

(No Model.)

G. F. REYNOLDS.  
POTATO BUG CATCHER.

No. 410,197.

Patented Sept. 3, 1889.

Fig. 1.

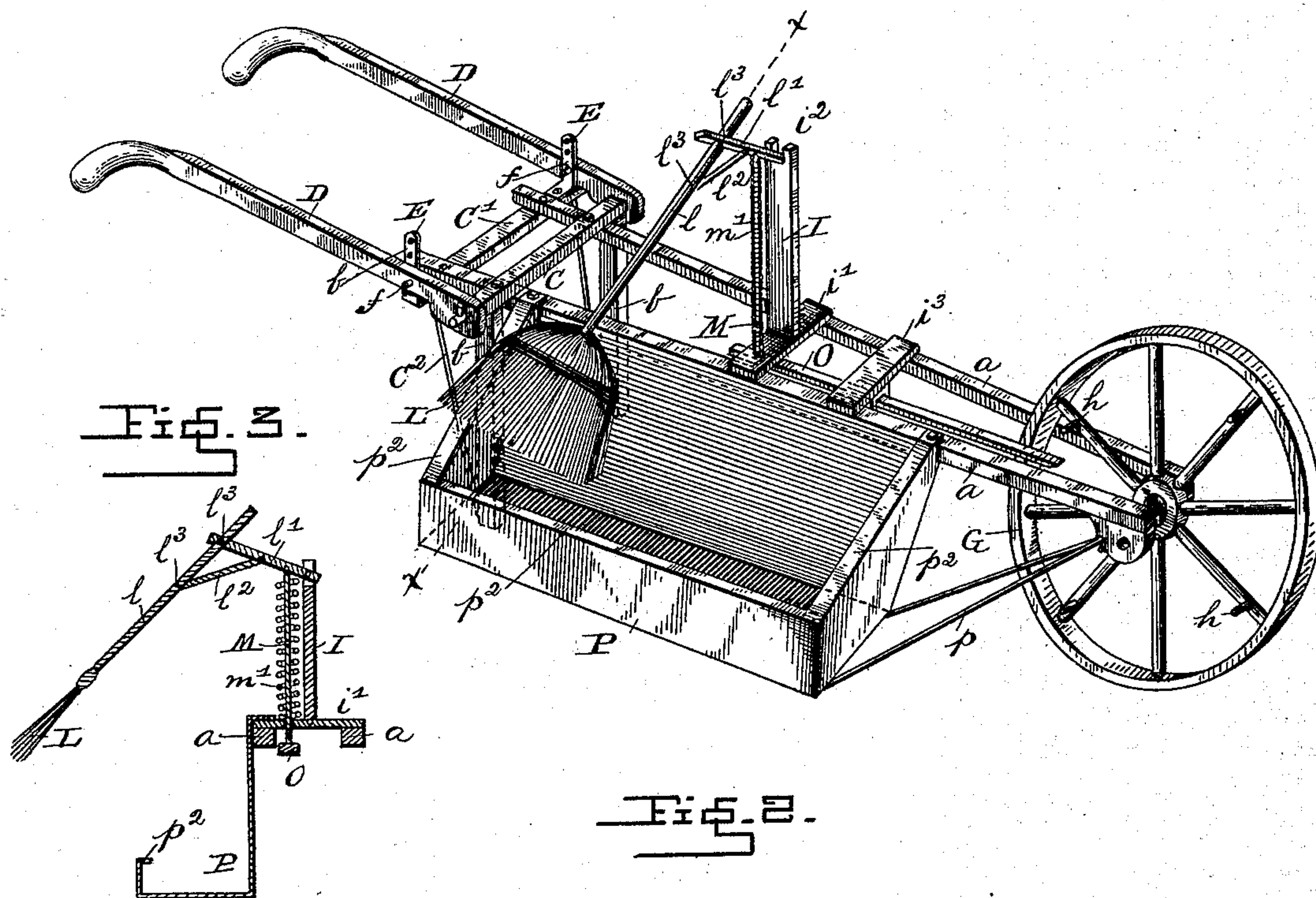
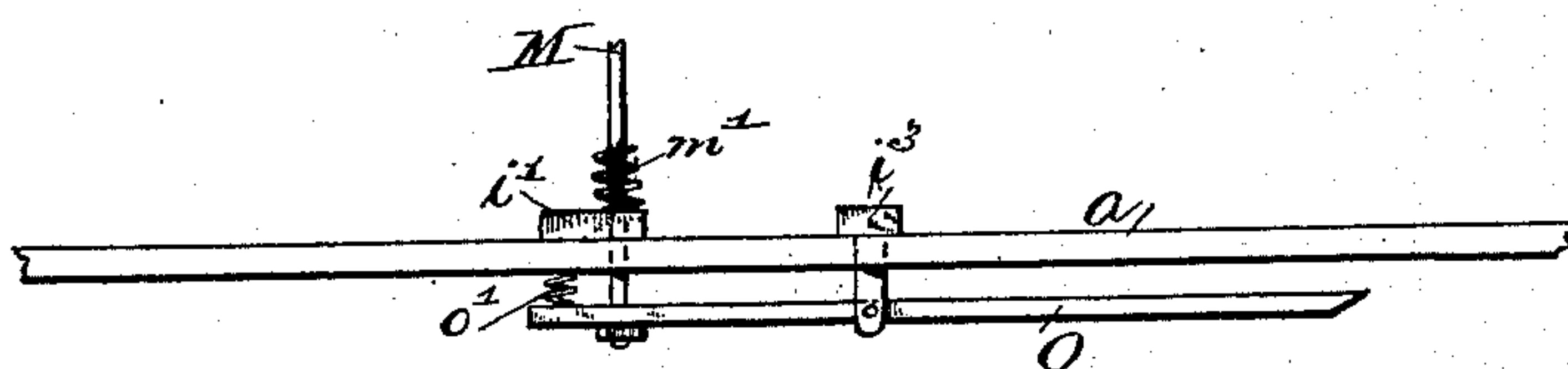


