W. M. STOVALL.

SAW SET.

APPLICATION FILED MAR. 5, 1920.

1,384,575. Patented July 12, 1921.

Fig. 1.

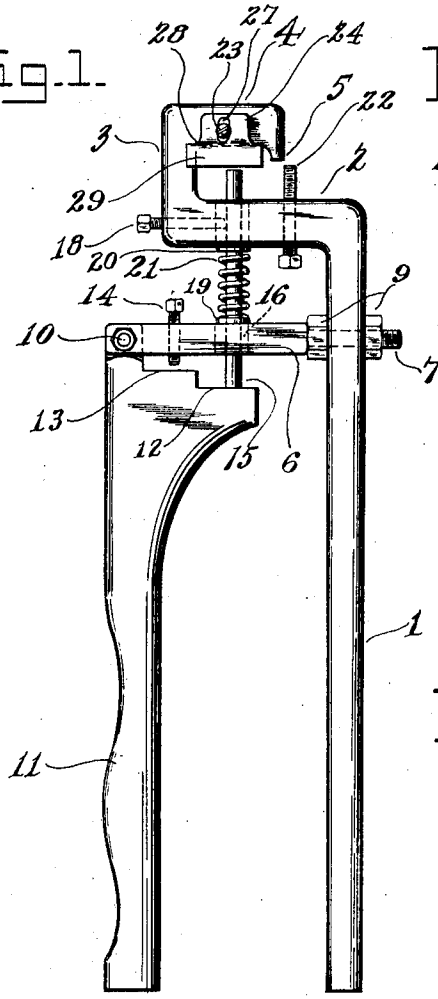


Fig. 2.

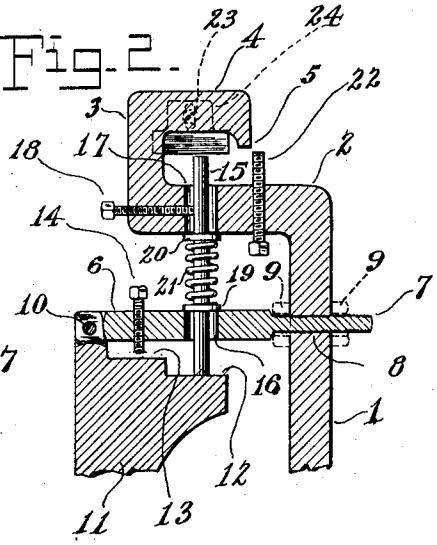
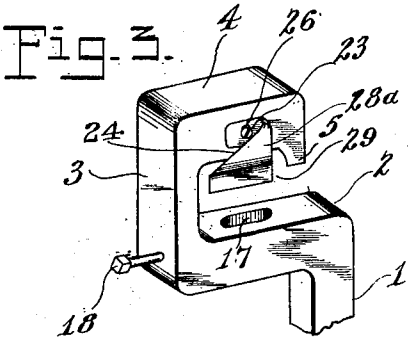


Fig. 3.



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UNITED STATES PATENT OFFICE.

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SAW-SET.

1,384,575. Specification of Letters Patent. Patented July 12, 1921.

Application filed March 5, 1920. Serial No. 363,615.

To all whom it may concern:

Be it known that I, WILLIAM M. STOVALL, a citizen of the United States, residing at Clallam Bay, in the county of Clallam and State of Washington, have invented certain new and useful Improvements in Saw-Sets, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a saw set, and has for its object the production of a relatively simple and efficient saw set that can be used to set the teeth of different kinds of saws.

With this and other objects in view, my invention comprises certain novel constructions, combinations, and arrangements of parts as will be hereinafter specifically described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims.

In the drawings:

Figure 1 is a view in side elevation of my improved saw set.

Fig. 2 is a fragmentary sectional view of the saw set.

Fig. 3 is a fragmentary perspective view of the saw set showing an embodiment of the spring sheet-metal guide.

