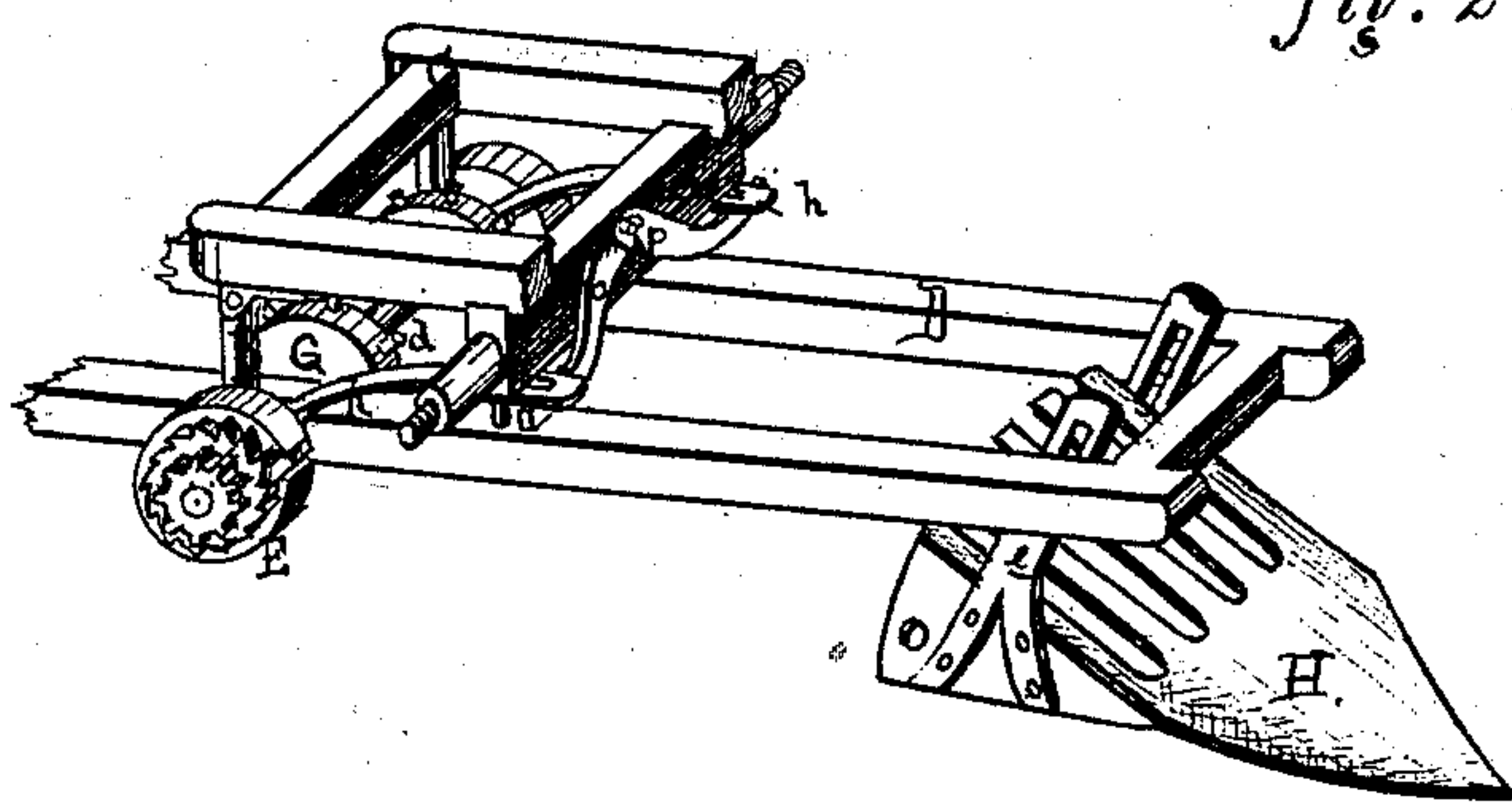
