

A. M. MANNY.

Improvement in Cultivators.

No. 121,114.

Patented Nov. 21, 1871.

Fig. 1.

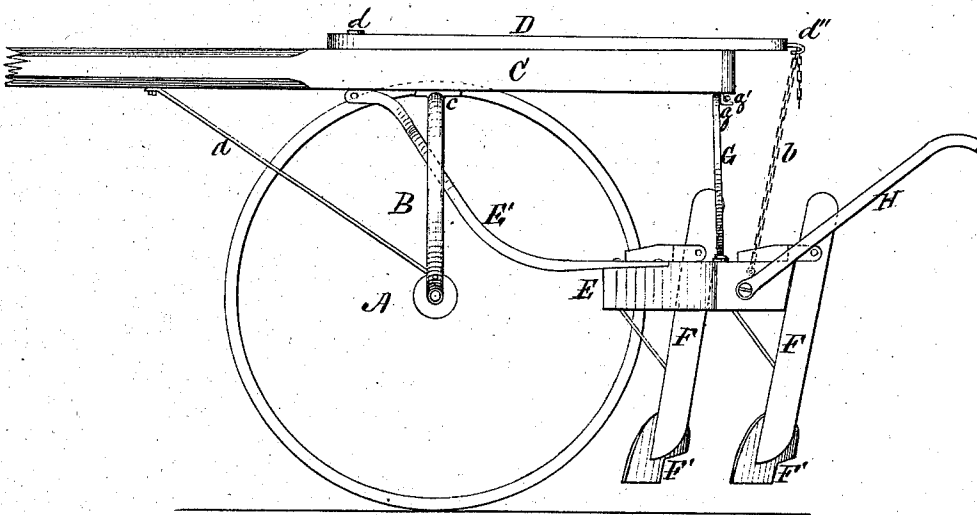
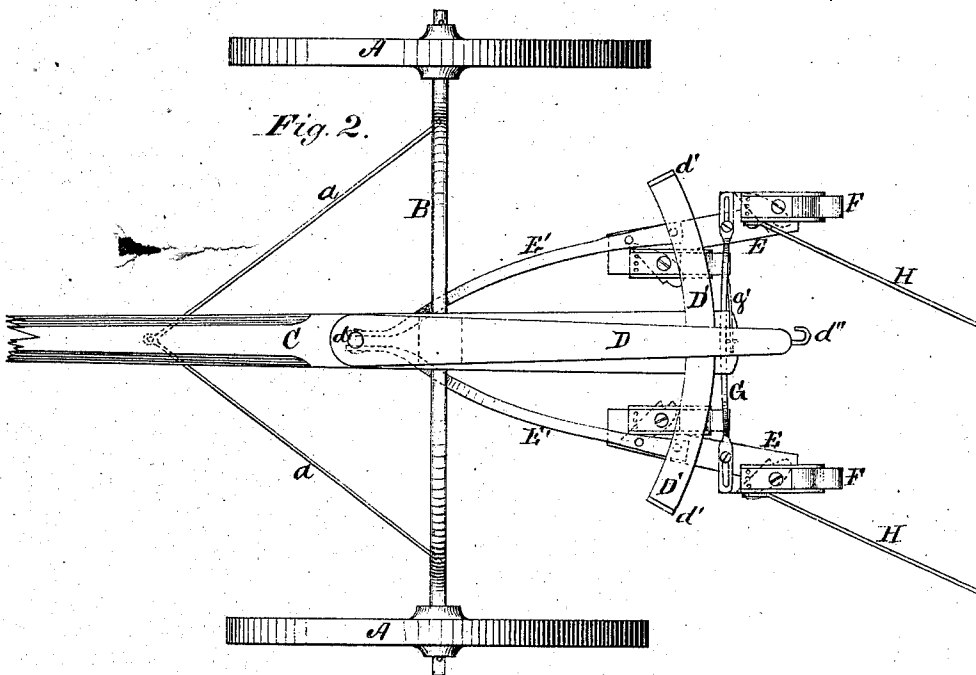


Fig. 2.



Witnesses:

T. C. Brecht.
Charles Chinn

Inventor,

Inventor:
Abram M Manny
By A. Crawford atty.

UNITED STATES PATENT OFFICE.

ABRAM M. MANNY, OF LENA, ILLINOIS.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 121,114, dated November 21, 1871.

