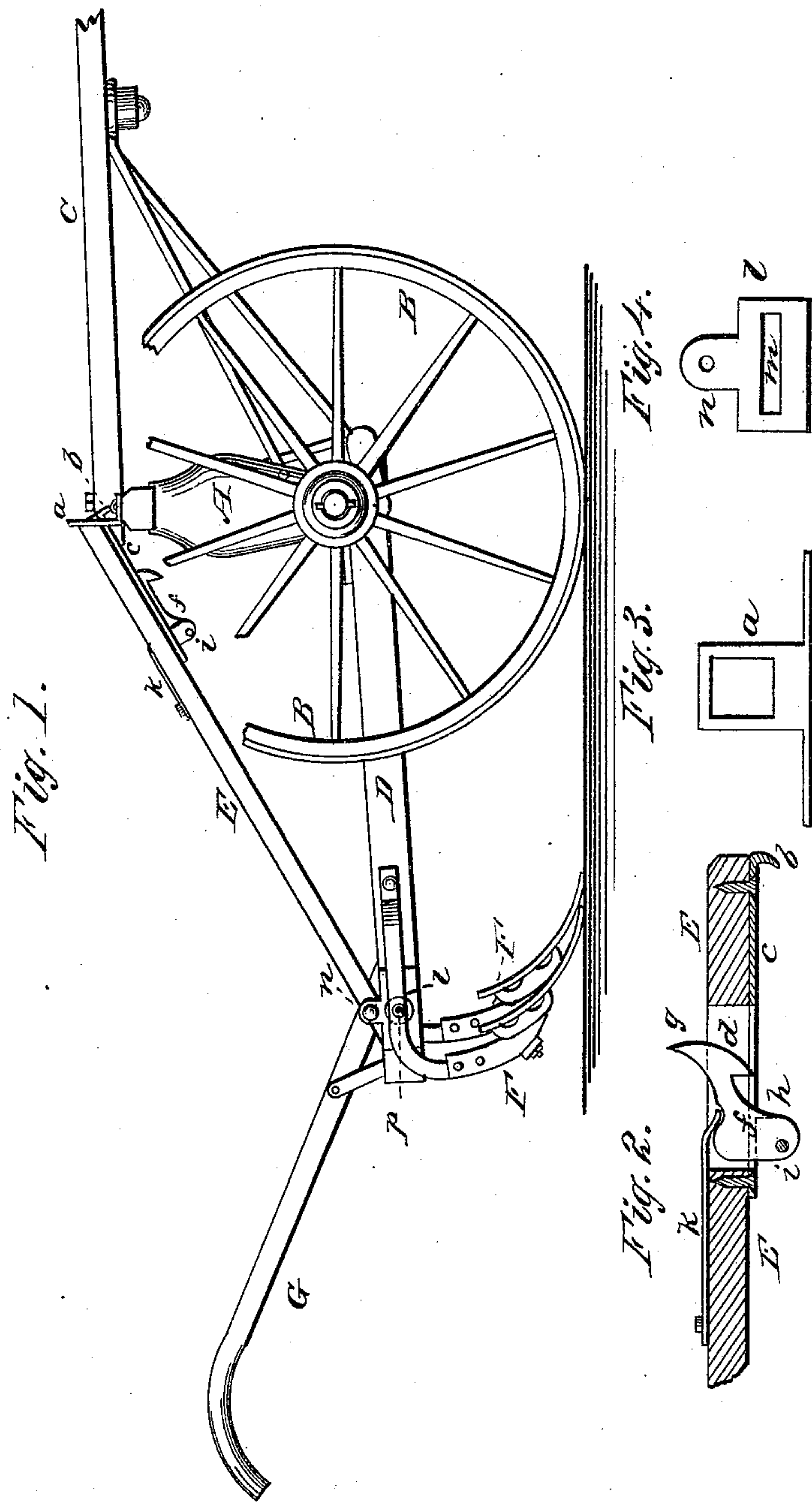


D. C. STOVER.
CULTIVATORS.

No. 181,494.

Patented Aug. 22, 1876.



Witnesses:
O. W. Bond.
O. S. Bond.

Inventor:
Daniel C. Stover
Per: West & Bond Attorneys.

