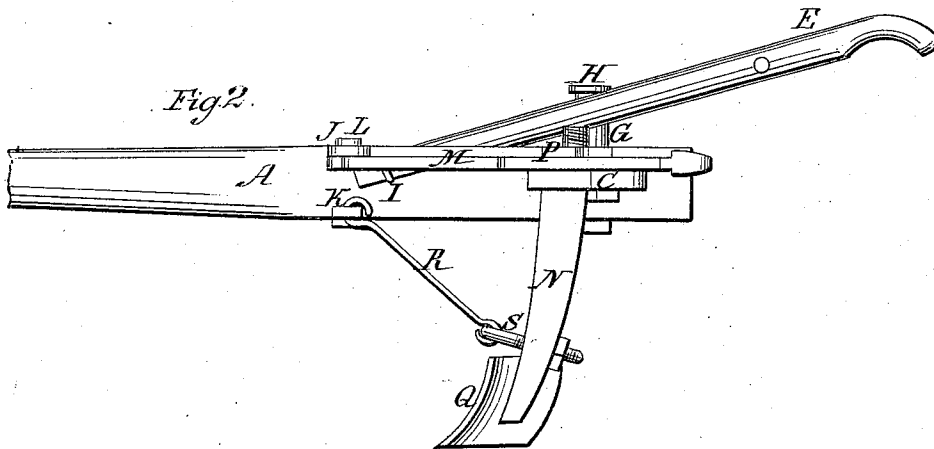
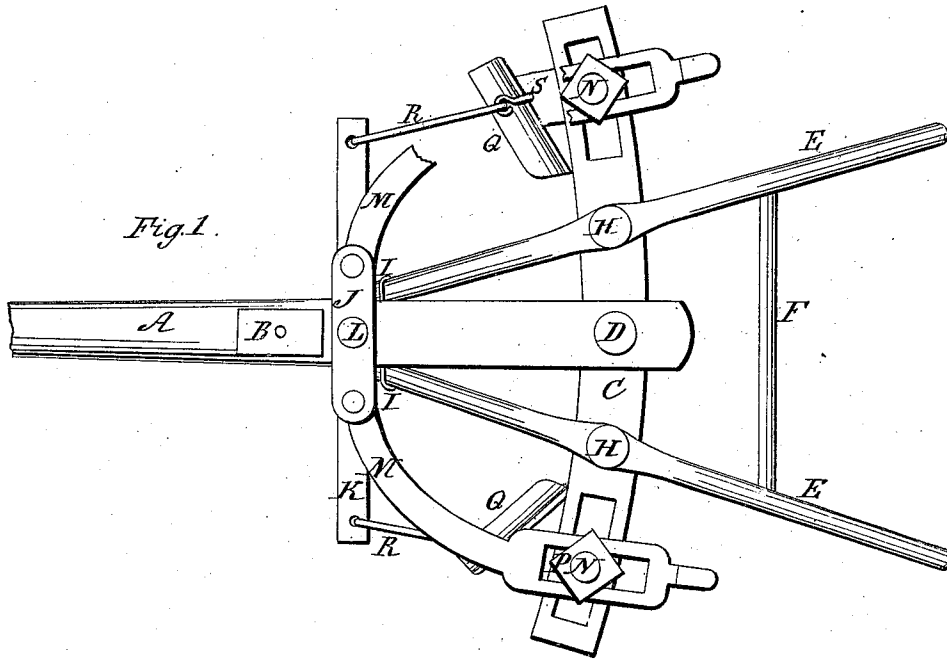


GEISINGER & WILLIAMS.

Cultivator.

No. 30,963.

Patented Dec. 18, 1860.



Witnesses.
Fred K. Sawty.
Wm. H. Bates.

Inventors.
J. B. Geisinger.
D. W. S. Williams.
By their Atty of Dennis J.

UNITED STATES PATENT OFFICE.

J. B. GEISINGER AND D. H. S. WILLIAMS, OF MONTVILLE TOWNSHIP,
MEDINA COUNTY, OHIO.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 30,963, dated December 18, 1860.

To all whom it may concern:

Be it known that we, JOHN B. GEISINGER and DARIUS H. S. WILLIAMS, of Montville township, in the county of Medina and State of Ohio, have invented a new, useful, and Improved Cultivator or Horse-Hoe; and we do hereby declare that the same is described and represented in the following specification and drawings.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation, referring to the drawings, in which the same letters indicate like parts in each of the figures.

Figure 1 is a plan, and Fig. 2 a side elevation, of our improved cultivator.

The nature of our invention consists in the arrangement of devices hereinafter described.

In the accompanying drawings of our improved cultivator, A is the beam, which is represented as broken off.

B is the hole for the single-tree bolt for the animals which draw the cultivator.

C is a curved bar of metal inserted in a mortise through the rear end of the beam A and fastened by the bolt D.

E E are handles connected by the bar F, and supported by the blocks G and fastened by the bolts H H, which pass through the handles, blocks, and bar C. The face ends of the handles are fastened to the sides of the beam by the staples I I, as shown in Fig. 1.

J is a bar on the top of the beam, and K a bar placed under the beam, and both of these bars are fastened firmly to the beam by the bolt L.

M M are curved braces, one of which is represented as broken away to show the parts be-

low it. These braces are hinged to the bar J, and extend back across the bar C, where the braces and bar are both slotted, as shown in the drawings, for the ends of the standards N N, which pass through the slots and are fastened by the screw-nuts P P, as shown in the drawings. The standards N N are made in the form shown, and the cultivating-shares Q Q are also made in the form shown and firmly fastened to the front sides of the standards. These standards are braced by links R R from the bar K to the eyebolts S S, which pass through the standards, and are provided with screw-nuts, so that they may be adjusted as required. The standards are shown in Fig. 1 in a position to make the shares throw the earth toward each other; but by changing the standards the shares may be made to throw the earth outward, or from each other.

This cultivator may be used for marking off before planting to good advantage.

We believe we have described and represented our improvements so as to enable any person skilled in the arts to make and use them. We will now state what we desire to secure by Letters Patent, to wit:

We claim—

The arrangement of the curved slotted bar C, curved slotted braces M M, hinged to bar J, standards N N, shares Q Q, eyebolts S S, links R R, bar K, bolt L, beam A, and handles E E, the whole being constructed substantially as described.

JOHN B. GEISINGER.
DARIUS H. S. WILLIAMS.

Witnesses:

SIDNEY CULVER,
ELVIRA CULVER.