

Wheel Cultivator.

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Inventor
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United States Patent Office.

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Letters Patent No. 82,938, dated October 13, 1868.

IMPROVEMENT IN CULTIVATOR-PLOWS.

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

To all whom it may concern:

Be it known that we, B. F. GUY, of Macomb, in the county of McDonough, and State of Illinois, and J. V. GUY, of Macomb, in the county of McDonough, and State of Illinois, have invented new and useful Improvements in Cultivator-Plows; and we do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention consists of certain improvements in cultivator-plows, these improvements pertaining more particularly—

First, to an improved method of attaching the plow-beams to the main frame, by which method lateral and vertical movements are permitted at the same time;

Second, to an arrangement of spring-bars above the plow-beams, for supporting the same;

Third, to a peculiar construction of socket and guides for these spring-bars;

Fourth, to an arrangement of handles upon the separate plows thus attached, to adapt the cultivator to riding or walking;

Fifth, to a rack and lever, for raising the plows from contact with the ground;

Sixth, to a peculiar method of hanging the driver's seat; and

Seventh, to a peculiar arrangement of a double-tree attachment, for properly regulating the draught.

In the drawings—

Figure 1 is a side elevation of our improved cultivator, with the wheels removed, and

Figure 2 a top view of the same.

The same letters refer to identical parts in both figures.

The main frame, as shown more clearly, in top view, consists of the side-pieces A A, connected and supported by the transverse beam B B', and, still further in the centre, by a short longitudinal piece, C. The first beam B' may be made double, the two parts being placed on opposite sides, and firmly bolted through the ends of the beams A A. On the rear ends of A A, are located the axles for supporting wheels a a, being attached thereto in any suitable manner.

Through the first bar B' pass two rods b b, sustained from dropping through by collars or pins, and formed bifurcated on the lower ends, the two branches being flattened.

Between these two prongs of each vertical rod, are pivoted the ends of the plow-beams D D, in such a manner as to have vertical motion on the transverse pins c c, and horizontal motion on the rods b b. The upper ends of the rods b b sustain shoes e e, of form shown, so constructed as to afford support for a transverse pin on the forward end, which pin pivots spring-bars f f. These bars lie lengthwise upon the shoes, and are

further held in place by guides g g, on the rear ends of the shoes. These spring-bars are provided on their rear ends with hooks, to which are attached adjustable chains or cords, which connect the spring-bars to the plows, and serve thereby to regulate the depth which they are permitted to enter the soil. The plows themselves may be of ordinary construction, adapted to this purpose. On the ends of the beams are handles h h, by which the plows may be operated, as well as with the feet.

For the purpose of raising the spring-bars, and thereby the plows, there is provided a rack, i, oscillating in bearings on the end of the beams A A, and having an arm, i', by which it may be readily operated by the driver. The driver's seat is supported on a bent rod or frame, K K, the ends of which are pivoted upon the inner sides of the beams A A, in such manner that the seat may be thrown over out of the way when the instrument is used as a walking-cultivator.

To the central beam C is pivoted the tree l, of ordinary construction. Its ends, however, are attached, by means of links, to bars m m, which are pivoted in supports on the side beams. These bars are so hung as to have vibration forward and backward, and at their lower ends have a series of holes, in order that the draught-hooks n n may be adjusted higher or lower, as may be required.

The advantageous operation of my improved cultivator is obvious from the foregoing description. The animals being attached to the draught-hooks n n, draw from the most favorable point, and through the operation of the double levers, with great steadiness.

The method of pivoting the plow-beams possesses several distinct advantages:

First. It gives the plows separate as well as simultaneous motion, allowing the plows to move vertically or laterally, either separately or together.

Second. With the described arrangement of seat and handles, it enables the driver at all times to see the rows of plants before the plow, and thus guard against damaging them.

Third. It permits the plows to be raised higher, and more easily, either by the rack or handles. The arrangement of the rack is such, that when the lever which raises it is thrown fully back, the rack automatically holds the plows out of contact with the ground.

The seat-frame gives sufficient spring, and at the same time may be thrown forward out of the way.

The various parts of my cultivator may be altered in form, without departing from the spirit of my invention, and the lifting-rack and seat-frame may be made of wood instead of metal. The number of plows may also be increased, if deemed necessary.

Having thus fully described the construction of my improvements, so that those skilled in the art may make and use the same,

What we claim as our invention, and desire to secure by Letters Patent of the United States, is—

1. In combination with plows thus hung in a frame, the spring-bars and connecting-chains or cords, as and for the purpose set forth.

2. In combination with the plows, their bifurcated rods, and spring-bars, the shoes *e e*, substantially as and for the purpose described.

3. In combination with spring-bars and plows of described cultivator, the rack *i*, with its handle *z*, as and for the purpose described.

4. The cultivator-plow, when constructed of the several parts, all arranged to operate substantially as and for purposes set forth.

This specification signed and witnessed, this 21st day of July, 1868.

B. F. GUY.
J. V. GUY.

Witnesses:

M. T. WINSLOW,
E. A. FLOYD.