

Cultivator.

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Inventor:
Calvin B. Deyo.
by Coburn Mans
attys.

UNITED STATES PATENT OFFICE.

CALVIN B. DEYO, OF MARENGO, ILLINOIS, ASSIGNOR TO HIMSELF AND
EDGAR B. SKINNER, OF SAME PLACE.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 52,512, dated February 13, 1866.

To all whom it may concern:

Be it known that I, CALVIN B. DEYO, of Marengo, in the county of McHenry and State Illinois, have invented a new and useful Improvement in Cultivators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and the letters and figures marked thereon, which form part of this specification.

My invention relates to that class of cultivators which are not supported upon wheels, and which stride the row of corn or other plants which are being cultivated.

To enable those skilled in the art to understand how to construct and use my improvement, I will proceed to describe the same with particularity, making reference in so doing to the aforesaid drawings, in which—

Figure 1 represents a perspective view of my invention, and Fig. 2 a detached vertical section of the rear end of the tongue and its attachments.

A represents the tongue, which is attached to the triangular frame B C, as shown, the rear end of said tongue having a vertical adjustability, as hereinafter more fully specified and described.

D represents a series of vertical standards of suitable length, mortised or otherwise secured to the sides B B of said triangular frame, as shown, to the lower ends of which standards are secured, by bolts or otherwise, the shovels D', there being three of said standards and shovels upon each side of the machine, so arranged and constructed as to throw the soil toward the row and to thoroughly stir up and turn over the soil, and also to cause the machine to move obliquely from side to side, and thus avoid sinuosities and irregularities in the rows, by simply pressing down or raising up one side or the other of the machine, as the case may require, which may readily be done by means of the handles H H, which, as will be observed, are arranged so as to enable the operator walking behind to walk at one side and between the rows.

E E represent braces of iron or other suitable material extending along each side of the machine, firmly secured to the standards D by bolts, the front ends of said braces being bent

up, as shown, so as to be fastened to the frame by the same bolt that secures the front end of the side beams, B B, to the draft-pole A.

d d represent braces which extend from the rear standards to the rear cross-beam, C, and b b are similar braces extending from the front standards to the draft-pole, to which they are secured by means of a bolt passing through slots in the upper ends of said braces, so that by loosening said bolts said draft-pole may be adjusted vertically when desired, as hereinafter more fully specified.

F F represent two bars or beams, whose upper ends pass through suitable loops attached to the draft-pole, (marked a,) and which extend down obliquely, as shown, being firmly secured to the front standards, D D, their lower ends extending out beyond the said standards, and being provided with a pulley, c, as shown. At the rear of the machine, directly above the rear end of the draft-pole, is fixed a pulley, G, around which a cord or chain (marked I) passes, the ends of which cord pass down on either side under and around the aforesaid pulleys c c at the ends of the inclined posts F F, where are attached suitable draft-whiffletrees, whereby the horses are attached to the machine. By this arrangement, while the standards may be made long enough so that the machine will readily clear the corn at all stages of its growth while being cultivated, at the same time a perfect center draft is obtained, keeping the shovels evenly and steadily to their work, while all downward pressure upon the horses' necks is effectually obviated, rendering the machine very easy in its draft and management and uniform and steady in its operation.

In Fig. 2 is shown the means employed for giving the rear end of the draft-pole a more elevated or depressed position for the purpose of adapting the machine to different kinds of soil, when the hardness of the same may be variable, as the harder the soil the more of a downward tendency is required to keep the shovels in the soil at the proper depth, and vice versa.

L represents an iron plate provided with a series of parallel horizontal teeth, which is firmly secured in any suitable manner to the cross-beam C.

M represents a corresponding toothed plate

firmly secured to the end of the draft-pole, said plate M being provided with a central vertical slot, (marked *m*,) through which the screw-bolt N passes, having a head, P, to prevent said bolt from withdrawing from the slot. The said bolt N passes through a hole in the plate L and bar C, and is secured by the nut O.

By screwing the nut O upon the bolt N the plate M is drawn up against the plate L, when the teeth, mutually engaging with each other, hold the draft-pole firmly in place. If it is desired to elevate or depress the rear end of the draft-pole, by loosening the nut the teeth may be disengaged and the draft-pole be adjusted as desired, when the nut will again bring the parts together and secure them as before, the slots in the upper ends of the braces *b b* and the loops *a* permitting said vertical adjustment to be made. By this arrangement it may readily be seen that the rear end of the draft-pole may be adjusted either up or down the entire vertical length of the plate M.

Having now described my invention, I will

proceed to specify what I claim and desire to secure by Letters Patent:

1. The combination and arrangement of the triangular frame B B C, draft-pole A, standards D, and braces E, constructed and operating as and for the purposes set forth.

2. In combination with the said draft-pole A, triangular frame B C, standards D, and shovels D', the arrangement of the inclined posts F F, provided with the pulleys *c c*, the pulley G, and the cord or chain I, operating substantially as and for the purposes specified.

3. The arrangement of the toothed plates L M, slot *m*, bolt N, and nut O, with the draft-pole A, cross-bar C, and inclined posts F, sliding in the loops *a*, all arranged and operating substantially as herein set forth and described.

CALVIN B. DEYO.

Witnesses:

G. V. WELLS,
A. THOMPSON.