

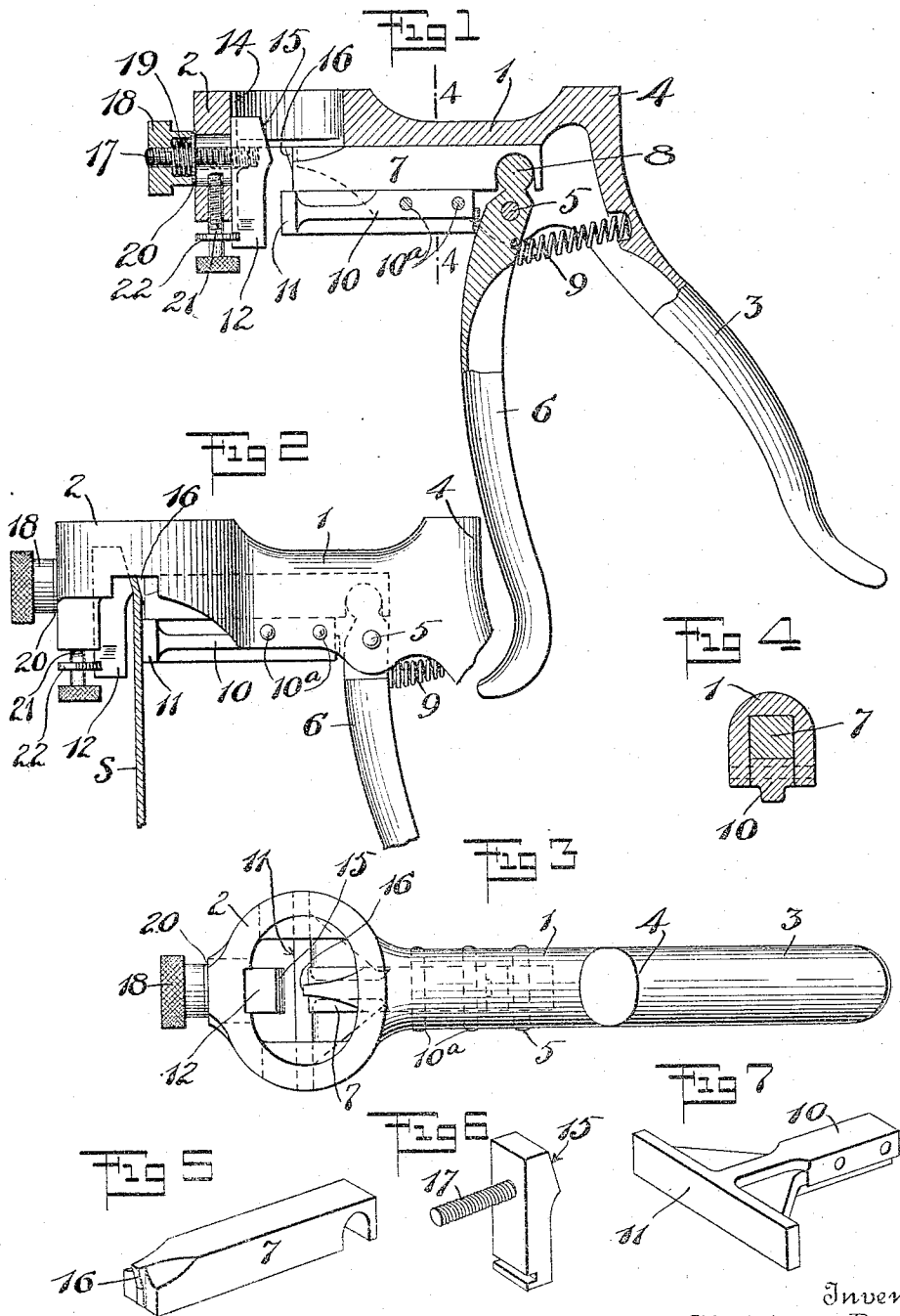
C. BODMER.

SAW SET.

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1,199,232.

Patented Sept. 26, 1916.



