S. J. HINKLE.

RIDING-CULTIVATORS.

No. 194,150. Patented Aug. 14, 1877.

Fig. 1.

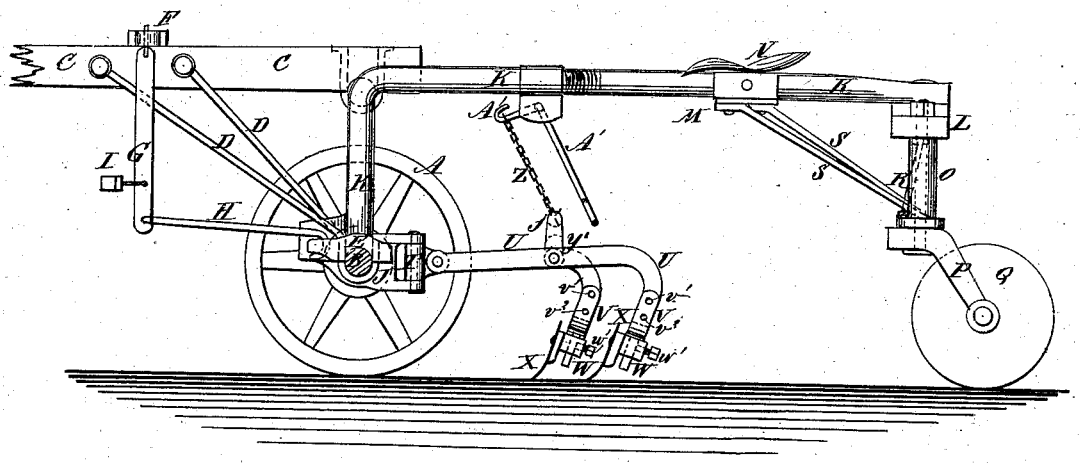
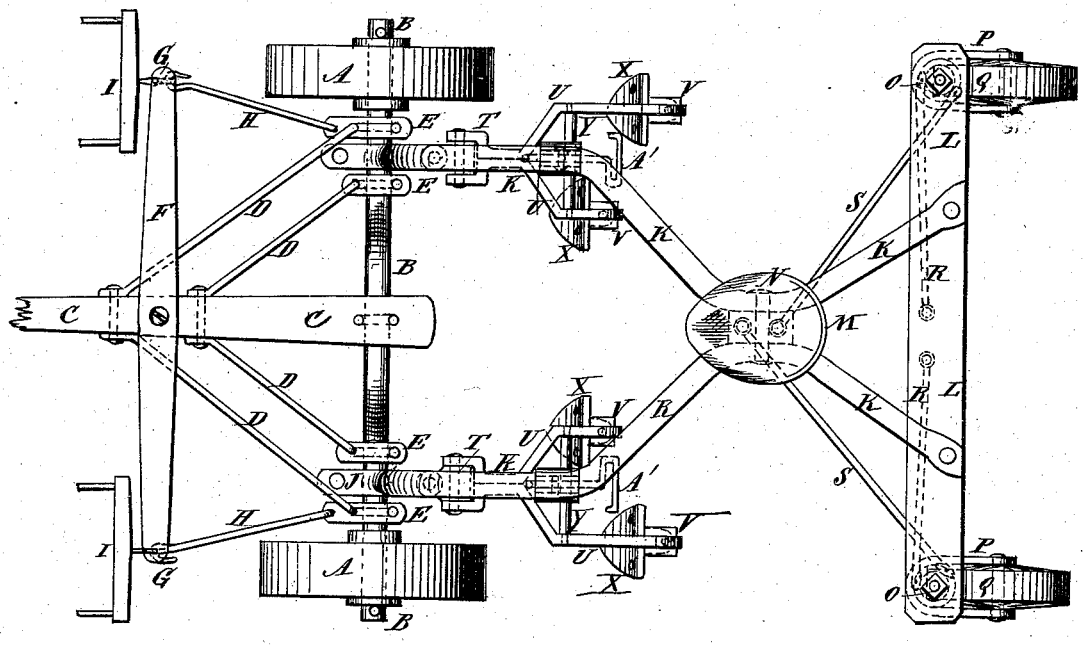


Fig. 2



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SQUIRE J. HINKLE, OF SARATOGA, INDIANA.

IMPROVEMENT IN RIDING-CULTIVATORS.

