

(No Model.)

M. L. SHUSTER.  
INSERTIBLE SAW TOOTH.

No. 542,378.

Patented July 9, 1895.

Fig. 1.

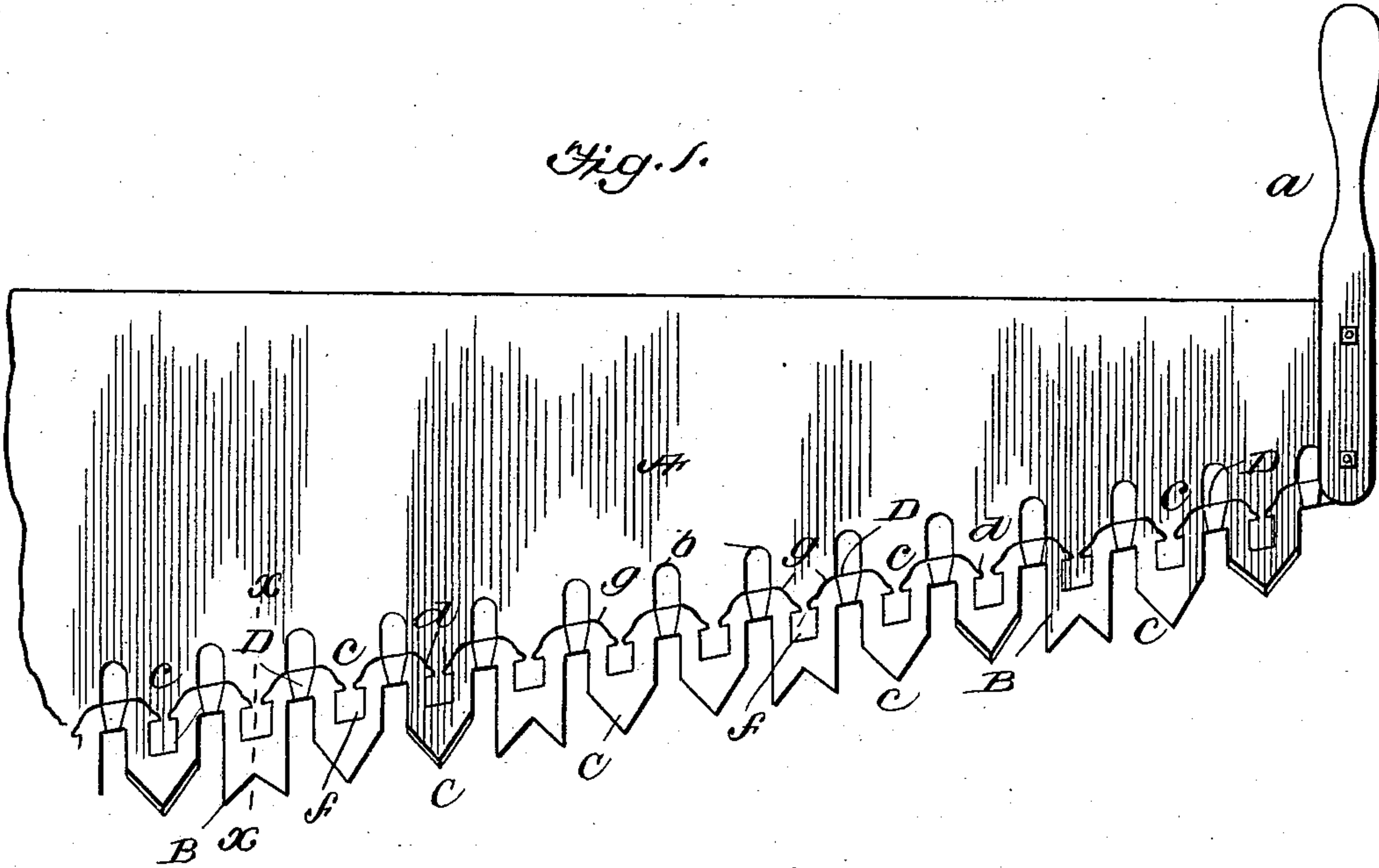


Fig. 3.

