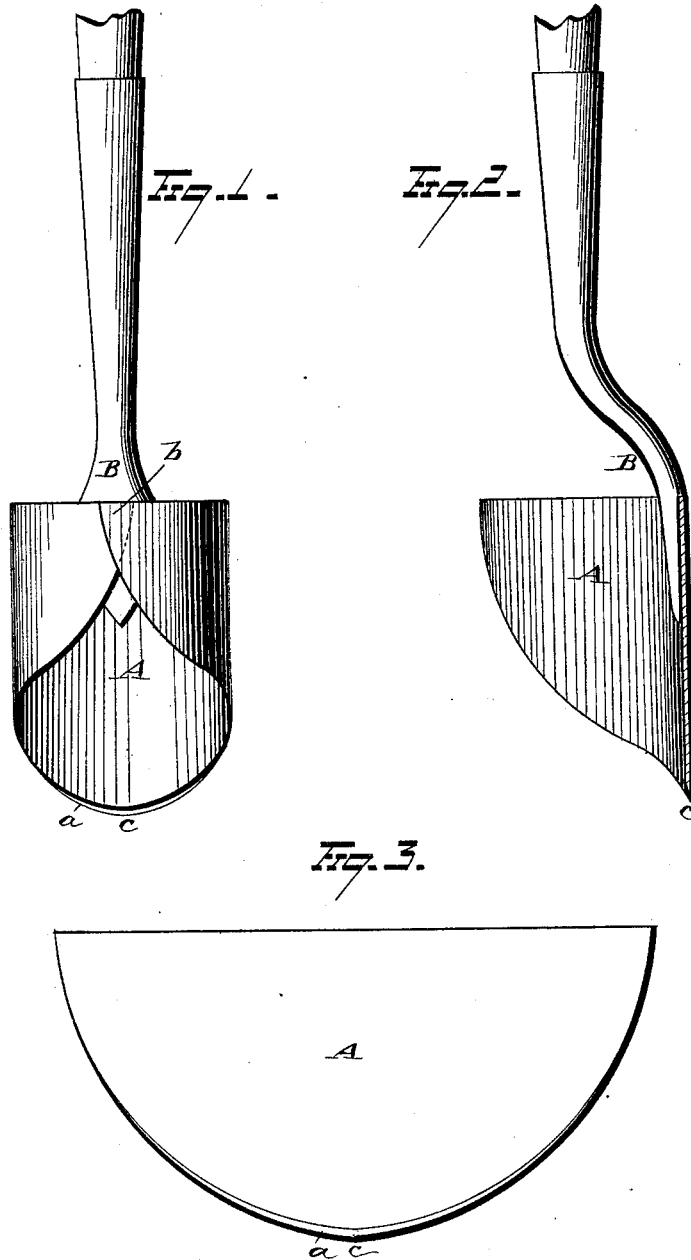


H. K. NEEDHAM.
Post-Hole Digger.

No. 220,251.

Patented Oct. 7, 1879.



WITNESSES
E. J. Nottingham
A. M. Bright

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UNITED STATES PATENT OFFICE.

HIRAM K. NEEDHAM, OF DENISON CITY, TEXAS.

IMPROVEMENT IN POST-HOLE DIGGERS.

Specification forming part of Letters Patent No. **220,251**, dated October 7, 1879; application filed May 3, 1879.

To all whom it may concern:

Be it known that I, HIRAM K. NEEDHAM, of Denison City, in the county of Grayson and State of Texas, have invented certain new and useful Improvements in Post-Hole Diggers; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to post-hole diggers, and is designed to provide a simple form of construction which will effectually accomplish the end in view, the primary feature being to adapt the blade so that it may readily penetrate the ground without difficulty from obstacles such as is experienced in the use of rotary diggers, or those which have a broad and square cutting-edge.

The invention consists in forming a blade in single metallic piece and of circular triangular form, having a bevel cutting-edge, the upper portion of the sides of the blade overlapping each other, and thence separating as they extend downward to constitute a single cutting-edge.

Referring to the drawings, Figure 1 is a view in front elevation of my digger. Fig. 2 is a sectional view, in inner side elevation, of the blade. Fig. 3 is a view of the blade before it is rolled into its circular form.

The blade A is made of a single metallic piece, which preferably is light plow-steel, and has a beveled cutting-edge, *a*. This metallic piece is rolled into the circular form shown, with the sides of the blade overlapping one another at their upper portions, *b*, and thence separating from each other as they extend down-

ward and outward to constitute the single entering-edge *c*. This construction permits the earth to be retained within the circular blade and held compressed therein as the digger is raised from out of the hole. This blade may be provided with any suitable shank, B, malleable or wrought iron being preferable, and to this may be secured a handle of desired character.

As the digger is inserted into the earth its peculiarly-shaped blade renders it very effective in loosening and removing the ground, and it is apparent that any desired size of post-hole may be made, inasmuch as the earth is first loosened by repeated thrusts, and is then retained by compression within the circular blade until removed from the hole, when a slight jar or shock will free the blade from all earth.

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

The combination, with the blade, whose single metallic piece is rolled in triangular circular form, having its forward portion shorter than its rear portion, of the shank secured to the latter, the forward sides of said blade overlapping at their upper extremities, and thence extending diagonally downward and rearward in opposite directions to form the single rear entering-edge, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of April, 1879.

HIRAM K. NEEDHAM.

Witnesses:

H. H. HALL,
R. M. GRUBBS.