

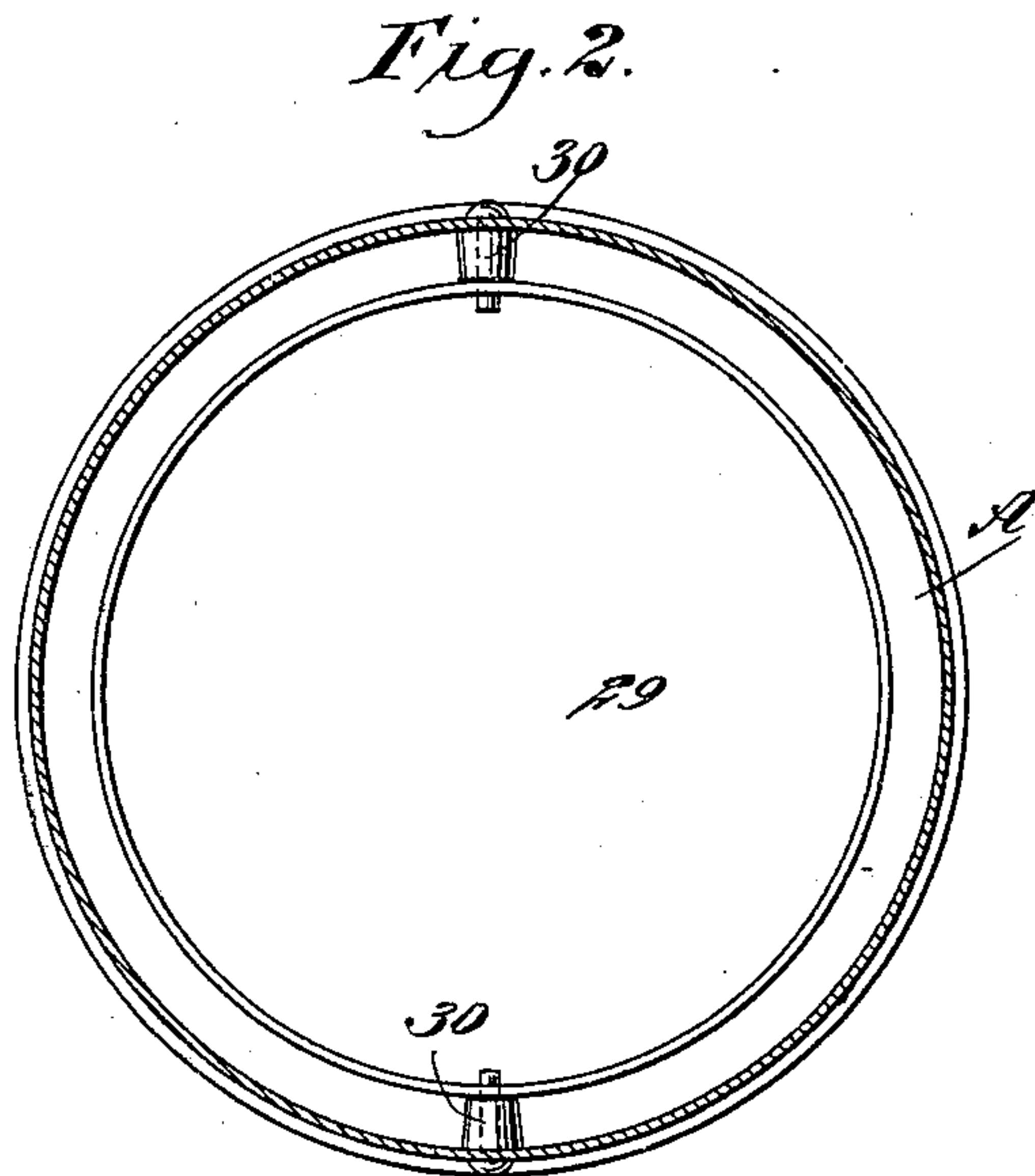
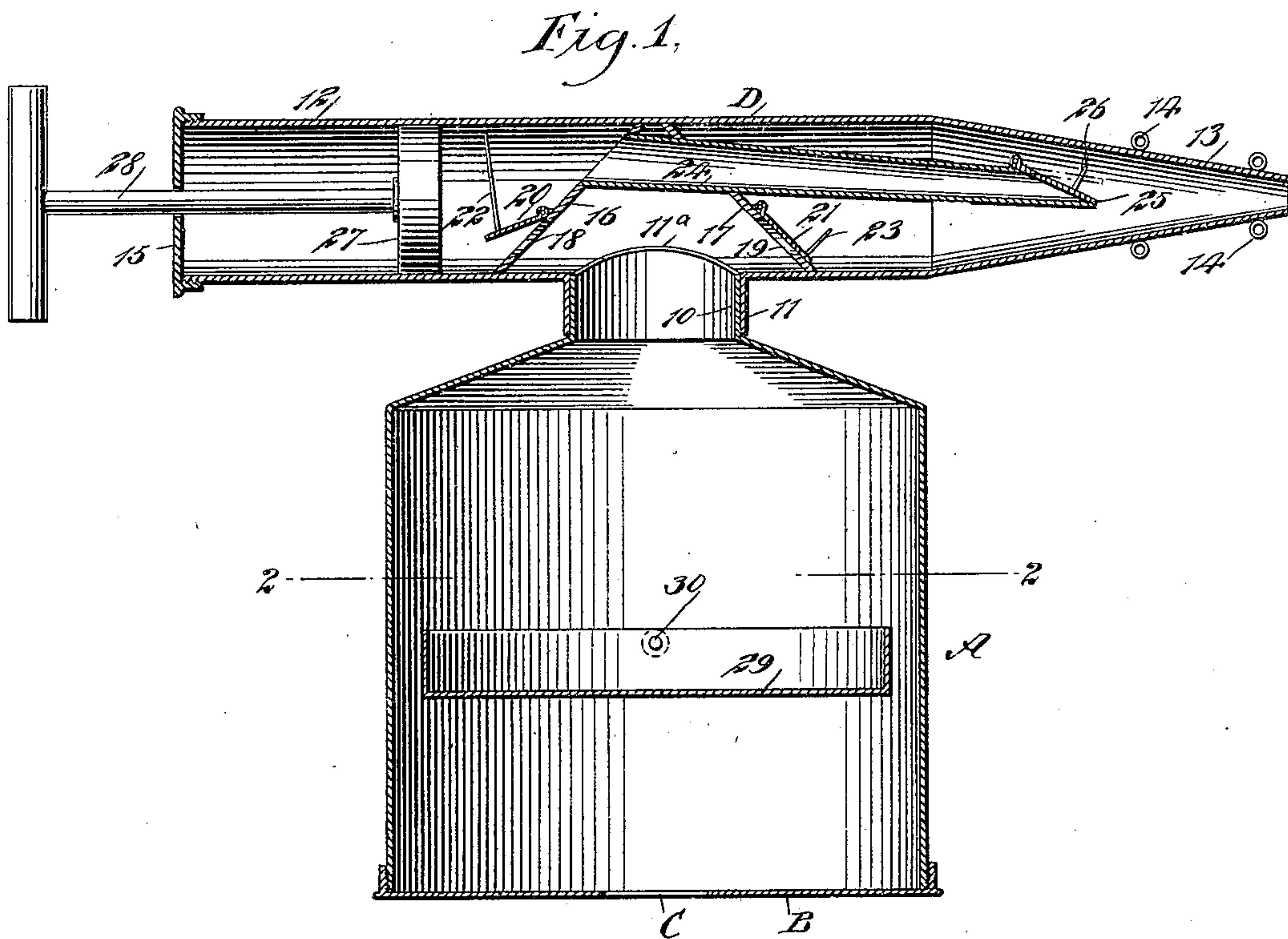
No. 621,613.

