

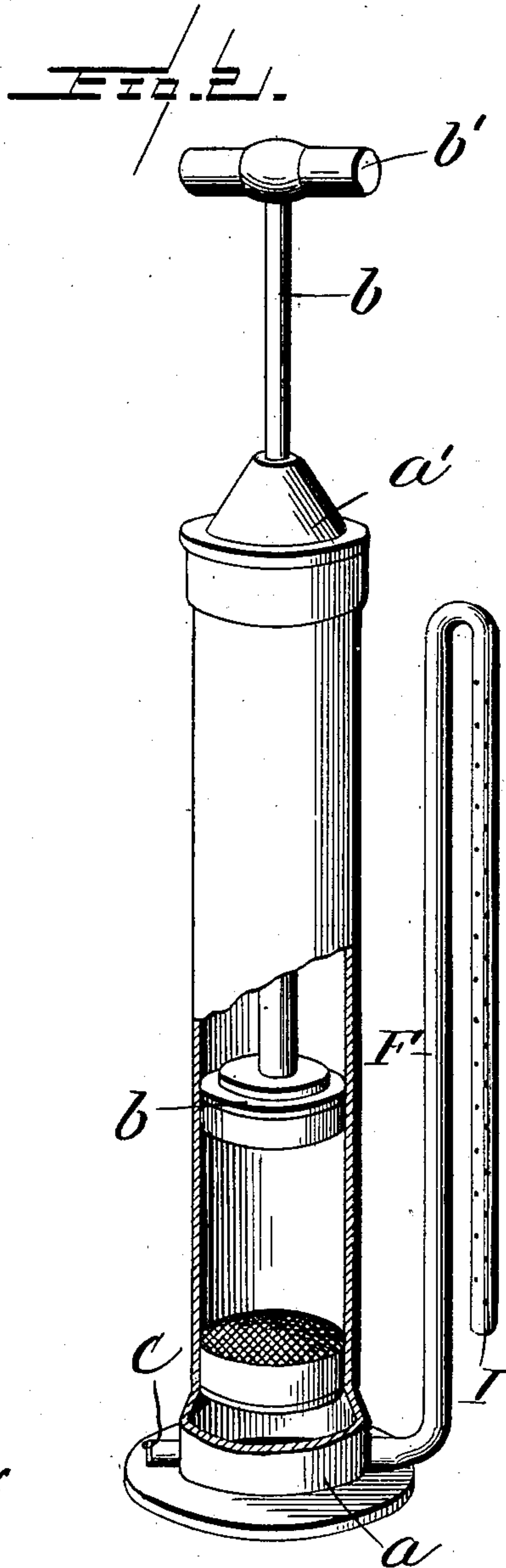
No. 734,229.

PATENTED JULY 21, 1903.

G. F. HARDINGE.  
FUMIGATING AND DISINFECTING DEVICE.

APPLICATION FILED JAN. 12, 1903.

NO MODEL.



*WITNESSES:*

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By

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# UNITED STATES PATENT OFFICE.

GEORGE F. HARDINGE, OF VINELAND, NEW JERSEY, ASSIGNOR OF ONE-HALF TO FRANK WANSER AND ALFRED M. PIERSON, OF VINELAND, NEW JERSEY.

## FUMIGATING AND DISINFECTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 734,229, dated July 21, 1903.

Application filed January 12, 1903. Serial No. 138,670. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE F. HARDINGE, a citizen of the United States, residing at Vineland, in the county of Cumberland and State of New Jersey, have invented certain new and useful Improvements in Fumigating and Disinfecting Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to that class of fumigators and disinfectors which spread the fumes of some disinfectant by means of a pump, and has for its special object to provide a device which will be suitable for fumigating and disinfecting upholstered or similar goods and drying the same in case of dampness or mustiness of such goods.

For the accomplishment of the objects I employ the novel construction hereinafter clearly and fully set forth.

In the accompanying drawings, Figure 1 is a sectional view of my device. Fig. 2 is a perspective view of the pump with a portion of the cylinder broken away.

In both views like letters of reference represent similar parts.

A in the drawings represents the cylinder of the pump, which may be of any suitable size and which is provided with the ordinary base *a* and cap *a'*.

B is the piston-rod, passing through the cap *a'* in the ordinary manner and provided with the usual piston *b* and handle *b'*.

C is an inlet-valve suitably situated in the cylinder A, and D is an exhaust-valve.

E is a cylindrical box of suitable size to fit in the cylinder A, preferably near the base, and is provided with a perforated top and bottom. This box E is preferably removable, so that one box can be replaced by another, one containing a different disinfectant or odorant, thus obviating the necessity of emptying and refilling the same box when different materials are used.

F is a piece of tubing of suitable length and fitted to the exhaust-valve D. As shown in Fig. 1, F may be of a conical-coil shape, as *f*, and provided with a flexible extension *f'*,

or, as in Fig. 2, may simply be a piece of flexible tubing; but it is obvious that both forms of F may be detachable from the pump, so that they may be changed at will.

G is a metal casing of suitable size and shape to fit over the coil *f*.

H is a suitable gas or other burner suitably situated under the coil F.

I is preferably a steel piece of tubing suitably perforated.

Having described my invention, its operation is as follows: The box E is filled with the desired disinfectant, after which the tube I is inserted in the object to be fumigated, such as an upholstered chair or mattress. If the object is damp or musty, it is desirable to use the pump provided with the coil, in which case the burner under the coil *f* is lighted, thus heating the air contained in said coil, after which the pump is put in operation, whereby as the piston rises air is drawn in through the inlet-valve and up through the disinfectant-box E into the cylinder A, while as the piston descends the air is again forced through the disinfectant-box E. The air by this operation having become thoroughly saturated with the fumes of said disinfectant is forced through the exhaust-valve D into the tube F and coil *f*, where it becomes heated by the burner H, and then through tube *f'* into the perforated tube I, through the perforations of which it is distributed into the object to be fumigated, it being obvious that this operation may be carried on until said object becomes thoroughly dry, as well as fumigated. If the drying process is unnecessary, the apparatus without the coil, as shown in Fig. 1, may be equally well used, the operation being the same as that of the former device.

It is obvious that various changes may be made in my construction without departing from the spirit of my invention.

What I claim, and desire to secure by Letters Patent, is—

1. In a fumigating and disinfecting apparatus, the combination with an air-pump, provided with an inlet-passage and a separate discharge-passage, of a disinfectant-holder, located in respect to said passage so that the air shall pass through the disinfectant mate-

rial when entering through the inlet and again pass through it when forced out through the outlet-passage, substantially as described.

2. In a fumigating and disinfecting apparatus, the combination with an air-pump provided with an inlet and outlet, of a disinfectant-holder located within the pump so as to be between the inlet and pump-chamber and between the pump-chamber and the outlet, substantially as described.

3. In a fumigating and disinfecting apparatus, the combination with an air-pump having the pump-chamber provided with an inlet-passage and an outlet-passage near the bot-

tom of the chamber, of a disinfectant-holder located a short distance above the inlet and outlet passages and below the piston of the pump, whereby the piston in drawing air into the pump-chamber draws it through the disinfectant and in forcing the air out forces it again through the disinfectant, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

GEORGE F. HARDINGE.

Witnesses:

FRANK WANSER,  
ALFRED M. PIERSON.