

T. MEIKLE.
Carriage-Cultivator.

No. 213,675.

Patented Mar. 25, 1879.

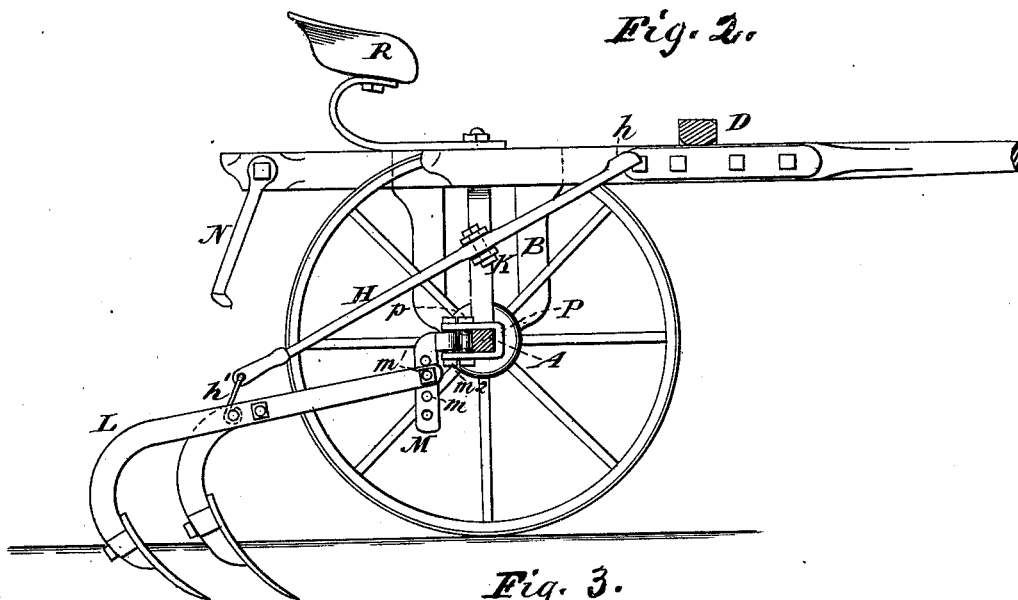
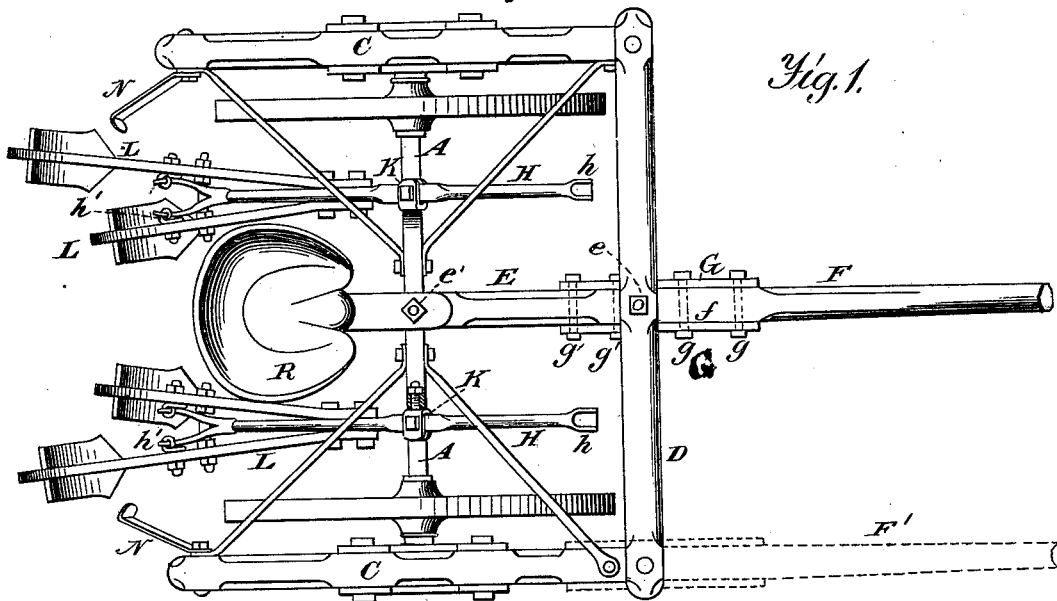
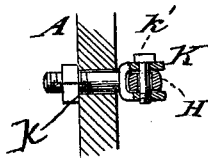


Fig. 3.



Witnesses.
A. Ruppert.
W. H. Liverance

Thos. Meikle
Inventor.
D. P. Holloway & Co.
Atty

UNITED STATES PATENT OFFICE.

THOMAS MEIKLE, OF LOUISVILLE, KENTUCKY.

