G. A. N. COPPEDGE.

DRY CLOSET.

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1,067,097.

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Fig. 1.

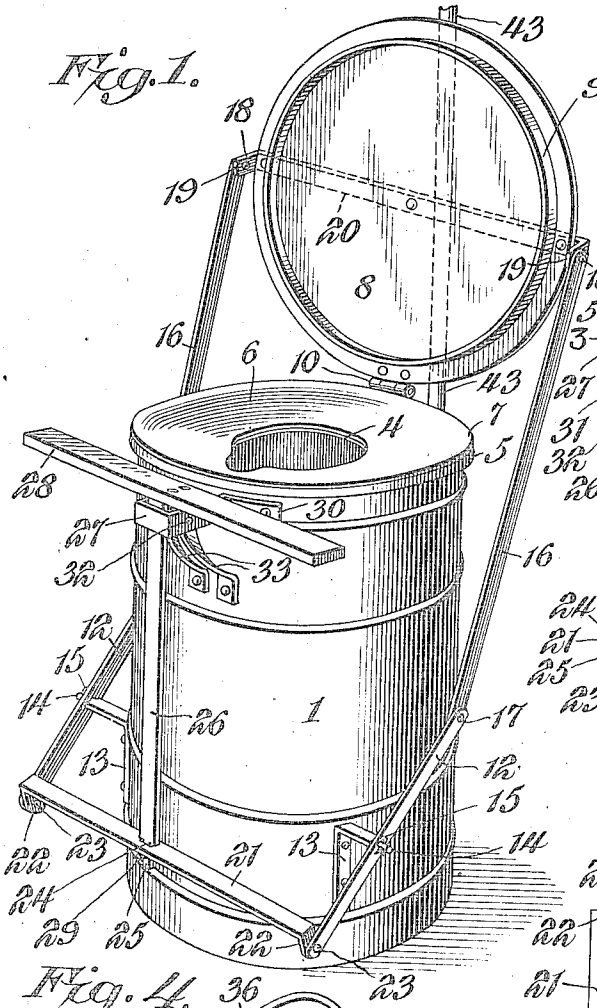


Fig. 2.

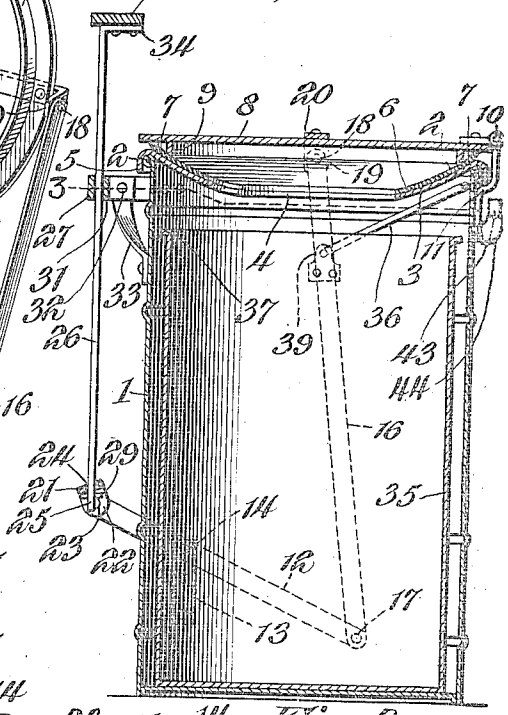


Fig. 4.

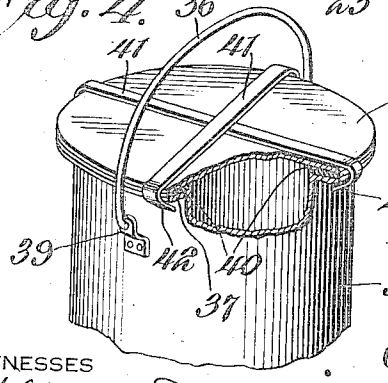
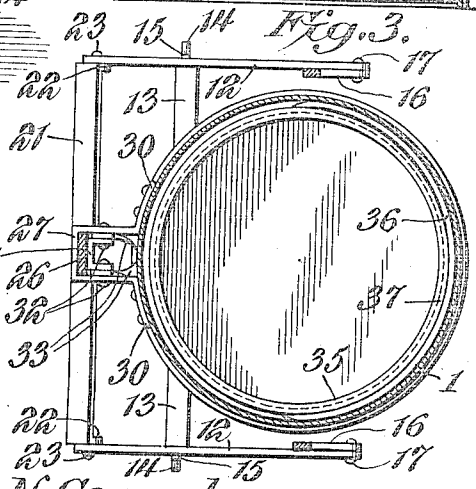


Fig. 3.



