(No Model.)

H. HOFFMAN.

FUMIGATOR.

No. 525,497. Patented Sept. 4, 1894.

Fig. 1.

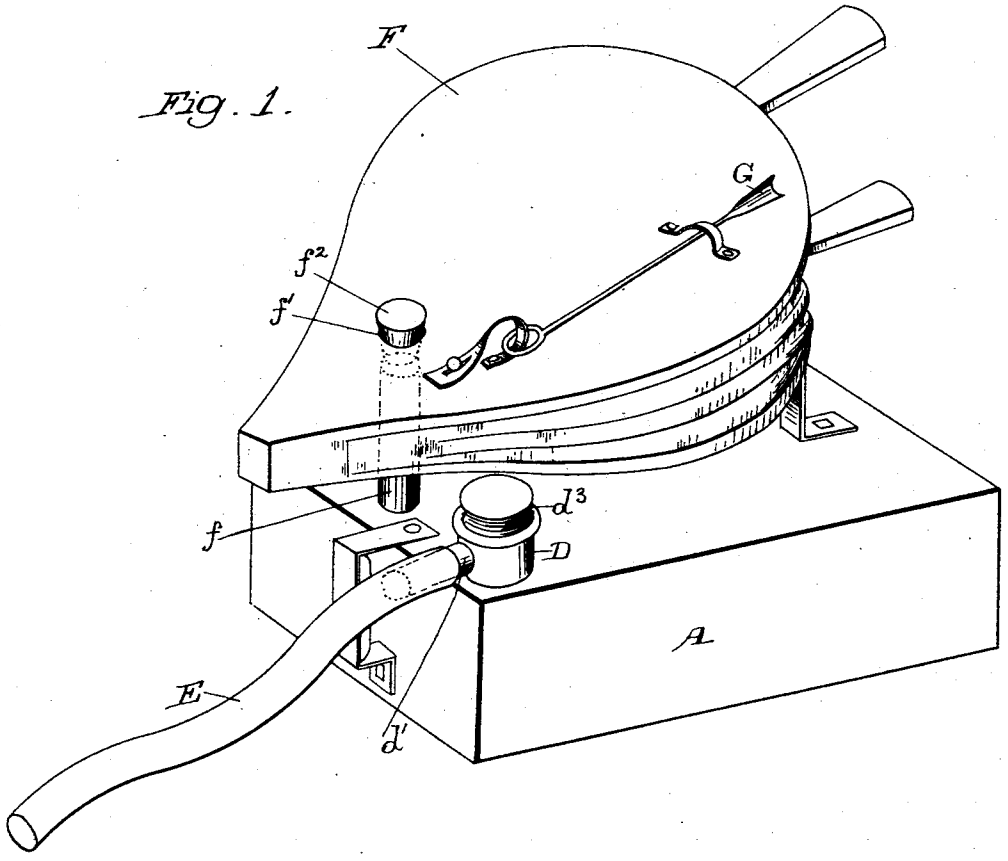
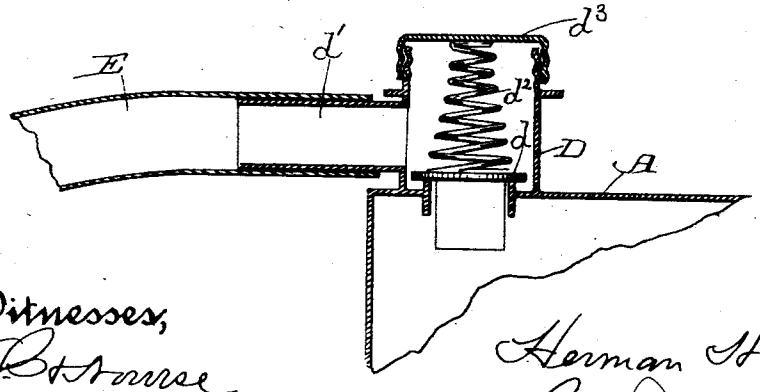


Fig. 2



Witnesses,
J. Stanree
J. A. Bayless

Inventor,
Herman Hoffman
By Dewey & Co.
Attys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HERMAN HOFFMAN, OF BYRON, CALIFORNIA.

FUMIGATOR.

SPECIFICATION forming part of Letters Patent No. 525,497, dated September 4, 1894.

Application filed November 24, 1893. Serial No. 491,882. (No model.)

To all whom it may concern:

Be it known that I, HERMAN HOFFMAN, a citizen of the United States, residing at Byron, county of Contra Costa, State of California, have invented an Improvement in Fumigators; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the class of fumigators commonly known as "animal exterminators," and to that sub-class of these devices in which are employed a casing adapted to contain suitable obnoxious or poisonous material, and to deliver the fumes or vapors thereof through a suitable valve controlled outlet pipe, adapted to enter the hole or burrow of the animal, and a bellows or other air-blast apparatus in connection with said casing and communicating therewith whereby a current of air is forced into and out of the casing and becomes charged with and acts as a vehicle for the vapors or fumes of the poisonous material.

