(No Model.)

R. COHOON.

WHEEL CULTIVATOR.

No. 386,108. Patented July 17, 1888.

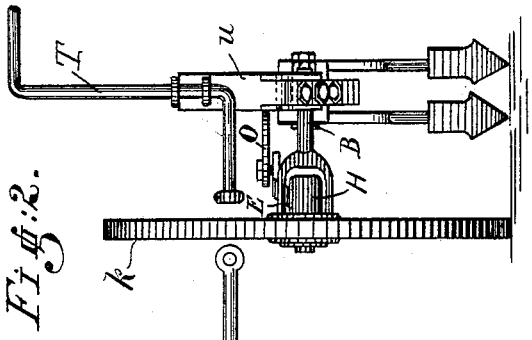

Fig. 2.

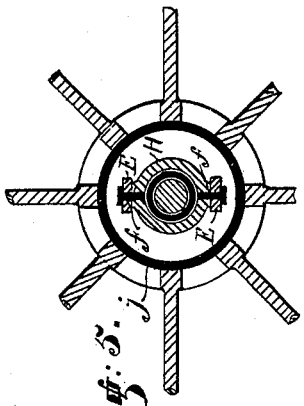

Fig. 5.

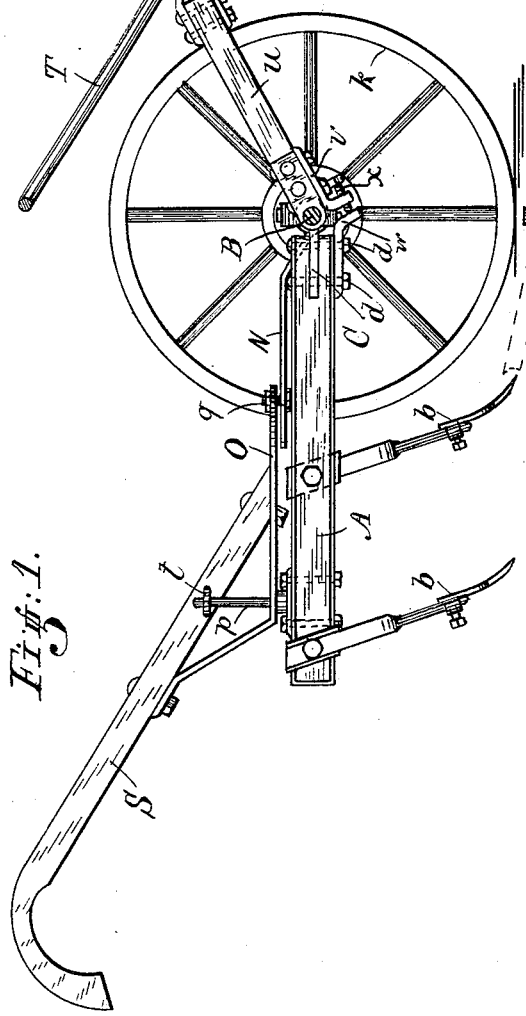

Fig. 1.

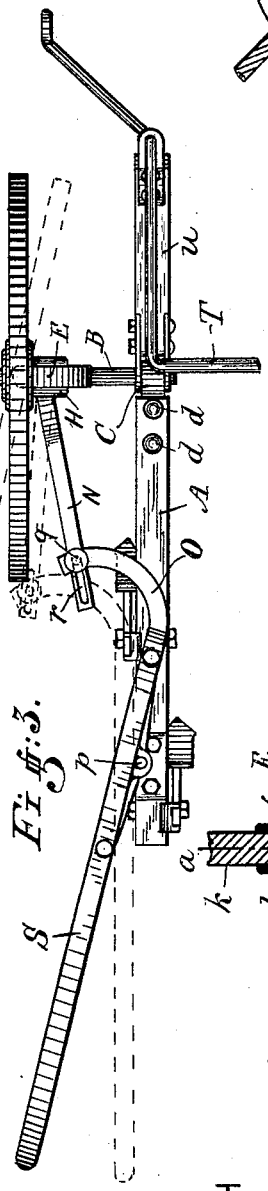

Fig. 3.

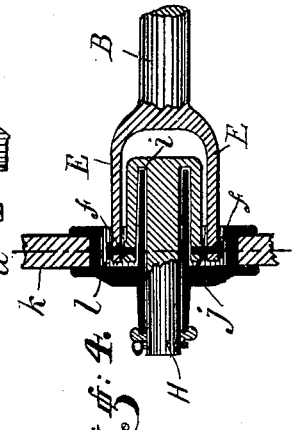

Fig. 4.

Witnesses:
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UNITED STATES PATENT OFFICE.

ROSS COHOON, OF CRAWFORDSVILLE, INDIANA.

WHEEL-CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 386,108, dated July 17, 1888.

Application filed April 2, 1888. Serial No. 269,304. (No model.)

To all whom it may concern:

Be it known that I, ROSS COHOON, a citizen of the United States, residing at Crawfordsville, in the county of Montgomery and State of Indiana, have invented a new and useful Improvement in Wheel-Cultivators, of which the following is a specification.

