W. H. SHARP.

FORMALDEHYDE FUMIGATOR.

APPLICATION FILED OCT 29, 1919.

1,389,074. Patented Aug. 30, 1921.

Fig. 1

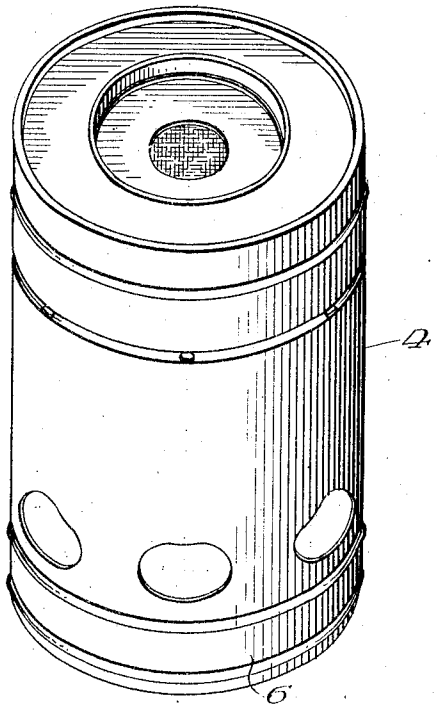


Fig. 2

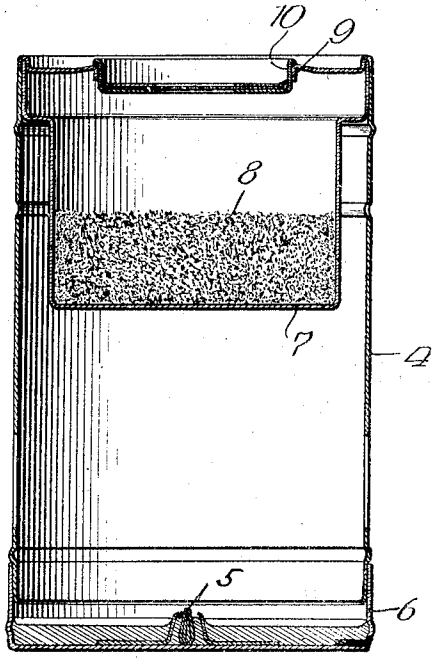
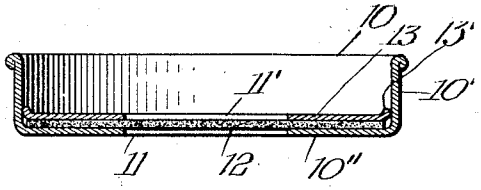


Fig. 3



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UNITED STATES PATENT OFFICE.

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FORMALDEHYDE-FUMIGATOR.

1,389,074. Specification of Letters Patent. Patented Aug. 30, 1921.

Application filed October 29, 1919. Serial No. 334,207.

To all whom it may concern:

Be it known that I, WILLIAM H. SHARP, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Formaldehyde-Fumigators, of which the following is a specification.

The object of this invention is to provide a formaldehyde fumigator of simple construction which can be produced at low cost and placed upon the market with the disinfecting material protected and sealed from the atmosphere, so that the fumigator can be safely handled and easily made ready for immediate use.

A further object is to provide safety means which will prevent damage to the fumigator and possible injury therefrom in event the prescribed precautions are not taken to permit escape of gas from the fumigator in actual use.

In the accompanying drawings I have illustrated a selected form of embodiment of the invention for illustrative purposes, and referring thereto—

Figure 1 is a perspective view of the fumigator.

Fig. 2 is a central sectional view.

Fig. 3 is an enlarged sectional view cap.

Referring to the drawings, the fumigator comprises a body or shell 4, a candle 5 in a holder 6 at the bottom of the body, and a receptacle 7 having a charge of suitable disinfecting material 8, preferably powdered paraform. These parts are made in suitable dimensional relation to each other and the quantity of disinfecting material is proportioned to the life of the candle so that by the time the candle has burned out all of the disinfecting material will have gasified and escaped from the fumigator through the opening 9 in the top of the receptacle which is normally closed by the cap 10.