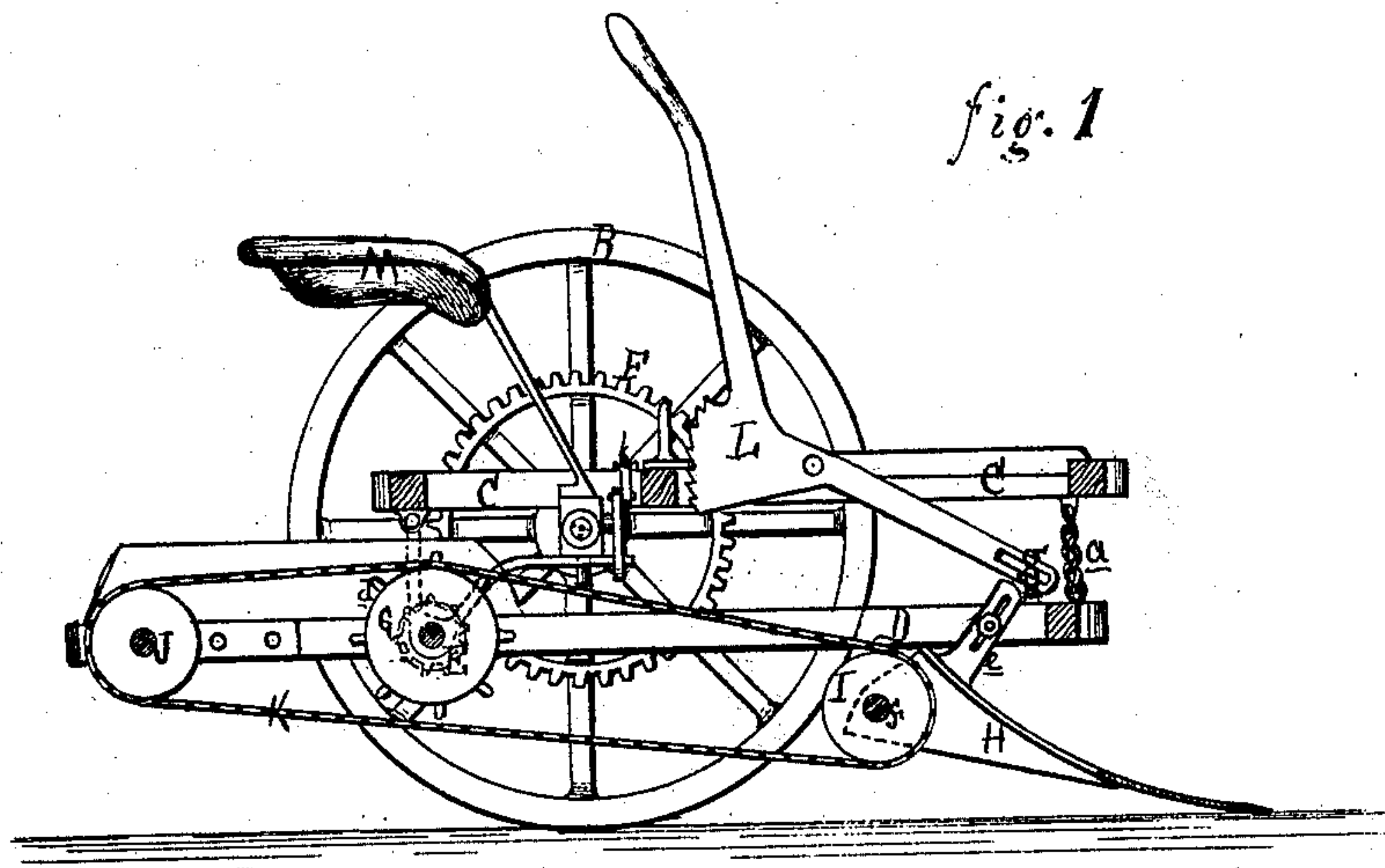


