(No Model.)

W. REEDER.

INSECT REMOVER AND DESTROYER.

No. 560,932. Patented May 26, 1896.

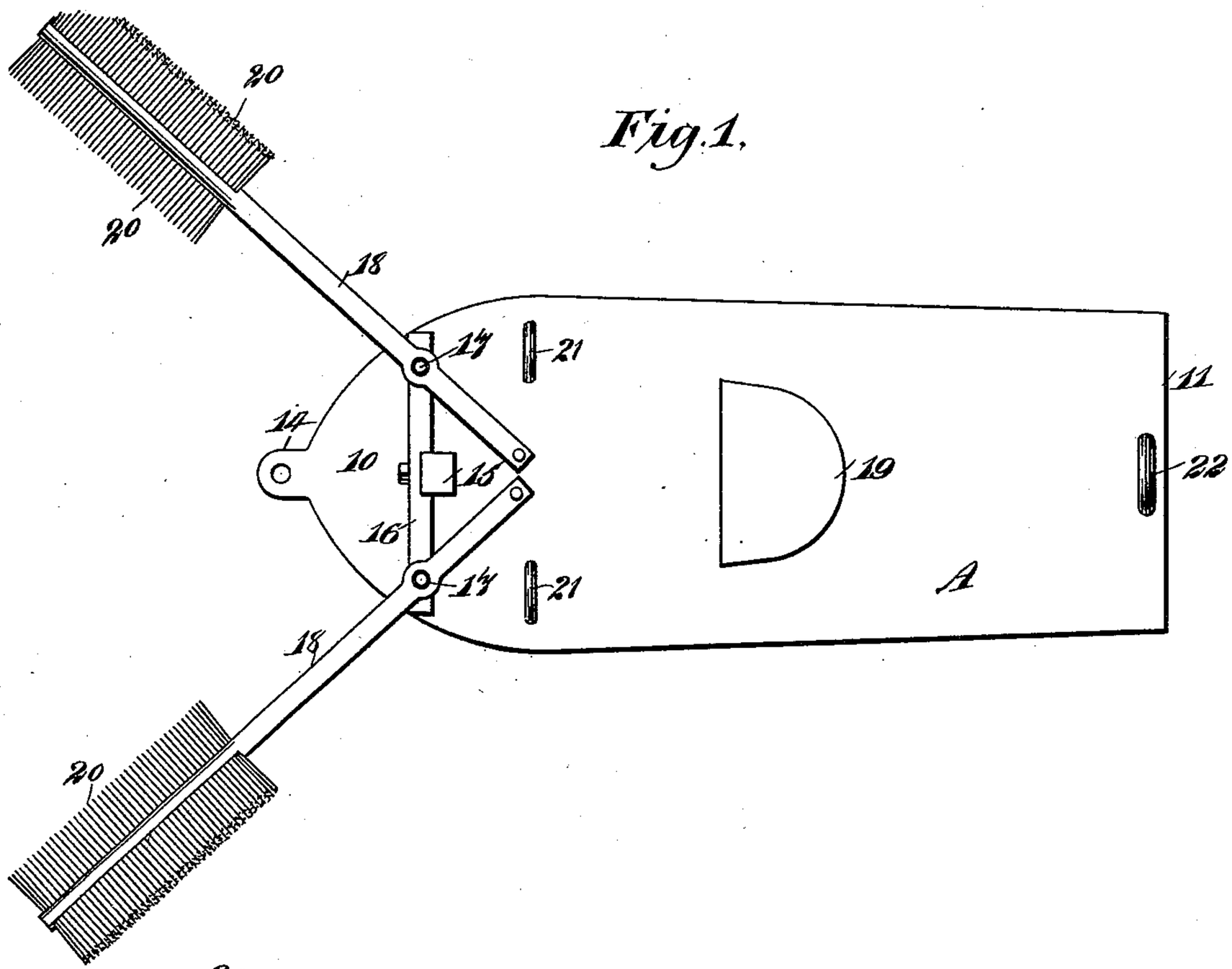

Fig. 1.

