J. B. Jay.

Cultivator.

No. 88,638. Patented Apr. 6, 1869.

Fig. 1.

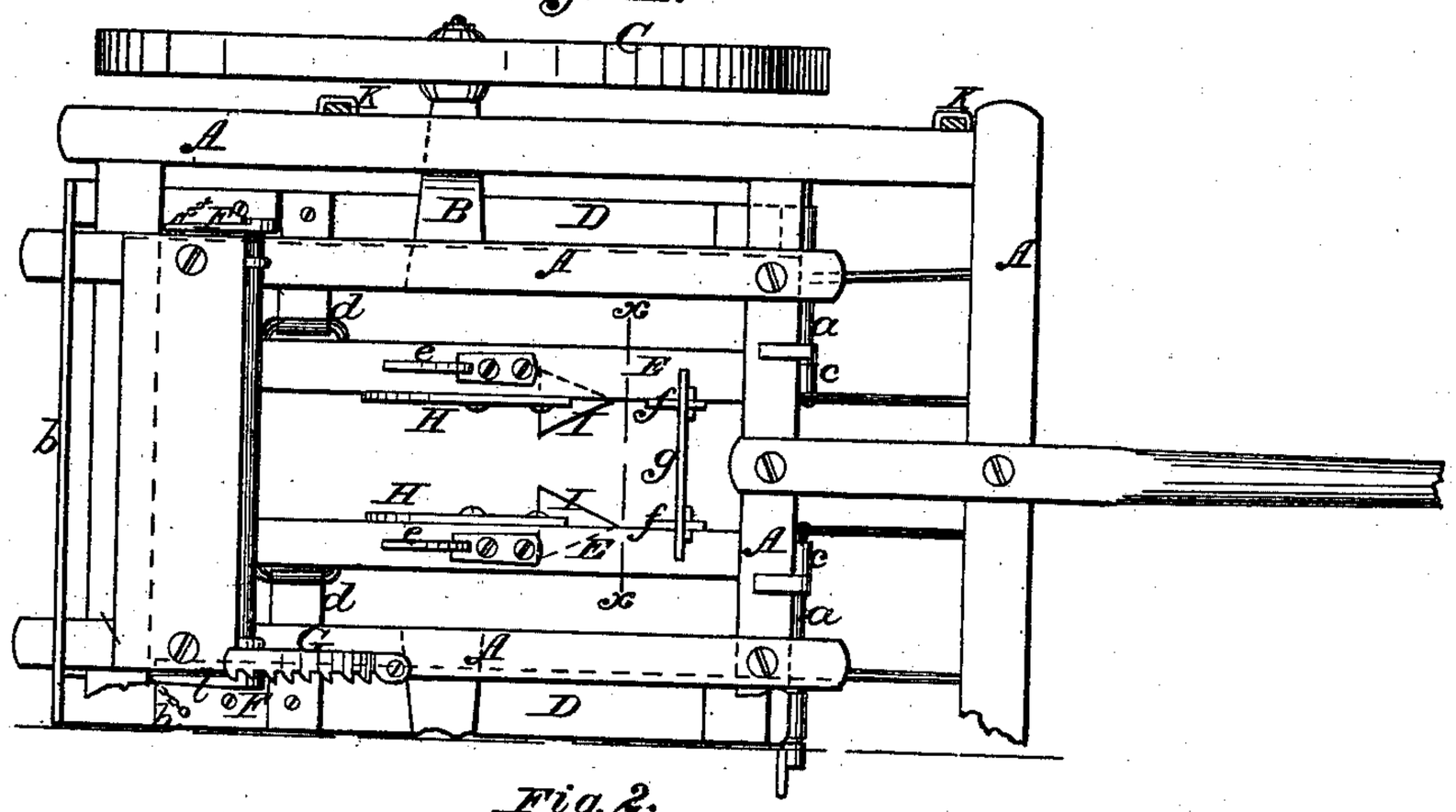


Fig. 2.

