(Model.) 2 Sheets—Sheet 1.

W. SCOTT.

CULTIVATOR.

No. 262,487. Patented Aug. 8, 1882.

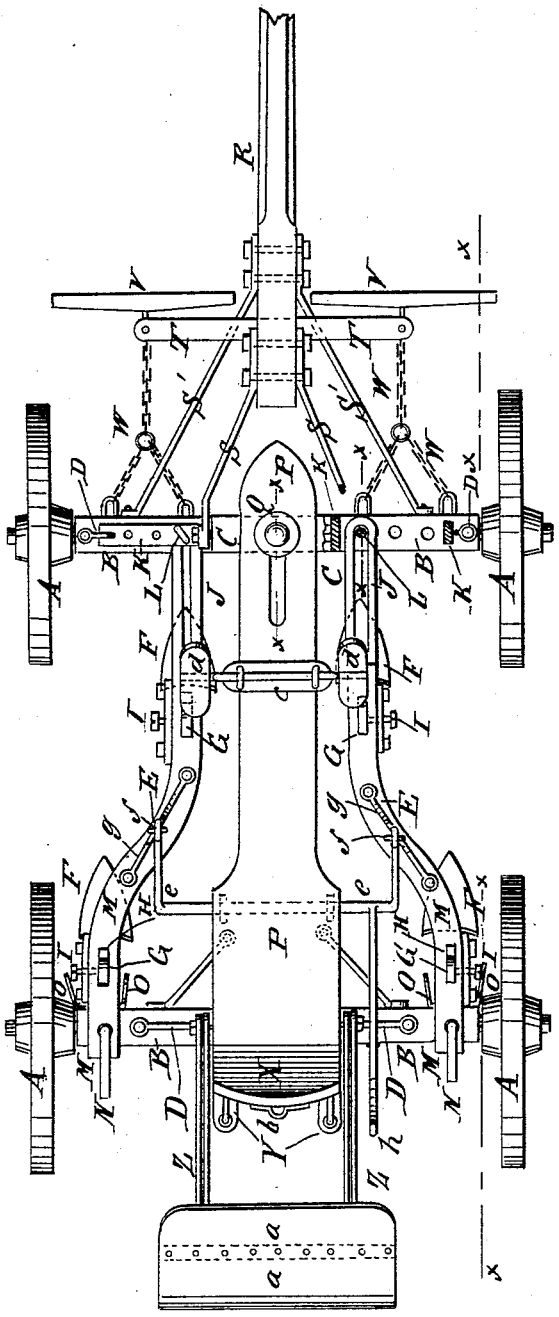

Fig. 1.

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(Model.) 2 Sheets—Sheet 2.

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Fig: 2.

