(No Model.)

E. M. BOYNTON.

CROSSCUT SAW.

No. 253,671. Patented Feb. 14, 1882.

Fig. 1.

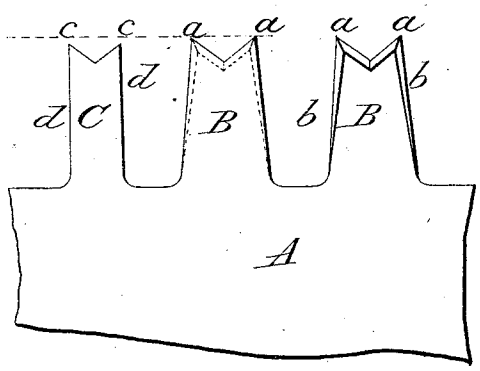
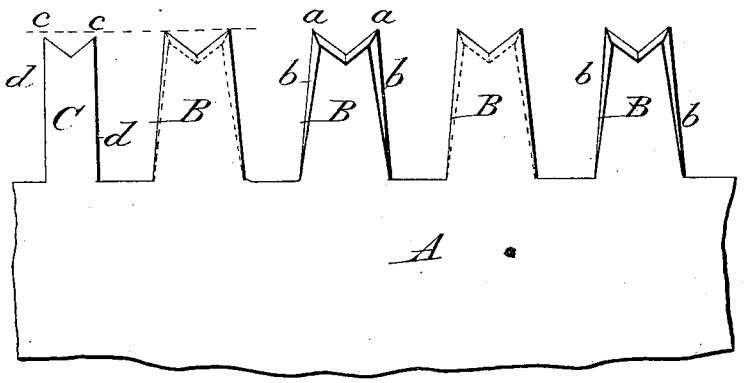


Fig. 2.



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UNITED STATES PATENT OFFICE.

EBEN M. BOYNTON, OF WEST NEWBURY, MASSACHUSETTS.

CROSSCUT-SAW.

SPECIFICATION forming part of Letters Patent No. 253,671, dated February 14, 1882.

Application filed December 19, 1881. (No model.)

To all whom it may concern:

Be it known that I, EBEN MOODY BOYNTON, a citizen of the United States, residing at West Newbury, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Crosscut-Saws, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to crosscut-saws having cutting-teeth of the class for which Letters Patent No. 175,330 were granted to me March 28, 1876; and the invention consists in the combination therein of a clearing-tooth arranged alternately with two or more cutting-teeth, as hereinafter more fully described.

In the annexed drawings, which fully illustrate my improvement, Figure 1 represents a side view of a portion of a saw in which a clearing-tooth is arranged alternately with two of my improved lightning-saw teeth; and Fig. 2 is a similar view in which the clearing-tooth is arranged alternately with four of such cutting-teeth.

A denotes the saw-blade, which is provided with cutting-teeth B and clearing-teeth C. The cutting-teeth B are of the ordinary M-form, in which the two points *a a* are dressed to cut in line, while the outer cutting-edges, *b b*, of each tooth are formed with a slight inclination outward from the points in order that the escape of sawdust from the spaces between the teeth may be facilitated. This construction also gives a wider space for filing and increases the efficiency of the saw in cutting through resinous, wet, or green lumber.

The clearing-teeth C are formed with points *c c* and vertical edges *d d*, and are shorter than the cutting-teeth by about the one thirty-second ($\frac{1}{32}$) of an inch. These clearing-teeth are arranged alternately with two or more cutting-teeth, the number of the latter being preferably four in each series. Owing to this construction and arrangement of the cutting and clearing teeth the saw is enabled to run much more steadily while in operation than clearing-toothed saws heretofore in use, from the fact that not more than half as many teeth are shortened, and yet the clearance is perfect, for the reason that the cutting-teeth themselves, with their almost direct cutting f ces, will accomplish a portion of the necessary clearing.

The advantages of this saw, which I call the "Lightning Champion Saw," are its steadiness and efficiency of operation, together with the facility with which a perfect clearance is effected.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The saw A, having M-shaped cutting-teeth B, each provided with two points, *a a*, dressed to cut in line, and two outer cutting-edges, *b b*, slightly inclined outward from the points, and the M-shaped clearing-teeth C, having points *c c* and vertical edges *d d*, said clearing-teeth being arranged alternately with two or more of said cutting-teeth, substantially as shown and described.

EBEN MOODY BOYNTON.

In presence of—
W. S. LEWIS,
W. RASQUINN, Jr.,
T. J. HARRIS.