My invention relates to an improvement in that class of wheel-cultivators commonly known as "tongueless," and which consists of two gangs of cultivator-plows, each having a carrying-wheel and both connected to a common draft-bar.

The object of my improvement is to provide means whereby either or both of the carrying-wheels may be independently turned to form an angle with the line of draft by the person holding the plow-handles swinging the handles upon the plow-beams, and thus turning the wheels so as to draw the plow-gangs around an obstruction or a plant, and thus avoiding the frequent lifting of the plows, all as hereinafter fully described.

The accompanying drawings illustrate my invention.

Figure 1 represents a side elevation looking from the center between the plow-gangs outward. Fig. 2 is a front elevation of the same. Fig. 3 is a plan. Fig. 4 is a central vertical section on an enlarged scale, showing the manner of coupling the carrying-wheel spindles to the axle. Fig. 5 is a transverse section of the same at *a*, Fig. 4.

A is the plow-beam carrying the plows *b b*.

B is a short axle having an arm, C, which projects at a right angle from the axle, and is rigidly secured thereto, preferably by welding. Arm C enters a slot in the end of the plow-beam, and is rigidly secured therein by means of bolts *d d*, so that the axle B projects outward at a right angle with the plow-beam.

The outer end of axle B terminates in a forked arm, E, in which is pivoted, by means of bolts *f f*, so as to swing in a horizontal plane, a short cylindrical wheel-spindle, H. The inner end of spindle H is larger in diameter than the outer end, and is provided with an annular recess, *i*, whose smaller diameter is the same as that of the outer end of the spindle, the purpose being to form a long bearing for the hub *j* of the carrying-wheel *k*, which shall project about equally on each side of the wheel. The back side of hub *j* is recessed, as at *l*, to receive the outer end of the forked arm E, the purpose being to bring the pivots *f f* in line with the center of the rim of the wheel.

N is an arm, which is rigidly secured to spindle H and projects backward therefrom.

O is a bent lever, which is pivoted to the plow-beam at *p*, and is connected to arm N by a bolt, *q*, which slides in a slot, *r*, in the arm.

The plow-handle S is rigidly secured to lever O, so as to form an extension thereof, and has on one side an eye, *t*, through which pivot *p* projects.

T is an arched draft-bar, to which the plow-beam A and axle B are connected by a coupling-beam, *u*. Coupling-beam *u* is hinged at its forward end to the draft-bar to allow the latter to swing in a horizontal plane thereon, and is hinged at its rear end to the axle B, so as to swing thereon in a vertical plane.

For the purpose of adjustably supporting the draft-bar at a proper height, I secure rigidly to the under sides of the plow-beam and the coupling-beam a pair of bent plates, *v* and *w*, and through one of these plates I pass a set screw, *x*, the point of which rests against the other plate. By turning the set-screw in or out the outer ends of the coupling-bar and the draft-bar are raised or lowered.

I have shown and described one side or half of the cultivator, and the same description applies to the other half.

In operation: When it is desired by the operator to turn the plows to the right or left of the direct line of draft of the implement, as in following a crooked corn-row or in passing an obstruction, this result is accomplished by swinging the plow-handle to the right or left without lifting the plows, as heretofore. The plow-handle when swung to the right, as indicated in dotted lines in Fig. 3, operates through lever O to turn the spindle H on pivots *f f*, thus bringing the wheel into the position shown in dotted lines and causing the wheel and the plows to run inward toward the center of the draft-bar. When the handle is returned to the position shown in full lines, the wheel is again turned parallel to the line of draft, and the plow-beam assumes a corresponding position.

I claim as my invention—

1. In a cultivator, the combination of the

following elements, namely: a plow-beam having a cultivator-plow attached thereto, an axle rigidly secured to the forward end of the plow-beam and projecting from one side thereof, a wheel-spindle pivoted to the outer end of the axle so as to swing in a horizontal plane, a carrying-wheel mounted on said spindle, a lever pivoted to the plow-beam and having the plow-handle secured thereto, and intermediate connecting mechanism connecting said lever and wheel-spindle, whereby the wheel-spindle is caused to swing in a horizontal plane by the swinging movement of the handle upon the plow-beam, substantially as and for the purpose specified.

2. In a cultivator, the combination of the arched draft-bar, the plow-beam having a cultivator-plow attached thereto, the forked axle rigidly secured to the plow-beam, the coupling-beam hinged at its rear end to said axle, so as to swing in a vertical plane thereon, and hinged at its forward end to the draft-bar to allow the latter to swing in a horizontal plane thereon, the wheel-spindle pivoted in the forked end of said axle, so as to swing in a horizontal plane, the carrying-wheel mounted on the spindle, the arm rigidly secured to the spindle and projecting backward therefrom, the lever pivoted to the plow-beam and connected with said arm, and the plow-handle secured to said lever, all arranged to co-operate substantially as and for the purpose specified.

3. In a cultivator, the combination of the axle B, having the forked arm E, wheel-spindle H, having recess *i*, pivot-bolts *f f*, and wheel-hub *j*, having recess *l*, all substantially as and for the purpose specified.

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Witnesses:
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