

(No Model.)

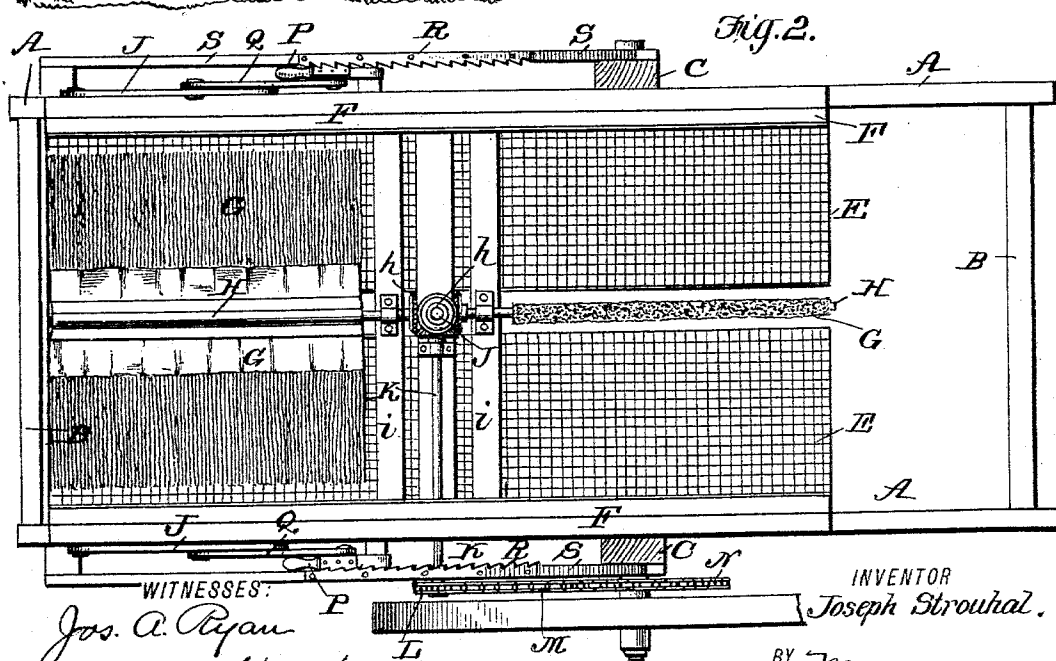
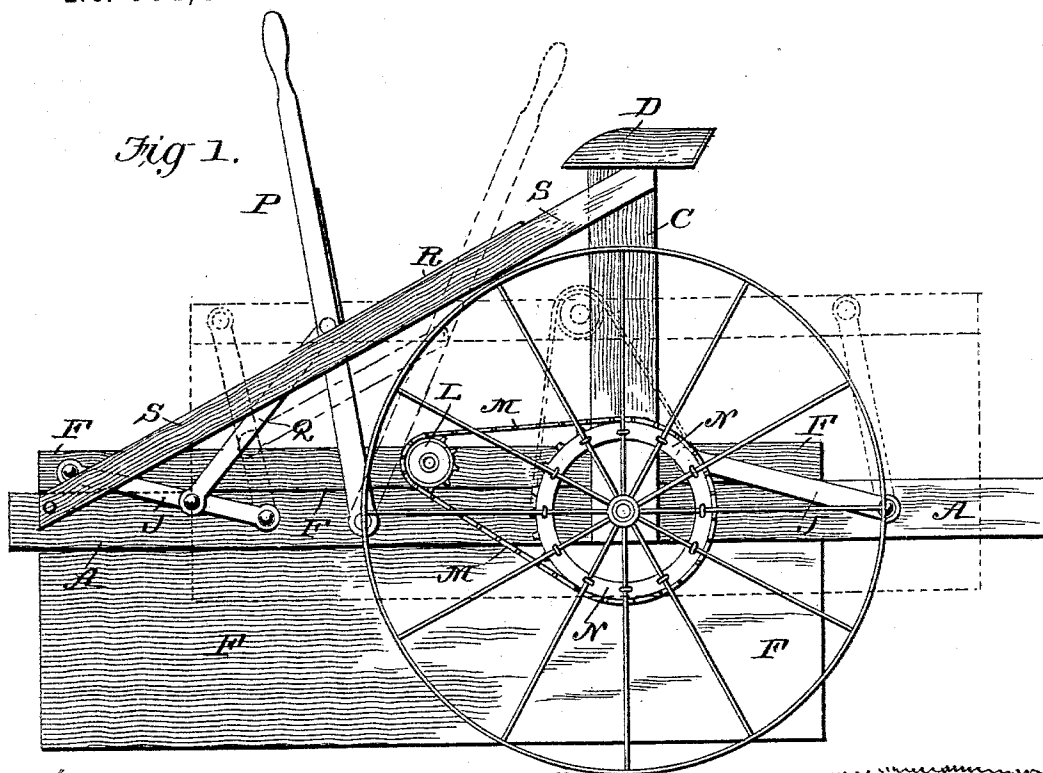
2 Sheets—Sheet 1.

