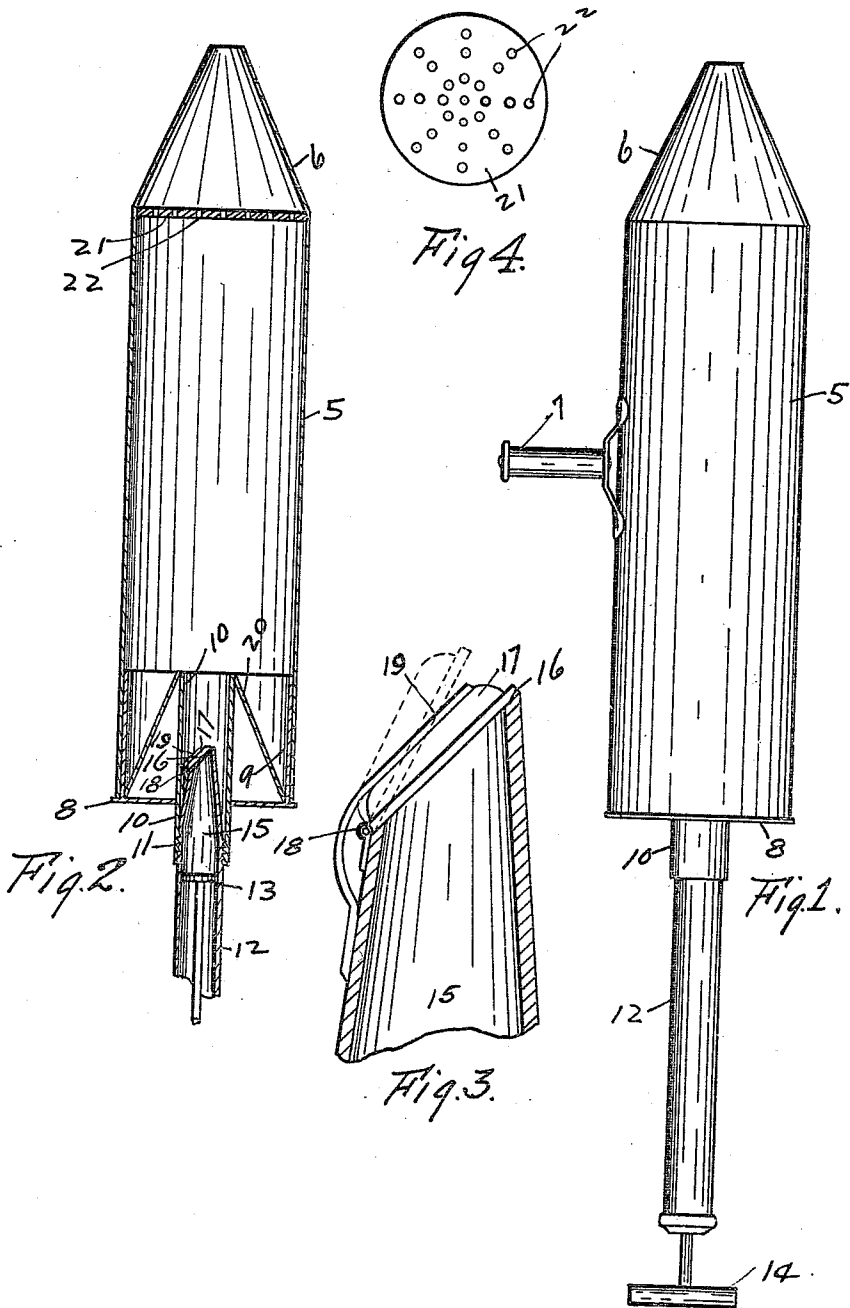


E. C. DUCKETT & F. B. LLOYD.
GOPHER EXTERMINATOR.
APPLICATION FILED JUNE 28, 1909.

957,458.

Patented May 10, 1910.



WITNESSES
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EDWARD C. DUCKETT AND FRANK B. LLOYD, OF SPOKANE, WASHINGTON.

GOPHER-EXTERMINATOR.

