July 15, 1924.

1,501,136

C. F. REDMON ET AL

POWDER BLOWER

Filed Nov. 11, 1922

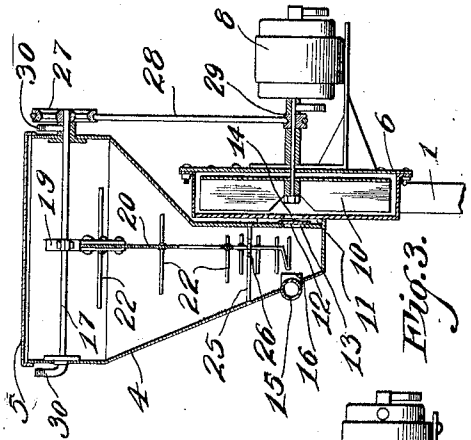


Fig. 3.

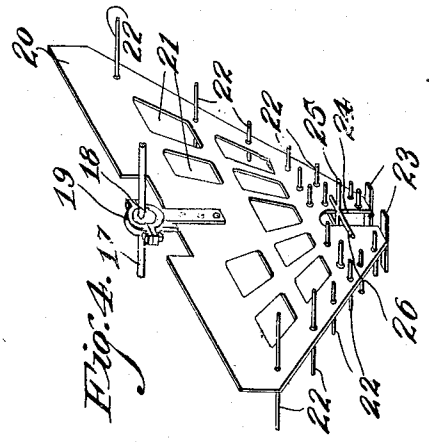


Fig. 4.

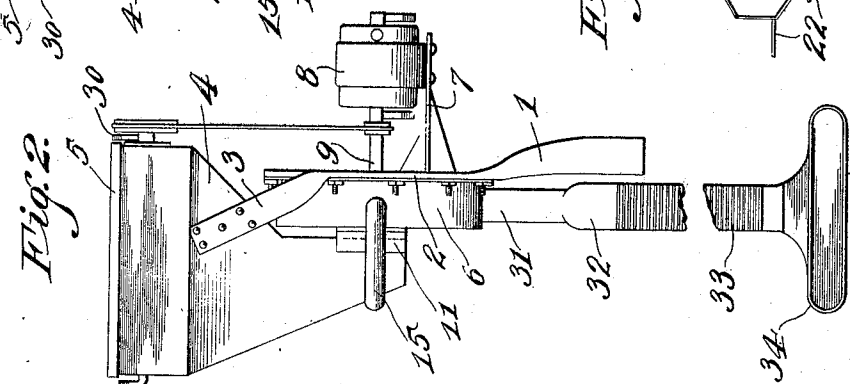


Fig. 2.

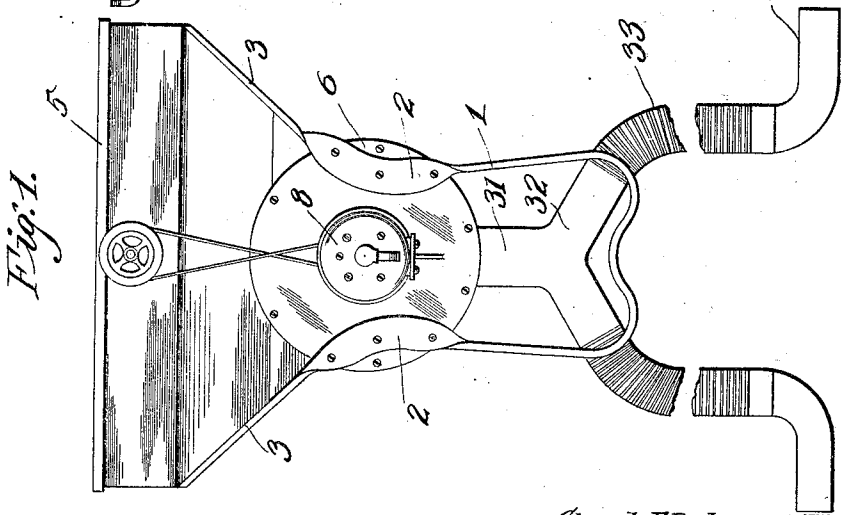


Fig. 1.

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UNITED STATES PATENT OFFICE.

CLAUDE F. REDMON, LILLARD K. REDMON, CLAUDE G. REDMON, AND JOHN T. REDMON, OF PARIS, KENTUCKY, ASSIGNORS OF ONE-FIFTH TO WADE HAMPTON WHITLEY, OF PARIS, KENTUCKY.