J. STROUHAL.

MACHINE FOR CAPTURING AND DESTROYING INSECTS.

No. 584,246.

Patented June 8, 1897.



WITNESSES:
Jos. A. Ryan
Amos W. Hart

INVENTOR
Joseph Strouhal.

BY Munst Co.

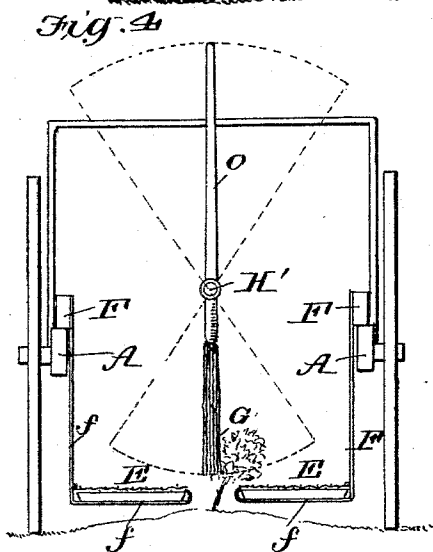
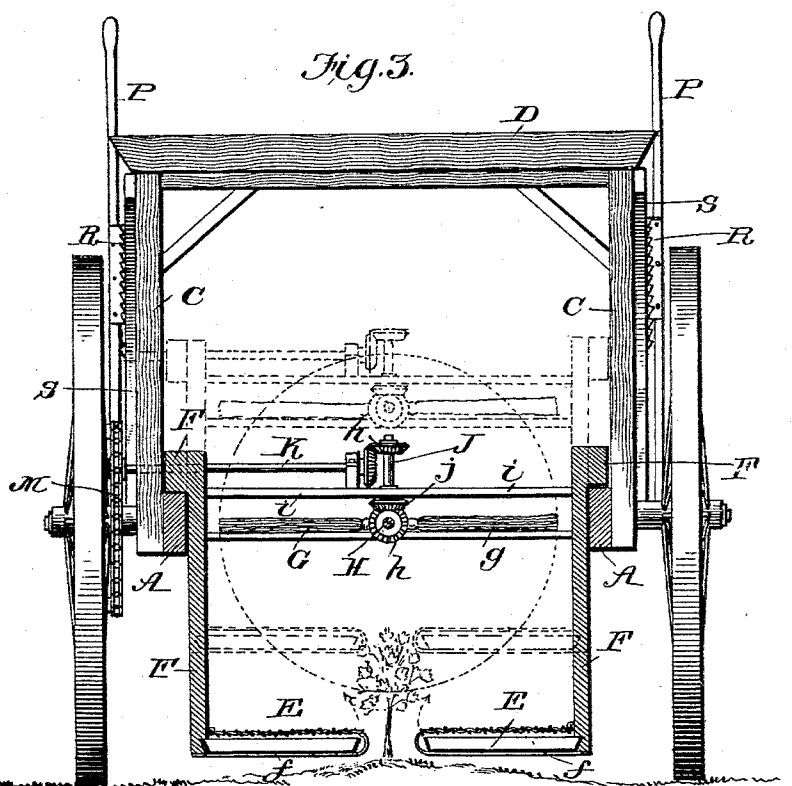
ATTORNEYS.

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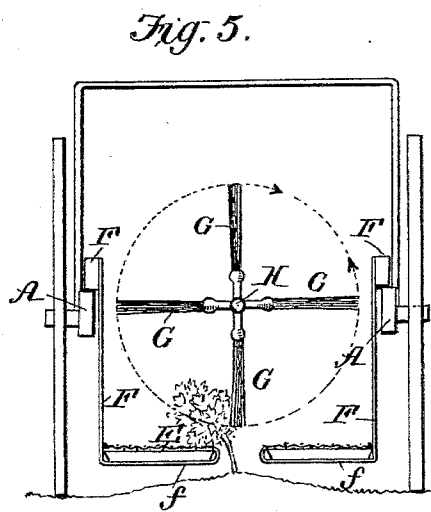
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UNITED STATES PATENT OFFICE.

JOSEPH STROUHAL, OF BEEVILLE, TEXAS, ASSIGNOR OF ONE-HALF TO JOSEPH BARTON, FRANK DUDEK, AND ROGER W. ARCHER, OF SAME PLACE.

MACHINE FOR CAPTURING AND DESTROYING INSECTS.

SPECIFICATION forming part of Letters Patent No. 584,246, dated June 8, 1897.