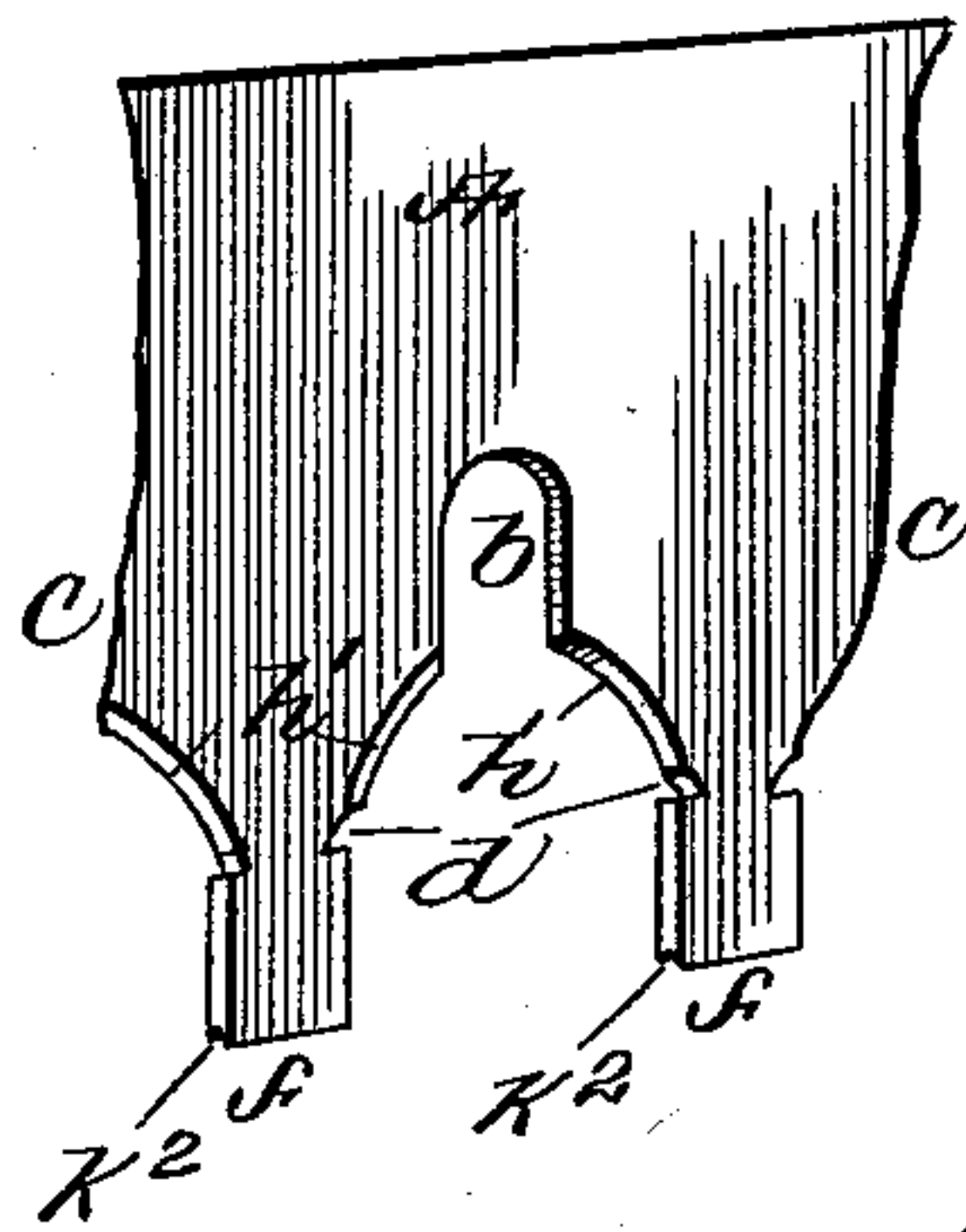


Fig. 2.

