

Oct. 5, 1937.

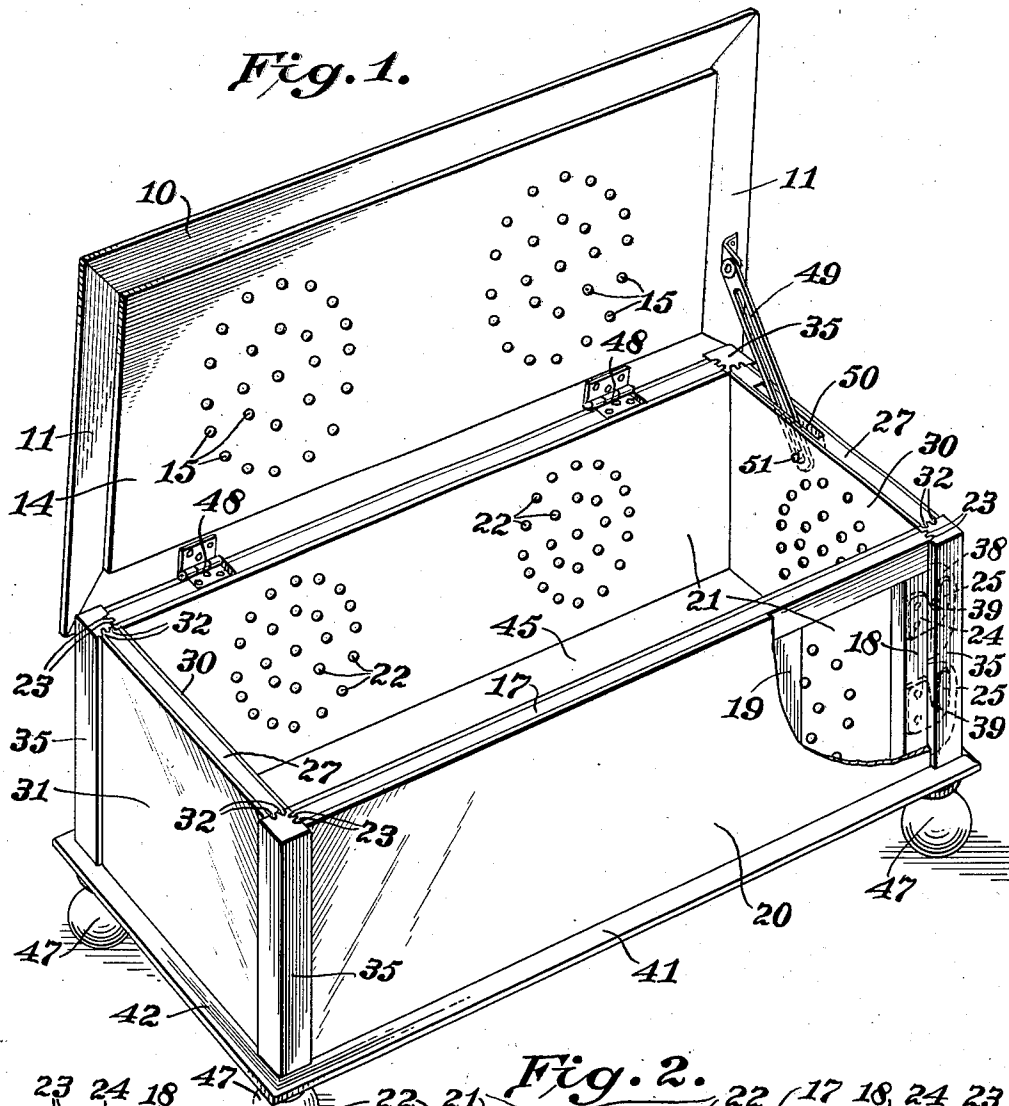
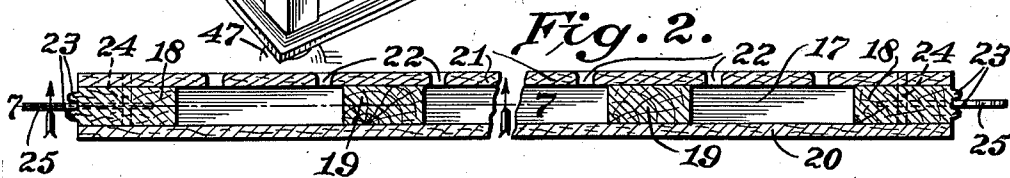
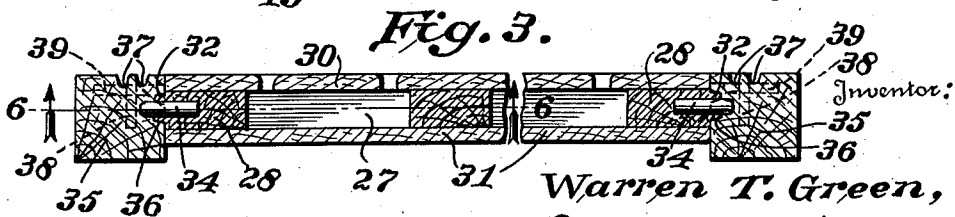
W. T. GREEN

