

M. J. HUNT.

Corn-Planter.

No. 61,071.

Patented Jan. 8. 1867.

Fig. 1.

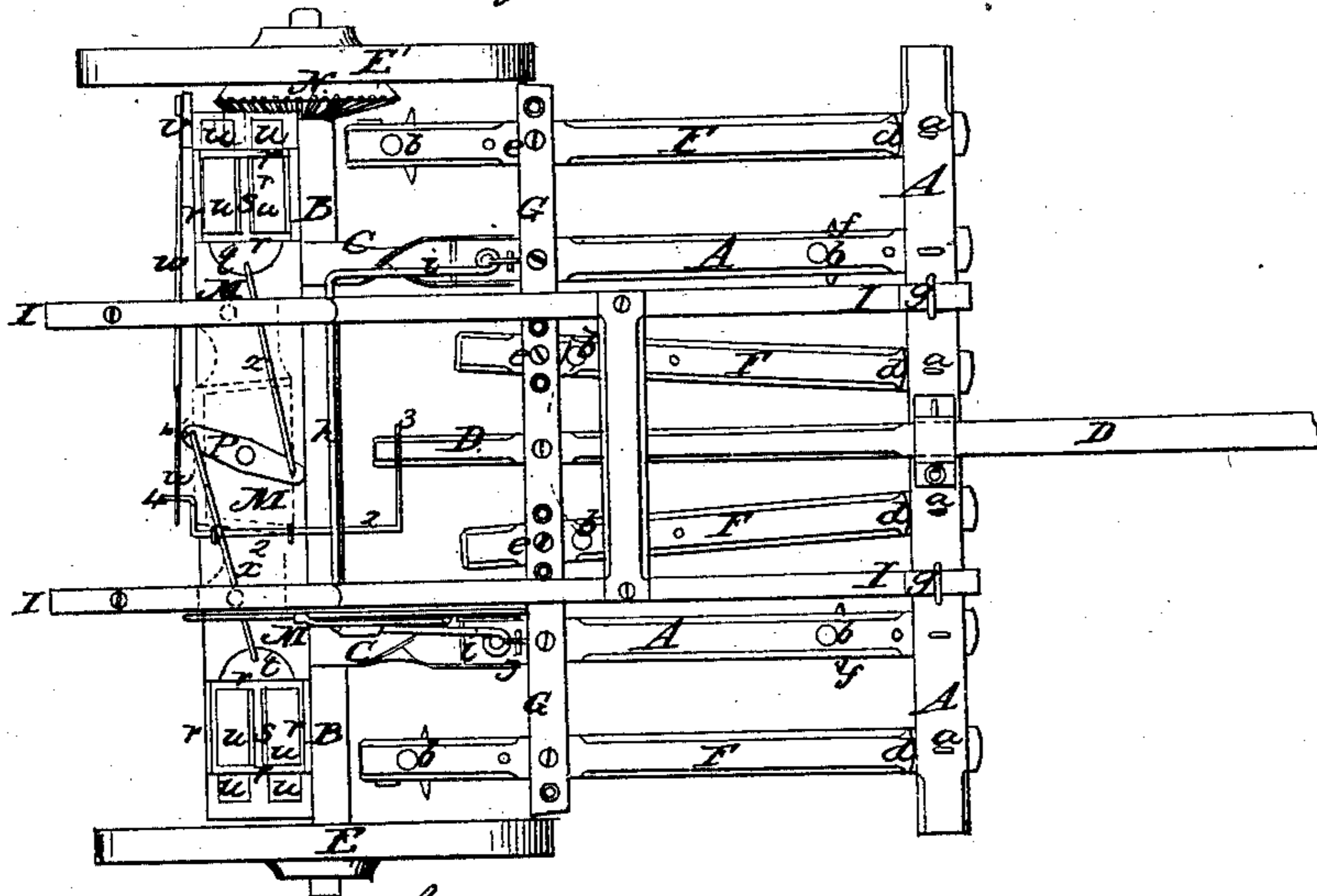


Fig. 2.

