Jan. 11, 1949. C. E. MILLER 2,458,868

DISPOSAL RECEPTACLE

Filed Dec. 9, 1944 2 Sheets-Sheet 1

FIG. 1.

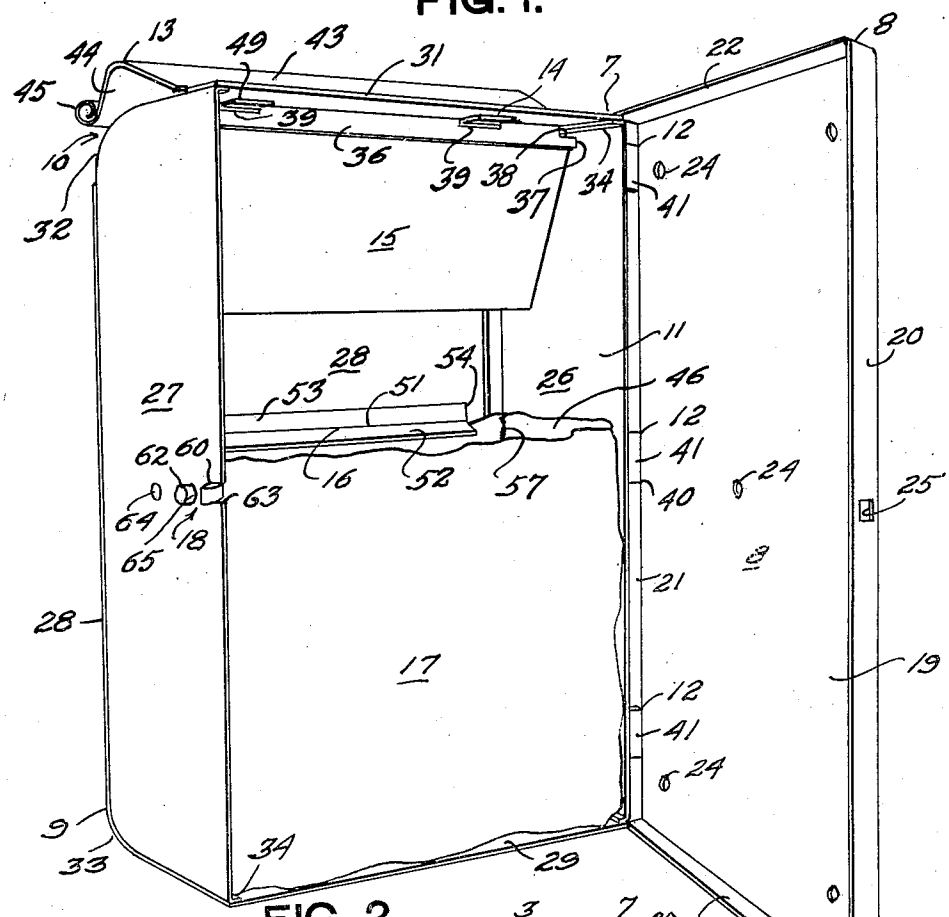
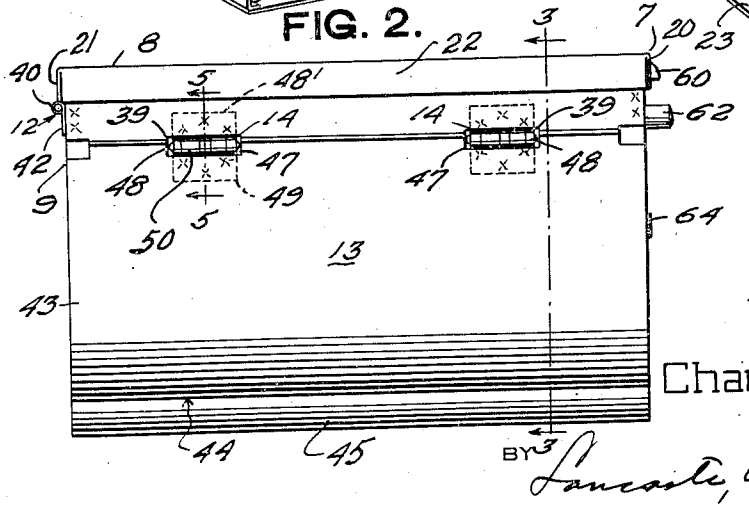


FIG. 2.