POWDER BLOWER.

Application filed November 11, 1922. Serial No. 600,438.

To all whom it may concern:

Be it known that we, CLAUDE F. REDMON, LILLARD K. REDMON, CLAUDE G. REDMON, and JOHN T. REDMON, citizens of the United States, residing at Paris, in the county of Bourbon and State of Kentucky, have invented certain new and useful Improvements in Powder Blowers; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains, to make and use the same.

This invention relates to improvements in powder blowers and, more particularly to devices intended for the blowing of insecticides in agriculture.

The object of the present invention is to provide a portable device of the character mentioned embodying novel features assuring a steady and uniform supply of powder and a thorough mixture of the same with the blast of propelling air.

The invention consists in the novel construction, arrangement and combinations of parts as hereinafter more particularly described and claimed.

One sheet of drawings accompanies this specification as part thereof in which like reference characters indicate similar parts throughout.

Figure 1 is a front elevation view;

Fig. 2 is a side elevation;

Fig. 3 is a transverse vertical sectional view showing the motor in elevation; and

Fig. 4 is a detail perspective view of the shaker.

In accordance with the present invention a suitable frame 1 is provided of U-shape having its legs bent into a common plane as at 2—2 and again bent into parallel planes and directed forwardly as at 3—3. The ends 3 of the frame are adapted to embrace and support a funnel shaped container 4 while the parts 2—2 of the plane are secured to and support a fan casing 6 below and substantially under the container.

The fan casing 6 carries a rearwardly extending bracket 7 upon which is mounted a suitable motor 8, the shaft 9 of which extends forwardly into the fan casing and carries a fan 10 therein.

The lower end of the container 4 terminates just below the center of the fan casing 6 and the adjacent walls of the container and the fan casing are provided with aligned passages 12—14 substantially in line with the axis of the fan 10. A gate 13 is slidably disposed intermediate the passages 12—14 and is adapted to regulate the proportion of these orifices as may be desired.

The shaft 17 is arranged and suitably journalled in the container 4 adjacent its top and provided with an eccentric 18 which supports, as by means of eccentric strap 19, a substantially V-shaped shaker member 20 provided with a plurality of spaced openings 21 and further provided with a plurality of transversely extending pins 22. The bottom of shaker plate 20 is provided with two feet 23 one on either side of a vertically extending slot 24 adapted to receive a guide pin 25 having laterally extending stop members 26 one on either side of the shaker plate to properly guide the latter within the casing 4. The guide pin 25 is secured to the walls of the container 4 adjacent its bottom. The fan casing 6 communicates from its periphery as by tube 15 to the lower part of container 4, the said tube 15 being extended forwardly and then backwardly into the container 4 so as to discharge rearwardly and in alignment with the orifices 13—14.

Shaft 9 of the motor and shaker shaft 17 are provided with suitable pulleys 29 and 27 respectively which are connected by a drive belt 28. Suitable grease cups 30 may be provided to lubricate the rotating parts.

The bottom of the fan casing 6 communicates with a discharge pipe 31 which is preferably provided with a Y 32 communicating as through suitable flexible pipes 33 with discharge members 34.

In operation the motor 8 drives fan 10 forcing a main air blast downwardly through discharge pipe 31 and at the same time forces a secondary or minor blast forwardly through tube 15 and thence backwardly through the lower part of casing 4 directing powder from said casing through the orifices 13—14 into the fan casing. Simultaneously the motor, through drive belt 28, rotates shaft 17 and, through eccentric 18, reciprocates shaker 20 within the cas-

ing agitating the powder contained therein and causing the same to gravitate loosely downward to be fed into the fan casing.

Modifications in form and structure will readily suggest themselves to those skilled in the art, but all within the scope of the present invention.

Having thus fully described our invention, we claim:

1. In a device of the character described the combination of a blower, a container feeding into the blower, means for diverting a portion of the air from said blower into said container and means within said container for agitating the contents thereof.

2. In a blower, a container, a blower associated with said container, said container and blower having aligned passages forming a communication therebetween, means for diverting a portion of the blast from said blower and directing same into said container in alignment with said passages, agitating means in said container and common means for operating said blower and said agitating means.

In testimony whereof we affix our signatures.

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