

M. M. HOOTON.
 APPARATUS FOR CATCHING CURCULIOS.

No. 105,333.

Patented July 12, 1870.

Fig. 1.

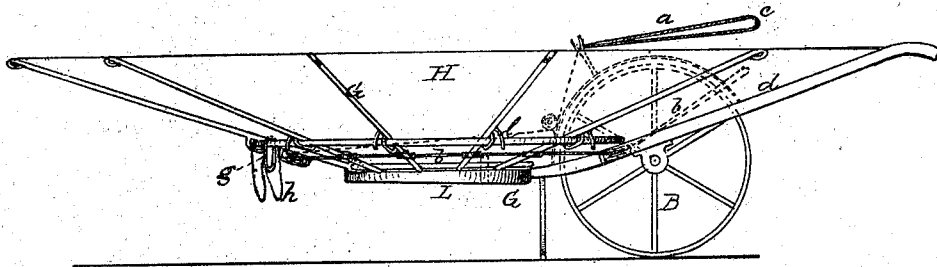
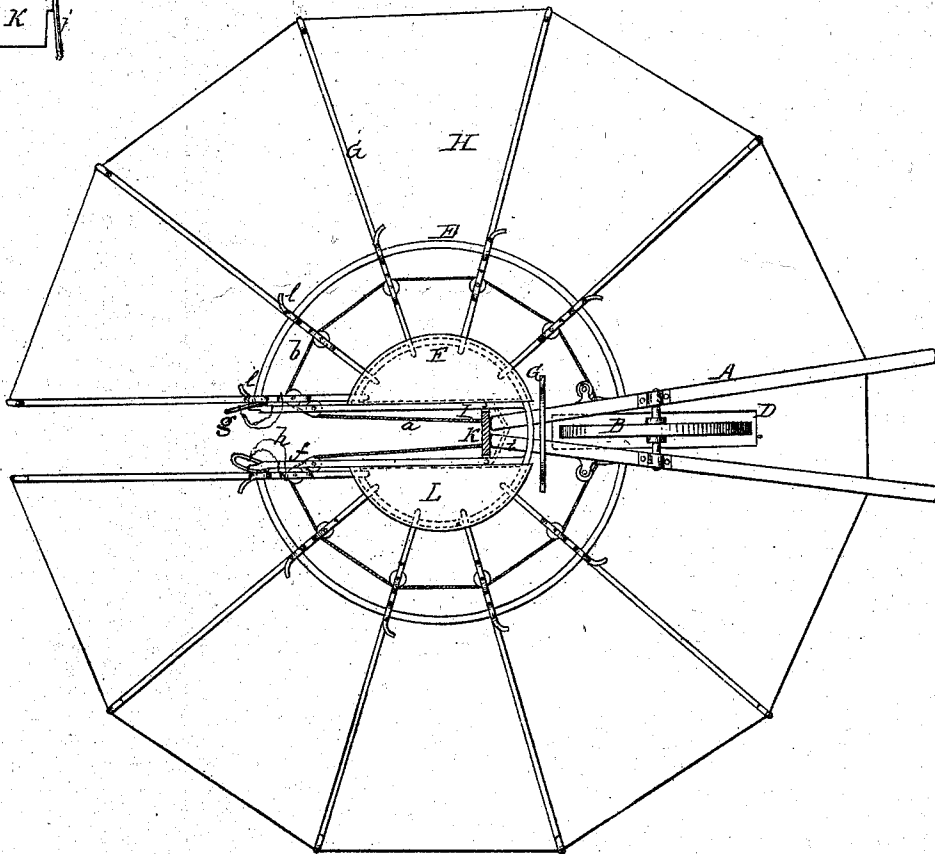


Fig. 3.



Fig. 2.



Witnesses:
 Phil. T. Dodge
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Inventor
 M. M. Hooton
 by Dodge & Munn
 his atty

United States Patent Office.

MARSENA H. HOOTON, OF CLINTON COUNTY, ILLINOIS, ASSIGNOR TO HIMSELF AND BURDEN PULLEN, OF SAME PLACE.

Letters Patent No. 105,333, dated July 12, 1870.

IMPROVEMENT IN APPARATUS FOR CATCHING CURCULIOS.

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

To all whom it may concern:

Be it known that I, MARSENA M. HOOTON, of the county of Clinton and State of Illinois, have invented certain Improvements in Machines for Catching Curculios, of which the following is a specification, reference being had to the accompanying drawing.

My invention relates to curculio-catchers, and, consists in constructing and arranging upon a frame attached to a barrow a circular canvas, so that it may be extended under trees with heads of different height, or folded at will, by means of a cord within reach of the operator; also, in the novel construction and arrangement of the bumpers for striking against the tree, and the receivers for receiving the curculios as they slide from the canvas, &c.

In the drawing—

Figure 1 is a side view of my machine, showing the canvas extended;

Figure 2 is a bottom plan view of the same; and

Figure 3 is a view of a part detached.

In constructing my machine, I make a barrow, A, having its wheel B provided with a cover, D, and the space between the pieces or frame forming the handles, both in front and rear of the wheel, also covered.