2,094,740

STORAGE RECEPTACLE

Filed Jan. 17, 1936

2 Sheets-Sheet 1



31 Warren T. Green,
My Raymond Underwood

Attorney.

Oct. 5, 1937.

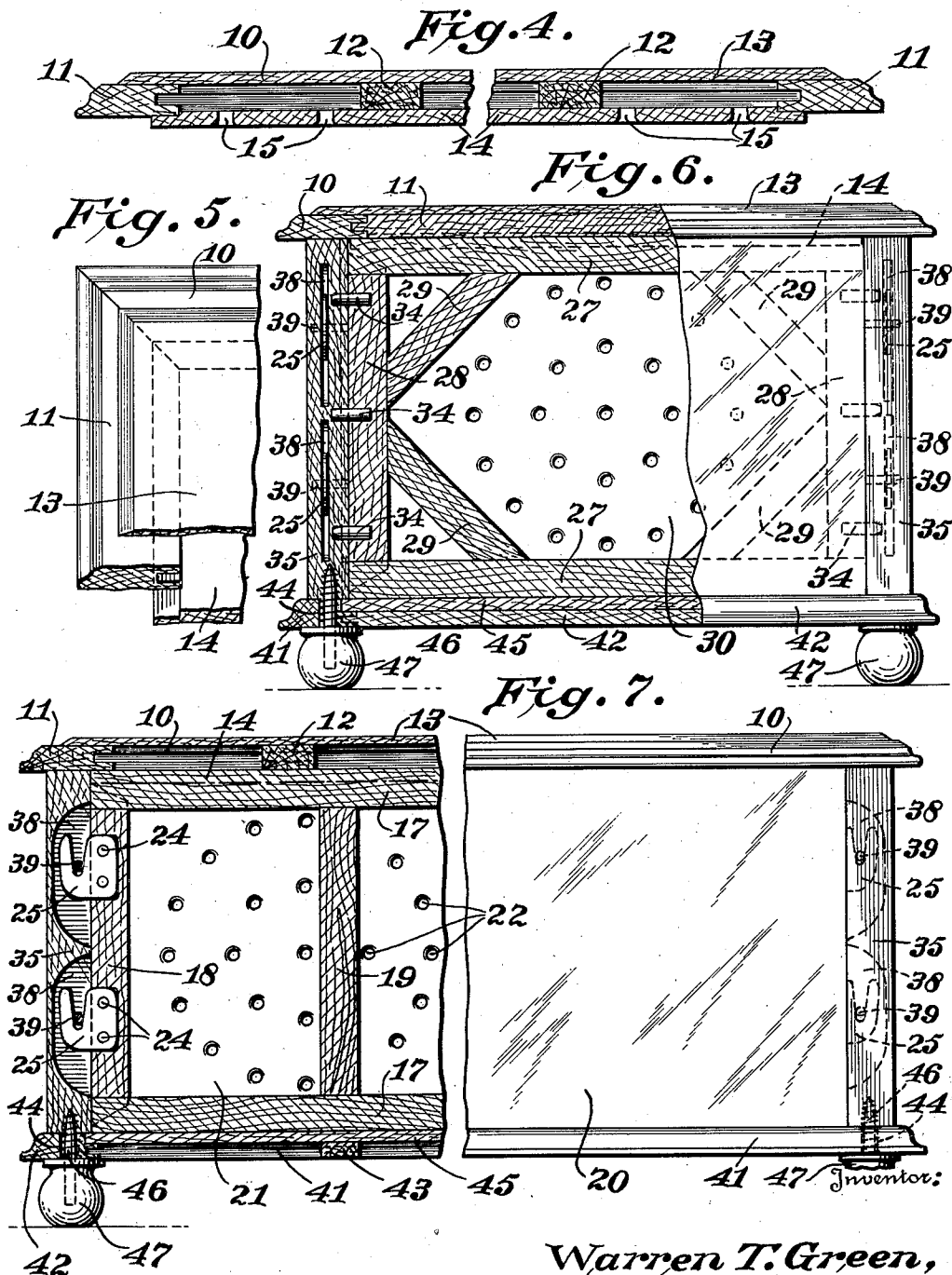
W. T. GREEN

2,094,740

STORAGE RECEPTACLE

Filed Jan. 17, 1936

2 Sheets-Sheet 2



Warren T. Green,
By Raymond Underwood

Attorney.

UNITED STATES PATENT OFFICE

2,094,740

STORAGE RECEPTACLE

Warren T. Green, Louisville, Ky., assignor to The
Mengel Company, Incorporated, Louisville, Ky.,
a corporation of New Jersey

Application January 17, 1936, Serial No. 59,637

7 Claims. (Cl. 206—10)

This invention relates to storage receptacles for clothing, blankets and the like, having insect repelling properties, and more particularly wherein there is provided a lining of cedar, or other odor expelling material such as in cedar chests, clothes closets and the like.

As ordinarily constructed, cedar chests have several inherent disadvantages. It is desirable that the maximum area of cedar be presented to the interior of the chests or closets for contact with the air so that the maximum amount of cedar oil fumes may be carried into the enclosure. The character of surface exteriorly of the chest is immaterial, but only the interior surface. Therefore, it has become customary to construct such chests of laminated wood having an exterior veneered surface of other than cedar, but provided interiorly with the cedar lining.

It is the object of this invention to obtain maximum efficiency as an insect repelling chest by spacing the cedar lining from the exterior veneer to provide an air passage therebetween and perforate the cedar lining so as to permit free circulation of air within the chest not only over the interior surface of the cedar lining, but over the back surface thereof as well. Thus, the area of cedar with which the air in the chest comes in contact is substantially doubled.

Another feature of the invention is to lighten the construction and utilize less cedar while at the same time substantially doubling its exposed surface area and thereby its efficiency for the desired purpose.

A further disadvantage in present types of cedar chests lies in their bulk and weight, which requires high transportation costs and storage expense for merchants. This disadvantage is avoided by so constructing the chests as to permit them to be shipped and stored in knockdown condition, and readily assembled when placed on sale or in use, with little or no more difficulty than is otherwise necessary in uncrating them. However, it is important in assembling the knockdown constructions that their joints be air tight. Otherwise the chests will not efficiently function.

It is, therefore, another object of the invention to provide a knockdown chest of such construction as to permit of ready assembly and provide rigid and secure connecting elements, but more important, to provide air tight seals between the separable pieces.