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FIG. 5.

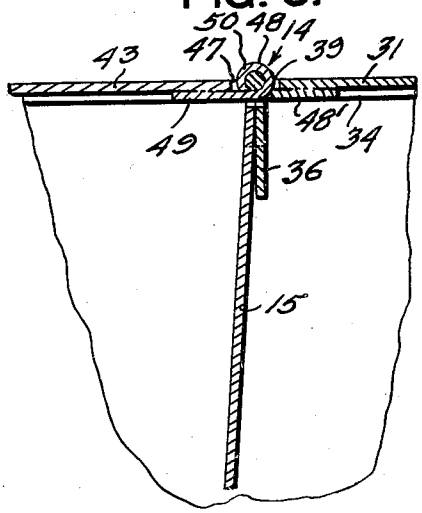


FIG. 3.

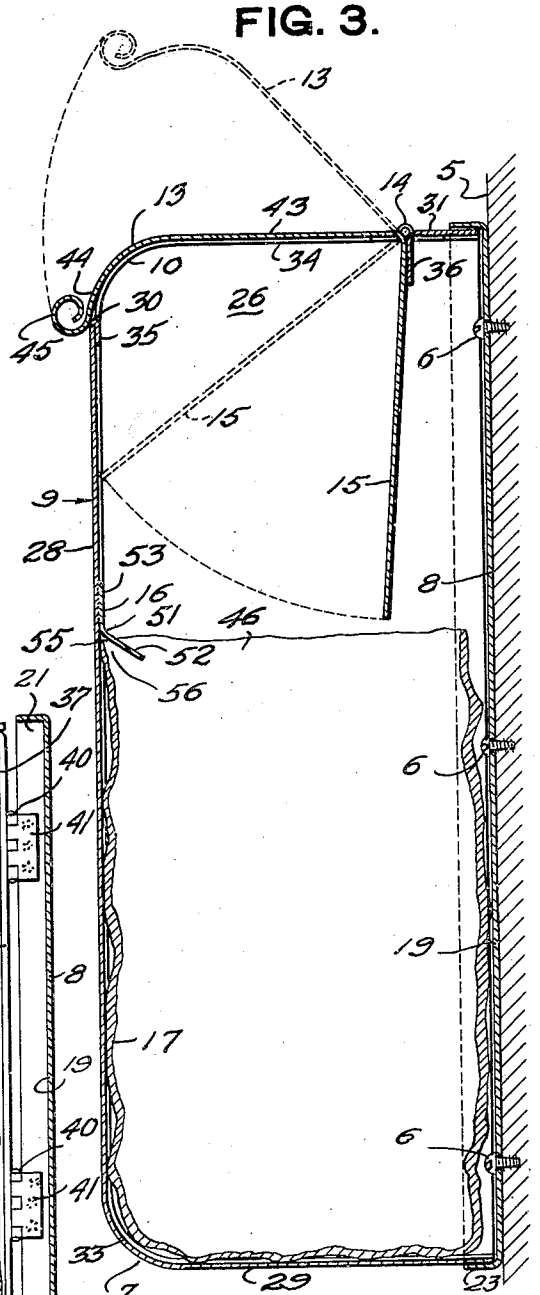
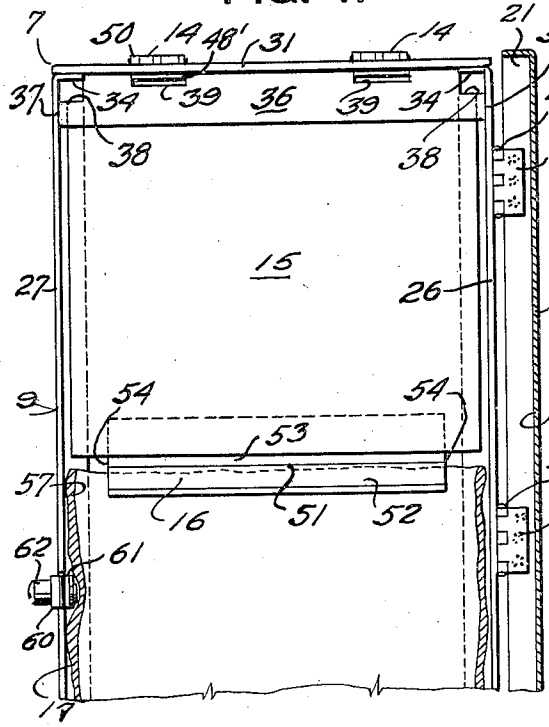


FIG. 4.



