July 30, 1963 R. R. DYLLA 3,099,390

REFUSE RECEPTACLE

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FIG. 1

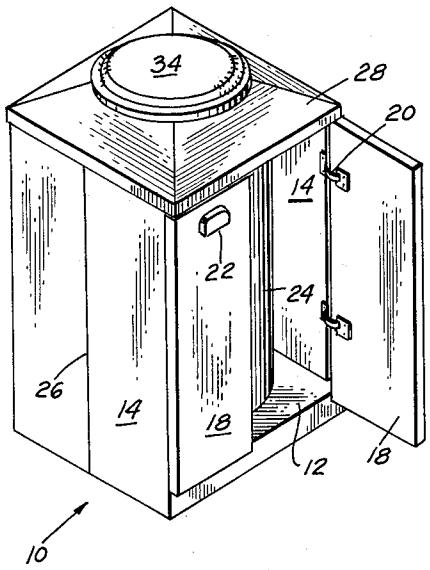


FIG. 2

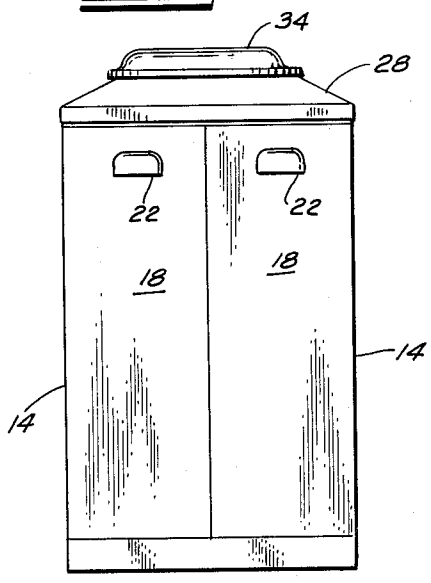


FIG. 4

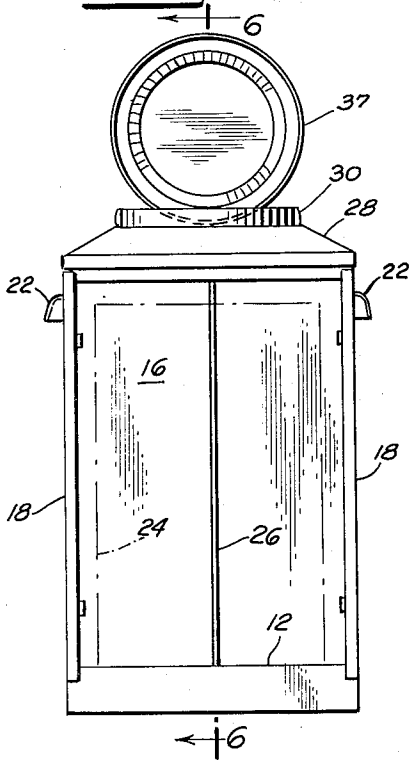
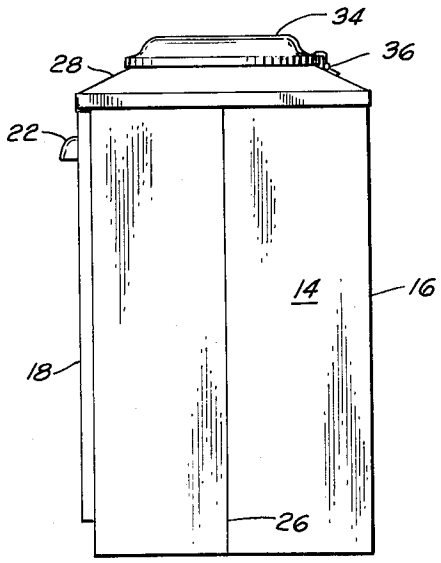


