F. L. HILSABECK.
Cultivator.

No. 197,032. Patented Nov. 13, 1877.

Fig. 1.

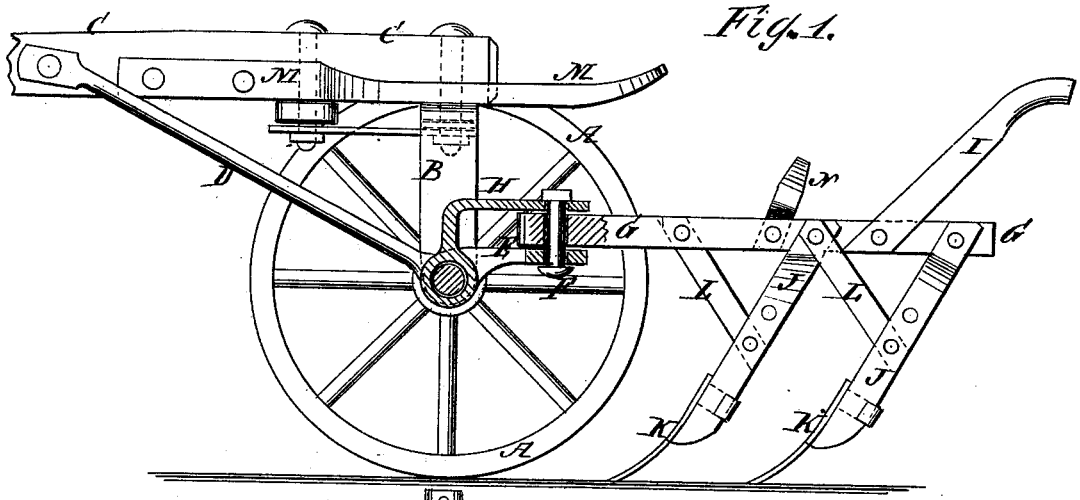
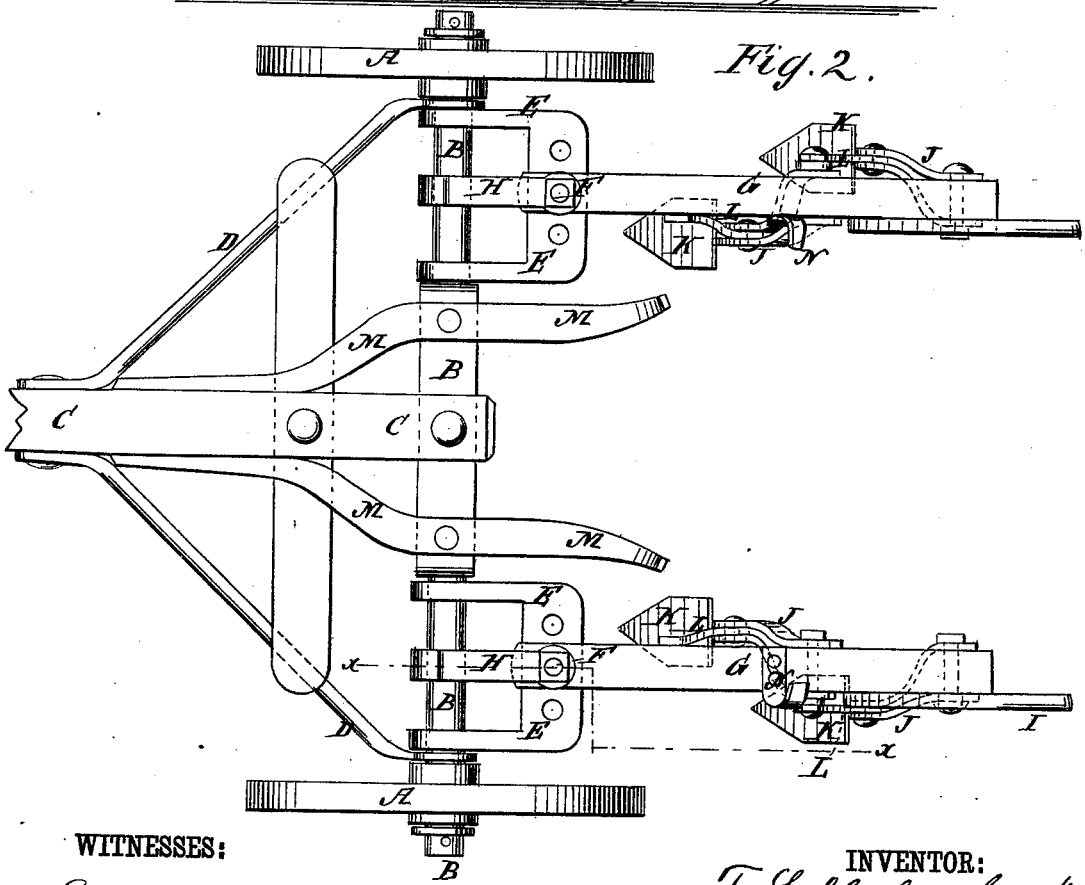