Fumigators of this general class are usually provided with a cap or some other form of removable closure for the receptacle containing the disinfecting material, and it is customary to furnish specific instructions for the removal of the cap or other closing device before the candle is lighted so that the gas may escape freely from the receptacle. But there is always the danger that some careless person will neglect to remove the cap, and in such case there may be an explosion when sufficient pressure has accumulated in the receptacle which may not only cause property damage but which may also cause personal injuries. It is to avoid this that my invention is especially directed.

I provide the receptacle with an opening which is normally sealed but which is acted upon by the heat to permit the escape of gas which has been generated under the action of the heat. I prefer to locate this sealed opening in the cap, in the manner shown in the drawings. The cap has an opening 11 over which is placed a disk 12 and this disk is held in place by a metal disk 13 which has an upturned edge 13′ to frictionally engage the side wall 10′ of the cap. Thus the metal disk 13 is securely held in the cap by frictional engagement with the cap and the disk 12 is securely held in place between the metal disk 13 and the bottom 10″ of the cap. The metal disk 13 has an opening 11′ which registers with the opening 11 in the bottom of the cap. The disk 12 is preferably made of blotting paper or some other equivalent porous material which is suitable for the purpose. Paraffin, wax, or other suitable material is applied to the disk to provide an air tight seal for the opening 11, 11′, and this may be done by saturating the disk, or applying a coating of paraffin thereto, or by saturating or coating that portion only of the disk which bridges the openings.

The disk provides an air tight seal for the opening in the cap and since the latter fits snugly in the receptacle, being held by frictional contact or otherwise therein, the receptacle will be efficiently closed to prevent the escape of its contents and also to protect the contents. If a person does not remove the cap when using the fumigator, as he should do and as instructions will direct him to do, the disk 12 will provide for the escape of gas from the receptacle without damage to the fumigator. The heat from the candle which is sufficient to generate the gas in the receptacle will also be sufficient to melt the paraffin on the disk 12 and open the pores so that the gas may escape therethrough from the receptacle. If the pressure should accumulate very quickly the disk 12 will be ruptured before the receptacle would burst. Therefore the

disk provides a safety means for insuring the escape of gas from the receptacle in actual use thereof if the user neglects to open the receptacle and this safety means is of such a character that it will operate whether the gas is generated slowly or quickly.

I am aware that changes in the form and in the proportion of parts may be made without departing from the spirit or sacrificing the advantages of my invention and I therefore reserve the right to make all such changes as fairly fall within the scope of the appended claims.

I claim:

1. A fumigator comprising a body, a receptacle containing a charge of disinfecting material mounted in the body and having an opening at the top thereof, and a seal noramlly closing said opening and adapted when heated to permit the escape therethrough of gas generated in the receptacle.

2. A fumigator comprising a body, a receptacle containing disinfecting material mounted in the body and having an opening at the top thereof, a removable cap for said opening and having an opening therein, and a seal normally closing said opening in the cap and adapted when heated to permit the escape therethrough of gas generated in the receptacle.

3. A fumigator comprising a body, a disinfectant receptacle mounted in said body and having an opening therein, and a seal consisting of a porous disk normally closing said opening, said disk being rendered non-porous with a substance which will melt under heat sufficient to generate gas in the receptacle and permit said gas to escape through the disk.

4. A fumigator comprising a body, a disinfectant receptacle mounted in said body and having an opening therein, and a seal normally closing said opening and consisting of blotting paper saturated with paraffin.

5. A fumigator comprising a body, a disinfectant receptacle mounted in said body, a removable cap for said receptacle having an opening therein, a porous disk saturated with paraffin to render it non-porous and normally closing the opening in the cap, and a securing disk to hold said paraffin saturated disk in place and having an opening registering with the opening in the cap.

WILLIAM H. SHARP.

Witnesses:
D. F. NEALON,
S. W. WILLIAMS.