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UNITED STATES PATENT OFFICE

2,458,868

DISPOSAL RECEPTACLE

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Application December 9, 1944, Serial No. 567,391

2 Claims. (Cl. 220—18)

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The present invention relates to disposal receptacles particularly well adapted, altho not necessarily limited, for use in ladies' rest rooms, such as those in airports, stations, hotels, clubs, etc., for the disposal of used sanitary napkins.

The principal objects of the invention are to provide disposal receptacles which are neat in appearance; easily opened by users thereof for receiving waste material, as by engaging the lips of the lids thereof with the back of the hand or the elbow of the user, if the hand is holding some object such as a purse or package; easily charged with disposable liners or inner receptacles, such as bags; easily freed of waste material by attendants; and which may also act as carriers for deodorizers in rest rooms.

Another object is to provide disposal receptacles which may be made mainly of sheet metal stampings and embodying but few parts, so that they may be produced at a low cost consistent with sturdiness.

A further object is to provide disposal receptacles which the most fastidious ladies can use without objectionable view or ordor, by a novel arrangement of major and minor slides for guiding the waste material to the liners or inner receptacle.

Other objects and advantages of the invention will appear in the following detailed description of the preferred embodiment of the invention, taken in connection with the accompanying drawings forming a part of this specification and in which drawings—

Fig. 1 is a perspective view of the receptacle open for access to the liner or inner receptacle and with the lid of the entrance opening slightly lifted to disclose characteristics of the parts.

Fig. 2 is a top plan view of the receptacle in closed condition.

Fig. 3 is a verticle sectional view on the line 3—3 of Fig. 2, but showing the receptacle attached to a wall.

Fig. 4 is a fragmentary view, partly in rear elevation and partly in vertical section thru the wall plate or bracket, and showing the liner or inner receptacle, to disclose details.

Fig. 5 is an enlarged sectional view on the line 5—5 of Fig. 2.

In the drawing, Fig. 3, a wall 5 is shown to which is attached, as by screws 6, a disposal receptacle 7, constructed according to the preferred embodiment of the invention.

The disposal receptacle comprises a wall plate or bracket 8; a front casing member 9 provided with a receiving opening 10 at its upper portion

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and an access opening 11 at its rear portion; means 12 pivotally connecting the front casing member to the wall plate or bracket; a lid 13 for opening 11; means 14 for pivotally connecting the lid to the casing member 9; a combined major slide and baffle plate 15 actuated by movement of lid 13; a minor slide plate 16 below the open- 10; and an open top receptacle 17 in the front casing member, below the opening 10 and slide plate 16. There may be provided any suitable latch or lock 18 for retaining the front casing member 9 with its rear access opening 11 closed against the wall or wall plate 8.

It is preferred to make the wall plate or bracket 8 of sheet metal comprising a body portion 19, with vertical flanges 20 and 21, top flange 22 and bottom flange 23. The body portion 19 may have perforations 24 suitably located for receiving the shanks of screws 6. In the example shown, the flange 20 is provided with a hasp opening 25 cooperating with the latch or lock 18.

With reference to the front casing member 9, it is also preferably made of sheet metal and comprises opposite side walls 26 and 27; a front wall 28 and a bottom shelf-like wall 29 secured to the side walls and preferably made of a continuous piece of sheet metal, the upper margin 30 of the front wall preferably terminating short of the plane of the upper margins of side walls 26 and 27 to define the lower margin of receiving opening 10; and a relatively narrow top wall 31 secured to the side walls 26 and 27 to the rear thereof. By way of example, the side walls 26 and 27 may each have its front top and bottom corners rounded as at 32 and 33, so as to present no pointed corners and each of the side walls may be provided with an inwardly extending flange 34 which continues along its bottom, front and top margins. It is to these flanges 34 that the front and bottom walls 28 and 29, respectively, are secured, in the example shown, preferably by welding. The upper portion of the front wall may have a return bend 35 so as to not present a sharp edge at the receiving opening 10. The top wall 31 is preferably provided with a depending flange 36 at its forward edge the ends 37 of which engage the inner faces of the side walls 26 and 27 to brace the structure, the flange 36 having cut-away portions 38 to accommodate the flanges 34 of the side walls. This flange 36 may also act as an abutment for the major slide plate and baffle 15 as hereinafter noted. In the example shown the top wall 31 and flange 36 have spaced cut-away portions 39 for accommodating parts of the means 14.

