

No. 640,937.

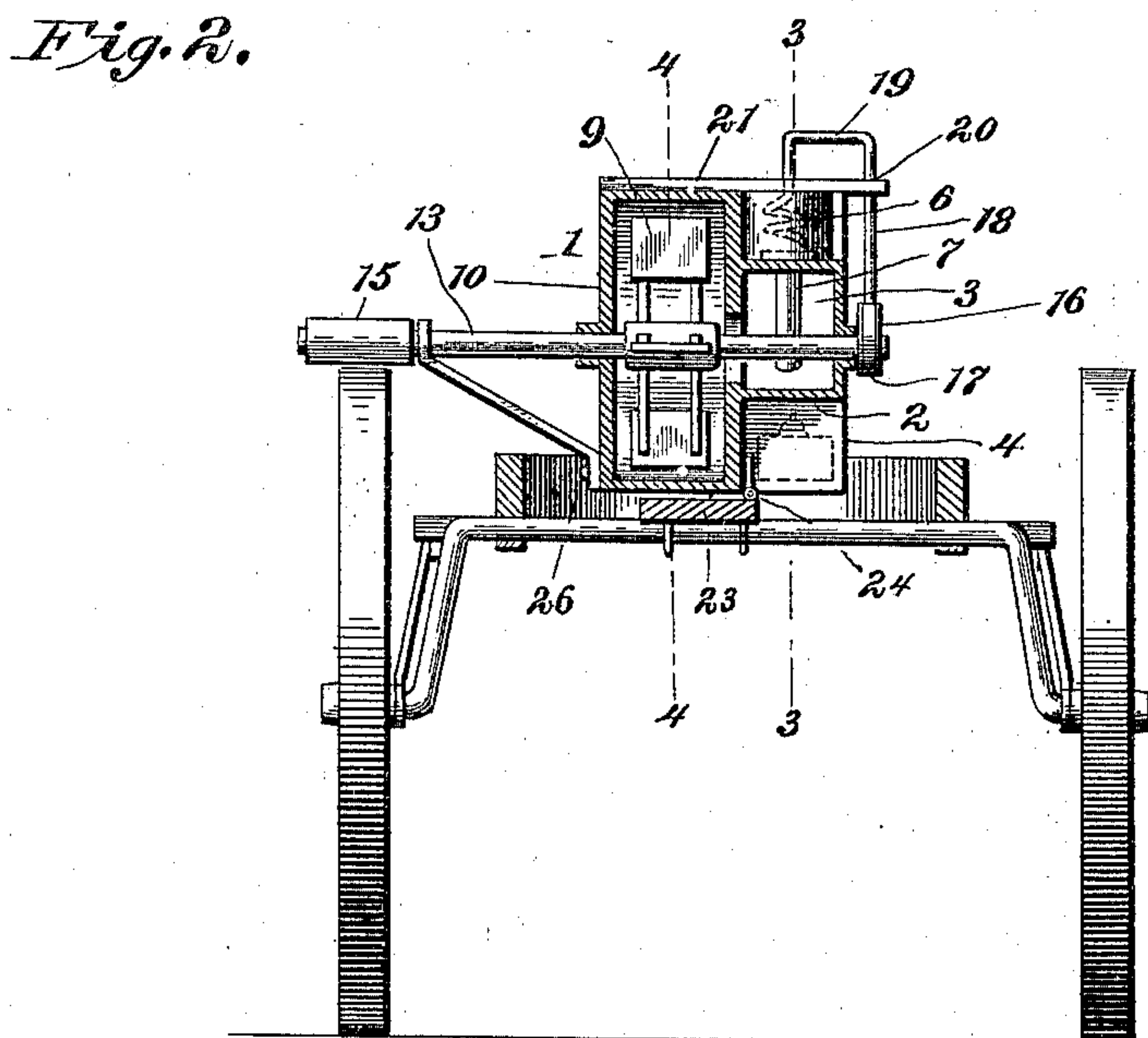