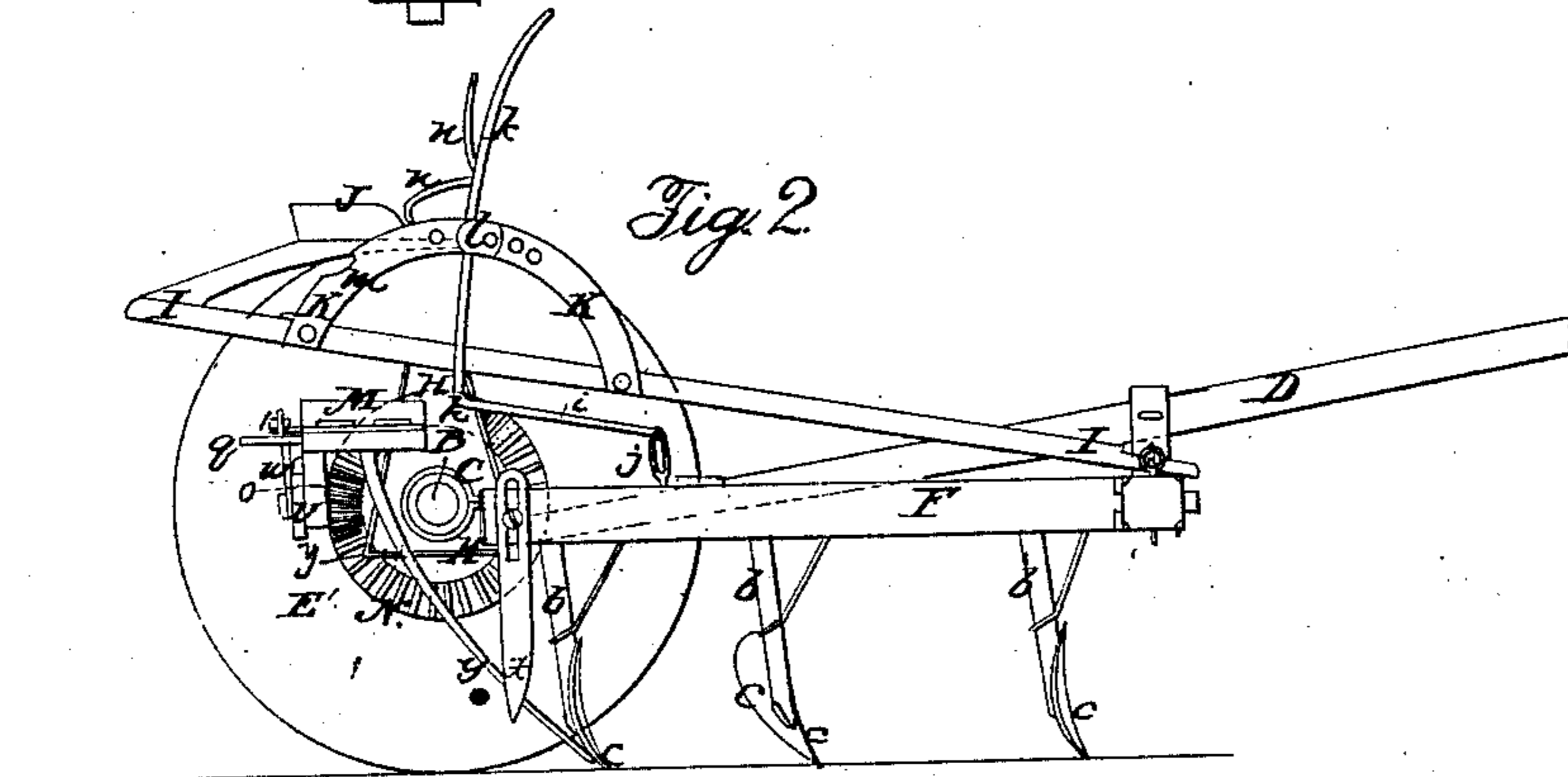


Fig. 3.

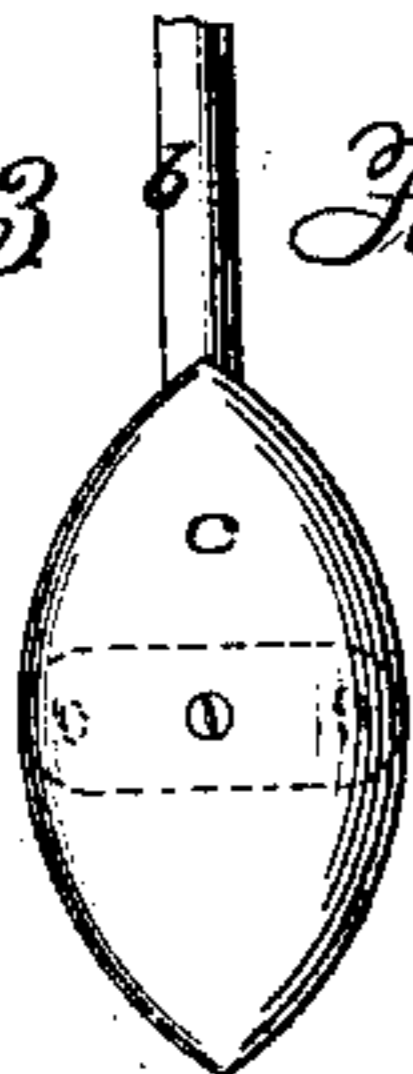


Fig. 4.

