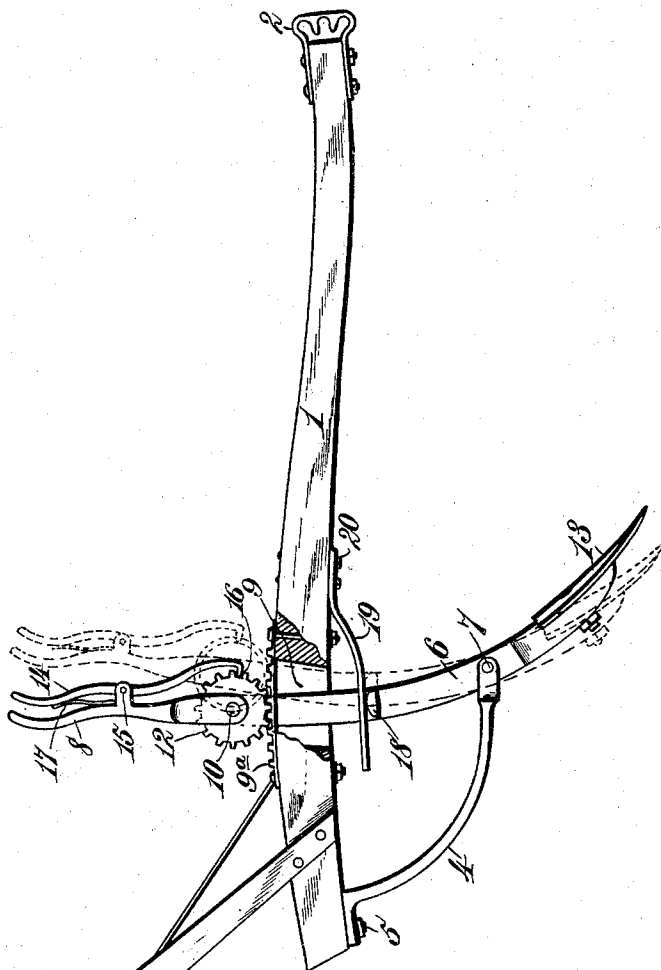


(No Model.)

J. L. KERR.
CULTIVATOR OR PLOW.

No. 477,552.

Patented June 21, 1892.



Witnesses,

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Inventor,

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By

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UNITED STATES PATENT OFFICE.

JOHN L. KERR, OF WEDOWEE, ALABAMA.

CULTIVATOR OR PLOW.

SPECIFICATION forming part of Letters Patent No. 477,552, dated June 21, 1892.

Application filed February 18, 1892, Serial No. 422,000. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. KERR, a citizen of the United States, residing at Wedowee, in the county of Randolph and State of Alabama, have invented new and useful Improvements in Cultivators or Plows, of which the following is a specification.

This invention relates to cultivators or plows, and has for its object to provide novel means for varying the pitch of the cultivator or plow to regulate its depth of penetration in the soil, the construction being such that the cultivator or plow can be adjusted while the team is advancing.

To accomplish this object my invention consists in the combination, with the plow-beam and a pendent brace-arm secured thereto, of a cultivator or plow standard pivotally connected with the brace-arm, rising above the plow-beam and capable of swinging forward and backward on its pivot, a rack-bar secured to the upper side of the plow-beam, a rotatable gear journaled on the standard and engaging the rack-bar, and a locking device for holding the gear stationary to secure the standard against forward or backward motion.

The invention also consists in certain other features of construction and combination or arrangement of devices, hereinafter described and claimed, reference being made to the accompanying drawing, in which the figure is a sectional side elevation of a cultivator or plow embodying my invention.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawing, wherein—

The numeral 1 indicates a plow-beam having at one end a suitable clevis attachment 2 and near the opposite end handles 3 and a pendent curved brace-arm 4, rigidly secured at its upper end to the rear extremity of the plow-beam through the medium of suitable bolts 5 or other fastening devices. The cultivator or plow standard 6 is pivoted, as at 7, to the lower end of the brace-arm 4, and from this pivotal point the standard rises above the plow-beam to form a handle 8. If desired, the plow-beam may be slotted, as at 9, for the passage of the standard; but I do not confine myself to this particular construction. The

upper side of the plow-beam is provided with an attached rack-bar 9^a, formed in the arc of a circle struck from the pivot 7, and to the plow-standard is journaled by a shaft or axle 10 a gear 12, which, as here shown, is in the form of a wheel or pinion adapted to revolve on the shaft or axle 10. The gear engages the rack-bar 9, and consequently by pulling the handle 8 rearward the gear is caused to traverse the rack-bar, and the cultivator or plow 13 is raised toward the plow-beam, while if the handle 8 be pushed forward the gear traverses the rack-bar, and the cultivator or plow is adjusted to the position as indicated by dotted lines in the drawing.

In order to lock the plow-standard in the position to which adjusted, I provide a device whereby the gear can be locked stationary in engagement with the plow-beam. As here shown, the device comprises a locking-lever 14, pivoted between its extremities to the handle 8, as at 15, and having at its lower end a projection or finger-piece 16 to engage the teeth of the gear. The upper end of the locking-lever is acted upon by a suitable spring 17, so that the projection or finger-piece 16 is normally held in engagement with the gear. When the plow-standard is to be adjusted for varying the pitch of the cultivator or plow, the locking-lever 14 is operated to release the projection or finger-piece 16 from the gear 12, after which the handle 8 can be operated to swing the upper portion of the plow-standard forward or backward, as may be desired, when the proper adjustment has been effected the locking-lever is released, so that the spring operates to throw the projection or finger-piece 16 into engagement with the gear. By this means the standard is locked to the plow-beam in any position desired for adjustment and the pitch of the cultivator or plow can be varied for regulating its depth of penetration in the soil.

The plow-standard is provided with a lateral projection 18, upon which rests the free extremity of a leaf-spring 19, secured to the plow-beam, as at 20, for the purpose of pressing the plow-standard in a downward direction, and thus relieve the brace-arm 4 from considerable strain.

It is obvious that the construction and ar-

5 rangement described and shown render it possible for the attendant while walking behind the plow to reach forward and shift the standard to vary the pitch of the cultivator or plow.

Having thus described my invention, what I claim is—

10 1. The combination, with a plow-beam having an attached rack-bar and a pendent brace-arm secured to the plow-beam, of a cultivator or plow standard pivotally connected with the brace-arm, rising above the plow-beam, and capable of swinging forward and backward on its pivot, a rotatable gear journaled on the
15 standard and engaging the rack-bar, and a locking device for holding the gear stationary to secure the standard against forward or backward motion, substantially as described.

2. The combination, with a plow-beam and a pendent brace-arm secured thereto, of a cultivator or standard pivotally connected with the brace-arm, rising above the plow-beam, and capable of swinging forward and backward on its pivot, a spring acting to press the standard downward, a rack-bar secured to the upper side of the plow-beam, a rotatable gear journaled on the standard and engaging the rack-bar, and a locking device for holding the gear stationary, substantially as described.

In testimony whereof I have hereunto set my hand and affixed my seal in presence of two subscribing witnesses.

JOHN L. KERR. [L. S.]

Witnesses:

J. M. BELL,

J. C. THOMASON.