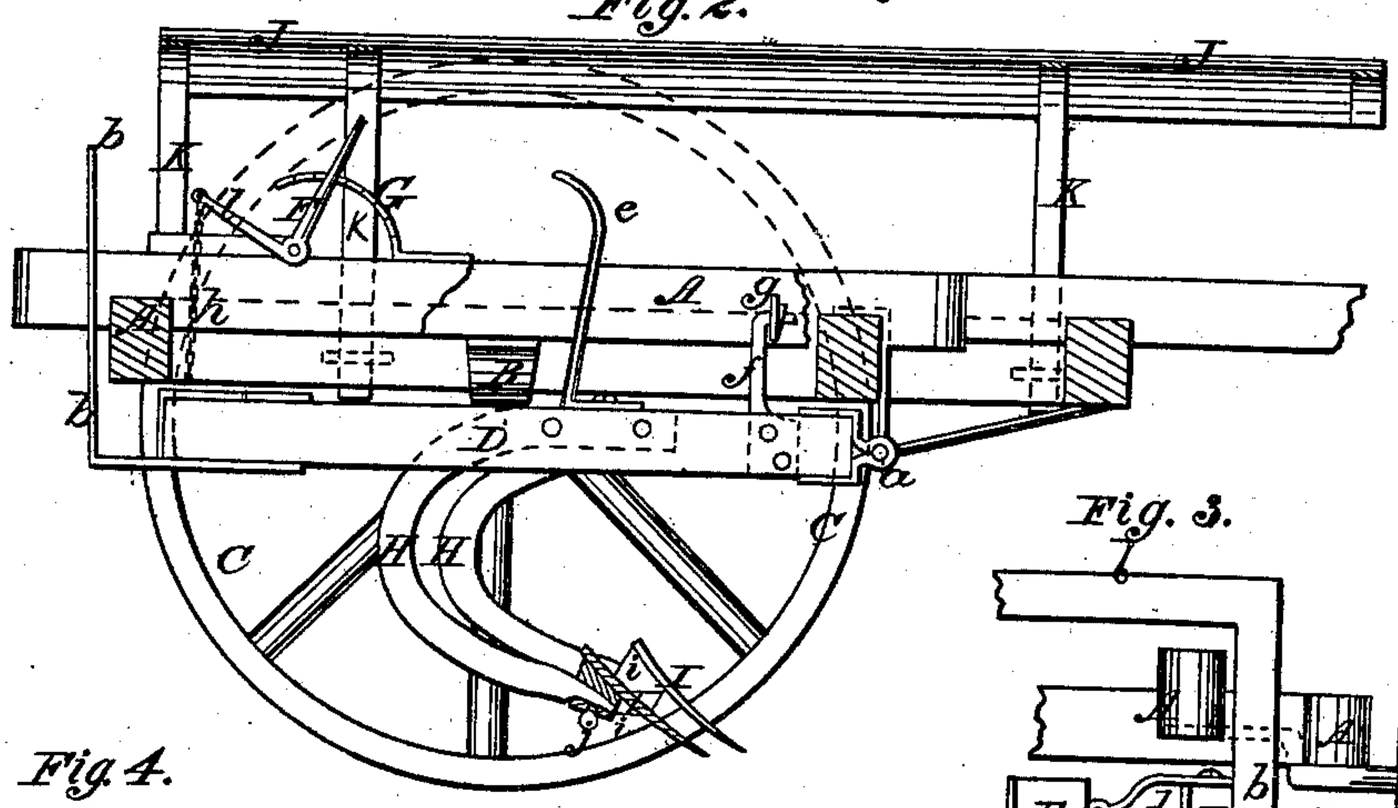


Fig. 3.

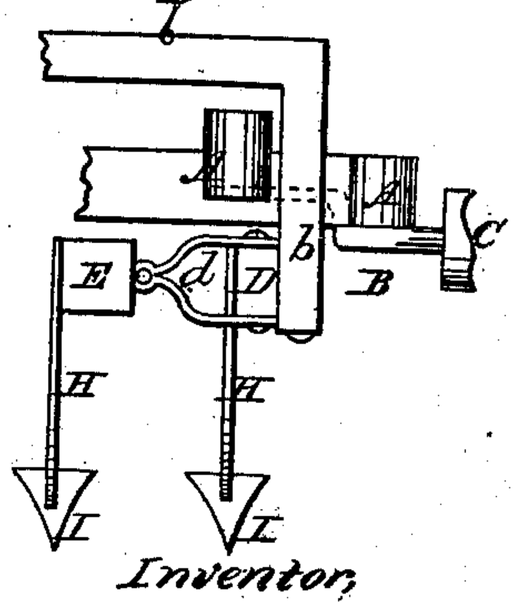
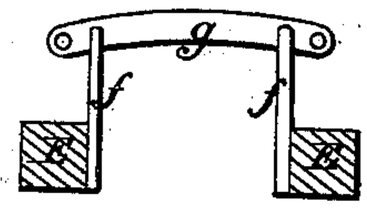


Fig. 4.