Fig. 2.



WITNESSES:

E. Wolff

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INVENTOR:

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

FREDERICK L. HILSABECK, OF SHELBYVILLE, ILLINOIS.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **197,032**, dated November 13, 1877; application filed August 24, 1877.

To all whom it may concern:

Be it known that I, FREDERICK L. HILSABECK, of Shelbyville, in the county of Shelby and State of Illinois, have invented a new and useful Improvement in Cultivators, of which the following is a specification:

Figure 1 is a side view of my improved cultivator, partly in section through the line *x x*, Fig. 2, to show the construction. Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved cultivator which shall be so constructed that the plows may have a free lateral and vertical movement, may be readily adjusted wider apart or closer together, and may be securely supported away from the ground in turning around and in passing from place to place.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

A are the wheels, which revolve upon the journals of the axle B. The middle part of the axle B is bent four times at right angles to form a bow or arch, to enable the cultivator to pass over tall plants without injuring them. To the center of the axle B is bolted the rear end of the tongue C, which is strengthened in position by the braces D. The forward ends of the braces D are bolted to the opposite sides of the tongue C, and their rear ends have holes formed through them to receive the axle B, and are placed upon said axle at the inner ends of the hubs of the wheels A.

The arms or lower horizontal parts of the axle B are rounded off, and are passed through holes in the ends of the arms of the bars E. The bars E are bent twice at right angles, and their middle parts are widened and have a number of holes formed through them to receive the bolts F, which pass through the forward ends of the plow-beams G. The ends of the plow-beams G are placed upon the middle parts of the bent or U bars E, and the upper ends of the bolts F are supported against the draft-strain by the bars H, through holes in the rear ends of which the said bolts F pass.

The forward ends of the bars H are bent downward at right angles, and have holes formed in them to receive the arms of the axle B. By this construction the rear ends of the plow-beams G have a free lateral and vertical movement, so that the plows can be guided along curved or irregular roads, can conform to an uneven surface of soil, and can be raised from the ground when desired.

The plow-beams G can be adjusted wider apart or closer together by moving the bolts F from one to another of the holes in the bars E.

To the beams G are attached the handles I, by which the plows are guided, and the standards J, to which the plows K are attached, and which are strengthened against the draft-strain by the braces L.

M are iron bars, the forward ends of which are attached to the opposite sides of the rear part of the tongue C. The bars M are curved outward and rearward, are bolted to the axle B near its upper angles, and their rear ends project to receive the hooks N attached to the plow-beams G, to support the plows away from the ground when turning around and when passing from place to place.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination of U-bars E and bent bars H, bolted together, to connect the axle and plow-beams, as shown and described.

FREDERICK LAWRANCE HILSABECK.

Witnesses:

E. E. WAGGONER,

W. B. JACKSON.