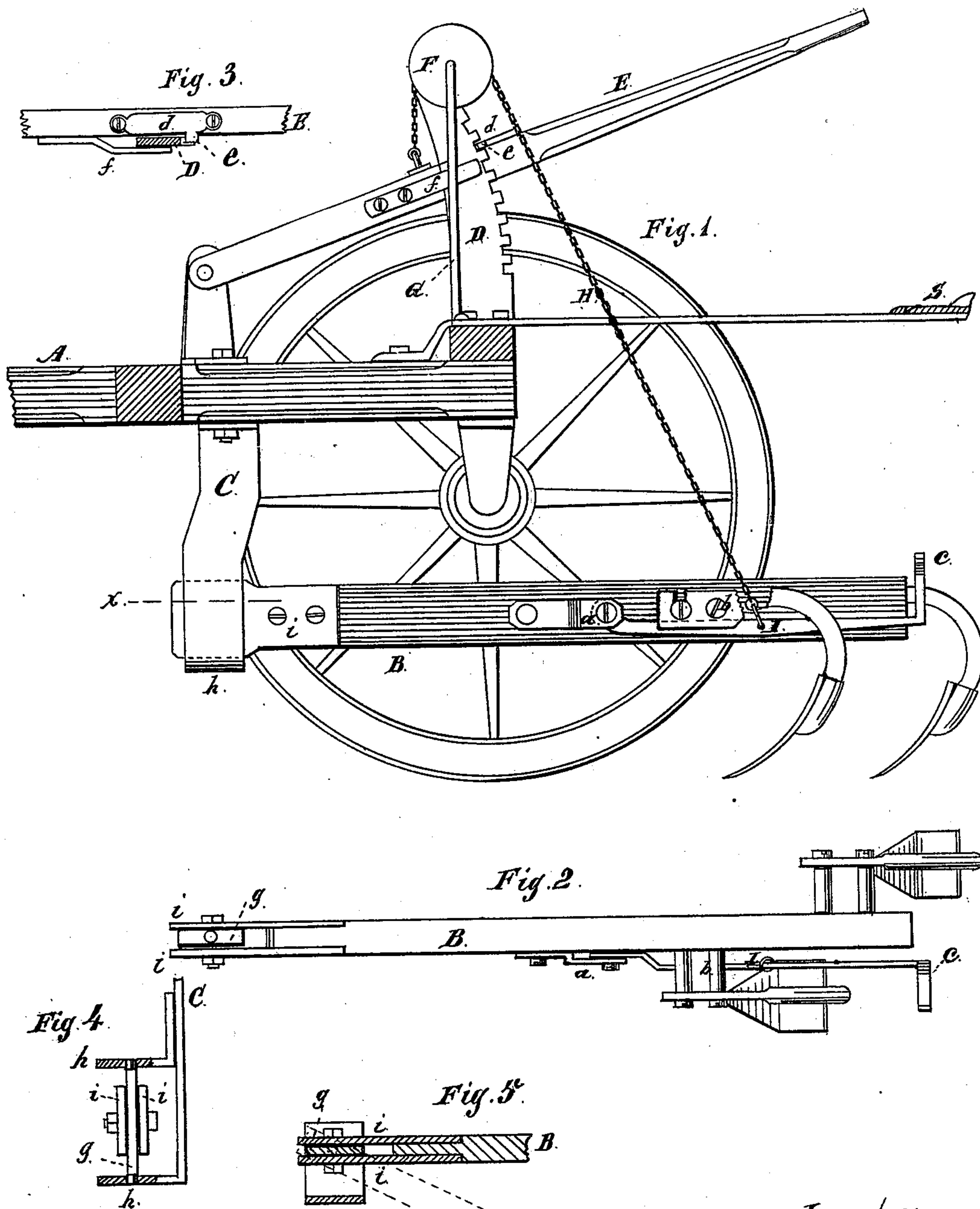


G. W. STAVER.
Riding Corn-Cultivator.

No. 202,383.

Patented April 16, 1878.



Witnesses:

J. F. Bruns.
O. W. Bond.

Inventor:

George W. Staver
By Chas & Bond Atty

UNITED STATES PATENT OFFICE.

GEORGE W. STAVER, OF MONROE, WISCONSIN.

IMPROVEMENT IN RIDING CORN-CULTIVATORS.

Specification forming part of Letters Patent No. 202,383, dated April 16, 1878; application filed June 15, 1877.

To all whom it may concern:

Be it known that I, GEORGE W. STAVER, of Monroe, Greene county, in the State of Wisconsin, have invented certain new and useful Improvements in Riding Corn-Cultivators, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section; Fig. 2, a plan of the parts represented; Figs. 3, 4, and 5, details, Fig. 4 being an end view of the shovel-beam joint, and Fig. 5 a section at *x* of Fig. 1.

The nature of my improvement relates to that class of cultivators provided both with a hand-lever and a foot-lever; and consists in the combination of said levers and connecting devices, and in the combination of parts, as will be hereinafter more fully described.

In the drawings, A represents part of the main frame. B is one of the shovel-beams; C, pendant, to which forward end of shovel-beam is hinged; D, notched standard. E is a hand gage lever; F, pulley at top of standard D; G, brace-rod; H, chain. I is a foot-lever, pivoted at *a* to the inside of the plow-beam. The shovel-standard on this side is a little distance from the beam B, and the foot-lever I is between the standard and beam, while the block *b*, or connecting-piece between the standard and beam, forms a stop, limiting the upward movement of the lever I. *c* is a foot-piece upon the outer end of this lever. *d* is a plate upon E. It has a projection, *e*, to engage with the notches in D. *f* is a flat spring, secured at one end to the lever E, the free end being upon the inside of the standard D. It holds the lever E in place against the standard, but permits it to be pressed away therefrom far enough to withdraw the projection *e* from the notches in D to raise or lower the lever. One end of the chain H is connected with the hand-lever forward of the pulley F. The other end is connected directly to the foot-lever I.

The joint by means of which the plow-beam is connected with the pendant is constructed

as follows: *g* is a central leaf, having a pivot at each end, which pivots enter bearings *h h*. *i i* are two leaves, one on each side of *g*. They are pivoted to *g*, and permanently secured to the front end of the beam B.

By making the leaf *g* long and placing the bearings *h h* some considerable distance apart, the bearings must be very much worn before the pivots will become loose enough therein to allow any material twist or roll of the shovel-beam, which is quite an advantage over joints in common use.

The spring *f* is such that it can be easily replaced if broken; indeed, a wooden spring would do temporarily.

The spring operates on one side of the curved standards D on the opposite side of the hand-lever, which is provided with a plate, *d*, having a projection, *e*, which engages with the notches on the back of the standards. The plate *d* is placed on the upper side of the hand-lever, as the strain from the chain has a tendency to elevate the lever.

The operation of the foot-lever necessitates a strong ratchet-connection for the foot-lever; and by the arrangement shown such strong connection is attained, and is held by a weak or slight spring.

By means of the lever I the driver can, by using his foot, temporarily raise the shovels.

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

1. The hand and foot levers connected by a chain passing over a pulley direct to each, and so arranged that the foot-lever carries the drag-bar.

2. The lever E, provided with the spring *f* upon one side of the standard D, and the projection *e* upon the opposite side, in combination with wheel F, chain H, and foot-lever, substantially as and for the purpose set forth.

GEORGE W. STAVER.

Witnesses:

S. M. SMITH,

WM. M. WRIGHT.