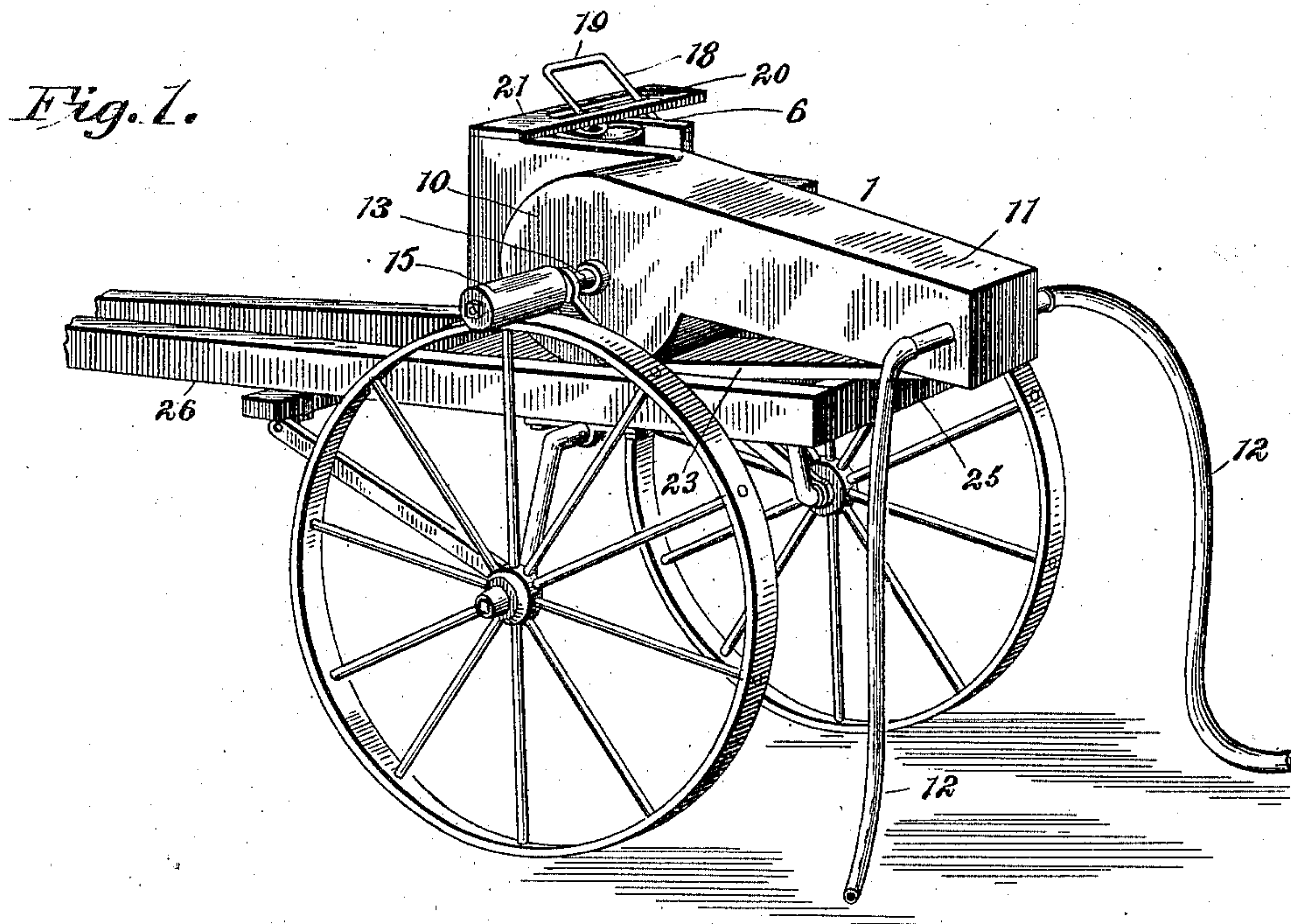
Patented Jan. 9, 1900.

