

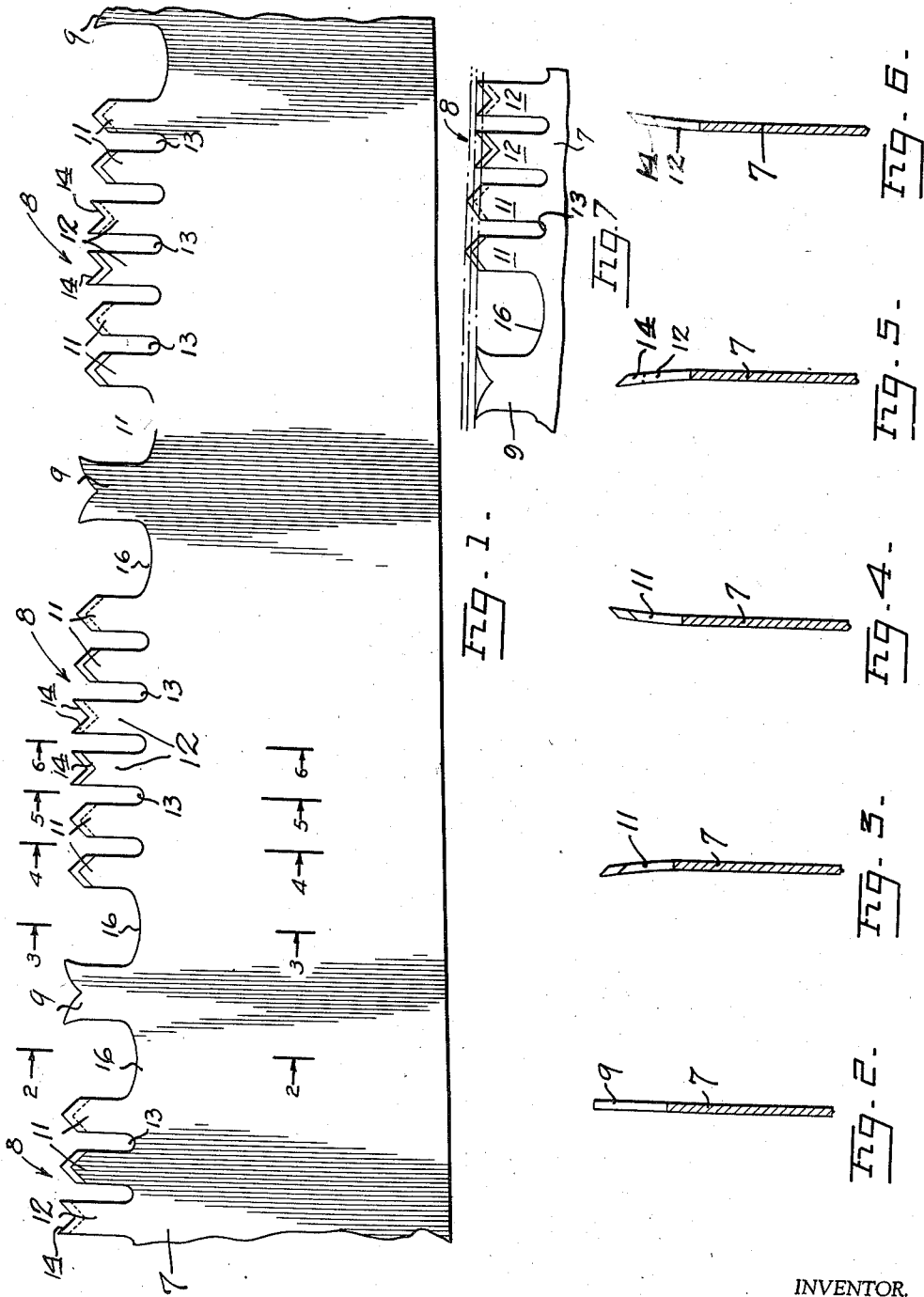
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SAW BLADE

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2,194,785

SAW BLADE

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1 Claim. (Cl. 143—133)

This invention relates to saws.

The primary object of this invention is to provide a crosscut saw-blade which penetrates the wood while sawing, cuts it away and removes the wood from the bottom of a kerf, or cross cut with greater ease and rapidity, by reason of an arrangement of serrations with auxiliary half-rakers, or beveled-rakers in such a formation as to facilitate the entering of the cutting teeth into the kerf, without crushing the wood aside with the ride on the shoulders of the cutting teeth while so doing.

Another object of this invention is to provide a crosscut saw which shall be more useful than other models while as simple in construction; comparative inexpensive over other models in manufacture is a further object which has been borne in mind in the production and development of this invention.

I am aware that many diversities of form may be made in the general arrangements as combinations of the several devices and parts, as well as in the details of the construction thereof, without departing from the scope of this invention as set forth in the following specification, and as defined in the following claim; hence I do not limit my invention to one exact arrangement of combinations of the several devices and parts as described in the said specification, nor do I confine myself to the exact construction of the said devices and parts as illustrated in the accompanying drawing.

