

Emmons & Wells.
Wheel Cultivator.
No 93,605. Patented Aug. 10, 1869.

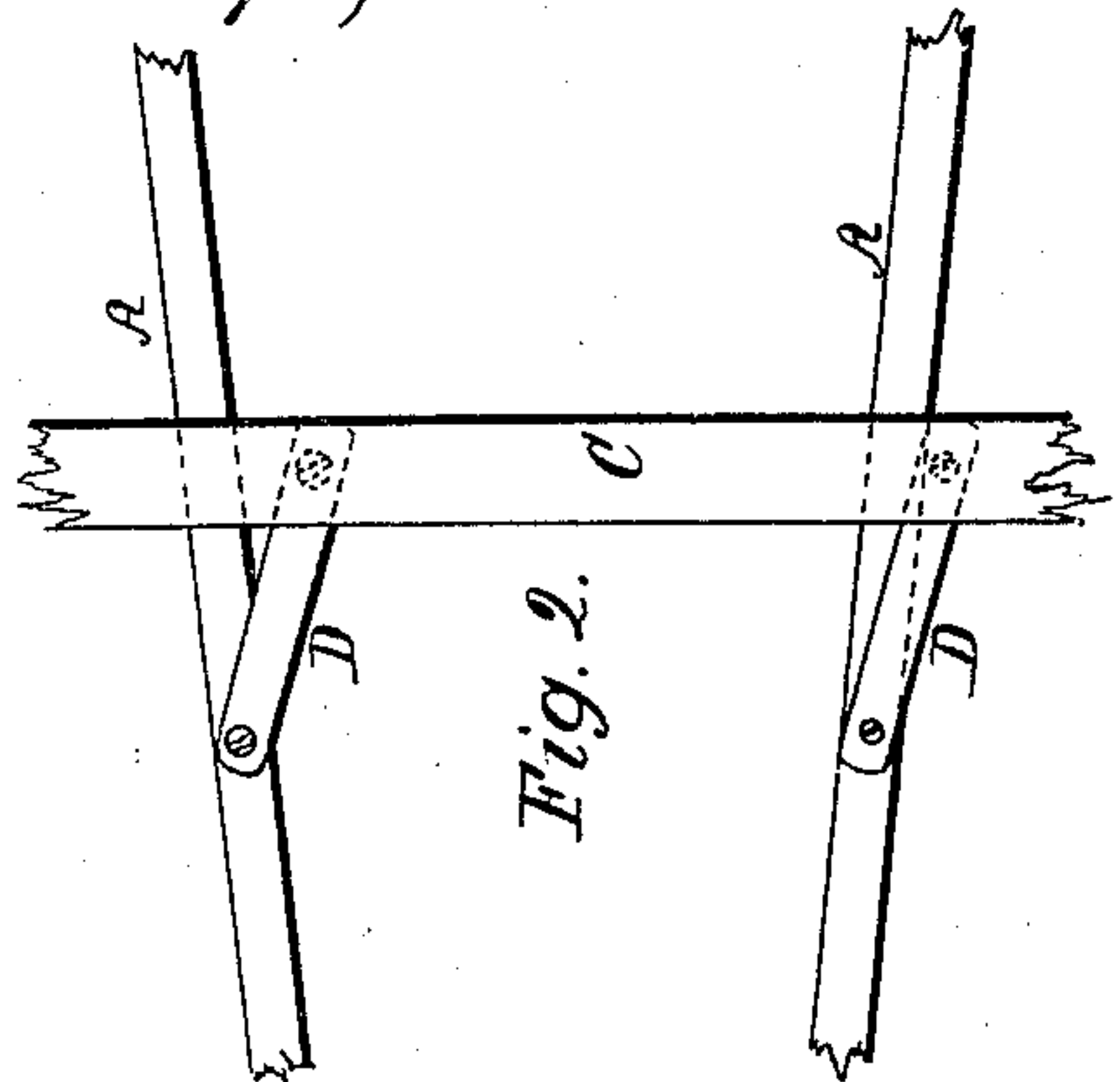


Fig. 2.

Fig. 1.

