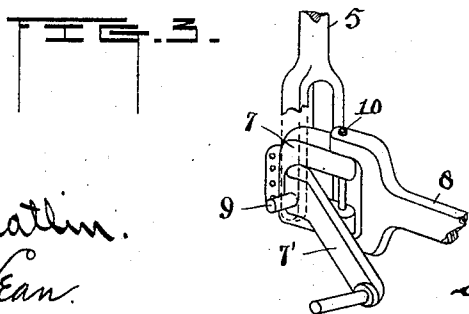
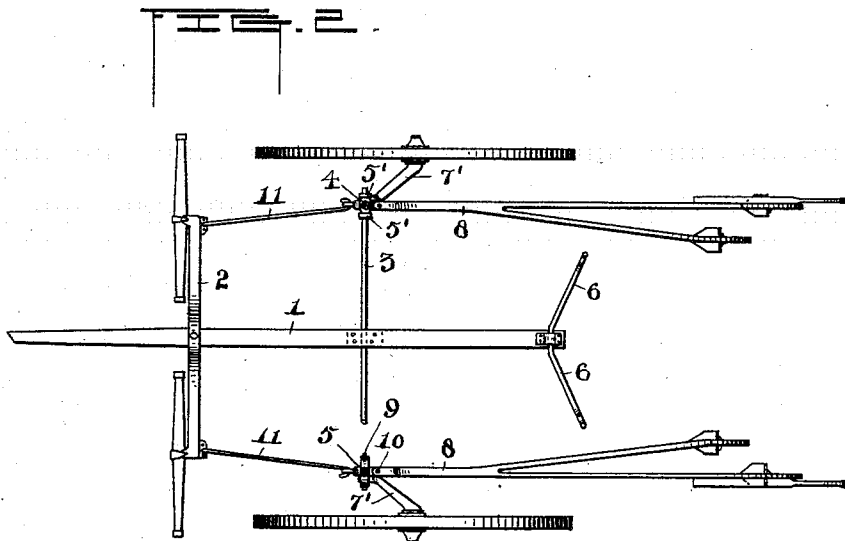
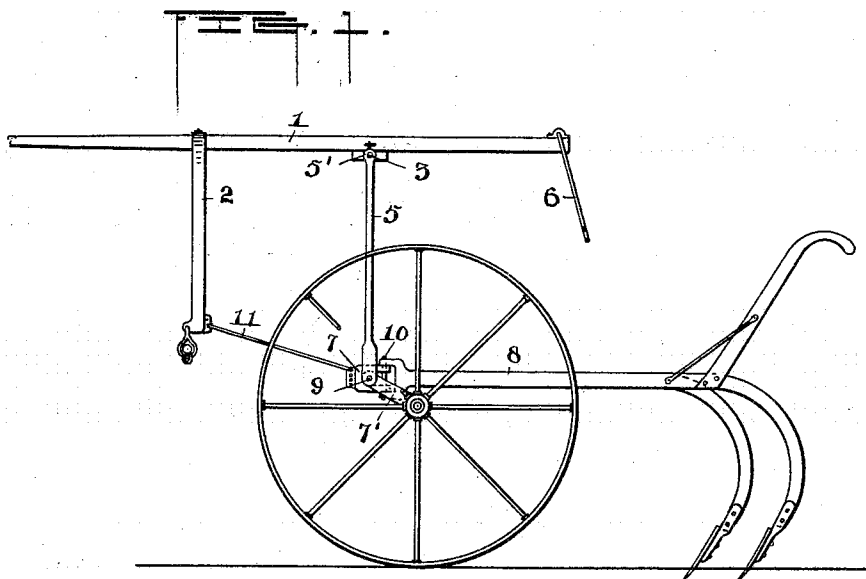


(No Model.)

E. WAGES & S. H. ARMSTRONG.
CULTIVATOR.

No. 483,031.

Patented Sept. 20, 1892.



WITNESSES

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UNITED STATES PATENT OFFICE.

EDGAR WAGES AND SAMUEL H. ARMSTRONG, OF CANTON, ILLINOIS.

CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 483,031, dated September 20, 1892.

Application filed July 1, 1892. Serial No. 438,689. (No model.)

To all whom it may concern:

Be it known that we, EDGAR WAGES and SAMUEL H. ARMSTRONG, of Canton, in the county of Fulton and State of Illinois, have
5 invented certain new and useful Improvements in Cultivators; and we 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
10 pertains to make and use the same.

