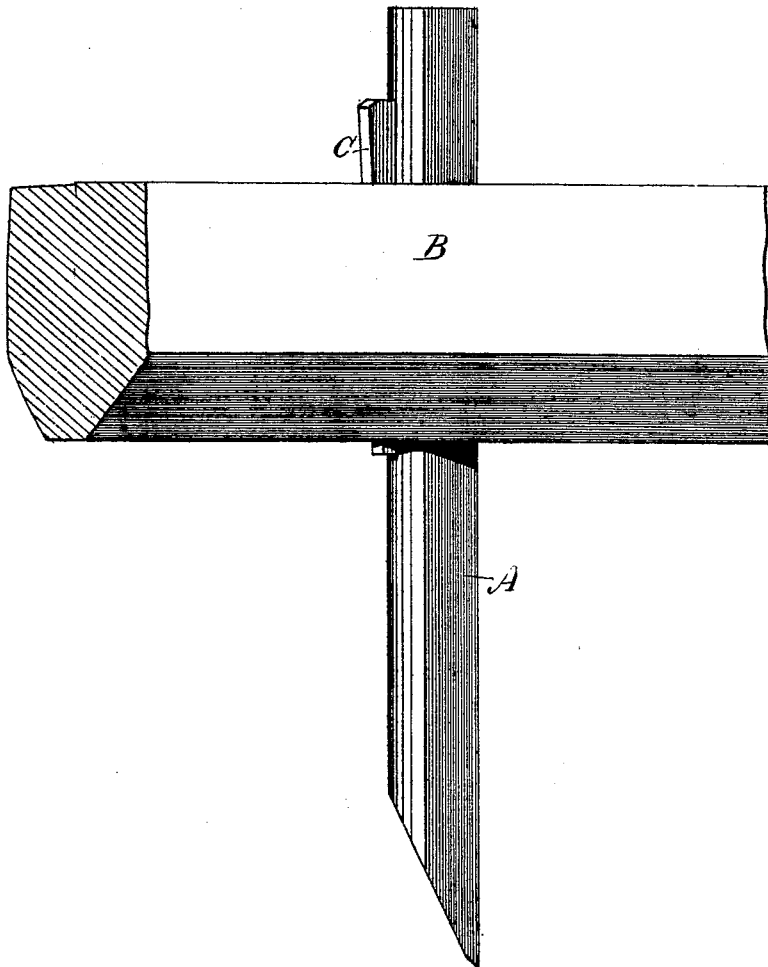


C. L. PIERCE.  
HARROW.

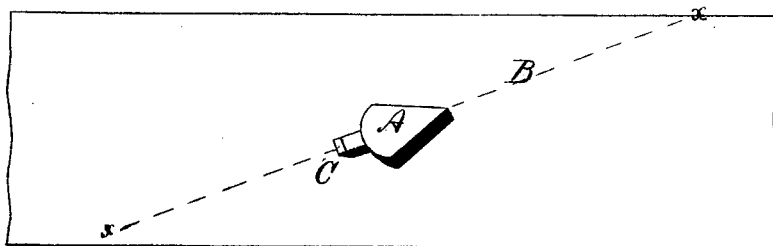
No. 183,204.

Patented Oct. 10, 1876.

*Fig. 1*



*Fig. 2.*



Witnesses  
*Grenville Lewis*  
*M. Church*

Inventor  
*Calvin L. Pierce*  
By *C. S. Dundy*  
*attorney*

# UNITED STATES PATENT OFFICE.

CALVIN L. PIERCE, OF FOND DU LAC, WISCONSIN, ASSIGNOR TO HENRY B. FARGO, OF SAME PLACE.

## IMPROVEMENT IN HARROWS.

Specification forming part of Letters Patent No. **183,204**, dated October 10, 1876; application filed April 28, 1876.

*To all whom it may concern:*

Be it known that I, CALVIN L. PIERCE, of the city of Fond du Lac, in the State of Wisconsin, have invented certain Improvements in Harrows and Harrow-Teeth, of which the following is a specification:

The object of my invention is to make a serviceable harrow and harrow-tooth.

The tooth is formed into an acute angle in front, and rounding on the back, is of solid steel, and so set into the harrow-bar that the acute angle of the tooth points directly in the line of motion of the harrow, and that the two sides adjacent to that angle will bear equally upon the opposing soil when the harrow is in forward motion, and the tooth fastened in place in the bar by an iron key or wedge C.

The tooth may be more or less securely fastened by the key or wedge, as the operator desires.

The drawing shows the wedge as being used, and I deem it preferable to use it in fastening the tooth, inasmuch as the tooth can not only be permanently fastened by it, but whenever it is desirable to take the tooth from the bar it can be done without bruising the point of the tooth, by simply first removing the wedge.

The harrow-bar has its lower corners beveled or rounded off. The object of that is to prevent the soil from gathering between the front of the tooth and the bar immediately over the front of the tooth, thereby saving a great weight of draft.

I am aware that a tooth in part similar in form to mine has been used.

I am also aware that a hollow V-shaped harrow-tooth fastened with a key has been used, the key being of uniform size, and fitting the inside of the tooth.

I claim as my invention—

1. A solid tooth of acute angle in front and convex back, with a flat bevel from the back side of the tooth downward to the front edge, as shown and described.

2. The combination, in a harrow, of a solid tooth of acute angle in front and convex back, as specified, the iron wedge or key to hold the tooth in place, and the bar with beveled corners on the lower side, the tooth being set in the beam with its angles equally presented to the line of draft.

CALVIN L. PIERCE.

Signed in presence of—

C. K. PIER,  
KATE PIER.