WITNESSES

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DRY CLOSET.

1,067,097. Specification of Letters Patent. Patented July 8, 1913.

Application filed September 20, 1912. Serial No. 721,499.

To all whom it may concern:

Be it known that I, GEORGE ALVAH N. COPPEDGE, a citizen of the United States, residing at Henderson, in the county of Vance and State of North Carolina, have invented a new and useful Dry Closet, of which the following is a specification.

The invention relates to improvements in dry closets.

The object of the present invention is to improve the construction of dry closets, and to provide a simple, inexpensive and efficient dry closet equipped with a lid maintained in an open position by the pressure of a person occupying the seat, and capable of automatically closing when relieved of such pressure, and adapted when closed to effect a tight joint to exclude flies and other insects and prevent the escape of odors into the room or apartment in which the closet is placed.

Another object of the invention is to provide a dry closet of this character from which the contents may be easily removed in a perfectly odorless condition.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a perspective view of a dry closet, constructed in accordance with this invention and shown open. Fig. 2 is a central vertical sectional view of the same, the lid being closed. Fig. 3 is a horizontal sectional view on the line 3—3 of Fig. 2. Fig. 4 is a detail perspective view of the removable inner receptacle.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

In the accompanying drawing in which is illustrated the preferred embodiment of the invention, 1 designates an outer cylindrical casing preferably constructed of galvanized sheet iron or other suitable metal, but the receptacle may be made of any suitable material. The upper edge 2 of the cylindrical receptacle 1 is preferably provided with a bead reinforced or stiffened with wire in the usual manner. The receptacle is equipped at the top with a seat 3 preferably constructed of sheet metal, or other suitable material and provided with a seat opening 4 of the usual configuration and having a depending marginal flange 5, which is fitted over the upper edge of the cylindrical receptacle. The seat, which is preferably dished as shown, presents a downwardly and inwardly inclined concave upper face and is provided thereat with a pad or cushion 6, consisting of a ring and having an opening conforming to the configuration of the seat opening, as clearly illustrated in Fig. 1 of the drawing. The pad or cushion, which is designed to be constructed of soft rubber, felt, or other yieldable material, is cemented or otherwise secured to the upper face of the seat, and its outer peripheral portion 7 is free and is curved or curled upward slightly so as to fit against the lower face or underside of a hinged lid or cover 8 beyond a depending annular flange 9 thereof. The lid or cover is connected at the back with the casing 1 by a hinge 10 having a leaf or hinge element 11 secured to the outer face of the casing 1 at the back thereof below the flange of the seat and bent outwardly to clear the same and extended upwardly above the plane of the seat, as clearly shown in Fig. 2 of the drawing. The lid or cover is also designed to be constructed of sheet metal, or other suitable material, and the depending annular flange, which is of less diameter than the seat, is adapted to fit against the pad or cushion 6 at a point between the inner and outer edges thereof, and it provides a tight joint or connection between the lid and the seat when the closet is closed. By curving or curling the free peripheral edge of the pad or cushion 6 upwardly beyond the flange, the said pad or cushion in which the flange is partially embedded when the lid or cover is closed, is adapted to fit against the lid or cover and coöperate with the depending flange 9 in preventing the escape of odors.

No claim is made in the present application to the specific construction of the seat, the lid or cover and the pad or cushion.