B. H. PASSMORE & R. B. MAY.
INSECT DESTROYER.

(Application filed Apr. 10, 1899.)

(No Model.)

2 Sheets—Sheet 1.



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Robert B. May, Inventors.

Witnesses

Howard D. Orr.

By their Attorneys,

J. H. P. May

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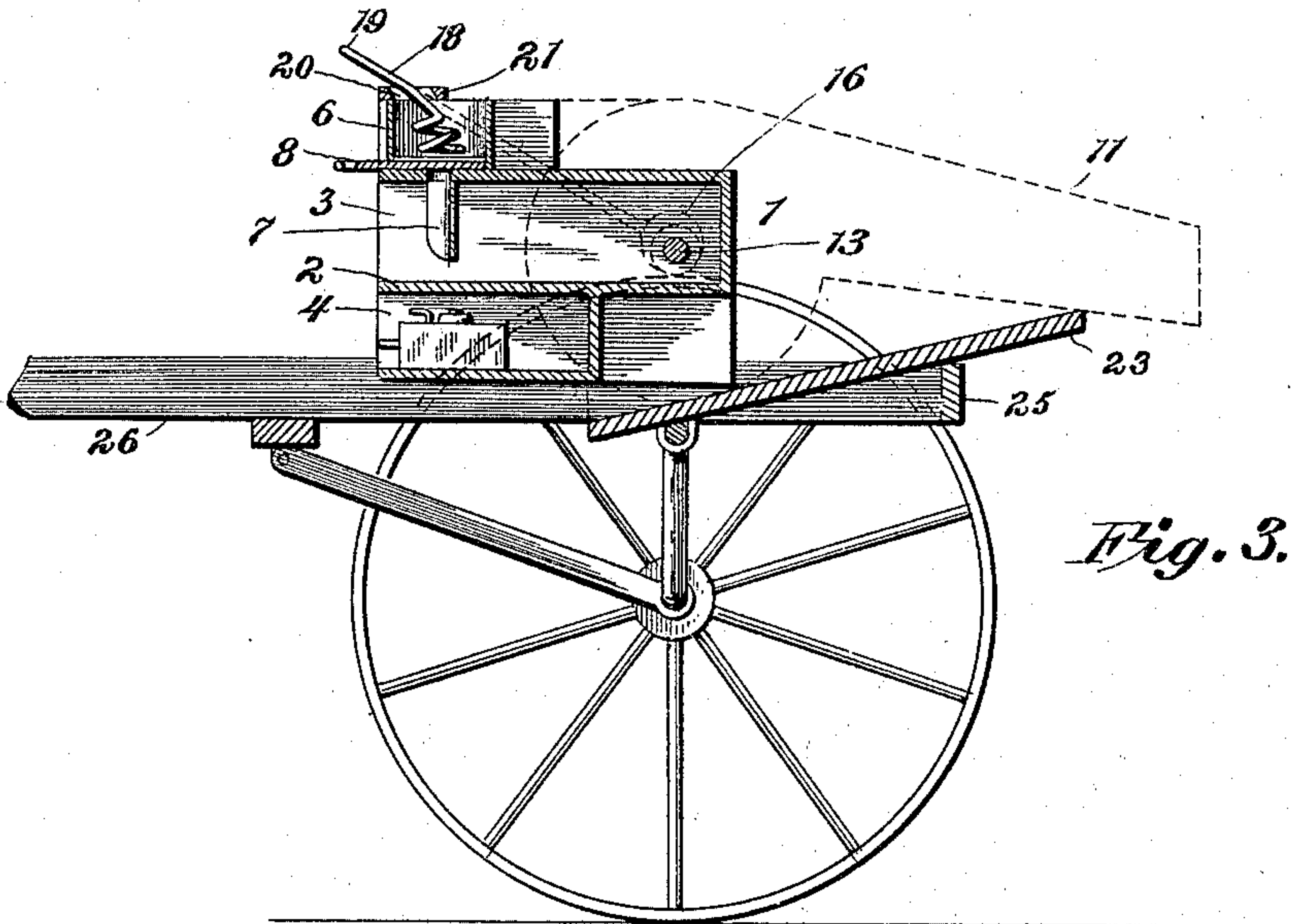


Fig. 3.