Witnesses,
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United States Patent Office.

J. B. JAY, OF ARLINGTON, ILLINOIS.

Letters Patent No. 88,638, *dated April* 6, 1869.

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, J. B. JAY, of Arlington, in the county of Bureau, and State of Illinois, have invented a new and useful Improvement in Cultivators; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a plan, or top view, partly in section, of my improved cultivator.

Figure 2 is a side elevation, partly in section, of the same.

Figure 3 is a detail back view of the same.

Figure 4 is a detail transverse section of the same, taken on the plane of the line *x x*, fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to produce a cultivator on which the shovels are made up and down adjustable, and at the same time so hung that they can be slightly oscillated, to avoid stones, and other obstructions.

The invention consists in a novel manner of hanging the plow-beams, and in the combination of parts, to be hereinafter more fully described.

A, in the drawing, represents the main frame-work of my improved cultivator.

To it are attached, by means of screws, the axles, or rather, the short metallic wheel-supports B B, on which the wheels C C are hung.

The wheels are thus backward or forward adjustable, by having the holders B attached by means of screws, to balance the whole instrument, according to the weight of the driver.

In front of the frame A are suspended from it, by means of suitable supports, stationary horizontal pins, *a a*, which serve as pivots for the beams of the cultivator.

Of such beams there are four, two on each side of the tongue.

The two outer beams, D D, are pivoted directly to the pins *a*, and are, in rear, connected with each other by means of a strap, *b*, so that they can be simultaneously raised.

The two inner beams, E E, have eyes, *c*, formed on or attached to their front ends, by means of which they are pivoted to *a*.

But the perforations of these eyes are so much larger than the pin *a*, that besides the up-and-down motion, also an oscillating movement is allowed to the inner beams.

In the rear, each beam E is connected with the adjoining beam D, by means of a hinged connecting-strap, *d*, or its equivalent, in such manner, that the aforesaid oscillating motion is allowed to the inner beam E independent of its neighbor D, while they both can only be raised simultaneously. In fig. 3 this hinged connection is best illustrated. In it it is shown as consisting of a sheet-metal strap, attached to D, and of a staple on E.

Each inner beam E is provided with a handle, *e*, by means of which the driver can swing it around its own axis, to clear its shovels from stones or other obstructions.

Each of the two inner beams is, in front, provided with a projecting bar, *f*, and these bars *f* are connected by means of a link, *g*, which has a series of perforations for the pivots, and which serves to keep the inner beams the requisite distance apart.

F is a lever, pivoted to the frame A, and connected by means of a rope or chain, *h*, with one of the beams D, or, if desired, with both, by continuing its pivot and forming a crank, *l*, thereon, as shown.

By turning the lever F, the beams are all raised as far as desired, they being moved simultaneously, on account of their hereinbefore-described connections with each other.

The lever can be locked in any desired position, on a notched plate, G, as shown.

Each plow-beam carries on a curved standard, H, a shovel, I, said shovel being attached to the tapering end of the standard by means of a socket, *i*, formed on the shovel, and fitted over the standard.

A set-screw, *j*, then locks the parts together, as shown in fig. 2.

J is a protecting cover, supported by means of suitable hoops, K K, above the frame A, and in front of it, so as to protect at once the driver and the horse, or other animal from the inclemencies of the weather. It is made of canvas, or other suitable fabric or material.

The hoops are with their ends fitted into sockets formed on the frame, as shown, or are otherwise removably attached to the frame.

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

1. The arrangement of the inner beams E, by means of the enlarged eyes *c* and pin *a*, in front, and the strap *d*, connecting the outer beams, so that they are capable of vertical adjustment, and of being rocked laterally, as set forth.

2. The combination, with the outer beams D and inner beams E, of the strap *b*, hinged straps *d*, upright bar *f*, and adjustable link *g*, arranged as described, for the purpose specified.

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Witnesses:

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