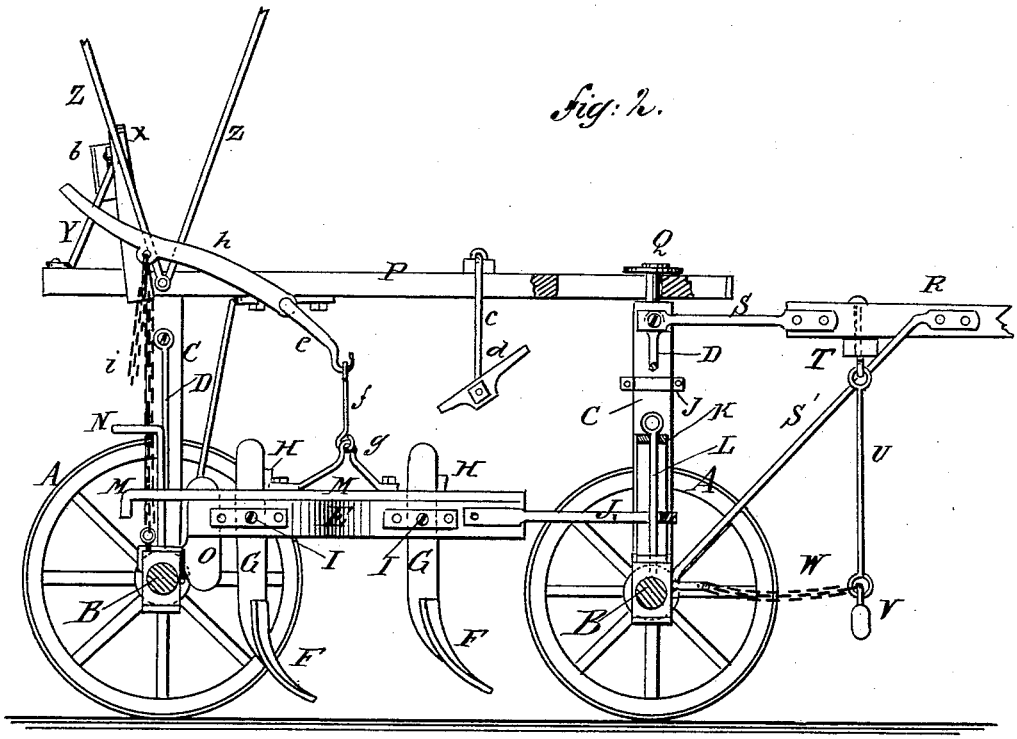
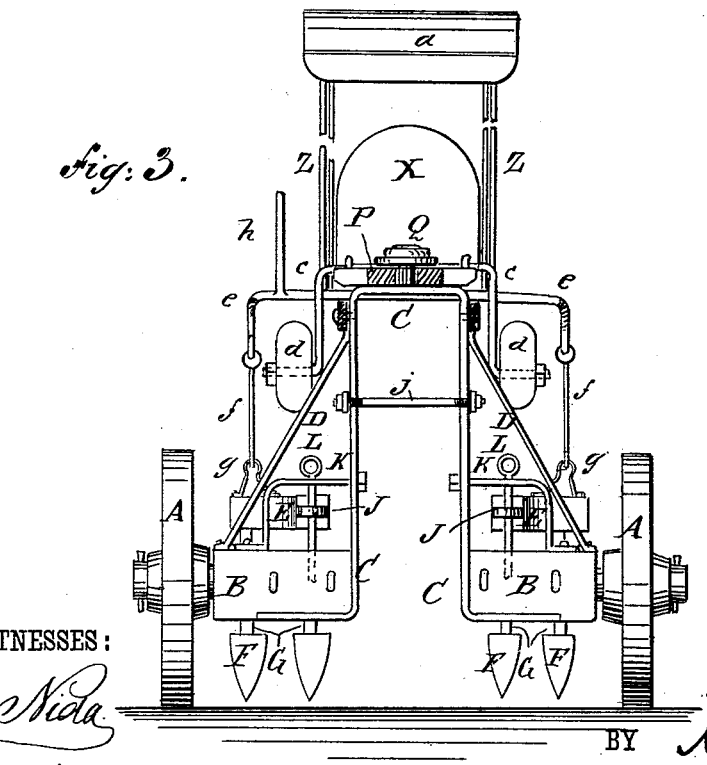


Fig: 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM SCOTT, OF BUFFALO, WEST VIRGINIA.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 262,487, dated August 8, 1882.

Application filed January 23, 1882. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM SCOTT, of Buffalo, in the county of Putnam and State of West Virginia, have invented a certain new and useful Improvement in Cultivators, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1, Sheet 1, is a plan view of my improvement, partly in section. Fig. 2, Sheet 2, is a sectional side elevation of the same, taken through the broken lines *x x*, *x x*, *x x*, *x x*, Fig. 1. Fig. 3, Sheet 2, is a front elevation of the same, partly in section.

The object of this invention is to promote convenience in adjusting and controlling cultivators.

The invention consists in a novel construction and arrangement of parts, as hereinafter described and claimed.

A are the wheels, to the inner ends of the short axles B of which are attached the lower ends of the arched bars C, so that the machine can pass over tall plants without injuring them. The connection between the axles B and the arched bars C is strengthened by inclined braces D, the lower ends of which are attached to the said axles, and their upper ends are attached to the upper parts of the said arched bars C.

E are the plow-beams, which are made with curved offsets in their middle parts, so that their rear ends will be farther apart than their forward ends, as shown in Fig. 1.

F are the plows, the standards G of which pass up through slots in the beams E, and are secured in place by wedge-keys H and side screws, I, so that the said standards can be readily adjusted, as may be required.

To the forward end of each beam E is attached a slotted bar or rigid horizontal clevis, J, which moves above the forward axles B, and thus guides the forward end of the plow-beam.

K are right-angled bars, the lower ends of which are secured to the outer parts of the forward axles B. The upper ends of the bars K are secured to the upper parts of the forward arched bar, C.

In the upper arms of the right-angled bars K are formed holes to receive the pins L, which pass through the slots of the bars J and into holes in the forward axles B. Several holes are formed in the upper arms of the bars K and in the forward axles B to receive the pins L, so that the forward ends of the plow-beams E can be adjusted wider apart or closer together, as may be required.

To the upper sides of the plow-beams E are attached metal plates M, the rear ends of which project beyond the rear ends of the said plow-beams E, so as to rest upon the upper sides of the rear axles B, while the rear ends of the beams rest against the forward sides of the said axles. Holes are formed in the projecting ends of the plates M to receive the upright rods N, attached to the said axles, so that the plow-beams will be free to move up and down. The upper ends of the upright rods N are bent to the rearward, as shown in Figs. 1 and 2, to form handles for convenience in adjusting the plows when starting in at the ends of the rows.