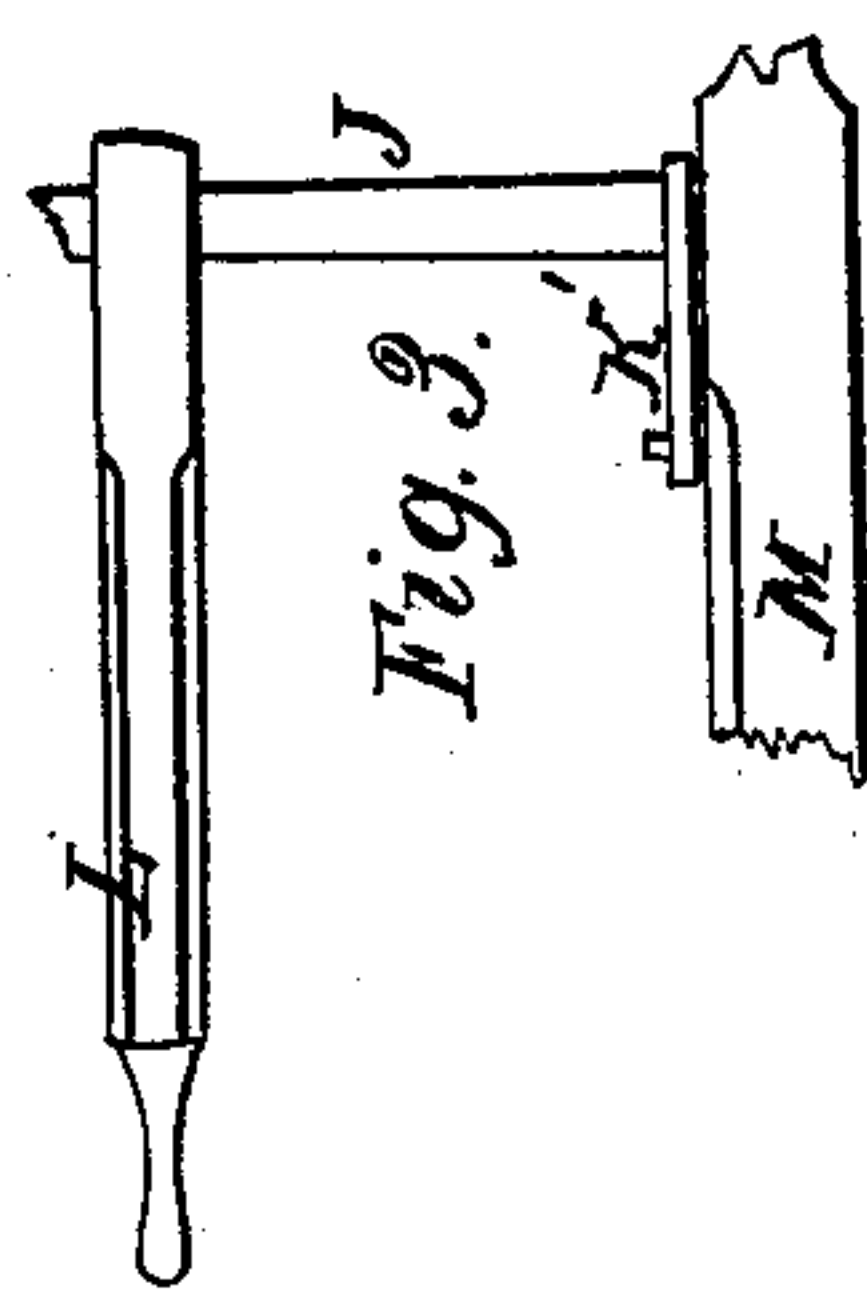
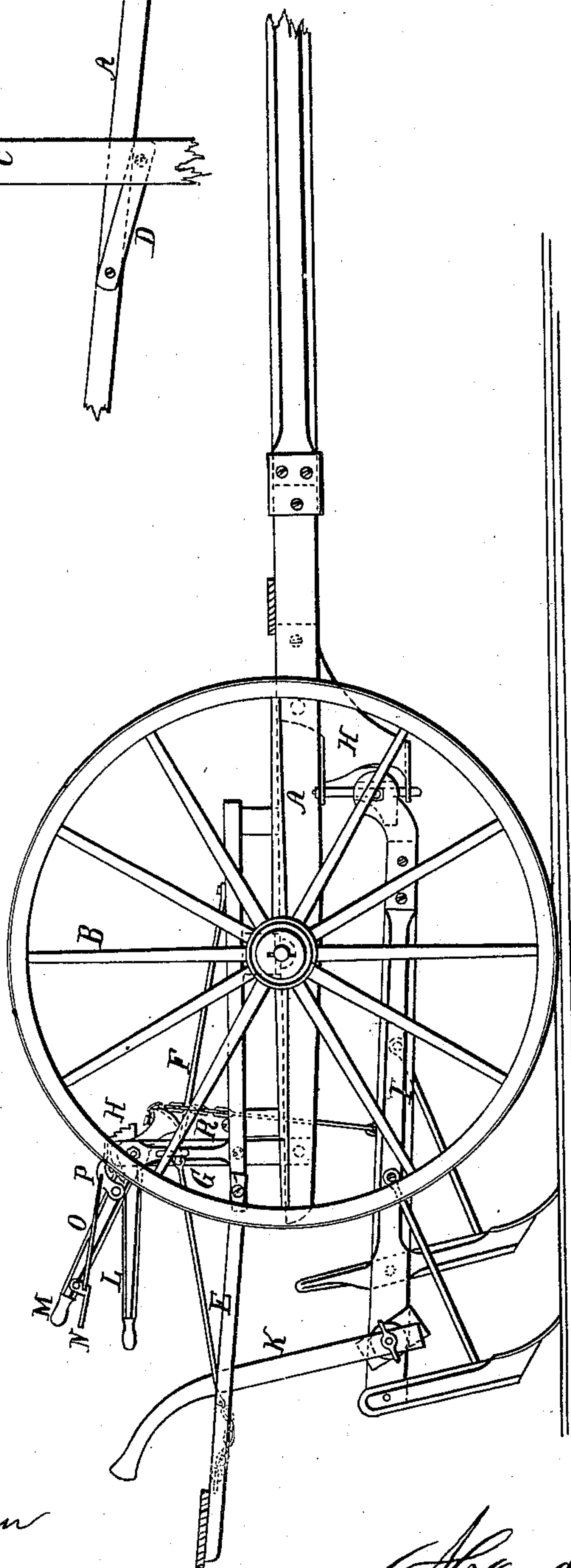