J. A. Wadhams,

Potato Digger.

No. 113,373.

Patented Apr. 4, 1874.



Witnesses:
Sam. S. Sprague
W. S. Rogers,

Inventor:
John A. Wadhams
Per Attorney
Thos. S. Sprague

United States Patent Office.

JOHN A. WADHAMS, OF BLUE ISLAND, ILLINOIS.

Letters Patent No. 113,373, dated April 4, 1871.

IMPROVEMENT IN POTATO-DIGGERS.

The Schedule referred to in these Letters Patent and making part of the same.

To whom it may concern:

Be it known that I, JOHN A. WADHAMS, of Blue Island, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Potato-Diggers; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a longitudinal section of my machine, and

Figure 2 is a detached view in perspective, showing the mechanism that operates the endless chain, the shovel, and the device for throwing in and out of gear.

Similar letters of reference indicate corresponding parts in each figure.

The nature of this invention relates to an improved construction of that class of agricultural implements known as "potato-diggers."

The invention consists in the combination and arrangement of an upper frame and a lower frame, the front ends of which are connected by a chain, the lower frame being pivoted at its rear end, and having attached to its under side at the front end a vertically-adjustable scoop, the position of which in the ground is regulated in part by its devices for adjustment, and in part by a lever under the control of the driver, as more fully hereinafter set forth.

In the drawing—

A represents the axle of my digger, carrying the traction-wheel B.

Mounted upon this axle is the frame C.

D is another frame, which is suspended from the frame C by a chain, *a*, at its forward end.

b is a bracket pivoted to the rear end of the frame C, projecting downward and provided with the arms *h*.

c is a shaft journaled in lower part of the bracket *b* and in frame D, as shown, thus furnishing a support for the rear of said frame.

On either end of the shaft *c* are rigidly secured the pinions E in such manner that they will mesh with the spur-gears F, which are rigidly secured to the spokes of the traction-wheels B, upon the inner sides.

Upon this shaft *c*, within the frame, are also secured the pulleys G, which have in their peripheries the studs *d*.

H is a scoop or shovel attached to the forward end of the frame D by suitable bolts passing through the arms *e* of the scoop into the frame.

In the rear end of the scoop is journaled a shaft, *f*, carrying the pulleys I.

At or near the rear end of the frame D is a similar shaft carrying the pulleys J.

K is an endless chain which passes over the pulleys G, I, and J, as shown.

L is a lever pivoted to the tongue-bar of the frame C, the handle of which is in easy reach of the driver when sitting upon the seat M.

The forward end of this lever is slotted to receive the hook *g* upon the frame D, while the rear end of the lever is toothed, as shown, and is held in the desired position by means of the catch *j*, which engages with the teeth on the end of the lever.

The object of the arrangement of the frames C and D, connected by the chain *a*, is to give at all times to the scoop H an independent shaking motion, which will enable it better to enter the ground and avoid obstacles therein.

The object of the slot in the lever L is to allow of this shaking movement of the frame D without affecting the position of said lever.

The object of the lever L is to allow the driver, at will, to change suddenly the vertical position of the scoop *a*, or to raise it entirely above ground.

N are levers pivoted to the front face of the axle, the long arms of which extend outward and pass under the arms *h* of the bracket *b*, said arms being slotted to receive downward-projecting pins from the axle, that serve as guides to keep the arms in place.

Upon the top of the short arms of the levers N is secured a foot-plate, *k*, shown in fig. 1.

The pitch of the scoop is regulated by the lever L, as will be seen on reference to the drawing.

As the device is drawn forward the scoop is caused to enter the ground and pass under the potatoes.

In the continued forward movement of the machine the rotation of the traction-wheels causes the pulleys G to turn, and with them the endless chain, by reason of the engagement of the studs on the pulleys G with the chain, and the connection between the pinions E and the spur-gears F.

The potatoes and earth pass up the scoop and fall over onto the endless-chain belt, and in their further travel to the rear the earth is shaken off and falls through the chain, while the potatoes are carried to the rear and fall on the ground.

To throw the device out of gear, the foot is raised from the plate *k*, which will allow the long arms of the levers N to drop, and with them the arms *h* of the bracket *b*, which swings on its pivot, clearing the pinions E from their connection with the spurs F.

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

1. The combination of the frames C and D connected by the chain *a*, and the scoop H, all constructed and arranged substantially as described and shown, for the purposes set forth.

2. The combination of the frames C and D connected by the chain *a*, the scoop H, and the lever L provided with a slot, all constructed and arranged substantially as described and shown, for the purposes set forth.

JOHN A. WADHAMS.

Witnesses:

ELLIS F. HEWES,

ETHAN H. WATTLES.