2 Sheets—Sheet 1.

H. CARR.

Cultivator.

No. 100,501. Patented March 8, 1870.

Fig. 1.

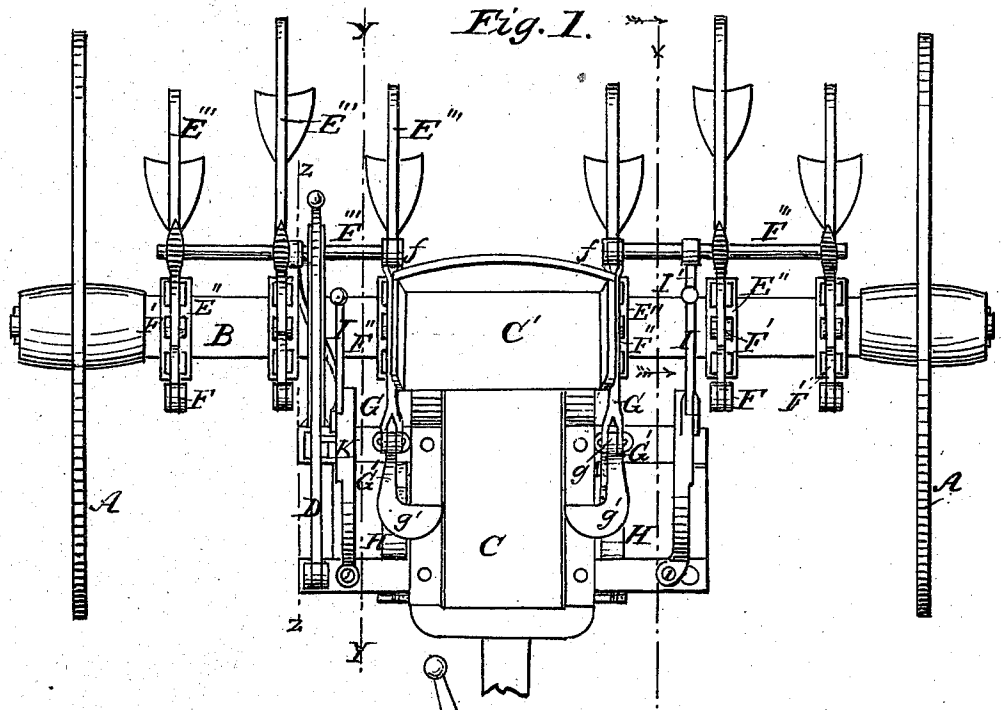


Fig. 2.

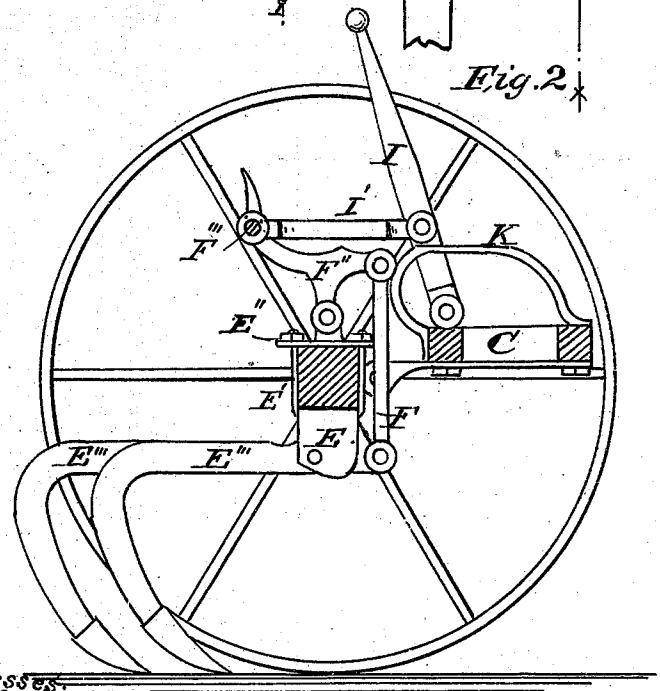
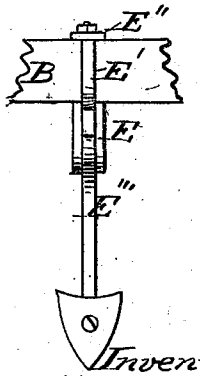


Fig. 5.



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2 Sheets—Sheet 2.

H. CARR.

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Fig. 3.