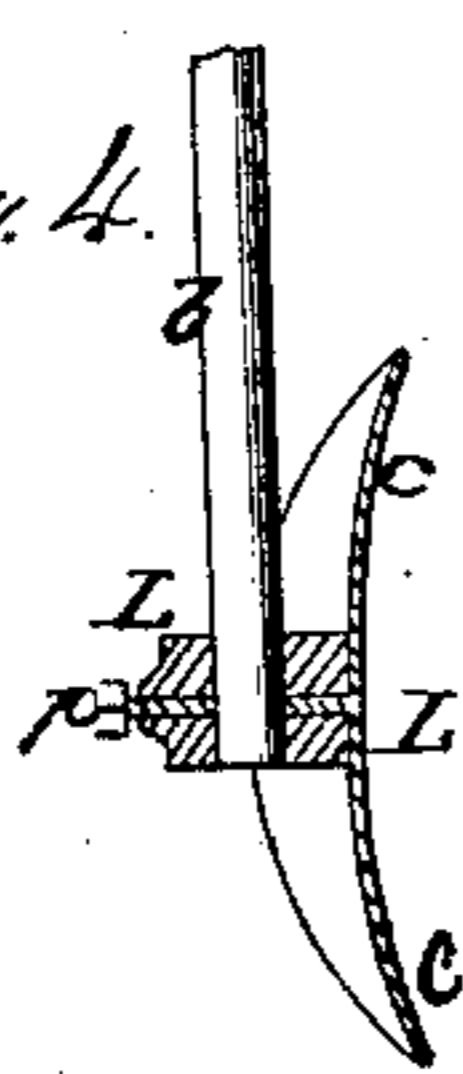


Fig. 5.



Fig. 6.



Fig. 7.



Witnesses:

J. D. Patten
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By atty A. B. Stoughton

United States Patent Office.

MARSHALL J. HUNT, OF RISING SUN, MARYLAND.

Letters Patent No. 61,071, dated January 8, 1867.

IMPROVEMENT IN COMBINED CORN-PLANTER AND CULTIVATOR.

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, MARSHALL J. HUNT, of Rising Sun, in the county of Cecil, and State of Maryland, have invented certain new and useful Improvements in Machines for Planting and Cultivating Corn; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a top plan of the machine.

Figure 2 represents a side view with the wheel removed to better show the parts otherwise concealed by it.

Figures 3, 4, and 5 represent in different positions the cultivators, and the manner of hanging, adjusting, removing, and replacing the same, as occasion may require.

Figures 6 and 7 represent respectively a top plan and section of the bottom of the seed-box, and the means of regulating or adjusting the openings in it, through which the grains pass to the furrows opened for them.

Similar letters of reference, where they occur in the several separate figures, denote like parts of the machine in all the drawings.

My invention relates more particularly to the manner in which I have arranged and combined the several parts of the machine to adapt it to the varied operations which it is to perform, and the varied modes of planting and cultivating practised by farmers in the same neighborhoods.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

The cultivator-frame A is hinged at its rear end to the axle B by hinged straps C, and is supported by the axle at its rear and by the tongue D at its front, said axle being in turn supported in the carrying-wheels E E', and the tongue being supported by the team that draws the machine. To the front cross-bar of the main frame, A, are pivoted, as at *a*, the beams F that carry each a standard or down-hanger *b* and a cultivator *c*, adjustably secured thereto, and the shoulders, *d*, of these beams are rounded off to admit of their being swung more toward or from each other at their rear ends, as may be required, and when at the proper position they are secured by means of the bar G and screws or pins, *e*, passing through it and into said beams. The fore and after pieces of the main frame A also carry cultivators, *f*, which may vary in form from those carried by the beams F or be of the same general style as those, *c*, which are more distinctly seen in figs. 3, 4, and 5. On the axle B are placed pillar-blocks, H, so that, while they are carried and supported by the axle, the latter may freely turn in them. On these pillar-blocks are fastened the levers I I, the front ends of which pass into or under loops *g g* on the front cross-piece of the main frame, and their rear ends projecting beyond the pillar-blocks, which serve as fulcrums for them, have a driver's or operator's seat, J, fixed upon them, so that the weight of the driver or operator shall tend to balance or raise up the front end of the main frame. To the pillar-blocks H is hinged, so as to be easily turned in its supports, a rod, *h*, having arms, *i*, projecting forward at each of its ends, to which arms the rear ends of fore and aft pieces of the main frame, A, are suspended by links *j j*, so that while said rear ends may be raised up by the lever *k*, which is also connected to the rod or rock-shaft *h*, they can also rise independent of the lifting lever, as when, for instance, the cultivators strike against or pass over a stone or any other obstruction, the links *j* admitting of this self-rising action. To one of the levers I is fastened an arc K, so as to be in close proximity to the sweep of the lever *k*, and to one of the series of adjusting holes in said arc a button or catch *l* is fastened that defines the extent to which the lever *k* can swing in that direction, and also the extent that the beams and cultivators can drop. Toward the rear of the arc K there is a notch, *m*, into which a hooked lever, *n*, pivoted to the main lever *k*, can take and hold, for raising up and holding up the whole cultivator-frame, at such distance above the ground as will allow the cultivator to pass over any ordinary obstacles in its path, or when not required in actual use. The cultivators *c* may be made of shear steel, and of the form shown in fig. 3, so that when one end becomes worn it may be turned upside down and the other end used. They are fastened by screws or otherwise to cast-iron sockets, L, that have wings, O O, upon them, and these sockets, L, slip on to the standards or down-hangers *b*, and are secured thereto, after they are adjusted vertically and laterally thereon, by a set-screw, *p*, or other similar adjusting device. The hole in the socket or cultivator-stock, L, being round and the down-hanger being round, the former can be turned upon the latter so as to move the earth both ways or either way from the furrow it is opening, as may be preferred, and, when not required in actual use, they can be removed from the down-hanger, leaving the latter in the main frame. The