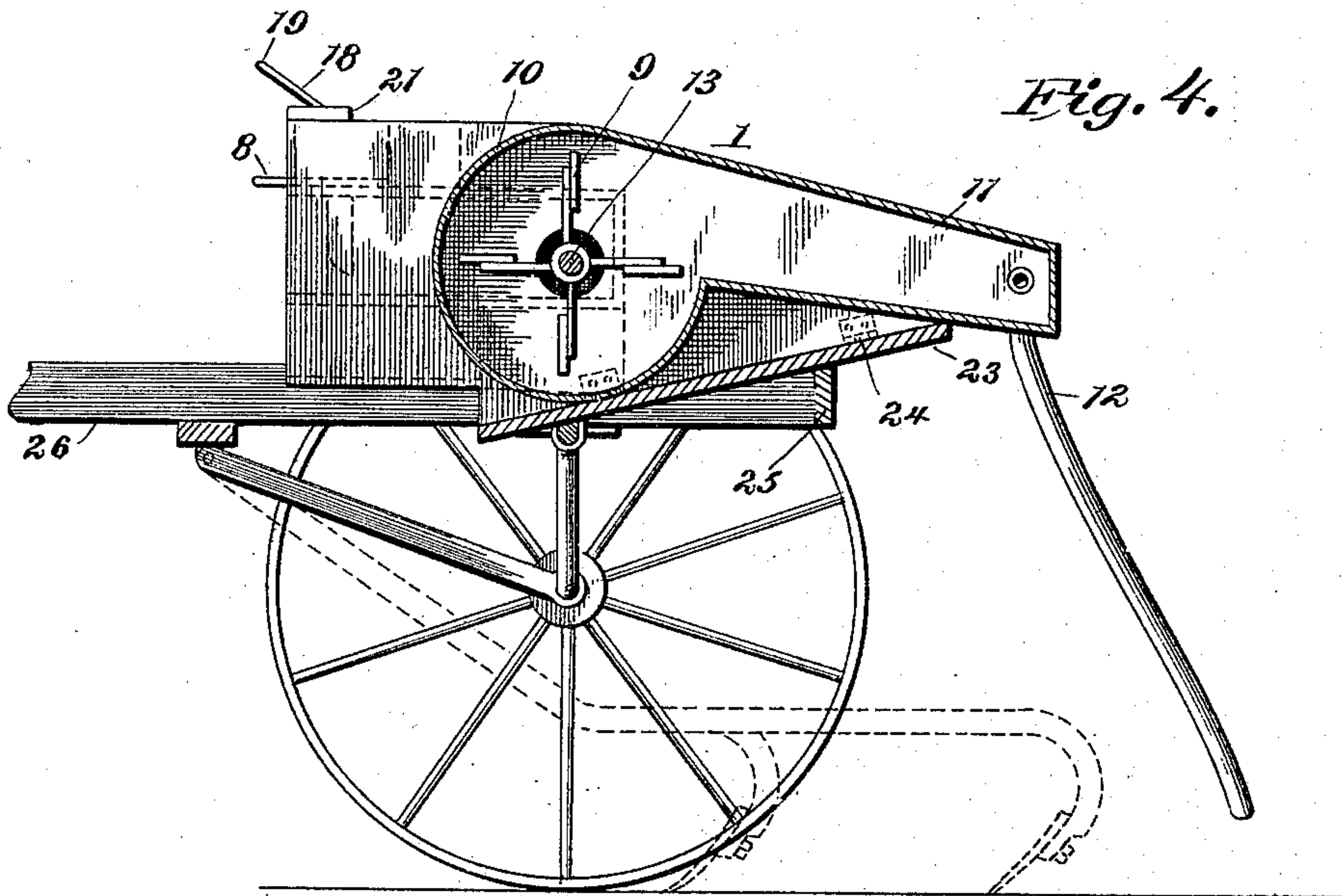


Fig. 4.

