

E. R. WHITNEY.  
Harrow-Tooth.

No. 211,819.

Patented Jan. 28, 1879.

Fig. 1.

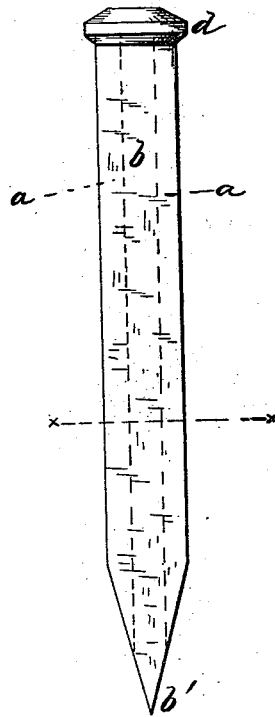


Fig. 2.



WITNESSES  
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By

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# UNITED STATES PATENT OFFICE.

EDWIN R. WHITNEY, OF MONTREAL, CANADA, ASSIGNOR OF ONE-FOURTH HIS RIGHT TO CHAS. L. BOSSÉ, OF SAME PLACE.

## IMPROVEMENT IN HARROW-TEETH.

Specification forming part of Letters Patent No. **211,819**, dated January 28, 1879; application filed June 28, 1878.

*To all whom it may concern:*

Be it known that I, EDWIN R. WHITNEY, of Montreal, in the Dominion of Canada, have invented certain new and useful Improvements in Harrow-Teeth; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention consists in a harrow-tooth having a steel center, so that it forms a self-sharpening tooth, as hereinafter more fully set forth.

In the accompanying drawings, making a part of this specification, Figure 1 represents a side view of a tooth; and Fig. 2, a cross-section of the same, taken through line *x x*, Fig. 1.

The tooth is formed of three pieces of metal. The center piece, *b*, is of steel, while the two pieces *a a*, at each side of the same, are of iron or other soft metal. The parts are rolled together, and may or may not be provided

with a head, *d*. In some cases a screw-tenon may be formed at the top instead of the head. The tooth may be of any preferable shape, and can be used either as a harrow or cultivator tooth. The steel center is about one-third the thickness of the tooth, and when in use the iron or other soft metal will wear away and form a self-sharpening tooth. The metal may be rolled in long bars and cut in lengths to suit, and then formed with a point, *b'*, on the end.

Having thus fully described my invention, what I claim is—

A harrow or cultivator tooth formed with a central steel section, *b*, and two side bars or pieces, *a a*, of softer metal, for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of May, 1878.

E. R. WHITNEY.

Witnesses:

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