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F. F. POLIER, SR

2,659,250

CROSSCUT SAW-SET

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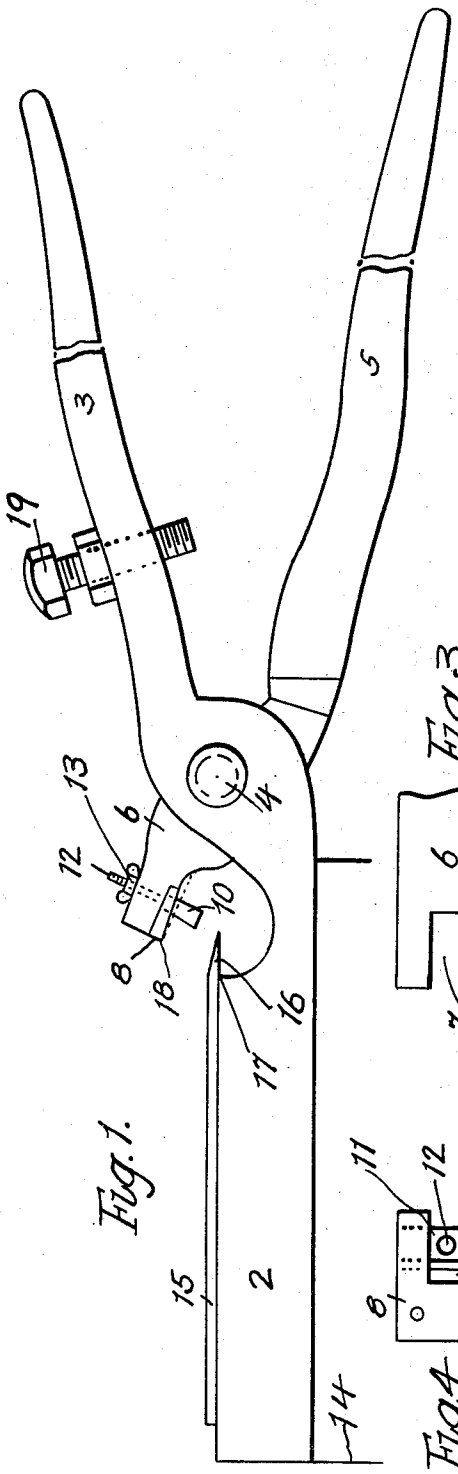

Fig. 1.

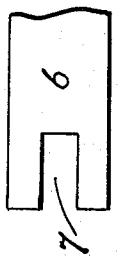

Fig. 3.

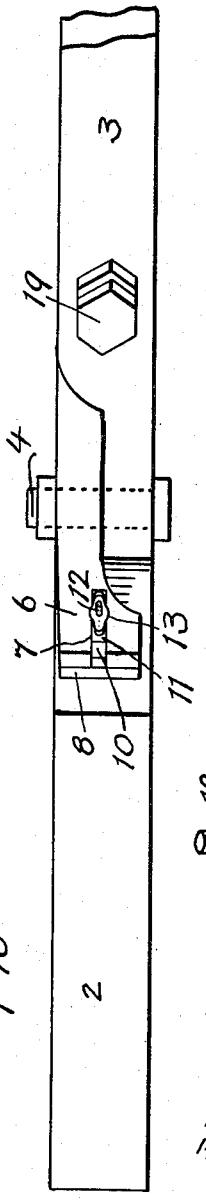

Fig. 2.

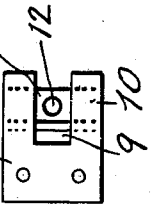

Fig. 4.

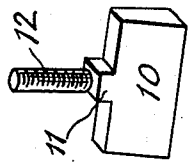

Fig. 5

Inventor
F. F. Polier Sr.
By Gustavus B. Cox
Atty

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CROSSCUT SAW-SET

Frederick F. Polier, Sr., Moberly via Golden, British Columbia, Canada

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1 Claim. (Cl. 76—64)

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This invention relates to cross-cut saw-sets and the objects of the invention are:

1. To set the teeth of cross-cut saws by steady pressure thereagainst so that they will uniformly project a given distance beyond the sides of the saw blade, thus ensuring that the saw can be used with a minimum of effort.

2. To very considerably economize time in setting these teeth, and with a minimum of labor.

3. To provide a tool readily adjustable in character so that the user may readily set the teeth for cutting any kind of wood. It is well known that to saw green wood the set of the teeth must be wider than the set used to cut dry wood.

4. To prevent the saw blade being pushed backward while a tooth is being set thus ensuring that a uniform set of the teeth is effected.

5. To provide adjustable means whereby the point of application of pressure against a tooth may be determined at any desired place longitudinally thereof.

The tool comprises the construction and combination of the various elements thereof, as hereinafter more particularly explained.

In the following specification will be described and claimed the preferred form of construction illustrated in the drawings.

Fig. 1 is a side view of the tool, and Fig. 2 is a plan thereof.

Fig. 3 is a plan of the pressure-block.

