

A. M. BLACK.
Wheel-Cultivator.

No. 55,993

Patented July 3, 1866.

Fig. 1.

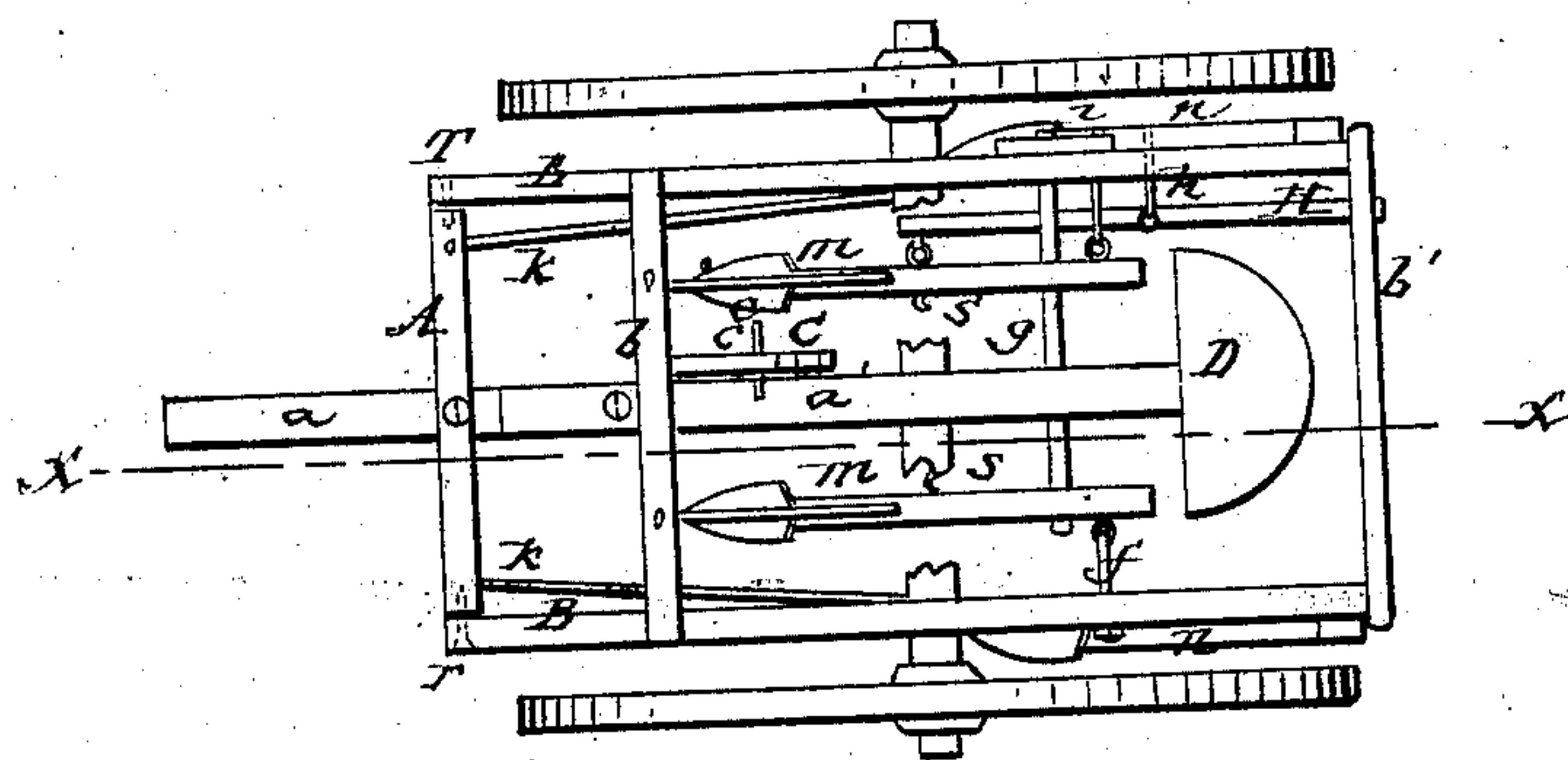
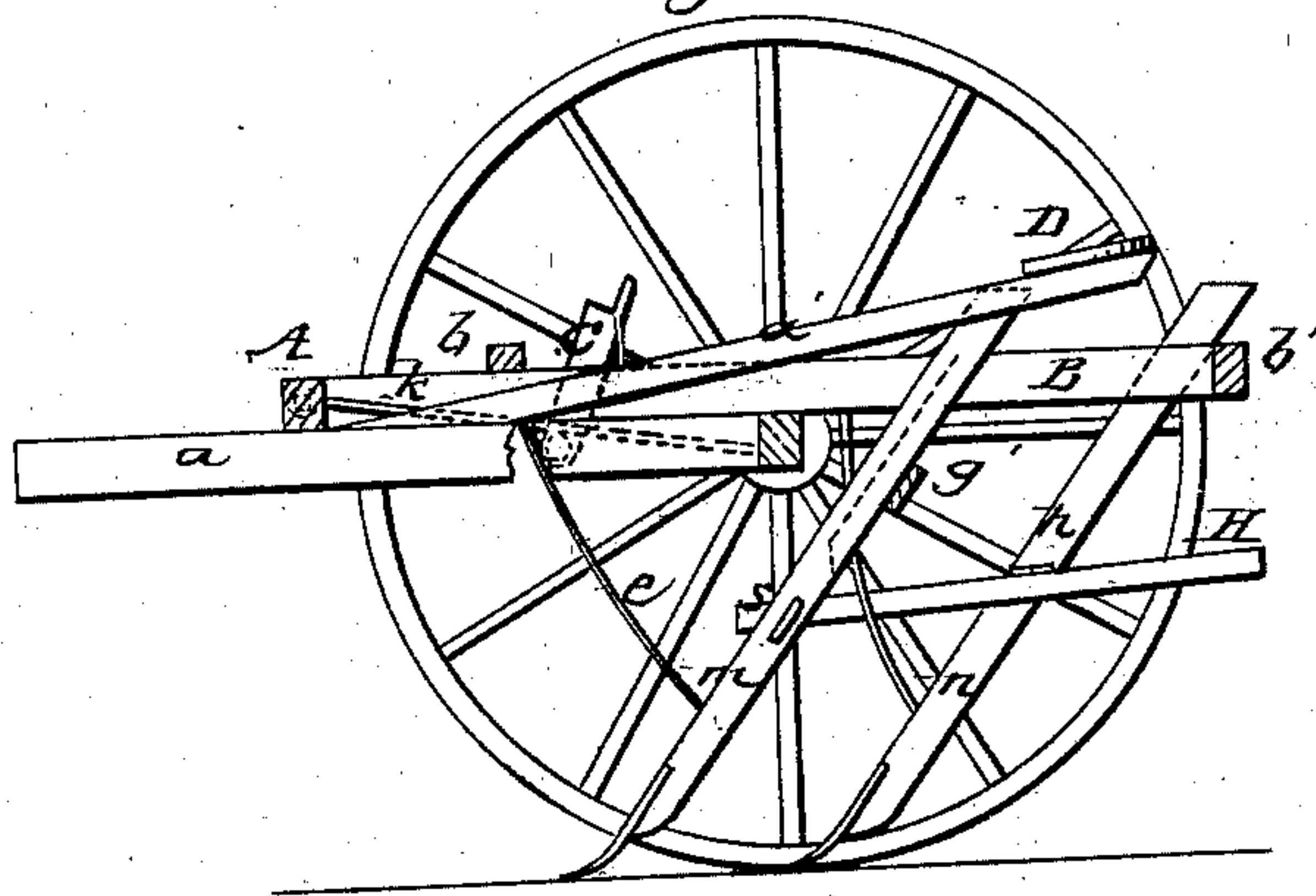


Fig. 2.