The lid or cover, when open, is arranged in a slightly inclined position and extends upwardly and forwardly from the back of the receptacle and is adapted to close automatically when free to move. The lid or cover, which is opened by hand, is main-

tained in an open position by mechanism arranged to receive pressure from the person occupying the seat. This mechanism comprises in its construction a pair of side levers 12 constructed of suitable metal and fulcrumed at an intermediate point on brackets 13, which are secured to the lower portion of the receptacle 1 at opposite sides thereof. The brackets 13, which are preferably L-shaped as shown, are constructed of suitable metal and consist of vertical portions and horizontal portions extending outwardly from the vertical portions at the tops thereof. The vertical portions are riveted to the outer face of the receptacle 1 in advance of the central transverse plane thereof, and the outwardly extending portions of the brackets have reduced terminals 14 constituting pivots for the levers 12 and extending through perforations thereof, the levers being secured on the pivot portions of the brackets by cotter pin 15, or other suitable fastening means. The rear arms of the side levers are connected with the hinged lid or cover by a pair of straight links 16, pivoted at their lower ends to the rear ends of the side levers 12 by rivets 17, or other suitable fastening means, and also connected at their upper ends by suitable pivots 18 with ears 19 of an upper transverse connecting bar 20, riveted or otherwise secured to the upper or outer face of the lid or cover and projecting laterally from opposite sides thereof. The terminals of the upper transverse connecting bar are bent at right angles to form the ears 19, which extend downwardly when the lid or cover is in its closed position. When the lid is opened it carries with it the side links 18, which swing the rear arms of the side levers upwardly during such opening movement. The front arms of the side levers are swung downwardly by the opening movement of the lid or cover, and they are connected by a lower transverse bar 21 having its terminals bent downwardly at right angles to form ears 22, which are pivoted to the front ends of the side levers by rivets 23, or other suitable fastening devices. The lower connecting bar is of the same length and is similar in construction to the upper connecting bar, and it is provided with a central opening 24 through which extends a reduced lower end 25 of a substantially vertical bar 26 slidable downwardly and upwardly through a guide 27 and carrying a horizontal leg receiving bar 28 at its upper end. The reduction of the lower end of the bar 26 forms shoulders for engaging the upper face of the lower connecting bar 21, and the reduced lower terminal of the bar 26 is secured in the central perforations 24 of the bar 21 by a cotter pin 29, or other suitable fastening means.

The guide 27, which is constructed of suitable metal, consists of an approximately rectangular loop composed of spaced sides and a connecting upper portion, the terminals of the metal being extended laterally in opposite directions at the inner ends of the said sides to form attaching portions 30. The sides are connected at an intermediate point by a cross piece 31, arranged in spaced relation with the connecting transverse portion of the loop and secured to the sides thereof by rivets 32, or other suitable fastening devices, which also secure the upper ends of inclined braces 33 to the sides of the loop. The braces, which are constructed of suitable metal, are bent or twisted to arrange their terminals in planes at right angles to each other and the upper ends of the braces are interposed between the sides of the loop of the guide and the terminals of the cross piece 31. The lower terminals of the braces are riveted or otherwise secured to the outer face of the casing 1 at the front thereof.

The substantially vertical bar, which is slidable through the guide opening or space between the outer transverse portion of the loop and the cross piece 31, has its upper end bent rearwardly at right angles to form an attaching portion 34 to which the horizontal bar 28 is centrally secured by rivets or other suitable fastening devices. The bar 28 extends laterally from the upper end of the slidable bar 16 and is located in an elevated position above the casing 1 when the lid or cover is closed, as illustrated in Fig. 2 of the drawing, and the opening movement of the lid or cover lowers the horizontal bar 28 to the guide. In this position the horizontal bar is located substantially in the plane of the upper edge of the casing 1 and is adapted to extend beneath the legs of the occupant, whereby it will be subjected to pressure for maintaining the lid or cover in its open position. The horizontal guide forms a support for the leg receiving bar and limits the downward movement thereof and the consequent opening movement of the lid or cover, which is thereby maintained at a forward inclination when in its open position to cause a positive automatic closing of the lid or cover when pressure is removed from the leg receiving bar. The feet may also be placed on the lower transverse connecting bar 21, and the pressure exerted thereon will also operate to prevent the lid or cover from closing. As soon as the mechanism connected with the lid or cover is relieved of pressure, the lid or cover will close automatically through the action of gravity.