To all whom it may concern:

Be it known that I, ABRAM M. MANNY, of Lena, in the county of Stephenson, in the State of Illinois, have made certain Improvements in Cultivators, of which the following is a specification:

This invention relates to improvements in that class of cultivators known as "walking cultivators;" and it consists in the construction, arrangement, and combination of such devices as are used in allowing a vibratory motion laterally of the plows, keeping them at an equal depth at all parts of their horizontal vibration, supporting them while so vibrating, and allowing a free vertical movement of the plows at the same time.

In the drawing, Figure 1 is a sectional side view, and Fig. 2 is a top view of the cultivator.

A represents the wheel; B, the arched axle that supports the operating parts. *a a* are braces that hold the tongue in proper relation with the axle B. C is the tongue firmly attached to the arched axle at *c*. D is the swing-bar or vibrating lever pivoted to the upper side of the tongue by pivot-bolt *d*. D' is a segmental supporting-bar, and is made fast to the tongue on its upper side and flush therewith, having upward projections *d'* at its extreme ends to stop the vibrations of the lever D and prevent its passing over the ends of bar D'. At the rear end of the vibrating lever is a hook, *d''*, the purpose of which will hereafter be shown. E E are the plow-beams, and E' E' are bent rods connecting the plow-beams to the tongue. F F are plow-standards and to which are attached the plows F' F'. The plow-standards F are connected to the plow-beams by means of plates and pivot-blocks, and in such manner as to be adjusted to different angles both vertically and laterally, and can be removed with the plows to the opposite beam and cause the plows to throw the earth in the opposite direction. The rods E' E' are bent forward, upward, and toward each other at their forward and top ends, forming a kind of arch in cross-section and allowing of their being passed over the corn or plants without interference. At their extreme upper and forward ends they are pivoted horizontally to the under or lower end of the bolt *d*, and by which the beams and their plows are allowed a free vertical and lateral movement. G is an arched adjusting-rod placed upon the tops of the beams E, and by which the beams are adjusted and held

at any desired distance apart, and held in the desired position by means of holding screw-bolts passing through slots in their feet and into the top side of the beam. Arched rod G has on its top part an auxiliary rod, *g'*, brazed upon the rear side and so bent as to act as to catch into hook *g* and hold the arched rod G forward of and against hook *g*, that is inserted into the under side of the tongue at its rear end; and when the arched rod is so hooked up the beams and plows are clear of the ground and can be transported safely, as the auxiliary pieces *g'* interlock with the hook and prevent the rod G from being detached from the hook *g*. *b b* are chains made fast at their lower ends to beams E, and are hooked into hook *d''* at the rear end of the vibrating lever D. These chains can be so adjusted as to their length that the plows may be gauged to any desired depth at which they may go into the ground, and at the same time form a flexible or yielding connection between the beams and the tongue, permitting the plows to vibrate laterally with the vibrating and supporting-lever D to any extent required in cultivating the plants in rows. H H are inclined handles that are attached to the plow-beams, and by which the operator or attendant conducts and controls the direction in which the plows shall go, and can instantly raise the plows vertically to be out of contact with the ground. The attaching of the plow-handles at an angle with the direction in which the cultivator is being drawn enables the operator to walk on one side of the row that is being cultivated, and at the same time will have full and easy control of them and can direct the course of the plows as well as though they projected parallel with the line of direction in which the cultivator is drawn.

This construction enables the operator to easily control both his team and the implement in cultivating corn in rows while walking, and the plows will be caused to follow the line of draft or vary therefrom at the will of the operator, and can instantly be raised out of contact with the ground to dodge any obstruction that may be in their way. By attaching and pivoting the rods E' to the pivot-bolt *d* the vibrating lever D will simultaneously swing laterally with the beams and allow the same to be raised vertically.

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

1. The combination of the beams E, having bent rods E' pivoted on the under side of the tongues c to bolt d, vibrating lever D having hook d'' at its rear end, segmental supporting-bar D', and chains b b, constructed and arranged to operate in the manner described.

2. The arched adjusting-rod G, having auxiliary rod g' attached thereto, in combination with the hook g on tongue c, in the manner and for the purpose described.

3. The combination of the inclined handles H, beams E, chains b, and vibrating lever D, having hook d'', constructed in the manner and for the purpose of raising and holding the beams at any point vertically, as described.

ABRAM M. MANNY.

Witnesses:

HI. J. STEARNS,
WM. WINTER.

(43)