Witnesses:
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A. M. BLACK, OF AUBURN, ILLINOIS.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 55,993, dated July 3, 1866.

To all whom it may concern:

Be it known that I, A. M. BLACK, of Auburn, Sangamon county, State of Illinois, have invented a new and Improved Cultivator; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top view; and Fig. 2, a vertical section taken in the line *x x*, Fig. 1.

Similar letters of reference in the different figures indicate corresponding parts.

This invention relates to that class of corn-cultivator in which the plows are attached to a frame-work mounted on wheels, and in which provision is made for giving the center plows lateral vibratory motion for dodging the crooks of the drills, &c.

The object of the invention is to provide a frame-work and operating movements which have qualities of great simplicity, cheapness, and efficiency, as hereinafter explained.

To the tongue or pole *a* in the accompanying drawings is rigidly fixed a cross-bar, *A*, and the plow-beams *B B* are pivoted to the ends of the said cross-bar *A* by the pivots *r* in such manner that the rear ends of the plow-beams are free to move vertically.

The two plow-beams *B B* are secured to each other by the cross-piece *b* and *b'*. The outside plows or plow-standards, *n*, are fixed to the rear end of the plow-beams; but the central plows, *m m*, are attached to the plow-beams by eyebolts *f f*, which project from the inside of the plow-beams *B B* and take hold of the standards *m m* near their upper ends, and in such manner that the lower ends of the standards *m* are free to be vibrated laterally. The lower part of the central standard, *m m*, is supported in front by rods *e e*.

k k, Fig. 1, are stay-rods for giving strength and rigidity to the cross-piece *A*. *C* is an adjustable brace or prop, which is pivoted at its lower end to the pole *a*, and its upper end has a notch, (see Fig. 2,) which catches under the cross-piece *b* to hold the frame-work and plows up out of action when they are raised. This adjustable prop has a pin, *c*, Fig. 1, so that the prop may be operated readily by the foot of the driver, the pin *c* allowing the foot to get a good hold of the prop for withdrawing or inserting.

H is a hand-lever, which has its fulcrum on one of the fixed standards *m* and its work-

ing end attached to one of the center standards, *m*, and having its power end at the rear of the vehicle, as shown, so that the plows *m* may be operated while the driver or operator is walking in the rear of the machine.

In operation the vibratory plows are generally operated by the feet of the driver while occupying the seat *D*; but they may also be operated from the rear by means of the hand-lever *H*, as explained. When the plows are to be elevated out of action the driver elevates the same by taking hold of the frame-work or hold of the bolts *f f*, and when raised the swinging prop *C* is pushed under the cross-piece *b* with the foot and the frame secured in its elevated position. The center plow-beams, *m m*, are connected together by a connecting-rod, *g*, so that they always move laterally in unison. One end of this connecting-rod *g* is extended, so as to reach a hanging stud, *i*, Fig. 1, and when the center plows, *m*, are to be secured in position laterally, then this extended end of the connecting-rod *g* is secured to the said hanging stud *i*, and by this means the center plows are held rigidly in place.

By these means and by this construction I produce a cultivator which is extremely simple, and has no costly parts or movements, and requires but a small outlay of labor in construction, and makes a very desirable and efficient implement.

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

1. The pole *a*, having a cross-bar, *A*, rigidly secured thereto, and a frame-work composed of the plow-beams *B B*, with cross-pieces *b b'* pivoted to the ends of said cross-bar *A*, substantially in the manner and for the purpose specified.

2. The cross-bar *A*, plow-beams and frame *B B b b'*, the adjustable prop *C*, and lever *H*, all arranged and operating in the manner and for the purpose set forth.

3. The hook and eyebolts *f f*, which project from the inside of the plow-beams *B B* and fasten the standards *m m* to beams *B B*, the connecting-rod *g*, eye, and rod-fastening in cross-piece *b*.

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Witnesses:

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