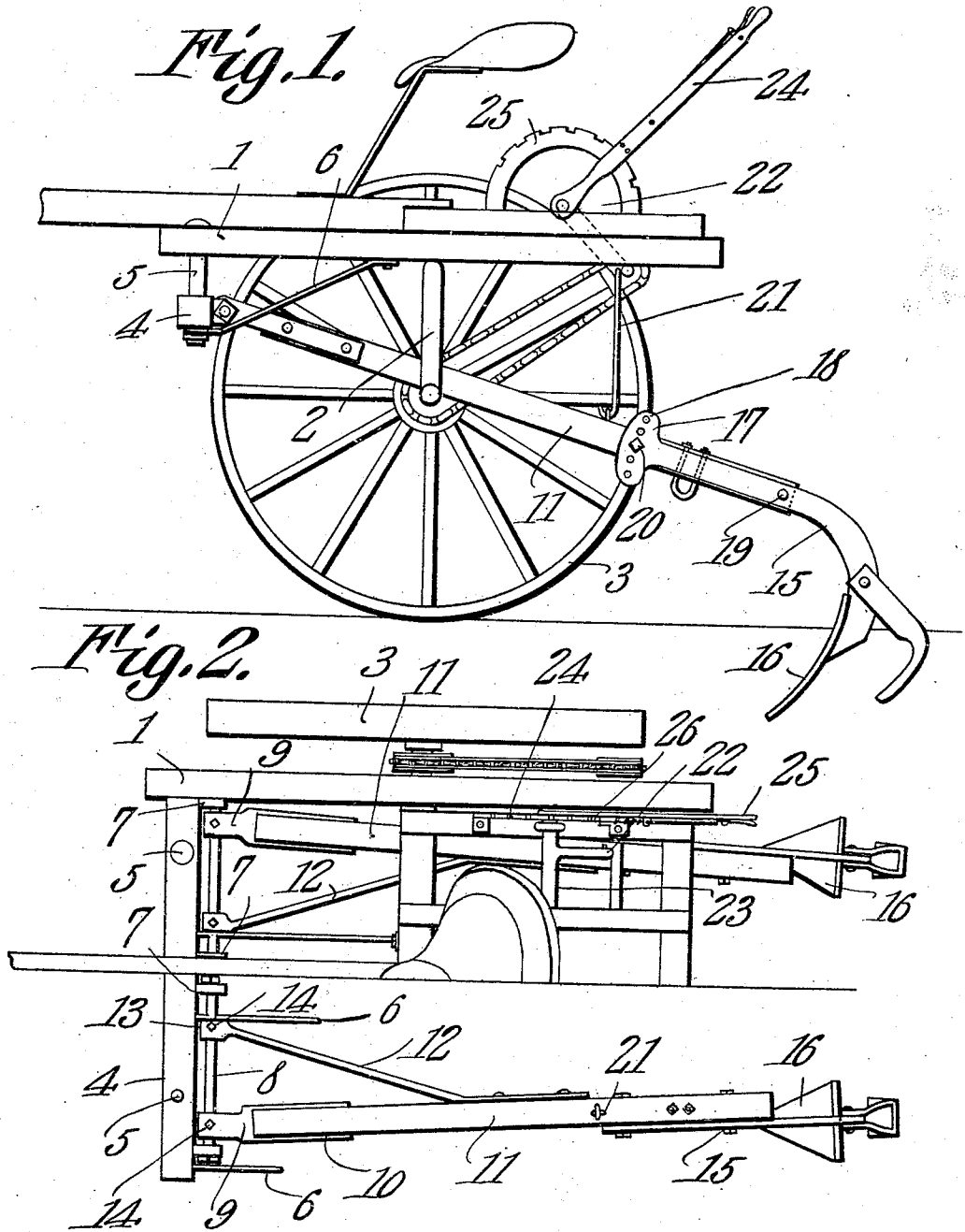


W. L. MORFORD.
CULTIVATOR.
APPLICATION FILED OCT. 2, 1909.

956,132.

Patented Apr. 26, 1910.



Witnesses
Edw. H. [Signature]
Arthur D. [Signature]
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UNITED STATES PATENT OFFICE

WILLIAM L. MORFORD, OF MAITLAND, MISSOURI.

CULTIVATOR.

956,132.

Specification of Letters Patent.

Patented Apr. 26, 1910.

Application filed October 2, 1909. Serial No. 520,608.

