S. R. STANTON.

Cultivator.

No. 206,903. Patented Aug. 13, 1878.

Fig. 1.

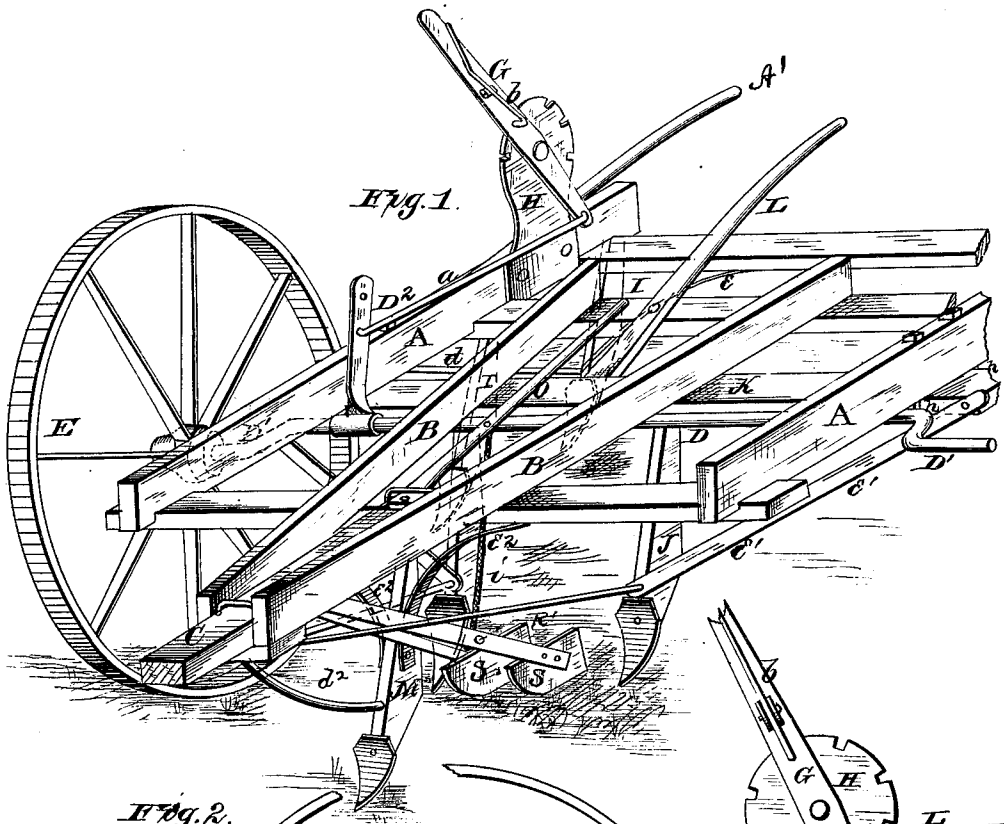
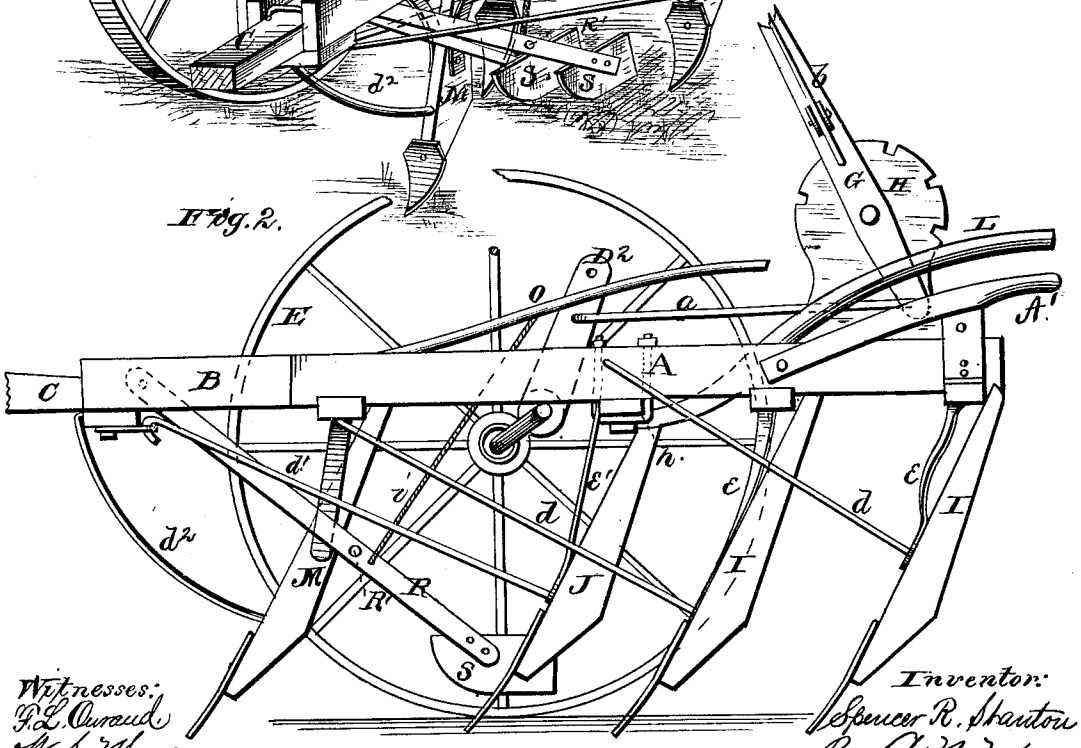


Fig. 2.



