

W. H. DICKEY.
Cultivator.

No. 215,106.

Patented May 6, 1879.

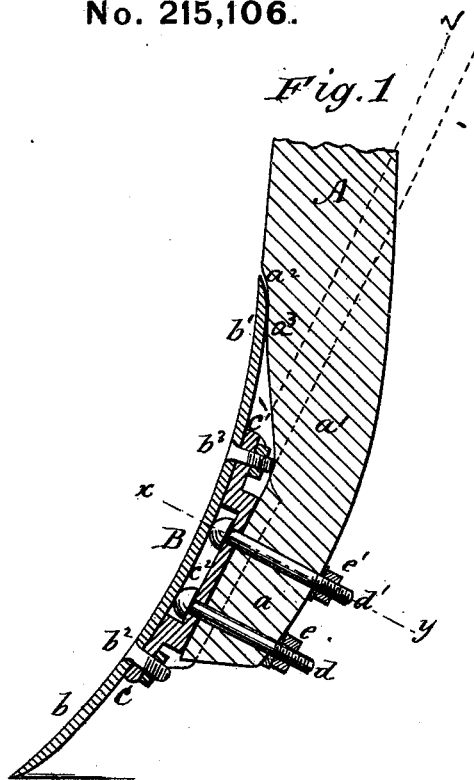


Fig. 2.

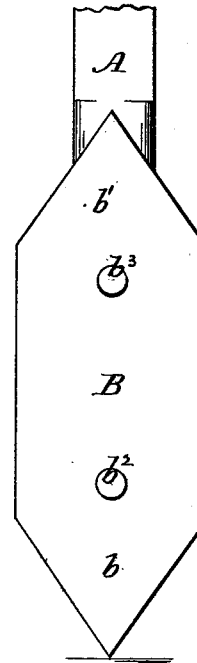
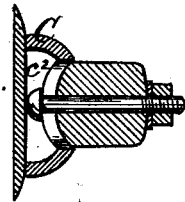


Fig. 3



Witnesses:

W.B. Masson

John S. Barker.

Inventor:

William H. Dickey

by H. H. Douladay
att'y.

UNITED STATES PATENT OFFICE.

WILLIAM H. DICKEY, OF JACKSON, MICHIGAN.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **215,106**, dated May 6, 1879; application filed December 4, 1878.

To all whom it may concern:

Be it known that I, WILLIAM H. DICKEY, of Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Cultivators; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 letters of reference marked thereon, which form a part of this specification.

Figure 1 is a vertical section of my improvement. Fig. 2 is a front view. Fig. 3 is a horizontal section taken on line *x y*, Fig. 1.

The first part of my invention relates to the construction of a wooden plow-standard for a cultivator in such manner as to facilitate the application thereto of a plow or hoe blade under such arrangement that the blade can be rotated in a substantially horizontal plane about the standard, with its upper end in such close contact therewith as to prevent stubble, weeds, or other foreign matter from passing between the upper point of the blade and the standard, and also so that the blade can be reversed when required without disturbing a proper working relation between the reversed blade and the other parts of the cultivator, while at the same time the standard may be constructed from the smallest-sized piece of wood which is compatible with the requisite strength, thereby effecting a saving in material, and also in the weight of the completed cultivator.

In the drawings, A represents the upper portion of the standard, constructed with straight parallel sides, as indicated in the drawings. *a* is the lower part of the standard, made with its front face circular in cross-section, as shown in Fig. 3, and straight in longitudinal section, as shown in Fig. 1. The portion *a'*, which is intermediate between the lower part, *a*, and the upper part, A, is tapering, as indicated in Fig. 1, for a purpose which will soon be explained. The lower portion, *a*, is constructed at an angle to the upper portions, its lower end being inclined forward.

B is the hoe or blade, its ends *b b'* being pointed. (See Fig. 2.) It is slightly curved

in longitudinal section, and may be either curved or flat in cross-section, as is preferred.

C is a metallic supporting or clamping block, secured firmly to the standard by means of bolts *d d'* and nuts *e e'*, which pass through transverse slots *c'*, that part of the block which rests upon the standard being circular in transverse section (see Fig. 3) and straight in longitudinal section. (See Fig. 1.) Thus this block can be rotated laterally upon the standard, and secured firmly in position by means of screw-bolts, because such change in position does not disturb the accuracy with which the curved surface of the block fits the curved surface of the standard.

The bolts *d d'* are placed, respectively, equidistant from the bolts *b' b''*, which secure the blade to the block, so that if the blade and block be inverted upon the standard the upper point of the blade will reach the same position relative to the part *a'* of the standard as is indicated at *a''*, Fig. 1.

By examining Fig. 1 it will be seen that the upper end, *b'*, of the blade occupies a position substantially parallel with the front inclined face of the part *a'* of the standard, and is in close proximity thereto, this relation of parts growing out of the fact that while the blade B represents an arc of a circle the part *a* of the standard forms an angle with parts A *a'* of the standard.

Now, it is evident that by forming the front face of part *a* circular in cross-section and straight in longitudinal section, I am enabled to rotate the block C and blade B about the standard, while at the same time, by arranging the part *a* at an angle to the part A of the standard, I insure that the upper end of the blade B shall approach the standard so closely as to prevent the entrance of objectionable matter between the blade and the standard at this point.

By an examination of Fig. 1 it will be seen that I effect a great saving in the width of the standard by thus forming the part *a* at an angle to the part A, it being apparent that if it were not for this angle, and the standard were of the same width as that shown in the drawings, its front face would occupy the position indicated by the dotted line 1 2, Fig. 1, and that

in order to have the standard fill up the space between this dotted line 1 2 and the upper point of the blade it (the standard) would have to be very much wider than that which I propose to employ, thus necessitating not only an increase in the material used, but a great increase in the weight of the cultivator.

A further improvement is effected by beveling the standard between the point a^2 and the upper end of the part a , the result of this construction being that, owing to the curved form of the blade, its upper end lies nearly parallel to this beveled front face of the standard, between a^2 and a^3 , so that when the wearing off of one point of the blade necessitates its being inverted it may be reversed without leaving an open space at its upper end for weeds or stubble to enter.

What I claim is—

The standard A, with its lower section, a , inclined forward and provided with a circular face, in combination with the rotating block C and reversible shovel B, whereby the shovel may be rotated upon the standard and its upper point remain in close proximity to the upper section of the standard, substantially as shown and described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WM. H. DICKEY.

Witnesses:

J. C. BONNELL,

GEO. S. BENNETT.