front of the main frame is adjustable on the tongue, or the tongue upon the main frame, to adapt the machine to the horses' necks and to the ground, as may be required; and the machine may be used for laying off as well as for cultivating corn ground, it being adaptable to wider or narrower rows, as the user prefers. That the machine may be used for planting corn, I connect a bed-piece or frame, M, to the pillar-blocks H by means of pins or bolts *q*, so that it may be attached or detached at pleasure from the cultivator; and on this bed or frame I arrange the seed-boxes or hoppers *r*, divided by a partition, *s*, so that the seed-slide *t*, which has two branches or limbs *u u*, may operate in both apartments, and one apartment may contain the seed corn and the other superphosphates, or any other dry granular substance used for enriching soils, so that both may be sown together and in regulated quantities.

The sowing or dropping mechanism may be operated as follows, supposing the driving or carrying-wheel E' to be fast on and to move the axle with itself: On the axle I place a bevel-gear, N, that turns a pinion, O, and on the shaft of this pinion I place a crank-wheel, *v*, to an adjustable wrist, in which a pitman, *w*, is attached, said pitman at its other end passing between guide-pins 1 1 in the end of a vibrating lever, P, pivoted at its centre on the bed or frame M, and the pitman has a notch or recess in it, which catches over the lever P, and thus vibrates said lever. At equal distances on each side of its centre of motion the lever P has connected with it rods *x x*, which connect with the seed-slides *t t* and work both of them simultaneously, so that two rows shall be planted at a time and be directly opposite each other. The seed and other material dropped from the boxes or hoppers fall into the guiding tubes or troughs, *y*, and are carried and dropped into the furrows immediately behind the cultivators or shovels that open the furrows, and a coverer, *z*, throws the earth over them. A bent crank-lever, 2, is so connected to the bed or frame, M, as that the raising up of the main frame to stop its working shall throw out the seeding mechanism and stop it as follows: The front bent arm, 3, of the lever, 2, extends across the heel of the tongue D, and its rear bent arm, 4, passes under the pitman *w*, so that as the tongue rises, which it does with the frame, it turns the lever 2, and turning the lever raises the pitman from its connection with the lever P, and of course the slides *t t* remain at rest. To adjust the openings in the bottoms of the seed-boxes or hoppers, I use a flanged metal plate, 5, figs. 6 and 7, by which said opening may be made larger or smaller, as required, and when so adjusted a set-screw and nut, 6, holds it. While I prefer to make the down-hangers round, they, as well as the sockets, may be of other forms and still admit of adjustments and changes herein described.

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

1. Hinging the rear of the cultivator-frame to the axle, and to a lever in close proximity to the driver's seat, and supporting its front by a tongue and the necks of the team, so that it may be self-raising to pass over any obstruction, and be raised by the driver, when desirable to do so, and held up by a catch, substantially as herein described.

2. I also claim, in combination with the standards or down-hangers *b*, a cast or other iron socket or stock L, with wings *o o* for holding the cultivators and allowing them to be adjusted, removed, or replaced, substantially as described.

3. I also claim a removable and replacable bed or frame M for carrying a seeding mechanism, substantially such as described, so that the machine may be used for laying off the ground, planting corn, and cultivating it in rows, as herein described and represented.

MARSHALL J. HUNT.

Witnesses:

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