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UNITED STATES PATENT OFFICE.

BENJAMIN H. PASSMORE AND ROBERT B. MAY, OF STOCKDALE, TEXAS.

INSECT-DESTROYER.

SPECIFICATION forming part of Letters Patent No. 640,937, dated January 9, 1900.

Application filed April 10, 1899. Serial No. 712,464. (No model.)

To all whom it may concern:

Be it known that we, BENJAMIN H. PASSMORE and ROBERT B. MAY, citizens of the United States, residing at Stockdale, in the county of Wilson and State of Texas, have invented a new and useful Insect-Destroyer, of which the following is a specification.

The invention relates to improvements in insect-destroyers.

10 The object of the present invention is to improve the construction of insect-destroyers, and to provide a simple and efficient one designed to be carried by a cultivator or mounted upon wheels and adapted to discharge the
15 fumes of sulfur and other insecticides upon cotton and other plants to destroy the cotton-weevil, caterpillar, worms, and various other forms of insect life.

20 A further object of the invention is to provide a construction which will insure a steady feed of the sulfur or other insecticide employed and thereby render the discharge of the fumes regular and of uniform strength.

25 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

30 In the drawings, Figure 1 is a perspective view of an insect-destroyer constructed in accordance with this invention. Fig. 2 is a transverse sectional view of the same. Fig. 3 is a longitudinal sectional view on line 3 3 of Fig. 2. Fig. 4 is a similar view on line 4 4
35 of Fig. 2.

Like numerals of reference designates corresponding parts in all the figures of the drawings.

40 1 designates a casing constructed of suitable material and provided at its back portion with a horizontal partition or diaphragm 2, dividing the rear portion of the casing into upper and lower compartments 3 and 4, the lower compartment being designed for the reception of a lamp or other heating apparatus
45 for supplying the heat necessary for burning sulfur or other insecticide. The insecticide which generates the fumes is contained within a hopper 6, having a discharge spout or
50 tube 7 and provided with a slide 8 for regulating the feed. The hopper 6 is mounted

upon the top of the casing, between extensions of the sides thereof, and the tube, which extends through an opening of the top of the casing, is substantially U-shaped in horizontal section, being open at the back. The
55 slide for controlling the feed is mounted in a groove or recess of the top of the casing and is adapted to be projected over the tube to constrict the same to a greater or a less extent. The horizontal partition or diaphragm
60 which is located over the heating device receives the insecticide, and the fumes resulting from the burning of the same are drawn from the upper compartment 3 by a fan 9,
65 mounted within a fan-casing 10, located at one side of the main casing 1 and communicating with the front of the same and with the upper compartment 3.

70 The fan-casing, which is in the form of a drum, is substantially circular and provided with an extension 11, to which discharge-tubes 12 are connected, and the fumes are delivered by said tubes on the plants to be fumigated. The fan 9 is mounted on a trans-
75 verse shaft 13, extending entirely through the casing and the drum and provided with a pulley or wheel 15, adapted to be connected with suitable driving mechanism. This driving mechanism may consist of the wheel of a
80 cultivator, or any other power may be employed. The other end of the shaft is provided with an eccentric 16, arranged within an eye or yoke 17 of a reciprocating rod 18,
85 which extends upward from the transverse shaft at an inclination, as clearly illustrated in Fig. 1 of the accompanying drawings. The upper portion of the rod is substantially
90 U-shaped, being provided with a return-bend and having an inwardly-offset arm 19 extending into the hopper and adapted to agitate the contents thereof to cause the same to feed through the depending tube. The upper portion of the rod 18 is arranged in a guide-
95 opening 20 of a guide 21, and the arm 19 is spirally twisted, as shown, in order to agitate the contents more thoroughly. When the shaft is rotated, the fan is operated and the agitator is reciprocated. The fan serves to draw the fumes from the fume chamber or
100 compartment 3 of the main casing into the drum, and it drives them through the dis-