Fig. 2.



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# UNITED STATES PATENT OFFICE.

GEORGE F. REYNOLDS, OF MYERSBURG, PENNSYLVANIA.

## POTATO-BUG CATCHER.

SPECIFICATION forming part of Letters Patent No. 410,197, dated September 3, 1889.

Application filed January 22, 1889. Serial No. 297,137. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE F. REYNOLDS, a citizen of the United States, residing at Myersburg, in the county of Bradford and State of Pennsylvania, have invented certain new and useful Improvements in Potato-Bug Catchers; and I do 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 the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to an apparatus for knocking off potato-bugs from the vines and collecting them in a receptacle, in which they are carried off to be destroyed.

It consists of the structure hereinafter described and claimed.

It is illustrated in the accompanying drawings, in which Figure 1 is a view in perspective; Fig. 2, a vertical transverse view, in section, on line *xx* of Fig. 1; and Fig. 3, a detail.

As illustrated in the drawings, the apparatus consists, generally, of a one-wheeled vehicle, to be operated by hand, composed of a suitable frame and handles, having mounted on top of the frame a brush and carrying on one side thereof an open box. The brush is pivoted to a standard rising from the center of the frame-work, is arranged to reach over to one side of a row of vines near their tops when the vehicle is alongside thereof, and is operated by a spring and a lever having connection with the wheel to strike the vines in such a manner as to dislodge the bugs and throw them into the box.

Referring to the drawings for the details of my invention, the frame-work of the vehicle is composed of two long longitudinal arms *a*, a support consisting of the legs *b b* and top cross-pieces *c c'*, the piece *c* extending over the tops of the arms *a* and bolted to the legs *b*, and the cross-piece *c'*, in rear of the piece *c*, extending under the arms *a*, and to which the arms are also secured, and connected to the legs *b* by diagonal braces *c<sup>2</sup>*.

*DD* are handles secured to the cross-piece *c*. *EE* are lugs attached to the rear cross-piece *c'*, and provided with holes whereby, with the use of pins *f*, extending through the handles

and engaging with said lugs, the handles are adjusted as to height.

*G* is a wheel supported between the arms *a*, and having on its spokes projecting pins *h*.

*I* is a standard mounted on a cross-piece *i'*, supported on the arms *a*.

*L* is a brush, the handle of which is connected to a bar *l'*, pivoted to the standard *I* within the notch *i<sup>2</sup>*. The brush-handle is also connected with the bar *l'* by a brace *l<sup>2</sup>*.