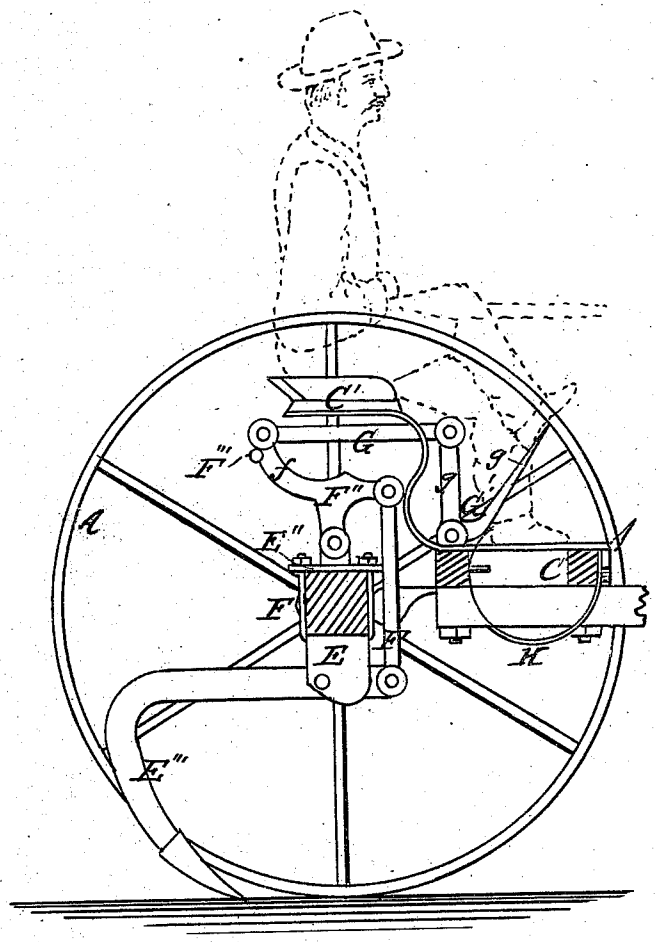
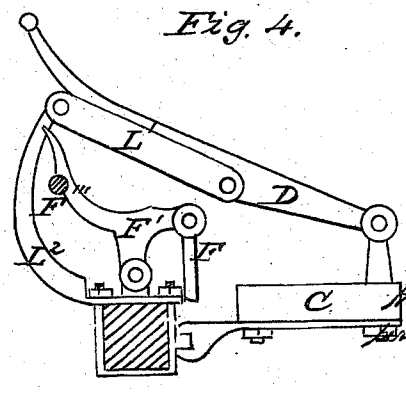


Fig. 4.



Witnesses:
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J H Connolly

Inventor:
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per T. A. Connolly
atty.

United States Patent Office.

HORACE CARR, OF WOOSTER, OHIO.

Letters Patent No. 100,501, *dated March* 8, 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, HORACE CARR, of Wooster, in the county of Wayne, and State of Ohio, have invented a new and Improved Cultivator; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1 is a top or plan view.

Figure 2 is a section on line *x x*.

Figure 3 is a section on line *y y*.

Figure 4 is a section on line *z z*.

Figure 5, rear view of section of axle, with shovel-beam.

This invention relates to the raising of the shovels from the ground by the arrangement of a number of levers, &c., which will be understood from the following description.

The accompanying drawings represent a cultivator with two wheels, A A.

B is the connecting-axle, supporting the six beams with their respective shovels.

C is a small frame hinged to the front of said axle, and supporting a driver's seat, C′, and the forward end of a lever, D, which is so connected with the axle B that the latter may be turned in the wheels A A by it, to raise all the shovels at once from the ground.

E are slotted hangers or lugs, the upper portions of which form clasps, E′, for the axle B, to which said hangers are secured by clips, E″, crossing said axle and secured to the parts E by nuts screwed on the latter. Near their forward ends the beams are pivoted within the hangers E.

F are vertical links hinged at their lower ends to the ends of the beams E‴.

F′ F″ are levers attached to and working on the clips E″, and connecting with the upper ends of the links F. These levers extend back from their fulcra, and are curved upward, as shown in the drawings, (figs. 2, 3, 4.)

To the back and upwardly-curved portions *f* of the two middle levers, marked in the drawings F″, rods G are hinged, which, reaching forward, are also hinged to the upright arms or standards *g* of the V-shaped rocking devices O′, articulated at their angles on the frame C.

The forward or inclined arms *g′*, are formed into foot-pieces, by the downward pressure of which the two middle shovels are made to rise from the ground.

H are springs attached to the front part of the frame C, and pressing against the arms *g′*. The force of these springs lowers the shovels, when the rocking device is released from the foot-pressure. As shown in fig. 1, the shovels and beams are arranged in two sets of three each.

Reaching across the back of the curved parts of the levers F′ F″, connected with said beams, are bars F‴, against which all said levers rest, but which are secured to the outer and adjoining levers marked F′ only.

I are bars or handles articulated to the frame C, and connected by rods I′ with the bars F‴. When either of said levers is thrown forward, the three shovels on the same side are raised at once from the ground, or two, if the middle shovel be already raised.

K are elevated horizontal lock-bars, to retain the levers I when thrown forward or backward.

D is a hand-bar, hinged at its forward end to the frame C, and connected by a link L^1 and arm L^2, with the axle B, by means of which the axle is turned within the wheels, and all the shovels raised at once or lowered at once.

For convenience, the arm L^2 curves upwardly outside or behind and above the bar F‴.

An additional beam may be adjusted between the two middle beams, to be raised by the turning of the axle B.

My improvements, with the functions and operations of the different devices having been sufficiently described,

What I claim as my invention, is—

1. In a wheel cultivator having an axle or equivalent cross-bar or bars sustaining the shovel-beams with their shovels, and which axle or cross-bar may be so turned on its bearings as to raise or lower the shovels from the ground, as set forth, so arranging or articulating the shovel-beams on separate bearings that they may be raised or lowered either singly or in sets of two or more, independently of the movement of said axle or cross-bar.

2. The combination and arrangement of the bars I, levers F′ F″, bars F‴, and shovel-beams E‴, substantially as and for the purpose set forth.

3. The combination and arrangement of the device G′, lever F″, connecting-rod G, and link F, with a single beam E‴, so that said beam may with its shovel be raised or lowered independently of the rest, substantially as set forth.

4. In combination with the articulated beams E‴, the hangers E, constructed and arranged substantially as and for the purpose set forth.

5. In combination with the independently-articulated beams E‴ and axle B, the lever D, link L^1, and arm L^2, substantially as and for the purpose specified.

6. The lock-bars K, in combination with the arms I and beams E‴, for the purpose set forth.

7. The springs H, when arranged as and for the purpose described, in combination with the rocking device G′, and beams E‴.

HORACE CARR.

Witnesses:

DAVID ROBISON, Jr.,

JAMES C. JACOBS.