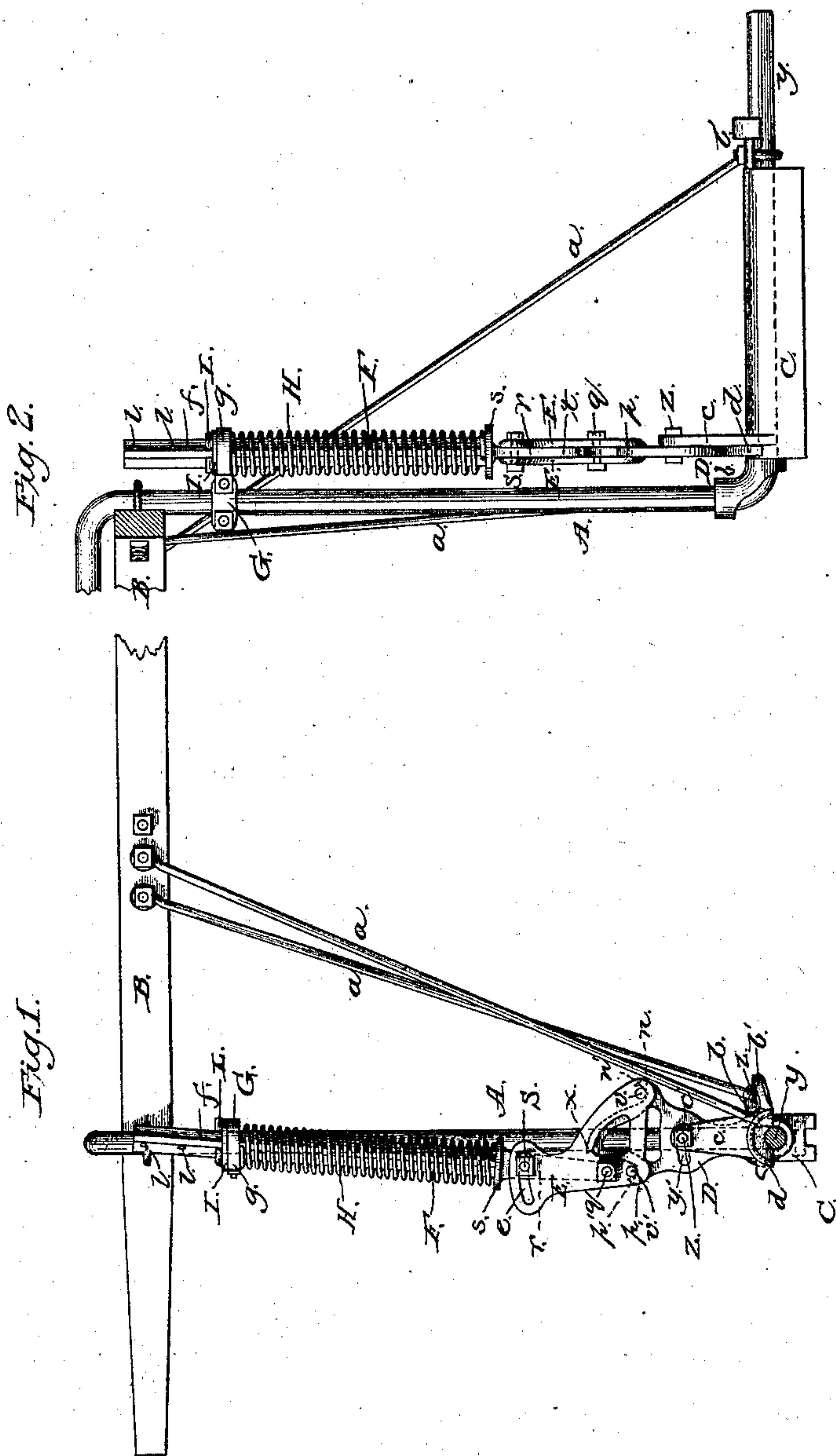


(Model.)

F. B. MANLY.
Wheel Cultivator.

No. 238,943.

Patented March 15, 1881.



WITNESSES

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UNITED STATES PATENT OFFICE.

