

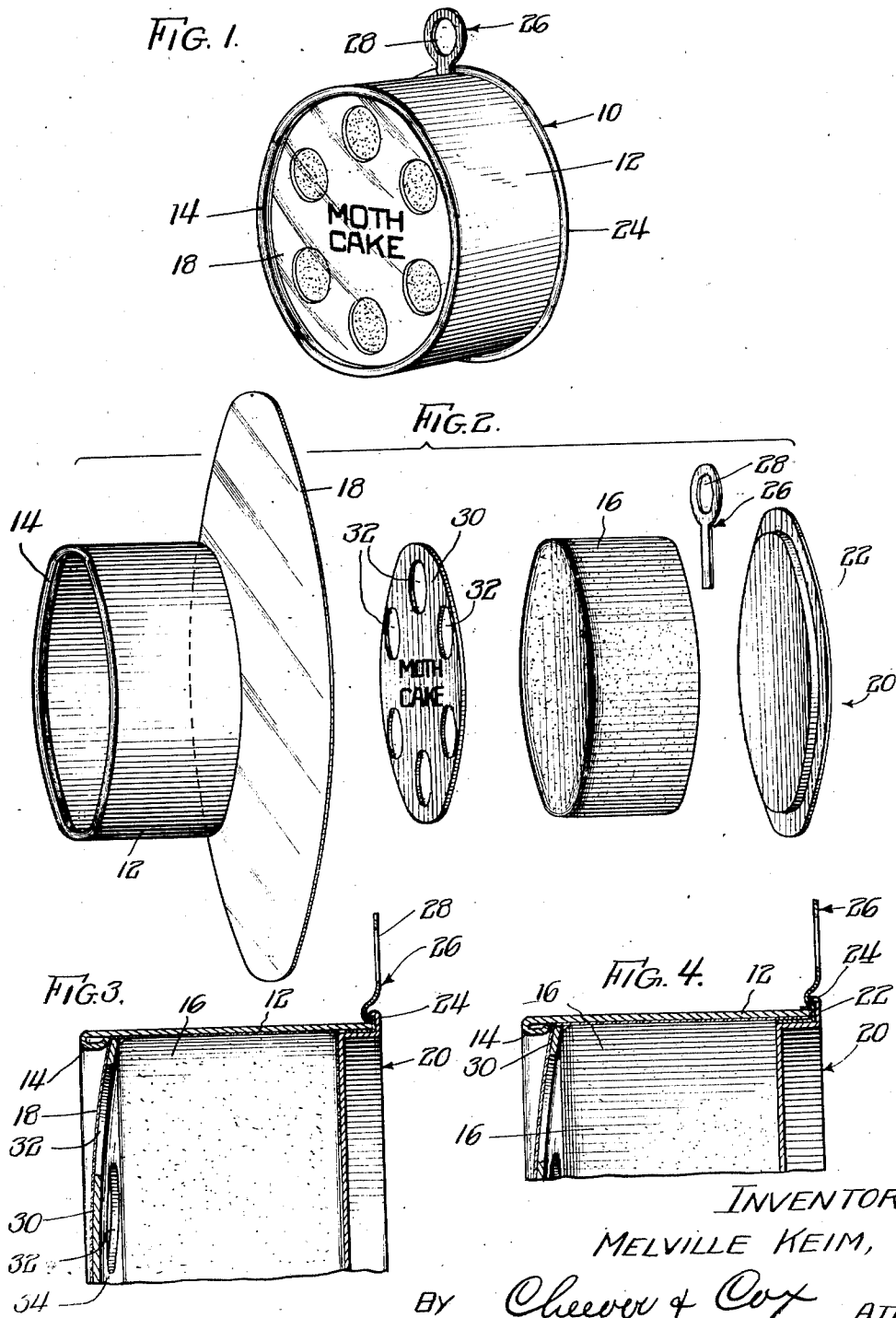
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CHEMICAL CONTAINER

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CHEMICAL CONTAINER

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My invention relates to chemical containers and more particularly to containers adapted to retain a chemical which vaporizes when exposed to the atmosphere.

5 It is the practice in some instances to employ chemical compounds for insecticidal and deodorizing purposes which, when exposed to the atmosphere, will readily evaporate. One of the problems which presents itself in
10 connection with the production of such compounds is that of providing suitable containers therefor. In order to render the compound satisfactory for shipping or for display purposes, as well as for actual use, a container should be provided which will positively insure the preservation of the compound when not in use and which may also be conveniently arranged so as to expose the
15 contained material to the atmosphere when said material is to be used for the purposes set forth.

