

C. E. LIBBY.
RIDING ATTACHMENT FOR HORSE HOES.
APPLICATION FILED MAY 20, 1912.

1,036,281.

Patented Aug. 20, 1912.
2 SHEETS—SHEET 1.

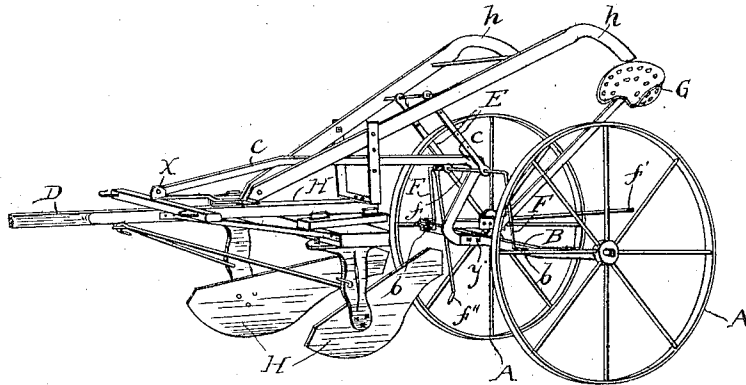


Fig. 1.

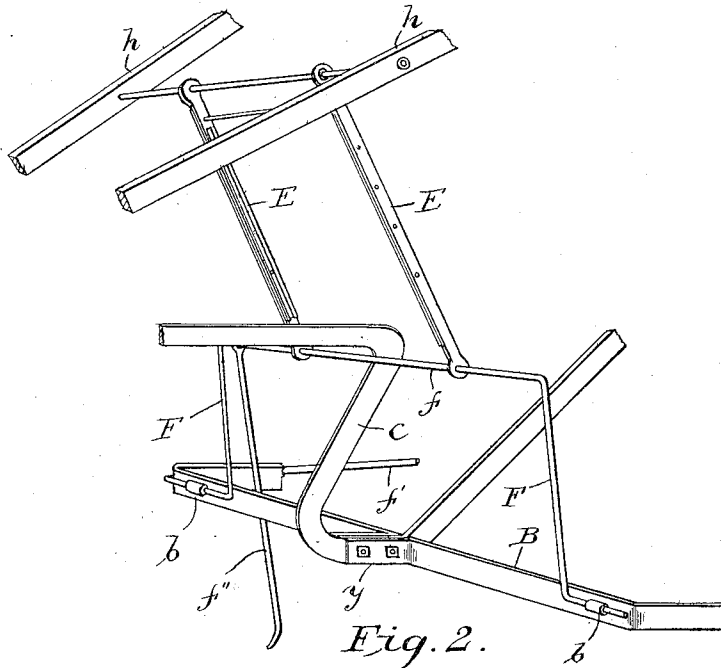


Fig. 2.

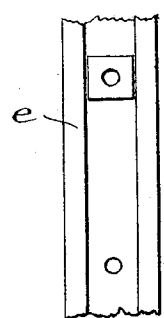
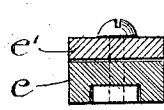
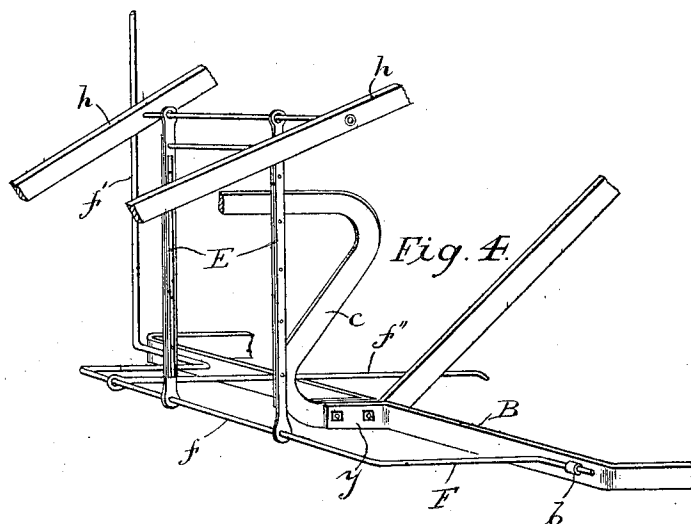
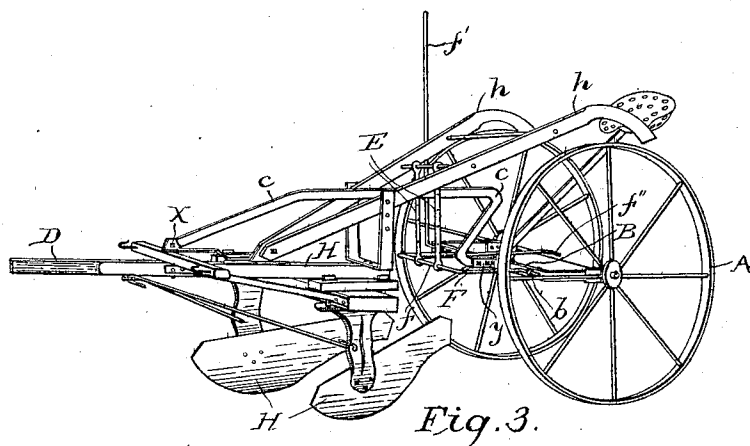
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UNITED STATES PATENT OFFICE.

