

Claxton & Stevens,

Curculio Catcher,

No. 113,855.

Patented Apr. 18. 1871.

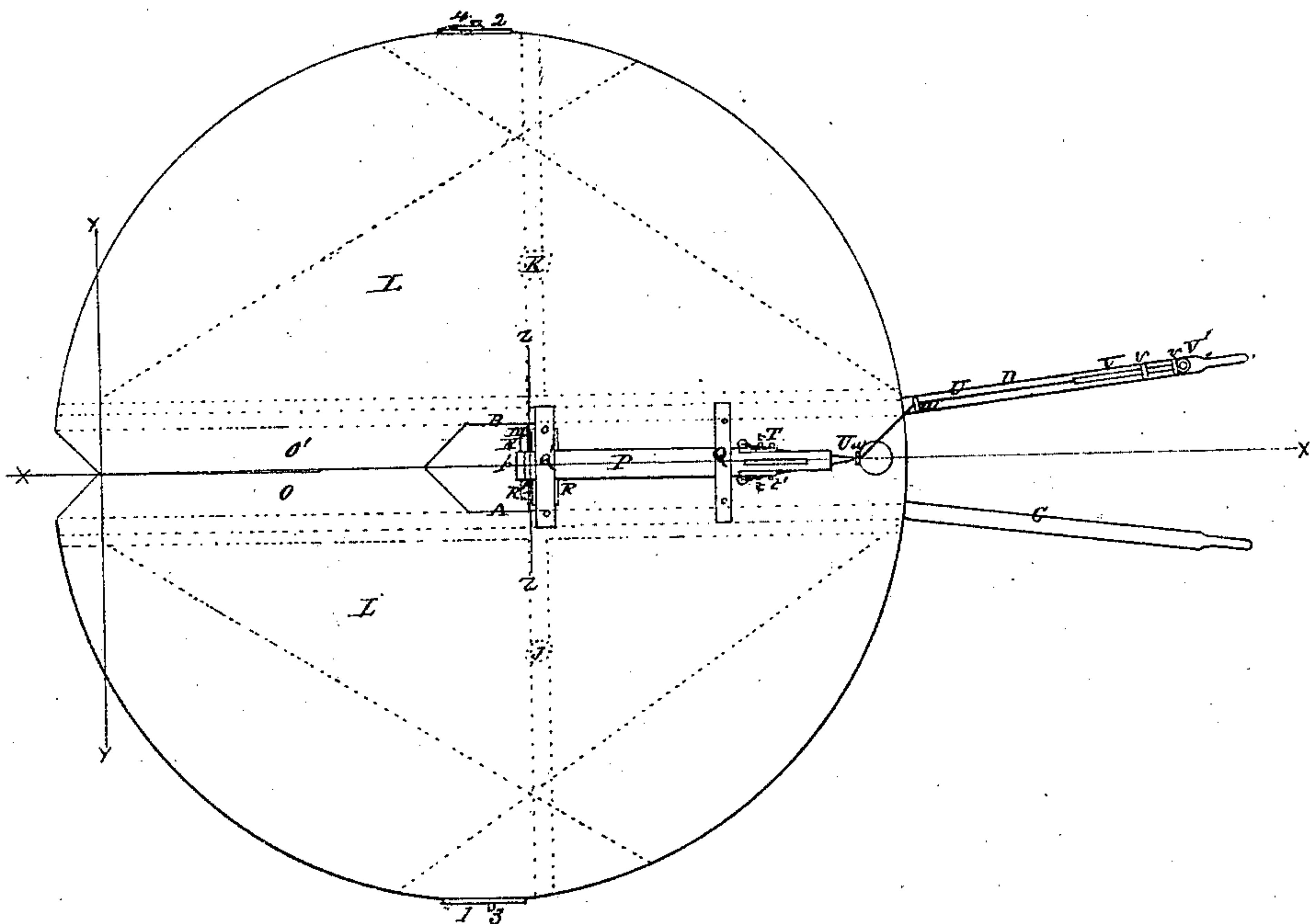


Fig. 1.