The invention relates to wheel straddle-row cultivators, and has for its object to simplify the construction of this class of devices and to provide for the independent action of the
15 plows when striking obstructions and for throwing them out of the ground automatically when relieved from pressure through their respective handles; and the invention consists in the construction hereinafter described, and particularly pointed out in the
20 claims.

In the accompanying drawings, Figure 1 is a side elevation. Fig. 2 is a top plan, and Fig. 3 is an enlarged detail.

25 Numeral 1 indicates the pole, and 2 the evener, of a two-wheel straddle-row cultivator.

3 denotes a rod or shaft fixed in a block on the pole or otherwise suitably attached thereto.

5 denotes a hanger swinging freely from
30 said shaft by means of its arms 5', between which on the shaft is an adjustable block 4, adapted to be secured at any desired point on the shaft by means of a set-screw. By means of the said block and screw the situa-
35 tion of the swinging hanger on the shaft is determined. At its foot the hanger 5 is bifurcated and sustains between its two limbs a joint-piece 7, having an extension 7', provided with a short axle for a cultivator-wheel.
40 9 is a bolt passing through the extension 7' and through the two members of the bifurcated lower end of the swinging hanger.

8 is a plow-beam provided at its front end with a yoke, which is pivotally connected to
45 the joint-piece 7 by a bolt 10 in such manner as to permit sidewise movement of the plow and its beam. A vertical movement of these parts is permitted by the bolt 9, journaled in the foot of the hanger, as above described.

50 It will be understood that the parts described are many of them duplicated, as required by a straddle-row cultivator.

The weight of the pole and of the hanger will be sufficient to turn the joint-piece in its bearings and raise a plow whenever its handle is relieved from pressure by the hand of
55 the driver or plowman, and the cutting depth of the plow can be thus varied within certain limits.

11 denotes a draft-rod connecting the evener
60 at the point of attachment of a whiffletree thereto directly with the pivoted joint-piece 7 by means of a hook or equivalent device. A series of holes are provided in the joint-piece and at the evener, if desired, whereby the effect of draft to turn the joint-piece on its
65 pivot 9 can be varied. One or more of these holes in the joint-piece may be below its pivot, or so situated with reference to the pivot 9 that the draft can be made to raise the hanger
70 and relatively depress the forward end of the plow-beam. By this means the amount of pressure or of lifting required on the handle to suitably gage the depth of the plow-cut can be adjusted to meet different conditions.
75

6 denotes one or two hooks for sustaining
the plows when moving to and from the field. It is placed on the pole at the rear of the wheels sufficiently far to counterbalance the pole, evener, and other devices in front of the
80 wheel-axes.

The plows in operation have no connection except through the joint-pieces and hangers. When one strikes an obstruction, the shock is transmitted to a joint-piece with a tendency
85 to tilt it on its bearings and throw the plow out of the ground. The animal immediately in front sustains the sudden pull, which does not materially affect his mate nor the twin plow.
90

Having thus described our invention, what we claim is—

1. In a cultivator, the swinging hanger, the joint-piece pivoted in the foot of the hanger, said joint-piece being provided with a rear-
95 ward extension having a wheel-axle situated at the rear of the pivot of the joint-piece, and the beam pivoted in said joint-piece, whereby the weight of the pole, hanger, and connected parts tends to raise the shovels, substantially
100 as set forth.

2. In a cultivator, the swinging hanger, the joint-piece pivoted in the foot of the hanger, said joint-piece being provided with a rear-

ward extension having a wheel-axle situated at the rear of the pivot of the joint-piece, and the plow-beam pivoted in said joint-piece, whereby the weight of the pole, hanger, and
5 connected parts tends to raise the shovels, and a series of holes, and a draft-rod adapted to engage said holes, substantially as set forth.

3. In a cultivator, a pivoted hanger having a bifurcated lower end, a joint-piece pivoted
10 in the said lower end of the hanger and having an extension provided with a wheel-axle, the pivot of the joint-piece passing through

the extension and the arms of the bifurcated hanger, and a plow-beam having a yoke embracing said joint-piece and pivoted thereto, 15 substantially as set forth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

EDGAR WAGES.

SAMUEL H. ARMSTRONG.

Witnesses:

LEWIS THOMPSON,

P. C. STEARNS.