*M* is an upright rod secured at its upper end to the bar *l'*, and its lower end, passing loosely through cross-piece *i'*, is secured to a lever *O*. A spiral spring *m'* surrounds the rod *M*. The lever *O* is pivoted at about its center to a cross-piece *i<sup>3</sup>*, runs the same direction with one of the side arms *a*, is beveled at its outer end, and is adapted to engage at that end with the pins *h* on the spokes of the wheel. At the opposite end of the lever is a spring *o'*, the office of which is simply to hold that end of the lever in place.

*P* is an open box, secured on one side of the apparatus to one of the arms *a* in any suitable manner, and having brace-connections *p* with the frame. One side of the box *P*—that placed nearest the vines—is only a few inches high, and is provided with a narrow inwardly-projecting flange *p<sup>2</sup>*, the object of which flange is to prevent the bugs collected from crawling out of the box.

The apparatus resembles a wheelbarrow, and is supported and pushed along in substantially the same way. Before starting the catcher the handles are adjusted to suit the height of the operator, and the height of the brush may be adjusted, as desired, to correspond to the height of the vines by pushing the handle *l* through the bar *l'*, and securing it at the proper height by means of a pin or thumb-screw placed at the points *l<sup>2</sup>*. The catcher is then raised and pushed along the row of vines with the open box adjacent to the vines, the brush-handle extending over the top of the vines, so as to hold the brush on one side of the vines and opposite to the box. As the wheel is rotated a pin *h* on the spokes comes in contact with the beveled end of the lever *O*, raising that end of the lever and depressing the other end. The vertical rod *M* being secured, as before described, to the lever *O* and bar *l'*, the said bar *l'* is pulled down, which



movement consequently throws the brush, overcoming the action of the spring *m* against the vines. When the end of the lever *O* is released from the pin *h* as the latter is carried up, the action of spring *m'* on the rod *M* is to raise the inner end of the lever *O* and the rod *M*, so that the brush is thrown outward and to its normal position, as shown in Fig. 2. Thus the brush is operated to give constantly quick, sharp blows against the vines toward the box, knocking the bugs therein. The rapidity of the blows upon the vines can be increased or decreased by providing a greater number of spokes with the pins *h*.

Having thus described my invention, what I claim is—

1. An apparatus for catching potato-bugs and other insects, consisting of a one-wheeled vehicle provided with handles, and a standard rising from the center of the vehicle and extending over to one side thereof, in combination with a brush pivoted to said standard, a spring and lever mechanism connected with pins on the single wheel of said vehicle and with said brush, and an open box secured to one side of the vehicle, whereby when said vehicle is pushed along as a wheelbarrow the said lever mechanism will be operated by said wheel to strike by successive blows the brush extending over the vines and knock the insects into said box, substantially as herein described.

2. The frame-work of the vehicle, composed of two longitudinal arms, in combination with a support consisting of the legs *b*, top cross-pieces *c c'*, the piece *c* extending over the tops of the said arms and bolted to the legs *b*, the said cross-piece *c'* in rear of the piece *c* and

extending under the arms *a*, and to which the said arms are secured, the diagonal braces *c<sup>2</sup>*, for connecting the cross-piece to said legs, the handles *D D*, secured to the cross-piece *c*, lugs *E E*, attached to said cross-piece *c'*, provided with holes and pins to adjust the handles as to height, and a wheel supported between said arms, all substantially as shown, and for the purpose described.

3. In combination with the frame-work of the vehicle provided with handles, a single wheel the spokes of which are provided with pins *h*, the central standard *I*, the brush *L*, the bar *l*, pivotally connecting the said brush and standard, the lever *O*, pivoted centrally to a cross-piece on the frame-work, adapted at one end to engage with the pins on the wheel, and provided at the other end with a spring *o'* to hold it in place, a rod *M*, provided with a spiral spring *m'*, and secured at one end to the said lever *O* and at the other end to the said bar *l'*, whereby when the wheel is rotated the said lever *O* coming in contact with the pins in said wheel, one end is raised and the other end depressed, and the bar *l'* and the lever *M*, operated by the springs to throw the brush one way, and when said lever *O* is released it and the lever *M*, operated by the springs, throw the brush in the opposite direction, whereby the brush is operated to give quick, sharp, successive blows against the vines, substantially as and for the purpose described.

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

GEORGE F. REYNOLDS.

Witnesses:

H. W. MYER,  
W. S. REYNOLDS.