Fig. 4 is a plan of the plate carried by the underside of the pressure-block, showing the stop-plate mounted therein.

Fig. 5 is a perspective view of the stop-plate.

In the drawings, like characters of reference refer to the same parts.

The anvil 2 is provided with an arm 3. This anvil rests on a bench. It is somewhat longer than the width of the blade of a cross-cut saw, and the underside thereof is parallel to the upper side which in use occupies an horizontal plane. The anvil is pivoted at 4 to the lever 5. The inner end of the lever 5 is fashioned to form a pressure-block 6, which is preferably centrally longitudinally provided with a slot 7.

Suitably secured to the underside of the pressure-block 6 is a steel plate 8 which is centrally longitudinally slotted in its inner end at 9. The slots 7 and 9 are held in alignment.

A stop-plate 10 is centrally provided on its top side with a stem-provided neck 11 which fits in and may be longitudinally moved in the slot 9. The stop-plate extends below the plate 8 and the pressure-block 6 (Fig. 1).

The stem 12 is threaded and extends through

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and above the slot 7 in the pressure-block, and mounted thereon is the wing-nut 13 whereby the plate 10 is held in adjusted position in the slots 7 and 9.

To use the tool the anvil 2 is placed on a bench 14, and on this anvil is placed and firmly held by the hand the saw blade 15 with the teeth 16 projecting beyond the corner 17 of the anvil.

The distance the teeth extend beyond the corner 17 will be positively determined by the adjustable plate 10. The user will determine at what part he wants the plate 8 to be brought into contact with a tooth back of its point when setting it, so he will move the stop-plate 10 by means of the lever 5 in front of the saw and hold it there while the saw is moved to bring a tooth into contact therewith. Then the nut 13 will be tightened to hold the said plate in its adjusted position. By holding the saw blade 15 firmly by hand on the anvil 2 and moving the lever 5 up around the pivot 4, the corner 18 of the plate 8 is brought into contact with a tooth and sets it by steady pressure.

By any suitable stop such as the adjustable pin 19 carried by the arm 3, when the lever 5 contacts the stop pin 19 the plate 8 ceases to exert any further pressure against the tooth, thus ensuring that the set given to all of the teeth will be uniform.

The anvil 2 below and beyond the corner 17 is recessed to provide ample room for the required movements of the pressure-block 6 and the plate 11.

To ensure that pressure of the plate 8 against a tooth shall be exerted solely through the corner 18, the underside of this plate is sloped upwardly-inwardly from its outer edge as shown in Fig. 1. In so forming the plate 8 it is made thicker at its outer end and gets thinner towards its inner end. This shape of the underside of the plate 8 prevents any pressure against a tooth back of the corner 18. Pressure of the plate 8 behind this corner would tend to move the saw blade out of position.

The adjustable stop plate 10 avoids any guess work on the part of the user of the tool as to how far the end of a tooth must be placed to the right of the corner 17 to result in a uniform setting of the teeth of the saw.

Sloping the underside of the plate 8 has the additional advantage of avoiding undue wear on this plate, and also on saw teeth when they are being repeatedly set.

To provide clearance of the outer side of the

stop-plate 10 with the end of the saw tooth while the pressure block 6 is being moved to bring the plate 8 into action, the outer side of the plate 10 is inwardly sloped upward from its bottom or lower end, as shown clearly in Figs. 1 and 5.

I claim:

A cross-cut saw-set comprising an anvil having an horizontal under side parallel to the upper side thereof and adapted to rest on a bench thereby ensuring that the blade of the saw will be held in a horizontal position on said bench when the teeth are being set; an arm integrally formed with said anvil and extending longitudinally thereof, the anvil being provided in its upper side with a recess; a lever pivoted to said arm and provided with a pressure-block positioned in alignment with said recess and provided longitudinally with a slot; a longitudinally-slotted stop-plate having its outer side inwardly sloped upwardly from its lower end to provide clearance with the end of a tooth when the pressure-block is brought into contact with a tooth to set it, a metal plate, longitudinally slotted from its inner end, secured to the under side of said pressure-block with its slot in alignment with the slot in said pressure-block, the under side of said metal plate sloping upwardly-inwardly from its outer end towards its inner end; a neck carried by said stop-plate and adapted to have only a sliding fit in the slot in said metal plate; a threaded stem for said neck extending through said metal plate and said pressure-block, and a nut on said stem to clamp said stop-plate in set position.

FREDERICK F. POLIER, SR.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
660	Waste et al.	Mar. 28, 1838
11,569	Rust	Aug. 22, 1854
124,489	Harper et al.	Mar. 12, 1872
291,269	Bailey	Jan. 1, 1884
303,463	Seiler	Aug. 12, 1884
351,106	Hansen	Oct. 19, 1886
858,994	Krahenbuhl	July 2, 1907
2,053,639	Sjodin	Sept. 8, 1936

FOREIGN PATENTS

Number	Country	Date
30,433	Germany	June 7, 1884
68,797	Norway	July 13, 1943