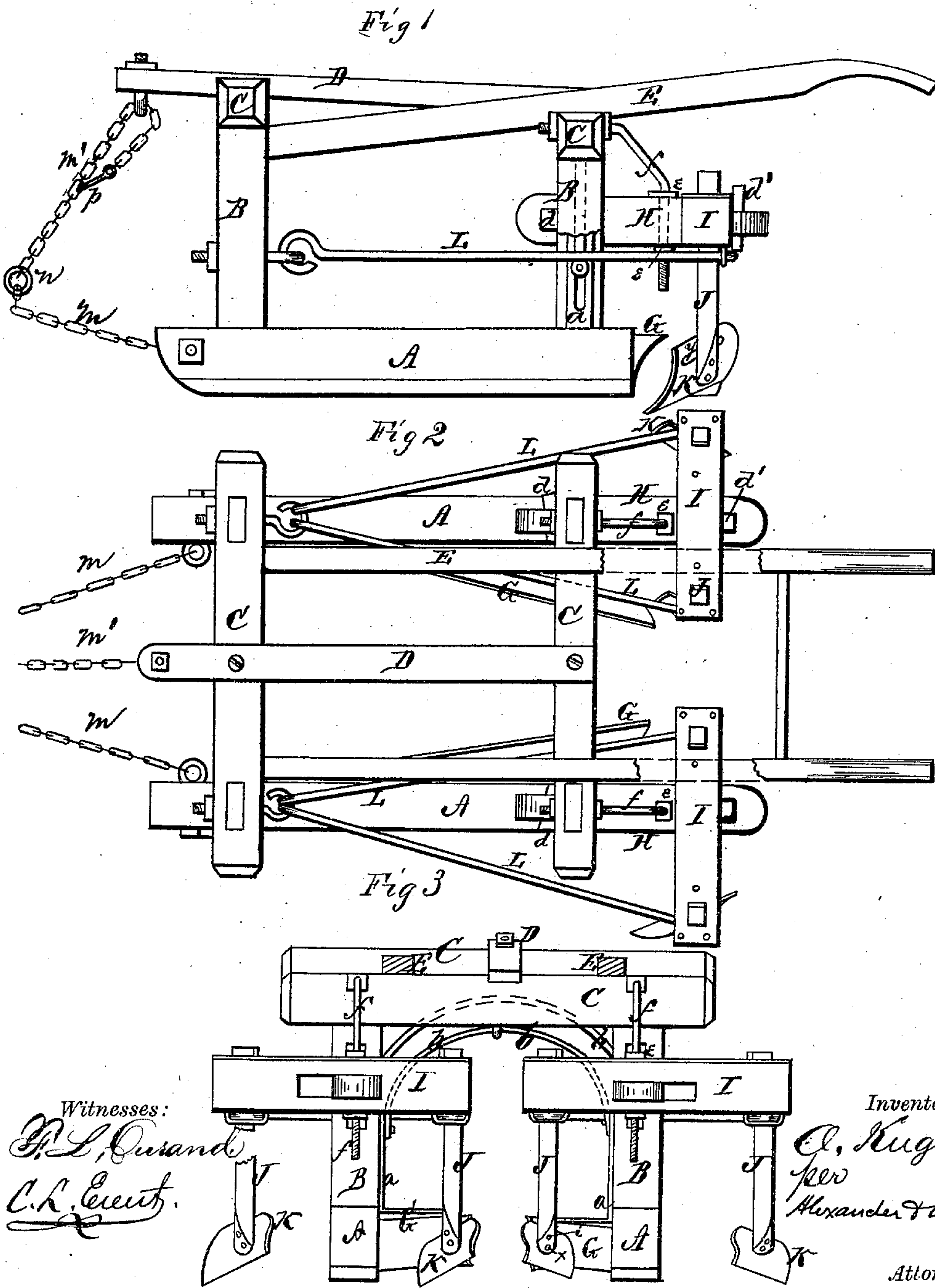


## Cultivators.

No. 141,146.

Patented July 22, 1873.



# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **141,146**, dated July 22, 1873; application filed June 24, 1873.

*To all whom it may concern:*

Be it known that I, OLIVER KUGLER, of Three Bridges, in the county of Hunterdon and in the State of New Jersey, have invented certain new and useful Improvements in Cultivators; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a cultivator, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side elevation, Fig. 2 a plan view, and Fig. 3 a rear view, of my cultivator.

A A represent two parallel runners, of any suitable dimensions, each provided with two standards, B B, and the upper ends of the two front and of the two rear standards connected by cross-bars C C. The rear standards are shorter than the front ones, and the top cross-bars C C connected by a center beam, D. E E represent the handles attached to the front standards and let into the rear cross-bar. To the inner side of each runner A is attached a concave plate or gatherer, G, which is pivoted at its front end and near the rear end provided with an angular or bent bar, *a*. The upper end of this bar is slotted vertically and passes over a screw or pin, which fastens the end of a brace, *b*, thereby allowing of an up-and-down adjustment of the gatherer. The brace *b* mentioned connects the rear standards B B with the cross-bar on top of the same, and a similar brace connects the front standards with its cross-bar. The rear standards B B are slotted vertically, and in each standard is inserted a tenon formed on the front end of a bar, H, which extends toward the rear on a

line parallel with the runner. The bar H is held by means of a key, *d*, passing through the front end of its tenon immediately on the front side of the standard, and by a screw-brace, *f*, which is attached to the cross-bar on top and passes down through the bar, with a nut, *e*, screwed on said rod or brace above and another below the bar. By this means the bar H is adjusted up and down to regulate the depth of the plows. The rear end of the bar H is also provided with a tenon, which passes through a longitudinal slot in a cross-bar, I, so that the same can be adjusted to either side, as desired, and held in any position desired by a key, *d'*. In each end of each bar I, is inserted a plow-shank or foot, J, the lower end of which is beveled or inclined, as shown, and has the plow K attached to it. The plow K is pivoted to the shank at *x*, and above the pivot-point is provided with a curved slot, *y*, through which a pin or screw, *i*, passes into the shank. By this means the plow-point can be elevated or depressed at will. From each shank J of each bar I and immediately below the bar, a brace-rod, L, extends forward, and the two rods for each bar I are connected to the corresponding front standard B, as shown. From the front end of each runner A, on the inner side, extends a chain, *m*, the front ends of said chains being connected by a ring, *n*, and to this ring another chain, *m'*, is attached. This chain passes through an eye or staple attached to the front end of the beam D, and has a hook, *p*, on its end to be fastened in any link of the chain, as desired, to regulate the height of the double-tree, which is attached to the ring *n*.

By this arrangement of chains the draft is on both the runners and on the center beam at the top of the frame.

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

1. The combination of the runners A A, front and rear standards B B, cross-bars C C,



center draft-beam D, and handles E E to constitute the cultivator-frame, substantially as herein set forth.

2. The combination of the up-and-down adjustable bar H, with keys and screw-rods, with laterally-adjustable bar I, plow-shanks J J, pivoted plows K K, slotted as described, and held by pins or screws *i i*, as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 26th day of May, 1873.

OLIVER KUGLER.

Witnesses :

DAVID DUNHAM,  
WILLIAM H. FARRE, Jr.