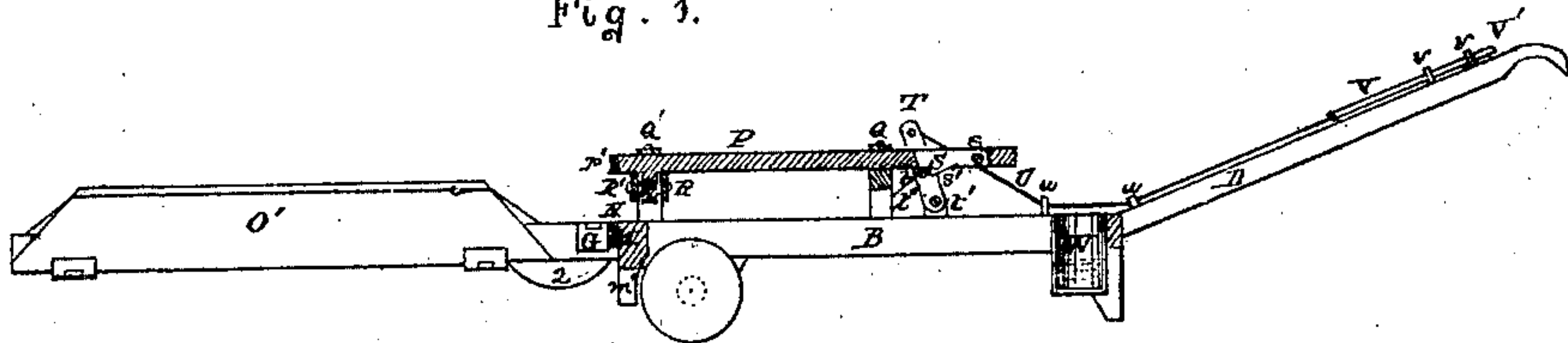


Fig. 2.

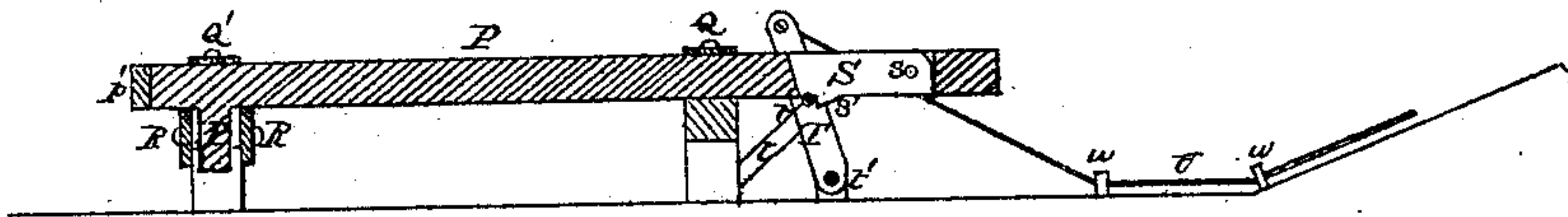


Fig. 4.

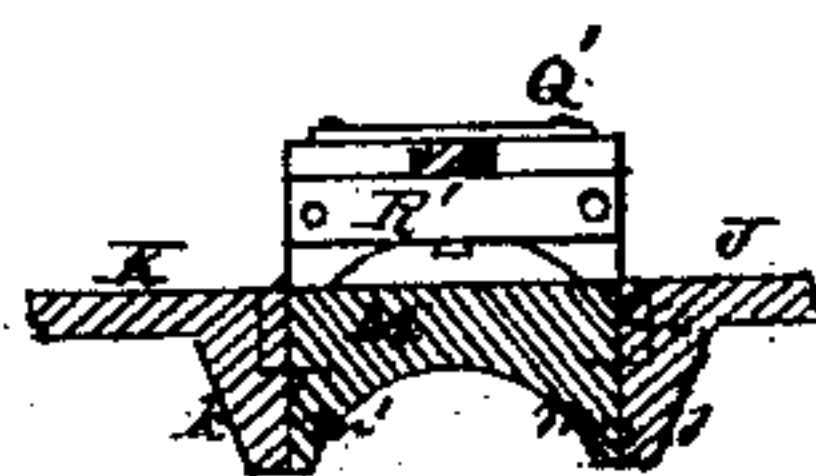


Fig. 6.

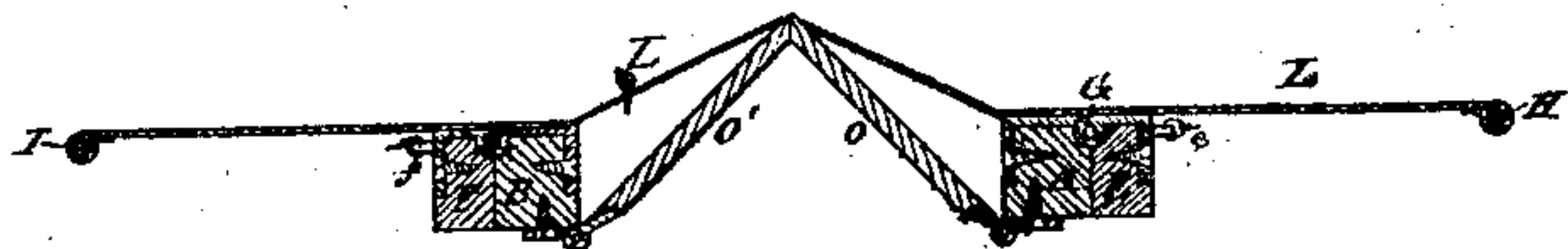


Fig. 5.

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FRANK J. CLAXTON AND CHARLES D. STEVENS, OF ST. LOUIS, MISSOURI.