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UNITED STATES PATENT OFFICE.

SPENCER R. STANTON, OF OXFORD, MICHIGAN.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **206,903**, dated August 13, 1878; application filed November 9, 1877.

To all whom it may concern:

Be it known that I, SPENCER R. STANTON, of Oxford, in the county of Oakland 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 thereof, 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.

The nature of my invention consists in the construction and arrangement of a cultivator, as will be hereinafter more fully set forth.

In the annexed drawings, to which reference is made, and which fully illustrate my invention, Figure 1 is a perspective view of my improved cultivator, and Fig. 2 is a side elevation of the same.

A represents a frame of rectangular form, and of any suitable dimensions. On top of this frame are secured the inclined hounds B B, projecting in front of the frame, and having the tongue C attached between their front ends.

In suitable boxes or bearings on the under side of the frame A is placed an axle, D, formed at each end with a crank, D^1, upon the ends of which the wheels E E are placed. The axle D is provided, at one side of the frame, with an arm or lever, D^2, which is connected by a rod, *a*, with a lever, G, pivoted to a ratchet-plate, H, at one side near the rear end of the frame. This lever G is provided with a pawl or dog, *b*, to take into the ratchet H. By these means the axle D may be turned so as to raise and lower the frame A, as may be required in the working of the cultivator.

By this arrangement it will be seen that the plows can be raised and lowered at will, either while the operator is walking behind by means of the lever G, or when riding on a suitably-arranged seat by means of the arm D^2; and it will also be seen that to raise the plows by the upright lever G the operator will pull backward on the same, which is more convenient than if he had to push forward thereon.

The cultivator, as represented in the drawings, has seven plow-standards set in echelon.

Upon each of the two rear cross-bars of the frame are secured two plow-beams, I I, and each beam is braced by a rod, *d*, running forward to the frame, and another rod or brace, *e*, running from the side at an angle upward and inward to the same cross-bar, to which the beam or standard is secured. The plow-standards or plow-feet I I are by this means firmly and securely braced to the frame.

The front set of two plow-standards, J J, are secured to a bar, K, and braced thereto by side braces e^1 e^1, and also braced to the frame by rods d^1 d^1, which latter are flexibly connected to a bar under the front ends of the hounds B B.

The bar K is held in staples or guides *h h* on the under sides of the side beams of the frame A, and the bar K is movable laterally therein, the movement being effected by means of a lever, L, which is pivoted to one of the cross-bars of the frame. By these means the plow-standards J J can be moved sidewise, as may be required to facilitate the operation of cultivating corn. The lever L may be removed and the bar K held stationary by tightening the nuts on the staples *h h*.

M is the center plow-standard, secured to the front cross-bar of the frame, and braced by means of side braces, e^2 e^2, and front rod, d^2. All the plows or teeth of the cultivator are thus braced both ways, making everything secure and firm.

Between the front ends of the hounds B B and the tongue C are hinged two arms, R R, connected by a cross-piece, R′, and extending toward the rear. These arms are, at their lower ends, provided with shields S S, which run on the ground beside the teeth on the feet J J, to keep stone and dirt from falling on the corn. The shields may be raised any desired height to let loose or fine dirt pass under close to the corn by means of a lever, O, connected by a chain or cord, *i*, with the cross-piece R′.

It will, of course, be understood that the front plow-foot, M, is to be removed in cultivating corn; and the plow-feet J J may be widened or contracted—that is to say, arranged farther apart or closer together—by changing the side braces, e^1 e^1, which are made movable for that purpose.

The frame A is, at the rear end, provided with handles A′ A′, and all the levers described, G, L, and O, are so arranged as to be within easy reach of the operator walking behind.

The lever G, for raising and lowering the frame, is arranged for pulling back instead of pushing.

In a full-sized cultivator the tongue C will be made adjustable by means of set-screws, and the center plow, M, may be secured to the rear cross-bar between the plow-standards I I, if so desired, to facilitate the cultivating of uneven land.

The two front standards, J J, are directly under the bearing, and consequently, when the tongue is moved to the right or left, these standards are not moved sidewise.

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

1. In a cultivator, the combination of the main frame A, the movable cross-bar K, held in guides attached to the main frame, the plow feet or standards J, rigidly attached to the cross-bar, and the lever L, attached to the bar K and pivoted on the main frame, whereby the bar K, with the plow-standards, can be moved laterally in either direction across the frame, for the purposes herein set forth.

2. The combination of the frame A, crank-axle D, with arm D^2, rod *a*, and lever G, the laterally-sliding bar K, with plow-feet J J, and lever L, all constructed and arranged to operate substantially as and for the purposes herein set forth.

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

SPENCER R. STANTON.

Witnesses:
Q. A. THOMAS,
JOHN C. JENKINS.