CHARLES E. LIBBY, OF BURNHAM, MAINE.

RIDING ATTACHMENT FOR HORSE-HOES.

1,036,281.

Specification of Letters Patent.

Patented Aug. 20, 1912.

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To all whom it may concern:

Be it known that I, CHARLES E. LIBBY, citizen of the United States, residing at Burnham, in the county of Waldo and State of Maine, have invented certain new and useful Improvements in Riding Attachments for Horse-Hoes, of which the following is a specification.

My invention consists of a riding attachment for horse-hoes, and is fully illustrated in the accompanying drawings in which—

Figure 1 is a perspective view of hoe and attachment with hoe raised. Fig. 2 is an enlarged perspective view of lifting device raised. Fig. 3 is a perspective view of hoe and attachment with hoe lowered for work. Fig. 4 is an enlarged perspective view of lifting device lowered. Fig. 5 is a cross section of a vertically adjustable connecting rod. Fig. 6 is a side view of a vertically adjustable connecting rod.

Similar letters refer to like parts throughout the figures.

The object of my invention is to provide a riding attachment which may be connected to any ordinary horse-hoe and detached therefrom if desired, and which incidentally embraces also certain subordinate but valuable features.

In construction I provide a pair of wheels A and a bent axle B which are detachably connected to the hoe H by a beam C of peculiar shape, as shown, extending from the axle B to the pole D. The beam C is hinged and pivoted to the pole D at *x* and rigidly secured to the axle B at *y*. It is formed with the backwardly extending jaw *c* for the purpose hereinafter described and passes between the handles of the hoe. This construction permits the raising and lowering of the hoe with reference to the axle.

The lifting device consists of a connecting rod, or preferably a pair of rods E as shown, hinged or pivotally suspended at their upper ends from the hoe handles *h* and at their lower ends to the crank *f* of a crank shaft F turning in bearings *b* upon the axle B. The crank-shaft F is operated by a hand lever *f'* which is preferably a bent extension of the crank-shaft, or if desired a foot lever *f''* may be used, and a seat G is mounted upon the axle within reach of the lever, and carried backward for such distance as that when the driver is seated the weight of the hoe may be approximately balanced.

The connecting rods E E may be formed

longitudinally adjustable as shown in Figs. 5 and 6 to provide for attachment to hoe-handles of various inclinations. As shown they are made in two parts *e* and *e'*, the parts *e* having turned over edges forming grooves or slides at each side and the parts *e'* moving longitudinally therein and locking in any usual and convenient manner at any desired points, but any convenient form of longitudinally adjustable rods may be adopted.

When it is desired to attach the device to a hoe the wheels and axle are connected with the pole D by the beam C as shown, and crank *f* of the crank-shaft F secured to the axle B as shown.

In operation the hoe is lowered for work as shown in Figs. 3 and 4, and when it is desired to turn or cease work the lever *f'* or *f''* is operated, the crank *f* of the crank-shaft is forced upward and acting through the connecting rods E E attached to the hoe handles lifts the hoe bodily from the ground. As the crank rises it passes into and finally rests in the jaw *c* of the beam C at a point beyond the center of the connecting rods E and is thus locked in position. To lower the hoe for work the lever is operated reversely.

It will be observed that the jaw *c* serves two purposes—it permits the upward and limits the backward movement of the crank and affords a means of locking the crank in position. It should also be noted that the beam C is both hinged and pivoted to the pole which permits lateral movement of the hoe, and this, if small obstacles are encountered, is an important advantage, and enables the driver to pass without dismounting. In this connection the advantage of the two connecting rods is apparent for they are so spaced and located as not only to permit, but to regulate the amount of the lateral play of the hoe which can be thrown to either side by the driver in his seat by means of the hoe handles.

Having thus described my invention I claim and desire to secure by Letters Patent,

1. The combination of a horse-hoe and its handles; a pair of wheels and its axle; a beam rigidly secured to said axle and hinged and pivoted to the pole and bent to form a jaw above and near its junction with the axle; a crank-shaft turning in bearings on said axle in such manner as to be received within said jaw; and a rigid connection be-

tween said crank and said handles turning on bearings on said crank and said handles.

2. The combination of a horse-hoe and its handles; a pair of wheels and its axle; a beam rigidly secured to said axle and hinged and pivoted to the pole and bent to form a jaw above and near its junction with the axle; a crank-shaft turning in bearings on said axle in such manner as to be received within said jaw; and two rigid rods connecting said crank and said handles, turning on bearings on said crank and said handles, and loosely straddling said beam.

3. The combination of a horse-hoe and

its handles; a pair of wheels and its axle; a beam rigidly secured to said axle and hinged and pivoted to the pole and bent to form a jaw above and near its junction with the axle; a crank-shaft turning in bearings on said axle in such manner as to be received within said jaw; a rigid connection between said crank and said handles, turning on bearings on said crank and said handles; and a lever operating the crank-shaft.

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Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."