Letters Patent No. 113,855, dated April 18, 1871.

IMPROVEMENT IN CURCULIO-CATCHERS.

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

We, FRANK J. CLAXTON and CHARLES D. STEVENS, both of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and useful Curculio-Catcher, of which the following is a specification.

Nature and Object of the Invention.

Our invention relates to an apparatus supported on a single wheel, which is to be run beneath the infested tree, an extended sheet being stretched upon bows to catch the curculios as they drop from the tree, owing to a sharp jerk being given to the latter; and

Our invention consists in the arrangement of the supporting and stretching-frames, and in the bumping apparatus, which is a spring ram, that is drawn back by hand and released to inflict the blow by an automatic tripping device.

Description of the Drawing.

Figure 1 is a plan of the machine.

Figure 2 is a longitudinal section at the line $x x$, fig. 1.

Figure 3 is an enlarged section of the ram as in fig. 2.

Figure 4 is an enlarged section at the line $y y$, fig. 1.

Figure 5 is a section through the supporting-frame at the line $z z$, fig. 1.

General Description.

A and B are the longitudinal beams of the main frame, ending in handles C D.

E F are the longitudinal bars of the sheet-frame, hinged to the beams A B by hinges G at the upper edges.

Attached to the ends of the bars E F are semicircular bows H I, which are supported near their midlength by attachment to the arms J K, extending at right angles to the bars E F.

Brace-rods or wires extend from eyes $e f$ (near the ends of the bars E F) to near the midlength of the bows, and serve to rigidify the wings and support the fabric L, which latter is secured to the bars and the bows, and forms a circular sheet to catch the falling curculios.

M is a cross-tie ending in two depending braces, $m m'$, which serve to support the wings of the sheet-frame (when in a horizontal position) by giving bearing to braces $j k$ at the inner ends of the arms J K.

The front edge of the cross-tie M carries a cushion, N, to prevent injury to the tree.

Hinged to the lower edges of the front portion of the beams A B, and upon the inner sides thereof, are flaps O O', whose front and rear ends are inclined or beveled in the direction of their breadth so as to be raised by passage of a tree between them.

The upper inner edges of the flaps are beveled, as shown, so as to fit together and form a sharp edge at top, so that the curculios will roll aside and be deposited upon the sheet, whose edges are fastened to the upper sides of the flaps.

The flaps are raised by the entrance of the tree between them, the beveled ends enabling the tree to force the flaps upward and apart as the machine is moved either forward or backward.

The sheet acts as a brace to prevent either flap falling too low, as the lower edges of the flaps are hinged to the beams and their upper edges connected to the sheet, as shown in fig. 4.

P is the ram, which slides freely in boxes Q Q', the box Q being open at bottom to allow the longitudinal motion of a depending pin, p , of the ram, and to both sides of this box are attached strips R R', of India rubber, acting as springs upon the pin p .

At the fore end of the ram is a rubber cushion, p' , to prevent injury to the tree.

Within a longitudinal vertical slot of the ram is pivoted (on a pivot, s ,) a latch, S, whose catch s' is engaged by a pin, t , connecting the two sides of a lever-frame, T.

This frame is pivoted to the beams at the lower end by a pin, t' , and to its upper ends are attached cords or wires U, which pass through eyes u , and are attached to a bar, V, sliding endwise in eyes v , and having a ring, V', to admit the thumb or finger of the operator.

The lever-frame is drawn forward by a spring, t'' , when the wires U are relaxed.

W is a removable oil-vessel or bag suspended beneath a hole in the sheet, and into which the curculios are swept from time to time.

1 2 are semicircular plates, serving as side legs or supports to the outsides of the wings, to prevent their contact with the ground; and upon the plate 1 is an eye, 3, and upon the plate 2 a hook, 4, by which the outer edges of the wings are engaged or held together when raised up and folded together vertically.

The operation of our machine is as follows:

The machine being wheeled forward and the flaps raised by the pressure of the tree, they fall together when the tree enters the aperture at the rear of the flaps. The wires U are then drawn backward, and the pin t engaging the catch s' draws back the ram until the pin t descends so as to disengage it from the catch, when the rubber spring throws the ram forcibly forward, which strikes the tree. The spring t'' is then allowed to draw the lever T forward, the pin t raising the latch as it passes beneath the catch s' . As many blows as desired may be given, and the machine is moved away by backing it enough to release it from

the tree. In case the ram is put in operation when there is no tree to receive the blow, the pin *p* strikes the spring *R'*, which prevents injury.

We claim—

1. The curculio-catcher herein described, constructed with two wings, consisting of the bars *E F*, bows *H I*, arms *J K*, and sheet *L*, and hinged to the beams *A B* so as to adapt said wings to be turned up into ver-

tical position for transportation, or lowered into horizontal position for use, all substantially as specified.

2. The ram *P p R R' S s' T t t' U V*, substantially as described.

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Witnesses:

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