The casing 1 is equipped with an inner removable receptacle 35 of greater diameter than the seat opening 4 and extending from the bottom of the casing to within a short distance of the seat. The receptacle has a bail 36 and is provided at its upper edge with an outwardly extending horizontal annular flange 37, adapted to support a re-

movable lid or cover 38. The bail is connected at its ends to ears 39 secured to the outer face of the inner receptacle at opposite sides thereof, and the bail lies below the seat in convenient position to be readily grasped when it is desired to remove the receptacle from the casing.

The lid or cover 38, which preferably consists of a flat disk, is provided at its lower face with a yieldable gasket 40, cemented or otherwise secured to the lower face of the lid or cover 38 and carried by the same and adapted to fit against the upper face of the horizontal flange 37 to form an air tight joint and prevent the escape of odors when the receptacle is removed from the casing 1. In removing the receptacle, the hinged lid or cover is raised and the seat is removed. The lid or cover 38 of the receptacle 35 is tightly secured on the flange 37 by a pair of clamping bars 41, constructed of suitable metal and arranged at right angles to each other and provided with downwardly and inwardly extending inclined terminal engaging portions 42. The terminal engaging portions 42 form tapered spaces between them and the body portions of the clamping bars and, when the latter are engaged with the cover 38 and the flange 37, the yieldable gasket 40 is compressed. In placing the clamping bars in position, the latter are moved edgewise in a horizontal direction to engage its terminals with the opposite edges of the lid or cover 38 and the annular flange 37.

The dry closet may be used in any room or apartment and it is provided at the back with a ventilating pipe 43 having an elbow 44 at its lower end connected with the casing 1 at the back thereof and at a point between the hinge of the lid and the flange of the inner removable receptacle, so that the latter will not interfere with the operation of the ventilating pipe. The ventilating pipe, which operates in the usual manner to carry away the odors from the dry closet, is designed to extend through the roof, or any other point exteriorly of the room or apartment in which the dry closet is placed. When the lid or cover is closed flies and other insects are effectually excluded from the interior of the casing, and the tendency of the ventilating pipe to create a draft will draw off all odors, so that the latter will not escape into the room or apartment even should the lid or cover not make an absolutely air tight joint or connection.

What is claimed is:—

1. A dry closet including a portable casing having a seat, an automatically closable lid hinged to the casing, a pair of levers fulcrumed intermediate of their ends at opposite sides of the lower portion of the casing to form front and rear arms and carried by the said casing, links located at opposite sides of the casing and pivoted to the rear arms of the said levers and extending upwardly therefrom to the lid and pivoted directly to the latter at opposite sides thereof, a depressible leg receiving bar arranged in substantially the plane of the seat when the lid is raised, and means also carried by the said casing for connecting the leg receiving bar with the front arms of the said levers.

2. A dry closet including a casing having a seat, an automatically closable lid hinged to the casing, a pair of levers fulcrumed intermediate of their ends at opposite sides of the casing to form front and rear arms, links extending upwardly from the rear arms of the levers and pivoted to the lid at opposite sides thereof, a centrally arranged approximately vertical bar slidably mounted on the casing at the front thereof, a lower cross bar centrally secured to the lower end of the vertical bar and pivotally connected at their terminals to the front arms of the said levers, and a depressible leg receiving bar centrally connected to the upper end of the bar and projecting laterally therefrom in substantially the plane of the seat when the lid is raised.

3. A dry closet including a portable casing having a seat, an automatically closable lid hinged to the casing, brackets mounted on the casing at opposite sides of the lower portion thereof, a pair of levers fulcrumed intermediate of their ends to the said brackets, links extending upwardly from the rear ends of the levers and pivoted to the lid at opposite sides thereof, a central guide secured to the casing and projecting outwardly therefrom at the upper portion thereof, a vertical bar slidable through the guide, a depressible leg receiving bar centrally connected to the upper end of the vertical bar and extending laterally from opposite sides thereof and arranged in substantially the plane of the seat when the lid is raised, and a lower cross bar secured at an intermediate point to the lower end of the vertical bar and having its terminals connected to the front ends of the said levers.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GEORGE ALVAH N. COPPEDGE.

Witnesses:

JOHN H. SIGGERS,

W. ALVIN JACOBS.