Patented Mar. 21, 1899.

A. R. MILLER.
DEVICE FOR INJECTING FUMES.

(Application filed Jan. 5, 1899.)

(No Model.)



WITNESSES:

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ABRAM R. MILLER, OF HARVEY, NORTH DAKOTA.

DEVICE FOR INJECTING FUMES.

SPECIFICATION forming part of Letters Patent No. 621,613, dated March 21, 1899.

Application filed January 5, 1899. Serial No. 701,241. (No model.)

To all whom it may concern:

Be it known that I, ABRAM R. MILLER, of Harvey, in the county of Wells and State of North Dakota, have invented a new and Improved Device for Injecting Fumes, of which the following is a full, clear, and exact description.

The object of the invention is to provide a device so constructed that poisonous or suffocating fumes can be generated and forced into holes, burrows, or nests in which animals or insects—as, for example, rats, mice, skunks, badgers, gophers, moths, ants, &c.—are se-
creted.

A further object of the invention is to provide an economic device capable of ready application for the purpose intended and to so construct the support for the ingredients used that the device may be placed in any desired position without displacement of such ingredients.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both figures.

Figure 1 is a vertical section through the improved device, and Fig. 2 is a horizontal section on the line 2 2 in Fig. 1.

A represents a tank or receptacle of any description, the said receptacle being preferably provided with a removable bottom B, in which an air-vent C is produced. The top of the receptacle A is usually made tapering and merges into a collar 10, the said collar being adapted to telescopically receive a collar 11, surrounding an opening 11^a, made in the bottom portion of an injecting device D. This injecting device consists of a body 12 of cylindrical contour, one end whereof is provided with a tapering nozzle 13, and on the exterior of this nozzle 13 rings 14 are located, adapted for the attachment of packing to the nozzle, whereby the said nozzle may be introduced into an opening and the packing made to thoroughly close the opening, so that the material that is to be introduced into the channel connected with the opening into

which the nozzle is inserted will enter the said channel with sufficient force, none of the fumes or material sought to be introduced by the injecting device escaping where the nozzle enters the aforesaid opening. The opposite end of the body of the injecting device is closed by a cap 15, the cap being preferably removable.

