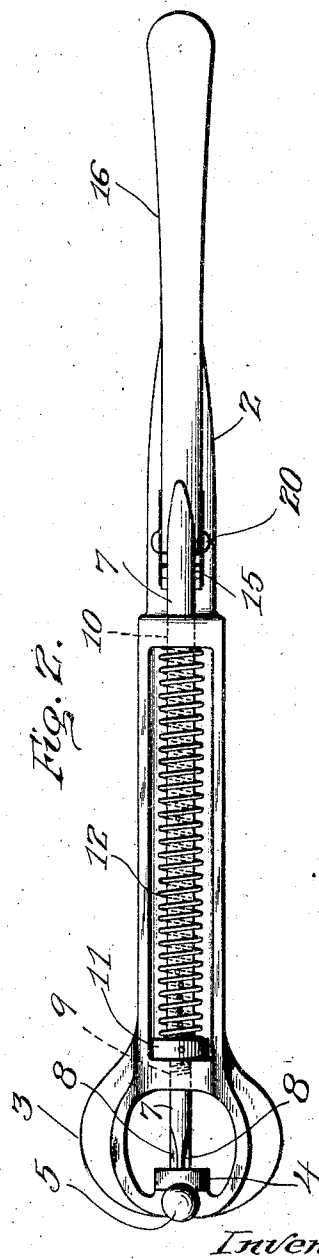

Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

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SAW-SET.

977,722. Specification of Letters Patent. Patented Dec. 6, 1910.

Application filed August 16, 1909. Serial No. 513,202.

To all whom it may concern:

Be it known that I, DANIEL E. FABUN, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Saw-Set, of which the following is a specification.

This invention relates to saw sets and the main object of the invention is to provide an implement which will automatically impart a hammer blow to set the tooth. Heretofore hand implements of this character set the tooth by a sliding bolt, the pressure of which against the tooth depended upon the manual pressure used by the operator, which obviously would not always be a uniform pressure, as the muscular effort could not be gaged to an extreme nicety and, therefore, some teeth would be set more or less than others which is avoided by the present invention, by reason of the bolt receiving an exact pressure at each impulse irrespective of the exact amount of muscular pressure employed by the operator. Inasmuch as this construction produces a blow of uniform force against each tooth forcing it into an exact angle against the anvil, all teeth of the saw will be evenly set, thereby causing the saw to cut better and the teeth wear longer before requiring sharpening or setting.

My invention may be carried out in various ways, one form of which I have shown in the accompanying drawings, wherein:

Figure 1 is a side elevation, partly in section, of the implement. Fig. 2 is a plan view.

In the embodiment shown herein the implement comprises a shank 1, the rear portion of which is formed with a handle or finger grip 2. At the front end of the shank 1 is a head 3. The head 3 may be of any preferred form of construction, being herein shown as provided with an anvil 4 adjustable vertically by means of a thumb screw 5.

6 is an adjusting screw for regulating the angle to which the tooth is set.

Slidably supported in the shank 1 is a bolt or hammer 7, the front end of which is beveled at 8 to form a triangular shaped head corresponding approximately to the shape of the saw tooth. The front end of the hammer 7 is slidable in a bearing 9, the rear end being slidable in a bearing 10. A nut 11 is screwed on the hammer 7 near the front end and a coil spring 12 encircles the hammer and is interposed between the nut 11 and the bearing 10. By adjusting the nut 11 the tension of the spring 12 may be regulated. The rear end of the hammer 7 is formed with a notch 13 and a rear beveled portion 14. The notch 13 is engaged by a sliding latch 15 in a hand lever 16, the coil spring 17 serving to yieldingly press the latch 15 upwardly. The latch 15 is slotted at 18 and a pin 19 extends therethrough and limits its movement. The hand lever 16 is pivoted at 20 to the lever 2 and a flat spring 21 is arranged between the two hand levers serving to hold the hand lever 16 elevated normally.

In operation the head 3 is placed over the cutting edge of the saw with the tooth which is to be set lying between the end of the hammer 7 and the anvil 4, the hammer 7 having been slightly retracted by pressing down on the lever 16 to permit the entrance of the tooth between the end of the hammer and the anvil. Then the hand levers 16 and 2 are squeezed toward each other and the latch 15 acting against the notch 13 retracts the hammer 7 compressing the spring 12 until the latch 15 passes out of engagement with the notch 13, whereupon the spring 12 expands and drives the hammer 7 forward against the tooth, bending the tooth and forcing it against the anvil 4. After the hammer has been impelled forward in this manner the spring 12 expands and restores the lever 16, the latch 15 riding under the beveled portion 14 and snapping into the notch 13, so that the parts are automatically restored. It will be noted that the hammer blows imparted to the teeth of the saw are all of the same force, this force being produced automatically by the spring and thus the teeth are all evenly set. Moreover, the operation of setting the saw can be performed much quicker with the automatic mechanism herein provided than heretofore.

What I claim is:—

1. A saw set comprising a shank, a head on the shank provided with an anvil, a hammer slidable on the shank, a spring in the shank bearing against the hammer, a pair of hand levers, one of which is fixed to the shank and the other pivoted to the shank, a spring pressed latch carried by the pivoted hand lever, the hammer having a notch which is engaged by said latch.

2. A saw set comprising a hollow shank having a finger grip extending therefrom

in the same general longitudinal direction, a hammer longitudinally slidable in said shank, a coil spring in said hollow shank encircling the hammer, a head projecting beyond the shank, an anvil on said head in line with the end of said hammer, a hand lever pivoted to said shank and extending in the same general longitudinal direction as said shank, and means operated by said hand lever for co-acting with said hammer for retracting said hammer longitudinally in said shank, placing said spring under compression and suddenly releasing said hammer.

3. A saw set comprising a shank having a finger grip extending therefrom in the same general longitudinal direction, a hammer longitudinally slidable in the shank, a coil spring in the shank for propelling said hammer longitudinally therein, a head on the shank, an anvil on the head in line with said hammer, a collar screwed on said hammer against which said spring bears, a hand lever pivoted to said shank and extending in the same general longitudinal direction as said shank, and means operated by said hand lever for retracting the hammer to compress the spring and automatically release the hammer to permit the spring to drive the hammer toward the anvil.

4. A saw set comprising two hand levers pivoted together, one of said levers having a shank with an anvil at the forward end thereof, a hammer slidable in said shank, elastic means in said shank for driving said hammer toward said anvil, said shank extending in the same general longitudinal direction as said hand levers, the other lever having means operated by pressing said hand levers together for moving said hammer away from said anvil and then releasing said hammer.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 7th day of August 1909.

DANIEL E. FABUN.

In presence of—
G. T. HACKLEY,
FRANK L. A. GRAHAM.