Any suitable means 12 may be provided for pivotally connecting the front casing member 9 to the wall plate or bracket 8. In the example shown I prefer to pivotally connect these members so that the front casing member 9 swings about a vertical axis, whereby, in one position the rear access opening 11 will be closed by the wall plate 8 or by the wall 5 by having its plane parallel to the plane of the wall plate or bracket, or may be swung from such position, as shown in Fig. 1 to a position where the interior of the front casing member 9 is exposed at the access opening 11, thus permitting the receptacle 17 to be slid over the bottom wall 29 and dropped into a suitable collection receptacle not shown in the drawing. The means 12 preferably comprises a plurality of hinges 40, one leaf 41 of each being secured to the flange 21 of the wall plate 8, and the other leaf 42, to the outer face of side wall 26.

For the purpose of reducing the cost of manufacture, it is preferred to make the lid 13 and the major slide plate 15 of one piece of sheet metal, bent to provide a major lid portion 43, in angular relation to the slide plate 15, extending from the top wall 31 over the receiving opening 10, a minor lid portion 44 extending over the front of opening 10; and an outwardly rolled portion 45 extending crosswise of the minor lid portion 44, as shown in Figs. 1, 2 and 3. The combined slide and baffle plate 15 extends downwardly from the major lid portion 43 toward the open top or mouth 46 of receptacle 17, when the lid is closed, but is swung toward the front wall 28 when the lid is opened as shown by dotted lines in Fig. 3, where it acts as a baffle. At and adjacent the juncture of the plate 15 and portion 43 of the lid there is preferably provided spaced cut-away portions 47 aligning with the cut-away portions 39 of the top wall 31 and flange 36 for accommodating parts of means 14.

Such means may comprise a plurality of hinges 48, one leaf 48' of each hinge being secured to the underside of top wall 31, the other leaf 49 secured to the underside of the major portion 43 of the lid and the hinge barrel 50 and parts of the leaves accommodated in the cut-away portions 39 and 47.

It will be noted that this makes a very neat and sturdy construction, and that the flange 36 not only acts as a brace but also serves as an abutment for the combined slide and baffle plate, so that if the latter is made of light gauge metal and is bent at its juncture with the major lid portion 43 by an abnormal force applied in opening the lid, the presence of the flange 36 tends to return the plate 15 to a normal position when the lid is again closed.

The minor slide plate 16 provides a simple yet efficient means for guiding the material deposited on the plate 15 and sliding downwardly thereon, into the receptacle 17, and also permitting the use of inexpensive disposable paper bags as receptacles for the waste material, with the assurance that such material will not find its way between the receptacle and front wall 28. This slide plate 16 may be made of an horizontally disposed elongate strip of metal, bent longitudinally along the line 51 to provide a slide portion proper 52 and an attaching flange 53 in acute angular relation to one another. The flange 53 may be secured to the inner face of front wall 28, as by welding. The ends 54 of the plate 16 terminate short of the end walls 26 and 27 as shown in Figs. 1 and 4, thus permitting the receptacle 17 to be located with the forward margin 55 of the receptacle mouth 46 well up in the downwardly opening groove 56 formed by the slide proper 52 and the front wall 28 as shown in Fig. 3, and also permitting the corner portions 57 of the receptacle to fit closely the juncture between the front and side walls of the front casing member 9 without being distorted.

The receptacle 17 is preferably made of paper, cardboard or other inexpensive material, capable of absorbing a volatile deodorant. Thus it may serve a dual purpose—to receive the refuse material and act as a deodorant carrier for use in rest rooms thereby avoiding the necessity of providing separate deodorant devices.

