Feb. 21, 1933. H. B. FERGUSON 1,898,621

MOTH REPELLENT

Filed June 29, 1931

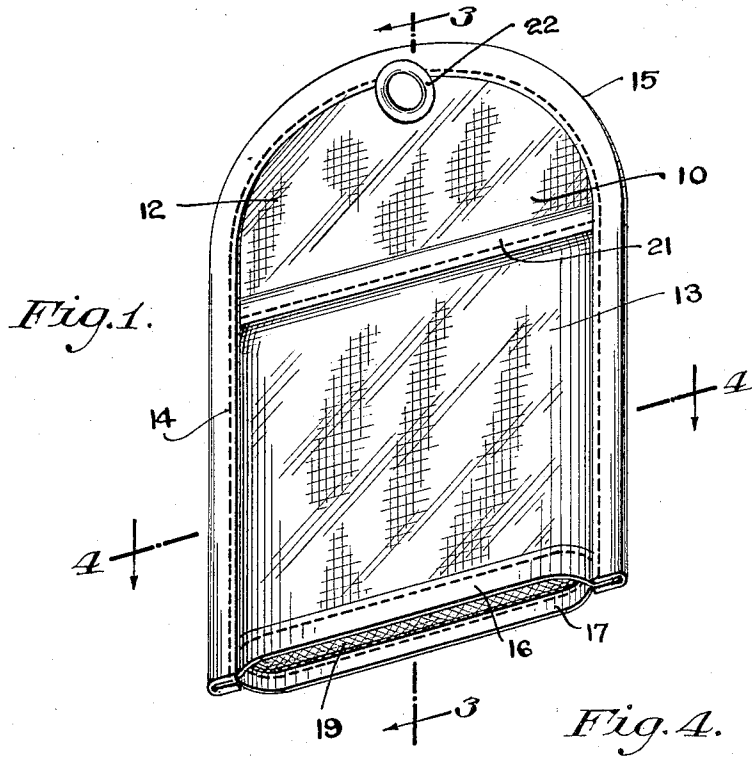

Fig. 1.

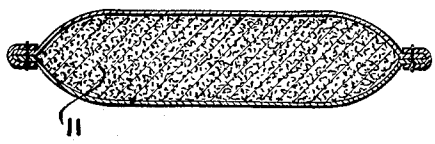

Fig. 4.

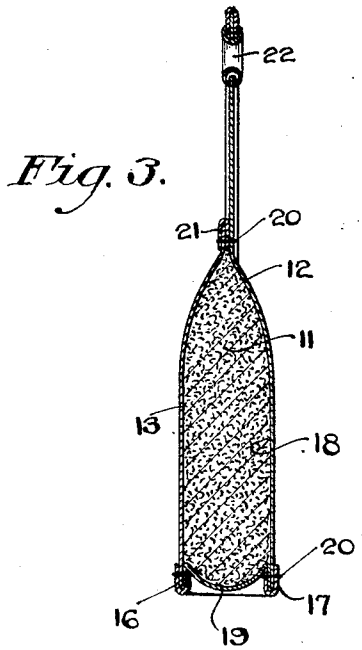

Fig. 3.

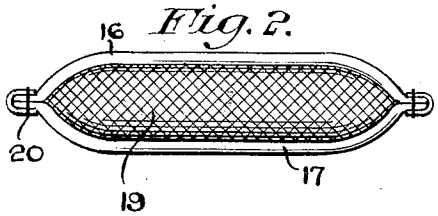

Fig. 2.

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MOTH REPELLENT

Application filed June 29, 1931. Serial No. 547,553.

This invention relates to moth repellents and more particularly to an improved package containing matter the odor of which is obnoxious to moths, insects and the like.

It is among the principal objects of the present invention to provide, as an inexpensive and simple article of manufacture, a package containing a solid or crystalline material, such as para chloride benzine or the like, which, in the course of its evaporation, gives off a vapor or gas which is distinctly offensive and destructive to moths and the like, the package being adapted to be hung in any suitable and convenient place as a protection against the ravages of such insects.

A further object of the invention is the provision of a container for the odorous material which is not only extremely simple and inexpensive in construction but which also prevents a too rapid evaporation of the material contained therein.

Still another object of the invention is the provision of a package containing insect-repelling material in the form of a bag all but a small portion of which effectually seals the material from the atmosphere, thereby preserving the same against too rapid evaporation, the bag being further characterized in that the surfaces thereof which are impervious to the free passage therethrough of the repelling gas are transparent so that one may determine at a glance when the package is no longer effective for its intended purpose.

Other objects of the invention and advantages thereof will be apparent more fully hereinafter.

The invention consists substantially in the combination, construction, location and relative arrangement of parts, all as will be described more fully hereinafter, as shown in the accompanying drawing, and finally pointed out in the appended claims.

In the said accompanying drawing:—

Figure 1 is a perspective view of the improved insect-repelling package;

Figure 2 is a bottom view thereof;

Figure 3 is a vertical sectional view taken on the line 3—3 of Figure 1; and

Figure 4 is a horizontal sectional view taken on the line 4—4 of Figure 1.