To the front of the frame of the barrow I connect rigidly another frame, C, consisting of an outer circular support, E, the front ends of which are attached to the ends of the guides or shafts I, which are also connected to the front end of the barrow, and which form a "tree-way." It also consists of an inner circular support, F, arranged concentrically with the circular support E, and has its front ends attached to and terminated by the shafts I. The arrangement of these circular supports E and F is shown in figs. 1 and 2, in the latter the support F being shown in dotted lines.

On these supports E and F, I mount a series of movable radial arms, G, provided with loops on their inner ends, through which the support F passes, and also with eyes on their under sides, at a proper distance from their ends, through which the outer circular support E passes. The outer circular support is a little higher than the inner one, so that the radial arms G have their outer ends higher than their inner ones.

To the radial arms G I attach a canvas, H, which, when the arms are extended, forms a conical-shaped receptacle, as shown in fig. 1.

The radial arms G I provide with two sets of cords, *a* and *b*, the former for extending the arms, and the latter for folding them, with their canvas.

The cords *a*, for extending the arms, are attached to the front arms between the circles, at a point somewhat nearer to the outer circle, and are then passed through an eye or pulley, *f*, in or near the front ends of the shaft I, then backward along the tree-way through guides, to a point, *c*, within reach of the operator.

The cords *b*, for folding the arms, are attached to the front arms at the same point with those for extending them, and are then passed backward through eyes or pulleys on the under sides of the arms, and through guides on the barrow, to a point, *d*, within reach of the operator, as shown in fig. 1.

On the outer circular support E, and between the front arms and the ends of the "tree-way," are placed two links, *g*, one on each side of the same, and to these links are attached "check-lines," *h*, one end of which is fastened to the tree-way at the point where the cord for "extending" passes through, and the other is attached to the front or outer radial arm at the point where the same cord is fastened. These "check-lines" should be of about the same length, and the aggregate length of the two on the same side of the machine must be long enough to reach from the point on the tree-way to which it is attached to the movable arm where it, the arm, is folded. The object of these links, with their check-lines, is to hold the extension cords *a*, when the arms are folded, from the ground, the extension cords being passed through them for that purpose.

In front of the wheel-house or cover of the barrow, and a short distance from the end of its frame, and just in the rear of the tree-way, I attach rigidly a V-shaped vertical projection, *t*, shown in dotted lines in fig. 2, in which to place a hand bumper, and which I call a "bumper-guide." The hand bumper is used when the main one cannot be for any reason.

I make a bumper, K, out of any suitable material, and of the proper size to suit the tree-way, providing it with pins, *j*, bent downward, as shown in fig. 3, so as to fit into holes on each side of the tree-way, and to be arranged immediately in front of, and to have its rear side bear against the frame of the barrow, as shown in fig. 2. As will be readily understood, when made in this way, it may be adjusted to its seat and removed at pleasure.

On each side of the tree-way, and so as to reach a short distance outward and under the inner end or edge of the canvas, when extended, I place two semi-circular vessels or receptacles, L, so as to permit the inner ends of the movable arms G to play within their area. The outer edges of these receivers are turned up far enough to retain all the curculios or vermin that are carried into them, and their sides next to the tree-ways are provided with a curved flange wide enough to keep any insects from being thrown from the canvas into the tree-way.

To my curculio-catcher, thus constructed, I add another feature. In order to hold the canvas up, and prevent it from dropping down too far when the arms are folded, I attach to the under side of these arms, and near their outer circular supports, short curved arms, *l*, arranged so as to extend downward and back-

ward, as shown in fig. 2. These arms, when the machine or canvas is folded, reach under the canvas, and lift and carry it, and thus prevent it from dropping down to be caught by the bushes, or being drawn out of its place.

The method of operating this machine is simple. Having arranged the bumper in position, and extended the canvas, I roll it under the tree to be operated upon. The tree-way allows the machine to be placed immediately under it. Then it is suddenly jarred and shaken by bumping the machine against it, and the curculios and other vermin fall upon the canvas and slide into the receptacles at its base.

It is obvious that the canvas may be extended before or after the machine is placed under the tree, and that the outer movable arms may be so curved as to lap by one another, and thus, when extended, form a complete circle.

Among the special advantages of my gathering-machine, it will be noticed that the wheel of the barrow forms its main support, and that the operator can tilt the front end so as to be higher or lower, at pleasure, and thus run it under trees whose tops or heads are of different height.

Having thus described my invention,

What I claim is—

1. A curculio-gatherer, consisting of the movable arms G, the circular supports E and F, with the fenders I attached the shafts I, the extending and folding-cords *a* and *b*, links *g* with their check-cords *h*, and the receivers L, when constructed and arranged to operate substantially as herein described.

2. The combination and arrangement of a curculio-catcher and a barrow, constructed as herein described, so that the former may be tilted on the wheel of the latter, for the purpose of accommodating it to tree-heads of different heights, as set forth.

3. In combination with a curculio-gatherer, constructed substantially as described, the V-shaped vertical projection *i*, as a guide and support for a hand bumper, as set forth.

4. In combination with a curculio-gatherer, constructed substantially as described, the bumper K, when constructed with pins *j*, so as to be attached and removed, as set forth.

MARSEN A. HOOTON.

Witnesses:

S. L. HAND,
A. P. CROSBY.