To the forward sides of the rear axles B are attached U-shaped plates O, to receive the rear ends of the beams E, hold the said ends from lateral movement, and serve as guides to the said ends as the said beams are raised and lowered.

To the tops and bends of the arched bars C is attached the seat-board P, which serves also as a reach to connect the front and rear parts of the carriage. The rear part of the seat-board P is rigidly attached to the rear arched bar C, and its forward part is slotted longitudinally to receive the king-bolt Q, that connects it with the forward arched bar, C, so that the forward part of the carriage can have free play, to allow the machine to be turned easily.

R is the tongue, the rear end of which is forked, or has inclined bars S attached to it, the rear ends of the said fork or bars being attached to the opposite sides of the upper part of the forward arched bar C. The connection between the tongue R and the forward part of the carriage is strengthened by the inclined braces S′, the upper ends of which are

attached to the opposite sides of the rear part of the said tongue R. The lower ends of the braces S′ are attached to the forward sides of the forward axles B.

To the rear part of the tongue R is pivoted the center of the double-tree T, to the ends of which are attached the upper ends of the rods or chains U.

To the lower ends of the rods U are attached the whiffletrees, V, so that the said whiffletrees will be supported above the plants, and will thus be prevented from dropping down upon and breaking or injuring the said plants when the draft-strain is slackened.

To the lower ends of the hanging rods U, or to the whiffletrees V, are attached the forward ends of the draw-chains W, which are made double or forked, and are attached at their rear ends to the forward axles B, so that the said axles will be drawn forward squarely.

To the rear part of the seat-board P is attached a seat-back, X, which is strengthened in position by the inclined braces Y, attached to it and to the said seat-board.

To the rear part of the side edges of the seat-board P are hinged the ends of the bows Z, to which is attached a covering, *a*, of cloth, rubber-cloth, leather, or other suitable material, to protect the driver from the heat of the sun. When not required for use, the top Z *a* can be turned or folded back out of the way.

To the rear side of the back X is attached a socket, *b*, to receive the handle of an umbrella when it is not desired to use the top Z *a*.

To the middle part of the seat-board P is hinged the middle part of a U-shaped rod, *c*, to the ends of which are attached rests *d*, to support the driver's feet.

To the seat-board P, a little in the rear of its center, is hinged the middle part of a U-shaped rod, *e*, upon the ends of which are formed hooks to receive the links or short chains *f*. The lower ends of the links or chains *f* are connected with the middle parts of the plow-beams E or with brackets *g*, attached to the said plow-beams.

To the middle part of the U bar or rod *e* is rigidly attached or upon it is formed a lever, *h*, which projects into such a position that it can be conveniently reached and operated by the driver from his seat to raise and lower the plow-beams and plows. The lever *h* is secured in place, holding the plow-beams and plows in any position into which they may be adjusted, by a chain, *i*, a link of which is hooked upon a hook attached to the lever *h*, and its lower end is attached to the rear axle B.

The arched bars C are strengthened against the working strain by cross-bars *j*, the ends of which are secured to the arms of the said bars by clamps or other suitable means, so that the said cross-bars can be conveniently raised as the plants increase in height to guard against the said plants being broken or injured by the said cross-bars.

More or fewer plows can be used, as the work to be done may require.

A center plow can be added when seeding to split the middles.

The two front plows can be taken off and the rear plows used for laying off cane-ground, two rows at a time.

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

1. In a cultivator, the carriage constructed substantially as herein shown and described, and consisting of the wheels A, axles B, arched bars C, slotted seat-board P, and king-bolt Q, as set forth.

2. In a cultivator, the combination, with the forward axles B and plow-beams E, of the rigid slotted clevises J, the angle-bars K, and the pins L, substantially as herein shown and described, whereby the plow-beams will be drawn and the forward axles will be free to play in turning the cultivator, as set forth.

3. In a cultivator, the combination, with the plow-beams E and the rear axles B, of the facing-plates M, having their projecting rear ends perforated, and the upright rods N, substantially as herein shown and described, whereby the rear ends of the plow-beams are supported and are allowed to have a free vertical play, as set forth.

4. In a cultivator, the combination, with the seat-board P, of the U-shaped rod *e*, hinged to the said seat-board and provided with the foot-rests *d* at its ends, substantially as and for the purpose set forth.

WILLIAM SCOTT.

Witnesses:
S. A. W. HANDLEY,
W. M. TIMMS.