Application filed June 27, 1896. Serial No. 597,148. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH STROUHAL, of Beeville, in the county of Bee and State of Texas, have invented a new and useful Improvement in Machines for Capturing the Mexican Cotton-Boll Weevil, of which the following is a specification.

This invention is an improvement in that class of machines which are adapted to run over a row of cotton-plants and dislodge the insects from the same and cause them to fall into pans or other suitable receptacles.

In the accompanying drawings, two sheets, Figure 1 is a side view of the machine. Fig. 2 is a plan view omitting the driver's seat. Fig. 3, Sheet 2, is a vertical transverse section of the machine. Figs. 4 and 5 are diagrammatic views illustrating modifications.

An oblong rectangular frame composed of side bars or beams A and end bars B is supported by transporting-wheels mounted on short axles or journals projecting from the middle portion of said bars A. A driver's seat D is supported rigidly by uprights C and forwardly-inclined braces forming attachments of the frame A B. A movable frame F, which is similar to the wheel-frame A B in shape, but of less length, is arranged in and upon the said wheel-frame and connected with it by means of links J, which are pivoted to the side bars A and F, as shown. The pendent portion of this frame F has opposite horizontal arms *f*, Fig. 3, that support grated pans E, adapted to catch the cotton-bolls and weevil. The pans E contain a liquid poison and are separated by a narrow space, through which the cotton-plants pass as the machine is drawn along. The movable frame F not only carries the pans E, but also supports the brushes G, employed for sweeping the weevil into the pans, and the shafts and gearing necessary to rotate said brushes.

Two aligned rotary shafts H, Fig. 2, carrying the radial brushes G, are arranged in the longitudinal middle of the frame F and provided with bevel-gears *h* at their adjacent inner ends, which are supported by transverse bars *i*. These gears mesh with another, *j*, which is keyed on a vertical shaft J. A horizontal shaft K is geared with said vertical

shaft J and carries a small sprocket-wheel L on its outer end. Said wheel L is geared by an endless chain M with a larger sprocket-wheel N, attached concentrically to the inner side of one of the transporting-wheels. It is manifest the shafts H and brushes G must rotate in opposite directions and that when the machine is drawn along over a row of cotton-plants the latter, projecting up through the space between the pans E, will be swept by the brushes G and thus pushed and bent laterally over the pans and the bolls then dislodged along with the weevil, the bolls falling upon the screens, while the insects fall into the pans and are killed by the poison. The brushes G may be made of broom-straw or other suitable material sewed together over strips of wood. In place of each brush being composed of two portions projecting radially in opposite directions, as shown in Figs. 2 and 3, there may be four brushes G', as shown in Fig. 5, or one, G², as shown in Fig. 4. In the latter case a lever-handle O is shown attached to the shaft H' for use in manually operating—i. e., oscillating—the brush.

The brushes require to be adjusted higher or lower, according to the growth and height of the plants, and for this purpose I employ the hand-levers P, connected with the links J by bars Q. The said levers P are pivoted to the side bars A and project upward in suitable proximity to the driver's seat D and in position to engage the ratchet-bars R, attached to the inclined seat-braces S. It will be seen that by pulling on the levers P the links J, to which they are connected, will in turn act as levers and elevate the frame F, together with all its attachments—the pans E, shafts, and gearing—as shown by dotted lines, Figs. 1 and 3.

The distance between the pivots of links J is the same as between the journals of the sprocket-wheels L and N, so that the endless chain M will remain taut when the frame F is raised.

What I claim is—

1. In a machine of the character described, the combination, with the main frame, transporting-wheels, the vertically-adjustable frame, insect-receptacles carried by the mov-

able frame and arranged opposite, but separated by a space through which the plants pass, pivoted links connecting the two frames, two alined shafts and brushes carried by them, 5 said shafts and brushes being arranged in the longitudinal middle of the movable frame, and gearing for rotating the said shafts and connecting them with a wheel, whereby the brushes are rotated in opposite directions, so 10 as to sweep opposite sides of the plants simultaneously, substantially as shown and described.

2. In a machine of the character described, the combination, with the main frame and 15 wheels supporting it, the vertically-movable frame arranged upon and within said main frame, and screens and pans carried by its

pendent portions, a brush-carrying shaft arranged in the movable frame, a horizontal and lateral shaft geared with such brush- 20 shaft, links pivoted at opposite ends and in inclined position to the parallel bars of the two frames, a lever pivoted to the main frame and projecting upward, a locking device for said lever, a bar connecting it with one of 25 said links, and gearing which connects the brush-shaft and one of the transporting-wheels, as described, so that the same remains in mesh and is therefore operative whatever be the adjustment of the movable frame.

JOSEPH STROUHAL.

Witnesses:

JOSEPH BARTON,
FRANK DUDEK.