FIG. 3



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FIG. 5

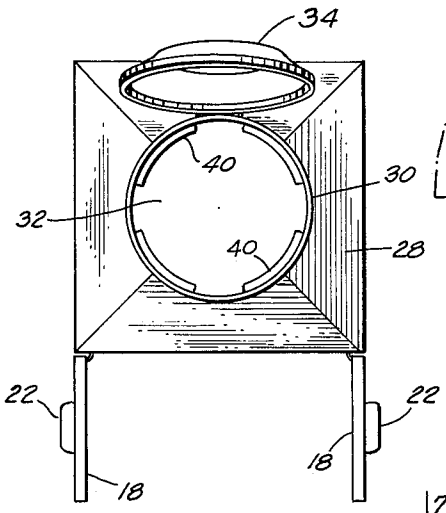


FIG. 10

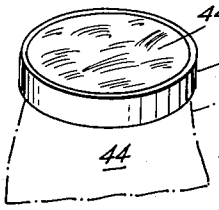


FIG. 6

FIG. 8

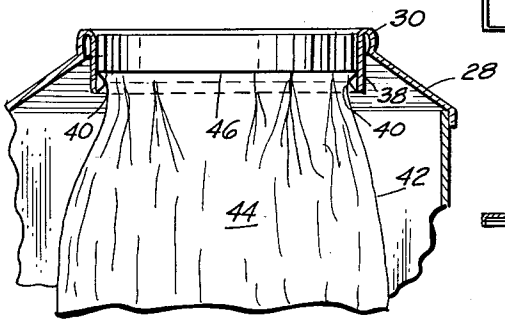


FIG. 7

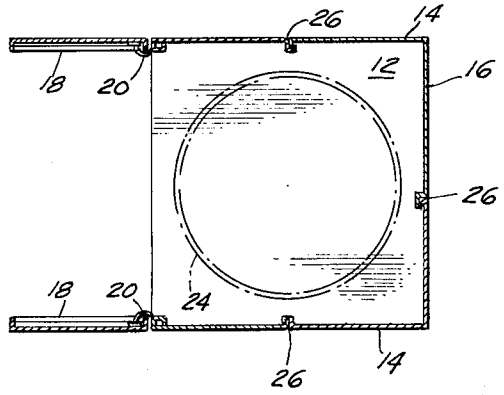
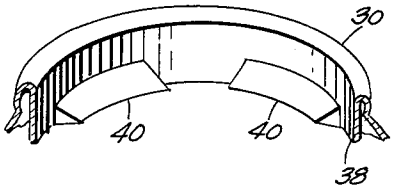


FIG. 9



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3,099,390

REFUSE RECEPTACLE

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3 Claims. (Cl. 232—43.2)

This invention relates generally to refuse receptacles and more particularly to improvements in refuse receptacles of the type adapted to afford a sanitary and safe depository for various waste materials including those which may be deemed objectionable because of odor or other reasons.

The use of cabinet-type receptacles for removably accommodating therein refuse containers such as garbage cans, oil drums, garbage bags, and the like, is of course well known. Such receptacles provide a relatively attractive means for concealing the generally ungainly and objectionable refuse container. Similarly, they cover and enclose the deposited refuse to thereby prevent the emission of offensive odors and the gathering or spawning of rats, mice, vermin or other objectionable animals. Although numerous prior receptacles of the type under consideration have heretofore been provided, they have invariably been characterized by one or more disadvantageous features such as, inherent weaknesses in the structure thereof, difficulty in inserting or removing the refuse container, limitations in their use to one specific type of refuse container, numerous or complex parts which were subject to breakdown or difficult to operate, etc.

It is therefore an important object of this invention to provide an improved refuse receptacle of the character described which eliminates all of the aforementioned disadvantageous features.

Another object is to afford an improved refuse receptacle of the character described which is adapted to function equally efficiently with all types of refuse containers; i.e., rigid containers such as garbage cans and drums or non-rigid containers such as paper bags and sacks.

A further object is to provide an improved refuse receptacle of the character described in which a refuse container of any type may be readily inserted therein or removed therefrom.

Still another object is to afford an improved refuse receptacle of the character described having novel means adapted to cooperate with refuse containers of the non-rigid type for operationally supporting the same therein. A related object is to afford such a receptacle wherein said means permit the non-rigid container to be readily operationally installed thereon and equally as readily removed therefrom when filled with refuse.

Still a further object is to provide an improved refuse receptacle of the character described having an extremely sturdy and rigid structure which is able to withstand the considerable shocks and stresses to which such receptacles are normally subjected.

Yet another object is to afford an improved refuse receptacle of the character described which may be inexpensively fabricated and yet is durable, simple to operate and most efficient for the purposes intended.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel features of construction, arrangement and a combination of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportion, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

For the purpose of facilitating an understanding of my invention, I have illustrated in the accompanying

drawings a preferred embodiment thereof, from an inspection of which, when considered in connection with the following description, my invention, its mode of construction, assembly and operation, and many of its advantages should be readily understood and appreciated.

Referring to the drawings in which the same characters of reference are employed to indicate corresponding or similar parts throughout the several figures of the drawings:

FIG. 1 is an isometric view of a refuse receptacle embodying the principles of the invention showing one of the access doors in the open position and a rigid type refuse container operationally positioned therein;

FIG. 2 is a front elevational view with both of the access doors in the closed position;

FIG. 3 is a side elevational view thereof;

FIG. 4 is a front elevational view showing the access doors and the top lid in the open position and with the operationally positioned refuse container being shown in dotted outline;

FIG. 5 is a top plan view thereof;

FIG. 6 is a vertical sectional view taken on the plane of line 6—6 in FIG. 4 and viewed in the direction indicated;

FIG. 7 is a horizontal sectional view taken on the plane of line 7—7 in FIG. 6 and viewed in the direction indicated;

FIG. 8 is an enlarged fragmentary vertical sectional view of the refuse hatch collar showing a non-rigid type container operationally positioned therein;

FIG. 9 is a fragmentary perspective view of the refuse hatch collar showing details of construction of the container supporting means; and

FIG. 10 is a perspective view of the non-rigid type container in its pre-folded condition.