To all whom it may concern:

Be it known that I, WILLIAM L. MORFORD, a citizen of the United States, residing at Maitland, in the county of Holt and State of Missouri, have invented a new and useful Cultivator, of which the following is a specification.

This invention relates to cultivators and its object is to provide a device of this character which can be used upon two rows simultaneously, the shovel-carrying means being adjustable toward or from each other to regulate the distances between the rows.

Another object is to provide improved means for locking the beams against lateral movement subsequent to the adjustment thereof, said beams having separate means whereby they can be independently raised or lowered.

Another object is to provide a cultivator, the furrow opener of which is so shaped as to permit a portion of the soil to fall back into the furrow so as to properly cover the deposited seed and prevent it from being washed away by heavy rains.

With these and other objects in view, the invention consists of certain novel details of construction and the combinations of parts hereinafter more fully described and pointed out in the claim.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a side elevation of a cultivator embodying the present improvements. Fig. 2 is a plan view thereof, one half of the main or top frame being removed.

Referring to the figures by characters of reference, 1 designates the main frame of the machine, the same being mounted on an arched axle 2, which is supported by wheels 3. A cross beam 4 is supported below the front portion of frame 1 by means of hangers 5, this beam being held against displacement by braces 6 which are fastened thereto and to the bottom of the frame.

Ears 7 extend rearwardly from the beam 4 and are preferably arranged in pairs, the ears of each pair constituting bearings or supports for a pivot rod 8 which is revolvably and detachably mounted within the ears. Each rod has a casting 9 mounted upon it, said casting being provided with a forked portion 10 in which is secured one end of a beam 11. A brace 12 is secured to one side of the beam and extends at an acute angle

therefrom, there being an eye 13 at one end of the brace and through which the rod 8 extends. Set screws 14 are mounted in the eye 13 and the casting 9, respectively, and are designed to engage the rod 8 so as to hold the casting 9 and the eye 13 against movement relative to the rod.

A curved strip or drag bar 15 is attached to the rear portion of each beam 11 and its rear portion extends downwardly and constitutes a standard to which is secured a V-shaped shovel 16. The front end of the strip 15 has a head 17 provided with a series of openings 18, these openings being arranged in an arc concentric with a bolt 19 extending through an intermediate portion of the strip 15 and through the beam 11. Any one of the openings 18 is designed to receive a bolt 20 extending through beam 11 and by means of which the strip 15 can be held at any desired angle relative to the beam.

A lifting rod 21 is pivotally connected to each of the beams 11 and has its upper end pivotally attached to an arm 22 extending radially from a short shaft 23 which is journaled on the frame 1. Two of these shafts are provided, one being used in connection with each beam 11, and a lever 24 extends from each shaft and is arranged adjacent a toothed segment 25 designed to be engaged by a spring-pressed pawl 26 whereby the lever and the parts connected thereto can be held in any position required.

When the machine herein described is in use, the shovel 16 will plow deeply into the ground and will throw the soil to opposite sides of the furrow. The seed may be deposited directly in rear of the shovels and portions of the loosened soil will fall back into the furrow and onto the seed in sufficient quantities to prevent said seed from being washed out of the furrow during heavy rains.

By loosening the set screws 14 the beams 11 can be shifted toward or away from each other and by again tightening said set screws the beams can be held in adjusted position, although still capable of vertical swinging movement. By providing beams 11 which can be separately adjusted vertically, either of the shovels can be elevated to avoid obstructions.

It is to be understood of course that various changes may be made in the construction and arrangement of the parts with-

out departing from the spirit or sacrificing the advantages of the invention.

What is claimed is:—

5 A machine of the class described including a wheel supported frame, a beam supported there-below, a rod mounted for rotation adjacent to and supported by the beam, a member slidably mounted on the rod, means carried by said member and engaging the rod to hold the member against
10 movement on the rod, a beam secured to and extending rearwardly from the member, a brace secured to the beam and mounted on the rod, means carried by the brace and
15 engaging the rod to hold said brace against

movement on the rod, a curved strip pivotally connected to the beam, means for securing said strip against movement relative to the beam, and a shovel carried by the strip, an actuating lever, means for locking the lever against movement and a connection
20 between said lever and the last mentioned beam.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.
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WILLIAM L. MORFORD.

Witnesses:

M. C. BRUMBAUGH,

W. C. JOHNSON.