FRANK B. MANLY, OF MALTA, OHIO.

WHEEL-CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 238,943, dated March 15, 1881.

Application filed January 22, 1881. (Model.)

To all whom it may concern:

Be it known that I, FRANK B. MANLY, a citizen of the United States, resident at Malta, in the county of Morgan and State of Ohio, have invented certain new and useful Improvements in Wheel-Cultivators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a side view. Fig. 2 is a rear view. This invention relates to wheel-cultivators.

The invention consists in the construction hereinafter specified, and particularly pointed out in the claims.

In the drawings hereto annexed, A is an inverted-U-shaped axle, carrying at the top the frame B, the latter braced by braces *a* running to cuffs *b b'*, and the inner one held in eye *z*, and the outer passing around arm *y* and holding cuff *b'* thereto.

Between cuffs *b b'* are sleeved upon arms *y* the plow-beam-supporting boxes C, said boxes having arm *c* extending upward near their inner ends, and provided with a threaded hole, *c'*.

D is a plate having a lower curved seat, *d*, whereby it fits and rests on box C, just inside arm *c*, and provided with a curved slot, *y'*, whereby it is adjustably held to said post and on box C by bolt Z. At front and rear this plate is provided with the curved lugs *n* and *p*, forming curved seats *n'* and *p'*, the rear one, *p'*, being somewhat above the front one, *n'*. At top of this plate there is a catch, *x*, the lip of which is turned to the rear, the edge of the plate curving downward from this catch to seat *n'*, and more abruptly to seat *p'*. This plate may be solid or cut out, making it lighter.

E E are duplicate or twin plates, made somewhat triangular, the upper angles being extended, and having the transverse curved slots *e e*. These plates are held together at their lower angles or corners by bolts or rivets *v v'*, there being a space, *t*, between the plates. These plates E E are placed straddling plate D, rivets *v v'* resting in seats *n' p'*, the latter

plate projecting into space *t* up between the other plates.

F is a rod having, preferably, an angular stem, *f*, with collar *s* and a flattened tang, *r*. This tang extends down between plates E E, and is made fast by pin *q* a little above rivet *v'*, said tang being held adjustably at slots *e* by set-screw S.

G is a bearing, clipped adjustably to frame A, and having an eye, *g*, through which eye the stem *f* of rod F passes. Encircling this stem between collar *s* and bearing G is a coiled spring, H. Above this bearing G, upon stem *f*, there is a washer, I, having a hole fitted to said stem. This stem is provided with a series of holes, *l*, in which is to be placed the pin or key L. The object of the construction described is to form a device for holding the plow firmly in the ground, and at the same time permit and assist its ready removal and vertical play. The requisite depth is regulated by the screws or bolts S and Z, the slots curving outwardly in opposite directions.

It will be seen that the connections described form a species of knuckle-joint, and the pressure of spring H is exerted when the joint is closed, and hence holds it thus, which is the position the parts occupy when the plow is at work in the ground, so that the said plow is held firm without any exertion of the plowman. When it is desired at any particular point to go deeper, any pressure on the handles would open the joint backward against the spring H, the stem of rod F sliding through bearing G, and such opening would continue until catch *x* brought up against rivet *v'*, the turning-point being at rivet *v*. In releasing the plow from the ground or raising it up to be hung for transportation from point to point, the beam is swung up, opening the joint forward, turning on rivet *v'*. As the joint opens the spring H uses its tension to throw the same farther open, the plow rises, and the stem *f* of rod F slides through bearing G, the amount of movement being regulated by the position of key L. In this direction there is no positive catch like catch *x*, the extent of travel being governed by the play allowed to spring H by the position of the key L.

What I claim is—

1. Box C and plate D, in combination with plates E E, held together as described, rod F, spring H, and bearing G, substantially as specified.

- 5 2. In a wheel-cultivator, the combination, with the box C, having arm *c*, of the plate D, having the curved slot *y'* and seats *n' p'*, the plates E E, having space *t*, rivets *v v'*, and curved slot *e*, the bolts Z and S, rod F, spring

H, and bearing G, substantially as and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK B. MANLY.

Witnesses:

JOHN BROWN,
JAMES MANLY.