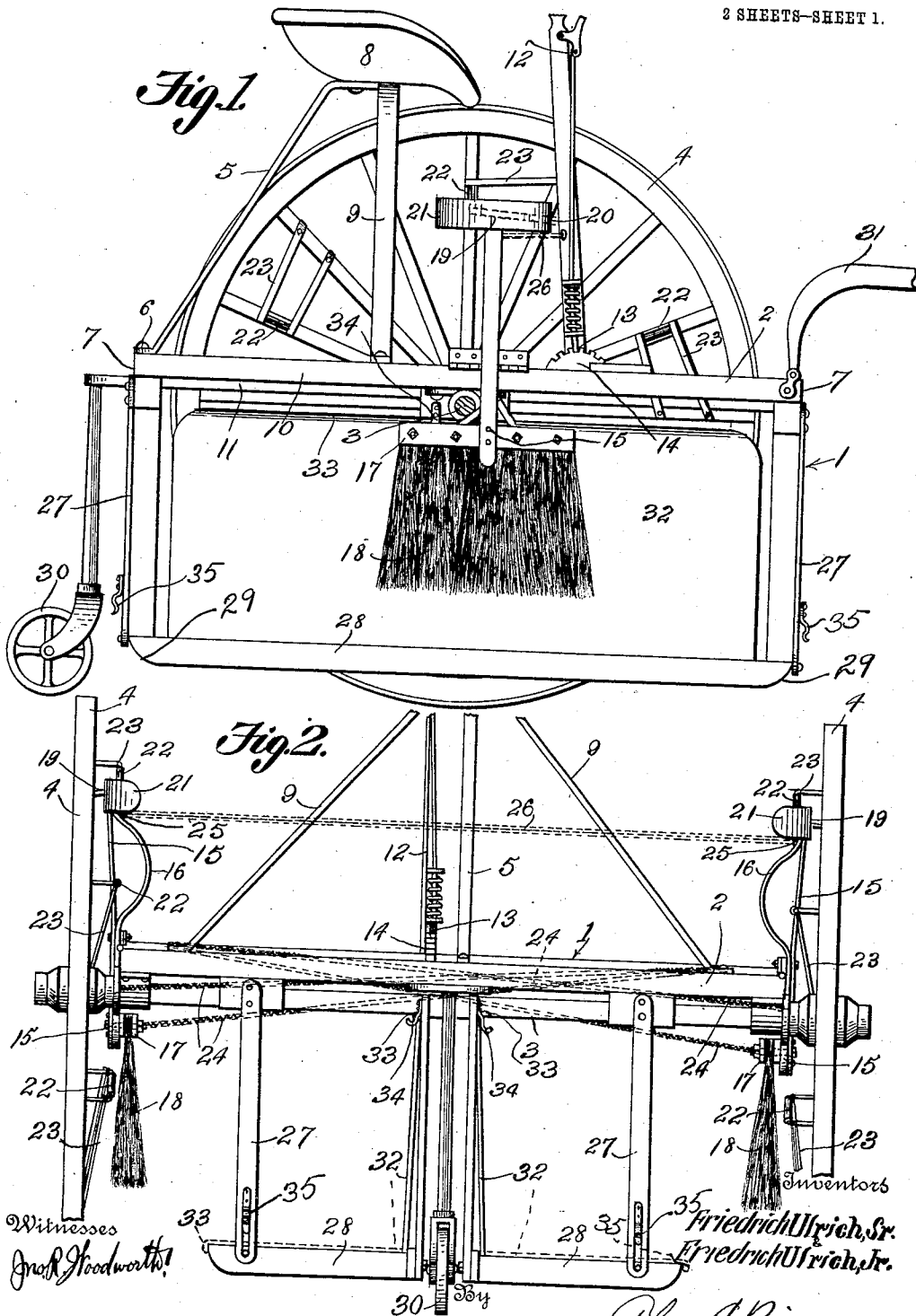


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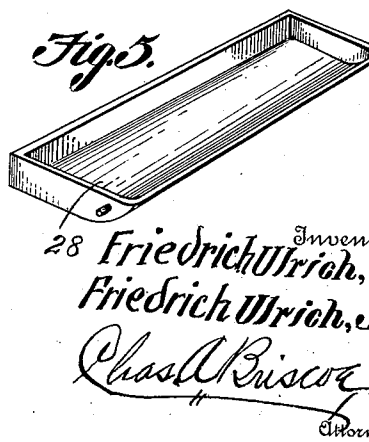
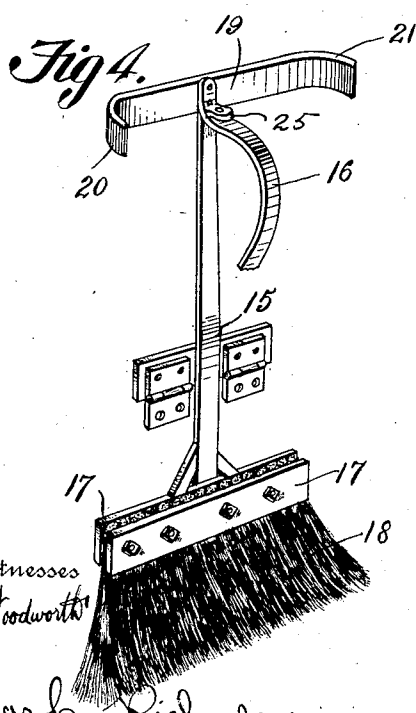
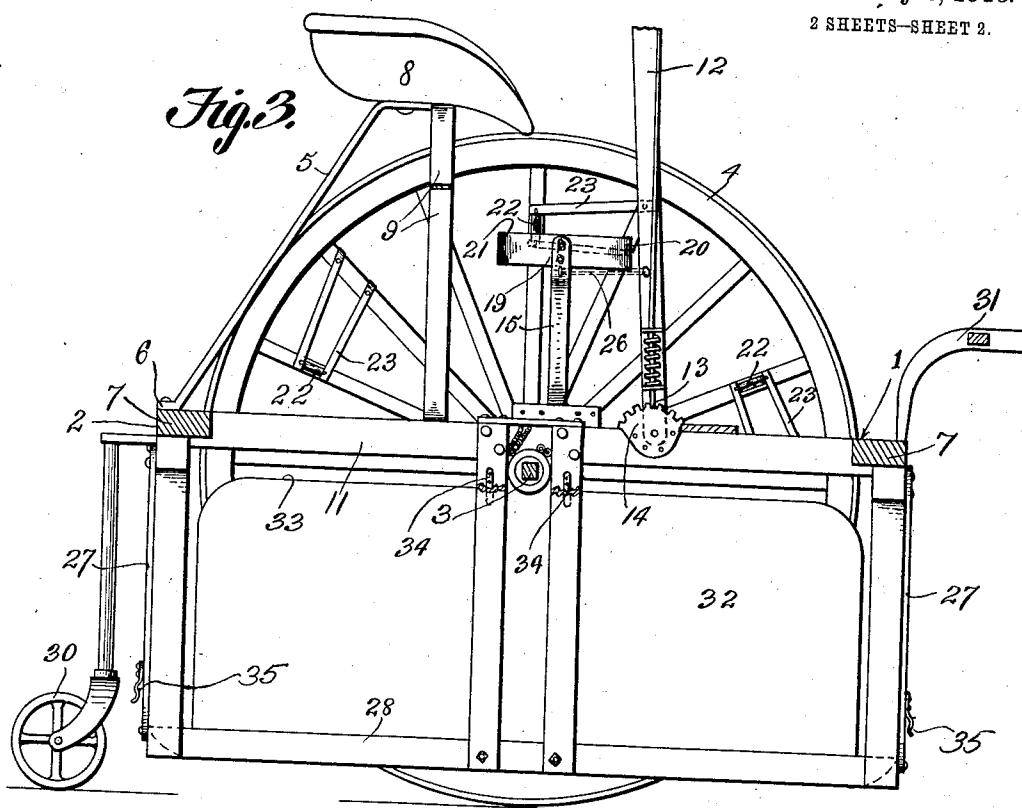
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 2 SHEETS—SHEET 1.



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UNITED STATES PATENT OFFICE.

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POTATO-BUG CATCHER AND KILLER.

1,061,027.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed December 28, 1911. Serial No. 668,378.

To all whom it may concern:

Be it known that we, FRIEDRICH ULRICH, Sr., and FRIEDRICH ULRICH, Jr., citizens of the United States, residing at Dorchester, in the county of Clark and State of Wisconsin, have invented certain new and useful Improvements in a Potato-Bug Catcher and Killer; and we 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.

This invention relates to new and useful improvements in potato bug destroyers.

An object of this invention is the provision of a device of this character which is of such construction that when it is driven along the rows of the plants it will knock the bugs or the like from said plants and into suitable pans or receptacles carried by the machine, from which they may be taken and destroyed, by means of kerosene oil or the like.

Another object of this invention is to improve and simplify devices of this character, rendering them comparatively simple and inexpensive to manufacture, reliable and efficient in use, and readily operated.

With the above and other objects in view, this invention resides in the novel features of construction, formations, combinations and arrangements of parts to be hereinafter more fully described, claimed and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of our invention with one wheel removed; Fig. 2 is a rear end view thereof; Fig. 3 is a longitudinal sectional view thereof; Fig. 4 is a detail perspective view of one of the brooms; and Fig. 5 is a detail perspective view of one of the pans.

