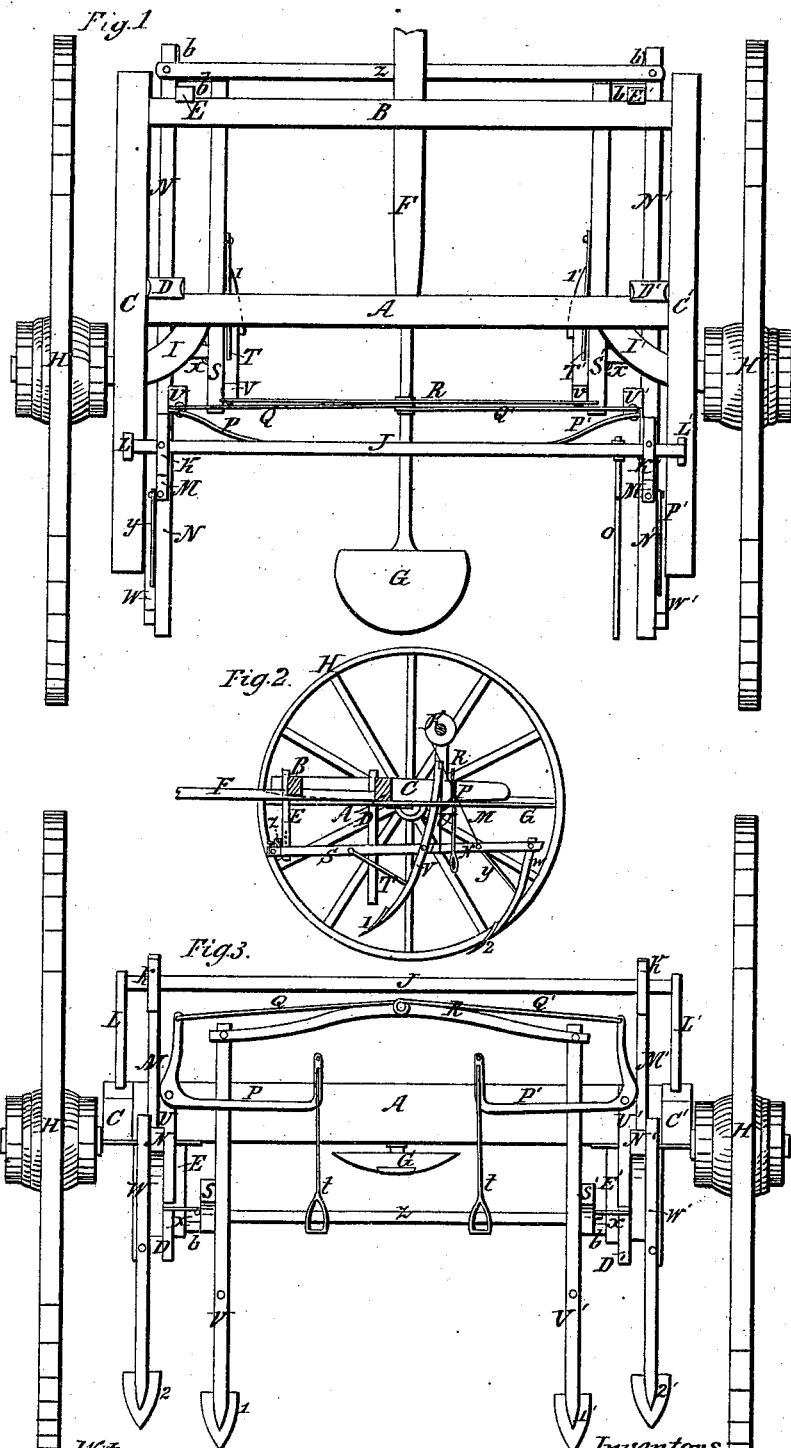


PRUGH & BEARD.

Wheel-Cultivator.

No. 52,743

Patented Feb. 20, 1866.



Witnesses.
 Timothy Cronin
 Peter O'Connell

Inventors.
 George M. Prugh
 William H. Beard.
 By their Atty
 Amos Brown.

