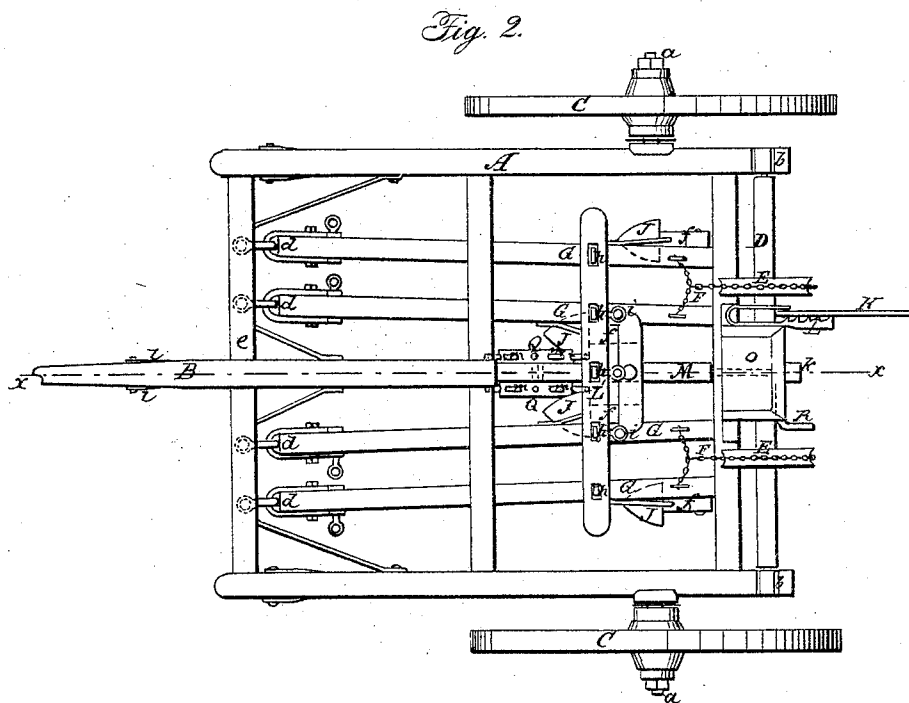
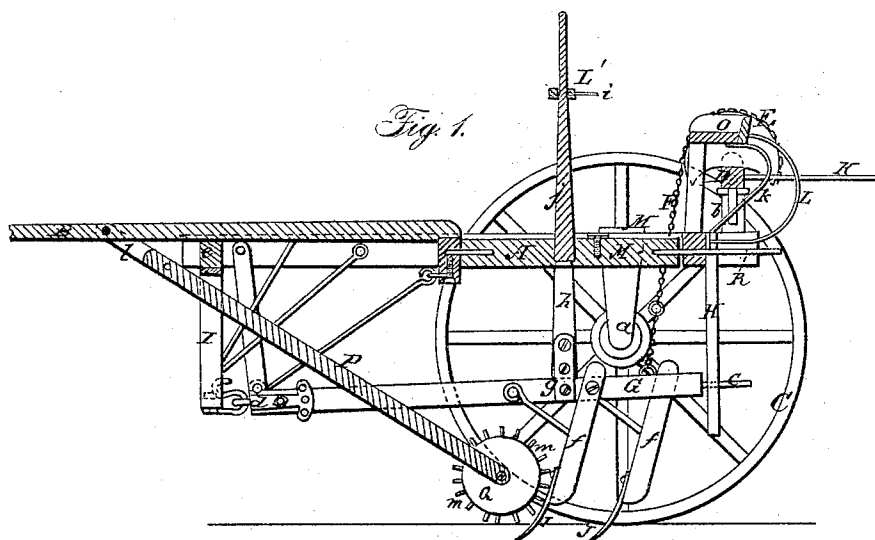


C. W. TALIAFERRO.

Wheel Cultivator.

No. 36,922.

Patented Nov. 11, 1862.



Witnesses:

*Wilson &
L. W. Reed*

Inventor:

*C. W. Taliaferro
by M. W. C. Atty.*

UNITED STATES PATENT OFFICE.

C. W. TALIAFERRO, OF KEITHSBURG, ILLINOIS.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 36,922, dated November 11, 1862.

To all whom it may concern:

Be it known that I, C. W. TALIAFERRO, of Keithsburg, in the county of Mercer and 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 of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *xx*, Fig. 2. Fig. 2 is a plan or top view of the same.

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

This invention consists of a series or gang of plows placed in a mounted frame and arranged in such a manner that they may be readily raised and lowered, and also adjusted or turned either to the right or left, as circumstances may require.