The latch or lock 18 may be of any suitable type. In the example shown it comprises a detent 60, a leaf spring 61 and a plunger or finger piece 62. The detent works in a notch 63 at the rear edge of side wall 27 and is mounted on one end of the spring 61. The other end of the spring is secured to the inner face of wall 27 by a rivet 64. The plunger 62 is secured to an intermediate portion of the spring and extends thru an opening 65 in the side wall 27. Thus, when the front casing member 9 is swung to a closed position, the detent 60 is accommodated in the hasp opening 25.

The manner of conditioning the disposal receptacle for use, the use thereof by patrons of the rest rooms and the servicing by attendants is perhaps self evident from the foregoing description. However, it is pointed out that the attendant will experience no difficulty in charging the device with a receptacle 17, since it may be easily placed, resting on the bottom wall 29, with the forward marginal portion of the receptacle hooked beneath the slide 16. The user of the receptacle may lift the lid 13 by her fingers engaging the rolled portion 45, or the back of the hand or elbow may be used to lift the lid if the hand is holding some object as a purse or package. The attendant will find it convenient to replace a used receptacle 17 by first swinging the front casing portion to an open position as shown in Fig. 1, fold the upper portion of the receptacle inwardly, and slide the receptacle off the bottom wall 29 where it may drop into a portable or wheeled collection receptacle. This being accomplished, an unused receptacle 17 may be placed in operative relation to the slides 15 and 16.

While I have herein disclosed the preferred embodiment of the invention in detail it is to be understood that changes in details or arrangements of parts may be resorted to without departing from the spirit of the invention as defined in the following claims.

I claim:

1. In a device of the characted described, the combination of a wall plate, a front casing member comprising opposite side walls, a bottom wall, a front wall, and a relatively narrow top wall secured to the upper rear portions of said side walls, said side, front and top walls defining a receiving opening at the upper portion of the front casing member, and said side, bottom and top walls defining a rear access opening, and said top wall provided with a depending flange at said receiving opening and engaging the inner faces of said side walls, means pivotally connecting said front casing member to said wall plate whereby the former may be located with its rear access opening in a plane parallel to said wall plate, or swung to a position exposing the interior of the front casing, a lid for said receiving open-

ing pivotally carried by said top wall, and a slide plate rigid with the lid at the rear portion thereof next adjacent said flange and extending downwardly toward the bottom of the front casing, said slide plate constructed and arranged to engage the inner face of said front wall when the lid is open.

2. A disposal receptacle comprising a housing open at its back and having a front wall, side walls, a bottom, and a top, the top being formed with an insert opening having its front portion extending downwardly into the front wall, a rear closure wall for the housing hinged at one side edge to one of said side walls of the housing and constructed and arranged to be secured against a support and mount the housing for swinging movement away from the rear wall from a closed position to an open position, means for releasably holding the housing in its closed position, a cover for the insert opening resting upon the top when closed and having its forward portion extending downwardly and formed with a handhold projecting outwardly from the front wall along the front edge of the said insert opening, a slide plate extending downwardly across the rear edge of said cover into the housing, hinges having leaves secured to the top wall and other leaves secured to the rear end of the cover, a bracing plate extending between side walls of the housing and limiting rearward movement of the side plate, said cover having upward swinging movement to an open position and the slide plate

moving upwardly with the cover and limiting such upward movement by engagement of its free end with the front wall of the housing, a deflector plate mounted across the inner surface of the front wall and extending downwardly at an incline away from the front wall and having its ends spaced from the side walls, and a bag placed in the housing through the open rear thereof and resting upon the bottom of the housing, said bag being open at its top and terminating below the lower end of the slide plate and having the forward position of its upper edge overlapped by the inclined portion of the deflecting plate.

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Certificate of Correction

Patent No. 2,458,868. January 11, 1949.

CHARLES E. MILLER

It is hereby certified that errors appear in the printed specification of the above numbered patent requiring correction as follows:

Column 2, line 7, for the word and hyphen "open-" read *opening*; column 4, line 59, claim 1, for "characted" read *character*; column 5, line 30, claim 2, for "side" read *slide*; column 6, lines 13 and 14, same claim, for "deflecting" read *deflector*;

and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 14th day of June, A. D. 1949.

[SEAL]

THOMAS F. MURPHY,
Assistant Commissioner of Patents.