Referring to the drawings by numerals, 1 comprises the primary handle that is provided at its outer end with a right-angle extension 2, which extension 2 is provided at its outer end with a right-angle extension 3, and the extension 3 is provided at its outer end with an inwardly-extending extension 4 parallel with the extension 2; the extension 4 is provided at its outer end with an inwardly-extending lip 5 that engages the saw teeth or blade when the saw set is in position upon the same.

A bar 6, constituting an extension, is provided with an inner threaded end 7, which end 7 extends through aperture 8 in the handle 1, and upon opposite sides of the handle, and threaded upon end 7, are lock nuts 9, 9, which nuts secure the bar 6 tight upon the handle 1. Pivotally mounted at 10, upon the outer end of bar 6, is auxiliary handle 11. The auxiliary handle 11 is provided with an outer shoulder portion 12 and an inner shoulder portion 13, formed upon its inner end, and a limiting bolt 14 is threaded through the bar 6, near its outer end, and the inner end of bolt 14 engages shoulder 13 of handle 11 for limiting the inward swinging movement of the handle upon its pivot 10, which limiting movement also limits the inward pressing movement of the handle 11 upon the set rod 15.

The set rod 15 is freely slidable in the elongated aperture 16 formed in bar 6, and the rod is also freely slidable in the elongated aperture 17 formed in the extension 2; these apertures 16 and 17 register, and permit the bar to be bodily adjustable longitudinally of the bar 6 and extension 2, by means of the adjusting bolt 18. When the adjusting bolt 18 is rotated inwardly, it will push the set rod 15 bodily toward the handle 1, and thereby permit the bar to operate on different sized teeth, with excellent results. A fixed collar 19 is mounted upon rod 15, and a slidable collar 20 is also mounted upon rod 15, and between the collars 19 and 20 is positioned a coil spring 21. This spring normally holds the set rod 15 in its seated position, shown in Figs. 1 and 2, bearing against the shoulder 12 of handle 11.

The bolt 22 is threaded upwardly or outwardly through the extension 2, and its inner end is adapted to bear against the teeth of the saw being operated upon, for keeping the tooth from being bent back.

On opposite sides of the outer extension 4 are positioned screws 23, and these screws are used to retain the spring sheet-metal guides 24 (Fig. 1) or 25 (Fig. 3) upon the extension 4. The guide 24 is provided with a body portion 26 resting flat against the side of the extension 4, and in the body 26 is formed an elongated slot 27 for permitting adjustment of the guide upon the screw 23. The body 26 of the guide is bent outwardly at 28, and the extreme lower or inner end 29 of the guide is formed straight to engage the blade. In the embodiment shown in Fig. 3, the flat body portion 26 rests against the side of the extension 4, and the body is outwardly curved at 28^a, terminating in a straight lower end 29 that engages the saw blade; the body portion 26 and the straight portion 29 are practically parallel, and are connected by said outwardly-curved intermediate portion 28^a.

The teeth of the saw are placed between the lip 5, bolt 22, set rod 15, and spring guides 24 or 25, the auxiliary handle 11 being susceptible of moving still closer to the handle 1 than shown in the drawings, to press upward or inward upon the set rod 15 to cause the inner end of said rod to bend

the tooth being operated upon; however, limiting bolt 14 will prevent too great a movement of the set rod, and as soon as the operator has released the auxiliary handle 11, spring 21 will cause the collar 19 to be seated upon the bar 6, relieving pressure of the tooth.

While I have described the preferred forms of my invention, and have illustrated the same in the accompanying drawings, I may find certain alterations or changes necessary in the extensive manufacture of my saw set, and, therefore, I reserve the right to make such minor alterations or changes as shall occur to one skilled in the art to which this invention relates, and which alterations or changes fall within the scope of the appended claims.