My invention consists in certain specified details of improvements particularly applicable to that fumigator which is disclosed in the patent, No. 483,484, dated September 27, 1892, and issued to Clara E. Hoffman as administratrix of Ferdinand A. Hoffman, deceased. In the practical use of the fumigators of this kind, the poisonous material used in the casing is bisulphide of carbon. Experience has shown that the effect of this material either by corrosion or from other causes, is to clog up the communicating passage between the air-blast apparatus and the casing, and also to clog up and impede the operation of the controlling valve of the outlet pipe from said casing. These difficulties attend upon the use of the machine very quickly, and are so complete as to render absolutely valueless the entire machine for the reason that, as heretofore constructed, no means were provided for reaching the parts which would thus become clogged, whereby they might be relieved, and as a consequence the whole machine is frequently discarded, as it is not practicable to disjoint its permanently connected parts with a view to remedying the defects.

The object of my invention is to provide practical and easily operated means for reaching the parts which become clogged and for freeing them, whereby the difficulties above mentioned are entirely obviated and the machine is rendered a practical one.

Referring to the accompanying drawings for a more complete explanation of my invention,—Figure 1 is a perspective view of a fumigator embodying my improvements. Fig. 2 is a section showing my improvement applied to the valve *d*.

A is a casing adapted to contain a suitable obnoxious or poisonous material, such, for example, as bisulphide of carbon. The interior construction of this case may be of any suitable character, and is unnecessary herein to describe or illustrate. The casing, near one end, has communicating with it, an outlet pipe E which is properly secured upon a short neck *d'* extending from a pipe connection D permanently secured to the top of the casing and communicating with its interior. In this pipe connection is seated a valve *d* held down to its seat by a spring d^2.

F represents an air-blast apparatus in the form of a bellows. This is properly secured to the top of the casing and it has at its forward end a pipe *f* by which it communicates with the interior of the casing. These parts, as far as described, are essentially the same as those in the previous patent heretofore mentioned.

The difficulty with this machine, as heretofore stated, consisted in the clogging up of the pipe *f*, and the clogging of the valve *d* by the corrosive action of the vapors of the bisulphide of carbon, or for other reasons, and as no means were provided for reaching these parts to clear them, these difficulties were serious.

My first improvement consists in making in the top of the bellows F a hole *f'* which is directly over and lies in line with the communicating pipe *f*. This hole is adapted to be normally closed by a suitable plug or stopper, such as is represented by f^2. Now, by means of a suitable instrument, such as the scraper G, which for convenience I have here shown as removably connected with and carried by the bellows, it will be seen that upon the removal of the plug or stopper f^2, the communicating pipe *f* may be thoroughly scraped and cleared by passing the instru-

ment G down through the hole f' in the top of the bellows. This hole does not interfere with the operation of the bellows, because it is normally closed by the plug or stopper so that the bellows are not impaired.

My second improvement lies in the means provided for reaching the valve d. Instead of permanently inclosing it as has been done heretofore, I provide the pipe connection D with a removable screw cap d^3 which, when in place, forms the top abutment for the valve controlling spring d^2. The valve and spring are merely dropped freely in place, and when it is desired to reach the valve so as to clear it and its seat, it is only necessary to remove the screw cap d^3 on top of the pipe connection, whereupon the entire valve and spring may be readily removed and cleaned, and opportunity afforded to clean its seat and the passage down into the casing.

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

1. In a fumigator or animal exterminator, the combination of a suitable casing adapted to contain a poisonous or obnoxious substance, said casing having an outlet, a bellows mounted on top of said casing, a communicating pipe between the lower side of the bellows and upper side of the casing whereby a blast of air may be forced into the casing, to become charged with the vapors of the poisonous or obnoxious substance therein, and thence forced out of the outlet from the casing, a hole being made in the top bellows directly over and in line with the communicating pipe into the casing and a removable stopper for said hole, whereby the latter may be readily cleared when necessary, substantially as herein described.

2. The combination with the casing having a bellows thereon and communicating therewith, of an outlet pipe on said casing to one side of the bellows, and provided with a removable cap at its outer end, and having a lateral branch or nipple d' between its ends, a removable valve within the outlet pipe and a spring bearing at its outer end on the cap, and at its inner end pressing the valve upon the opening in the casing, substantially as herein described.

In witness whereof I have hereunto set my hand.

HERMAN HOFFMAN.

Witnesses:
L. A. CHILSON,
W. M. CHILSON.