The invention also consists in the employment or use of a rotary shield or guard constructed and arranged or disposed in such a manner as to operate in the most efficient manner in protecting plants from clods of earth cast up by the plows.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a rectangular frame, having a draft-pole, B, attached to it. This frame is mounted upon two wheels, C C, the axles *a a* of which are secured to the frame A in such a manner that they may be moved farther forward or backward on the frame, as may be required.

On the back part of the frame A there are two uprights, *b b*—one at each side. The upper parts of these uprights form bearings for a shaft, D, on which there are two wheels, or segments of wheels, E E, having each a chain, F, attached to its periphery. The chains F F are attached at their lower ends to the back parts of plow-beams G, two beams being attached to each chain. These beams have each a journal, *c*, at their back ends, said journals fitting in pendent guides H, which are secured to the back cross-piece of the frame A. The front ends of the beams G are connected by universal joints *d* to pendent supports I, which are secured to the front cross-bar, *e*, of the frame A. The plow-beams have inclined standards *f* attached to them—two to each—the shovels or plows J being secured to said standards in the usual or in any proper way.

The shovels or shares are raised and lowered by turning the shaft D, the chains F being wound upon or unwound from the wheels or segments E E, and the plows are retained at any desired height by means of a lever, K, by which the shaft D is turned, being fitted in a curved or segment rack, L, at the back part of the frame A.

The pendent guides H admit of the back ends of the beams G being raised and lowered, while they also prevent any lateral play or movement of the beams, and the universal joints *d*, which connect the front ends of said beams to the pendants I, firmly secure the beams to said pendants, while they freely admit of the back ends of the beams rising and falling. They also admit of the beams G turning axially to a certain extent, in order that the shovels or plows may be turned to the right or left, as occasion may require. This turning of the shovels or plows is effected by the operator through the following means:

To each beam G there is attached by a joint, *g*, an upright, *h*. These uprights pass through mortises in a bar, L', and are secured therein by pins *i*. Through the center of the bar L' an upright, *j*, passes, and this upright is connected at its lower end to a rock-shaft, M, which is placed longitudinally in the frame A, and has a treadle or foot-piece, N, attached to it at a proper distance in front of the driver's seat O, which is attached to a proper support, K, on the frame A between the two wheels or segments E E, so that the driver can conveniently reach the lever K to raise and lower the shovels or plows, and also operate the rock shaft M to turn the plows either to the right or left.

P is a bar, the front end of which is attached to the draft-pole B by means of links *ll*. This bar P extends backward underneath the frame A and has two wheels, Q Q, attached to it—one at each side. These wheels are allowed to rotate freely on their axis, and they are provided at their peripheries with radial teeth or rods *m*, as shown more particularly in Fig. 1. These wheels Q Q form a shield or guard for the plants, and they are directly in front of the two foremost shovels or plows J, which are the ones that work by the side of the plants, the back shovels or plows working in the spaces between the rows. As the machine is drawn along the wheels Q Q travel one at each side of the plants and protect the same from the clods of earth cast up by

the foremost shovels or plows. The wheels are rotated by the draft movement of the machine and the penetration of the teeth or rods *m* into the earth. This shield or guard operates with but little friction, so that it does not materially increase the draft of the machine, and it possesses the advantage over all other shields or guards that I have seen in working near the earth and keeping the crown of the plants free from earth. The shield or guard, it will be seen, is allowed to rise and fall freely to conform to the irregularities of surface over which it passes.

I would remark that the plows may be adjusted laterally, if the driver desires to walk behind the machine, by means of a crank, *R*, attached to the back end of the rock-shaft *M*.

I do not claim broadly, or irrespective of the arrangement herein shown and described, plows arranged in such a manner as to admit of being raised and lowered and adjusted laterally; but,

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

1. The plow-beams *G*, connected at their front ends by universal joints *d* to pendent support *I*, at the front part of the frame *A*, and provided at their back ends with journals *c*, which are fitted in pendent guides *H* at the back end of the frame *A*, in combination with the uprights *h j*, bar *L*, and rock-shaft *M*, with treadle or foot-piece *N* attached, all arranged as and for the purpose set forth.

2. The rotary shield or guard formed of the two wheels *Q Q*, provided with radial teeth or rod *m*, and attached to the bar *P*, which is connected to the draft-pole *B* by the links *l l*, substantially as and for the purpose set forth.

C. W. TALIAFERRO.

Witnesses:

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MARK J. O'BRIEN.