It may be further mentioned that as an added advantage resulting from the innerspaced surface of the cedar paneling being exposed to the air

in the receptacle, that shellacing or similar finishing of the outer surface of the paneling would be permitted.

By shellacing or similarly finishing a surface with which clothes, blankets, and the like would come in contact, such articles would be protected from contamination by the exudation of cedar gum or oil which is an objection that is sometimes experienced.

Thus any container having only the inner cedar surface exposed to the air must necessarily be in contact with the contents of the container, but in the construction resulting from this invention, where both sides of the cedar is exposed, it then becomes possible to protect the contents from direct contact with a possibly gummy surface and still be permeated with the desired odor to the same extent as in the usual cedar lined container.

The full nature of the invention will be understood from the accompanying drawings and the following description and claims:

Fig. 1 is an isometric view of the finished chest showing the general relation of parts. Fig. 2 is a longitudinal section through one of the long sides of the chest. Fig. 3 is a longitudinal section through one of the short sides. Fig. 4 is a longitudinal section through the cover. Fig. 5 is a fragmentary plan view showing a corner of the cover. Fig. 6 is an elevation partly in section, the section being taken on line 6—6 of Fig. 3. Fig. 7 is an elevation partly in section, the section being taken on line 7—7 of Fig. 2.

The sides, bottom and cover of the chest are separately formed parts, each constituting a complete built-up unit for making the assembled chest. For shipment of the chest, these unit parts are, of course, disassembled from each other so that the chest may be more compactly delivered.

Considering first the cover or closure member shown in detail in Figs. 4 and 5, this includes a frame formed by longitudinal strips 10 and transverse strips 11. These strips are connected together at the corners in any suitable manner, as by mitering, a mortice and tenon joint, or by dowels. At spaced intervals longitudinally of the cover are cleats 12 connected to the long strips 10 in any desired manner. The upper surfaces of the strips and cleats are flush, but the under surfaces of the cleats may lie slightly inwardly of the under surfaces of the outside strips, as shown in Fig. 4. To the upper surfaces of the strips and cleats is secured an outside panel 13 and since this provides an outer surface of the chest, it may

be of any desired material and finish. It should preferably be relatively thin, but may be solid lumber, or veneered plywood construction, or may be some sheet material as for example, linoleum, metal, or fibre board.

To the under surfaces of the strips and cleats forming the framework of the cover is affixed a panel inner lining 14 of cedar wood or other material containing and giving off odors repellant to moths and other insects. This preferably is of one piece but may comprise several abutting strips to aggregate the necessary area. Panel 14 has a marginal rabbet on its upper side so as to receive the frame strips 10 and 11 and permit the panel to seat slightly inwardly of the frame. This results in a stronger construction and a tighter seal at this joint.

As a feature of the invention the cedar panel 14 is perforated or apertured at a plurality of points. As here shown for purpose of illustration, these perforations are bored holes 15 arranged in any desired manner. It is only necessary that the holes extend entirely through the panel. Because of these holes, air can circulate freely on both sides of the cedar panel. The air within the chest not only comes in contact with the inner surface of the panel but by passing through the holes 15 comes in contact also with the back surface of the panel and freely circulates thereover. It will be understood that the outer panel 13 is imperforated and the saturated air between the panels 13 and 14 can therefore only circulate through and within the chest. The air between the panels 13 and 14 laden with cedar or other fumes tends to fall through the holes 15 and induce circulation. Since the space between the panels is unobstructed, this circulation may freely occur. Obviously, the concentration of cedar aroma within the chest is materially increased by this feature of the invention.

It will be clear that the formation of the covering of a framework by relatively thin panels results in a light weight construction. Although such covering is substantially as strong as a solid construction of the same thickness it is of materially lighter weight. It is important to note that not only does the hollow panel construction reduce the weight of the chest, but it also makes possible the utilization of the aroma giving quality of both sides of the cedar panel or lining which would not be possible in a solid construction.