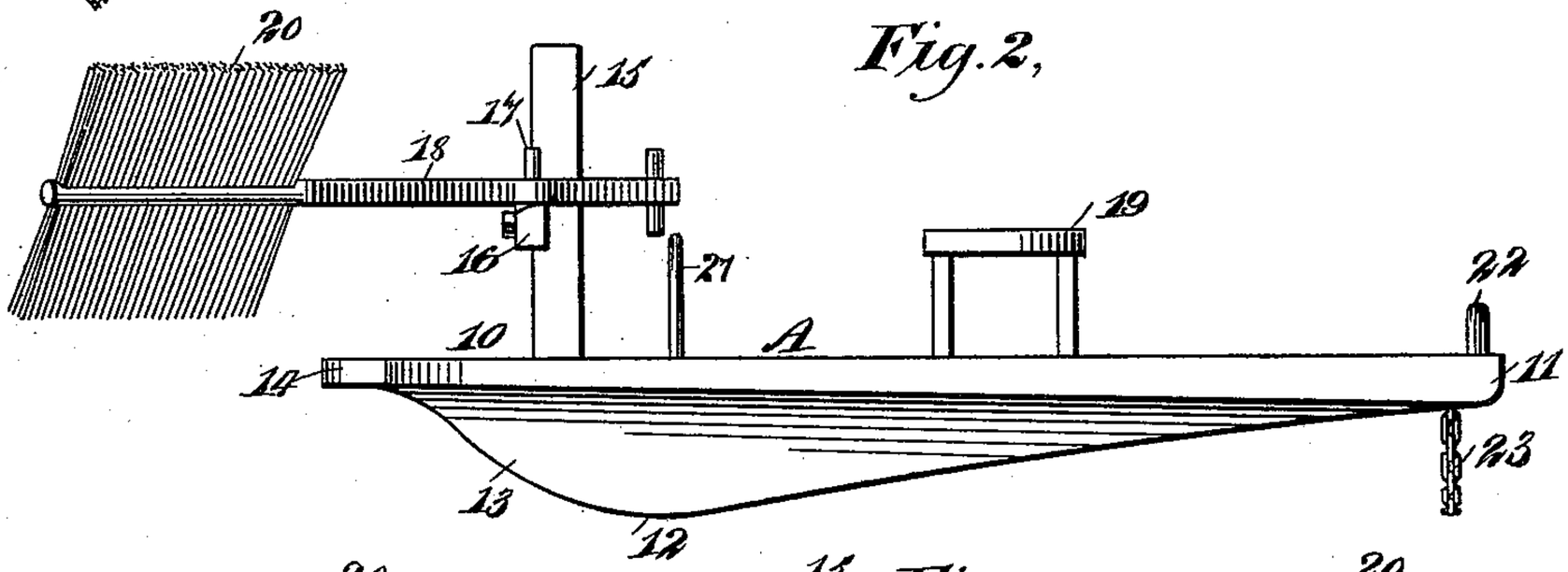

Fig. 2.

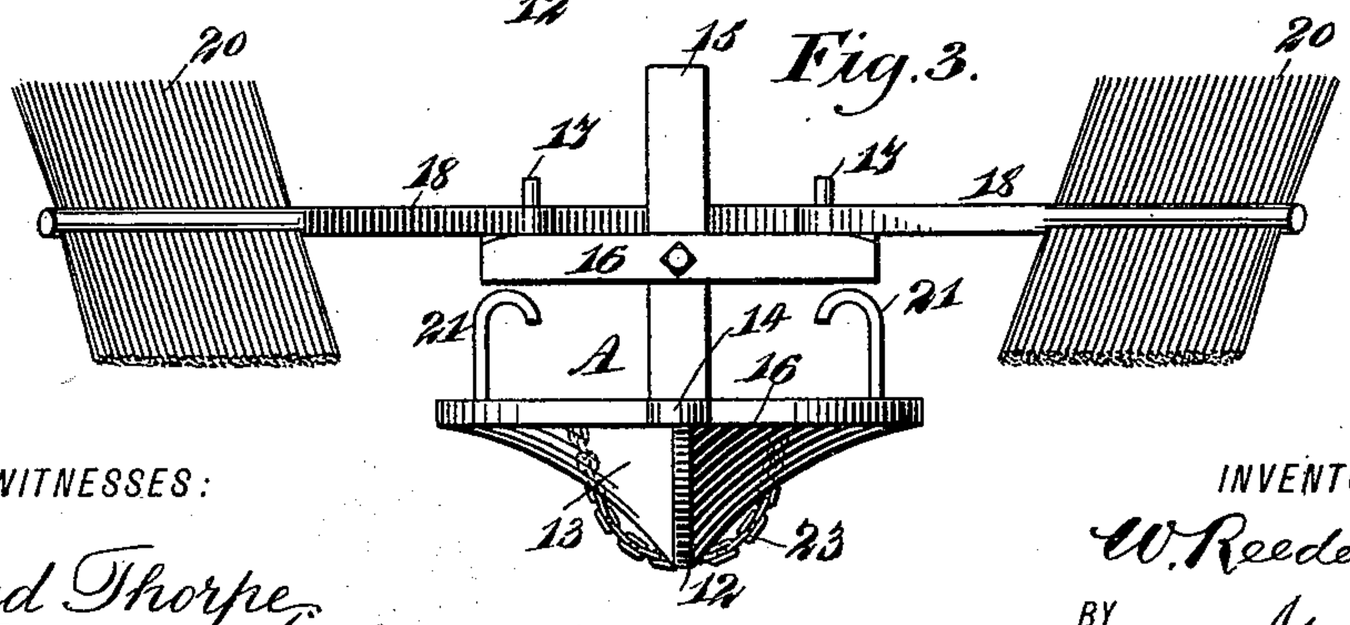

Fig. 3.

