J. E. EMERSON.

Saw-Teeth.

No. 151,371. Patented May 26, 1874.

Fig. 1.

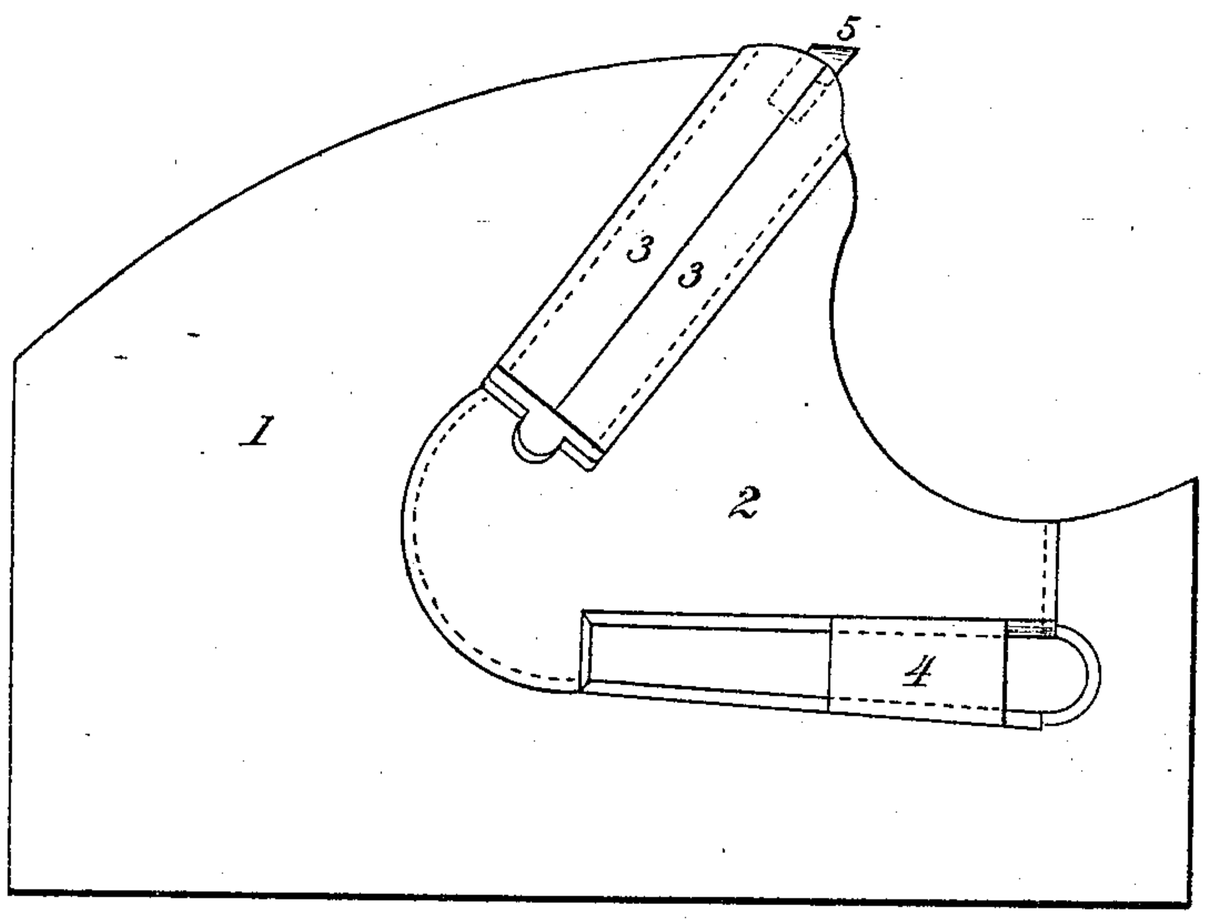


Fig. 2.

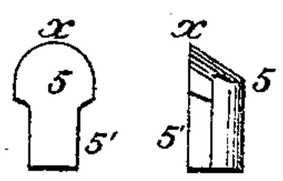
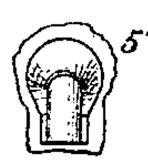


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES E. EMERSON, OF BEAVER FALLS, PENNSYLVANIA.

IMPROVEMENT IN SAW-TEETH.

Specification forming part of Letters Patent No. **151,371**, dated May 26, 1874; application filed April 22, 1874.

CASE A.

To all whom it may concern:

Be it known that I, JAMES E. EMERSON, of Beaver Falls, in the county of Beaver, in the State of Pennsylvania, have made certain Improvements in Removable and Exchangeable Saw-Teeth for Saws for Sawing Stone, of which the following is a specification:

The object of this invention is to produce a saw-tooth for sawing stone, that when once dulled or worn away by use a new set of teeth can be inserted in the saw-plate in less time and at much less cost than the dull ones could be sharpened; and it consists in a steel tooth, in the form shown, as an article of manufacture.

In the drawings, Figure 1 represents the side view of a section of a circular saw, 1, with a tooth, 5, inserted in a clamp-holder, 3 3, and held by the throat-piece 2 and wedge 4, and in the same manner as has been shown in patents heretofore granted me. Fig. 2 shows three views of a finished tooth; and Fig. 3, a tooth formed by a drop-die or hammer, and in an unfinished condition, with the fin 5″ upon it, as the hammer or drop-die leaves it.

This tooth 5 is made from a piece of the best steel cut from a bar or wire of the proper form to avoid waste in material. The piece is heated and subjected to a blow from a drop-hammer or die to form it into the shape seen in Figs. 2 and 3, to wit, to have the circular cutting-edge X wider than the thickness of the saw-plate and the tang 5′, by which the tooth is held in place in the clamp 3 3, with the inner end of the tang abutting against shoulders in the clamp 3 3, as seen in Fig. 1. After the forming the tooth by trimming off the fin left by the drop-die or hammer, by a finishing-die or other process, into a perfect shape, it is subjected to a process of tempering to give it the requisite hardness and toughness.

Having thus described my invention, what I claim is—

The tempered steel saw-tooth 5, herein described, as a new article of manufacture.

JAMES E. EMERSON.

Witnesses:
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