Inventor  
Christian Bodmer  
By his Attorneys  
*Mitchell & Co.*

# UNITED STATES PATENT OFFICE.

CHRISTIAN BODMER, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO THE STANLEY  
RULE & LEVEL COMPANY, OF NEW BRITAIN, CONNECTICUT, A CORPORATION OF  
CONNECTICUT.

## SAW-SET.

1,199,232.

Specification of Letters Patent.

Patented Sept. 26, 1916.

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*To all whom it may concern:*

Be it known that I, CHRISTIAN BODMER, a citizen of the United States of America, residing at New Britain, Connecticut, have invented a new and useful Saw-Set, of which the following is a specification.

My invention relates to a new and improved tool for setting saw teeth, the main object being to provide a tool for that purpose which shall be so constructed and arranged as to operate with the greatest ease and effectiveness, and which is capable of ready adjustment and which comprises a minimum number of parts so constructed and positioned as to permit the tool to be easily made and assembled.

In the drawings: Figure 1 is a side elevation of my improved tool, the upper part being in section. Fig. 2 is a side elevation of the upper part of said tool. Fig. 3 is a plan view of the tool. Fig. 4 is a cross section on the line 4—4 of Fig. 1. Figs. 5, 6 and 7 are perspective views of details.

The main frame of the tool comprises the body 1, the forward end of which is widened at 2 and is provided with an oval sight opening. The rear end of the body 1 is provided with a rigid handle 3 which extends downwardly therefrom after the manner of the back of a pistol grip.

4 is an abutment shoulder at the meeting angle of the body 1 and the handle 3 which shoulder constitutes a thumb rest.

The underside of the body 1 is longitudinally hollowed out or channeled, and pivotally mounted at 5 in said hollowed out portion is a movable handle 6.

7 is a reciprocating plunger located in, and guided in, the channel in the underside of the body 1. The upper end of the handle 6 is provided with a suitable bearing 8 which projects into a recess in the underside of the plunger 7 whereby when the handle 6 is moved to and fro the plunger 7 will be moved to and fro. Any suitable connection of course may be provided between the handle 6 and the plunger 7.

9 is a spring which normally operates to cause the handle 6 to stand in the position shown in Fig. 1 with the plunger 7 retracted.

The plunger 7 is preferably held in place by means of a removable block 10 which operates as a cap and which carries at its forward end a positioning face or gage 11

located underneath the oval opening in the part 2 of the body and standing slightly in front of the forward end of the plunger 7 when the latter is retracted. The cap 10 may be held in place in any suitable way as by pins 10<sup>a</sup>.

12 is an anvil block carried by the part 2 of the body and arranged in front of the plunger 7. This anvil block is mounted in a vertical guide-way 14 at the forward side of the oval opening. The anvil block is provided with a bearing face 15 which is oblique relatively to the saw positioning face 11. The forward end of the plunger is provided with a central relatively narrow projection 16, the forward face of which is formed in a plane substantially parallel to the plane of the oblique face of the anvil.

17 is a screw which is carried by the anvil block 12 and passes through a vertical slot in the forward part 2 of the body 1 (see Fig. 1). Mounted on the screw 17 is a nut 18 and the inner end of the nut is preferably hollowed out to provide room for a coil spring 19.

20 is a washer arranged between the inner end of the nut 18 and the outer forward end of the body.

21 is a screw which projects up into the underside of the forward part 2 of the body. This screw 21 may have an annular flange 22 which takes into a notch the edge of the block 12 so that by adjusting the screw 21 up and down the block may be vertically adjusted whereby the degree of overlap between the part 16 and the face 15 may be varied to adjust the tool so as to secure the desired degree of offset to the saw teeth to be operated on. When the desired adjustment is effected the nut 18 may be set up tightly to hold the anvil against movement.

In operation the toothed edge of the saw is slid into the space between the face 11 and the block 12. The tool is then slid along the edge of the saw until the part 16 is arranged adjacent to the tooth which it is desired to offset whereupon the handle 6 is moved in a direction to force the plunger 7 toward the anvil whereby the setting operation is effected. The tool is then moved along step by step until all of the teeth are set properly.

In Fig. 2, S indicates a portion of a saw in cross section and shows the tool in the position that the parts assume when one tooth is being set.