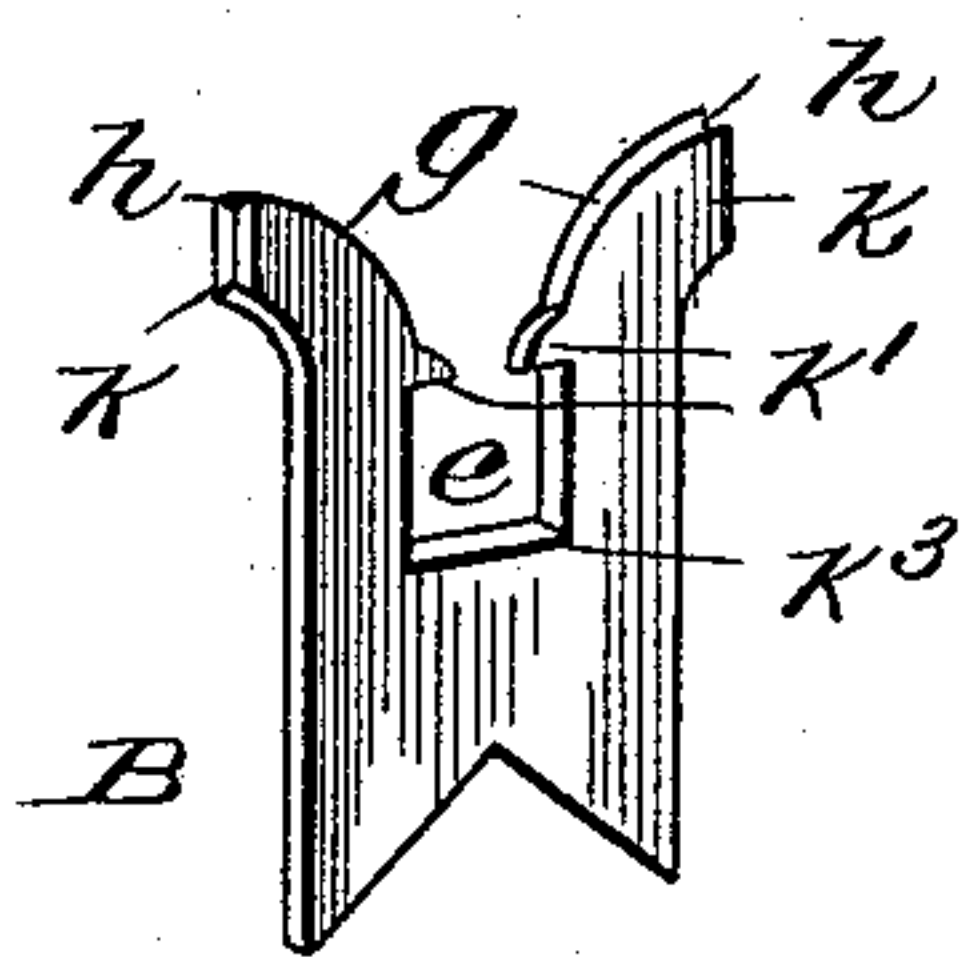


Fig. 4.

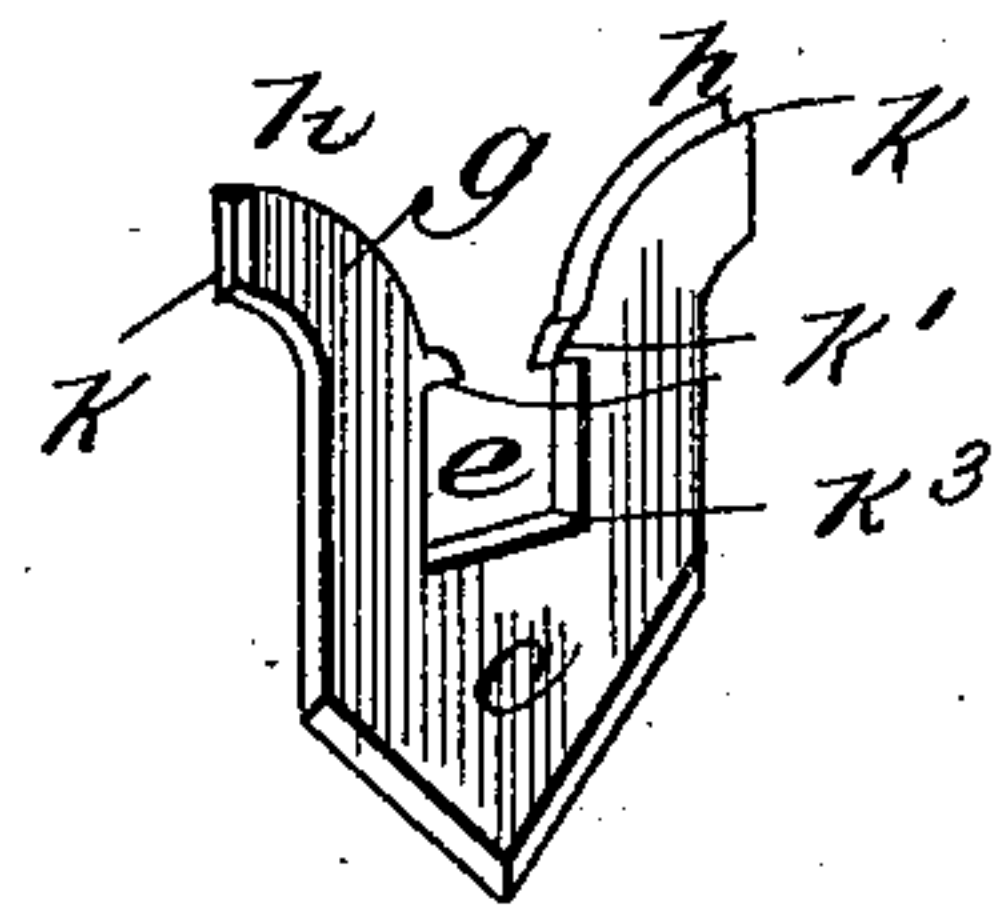


Fig. 5.



Fig. 6.



Witnesses  
John Miller  
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Inventor  
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by J. W. Bond  
Attorney



# UNITED STATES PATENT OFFICE.

MATHIAS L. SHUSTER, OF MINERAL POINT, OHIO, ASSIGNOR OF ONE-HALF  
TO ELMER C. JESSE, OF SAME PLACE.