What I claim is:

1. In a saw set, the combination of a handle provided with a saw-receiving end, a bar provided with an inwardly-threaded end extending through the handle, locking nuts at opposite sides of the handle and mounted upon the threaded end of the bar for holding the bar securely upon the handle, tooth-bending means on the saw-receiving end and on said bar, and an auxiliary handle movably mounted on the bar and coöperating with the tooth-bending means for actuating the same at the will of the operator.

2. In a saw set, the combination of a handle provided with a saw-receiving end, tooth-bending means carried by said saw-receiving end, means for operating said tooth-bending means, a spring sheet-metal guide positioned against said saw-receiving end, said guide provided with an inner apertured body having an outwardly-bent portion, and said outwardly-bent portion integral with a straight saw-engaging end for holding the same upon the saw-receiving end.

3. In a saw set, the combination of a handle provided with a saw-receiving end, manually-operated tooth-bending means movably mounted upon said saw-receiving end, a sheet-metal guide engaging said saw-receiving end, said guide comprising an inner flat end provided with an outwardly-curved intermediate portion and with a straight outer end adapted to engage a saw, and fastening means extending through the inner end of the guide and securing the same to the side of the saw-receiving end.

4. In a saw set, the combination of a handle provided at its outer end with a right-angle extension, said right-angle extension provided at its outer end with a right-angle extension, and the last-mentioned right-angle extension provided at its outer end with a right-angle extension parallel with the first extension on the handle, a bar provided with an inner threaded end extending through the handle, locking means at opposite sides of the handle and engaging the threaded end of the bar securing the bar fixedly upon the handle, said bar and extension at the inner end of the handle provided with registering elongated apertures, a spring-pressed set rod bodily movable within said apertures, manually-operated means on the extension at the inner end of the handle and engaging said rod for adjusting the rod bodily within said apertures, and an auxiliary handle pivotally mounted upon the outer end of the bar and engaging an end of the set rod for moving the same upon the bar and handle.

5. In a saw set, the combination of a handle provided at its inner end with a right-angle extension, said right-angle extension provided with an overhanging integral portion, a bar detachably supported at its inner end upon the handle, said right-angle extension and bar provided with enlarged registering apertures, a set rod freely and bodily movable both longitudinally and across said registering apertures, a bolt threaded into the outer end of the right-angle extension and having its inner end normally engaging the set rod, an auxiliary handle pivotally mounted upon the bar and adapted to swing inwardly and engage an end of the set rod for moving the same upon the bar nad pressing said rod against the tooth of a saw, and adjustable means on the bar for limiting the movement of the handle in one direction upon the bar.

6. In a saw set, the combination of a handle provided at one end with a right-angle extension terminating in an overhanging outer portion, a bolt for preventing the teeth from being bent back threaded through the right-angle extension and having one end positioned contiguous to the overhanging portion of the right-angle extension, a bar detachably secured upon the handle, a spring-pressed set rod mounted upon the bar and right-angle extension, means on the bar and right-angle extension for adjusting the set rod bodily thereon, an auxiliary handle pivotally mounted at the outer end of the bar, said auxiliary handle having an outer and an inward shoulder portion, said set rod adapted to engage at one end the outer shoulder portion of the auxiliary handle, and a bolt threaded through the bar between the pivot of the auxiliary handle and the set rod and having its inner end engaging the inner shoulder portion of the auxiliary handle for limiting the inward swinging movement of the handle upon the bar, thereby preventing too great an inward pressing movement upon the set rod.

7. In a saw set, the combination of a handle provided with a saw-receiving end, a set rod slidably and bodily movable upon

the saw-receiving end, a fixed and a loosely mounted collar upon said set rod, a coil spring between said collars, means engaging the fixed collar of the set rod for preventing the set rod from moving too far in one direction, an auxiliary handle carried by said collar-engaging means, said auxiliary handle adapted to engage one end of the set rod, and means carried by the collar-engaging means for limiting the movement of the auxiliary handle and thereby the movement of the set rod.

In testimony whereof I hereunto affix my signature.

WILLIAM M. STOVALL.