With the foregoing and other objects in view, which will be made manifest in the following detailed description and specifically pointed out in the appended claim, reference is had to the accompanying drawing for the illustrative embodiment of the invention, wherein:

Fig. 1 is a fragmental side view of a cross cut saw constructed in accordance with my invention.

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1.

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 1.

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 1.

Fig. 6 is a sectional view taken on the line 6—6 of Fig. 1.

Fig. 7 is a fragmental view of the saw blade showing the lengths of the teeth exaggerated for illustrating the relative lengths of the teeth.

In its general organization my invention in-

cludes a saw-blade 7 the cutting edge of which is provided with teeth arranged with spacings in groups 8, and with a forked regular-raker 9 between both spaces which are between it and the adjacent pair of cutting-teeth on either and both sides and at each end of the groups 8. The number of cutting-teeth, half-rakers and regular-rakers in the illustrated form of combination are such as to provide a maximum cutting efficiency yet also provide for ease of operation by relieving the pinch of the entering points as they crush the wood aside under the shoulders of the cutting teeth while the saw cuts deeper.

In detail of the preferred form, each group 8 preferably includes six teeth, with the two teeth at each end of each group as cutting-teeth, or slicing teeth 11, the central, forked teeth third and fourth of each group 8 are auxiliary half-raker or beveled-raker teeth 12. The cutting-teeth and the forked half-raker teeth are of the same width. The spacings 13 between all of the teeth of each group 8 are equal, or optionally otherwise with slightly more width between the half-rakers 12 and between them and the two pairs of cutting teeth 11 on either and on both sides of the half-rakers 12.

Each half-raker, or beveled-raker 12 is forked with double points and its width is substantially less than the width of a regular-raker 9. The reversed twin-points 14 of each half-raker, or beveled-raker 12 are formed by a beveled V notch in its cutting end to form a fork with its two points square across the serrated edge of the saw-blade, on the outside of each work, or reversed-twin points.

The points of the cutting-teeth 11 and the reversed-twin points of the half-rakers 12 of each group 8 are beveled alternately in opposition to each one following in succession, and each one is bent, or offset alternately the same, the offset given toward the non-beveled side of each forked point together as one to either side with each one of the pair of half-rakers 12 in each one of the groups 8, opposed to its mate, and to the next adjacent cutting-tooth 11. The half-raker teeth are given approximately the same offset from the plane of the saw-blade, yet slightly less rather than more than is given to the cutting teeth.

It is to be noted that the spacings 16 between each group of teeth 8 and the adjacent raker 9 are greatly wider than other spacings. It is also to be noted that the cutting teeth 11 are the longest, the rakers 9 are the shortest, and the length of the half-rakers 12 is preferably

the least amount shorter than the length of the cutting-teeth 11 and longer than that of the regular-rakers 9. In other words the half-rakers 12 are the least amount shorter than the cutting-teeth 11 so as to follow the entrance into the wood made by the cutting-teeth 11, continually clearing away the ride of the shoulders of the cutting-teeth 11. These half-rakers 12 alternate in pairs with the regular-rakers 9 between pairs of cutting teeth 11.

10 The regular-rakers 9 plane out a thicker shaving as easily as a thinner one and are sufficiently shortened to not lift deeper than the advance of the cutting-teeth 11 into the wood.

15 This invention of a new-model crosscut saw heretofore described is agreeable to operation and efficient as well, because it is provided with the proper number of cutting-teeth 11 and regular-rakers 9 and also has assisting half-rakers 20 12 which cut the way for the cutting-teeth 11 to enter the wood faster by eliminating the shoulder-ride of the cutting-teeth 11 as they lead the way into the wood deepening the kerf, or cross cut all the while. At the same time these half-rakers 25 reduce the width of the material-strip, lifted by the regular-rakers thereby eliminating also much drag of the saw passing through the

kerf before the shavings are discharged, so easing its operation. A further superiority over other models is that the same sharpening is used for all sorts of woods, harder woods cut the same as softer varieties, the same relative length of 5 teeth and rakers as well with all.

I claim:

A saw-blade comprising a steel body-strip, a plurality of groups of spaced teeth on the serrated edge of said body-strip, a regular-raker of 10 the serrations between each of said groups of teeth; each of said groups of teeth including a pair of auxiliary half-rakers of the serrations as the third and the fourth formation of each of said groups, and a pair of cutting-teeth at each 15 end of said group; said auxiliary half-rakers of the serrations being shorter than the cutting-teeth and longer than the regular-rakers of the serrations; said regular rakers of the serrations being wider than the width of the other formed 20 serrations and being spaced from each adjacent group of serrations at a measure of wider distance than all other spacings; the outer end of each serration of half-raker being forked to a 25 beveled V notch as reversed-twin points.

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