The long and short side walls shown in Fig. 2 and Fig. 3, respectively, are formed similarly to the cover as they are likewise of hollow construction, wherein their framework is entirely overlaid by the inner and outer panels. Referring to the long side wall, its framework is formed of longitudinal strips 17, transverse strips 18, and cross cleats 19, all connected together in any desired manner. To this is secured the outer panel 20 preferably of the same material as the outer panel of the cover, and the inner cedar or other odor-giving panel 21 having perforations 22. These inner and outer panels are coextensive with the outer limits of the framework. Along the outer faces of the transverse strips 18 are formed longitudinally-disposed pairs of sealing beads or strips 23, which may be formed of wood or a yielding material, such as rubber or the like. Seated within recesses in the strips 18 and retained therein by pins 24 are hooked plates 25. These hooked plates 25 project beyond the tongues 23 and their hooked ends face upwardly as shown in Fig. 1 and Fig. 7.

The short walls of the chest, shown in Fig. 3,

include a framework of longitudinal strips 27, transverse strips 28, diagonal cleats 29, and the inner perforated cedar panel 30 and the outer imperforate panel 31. These panels are of the same size as the outer dimensions of the framework. The transverse strips 28 are formed with pairs of tongues or sealing beads 32.

Affixed to the strips 28, as by dowels 34, are the corner posts 35. Each of said posts has grooves 36 formed in the face abutting the transverse strip 28, to receive therein the pair of tongues 32. In a face of each of said posts, at right angles from the groove 36, are grooves 37 for the purpose of receiving the sealing beads or strips 23 of the long side wall. Such sealing connections form a tortuous tongue and groove engagement and provide an air tight seal. Also the tongue and groove engagement assists in preventing lateral relative displacement of the side wall members. Inwardly of the grooves 37 are formed recesses 38 to receive the hook plates 25, and across these recesses extend the pins 39 to be engaged by the hood ends of the plates 25.

The bottom may be formed similarly to the top and be of hollow construction, but as here shown it does not have a double wall. Its framework includes the longitudinal strip 41, the transverse strips 42 and the cross strips 43. The upper faces of the strips 41 and 42 are rabbeted on their inner sides and the upper faces of the cross strips are flush with the bottom surface of this rabbet. Seated in this rabbet and resting upon the cross strips 43 is the floor 45 which is preferably of cedar wood. It will be noted that the upper surfaces of the floor 45 and outer frame strips are flush. At the corners of the framework are bored holes 44 to register with the center of corner posts 35.

The assembly of the chest from these several units is a simple operation. The long side walls are vertically positioned in approximately their correct inverted positions. The inverted short side walls are then brought against the ends of the long sides, making sure that the hooked plates 25 enter the recesses 38 above the pins 39. Downward pressure upon the side walls forces the hooked plates 25 and pins 39 downwardly into interlocking relation. The bottom is then positioned over the walls, and lag screws 46 carried by the feet 47 are then inserted through the holes 44 and screwed down into the corner posts. As a result, the feet and corner posts are held against the bottom, and through the corner posts the several walls and bottom are rigidly held in interlocked position. It will be seen that when righted, each pin 39 provides a downwardly facing shoulder which engages the upwardly facing surface or shoulder provided by the cooperating hooked plate 25, and that as a result the long side member is carried downwardly against the bottom with the short side members. The short end walls are held upon the bottom directly by the lag screws and the long side walls are held upon the bottom through the action of their hooked plates. Furthermore, because of the curved shape of the hooked plate ends, the corner posts and long sides are drawn firmly together. If desired, screws (not shown) may be inserted through the strips 41 and 42 of the bottom frame into the strips 17 and 27 of the side walls to additionally hold the parts together, but this is not essential.