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INSECT REMOVER AND DESTROYER.

SPECIFICATION forming part of Letters Patent No. 560,932, dated May 26, 1896.

Application filed August 28, 1895. Serial No. 560,800. (No model.)

To all whom it may concern:

Be it known that I, WASHINGTON REEDER, of Lake City, in the county of Missaukee and State of Michigan, have invented a new and Improved Machine for the Removal of Potato-Bugs and Like Insects from Vines, of which the following is a full, clear, and exact description.

My invention relates to a machine especially adapted for the removal of potato-bugs from vines.

The object of the invention is to so construct the machine that it may be drawn between rows, two rows being operated upon simultaneously and in a manner to brush the bugs from the vines into the space between the rows, where the bugs will be crushed by the passage of the body of the machine over them, the body of the machine being provided with a keel and a share at each side of the keel, the keel being at the front of the body, and the back being substantially flat.

A further object of the invention is to provide oars to which brooms are attached, the oars being readily operated by a person riding upon the body of the machine, thus enabling the brooms or brushes to be directed upon the vines in the most efficacious manner.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the improved machine. Fig. 2 is a side elevation, and Fig. 3 is a front elevation, of the machine.

In carrying out the invention the body A of the machine is shaped substantially as the hull of a boat, being given a pointed front 10 and a preferably square rear portion 11, and the said body is provided with a keel 12, which extends from the central portion of the front, increasing in depth at a point somewhat at the rear of the front and diminishing from said point until the said keel vanishes at the rear of the body, and the body at each side of the keel is given a sheer or concavity 13, which extends from the side edges of the bottom of the keel, as is best shown in Fig. 3.

At the front central portion of the body of the machine a clevis 14 of any approved construction is placed, to which the team may be attached. A mast or upright 15 is provided centrally upon the top of the body near the front, and the said mast has a cross-bar 16 attached thereto between its ends, the cross-bar extending beyond opposite sides of the mast, and upon the upper face of the said cross-bar at each end a pin 17 is secured, and arms 18, corresponding substantially in shape to that of an oar, are fulcrumed upon the said pins, the inner or handle end of the oar-like arms being carried rearward over the body to within convenient reach of a seat 19.

At the outer end of each of the oar-like arms a brush or broom 20 is formed, and this brush or broom is usually made to extend beyond both sides of the oar-like arms and also preferably beyond their ends. At each side of the body at the rear of the mast curved standards 21 are firmly secured, their upper ends being shaped somewhat as a hook, and the handle portions of the oar-like arms may be made to rest in the upper concaved portions of these standards when the brooms or brushes are not in use—as, for example, when the machine is being turned around or is being carried from one field to another—and at the rear of the body a loop 22 is placed to facilitate raising the rear end of the body when it is desired to turn the machine.

The machine can be readily turned in the space between rows of potato-vines, and the keel formed on the bottom of the machine effectually prevents the machine from wabbling as it is drawn along.

The reins of the team, when the horses are quiet, may be attached to the mast; but if the horses are restive they must be guided by the feet of the operator, as the arms 18 are operated by the hands in like manner as a pair of oars, and in the operation of the oar-like arms the brooms carried thereby sweep the bugs from the vines in the path of and in advance of the machine, which in passing over the bugs will crush and destroy them. A chain 23 is attached to the rear of the body A and is secured at each end, so that it will be arranged as a loop and will drag along behind the machine, thus adding to its capacity for exterminating the bugs, &c.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. In a machine for exterminating bugs, a body adapted to be drawn along the ground, oar-like arms pivotally supported on the said body, brushes secured to the outer ends of the said arms, and keepers adapted for engagement with the handle ends of the oar-like arms when said arms are not being manipulated, as and for the purpose specified.

2. A machine for exterminating bugs, the same consisting of a body pointed at the front and provided with a keel extending from the front, being deepest at that point and diminishing at the rear, a mast secured upon the body near its forward end, a cross-bar attached to the mast, oar-like arms pivoted on the said cross-bar, brushes carried by the outer ends of the said arms, and keepers adapted for engagement with the handle ends of the arms, as and for the purpose specified.

3. A device for destroying bugs, comprising a body adapted to be drawn along between the hills, arms pivoted at their central portions to the said body with their ends arranged to project beyond the sides of the same in position to engage the vines and having their inner ends adjacent to each other and in position to be operated by the hands of the attendant, and brushes on the projecting ends of said arms, substantially as set forth.

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