

J. H. JOHNSON.
Cultivator.

No. 218,274.

Patented Aug. 5, 1879.

Fig. 1.

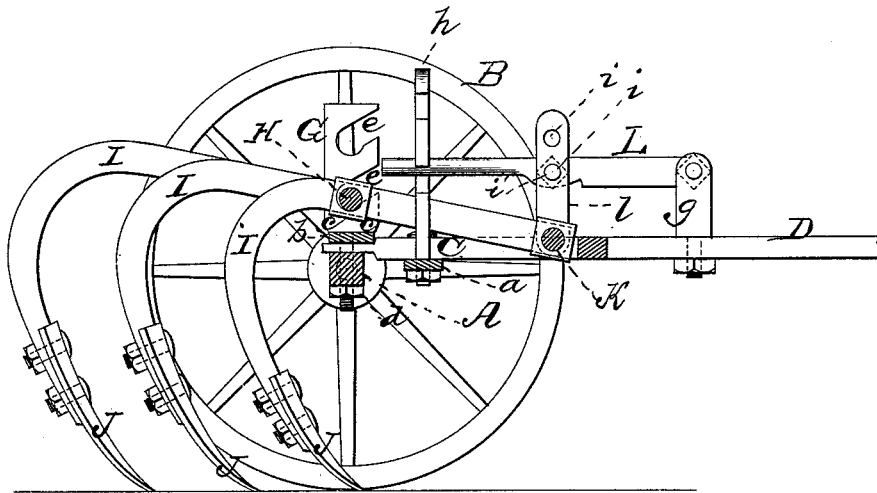
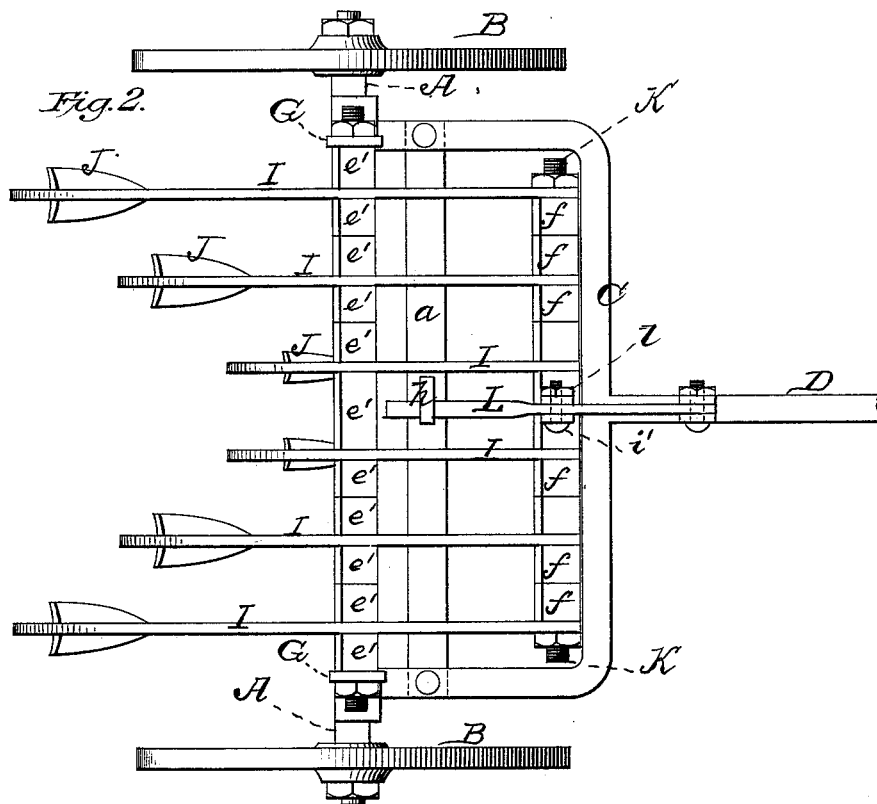


Fig. 2.



WITNESSES

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JAMES H. JOHNSON, OF EDWARDSVILLE, ALABAMA.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **218,274**, dated August 5, 1879; application filed June 21, 1879.

To all whom it may concern:

Be it known that I, JAMES H. JOHNSON, of Edwarsville, in the county of Cleburne and State of Alabama, have invented a new and valuable Improvement in Cultivators; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical section of my improved cultivator, and Fig. 2 is a plan view thereof.

This invention has relation to improvements in cultivators; and the nature of the invention consists in certain novel combinations of the devices used, as will be hereinafter more fully described and claimed.

In the annexed drawings, the letter A designates the axle of my improved cultivator, supported on transporting-wheels B, and provided with a bail, C, rigidly secured thereto, and extending to the front. This bail is transversely braced by a beam, *a*, and the whole constitutes the frame of the machine.

D indicates a draft-tongue, secured in any suitable manner to the said bail, and extending out centrally therefrom.

G indicates strong metallic plates, extending at their lower ends through a clamp-plate, *b*, that rests upon the ends of the bail, and also through the axle A. These plates are provided with a shoulder, *c*, bearing upon the said plate *b*, and are secured in position by means of a nut, *d*, applied upon their ends below said axle. By setting up these nuts the bail is clamped between the plate *b* and the axle A.

The plates G are provided in their front edges with oblique open-ended slots *e*, having rounded lower ends, that afford bearings to a strong metallic rock-shaft, H, that extends through the beams I of the cultivating-shovels J. These beams are of the usual curved form, and are generally made of metal. They are maintained at a proper distance apart by means of spacing-blocks *e' e'*, arranged on the shaft H between the beams. By increasing or lessening the number of these blocks the distance between the beams may be increased or lessened at pleasure, and the distance between the shovels regulated according to the nature of the crop.

The front ends of the beams are also traversed by a shaft, K, upon which are similar spacing-blocks *f*, serving a like purpose to blocks *e'*.

L indicates a vertically-vibrating lever, pivoted at its front end in the fork of an upright, *g*, erected on the tongue in front of the bail, and extending to the rear to engage a rack-bar, *h*, projecting upward from the brace *o* of said bail. The lever L is connected at about the middle of its length to the shaft K by means of a link-bar, *l*, vibrating on the said shaft, and engaging by its forked upper end the said lever. The branches of this forked portion of the link are provided with several sets of spaced perforations, *i*, by means of which and a pivot-bolt, *i'*, the link is adjustably attached to the lever. By thrusting down this lever the front ends of the beams are depressed and their rear ends raised, owing to the rotation or rocking of the shaft in its bearings in the uprights G aforesaid.

By shifting the shaft to a higher from a lower set of slots in the uprights G, the penetration of the shovels into the soil may be regulated at pleasure, or they may be raised out of the ground altogether.

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

1. The combination, with the axle A, having bail C, and the clamp-plate *b*, resting on the ends of said bail, of the uprights G, extending through the axle and plate, affording bearings to the beam-shaft, and having shoulders *c* and the clamp-nuts *d*, substantially as specified.

2. The combination, with the axle A, bail C, tongue D, and the open slotted uprights G on the axle, of the rock-shaft H, journaled in said uprights, the beams I, spacing-blocks *e'*, the rod K, spacing-blocks *f*, the lever L, pivoted to the beam, the link *l*, vibrating on shaft K and adjustably secured to said lever, and the rack-bar *h*, erected on the bail, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES H. JOHNSON.

Witnesses:

WILLIAM B. FERGUSON,
ORLANDO W. SHEPARD.