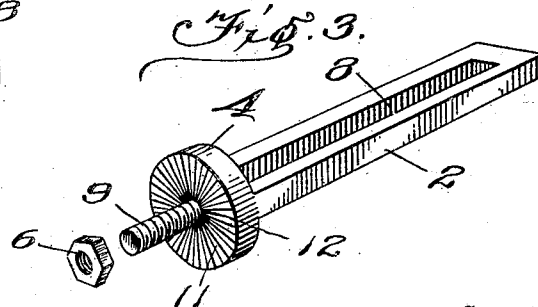
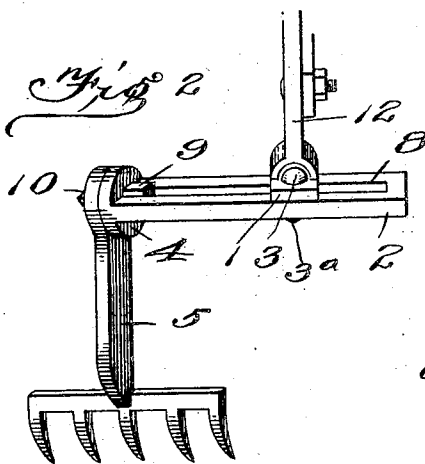
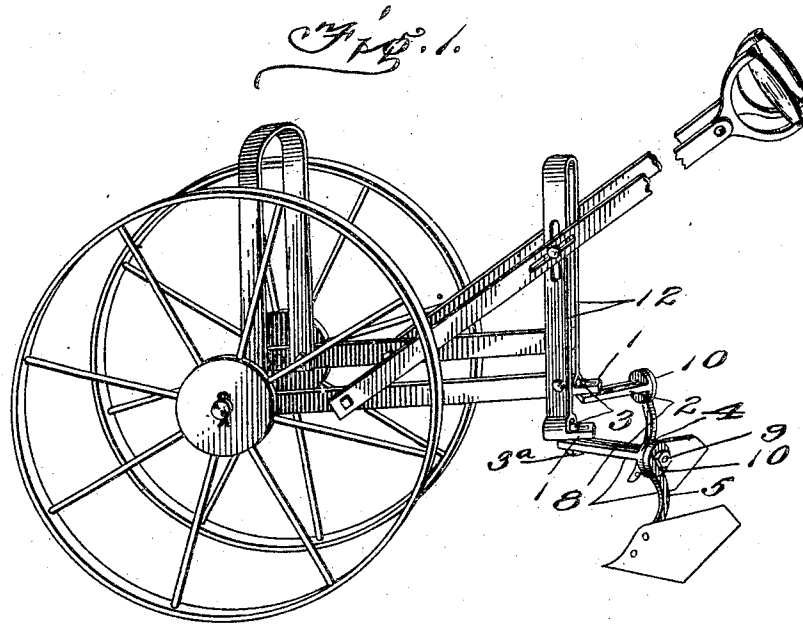


W. H. DUNSHA.
ADJUSTABLE TOOL JOINT FOR CULTIVATORS.
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937,778.

Patented Oct. 26, 1909.



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ADJUSTABLE TOOL-JOINT FOR CULTIVATORS.

937,778.

Specification of Letters Patent.

Patented Oct. 26, 1909.

Application filed February 24, 1909. Serial No. 479,689.

To all whom it may concern:

Be it known that I, WILLIAM H. DUNSHA, a citizen of the United States, residing at Geneva, in the county of Ashtabula and State of Ohio, have invented certain new and useful Improvements in Adjustable Tool-Joints for Cultivators, of which the following is a specification.

This invention relates to joints for attaching tools or teeth to cultivators or the like, and is adapted especially for use on hand cultivators of the straddle row type, but it can be used to advantage on implements of various other kinds.

The invention provides a lateral adjustment of a pivoted horizontal arm, as well as a lateral and vertical adjustment of a tool the shank of which is pivoted by a horizontal pivot at the end of said arm, as will more fully appear from the following description and the accompanying drawings.

In the drawings—Figure 1 is a perspective view of a cultivator with the invention applied thereto; Fig. 2 is a rear perspective detail of the device forming the subject of the invention; Fig. 3 is a perspective view of the arm which connects the tool to the cultivator frame.

Referring specifically to the drawings, 12 indicates standards which are mounted upon the cultivator frame and which have vertical adjustment with respect to the handles by means of known devices. Each standard has at the lower end a foot 1 the sole or bottom of which is in a horizontal plane and is provided with a vertical depending bolt 3 which extends through the foot. This bolt 3 fits through a slot 8 in an arm 2 the inner end of which fits against the bottom of the foot and which in consequence of the pivotal connection formed by the bolt, may be extended at any angle to the foot, and in consequence of the slot, may be extended to various positions. The bolt 3 has a nut 3^a to hold the arm to the foot in the position set.

At its outer end the arm 2 has a circular head 4 the face of which is located in a vertical plane and is provided with radial corrugations 11 and a central hole 12 which extends through to the slot 8. The shank 5 of the tool to be used—which may be any tool or point desired—has a head 10 the face of which is in a vertical plane and properly shaped and arranged to fit against the face

of the head 4. A bolt 9 extends through the hole 12 and through a corresponding hole in the head 10, and has a nut 6 to fasten the heads together, the face of the head 10 being also corrugated to lock with the corrugations 11.

It will be seen that the arm 2 can be turned in a horizontal plane to any desired position, to bring the points closer together or farther apart and to alter their cutting angle. The slot 8 also allows the tool to be set in or out to the desired distance. This accommodates the cultivator or implement to rows of various widths. In consequence of the pivotal connection at the bolt 9, the tool or tooth can be turned in a vertical plane, to any angle desired, in order that the tool may be most effectively presented to the ground. This adjustment will be found particularly useful in hilling up rows.

The invention is not limited to the precise details illustrated and described, nor to the uses mentioned, and no limitation in these respects is implied.

I claim:

1. The combination of an upright standard, a horizontal arm, a vertical pivot connecting one end of the arm to the lower end of the standard for angular adjustment in a horizontal plane, and a tool shank pivoted to the outer end of the arm for angular adjustment in a vertical plane.

2. The combination of an upright standard, a horizontal slotted arm, a bolt extending vertically through the slot and connecting the arm to the lower end of the standard for adjustment in a horizontal plane, and a tool shank adjustably connected to the outer end of the arm.

3. The combination of an upright standard, an arm pivotally connected at one end to the foot thereof for adjustment in a horizontal plane, said arm having a head with a vertical face fitting the said face, and a horizontal pivot bolt connecting the head of the arm and the head of the shank and permitting angular adjustment of the shank in a vertical plane transverse to the longitudinal axis of the arm.

In testimony whereof, I do affix my signature in presence of two witnesses.

WILLIAM H. DUNSHA.

Witnesses:

MONROE E. MILLER,

JOHN A. BOMMhardt.