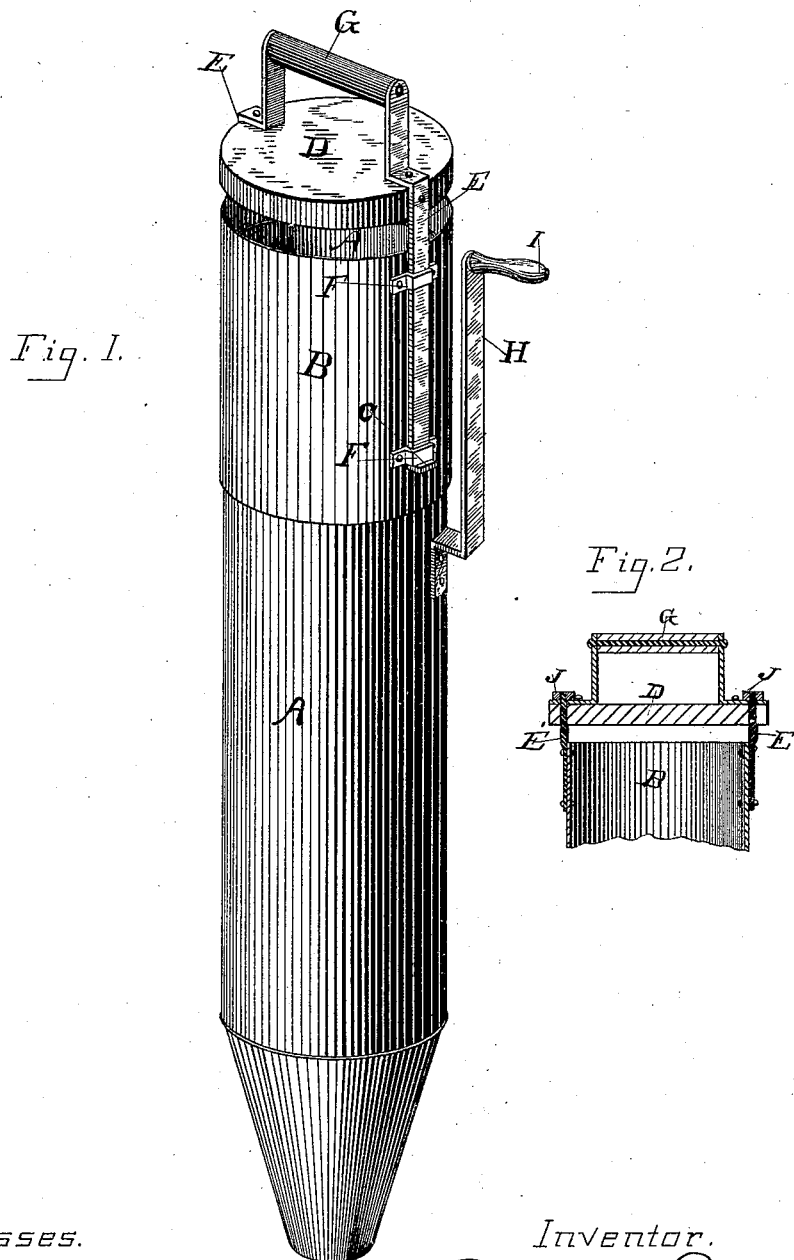


(No Model.)

F. E. BROWNE.  
VERMIN EXTERMINATOR.

No. 343,220.

Patented June 8, 1886.



Witnesses.

J. E. Green  
E. L. Bishop

Inventor.

Frank E. Browne  
by Hazard Townsend  
his atty.

# UNITED STATES PATENT OFFICE.

FRANK E. BROWNE, OF LOS ANGELES, CALIFORNIA.

## VERMIN-EXTERMINATOR.

SPECIFICATION forming part of Letters Patent No. 343,220, dated June 8, 1886.

Application filed April 3, 1886. Serial No. 197,682. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK E. BROWNE, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Improvement in Vermin-Exterminators, of which the following is a specification.

My invention relates to certain improvements upon a vermin-extinator heretofore invented by me, and described in my application for Letters Patent filed in the United States Patent Office December 21, 1885.

The object of my invention is to improve the device so that its operation will be more perfect and convenient. The manner in which said device was constructed necessitated the use of both hands to operate the valve, and a bail on the side of the furnace-cylinder was depended upon to serve for a foot-rest to hold the furnace in position while the valve was being raised, and also to serve as a handle by which the furnace-cylinder could be moved from place to place. Furthermore, the manner in which the valve was secured to the valve cylinder or sleeve allowed the valve to turn so that when it was pressed down it did not always strike squarely upon the head of the valve-sleeve. I avoid these objections by means of the device described herein, and illustrated by the accompanying drawings, in which—

Figure 1 is a perspective view of the preferred form of my improved exterminator. Fig. 2 is a vertical mid-section of one of the several modifications of the same which are obvious.

The principal of this device is identical with that covered by the claims in my former application—that is to say, the efficiency of the machine depends upon the telescoping cylinders A and B and the valve D, having a handle attached thereto, and being so connected to the cylinder B that the movement of the handle will first operate the valve and then the cylinder.

The only novelty in the device described herein consists in the handle H I and in the improved connection between the cylinder B and valve D, which are equivalents of the parts claimed in said application, but are im-

provements thereof. A hand-hold, G, is attached to the valve D, and arms E E extend downward from the valve through guide-loops F F, secured to the valve cylinder, and are bent at the end to form the catch O, which prevents the arms from being withdrawn from the loops. Only one of the arms is fully shown in the drawings, the other, which is hidden by the cylinders, being identical therewith in form.

The handle H I enables the operator to have more complete control over the machine, and serves to hold the furnace-cylinder A down while the valve-cylinder is being raised.

The arms E and guides F hold the valve rigid and level with the top of the valve-cylinder, so that the only motion of the valve is in line with the axis of the cylinders.

In Fig. 2 the arms E' are riveted to the valve-cylinder B, and project above the end thereof through the valve D, and are provided with nuts J, which cause the valve when being elevated to draw up the valve-cylinder. Sufficient play is given between the nuts and the end of the cylinder to allow a space between the valve and the cylinder B to admit air into the cylinder when it is raised.

The furnace-cylinder is preferably funnel-shaped at the bottom, and does not ordinarily require any grate to sustain the fire, as straw or hay is the material commonly used for fuel to produce the smoke, and will be sustained by the converging walls of the end of the furnace-cylinder.

If desired, the grate may be used in this machine substantially as shown in my said application.

Now, having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A vermin-extinator consisting, as shown, of the cylinder A, provided with the handle H I, the cylinder B, provided with the loops F, and the valve D, provided with the arms E, and handle G; all in combination with each other, as set forth.

F. E. BROWNE.

Witnesses:

JAS. R. TOWNSEND,

H. T. HAZARD.