

(No Model.)

D. O. TUTTLE.
POWDER DUSTER.

No. 506,889.

Patented Oct. 17, 1893.

Fig 1

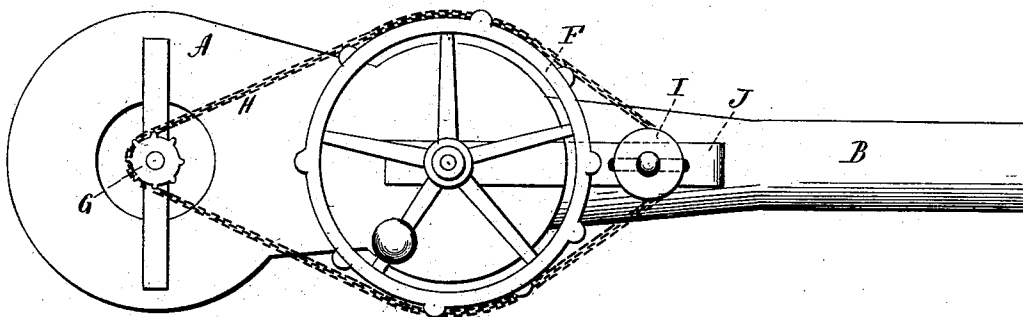


Fig. 2

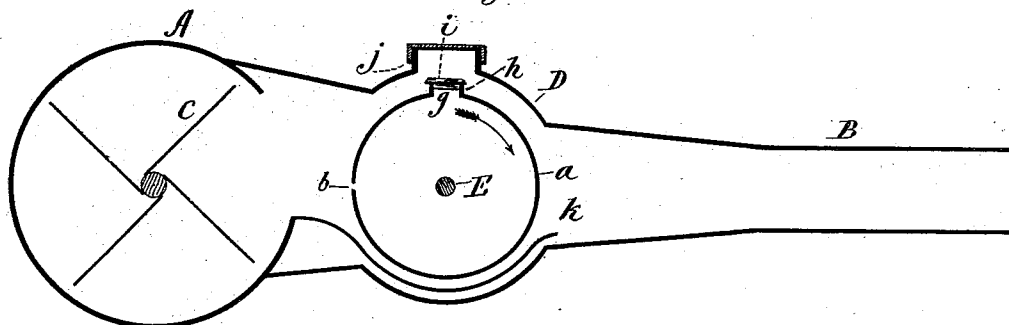
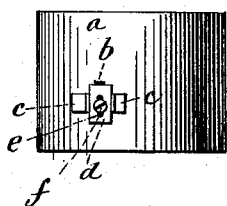


Fig. 3



Witnesses
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By atty
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UNITED STATES PATENT OFFICE.

DENNIS O. TUTTLE, OF NORTH HAVEN, CONNECTICUT.

POWDER-DUSTER.

SPECIFICATION forming part of Letters Patent No. 506,889, dated October 17, 1893.

Application filed May 8, 1893. Serial No. 473,376. (No model.)

To all whom it may concern:

Be it known that I, DENNIS O. TUTTLE, of North Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Insect-Exterminators; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side elevation; Fig. 2, a longitudinal vertical section, and Fig. 3, a detail face view of the powder-receiver, illustrating the means for controlling the feed-aperture.

This invention relates to improvements in insect-exterminators, and for its object it has to provide improved means for feeding the insect-powder gradually and controllably into the draft-current which spreads it, and to avoid the clogging of the powder in or about the aperture through which it is fed.

To this end my invention consists in the novel construction, arrangement and operation of parts hereinafter described and claimed.

In the drawings the reference letter A, designates the frame-work or casing of an insect-exterminating device, the front end of which is shaped to form a tube, chute or spout B. In the interior of the rear portion of the said casing is mounted a rotatable fan C, for creating a current or draft of air for the purpose of spreading the insect powder as hereinafter referred to. I prefer to employ a fan to create the air current, but obviously, within the scope of my invention, other means may be employed. These parts are of usual construction, and will not, therefore, be further described.

