

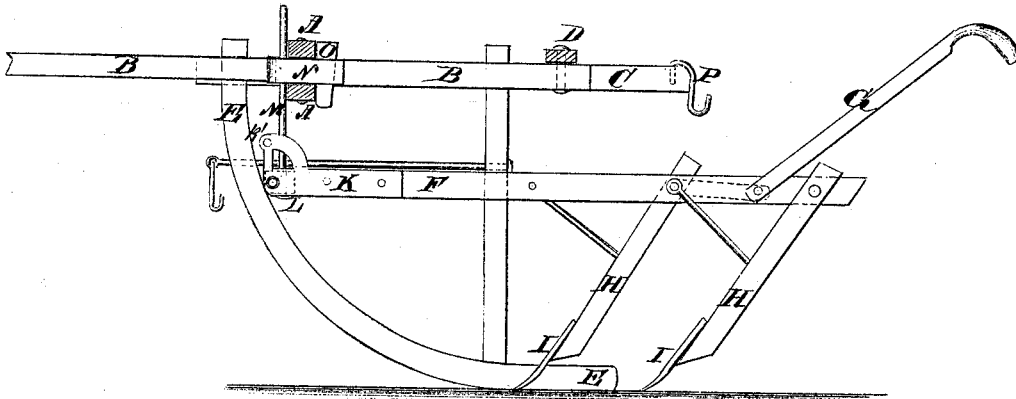
*C. P. Norton,*

*Cultivator.*

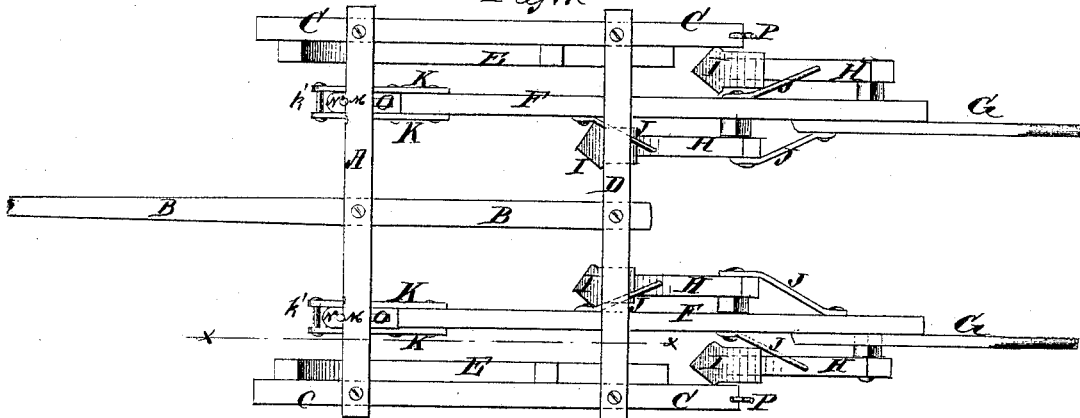
*No. 108,384.*

*Patented Oct. 18. 1870.*

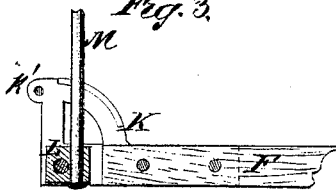
*Fig. 1.*



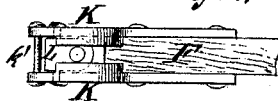
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



**Witnesses:**

*John Peckham*  
*L. J. Mabee*

**Inventor:**

*C. P. Norton*

**PER**

**Attorneys.**

# United States Patent Office.

CICERO P. NORTON, OF PRAIRIE CITY, IOWA.

Letters Patent No. 108,384, dated October 18, 1870.

## IMPROVEMENT IN CULTIVATORS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, CICERO P. NORTON, of Prairie City, in the county of Jasper and State of Iowa, have invented a new and useful Improvement in Cultivators; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a vertical longitudinal section of my improved cultivator, taken through the line *x x*, fig. 2.

Figure 2 is a top view of the same.

Figure 3 is a detail sectional view of the forward end of one of the plow-beams.

Figure 4 is a detail top view of the same.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved cultivator, which shall be so constructed that the plows may have a free vertical and lateral movement, and at the same time each horse will draw only his own plow, and which shall be simple in construction and effective in operation; and

It consists in the construction and combination of various parts of the machine, as hereinafter more fully described.

A are two bars, which are placed parallel with each other, the one above and the other below the tongue B, to which they are pivoted by a bolt passing through their middle points, as shown in fig. 2.

To and between the ends of the two bars A is pivoted the forward part of the side bars C, the rear parts of which are pivoted to the ends of the cross-bar D, the middle part of which is pivoted to the rear end of the tongue B, the loose-jointed frame A C D thus serving as a double-tree.

With the side bars of the frame A C D are connected runners E, to carry the machine as may be desired.

F are the plow-beams, to the rear parts of which are attached handles G, plow-standards H, plows I, and braces J, in the ordinary manner.

To the sides of the forward ends of the plow-beams F are securely bolted the plates K, which are made in the form and manner shown in the drawing; that is to say, upon the upper edges of their forward parts are formed upwardly-projecting parts, which are made

thicker than the bodies of the plates K, or have inwardly-projecting flanges formed upon their upper or curved edges, as shown in figs. 3 and 4.

To and between the lower parts of the forward ends of the plates K is pivoted a block, L, by a bolt passing through the said plates and block, as shown in fig. 3.

M are rods, having heads formed upon their lower ends, which rods pass up vertically through holes in the blocks L.

The forward ends of the upwardly-projecting parts of the plates K are connected with a bolt, *k*, as shown in figs. 1, 2, 3, and 4, so that they may be drawn toward each other, to bear against the rods M and to take up the wear. This construction allows the rear parts of the plow-beams to have a free vertical and lateral movement, and at the same time will always hold the plows in a vertical position.

The rods M pass up through the forward ends of the slots in the clasps or blocks N, which are placed and fit between the bars A, and which are secured in place by the wedge-keys O, driven into the rear ends of the slots in the said blocks, at the rear edges of the bars A.

In the forward edges of the bars A are formed a number of notches to receive the rods M, so that the said rods may be held securely in place, and at the same time kept in a vertical position. This construction enables the ends of the plow-beams to be readily and quickly raised and lowered, and moved toward and from each other, when required.

To the rear ends of the side bars C are attached rods P, having hooks formed upon their lower ends, upon which the brace-rods of the plow-standards may be hooked, to hold the plows away from the ground when passing from place to place.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

The arrangement of the runners E, plows F H K, rods M, blocks L, wedges O, tongue B, and jointed double-tree frame A C D, as shown and described, for the purpose set forth.

CICERO P. NORTON.

Witnesses:

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