It will be observed that the parts are so arranged that the operating hand may be held in a natural position so that the tool can be operated for a long period without 5 tiring the user. The leverage on the handle on the plunger is also such as to afford a great reserve of power. The construction is also such as to obtain evenness and uniformity in the setting of each tooth, it being 10 essential to perfect work that all the teeth should be set alike.

If desired, the anvil block 12 may have a series of graduations on its side, as shown in Figs. 1 and 2, to facilitate the easy and accurate adjustment of the same, the graduations being read from the adjacent lower 15 edge of the part 2.

The entire structure may be very quickly taken apart or assembled and in the event of 20 breakage or loss of any particular part the same may be quickly replaced. To remove the plunger 7 the pins 5 and 10<sup>a</sup> are simply driven out so as to release the handle 6 and cap 10 upon which cap the plunger is supported. 25 When the cap 10 is detached the plunger 7 is free. When the cap 10 is in place it serves not only to hold the plunger 7 in its guiding channel, but it also acts as a stop to limit the forward swinging movement of the handle 6. 30

What I claim is:

1. In a saw set, a frame comprising a body portion widened at its forward end and having a sight passage therethrough, a 35 rigid depending handle at the rear end of said body, the underside of said body being channeled, a reciprocating plunger mounted in said channel, a pivoted handle operatively connected with said plunger to reciprocate 40 the same, a removable block for the lower side of said body, a saw positioning gage at the forward end of said block, a vertically adjustable anvil block in front of said plunger and saw positioning face, the operative face of said anvil and the coöperating 45 face of said plunger being substantially parallel to each other and oblique to the plane of the face of said positioning gage.

2. In a saw set, a frame comprising a 50 body portion widened at its forward end and having a sight passage therethrough, a rigid depending handle at the rear end of said body, the underside of said body being channeled, a reciprocating plunger mounted 55 in said channel, a pivoted handle operatively connected with said plunger to reciprocate the same, a removable block for the lower side of said body having a positioning face, a vertically adjustable anvil block in front 60 of said plunger and saw positioning face, the operative face of said anvil and the coöperating face of said plunger being substantially parallel to each other and oblique

to the plane of said positioning face, said plunger being supported by said removable 65 block.

3. In a saw set, a frame comprising a body portion widened at its forward end and having a sight passage therethrough, a rigid depending handle at the rear end of said body, 70 the underside of said body being channeled, a reciprocating plunger mounted in said channel, a pivoted handle operatively connected with said plunger to reciprocate the same, a removable block for the lower side 75 of said body, a saw positioning gage at the forward end of said block, a vertically adjustable anvil block in front of said plunger and saw positioning face, the operative face of said anvil and the coöperating face of 80 said plunger being substantially parallel to each other and oblique to the plane of the face of said positioning gage, and means for adjusting said anvil comprising two screws arranged at right angles to each other. 85

4. In a saw set, a frame comprising a body portion widened at its forward end and having a sight passage therethrough, a rigid depending handle at the rear end of said body, 90 the underside of said body being channeled, a reciprocating plunger mounted in said channel, a pivoted handle operatively connected with said plunger to reciprocate the same, a removable block for the lower side of said body having a saw positioning face 95 at the forward end of said block, a vertically adjustable anvil block in front of said plunger and saw positioning face, the operative face of said anvil and the coöperating face of said plunger being substantially 100 parallel to each other and oblique to the plane of said positioning face, and means for adjusting said anvil comprising two screws arranged at right angles to each other, one of said screws comprising a 105 clamping screw and including a nut having a spring cavity at the inner end thereof and a spring therein.

5. In a saw set, a body portion having a channeled lower side and an oval sight 110 opening at its forward end, a vertically adjustable anvil mounted in said sight opening and having an oblique setting face, a plunger slidably mounted in said channel and having an oblique setting face at its 115 forward end for coöperation with the setting face of said anvil, a block removably secured in said channel and holding said plunger in place, a vertical saw positioning gage at the forward end of said block, a 120 handle rigidly carried by said saw body and extending downwardly therefrom, a movable handle pivoted in the channeled underside of said body and operatively connected with said plunger to reciprocate the same.

CHRISTIAN BODMER.