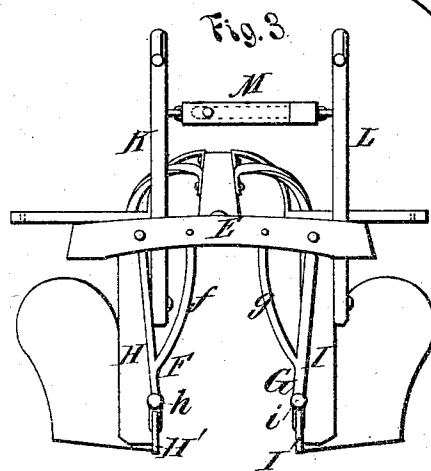
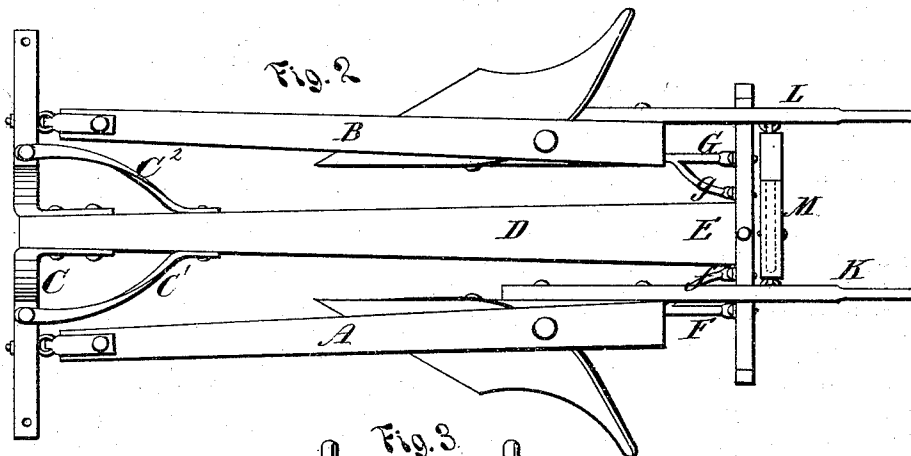
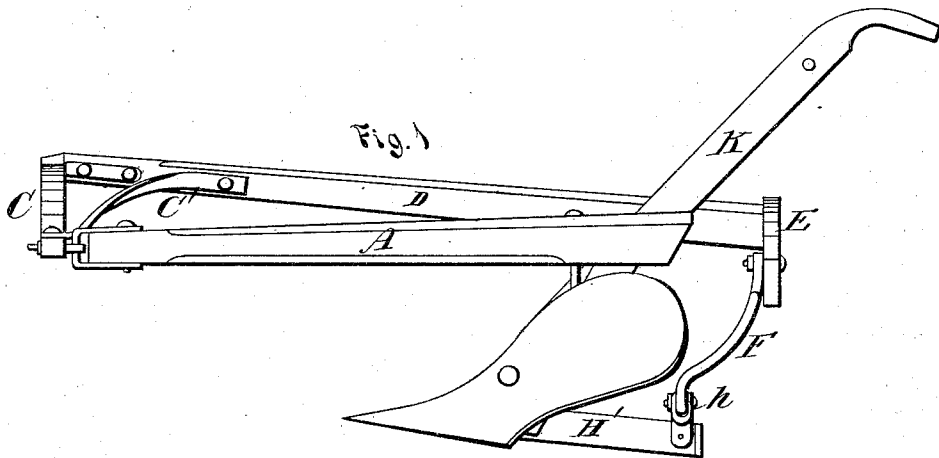


S. CRUTCHER.
Cultivators.

No. 144,321.

Patented Nov. 4, 1873.



Witnesses.
O. H. H. H.
A. H. H.

S. Crutcher
Inventor.
D. P. Holloway & Co
Attys

UNITED STATES PATENT OFFICE.

SEBERT CRUTCHER, OF LITTLE MOUNT, KENTUCKY.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **144,321**, dated November 4, 1873; application filed September 6, 1873.

To all whom it may concern:

Be it known that I, SEBERT CRUTCHER, of Little Mount, in the county of Spencer and State of Kentucky, have invented certain Improvements in Cultivators, of which the following is a specification:

This invention relates to that genus of walking-cultivators which straddle the row of plants, and cultivate it upon both sides at one operation; and to that species thereof in which the plow-beams are pivoted to a rigid frame in such a manner that they can be readily manipulated by the operator to follow the sinuosity of the row. My improvement consists in a certain novel manner of pivoting the plow-beams to the frame, whereby the operator is enabled to manipulate them with greater ease than in machines of this character now known, the joints at their rear ends being located near the lower ends of their standards, so that the operator will have a long and powerful leverage in swinging the plows.

In the annexed drawings, Figure 1 is a side elevation of my improved straddle-row walking-cultivator. Fig. 2 is a plan view of the same. Fig. 3 is a rear elevation.

The same letters of reference are used in all the figures in the designation of identical parts.

The plow-beams A and B are, at their forward ends, connected, by a link-joint, to the horizontal ends of the arched cross-bar C of the frame of the machine. The reach D of the frame is rigidly secured to the center of the arched bar C, and carries at its rear end another cross-beam, E. From near the extremities of the beam E depend fixed arms F and G, strengthened by suitable braces *f* and

g. The standards H and I of the plow-beams are, in the example shown, provided with bars H' and I', in the form of land-sides, which are, at their rear ends, connected or hinged to the extremities of the arms F and G, respectively, at *h* and *i*. These pivotal points are placed at such an elevation above the sole of plows or shares that the requisite degree of lateral swing can be imparted to them by oscillating the handles K and L, which are rigidly secured to the respective plow-beams, and may be connected by a bar, M, in the manner shown, permitting the unobstructed swinging of the handles. This connecting-bar, though useful in steadying the plows, is not essentially necessary to the operation of the machine.

The rigidity of connection between the reach D and arched cross-beam C is strengthened by braces C¹ and C².

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

The straddle-row walking-cultivator, composed of the frame C D E, and plows whose beams are at their forward ends connected by link-joints to the bar C of the frame, and whose land-side bars H' and I' are pivoted to the fixed pendent arms F and G of the bar E of the frame, substantially as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SEBERT CRUTCHER.

Witnesses:

T. E. C. BRING,
RD. F. BAIRD.