UNITED STATES PATENT OFFICE.

GEORGE W. PRUGH AND WILLIAM H. BEARD, OF ARMINGTON, ILLINOIS.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 52,743, dated February 20, 1866.

To all whom it may concern:

Be it known that we, GEORGE W. PRUGH and WILLIAM H. BEARD, of Armington, Tazewell county, in the State of Illinois, have 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 same, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a top view; Fig. 3, a back elevation, and Fig. 2 a vertical longitudinal section.

Our improvements appertain to that class of cultivators known as the "wheel" or "sulky" variety; and it consists of a novel construction, combination, and arrangement of its various parts for the purpose of giving the operator a more convenient and perfect control of the machine and to secure a more efficient operation thereof.

To enable others skilled in the arts to which our invention appertains to make and use the same, we will proceed to describe the construction and operation thereof.

Similar letters of reference represent corresponding parts of the different figures of the drawings above referred to.

The main frame of the machine is represented in the drawings by A B and C C', to which the axles I I' of the wheels H H' are secured in the manner shown.

To the under side of the main frame four cultivator-beams are suspended (shown by N N and S S') through the agency of a pair of hangers, E E', which are secured to the cross-tie B of said frame.

The front ends of the two beams N N' are secured directly to the said hangers by means of pivot-screws, about which they can freely vibrate, and which pivots may be raised or lowered, so as to adjust the said beams to the desired height from the ground.

The front ends of the beams S S' are fixed to the front ends of the beams N N' by means of a bracket, V V, through which a pivot-screw passes into the ends of the beams S S', leaving said beams free to vibrate about said screws or pivots as bearing, the rear ends of said beams S S' being united to the beams N N' about midway by means of a hinge-connection, thus

leaving the cultivators I I', attached to the beams S S', free to vibrate athwart the machine, while at the same time they rise and fall with the cultivators Q Q' attached to the beams N N'. These last-mentioned cultivators are susceptible of a vertical motion only, in which they are guided by a pair of guides, D D, which reach down from the cross-tie A of the frame and straddle the beams N N', thus serving as ways or guides for said beams to move in, and to keep them in their proper lateral position.

The upper ends of the two share-beams V V' are united by means of a connecting-plate, R, the ends whereof are secured to the ends of said beams by means of pivot-screws in the manner shown, said connecting-plate having two or more holes in each end, so that the tops of said beams may be approximated or separated, as the case may require.

To each of the cultivator-beams N N' there is fixed a bearing or center block, U. To each of these blocks there is pivoted a bell-crank, P P, to each of which a stirrup is fixed, one on each side of the driver's seat G, and so arranged as to leave them within convenient reach of the feet of the driver.

The upper ends of the bell-cranks aforesaid are connected to the plate R by means of rods Q Q, so that the operator, by pressing either of his feet on the stirrups aforesaid, can move the share I I' up to either one of the rows of plants he may desire, while at the same time he can, with his hand on the lever O, fixed in the shaft J, regulate the depth of the cultivators, which are attached to the said shaft by means of the straps M M' and pulleys K K' in the manner shown.

The tongue to guide the machine is shown by F, and the power to draw it is applied to the cross-tie Z, which unites the front ends of the cultivator-beams, thus making a direct application of the power to the cultivators instead of the frame.

Having now described the construction and operation of our improved machine, what we claim as new therein, and for which we desire Letters Patent of the United States, is—

1. Combining and uniting in one machine the shaft J, fitted with a lever and pulley, and connected to the cultivator-beams N N and S S, for the purpose of raising and lowering them,

and the bell-cranks P P and stirrups *t t*, connected to the top of the two inside cultivator-staffs V V for the purpose of moving them laterally, substantially as described.

2. Connecting and arranging the cultivator-beams N S and N' S' in relation to each other, substantially as set forth.

3. The adjustable connection between the front ends of the cultivator-beams N N' and

the hangers E E, when said hangers and beams are arranged in respect to each other and to the cross-tie Z and the main frame A B C substantially as set forth.

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Witnesses:

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M. H. C. YOUNG.