## INSERTIBLE SAW-TOOTH.

SPECIFICATION forming part of Letters Patent No. 542,378, dated July 9, 1895.

Application filed April 12, 1895. Serial No. 545,540. (No model.)

*To all whom it may concern:*

Be it known that I, MATHIAS L. SHUSTER, a citizen of the United States, residing at Mineral Point, in the county of Tuscarawas and State of Ohio, have invented certain new and useful Improvements in Insertible Saw-Teeth; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a view showing a portion of the blade and illustrating the teeth properly attached thereto. Fig. 2 is a detached view of a tooth provided with two cutting-points. Fig. 3 is a view showing a portion of a saw-blade with the teeth removed. Fig. 4 is a detached view of a tooth provided with a single cutting-point. Fig. 5 is a transverse section through line  $x x$ , Fig. 1. Fig. 6 is a detached view of one of the wedges or keys.

The present invention has relation to insertible saw-teeth, especially designed for what is known as "cross-cut saws;" and it consists in the novel construction hereinafter described, and particularly pointed out in the claims.

Similar letters of reference indicate corresponding parts in all of the figures of the drawings.

In the accompanying drawings, A represents the saw-blade, which is constructed in the ordinary manner, reference being had to attaching and securing the insertible teeth as hereinafter described.

To the blade A and at the ends thereof are attached handles, such as  $a$ , which handles may be attached in any desired manner, inasmuch as the handles form no particular part of the present invention. The blade A is provided with the desired number of recesses  $b$ , which recesses extend into the blade, substantially as illustrated in Figs. 1 and 3, and for the purpose hereinafter described. Between the recesses  $b$  are located the arms  $c$ , which arms are provided with the shoulders  $d$ .

The teeth B and C are each provided with the openings  $e$ , which openings are formed of a size to correspond with the size of the heads  $f$ , said heads being formed integral with the

arms  $c$ . The teeth B and C are each provided with the curved arms  $g$ , the inner edges of which are provided with the V-shaped grooves  $h$ , which grooves receive the corresponding V-shaped ridges  $h'$ , formed upon the edges of the arms  $c$ , which edges are curved to correspond with the curvature of the arms  $g$ . The lateral edges of the arms  $g$  are provided with the V-shaped ridges  $k$ , said ridges being for the purpose of receiving the V-shaped grooves formed in the edges of the keys or wedges D, which keys or wedges are for the purpose hereinafter described. The inner edges of the arms  $g$  are provided with the lugs  $k'$ , said lugs being for the purpose of engaging the shoulders  $d$ , as illustrated in Fig. 1.

In use the saw-blade A is originally formed with the recesses  $b$  and the arms, by which arrangement the teeth B and C can be attached to the blade. The teeth B and C are placed in their relative position by springing the arms  $g$  over the heads  $f$ , and after the arms  $g$  have been brought past the shoulders  $d$ , said arms will assume their normal position, thereby bringing the lugs  $k'$  into engagement or contact with the shoulders  $d$ .

It will be understood that the arms  $g$  of the teeth B and C will require but little springing to pass the heads  $f$ . Before the teeth B and C are placed in position upon the saw-blade proper the wedges or keys D are entered into the recess  $b$ , and after the teeth have been placed in position said wedges are forced between the arms  $g$  of two adjacent teeth, thereby securely fastening the teeth.

For the purpose of assisting in holding the keys or wedges D in proper position and at the same time preventing any accidental displacement of the keys or wedges and the teeth, the wedges may be, and preferably are, magnetized.

For the purpose of assisting in holding the teeth in proper position and preventing any lateral or tilting movement of the teeth, the heads  $f$  are provided with the V-shaped grooves  $k^2$ , which grooves receive the V-shaped ridges  $k^3$ .

In the description I have described the location of the various V-shaped grooves and ridges, but it will be understood that the locations of said ridges and grooves may be

transposed without departing from the nature of my invention.

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

1. The combination of the blade A, provided with the recesses *b*, extended into the blade, the arms *c* formed integral with the blade, and provided with the shoulders *d* and the heads *f*, the teeth provided with the openings *e* the lugs *k'* and the curved arms *g*, provided with grooves *h*, and the keys or wedges D located between the teeth, substantially as and for the purpose specified.

2. The combination of the blade A, pro-

vided with the recesses *b*, extended into the blade, the arms *c*, formed integral with, the blade, the teeth provided with openings the lugs *k'* and curved arms formed integral with the teeth and provided with V-shaped grooves and lugs, the shoulders *d*, and the wedges D, all arranged substantially as described and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

MATHIAS L. SIJUSTER.

Witnesses:

J. A. JEFFERS,

F. W. BOND.