I. BARBER.
Cultivator.

No. 198,069. Patented Dec. 11, 1877.

Fig. 1.

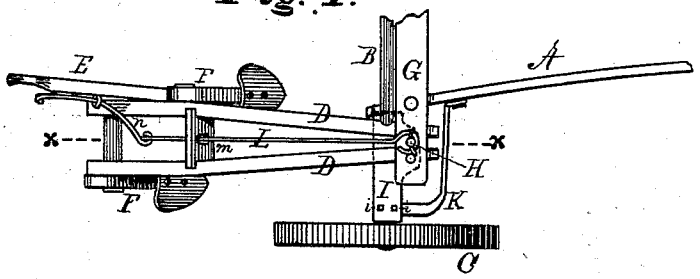


Fig. 2.

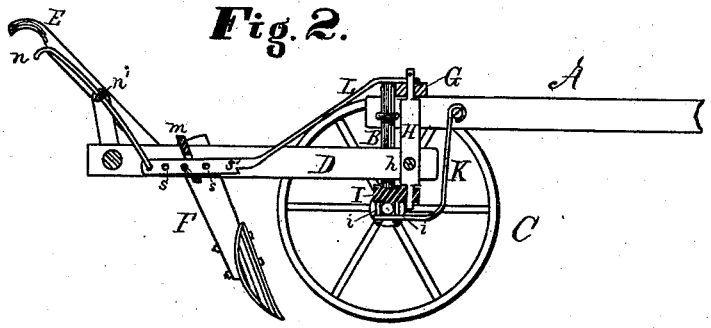
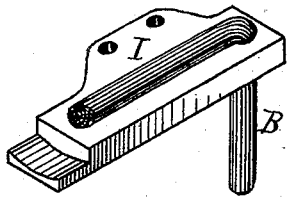


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

IRA BARBER, OF LA PORTE, INDIANA.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. **198,069**, dated December 11, 1877; application filed March 12, 1877.

To all whom it may concern:

Be it known that I, IRA BARBER, of La Porte, in the county of La Porte and State of Indiana, have invented certain Improvements in Cultivators, of which the following is a specification:

In the accompanying drawing, forming a part of this specification, Figure 1 is a plan of that part of the cultivator which embodies my invention. Fig. 2 is a vertical section thereof on the line *x x* of Fig. 1; and Fig. 3 is a perspective view of the bottom of the axle-plate, hereinafter described.

Like letters indicate like parts in all the figures.

In said drawing, A represents one fork of the tongue, B the arched axle, and C one of the carrying-wheels. D D are the two halves of the plow-beams, to which are attached the handle E and plow-standards F F. G is a cross-bar extending across and attached to the forked ends of the tongue, and projecting beyond the same some distance on each side.

The pivot-post to which the plow-beams are attached is lettered H. It is round at top and bottom, and the top end is inserted in a suitable bearing in the cross-bar, while the lower end is stepped in a metal plate, I, resting upon the horizontal part of the axle adjoining the wheel. As a cheap and efficient fastening for this plate, I perforate one end of it, so it may be slipped over the axle until its proper position is reached, as will be obvious from the drawing. The other end is clamped to the axle by bolts *i i*, passing through it and the flat end of the brace K, reaching down from the tongue to the under side of the axle. A pivot, *h*, on which the plow-beams may freely swing, is inserted through the ends of the beams and the pivot-post.

This form of joint between the beams and the wheeled part of the cultivator permits every movement desirable for the plows, while it is obvious great strength and rigidity are secured to the pivot-post by giving it bearings at both top and bottom.

L is a latch-bar, attached to the upper end of the pivot-post, or to some part of the machine located as high as the cross-bar, by a joint, which permits lateral movement of the other extremity similar to that allowed the plows. The lower part of this latch-bar is flattened, as shown, and pin-holes *s* and a catch, *s'*, are made therein. The flattened part passes through a cross bar or plate, *m*, inserted between and secured in the two plow-beams D D.

A latch-rod, *n*, is attached to the rear end of the flattened part of the bar L, and reaches from thence up nearly to the curved part of the plow-handle, passing through an eye, *n'*, projecting from the side of the handle, and its upper end is bent over, so as to serve as a handle, to be caught by the finger of the operator when it is desired to release the catch *s'* from the plate *m*.

When it is desired to hitch up the plows, it is only necessary to raise them until the catch *s'* engages against the plate *m*, which it does automatically; and it makes no difference, with this operation, how near together or how far apart the plows are at the time of being raised; and they may be swung laterally as well after being raised as before.

A pin is inserted in one of the holes *s* in the rear of the plate *m*. By this means I fix a limit to the depression of the plows, so that the depth of the cut will be absolutely the same whether the ground is soft or hard. The extra holes are for the purpose of adjustability in this regard.

A valuable feature of my invention lies in the fact that the plows, when thus sustained by the latch-bar, act as a counter-balance to the tongue, and maintain the latter in a level position.

The axle-plate is made to project over and cover the hub of the wheel, as shown, whereby it is made to act as a shelter or cover to the latter.

Having thus fully described my invention, what I claim as new is—

1. The combination of the axle and the

plate I with pivot-post H and cross-bar G, all being constructed, arranged, and combined substantially as shown and described.

2. The rigid bar L, attached to the upper frame-work by a pivot-joint, and provided at its lower end with notch s' and several pin-holes and a pin, such lower end passing through a slot in the cross-plate m, secured in the plow-beams, in combination with said frame-work and the plow-beams, substantially as described, whereby the plow may be hitched up when not in use, and may also be adjusted at different positions, so as to regulate the depth of its cut.

IRA BARBER.

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