In general, one of the primary objects of my invention is to provide a container for compounds of the above mentioned nature
25 which is of simple and economical construction and which will not only permit the compound to be readily transported or distributed without the slightest possibility of the evaporation thereof, but which may also be readily opened for use so as to expose the compound to the atmosphere.

Another object of my invention is to provide a container or package of the instant nature which includes a moisture-proof and
35 air-proof wrapper for surrounding the compound and a casing for enclosing said wrapper, one portion of said wrapper being exposed so as to render the same readily removable when the compound is to be used.

40 A still further object of my invention is to provide a container of the class set forth for retaining an insecticidal and deodorizing compound which may be conveniently transported or handled without exposing the contained material to the atmosphere and which
45 may be conveniently displayed for purposes of sale and the like, and to this end I propose to encase the compound with a transparent wrapper which is impervious to moisture and
50 air, this wrapper being housed within an open

end casing, and interposed between the compound and an inner surface portion of the wrapper is an apertured plate or disc, said plate providing an effective reinforcing means for the exposed portion of the wrapper, the outermost surface of the disc providing a display surface, and the apertures thereof providing effective vents through which vapors from the contained compound may readily pass.

A still further and more specific object of my invention is to provide a simple and durable container or package for an insecticidal and deodorizing compound in cake form, said container comprising a cylindrical casing
65 which is open at one end and provided with a closure at the other end, and housed within the casing is a moisture-proof, air-proof, transparent wrapper for encasing a cake of the compound, an apertured disc being provided between the end of the cake and the exposed adjacent portion of the wrapper, and means being provided to permit the container to be conveniently positioned upon a wall or other surface.

These and other objects will be more apparent from the following detailed description when considered in connection with the accompanying drawing, wherein—

Figure 1 is a perspective view of a container embodying features of my invention, said container being supplied with a chemical compound in cake form;

Figure 2 is an exploded view disclosing the parts which constitute the container disclosed in Figure 1;

Figure 3 is a fragmentary central sectional view taken longitudinally of the casing shown in Figure 1 to more clearly disclose the relative positions of the parts; and

Figure 4 is a view similar to Figure 3 illustrating how the margin of the wrapper may be crimped by the margin of the container closure.

Referring now to the drawing more in detail wherein like numerals have been employed to designate similar parts throughout the various figures, it will be obvious that a container embodying features of my invention is designated by the numeral 10 in Figure

1. This container comprises a cylindrical casing 12, the forward edge of which is provided with a bead 14. This casing 12 serves as a means for housing a chemical compound which, for purposes of illustration, has been disclosed in the form of a cake 16. This cake 16 is enclosed within a substantially transparent wrapper 18 which is impervious to moisture and air. In this connection it might be stated that a cellulose product such as the product commonly known as "Cellophane", provides a very effective wrapping material. The wrapping material 18 must be impervious to moisture and air in order to prevent the vaporization of the chemical compound and it will be noted that in Figure 3 I have disclosed the cake 16 as being entirely enclosed within the wrapper 18 while in Figure 4 the rear surface of the cake is covered by means of a closure member or cover 20.

This closure member 20 is provided with a marginal flange 22 which is adapted to be crimped so as to present a marginal bead 24, Figures 3 and 4. It will be observed in Figure 4 that this bead 24 not only serves as a means for securing the closure 20 to the casing 12 but also as a means for securing the marginal portions of the wrapper 18 and thereby effectively sealing the compound within the wrapper. As stated above, in Figure 3 the wrapper 18 completely encloses the cake and hence the bead 24 does not engage the marginal portions of the wrapper. It will be observed that I provide a suitable fastening member 26 which is formed with an aperture 28. This member 26 is secured between the marginal bead 24 and the edge of the casing 12 and serves as a convenient means for supporting or suspending the container upon a wall.

Interposed between the forward surface of the cake 16 and the inner adjacent surface of the wrapper 18 is a plate or disc member 30. This disc member 30 is provided with a plurality of marginally positioned apertures 32 and it will be observed from Figures 3 and 4 that the margins of the disc are adapted to be positioned adjacent the bead 14 of the casing 12. When the disc is properly positioned within the container, it will assume a concavo-convex form so that the inner surface of the disc will be spaced from the adjacent forward surface of the cake 16. Also, the outer convex surface of the disc will reinforcingly bear against and support the adjacent portion of the transparent wrapper 18. As shown in Figures 1 and 2, the outer surfaces of the disc 30 provides a convenient display surface for advertising purposes and the like, and this surface is protected against deterioration or injury by the transparent wrapper. Thus, in addition to providing a reinforcement for the wrapper 18, the outer surface of the disc provides an attractive advertising medium.