Fig. 3.

Witnesses.

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at

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WILLIAM EMMONS AND DAVID A. WELLS, OF SANDWICH, ILLINOIS.

IMPROVEMENT IN CORN-CULTIVATORS.

Specification forming part of Letters Patent No. 93,605, dated August 10, 1869.

To all whom it may concern:

Be it known that we, WILLIAM EMMONS and DAVID A. WELLS, of Sandwich, in the county of De Kalb, and in the State of Illinois, 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 thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of our invention consists in the construction of a corn-cultivator, the manner of shifting the wheels forward and back, and the arrangement of the devices hereinafter set forth and described.

Figure 1 represents a side elevation of our cultivator. Fig. 2 is a plan of the manner of attaching the frame to the axle. Fig. 3 is a view of the cams, levers, and rod for raising the plows.

Letter A represents the frame, which is supported upon the two driving-wheels B. This frame A is composed of two parts, one of which extends below the axle C and the other above it. The frame is pivoted to this axle by means of the metal plates D, which allow the frame to be swung all the way around, thus moving the wheel forward or back far enough to change it from a walking to a riding plow at pleasure.

Pivoted to the rear ends of the frame there are two bars, E, which hold up the seat. These bars are supported by the rods F, which are secured to the front part of the frame, and extend backward through a ring in the upright G, and are then fastened to a hook near the back ends of the bars by a small chain.

Secured to the front part of the frame, upon each side, there is a shoe, H, to which are pivoted the plow-beams I in such manner that they can be swung freely around. Attached to each one of these beams there are two or more plows. The handles K are fastened to these beams by means of a thumb-screw, so that they can be raised or depressed at will, so as to suit the convenience of the driver.

Extending upward from the rear part of the frame are the upright standards G, each of which has a semicircular ratchet, H, attached to its top. Running across from one standard to the other is the bar J, which has a cam, K', attached to each end, a lever,

L, by means of which both beams I are raised at the same time, and the two levers M—one at each end—by means of which the beams are raised separately.

Attached to the rear ends of the levers M, in such a position that the hand can grasp them at the same time it does the handle, are the small hand-levers N. These levers have each a rod, O, extending toward the front end of the main lever, attached to them, which are then secured to the dogs P. The main levers M are attached to the beams I by means of the rod and chain R, and by means of the ratchets and pawls can be secured in any desired position. By means of these the beams can be raised separately; but when it is desired to raise them both at once the lever L is used. The bolts or screws which are used to secure the pawls P to the lever M are made to extend through and form a projection on the other side. As the lever L is immovably attached to the rod J, in raising the lever up or down the rod is turned around, which causes the cams to sweep around, and these, striking against the projections, force the two levers downward, whereby the two beams are drawn upward, and are secured in position by the ratchets.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination of the frame A, axle C, and pivoted bars D D, all substantially as set forth.

2. The lever L, in combination with the cams or their equivalents, when used to elevate both beams at once, substantially as specified.

3. Securing the handles to the beams by means of a thumb-screw, so that they can be regulated at will, substantially as set forth.

4. The levers L, M, and N, rod O, pawl P, and ratchet H, when arranged to operate substantially as set forth.

5. In combination with the above, the beam I, bars E, chains R, frame A, metal plates D, and shoes H, when all are combined as set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 15th day of April, 1869.

WILLIAM EMMONS.
DAVID A. WELLS.
Witnesses:
JARED MOSGROVE,
WESTET W. SEDGWICK.