IMPROVEMENT IN CARRIAGE-CULTIVATORS.

Specification forming part of Letters Patent No. **213,675**, dated March 25, 1879; application filed October 25, 1878.

To all whom it may concern:

Be it known that I, THOMAS MEIKLE, of Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Carriage-Cultivators; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a plan view. Fig. 2 is a sectional elevation. Fig. 3 is a detailed view of the universal fulcrum K.

The same letters are employed to refer to identical parts in the drawings.

My invention relates to a carriage-cultivator which is so constructed and arranged as to be adapted to be changed to a sulky-plow; and it consists in a universal fulcrum for the foot-lever, in connection with the foot-lever and the cultivator-beams, by means of which the operator can guide and control the cultivators by his feet while the cultivator is in operation, as will hereinafter more fully appear.

A is the axle of the carriage, arched in its central part to admit of its passing over the corn in operating. B are the standards, connecting the extended spindles of the axle with the frame-pieces C. D is the transverse piece of the frame, and E is a center piece of the same, and is attached to the frame by the bolt and nut *e*, and to the upper horizontal part of the axle A by the bolt and nut *e'*. F is the tongue. G G are plates of iron, firmly bolted to the vertical sides of the rear end of the tongue by the bolts *g g*. The center piece, E, is of the same thickness as the tongue, and these plates G G extend along the sides of the tongue and center piece far enough to afford a strong rigid attachment of the tongue to the center piece by means of the bolts and nuts *g g* and *g' g'*, thus forming a cheap and durable attachment for an adjustable tongue, and one readily adjusted as required. The common double-tree may be attached to the tongue at *f*, or any other place desired.

H H are levers, extending from a suitable

position near the seat of the operator. *h h* are guards to receive the feet of the operator, and enable him to impart a vertical or horizontal motion to the levers. These levers are attached to the vertical portions of the axle by means of the universal fulcrum K, and they are connected with the cultivator-beams L by means of the links *l'*.

N N are hooks attached to the rear ends of the frame-pieces C C, extending downward from the same, and so constructed as to serve as attachments for holding the cultivators, or either of them, in suspension above the ground, at the will of the operator.

The universal fulcrum K consists of a stud-bolt, *k*, which passes horizontally through the vertical part of the axle A, and is secured in position by proper bolts, nuts, or other similar means, and so constructed as to admit of being freely revolved in its bearing. Its outer end is double-flanged, to receive the body of lever H and admit of a hole for the bolt *k'*, which passes vertically through the double-flanged end of the stud-bolt and the lever H. The fulcrum K, as thus constructed, will allow a vertical or horizontal movement of the foot-lever H, or any intermediate motion between a vertical and a horizontal.

By means of a foot-lever constructed and arranged as herein described, an operator can control the direction and operation of the cultivators. He can change the direction of either or both of the cultivators, to avoid a hill of corn or an obstruction, or raise and lower or raise and suspend the same at will, by the employment of his feet at a time when the cultivator is in actual use without stopping or retarding the same.

M is an inverted-L-shaped draw-bar, perforated with a series of holes to receive the bolt *m'*, which attaches the draw-beam of the cultivator to the draw-bar.

By changing the insertion of the bolt *m'* in the holes *m*, the height of the cultivator-beam may be adjusted and the angle of the cultivator-blades changed in their relation to the ground.

The bolt *m'* is loosely fitting in the parts, and admits of a free hinge movement of the beam vertically. The upper forward arm of the draw-bar M is so formed as to admit of a hole

for the bolt m^2 to pass loosely through, and through holes in the extended arms of the clasps P, which span the axle, and are adjustably attached thereto by means of the cap-bolts p . R is a seat for the operator.

In case a plow is to be attached to the carriage instead of a cultivator, the tongue may be moved to the side piece, C, of the frame, and there attached, as represented by the dotted lines F'.

I am aware that heretofore foot-levers in sulky-cultivators have been so constructed that the operator could raise and lower the cultivators by the use of his feet; also, that in walking-cultivators there heretofore have been devices, consisting of various levers and joints, by which the cultivators could be raised and lowered and swung horizontally; but they differ essentially from my invention.

I am also aware that heretofore the guiding

or draft tongue of sulky plows and cultivators have been made adjustable from one position to another on the frame, as required for the different uses; but they differ essentially from my invention.

What I claim as new, and desire to secure by Letters Patent, is—

The universal fulcrum K, constructed substantially as described, in combination with the foot-lever H and the cultivator-beam L, constructed, connected, and operating together as and for the purposes substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

THOS. MEIKLE.

Witnesses:

J. SPEED PEAY,

W. J. CLEMERSON.