

O. KUGLER.  
CULTIVATORS.

No. 180,354.

Patented July 25, 1876.

Fig. 1

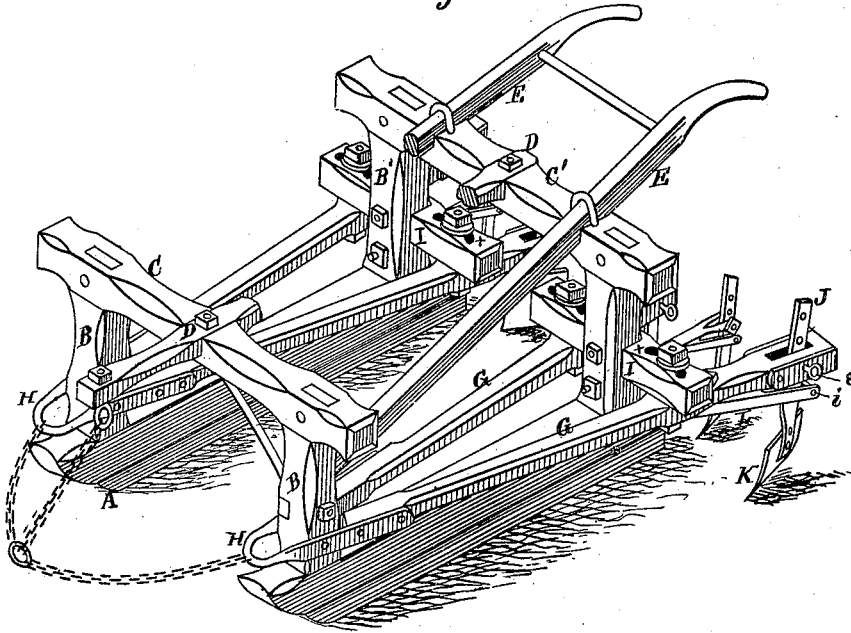


Fig. 2.

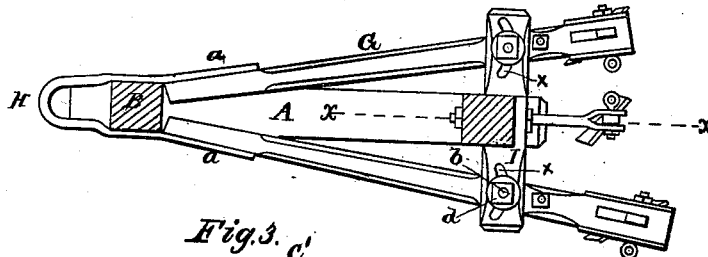
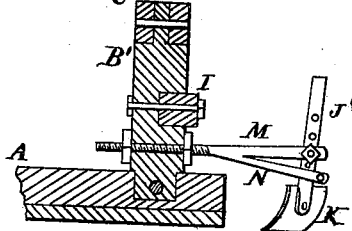


Fig. 3.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

OLIVER KUGLER, OF FLEMINGTON, NEW JERSEY, ASSIGNOR OF PART OF HIS RIGHT TO J. D. McCULLEY AND MATILDA VAN FLEET.

## IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 180,354, dated July 25, 1876; application filed June 7, 1876.

*To all whom it may concern:*

Be it known that I, OLIVER KUGLER, of Flemington, 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 perspective view of my cultivator. Fig. 2 is a plan view of one set of beams. Fig. 3 is a vertical section through the line *x x* of Fig. 2.

The frame of my cultivator is composed of two runners, A A, each provided with front and rear standards B B', and the corresponding standards of the two runners connected by front and rear cross-beams C C', as shown, this being a well-known frame, already patented to me.

The two beams C C' are connected by the tongue D. E E are the handles, fastened to the top of the rear beam C', and to the inner sides of the front standards B B. On each side of this frame are two plow-beams, G G, the front ends of which are fastened to the ends of a clevis, H, said ends being in the form of straps *a a*, as shown, so as to be capable of springing slightly.

The clevis H is in front of the standard B, the straps *a a* straddling the same, and fastened thereto with the plow-beams on the inner sides of the straps, and their front ends immediately in rear of the standard, as shown in Fig. 2.

One of the plow-beams G is on the outer, and the other on the inner, side of the rear standard B', and are fastened to a cross-bar,

I, let into, and bolted securely to, said standard. In each end of this cross-bar is a curved slot, *x*, through which a bolt, *b*, is passed upward, it going first through the plow-beam, and a nut, *d*, screwed on the upper end of the bolt, fastens the parts firmly in place.

By simply loosening the nuts *d* the arms G may be adjusted closer together or farther apart, as desired, the spring of the arms *a* of the clevis allowing of such adjustment.

The rear end of each beam G is slotted vertically, and in the same is pivoted the shank J, to the lower end of which the plow K is secured. The shank J is perforated so that it can be adjusted up and down, as required, by simply changing the pin *e* in different holes in the shank. To the under side of the beam G is fastened a metal bar, L, the rear end of which is forked, and the shank J is passed through said fork, with a wooden pin, *i*, passed through the prongs behind the shank, so that if the plow strikes a stone or other obstruction said pin will break, and the plow turn backward, thus preventing breakage of any of the parts.

In the rear standard B', on each side of the frame, is fastened an arm, M, which projects rearward, and has another arm, N, attached to its under side. The extreme rear ends of both arms M and N are forked, and in the upper one, M, is pivoted a perforated plow-shank, J', with plow K' at its lower end, it being held by the wooden break-pin in the fork of the lower arm, N.

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

1. The combination, with the beams G G and standard B, of the clevis H, secured to the standard, and having extended ends *a a*, forming springs, which are connected to the beams G G, substantially as and for the purposes herein set forth.

2. The combination of the standards B B', the beams G G, connected to the springs *a a* of the clevis, and the cross-bar I, provided with curved slots *x x*, and the adjusting bolts

and nuts *b d*, all substantially as and for the purposes herein set forth.

3. The combination of the standard *B'*, adjustable slotted beams *G G*, perforated shanks *J J'*, with plows *K K'*, forked bars *L* and *M N*, with their pivot and break pins, all as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of May, 1876.

OLIVER KUGLER.

Witnesses:

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