charge-tubes, which are flexible, to enable the fumes to be readily directed on various portions of the plants being operated on.

The insect-destroyer, which is designed to be carried by a cultivator or to be mounted on wheels, is hinged to a longitudinal bar 23, the hinges 24 being located at one side of the casing, at the bottom thereof, whereby the device is adapted to be swung laterally to lift the pulley or wheel 15 out of engagement with the wheel of the cultivator. The longitudinal bar 23 is supported upon the axle of the cultivator, at its front end, and its rear portion is supported by a transverse bar 25, which connects the rear ends of the hounds 26.

The invention has the following advantages: The insect-destroyer, which is exceedingly simple and inexpensive in construction, may be readily mounted upon a cultivator. It is adapted to be operated by one of the wheels of the same, and it is capable of being readily swung into and out of engagement with the said wheels to start or stop the rotary fan. The rotary fan insures a steady and continuous discharge of the fumes, and the reciprocating agitator causes a positive feed of the insecticide.

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What is claimed is—

1. An apparatus of the class described comprising a casing having a fume compartment or chamber and adapted to receive a heating apparatus below the same, a hopper located above the fume chamber or compartment, and communicating therewith, a drum arranged adjacent to the casing and provided with an extension, and communicating with the fume chamber or compartment, a fan arranged within the drum, means for operating the fan, and an agitator arranged within the hopper and connected with the fan, substantially as described.

2. An apparatus of the class described comprising a casing, a hopper, a shaft, a fan mounted on the shaft, and a reciprocating rod connected with and operated by the shaft and extending into the hopper and adapted to agitate the contents of the same, substantially as described.

3. An apparatus of the class described com-

prising a casing, a hopper, a guide mounted above the hopper and having an opening, a reciprocating rod provided with a substantially U-shaped portion extending through the guide and projecting into the hopper, and a fan connected with and operating the rod, substantially as described.

4. An apparatus of the class described comprising a casing, a hopper, a shaft, a fan mounted on the shaft and connected with the casing, an eccentric also mounted on the said shaft, and a reciprocating agitator extending into the hopper and having a yoke receiving the eccentric, substantially as described.

5. An apparatus of the class described comprising a casing, a drum arranged adjacent to the casing and having an extension, a horizontal partition dividing the casing into upper and lower compartments, the upper compartment communicating with the drum, a shaft extending through the casing and the drum, a fan mounted on the shaft and arranged within the drum, a hopper mounted on the casing and communicating with the upper compartment, means for regulating the feed, and an agitator operating in the hopper and connected with and actuated by the shaft, substantially as described.

6. In an apparatus of the class described, the combination of a casing designed to be hinged to the frame of a machine, mechanism for forcing the fumes out of the casing, and a pulley or wheel connected with such mechanism and engaging one of the wheels of the machine, said pulley being adapted to be carried into and out of such engagement by the swinging of the casing, substantially as described.

7. In an apparatus of the class described, the combination of a longitudinal bar, a casing hinged to the bar at one side thereof, a transverse shaft journaled in the casing, a fan mounted on the shaft, an agitator connected with the same, and a pulley carried by the shaft and adapted to engage a wheel of a machine, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

BENJAMIN H. PASSMORE.
ROBERT B. MAY.

Witnesses:

J. A. MCINTIRE,
W. C. GORHAM.