Specification forming part of Letters Patent No. **194,150**, dated August 14, 1877; application filed June 4, 1877.

To all whom it may concern:

Be it known that I, SQUIRE JAMES HINKLE, of Saratoga, in the county of Randolph and State of Indiana, have invented a new and useful Improvement in Riding-Cultivators, of which the following is a specification:

Figure 1 is a side view of my improved cultivator, the near wheel being removed. Fig. is a top view of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved riding-cultivator, which shall be simple in construction and easily guided and controlled, and which shall be of light draft, and without any downward pressure upon the tongue.

The invention will first be described in connection with the drawing, and then pointed out in the claims.

A A are the forward or main wheels, which revolve upon the journals of the axle B. The middle part of the axle B is arched, to enable it to pass over the plants being cultivated without injuring them.

To the center of the arch or bow of the axle B is attached the rear end of the tongue C, which is strengthened against side strain by the braces D, two upon each side, the forward ends of which are bolted to the tongue C, and their rear ends are connected with the horizontal parts of the axle B by bearings E.

To the rear part of the tongue C is pivoted the double-tree F, to the ends of which are pivoted the upper ends of the bars G. The lower ends of the bars G are pivoted to the forward ends of the rods H, the rear ends of which are pivoted to the outer bearings E.

To the bars G, a little above their lower ends, are pivoted the whiffletrees I. By this construction the tongue and double-tree are raised above the plants being cultivated, while the points of draft attachment are lowered so to be about in line with the points of resistance.

To bearings J attached to the horizontal parts of the axle B, between the bearings E, are bolted the forward ends of the bars K, which project upward vertically, are bent at right angles, pass back parallel with the length of the machine, are bent inward and outward, and their rear ends are bolted to the cross-beam L. The bars K, at their inward curves, are bolted to each other, and to the block M interposed between them, and to which the driver's seat N is attached.

To the ends of the cross-beam L are attached downwardly-projecting arms O, to the lower ends of which are swiveled the slotted or forked standards P of the caster-wheels Q, by which the rear end of the machine is supported.

The arms O are strengthened in position by the braces R S, the outer ends of which are attached to the lower parts of the said arms O. The inner ends of the braces R are attached to the middle part of the cross-beam L, and the inner ends of the braces S are attached to the block M.

To and between lugs formed upon the upper and lower parts of the rear ends of the bearings J are pivoted blocks T, so that the said blocks may have a free lateral play.

To the rear ends of the blocks T are pivoted the forked forward ends of the plow-beams U, so that the said plow-beams may have a free vertical play. This construction allows the rear ends of the plow-beams to be moved freely in any direction. The rear parts of the plow-beams are forked, have their rear ends curved downward, and their inner arms the shorter, to bring the plows to the proper distance apart.

V V are short bars or standards, the upper ends of which are slotted to receive the downwardly-curved ends of the plow-beams U, to which they are secured by the iron bolts v^1 and the wooden pins v^2. Should the plows strike an obstruction, the wooden pins v^2 will break and allow the plows to swing back to prevent breakage.

Upon the lower ends of the bars V are formed round tenons, which pass through holes in the blocks W, to the forward sides of which the plow-plates X are attached. The blocks W are secured in place upon the round tenons of the bars V by set-screws w', so that by loosening the said set-screws w' the plows may be raised or lowered, and inclined inward or outward, as may be desired.

The arms of the beams U are connected and held in proper relative position by a cross-bar, Y, upon the middle part of which is formed a

loop, y', to receive the driver's foot, so that he may guide the plows with his feet.

To eyes in the tops of the foot-loops y' are attached the lower ends of short chains Z, the upper ends of which are attached to the ends of the bent levers A′. The levers A′ are pivoted at their angles to the bars K, or to supports attached to said bars.

Upon the rear ends of the levers A′ are formed hooks, which are so formed that the driver with his feet can press down the rear ends of the levers A′ to raise the plows from the ground, and can pass the said hooks beneath the outer beams to hold the plows suspended, for convenience in turning around and in passing from place to place.

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

1. The combination of the arched axle B, arched and bent bars K, the cross-bar L, and caster-wheels, as shown and described.

2. The combination of the bent bars K, seat N, plow-beams U, with foot-rests y', levers A′, and chains Z, substantially as and the purpose specified.

SQUIRE J. HINKLE.

Witnesses:
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