957,458.

Specification of Letters Patent.

Patented May 10, 1910.

Application filed June 28, 1909. Serial No. 504,757.

To all whom it may concern:

Be it known that we, EDWARD C. DUCKETT and FRANK B. LLOYD, citizens of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Gopher-Exterminators, of which the following is a specification.

This invention relates to gopher exterminators of that kind characterized by a tube which is filled with hay or some other combustible material, together with a fumigating substance such as sulfur, the same being ignited, and the resulting smoke and fumes forced into the gopher hole.

It is the object of the present invention to provide a device of the kind stated which is simple in structure, and reliable and efficacious, and also one which may be easily handled, and without discomfort to the operator.

With the foregoing objects in view, the invention consists in a novel construction and arrangement of parts to be hereinafter described and claimed, reference being had to the drawing hereto annexed forming a part of this specification, in which drawing—

Figure 1 is an elevation of the device. Fig. 2 is a longitudinal section thereof. Fig. 3 is an enlarged sectional detail of the check valve, and Fig. 4 is a plan view of the grate hereinafter referred to.

In the drawing, 5 denotes a tube which is tapered at one of its ends as indicated at 6, said end being the one which is inserted into the mouth of the gopher hole. To the other end of the tube is connected a pump for forcing the fumes into the gopher hole, and intermediate its ends the tube is fitted with a handle 7.

On that end of the tube which carries the pump is mounted a cap 8 having on one side an annular flange 9 which fits snugly within the tube 5, and serves to hold the cap thereon. The cap also carries a nipple 10, which projects from both sides thereof. That end of the nipple which projects from the outside of the cap is interiorly threaded as indicated at 11, into which is screwed the barrel 12 of the pump. The pump plunger 13 is provided with a handle 14.

That portion of the pump barrel which screws into the nipple 10 terminates in a

tapered portion 15 the end of which is cut off on a slant to form the seat 16 of a check valve 17 which is pivoted at 18 to said end of the barrel so as to open downwardly. The back of the valve is engaged by a spring 19 secured to the pump barrel, and serving to normally hold the valve seated.

By the herein described arrangement of parts the pump is separably connected to the nipple 10, the discharge end of the pump readily entering the same, by reason of its taper. When the device is not in use, the pump can be unscrewed and removed. This is desirable as it permits repairs to the pump and valve to be readily made.

The pump herein described is an air pump, the air being discharged from the valved end of the barrel 12, the valve 17 operating as a check valve in the ordinary manner.

That portion of the nipple 10 which extends from the inner side of the cap 8, is located within the tube 5 when the cap is in place thereon, and this portion of the nipple is surrounded by a conical sleeve 20, extending from the cap to the end of the nipple. This sleeve serves to brace the nipple, and also acts as a shield to prevent excessive heating of the adjacent end of the tube, as well as the valve. In the tube 5, at the junction of the tapered portion 6 and the main portion, is mounted a transverse partition 21 having perforations 22. This plate serves as a grate, and prevents the contents of the tube from being blown into the hole, and thus clogging up the same.

In use, the cap 8 is removed and the tube 5 is filled with hay, or some other combustible material, together with sulfur, or some other fumigating substance. The contents of the tube are then lighted, and the cap 8 is replaced. The tapered end of the tube is now inserted into the mouth of the gopher hole, and the smoke and fumes from the smouldering hay and sulfur are blown thereinto, upon operating the pump. The tapered end of the tube enables it to be tightly wedged into the hole, so that no smoke and fumes can escape except into the hole.

We claim:

A gopher exterminator comprising a tube, a cap on one end thereof, a nipple on the cap

projecting from both sides thereof, a pump
connected to that portion of the nipple
which is on the outside of the cap, and a
conical sleeve surrounding that portion of
5 the nipple which is on the inner side of the
cap, said sleeve extending from the cap to
the extremity of the nipple.

In testimony whereof we affix our signatures in presence of two witnesses.

EDWARD C. DUCKETT.
FRANK B. LLOYD.

Witnesses:

H. E. SMITH,
NETTIE KING.