Referring now more particularly to the drawing it will be observed that the improved moth and other insect-repelling package is generally in the form of a bag 10 within the interior of which is contained a solid or crystalline material 11, such as para chloride benzine or other matter which has the characteristic of giving off a gas or vapor obnoxious and destructive to ravaging insects, such as moths and the like. It is inherent with such material as is preferably contained within the bag 10 that it gives off the obnoxious gases in the course of its evaporation and it is therefore important that the bag be so constructed that such evaporation be not too rapid, because otherwise its period of effectiveness would be unduly shortened. To that end the bag 10 is so designed that while it preserves the matter 11 against too rapid evaporation, it also provides for an adequate quantity of insect-repelling gases to be given off.

As appears quite clearly in the drawing, the bag 10 is preferably constructed of a pair of superimposed panels 12 and 13 of substantially equal width, the panel 12, however, being of greater length than the panel 13. The coincident side edges of the panels 12 and 13 are secured together, preferably by a binding or tape 14 which is doubled to overlie the opposite marginal surfaces of the panels. Preferably, this binding 14 extends continuously around the side and top edges of the bag. For the sake of appearance, the top of the bag is rounded, as at 15.

The panels 12 and 13 are preferably constructed of flexible material which is not only more or less transparent but which is also impervious to the atmosphere. To this end I prefer to employ a material known as "glazed net" but it will be understood of course that other materials such as waxed paper and the like may also be used as desired.

The bottom edges of the panels 12 and 13 are respectively reinforced with bindings 16 and 17, each of which extend from side to side of the bag. As most clearly appears in Figures 2 and 3, a pocket 18 is thus provided having an expansible bottom 19 the side edges of which are suitably secured to the

reinforced bottom edges of the panels 12 and 13. Preferably, the several bindings are secured to the bag panels and to each other by stitching, designated generally by the reference numeral 20. It is important to note that the bottom 19 of the pocket 18 is formed of a fabric which differs from the side panels thereof in that it is pervious to the free passage therethrough of the insect-repelling gases given off by the material 11 contained within the pocket. I preferably employ ordinary cloth as the material of which the bottom is formed.

The upper edge of the panel 13 is also provided with a binding 21 which extends horizontally from side to side of the bag, the said upper edge so reinforced being adapted for securement to the body of the panel 12 as to effectually seal the upper end of the pocket 18.

It will be understood that in forming the bag 10, I preferably do not secure the upper edge of the panel 13 to the body of panel 12 until after the material 11 has been placed within the pocket 18. When the material is placed within the pocket and the upper end of the latter sealed as aforesaid, the gases which are given off by the material in the course of its evaporation escape from the bag only by way of the cloth bottom 19. In order to facilitate hanging the bag 10 in any place, as upon a hook, clothes hanger or the like, the panel 12 is provided adjacent the upper end and centrally thereof with an eyelet 22 or its equivalent.

The invention, as will be readily understood, is susceptible of various changes and modifications without involving a departure from the general principles or real spirit thereof and it is accordingly intended to claim the same broadly as well as specifically as indicated by the appended claims.

What is claimed as new and useful is:—

1. An article of the class described comprising a bag the top of which is sealed and the sides of which are formed of a material impervious to the free passage therethrough of a moth or other insect repelling vapor or gas, the bottom of said bag being formed of a material pervious to said gas or vapor, the area of said pervious material being relatively small as compared to the total area of said impervious material.

2. An article of the class described comprising a bag-like container for a moth or other insect repelling material capable of evaporating to produce a gas or vapor, said container including a pair of panels the side and top edges of which are secured together, said panels being impervious to the free passage therethrough of said gas or vapor, and a bottom for said bag extending between the bottom edges of said panels, said bottom being pervious to said gas or vapor.

3. An article of the class described comprising a bag-like container for a material capable of evaporating to produce a gas or vapor, said container including a pair of panels the perimetral edges of which are secured together throughout all but a limited extent thereof, said panels being formed of a material practically impervious to the passage therethrough of said gas or vapor, and means for closing the opening provided between the unsecured portions of said panels, said means being formed of a material permitting the gradual escape of the gas or vapor generated within said container.

4. An article of the class described comprising a bag-like container for a material capable of evaporating to produce a gas or vapor, said container including a pair of panels the perimetral edges of which are secured together throughout all but a limited extent thereof, said panels being formed of a material practically impervious to the passage therethrough of said gas or vapor, and means for closing the opening provided between the unsecured portions of said panels, said means being formed of a material permitting the gradual escape of the gas or vapor generated within said container, the material of which said panels are formed being transparent to a greater or less degree.

5. An article of the class described comprising a bag-like container for a moth or other insect repelling material capable of evaporating to produce a gas or vapor, said container including a pair of panels the side and top edges of which are secured together, said panels being impervious to the free passage therethrough of said gas or vapor, and a bottom for said bag extending between the bottom edges of said panels, said bottom being pervious to said gas or vapor, one of said panels being of greater length than the other and having means therein for suspending the container upon a hook or the like.

6. An article of the class described comprising a bag-like container for a moth or other insect repelling material capable of evaporating to produce a gas or vapor, said container including a pair of panels the side and top edges of which are secured together, said panels being impervious to the free passage therethrough of said gas or vapor, and an expansible bottom for said bag extending between the bottom edges of said panels, said bottom being pervious to said gas or vapor.

In testimony whereof, I have hereunto affixed my signature.

HERMAN B. FERGUSON.