

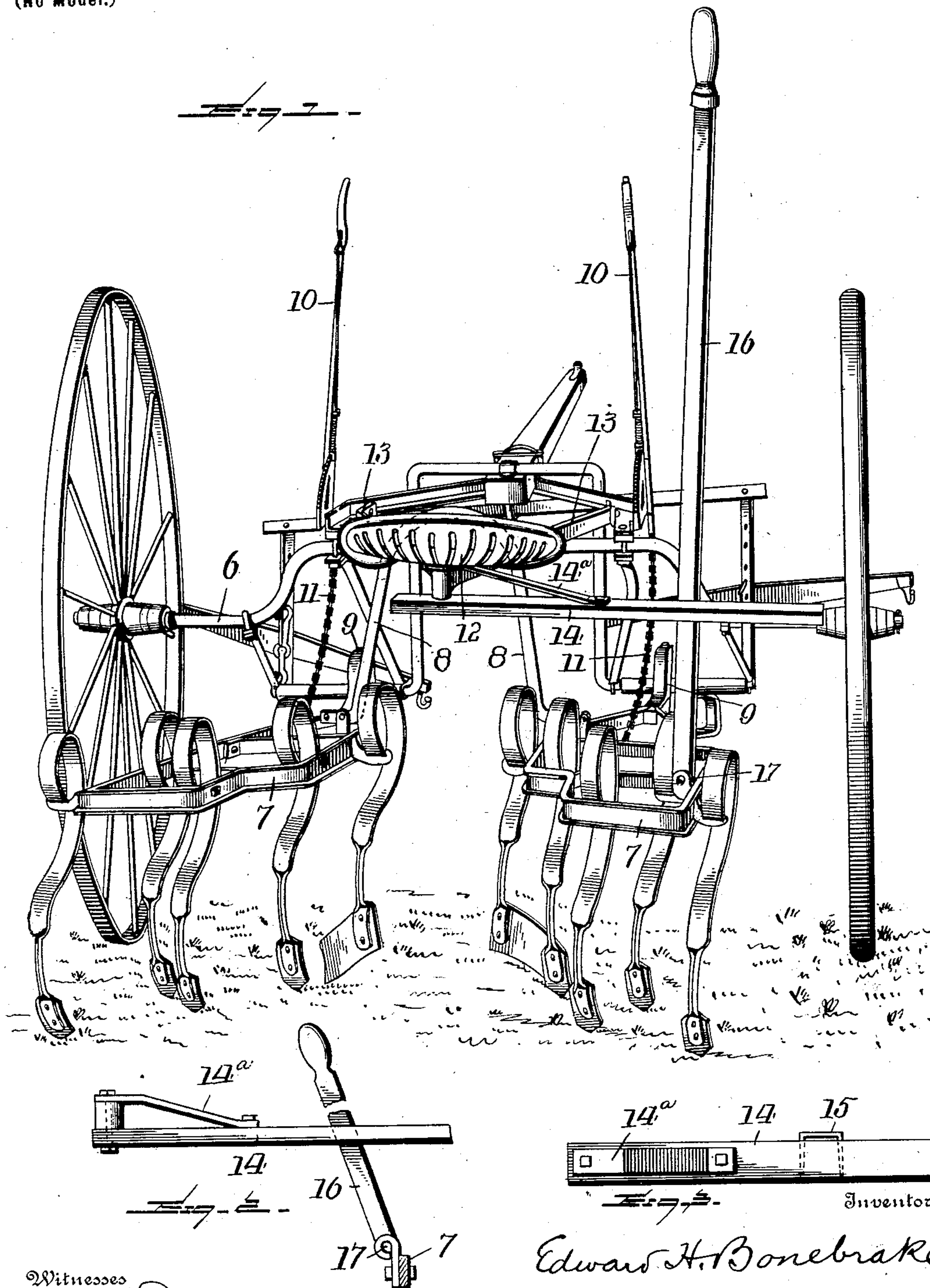
No. 703,039.

Patented June 24, 1902.

E. H. BONEBRAKE.
CULTIVATOR.

(Application filed Dec. 30, 1901.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

EDWARD H. BONEBRAKE, OF ROADSIDE, PENNSYLVANIA.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 703,039, dated June 24, 1902.

Application filed December 30, 1901. Serial No. 87,747. (No model.)

To all whom it may concern:

Be it known that I, EDWARD H. BONEBRAKE, a citizen of the United States, residing at Roadside, in the county of Franklin and State of Pennsylvania, have invented certain new and useful Improvements in Cultivators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to riding-cultivators, and particularly to straddle-row cultivators having a gang of plows or teeth on each side of the row.

The object of my invention is to provide improved means for moving the gangs laterally to properly locate the same with respect to the row being cultivated.

Particularly the invention is designed to provide an improved hand-lever to accomplish this result instead of by the feet, as commonly in use. To move or shift the gangs by the feet is very tiresome to the feet and legs, particularly in hillside-work, where the gangs have to be held up to the row.

My invention comprises a single hand-lever pivoted to one of the gangs and so fulcrumed as to permit of vertical movement when the gangs are lifted. This lever will shift both gangs in either direction and is located in convenient reach of the operator seated on the implement.

Figure 1 is a perspective view of a riding-cultivator provided with my improvement. Fig. 2 is a rear elevation of parts detached, showing my invention. Fig. 3 is a top plan view of the same parts.

Referring particularly to the drawings, 6 indicates the axle of an ordinary straddle-row cultivator; 7, the plow-beams, which are connected to each other by the arched bar 8 and are pivoted, as at 9, to the frame of the machine to swing vertically and horizontally. The lifting-levers are indicated at 10, con-

nected to the plow-beams by the chains 11. 12 is the seat, supported by the arms 13. These parts are old in the art and are thought to require no further description.

To the arms 13, preferably directly under the seat, I attach a laterally-extending arm 14. A brace 14^a assists in supporting the arm, which, together with the brace, is conveniently secured to the seat-supports by the same bolt that secures the seat thereto.

At or near the outer end of the arm 14 is a bearing-bracket 15, through which the lever 16 loosely extends vertically and which forms a fulcrum for the lever. The lower end of the lever is pivotally connected to the plow-beam, as at 17. The upper end of the lever is in convenient reach of the operator in the seat. The lever is vertically movable within the bracket, so as to accommodate the vertical vibration of the plow-beams in passing over the ground, and also permits the gangs to be raised from the ground when desired.

In operation whenever it is necessary to shift the gangs the operator may do so by proper movement of the lever. Because of the purchase given by the lever and the location of the handle thereof relative to the operator the work is much more easily performed than by the use of the foot-levers. The connecting-bar 8 between the gangs causes them both to move simultaneously, so that the use of only one lever is necessary, although with cultivators having independently-movable gangs my invention may be duplicated on the other side of the machine, so as to permit independent movement of each gang.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. The combination with the laterally-swinging plow-beam of a cultivator, of a vertically-extending hand-lever to swing the beam laterally, having shifting fulcrum connections with the frame of the machine.

2. The combination with the laterally-swinging plow-beam of a cultivator, of a vertical lever pivoted to said beam, and a ful-

crum for the lever supported on the frame of the machine, said lever being longitudinally movable relative to the fulcrum.

3. The combination with the laterally-
5 swinging plow-beams of a straddle-row cultivator and the arched bar connecting the same, of a vertically-extending lever to swing the beams laterally, said lever being connected to one of the beams and fulcrumed in an arm

supported by the frame of the machine, said lever having longitudinal movement relative to its fulcrum.

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

EDWARD H. BONEBRAKE.

Witnesses:

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