When the container 10 is to be used, as for example in a chamber or locker containing clothes and the like, the portion of the wrapper superimposing the disc 30 may be conveniently torn or cut away and the container then hung upon the wall by means of the fastening member 26. The apertures 32 in the disc provide vents through which vapors from the contained compound may readily pass. In this connection it is to be observed that by having the disc bulged outwardly, the entire front surface of the cake 16 will be exposed to the atmospheric conditions so as to permit the free vaporization thereof. Also, by having the disc formed as described so as to present a space 34 between the inner surface of said disc and the cake 16, air circulation through the apertures 32 will be greatly accelerated. In other words, if the disc were positioned immediately adjacent the front surface of the cake, practically no ventilation or passage of air would take place between the inner surface of the disc and the cake 16. The apertures 32 also provide a convenient means for apprising the user of the volume of compound within the container.

By providing a container of the type described, the chemical compound may be rigidly encased and secured against vaporization in a very convenient manner. Thus in order to enclose the cake 16 within the container it is only necessary to place the apertured disc 30 over the front face of the cake, place the transparent wrapper 18 over the rear open end of the casing 12 and then force the cake and the disc against the central position of the positioned wrapper. The marginal portions of the wrapper which extend outwardly from the rear portion of the casing after the cake and disc have been thus inserted, may be folded toward the center of the cake so as to completely encase the same within the wrapper as shown in Figure 3, or the wrapper margins may be crimped between the peripheral surface of the closure or cover 20 as shown in Figure 4. When the closure 20 is moved into position, the strip portion of the fastening member 26 may also be clamped in position between the closure and the casing. The marginal flange 22 of the closure is then crimped in any suitable manner so as to present the bead 24. From the foregoing it will be apparent that my invention contemplates the provision of a container which is of very simple, yet rigid construction and which may be economically produced. The container is also of very pleasing design and may be conveniently positioned upon the wall of a locker, closet or the like for use. By enclosing the compound within the transparent wrapping material which is impervious to moisture and air, said compound is insured against vaporization when not in use and the transparency of the wrapping material permits the front surface of the

disc 30 to be readily exposed to view. This surface may be employed to apprise the user of the contents within the container and the wrapping material provides a protective cover for said surface. The disc also provides a very effective reinforcing means to protect the wrapping material against being inadvertently removed or broken. The apertures within the disc permit the free passage of vapors into the chamber in which the container is used and the concavo-convex construction of said disc serves to greatly expedite the free vaporization of the chemical compound.

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

1. In a container of the class described, a casing open at one end, and an impervious wrapper within the casing and arranged normally to sealingly enclose a chemical compound, said wrapper being exposed at the open end of the casing so as to permit the removal of a portion thereof to provide a vent through which vapors from the contained compound may readily pass.

2. In a container of the class described, a casing open at one end, a wrapper within the casing impervious to moisture and air and arranged to sealingly enclose a chemical compound whereby to prevent vaporization thereof, said wrapper being exposed at the open end of the casing, whereby to facilitate breakage of said wrapper to prevent evaporation of the chemical sealed therein, an apertured member arranged to cover said open end and means for securing said member in said casing whereby to retain the chemical within the casing after the wrapper is removed while permitting evaporation thereof.

3. In a container of the class described, a casing open at one end, a substantially transparent wrapper within the casing impervious to moisture and air for enclosing a chemical compound, said wrapper being exposed at the open end of the casing, and a plate interposed between the inner surface of the exposed portion of the wrapper and the chemical compound, said member having a display surface and being perforated to permit the free vaporization of the chemical compound when the portion of the wrapper adjacent said plate is removed, said casing being formed to retain said plate.

4. In a container of the class described, a casing open at one end, an impervious wrapper extending within the casing and enclosing a chemical compound, said wrapper being exposed at the open end of the casing and a member adjacent the inner surface of the exposed portion of the wrapper and having portions spaced from the adjacent surface of the contained compound, said member being provided with an aperture to permit the free vaporization of the chemical com-

pound when a portion of the wrapper adjacent the aperture is removed.

5. In a container of the class described, a cylindrical casing open at one end thereof, a closure member at the other end thereof, an impervious wrapper extending within the casing and forming means to sealingly enclose a chemical compound therein, said wrapper being exposed at the open end of the casing so as to permit the removal of a portion thereof to provide a vent through which vapors from the contained compound may readily pass.

6. In a container of the class described, a casing open at one end thereof, an impervious wrapper extending within the casing, means cooperating with the wrapper to sealingly enclose a chemical compound, said wrapper being exposed at the open end of the casing, and a plate extending behind the exposed portion of the wrapper so as to provide a reinforcement therefor to retain the compound in the casing, said plate being provided with a vent through which vapors from the contained compound may readily pass when the wrapper adjacent said vent is removed.