The cover is attached to the chest in ordinary manner by hinges 48. If desired, the leaves of the hinges may be separately affixed to the cover

and to the long side wall at the time these units are manufactured and the pintles may be inserted in place to form the hinge and connect the cover to the chest at the place of assembly. To limit open movement of the cover a pivoted quadrant 49 may be secured thereto in registry with the short side wall. This quadrant 49 may enter the hollow space between panels 30 and 31 through an opening 50 formed in the upper strip 27. A pin 51 carried by the strip 27 and entering the slot in the quadrant arrests open movement of the cover. It should be noted that when the cover is closed, the quadrant freely enters the hollow space of the side wall and cannot bind or injure delicate fabrics stored in the cabinet, or accumulate an objectionable coating of cedar oil.

The particular manner in which the elements of each complete unit are held together is unimportant as it forms no part of the invention. That is, the parts of each framework and the panels, may be secured together by glue, nails, screws, dowels, either alone or in combination. In whatever manner the elements of each unit are held together, it is important to note that the interlock between the several units to form the assembled chest, is entirely concealed. The outward appearance of the chest is, therefore, not marred.

To insure a tight connection at the several joints between the units of the chest, felt, rubber or metallic packing may be employed. This may be desirable at the meeting surfaces between the several side walls and the bottom. In addition, such packing may be affixed between the cover and side walls in any suitable manner.

The invention claimed is:

1. A storage receptacle comprising spaced panel walls, the outer panels of said walls being imperforated and the inner panels of said walls being of odor expelling material and perforated, said perforations being arranged to permit air within the interior of the receptacle to circulate over both the inner exposed and back surfaces of the odor expelling panels.

2. A storage receptacle comprising an outer imperforate wall and an inner wall, a frame for supporting said walls in spaced relation whereby a substantial air space will be provided therebetween, and a plurality of openings formed in the inner wall so arranged as to permit air within the receptacle to pass freely over both the inner exposed and back surfaces thereof, said inner wall being formed of odor expelling material whereby the air of the receptacle will be permeated with odor taken from the full surface area of the inner wall.

3. A storage receptacle comprising an imperfo-

rate outer wall and an inner wall spaced therefrom, said inner wall being of an odor expelling material provided with a plurality of openings to permit free circulation of air between said walls for carrying such odor into said receptacle from both the inner exposed and back surfaces thereof.

4. A storage receptacle wall comprising an imperforate outer panel for forming part of the outside of a storage receptacle, an inner panel of odor expelling material spaced therefrom for forming part of the inner wall of a storage receptacle, means for spacing the inner panel from said imperforate outer panel to provide a hollow space between the panels for permitting free circulation of air therebetween, the interior of said receptacle being in communication with the hollow space between said panels so that air may circulate over the inner exposed and back surfaces of the inner panel and conveyed into said receptacle.

5. A storage receptacle wall comprising an interior framework, and exterior panels affixed to opposite sides thereof and spaced apart thereby, the framework forming a seal with the margins of the panels, one of said panels being imperforated to form part of the outside of a storage receptacle, the other panel being of an odor expelling material and perforated to form part of the inner wall thereof, said perforations constituting the sole communication to the hollow space between the panels for permitting air to circulate over the inner exposed and back surfaces of the odorous panel and be conveyed into said receptacle.

6. A unit wall for a storage receptacle comprising a framework, exterior panels affixed to opposite sides thereof and spaced apart thereby, one of said panels being imperforated to form part of the outside of a storage receptacle, the other panel being of odor expelling material and perforated, said perforations and the hollow space between the panels permitting air to circulate and contact both surfaces of the odorous panel for conveying odor into said receptacle.

7. A cedar chest comprising imperforate exterior wall panels of a substantially odorless wood, inner wall panels of odor-expelling cedar wood provided with air passages therethrough, and means for securing said exterior and inner panels together in spaced relation to provide rigid wall sections with both surfaces of said inner panels exposed to air circulation, whereby cedar fumes from both surfaces of the spaced cedar panels may circulate between said exterior and inner panels and pass through the openings in the latter to the interior of the chest.

WARREN T. GREEN.