At each side of the opening 11^a in the bottom of the injecting device partitions are located, the partitions being designated as 16 and 17. These partitions converge at their upper ends, the partition 16 being provided with a port 18 and the partition 17 with a corresponding port 19. The port 18 of the partition 16 is adapted to be closed by a valve 20, located on the outside of the partition, and a similarly-located valve 21 is capable of closing the port 19 in the partition 17. The valve 20 is preferably provided with a pin 22, which limits its upward movement by engaging with what is normally the upper surface of the body of the injecting device, and the valve 21 is provided with a similar pin 23, adapted to engage with a conducting-tube 24 when the valve is in its open position. This conducting-tube passes through both of the partitions 16 and 17 and is made tapering, its outlet end being in longitudinal alinement with the outlet of the nozzle 13.

The outlet end of the conducting-tube 24 is beveled and is normally closed by a valve 25, provided with a limiting-stem 26. The rear end of the conducting-tube 24 is preferably flush with the outer surface of the partition 16, as shown in Fig. 1. At the rear of the partition 16 a piston-head 27 is adapted to slide in the body of the injecting device, and a stem 28 is connected with the said piston-head, the stem being provided with a suitable handle at its outer end.

A pan 29 is pivoted in the receptacle A, and this pan is of less diameter than the diameter of the receptacle, as shown in Fig. 1, so that whenever the injecting device is brought, for example, to a vertical position the pan will always preserve its level, and thus prevent spilling of the material it is adapted to receive and which is to produce the fumes to be injected by the injecting device into the holes or openings leading to where the ani-

mals or insects are concealed. The pivots of the pan 29 are designated in the drawings by the reference-numeral 30.

In operation when the piston-head 27 is drawn outward fumes are sucked from the receptacle A, passing out through the opening 18 in the partition 16, the valves 21 and 25 being closed. When the fumes are to be injected, the piston-head 27 is forced inward by its handle 28. Consequently the valve 20 is closed and the fumes are forced into the pipe 24 and through said pipe to its outlet end, the valve 25 at that end being open. At the same time the suction created by forcing the fumes from the pipe 24 serves to open the valve 21, and a draft of air is obtained through the receptacle A, entering the nozzle 13 and serving to add force to the fumes that are to be ejected from the said nozzle.

The device is exceedingly simple. It is durable and economic and is capable of being operated by any person of ordinary intelligence.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a receptacle adapted for the generation of fumes, of an injecting device connected with the said receptacle, the said injecting device being provided with a nozzle at one end, rings attached to the nozzle whereby a packing may be applied, and a piston at the opposite end of the receptacle, the nozzle and piston ends being separated by valve-controlled partitions, and a conducting-tube passed through the said partitions from the piston end to the nozzle end, and a valve at the outlet end of the conducting-tube, for the purpose specified.

2. In a device for the generation of fumes, a nozzle adapted to enter an opening, and rings attached to the exterior of the said nozzle and arranged to secure a packing to said nozzle, for the purpose specified.

3. The combination, with a receptacle adapted for the generation of fumes, of an injecting device connected with the said receptacle, the said injecting device being provided with a

nozzle at one end and a piston at the opposite end, the nozzle and piston ends being separated by valve-controlled partitions, and a conducting-tube passed through the said partitions from the piston end to the nozzle end, the nozzle end of the conducting-tube being valve-controlled, for the purpose set forth.

4. The combination, with a receptacle arranged for the generation of fumes, of an injecting device attached to said receptacle, converging partitions located one at each side of an opening in the injecting device communicating with the generating-receptacle, each of said partitions being provided with an outwardly-opening valve, a piston held to slide in the said injecting device opposite one of said partitions, a conducting-tube passed through both of said partitions, and a valve at the outlet end of the conducting-tube, and means for limiting the opening movement of the said valves, for the purpose set forth.

5. The combination, with a receptacle provided with a pivoted tray adapted to contain material for the generation of fumes, of an injecting device connected with said receptacle, converging partitions located within the said injecting device, one of the partitions being located at each side of the opening establishing communication between the said receptacle and injecting device, each partition being provided with an opening and a valve adapted to close the said opening, the valves opening outwardly, the injecting device being further provided with a nozzle at one of its ends, a pump located at the end of the injecting device opposite that at which the nozzle is located, and a conducting-tube passed through both of the said partitions, being flush with the partition facing the pump, the said conducting-tube being tapering and its outlet end in alinement with the outlet of the nozzle, and a valve at the outlet end of said conducting-tube, substantially as shown and described.

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Witnesses:

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