

MUMFORD & WILSON.

Wheel-Cultivator.

No. } 1,427, {
 } 32,431. {

Patented May 28. 1861

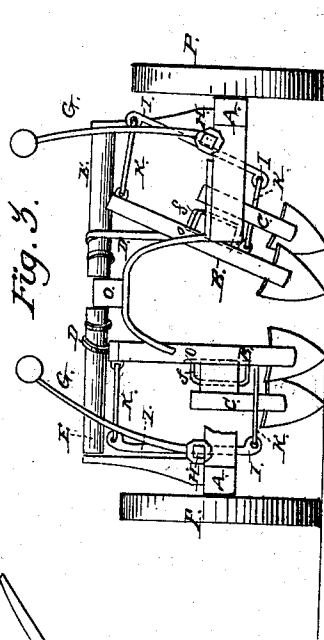
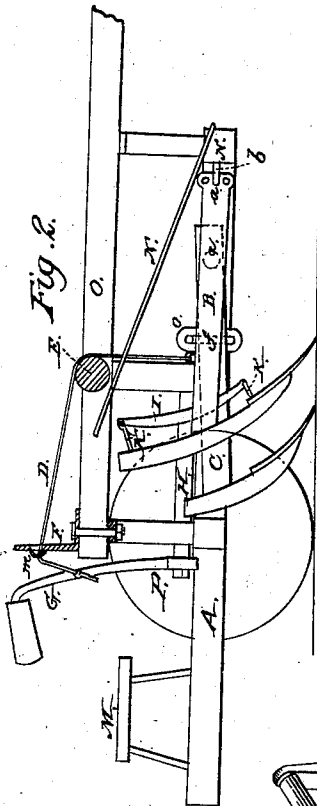
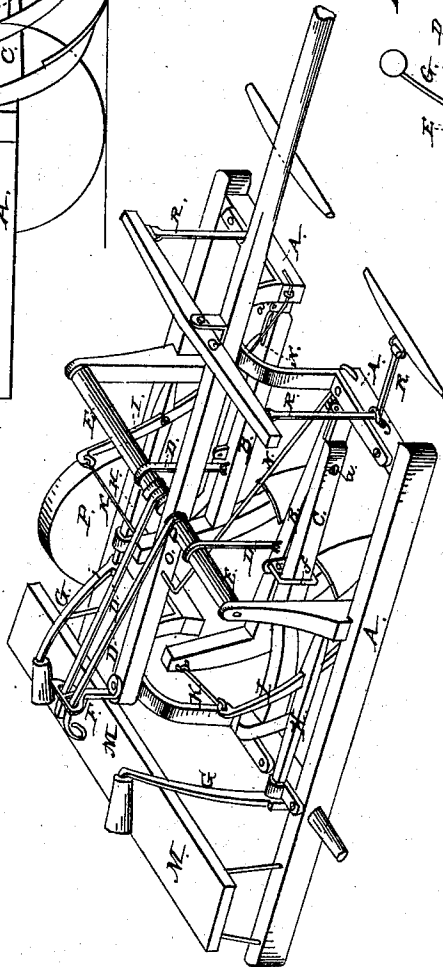


Fig. 1.



Witnesses:
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 By their Attorney W. B. Longfellow

UNITED STATES PATENT OFFICE.

JOSIAH MUMFORD AND J. W. WILSON, OF CLARKSBURG, OHIO.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **32,431**, dated May 28, 1861.

To all whom it may concern:

Be it known that we, JOSIAH MUMFORD and JOHN W. WILSON, of Clarksburg, in the county of Ross and State of Ohio, have invented certain new and useful Improvements in Corn-Cultivators; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a perspective view of said corn-cultivator. Fig. 2 represents a longitudinal vertical section through the same. Fig. 3 represents an end view of the same.

Our invention relates to that class of cultivators in which two pairs of cultivator-plows, which are to straddle the corn-rows are hung to a frame and can be moved thereon vertically as well as laterally; and it consists in the peculiar manner in which I connect the plow-beams of each pair, whereby the two plows of one pair remain in the ground when one of them is moved laterally, while in the cultivators used heretofore and belonging to this class, one of the plows is raised from the ground when one of the pair is turned laterally.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

A represents the frame of the cultivator, which is supported by the wheels P. B and C are the cultivator-beams. The beam B is hung at its front end to the frame A by means of the clevis *a* and hook *b*, and its rear end is suspended on a strap, rope, or chain, D, which passes around the roll E, and thence through holes of the standard F, on the rear of which is a tongue or pin, *m*, into which they can be hooked to keep the cultivators stationary; and as there may be a number of holes in the straps D, it follows that the cultivators may be adjusted to any desired depth in the ground, or may be raised from the ground and be retained in such a position. The front end of the beam C is pivoted to the beam B by means of the bolt *d*, and the rear end of said beam is supported by the stirrup *f*, the ends of which are secured in the plate *o* of the beam B. The lateral motion of the plow is effected by means of a lever, G, which is secured to the shaft H. The arms I are secured to the said shaft, and their ends are connected by means of the

links K to the stock of the plow-beam B, and on said crank-lever being operated the beam B is swung to one or the other side. If the two beams B and C were connected to each other rigidly, the beam C, and consequently its plow, would be raised when the beam B is moved laterally. To prevent this and to cause the plow of the beam C to remain in the same depth of the ground while it is moved laterally, we have pivoted the beam C to the beam B in the manner above described, and support its rear by means of the stirrup *f*. We use in this cultivator two pairs of plows, which straddle the corn-rows, and the operator by this construction has the plows under perfect control. Sitting on the seat M he can adjust the depth of the plows by operating the straps D, and he can set the plows so as to work closer to or farther from the plants, as is necessary, for the reason that the plants are not all of the same size; and to perform the work thoroughly it is necessary that the plows may be moved rapidly and with facility.

The cultivator, when arranged as herein described, makes two furrows on each side of a row, and the rods N, which pass from the tongue O down to the front of the frame A, raise and gather the blades of the corn and enable the operator to see the hill in front of the plows.

This cultivator may also be used for laying off ground to plant by detaching the beams C and then spreading the beams B to the desired width. We also use several hooks, *b*, at the front of the frame for adjusting the position of the front end of the beam B, which, when hung into either of said hooks, will, with its plows, work equally well, as the rear end is suspended freely to the bands or ropes D. The tongue O is raised up high enough to clear the corn-shoots, and the double-tree Q is hung on top of the tongue. The drag-straps R pass from the ends of said double-tree down through staples or guides *g*, and the single-trees are fastened to their ends, which brings the line of draft low down and prevents the machine from running too much into the ground.

The plows always maintain the same relative depth, whether they be turned on their shafts H or not, to move them to or from the row of plants.

Having thus fully described the nature of

our invention, what we claim herein as new, and desire to secure by Letters Patent, is—

So hanging the pairs of plows that run on each side of the rows of plants to the frame and to each other as that they may have both a vertical and horizontal adjustment as well as a rocking movement on their shaft H, but when so rocked one plow of the pair shall not

be thrown into or out of the ground more than its fellow, as herein described and represented.

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Witnesses:

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