

United States Patent Office.

SETH B. HOISINGTON, OF GALESBURG, ILLINOIS.

Letters Patent No. 106,161, dated August 9, 1870.

IMPROVEMENT IN CULTIVATORS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, SETH B. HOISINGTON, of Galesburg, in the county of Knox and State of Illinois, have invented certain new and useful Improvements in Cultivators; and I hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing making a portion of this specification, in which—

Figure 1 is a perspective view of my invention, and the main parts of a cultivator.

Figure 2 is a perspective view of the joint or coupling, detached.

Figure 3 is a back view of the device for attaching the shanks to the beams.

Figure 4 is a top view of fig. 3.

Figure 5 is a rear view of the device for adjusting the distance of the wheels and plows apart.

Similar letters of reference indicate corresponding parts in all of the figures.

The nature of this invention relates to improvements in cultivators; and

The invention consists in the peculiar arrangement for adjusting the distance of the plows apart, at the same time that the distance between the wheels is made to correspond therewith.

It further consists in the simplicity and effectiveness of the joint for connecting the plows to the main frame; also, in the manner of attaching the shanks to the beam, to render them secure and adjustable; also, in the simple construction and arrangement of the wheel-spindles, and in the general arrangement of the frame, tongue, and equalizer.

To enable others to understand the construction and operation of my invention, I will proceed to describe it with reference to the drawing.

Letter A represents the central and highest part of the axle, to which is attached the tongue B and hands B' B'', B' being broken away to show other parts of the machine.

C C represent wrought-iron bars, crank-shaped, one end serving for wheel-spindles and the other for attaching to the axle A, while the central part serves to raise the axle A.

The upper part of the axle C is attached to the wooden part A by means of the eye-bolt D and nut g, together with bearings E E E E.

By means of this arrangement, it will readily be seen, the distance of the plows and the distance of the wheels apart may be easily adjusted by loosening the nut g, when the bar C may be moved, and, by tightening the same nut, the bar C will be drawn up firmly and securely against the bearings E.

J represents a cast-iron washer or bearing, slipped on to the wheel-spindle C', and held in place by a pin, K, which passes through a recess in the back part of the washer, and also through the spindle C'.

L represents a similar washer to J, and is placed on the end of the spindle C', being held in place by the linch-pin M, passing through a recess in it and through the spindle C'.

The washers L and J have each a recess in the faces toward each other, into which the boxes in the wheel-hubs fit, and prevent sand and dirt from dropping in on the journals.

F represents the joint for attaching the plows to the main frame, and is formed of two plates, held together mainly by the bolt H, by means of which bolt they may be made to clasp tighter or looser the arms C', on which the plows have the lateral movement required in cultivators.

N represents a T-shaped plate, the stem of which is attached to the plow-beam, and the cross or head N is provided with a series of holes, s s s, through which passes the bolt G.

The head N is clasped between the plates F, and the bolt G forms a pivot, on which vertical movement of the plows is obtained, while, by means of the bolt G and holes s s s, vertical adjustment or regulation of the depth of running may be obtained.

X X represent the shanks, which are secured to the beam U by means of a socket, V, as shown in figs. 3 and 4, recessed in the back part, through which the bolt y passes, and is tightened to the beam U, as required, by the nut v'.

One end of the socket v fits snug and flat to the beam, while the other end is grooved to fit neatly against the round shank X.

W represents a hook, the shank of which passes through the socket v, and is secured thereto by a nut, w', the hook end partly encircling the shank X.

It will be readily seen that, by tightening the nut w', the shank X will be drawn with any required tightness against the socket v, and held securely from revolving, while at the same time the nut v' may be partially loosened and the shanks swing round on the bolt, y, as a pivot, when required.

Z represents a clasp, encircling the shank X, and secured by a bolt, a.

b is a flat rod, held between the ends of clamp z by a wooden bolt, a', and attached at the forward end to the beam U.

In case of striking any very solid obstruction, the bolt a' will break and the shank X swing back on the pivot y, thus frequently preventing breakage of the plow or of the shank.

O represents a cross-bar, under the tongue B, and connected at the ends with the wheel-spindles C by the rods T.

Q represents vertical bars, pivoted on the end of the cross-bar O, and connected at the upper end with the even-bar P by the rods R. The single-trees are attached to the hooks f.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination and arrangement of the plate N, with its cross-head N', with beam U, plates F, bolts G and H, and rod C, substantially as and for the purpose specified.
2. The arrangement of bearings E, eye-bolt D, axle A, and rod C, substantially as and for the purpose specified.
3. The combination and arrangement of beam U,

hook W, and nut W', socket V, bolt Y, and nut V', with shank X, substantially as and for the purpose specified.

Signed at Galesburg, Illinois, this 17th day of August, 1869.

S. B. HOISINGTON.

Witnesses:

J. B. HARSH,

L. WESTCOTT.