Between the fan, or equivalent device C, and the exit-chute B, the frame A is preferably, though not essentially, curved at its upper and lower portions, to form a virtually cylindrical chamber D, transversely of which extends a shaft E, having bearings in the sides of the frame or casing. Upon this shaft is rotatably mounted a hollow, cylindrical insect-powder receiver or receptacle *a*, provided in one portion, and preferably transversely, of its peripheral face, with a feed-aperture *b*, over which is fitted in guides or ways *c*, a plate

d. This plate *d*, is formed with an elongated slot *e*, through which passes a screw *f*, the point whereof engages the periphery of the receiver. By loosening this screw *f*, the plate *d* may be adjusted between the guides *c*, so as to control the size of the feed-aperture, as may be found necessary or desirable, according to the character and quantity of insect-powder to be delivered into the path of the current created by the fan C, or other device, to be spread.

A supply-opening *g*, having a screw-threaded neck *h*, covered by a removable cap *i*, is provided with another portion of the peripheral face of the cylindrical receiver *a*, through which, when the cap is removed, the insect-powder is introduced into said receiver. This opening is, by preference, formed in the peripheral face of the receiver in order that it may be brought into registration with a cap-covered opening *j*, in the top of the frame A, whereby the powder may be introduced from the outside. I do not, however, limit my invention to the location of this supply-opening, as it is apparent that it might be formed in the side of the receiver, a corresponding opening leading thereto being, in such cases, formed in the side of the frame or casing A.

The letter *k* indicates a plate or table suitably supported by the frame or casing A, and extending from the fan-chamber opening forward to and under the cylindrical receiver *a*, sufficient space being left between said receiver and the plate or table, to form a passageway for the draft or current created by the fan or other device.

The rotation of the receiver, which, as shown in the drawings is in the direction of the arrow, (Fig. 2,) constantly agitates the contained insect-powder, and when, during the rotation of said cylinder, the feed-aperture *b* is brought uppermost, the powder falls away from said aperture, leaving it clear and unobstructed for the discharge of the powder upon the plate *k*, whence it is carried, by the current or draft created by the fan or other device, through the chute or spout B, and spread. In the rotation of said receiver, the insect-powder is discharged through the feed-aperture *b*, continuously, and gradually, during all that time when said feed aperture is presented toward the plate *k*, and the delivery is automatically

cut off when said aperture is brought above the axis of rotation of the cylinder. By providing means for controlling the size of the feed-aperture, I am enabled with facility to regulate the quantity of insect-powder discharged therefrom, according to the character of the powder and the circumstances of its use.

The cylindrical receiver, and the fan, as herein shown, are rotated through the instrumentality of the driving mechanism hereinafter described.

Upon the shaft E, outside the frame or casing A, is secured a sprocket driving-wheel F, which is operated in any desirable manner, as by a crank-handle, and upon the fan-shaft is secured a sprocket-driven wheel G, of less diameter than the driving wheel. H, represents a sprocket-chain trained over said wheels and conveying motion from the driving-wheel to the driven-wheel. I provide a take-up wheel I, adjustably supported in a slotted bracket J, secured to the casing A, and at that side of the driving-wheel opposite the driven-wheel, the office of which is to take up the slack of the chain H. This driving mechanism is not herein claimed by me, the same being the invention of another, and forming the subject-matter of an application for Letters Patent filed concurrently herewith.

Having thus described my invention and the best manner now known to me for carrying the same into effect, what I claim is—

1. In an insect exterminator, the combination with a casing forming a chute, of a current-creating device located in the said casing at the rear end thereof, a rotatable powder-receiver mounted in the casing in the path of the current created by the said device and

constructed with a small discharge-opening formed in its periphery and adapted to receive a supply of insect-powder, and means for rotating the said powder-receiver, substantially as described.

2. In an insect-exterminator, the combination with a casing forming a chute, a current-creating device located in the said casing at the rear end thereof, a rotatable powder-receiver mounted in the casing in the path of the current created by the said device, and constructed with a small discharge-opening located in its periphery, and adapted to have a supply of insect-powder introduced into it, and means for rotating the said powder-receiver substantially as set forth.

3. In an insect-exterminator, the combination with a casing forming a chute, and constructed in its upper face with an opening closed by a cap or cover, a current-creating device located in the said casing at the rear end thereof, rotatable powder-receiver mounted in the casing in the path of the current created by the said device, and consisting of a hollow cylinder having a small discharge-opening formed in its periphery, and also having a supply-opening arranged to align with the said opening formed in the casing, and means for operating the said current-creating device and the powder-receiver, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

DENNIS O. TUTTLE.

Witnesses:

FRED C. EARLE,
GEO. D. SEYMOUR.