(No Model.)

# E. C. MULFORD.

## Saw Tooth.

**No. 236,690.** **Patented Jan. 18, 1881.**

*Fig. 1.*

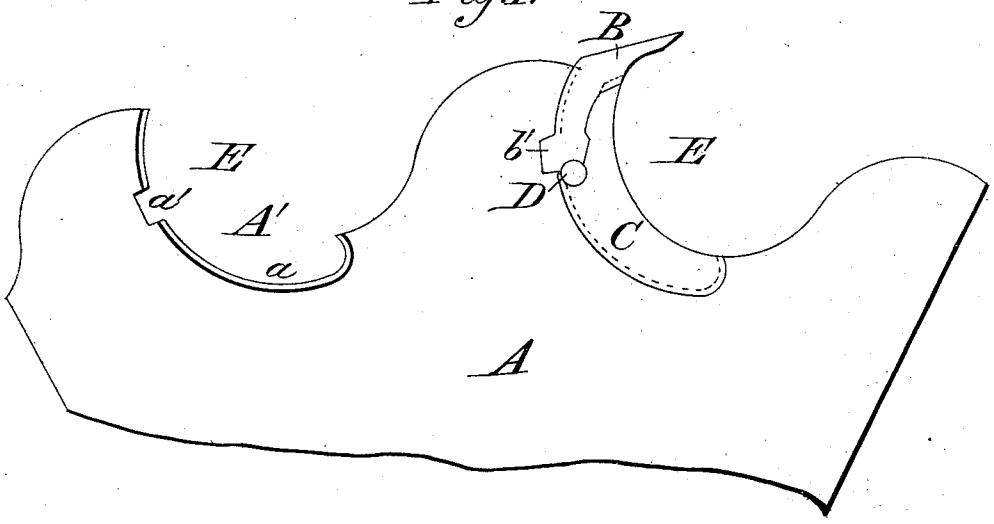



*Fig. 2.*

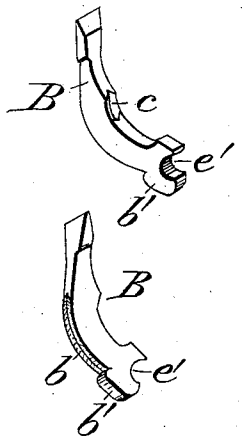
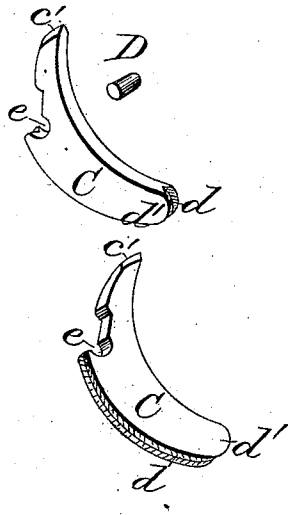



*Fig. 3.*




*Attest:*

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# UNITED STATES PATENT OFFICE.

EWING C. MULFORD, OF TRENTON, NEW JERSEY.

## SAW-TOOTH.

SPECIFICATION forming part of Letters Patent No. 236,690, dated January 18, 1881.

Application filed December 2, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, EWING C. MULFORD, a citizen of the United States, residing at Trenton, in the county of Mercer and State of New Jersey, have invented certain new and useful Improvements in Saw-Teeth; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to that class of insertible saw-teeth which are secured to the saw-plate by means of a locking-shank and rivet, so that they may be readily detached and replaced without the necessity of employing any special implement; and the invention consists in certain details of construction and peculiarities of form in the tooth, locking-shank, and recessed saw-plate, as hereinafter more fully described and claimed.

In the drawings, Figure 1 represents a side view of a portion of saw-plate, showing a tooth secured in one recess, while another recess is left vacant, in order to show its form more clearly. Fig. 2 shows views of the saw-tooth, and Fig. 3 views of the locking-shank and rivet.

A is a saw-blade, the throat of which is provided with a large recess, A′, having a beveled edge or triangular tongue, *a*, extending throughout its length, to engage with corresponding V-shaped or triangular grooves on the inner edges of the tooth B and locking-shank C. Within the large recess is formed a smaller recess, *a′*, for the reception of a projection, *b′*, on the inner edge of the saw-tooth. The tooth B is expanded or swaged at its cutting-point, as shown in Fig. 2, and is provided on its inner edge with a triangular groove, *b*, and projection *b′*, for engaging with the triangular edge *a* and recess *a′* of the saw plate or blade. The front or outer edge of the tooth has an irregular or indented outline, which engages with one end of the locking-shank C, and is provided with a recess or socket, *c*, for the reception of the beveled point *c′* on the extreme end of said shank. This locking-shank C is formed as shown in Fig. 3, and has upon its inner edge a triangular groove, *d*, extending from its rounded end *d′* to the semicircular recess *e*, which forms, in connection with the corresponding recess *e′* in the end of the saw-tooth, an orifice for the reception of the rivet D, which, when placed in position, secures the parts, and assists, in connection with the grooves *b d* and tongue *a*, to prevent lateral movement thereof.

It will be observed that the locking-shank C, being in length less than one-half of the throat-space E, may be readily removed without having to take out the tooth and without the need of employing a wrench to disconnect the parts, which may be easily separated as soon as the rivet is removed.

I am aware that saw-teeth have been secured to the blade by means of screws or rivets inserted in one or more orifices made partly in the tooth or locking-shank and partly in the saw-blade, and that a saw-tooth and locking-shank adapted to recesses cut in the blade are not new. These, however, I do not broadly claim; but,

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

1. The insertible saw-tooth B, having on one edge the triangular groove *b* and projection *b′*, and on its opposite edge the recess *c* and semicircular recess *e′*, substantially as and for the purposes specified.

2. The saw-tooth B, provided with triangular groove *b*, projection *b′*, and recesses *c e′*, in combination with the recessed blade A and suitable locking devices, substantially as shown and described.

3. The combination, with the saw-blade A, having recesses A′ *a′* and triangular tongue *a*, of the tooth B, provided with the triangular groove *b*, projection *b′*, and recesses *c e′*, the locking-shank C, having triangular groove *d*, recess *e*, and beveled point *c′*, and the rivet D, all constructed, arranged, and operating substantially as and for the purposes specified.

In testimony whereof I affix my signature in presence of two witnesses.

EWING C. MULFORD.

Witnesses:

LEWIS PARKER, Jr.,

WM. H. YARD.