UNITED STATES PATENT OFFICE

DANIEL C. STOVER, OF FREEPORT, ILLINOIS.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 181,494, dated August 22, 1876; application filed March 4, 1876.

To all whom it may concern:

Be it known that I, DANIEL C. STOVER, of Freeport, Stephenson county, State of Illinois, have invented a new and useful Improvement in Cultivators, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation. Figs. 2, 3, and 4 are details.

My improvements are designed to be used with walking-cultivators.

The chief objects of my invention are to provide an improved device for hanging up the shovels when not in use, and also for regulating the depth of the plowing; and these I accomplish by means of a rigid bar running at an angle from the axle or frame, and connected with the beam which carries the shovels, and by means of suitable devices in connection with said parts, as hereinafter described.

In the drawings, A represents the upright portion of a bent axle; B, one of the wheels; C, the tongue; D, one of the plow-beams; E, a rigid bar, extending at an angle from the axle or frame of the cultivator to a point near the rear of the plow-beam, as shown. *a* is a metal plate fastened to the axle. It is provided with a hole, in which the forward end of the bar E is inserted, and can be freely moved forward and back. The forward end of E is provided with a hook, *b*, or other device, to catch on the plate *a* and prevent this bar E from being drawn away from the plate *a*, and the under side of the upper end of E is faced with metal to prevent wear. *d* is a slot through E, and through the facing *c*. *f* is a hook, having an extension, *g*, in front, and curved on the under side, as shown at *h*. It is pivoted or hinged in ears *i* on the under side of E. *k* is a flat spring. Its lower end is fastened to E. The other end is free, and is over the hook. *l* is a metal plate, in which is a slot, *m*. *n* is an ear upon the plate *l*, to which the rear end of the bar E is somewhat loosely fastened. The plate *l* is held firmly against the side of the beam by means of the bolts and block which hold the shovel-standard F in place.

By loosening the bolt *p*, which passes through the standard F, and through the slot

m in the plate *l*, this plate can be moved forward or back, thus elevating or depressing the end of the plow-beam, thus regulating the depth to which the shovels enter the ground.

The hook *f*, before described, is so arranged that it moves up and down in the slot *d*.

G is a handle secured to the beam D, which beam is connected to a suitable support at its forward end in any well-known manner.

I have represented only one-half of the cultivator; but it is to be used as a straddle-row cultivator, and the parts required to make a complete machine are to be duplicates of those shown.

In use the rear ends of the plow-beams are supported by means of the rigid bar E, and the depth of the plowing can be regulated as before described.

When desired, the shovels can be suspended or hung up, so as to be free from the ground, simply by lifting up the rear end of the plow-beam, which will cause the forward end of the bar E to move forward through *a* until the hook *f* passes through *a*, and can catch upon the lower side of the opening therein.

The hook *f* can be released by lifting the rear end of the beam D, causing the curved portion *h* of hook *f* to slide up on the lower edge of the opening in *a*, thus lifting the hook proper up into the slot in E, in which position the point or extension *g* will project above the bar E, and the hook will be held there by the contact of a flattened spot on the upper edge thereof with the spring *k*, and the hook can be withdrawn from the part *a*. While being withdrawn the projection *g* will come in contact with the part *a* at the top, releasing the hook from the spring, and allowing it to drop down into the position shown in Fig. 1.

I do not confine myself to this exact method of holding the hook up in the slot in E.

Among the advantages from this construction are the following: The shovels can be more easily moved laterally than when the ends of the beams are unsupported, and such movement does not in use materially change the depth to which the shovels enter the ground. The depth of the plowing can be easily regulated. The weight upon the necks of the horses caused by the draft is partly re-

moved by the counterbalancing weight of the beams through the bar E.

The rear end of the bar E may be connected with the plow-beam at a point considerably forward of that shown; but I would still use the slotted plate *l* to regulate the depth of the plowing.

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

1. The axle or frame and beam D, in combination with the rigid bar E, pivoted at one end, and arranged to slide back and forth

upon the axle at the other, for holding the beam up when not in use, and regulating the depth of the plows when at work, substantially as and for the purpose set forth.

2. The combination of the axle or frame, bar E, beam D, and slotted plate *l*, substantially as and for the purposes specified.

DANIEL C. STOVER.

Witnesses:

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