Referring to the drawings by characters of reference, the numeral 1 designates generally our improved machine, which consists of a substantially rectangular horizontally disposed frame 2, to the lower face of which is secured an axle 3, having rotatably mounted upon its opposite ends supporting wheels 4.

A longitudinally extending bar 5 is connected at its depending terminal 6 to the rear beam 7 of the rectangular frame 2, and has secured to its upper portion a seat 8, which is connected by suitable braces 9 to the side bars 10 of the said frame 2.

A longitudinally extending beam 11 connects the front and rear beams 7 of the rectangular frame, and has pivoted thereto, at a point in advance of the seat 8, an operating lever 12, which is held in any desired position by means of a locking pawl 13 carried thereby, and a segmental plate 14 mounted upon the said beam 11 for engagement with the pawl.

Vertically extending arms 15 are mounted upon either side of the frame 2, and are held normally in their vertical positions by means of leaf springs 16, which connect the upper terminals of the said arms with the said beams 10. The lower terminals of the arms 15 support a pair of plates 17, between which are clamped the upper ends of brooms 18, the purpose of which will be later explained. Cam plates 19 are secured at one side of their intermediate portions to the arms 15, the extremities at one end of the frame being bent at a greater angle 20 than the opposite extremity 21, the said cam plates adapted to engage rollers 22 supported by inwardly extending loops 23, supported by the spokes of the wheels 4. Obviously, when the rollers engage the cam plates, the arms 15 will be forced inwardly through the medium of the said rollers, which causes the brooms 18 to be moved outwardly. Instantly upon the movement of the rollers 22 out of engagement with the cams 19, the said brooms 18 will be moved inwardly through the medium of suitable coil springs 24, which connect the plates 17 with the frame 2.

The arms 15 are provided with eyes 25, which are connected to the before-mentioned lever 12 by means of suitable chains 26, which cause the arms to be moved inwardly out of engagement with the rollers upon the forward movement of the said lever.

Hangers 27 are secured at their upper ends to the frame 2 and are longitudinally slotted adjacent their lower ends to receive studs formed upon the pans 28 adjacent their outer edges. The pans may be supported adjacent their inner edges in any preferred manner. Spring clips 35 are secured to the hangers 27 for engagement with said studs, whereby the forward edges of the pans may be held in a lifted position when desired.

In order to hold the frame 2 in substantially horizontal relation with the ground, a

balancing wheel 30 is supported in any desired manner at the rear of the frame.

A suitable draft attachment 31 is secured to the front of the machine to provide a means whereby the machine can be moved over the ground.

In order to prevent the bugs adapted to be contained within the pans from escaping, baffles 32 are hinged to the inner sides of the said pans, and provided with suitable catches 33 for engagement with the offset sides of the pan, whereby they may be held in closed position. The free edges of the baffles 32 may be engaged by suitable spring clips or latches 34, which serve to hold the said baffles in their open or raised positions.

The operation of the device is as follows: As the machine is propelled over the ground between the rows of plants, the brooms 18 will be caused to strike against the said plants, which come between these brooms and the pans, obviously knocking all insects from the plants into the pans, after which they may be prevented from escaping by the baffles 32.

From the foregoing disclosures it will be manifest that a potato bug destroyer is provided for which will fulfil all of the necessary requirements of such a device.

Having thus fully described this invention, what we claim as new and desire to secure by Letters Patent is:

1. A device such as described consisting of a frame, wheels supporting said frame, arms pivoted to the said frame, cam plates

carried by the arms, brooms carried by the arms, springs carried by the brooms, rollers carried by the wheels and engaging said cam plates for the purpose of operating the arms, a lever pivoted to the frame and means connecting the lever with the arms for the purpose of throwing the cam plates out of engagement with the rollers and pans movably supported in said frame, substantially as described.

2. A device such as described consisting of a frame, a seat supported upon said frame, an axle journaled in said frame, wheels mounted upon said axle and supporting the frame, rollers carried by the wheels, arms pivoted to said frame, cam plates secured to the arms, springs engaging the arms and the cam plates for the purpose of throwing said plates into engagement with said rollers, brooms carried by the arms, springs normally holding the brooms inwardly, a lever mounted upon the frame, flexible means connecting the levers with the arms for the purpose of moving them out of engagement from the rollers, hangers carried by the frame, pans movably supported in said hangers, and a balancing wheel secured to said frame, substantially as and for the purposes set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

FRED. ULRICH, SR.
FRED. ULRICH, JR.

Witnesses:

GUTJA PAULSON,
MILTON BLARE.

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