7. In a container of the class described, a casing open at one end thereof, a wrapper within the casing impervious to moisture and air for enclosing a chemical compound, said wrapper being exposed at the open end of the casing, and a concavo-convex plate adjacent the inner surface of the exposed portion of the wrapper and constructed and arranged to provide a space at the adjacent surface of the contained compound, said concavo-convex plate provided with an aperture to permit free vaporization of the chemical compound when the portion of the wrapper adjacent the aperture is removed.

8. In a container of the class described, a cylindrical open ended casing having a marginal abutment at one end thereof, an impervious wrapper extending within the casing and enclosing a chemical compound, said wrapper being exposed at one end of the casing, a disc extending across the exposed portion of the wrapper and marginally engaging the annular abutment of the casing, said disc being apertured to provide a vent through which vapors from the contained compound may readily pass when the wrapper adjacent thereto is removed, and a closure member at the opposite end of the casing for sealing the contained compound and its wrapper within the casing.

9. In a container of the class described, a casing open at one end thereof, an impervious wrapper within the casing and arranged to sealingly enclose an evaporable chemical compound, said wrapper being exposed at the open end of the casing and a perforated plate enclosed within said wrapper and arranged across the opening of the

casing to retain the compound therein while permitting free evaporation thereof when an exposed portion of the wrapper is removed.

5 10. In a container, a cake of an evaporable substance, an impervious wrapper comprising a sheet of cellophane enclosing said cake, an open ended casing enclosing said wrapped cake, imperforate cover plate secured across one end of the casing and a perforated retaining disc arranged across the other end and behind the wrapper to retain the cake in the casing when the cellophane wrapper is ruptured.

15 11. In a container, a cake of material to be packaged, a backing plate covering the back of the cake, an impervious wrapper covering the front and embracing the sides of the cake and having parts engaging the backing plate and a casing enclosing said cake and wrapper and secured to the backing plate whereby to form a neat and compact package, said casing having an opening through which portions of the wrapper are exposed.

20 12. In a container, a cake of material to be packaged, a backing plate covering the back of the cake, an impervious wrapper covering the front and embracing the sides of the cake and having parts underlying the backing plate and a casing enclosing said cake and wrapper and secured to the backing plate whereby to form a neat and compact package, said casing having an opening through which portions of the wrapper are exposed and a perforated disc mounted in said open end of the casing to retain the cake in the casing when the exposed portions of the wrapper are removed to expose the cake.

25 13. In a container, a cake of material to be packaged, a backing plate covering the back of the cake, an impervious wrapper covering the front and embracing the sides of the cake, said wrapper having portions underlying the backing plate and a casing enclosing the front and sides of said cake and wrapper and secured to the backing plate whereby to form a neat and compact package, said casing having an opening through which portions of the wrapper are exposed and a perforated disc mounted in said opening of the casing after the exposed wrapper portions are ruptured to retain the cake in the casing, said disc being spaced from said cake to permit free access of the air to the cake behind the disc when the wrapper is removed.

30 14. In a container of the class described, a tubular casing open at one end, an impervious wrapper within the casing and arranged normally to sealingly enclose a chemical compound within the casing, said wrapper being exposed at the open end of the casing so as to permit the removal of a portion thereof to provide a vent through which vapors from the contained compound may

readily pass and a perforated plate to retain the chemical compound in the casing when said wrapper is removed.

35 15. In a container of the class described, a cylindrical casing open at one end thereof, a closure member at the other end thereof, an impervious wrapper extending within the casing and forming means to sealingly enclose a chemical compound therein, said wrapper being exposed at the open end of the casing so as to permit of the removal of a portion thereof to provide a vent through which vapors from the contained compound may readily pass, and a perforated disc mounted in said open end of the casing behind said wrapper whereby to retain the chemical in the casing after the exposed portion of the wrapper is removed, the edge of the casing at its open end being curled inwardly whereby to retain the disc in place.

40 16. As an article of manufacture and sale, a cake of a chemical capable of producing insecticidal fumes when exposed to the air, a wrapper comprising a sheet of air pervious material extending across the front face of said cake and embracing the sides thereof, a cylindrical casing embracing the sides of said wrapped cake, means for sealing one end of the casing in order to retain the cake therein, the other end of the casing being open and exposing the face of the cake which is covered by the wrapper, a perforated disc in said open end of the casing to retain the cake in the casing when the exposed portions of the wrapper are removed, said perforated disc extending behind the exposed portions of the wrapper and said casing having an inwardly curled edge at its open end, whereby to retain the disc in place after the wrapper has been removed to expose the cake, and means to support the casing from a nail or hook, said means comprising a loop frictionally held by and between the casing and the means for closing the sealed end thereof.

45 In witness whereof, I have hereunto subscribed my name.

MELVILLE KEIM.

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