Referring now to FIG. 1 of the drawings, the reference character 10 indicates generally an improved refuse receptacle embodying the principles of the invention. The receptacle 10 comprises a generally rectangular cabinet having a floor 12, a pair of side walls 14 and a rear wall 16. The front of the cabinet is closed by a pair of outwardly swingable doors 18 which may be connected to the front edges of the side walls 14 by suitable spring or torsion hinges such as 20. Suitable handles such as 22 may be affixed to the doors 18 as indicated. It will be noted, as indicated in FIGS. 1, 4, 5 and 7, that when the doors 18 are opened, subject to the spring action of the torsion hinges 20, they lie substantially in the same plane as the side walls 14, thereby permitting ready and unobstructed access to the interior of the cabinet for the positioning or removal of a refuse container such as the rigid type garbage can 24.

Turning specifically to FIG. 7, it will be noted that each of the side walls 14 and rear wall 16 is formed with a rigidifying seam 26, each of said seams extending through the entire height of its respective wall at the approximate vertical center thereof. The seams 26 may be formed in any suitable manner, as by crimping together or overlying the adjoining edges of individual wall panels as indicated. In any event, the seams 26 afford a multi-layered juncture at the point of minimum strength and maximum service which greatly strengthens and rigidifies the walls 14 and 16, said walls normally being fabricated from a relatively light gauge single-layered sheet metal or the like. It may be additionally appreciated that the three seams 26 provide a set of bumpers which effectively prevent a round refuse container such as the garbage can 24 from coming into contact with the less sturdy walls 14 and 16. In this manner, the effective life of the entire receptacle structure is greatly enhanced.

Covering the top of the cabinet is a frusto-pyramidal

roof 28. The roof 28 is provided at the top thereof with an annular collar 30 defining a circular hatch 32 through which refuse may be readily deposited into the container positioned within the receptacle directly therebeneath. A circular lid 34 is hingedly secured to the roof 28 as at 36, said lid being adapted to cooperate with the collar 30 for closing the hatch 32.

The collar 30 includes an integrally formed depending annular wall 38. Integrally formed with, or otherwise suitably connected to, the annular wall 38 is a plurality of retaining lugs 40 (see FIGS. 5, 6, 8 and 9). The retaining lugs 40 may be triangular in cross section and there may be four of the same equally spaced around the annular wall 38 as indicated.

Cooperating with the retaining lugs 40 is a novel non-rigid type refuse container 42. The container 42 comprises a disposable bag 44 which may be made of water resistant paper, sheet plastic, textile material, or the like. A semi-rigid but crushable annulus or collar 46 is secured so as to encircle the top edges of the bag 44. The annulus 46 may be made of a pulp product material such as chipboard, and the same is of substantially the same diameter as the annular wall 38. To operationally position the non-rigid container 42 it is merely necessary to insert the bag 44 into the hatch 32 whereupon the retaining lugs 40 cooperate with the annulus 46 to suspend the container within the receptacle 10. This coaction is of course made possible by the fact that the lugs 40 define a smaller diameter than the annulus 46. When the container 42 has been filled with refuse, and it is desired to remove and dispose of the same, it is simply necessary to crush or crease the annulus 46 so that it then is sufficiently reduced in diameter to permit it to clear the edges of the retaining lugs 40. The filled container 42 may now be removed from the receptacle through the doors 18 as in the case of the rigid type container 24. It will be noted that the operational positioning of the non-rigid container 42 is conveniently achieved through the top of the hatch 32 so that no bending or stooping is required. To further facilitate the use of the non-rigid container 42, it is contemplated that the same may be compactly folded or compressed within the collar 46 (see FIG. 10) so that the same can be simply operationally positioned and yet will expand to afford a container of substantial size as refuse is deposited therein (see FIG. 8 and dotted outline of FIG. 10).

From the foregoing description and drawing, it should be apparent that I have provided a novel, improved, tightly covered but readily accessible refuse receptacle having a sturdier and more durable structure than heretofore obtainable with similar receptacles. The retaining means in the top hatch enable the receptacle to be used equally efficiently with refuse receptacles of both the rigid and non-rigid type. In addition, I have provided a novel non-rigid refuse container for cooperating with the said retaining means. Further, the entire receptacle may be inexpensively manufactured from ordinary and lightweight materials of construction such as sheet metal.

It is believed that my invention, its mode of construction and assembly, and many of its advantages should be readily understood from the foregoing without further description, and it should also be manifest that while a preferred embodiment of the invention has been shown and described for illustrative purposes, the structural details are nevertheless capable of wide variation within the purview of my invention as defined in the appended claims.

What I claim and desire to secure by Letters Patent of the United States is:

1. A refuse receptacle of the class described comprising a cabinet having side walls and a roof, door means in one of said side walls for affording ready access to the interior of said cabinet, a refuse hatch formed in said roof through which refuse may be deposited into a container positioned in said cabinet, a lid mounted on said roof and adapted to selectively close said hatch, a collar circumscribing said hatch, and retaining means on the inner surface of said collar for releasably retaining a non-rigid container in operational position within said cabinet, said retaining means comprising a plurality of spaced inwardly projecting lugs, said lugs being elongate and conforming to the configuration of the inner surface of said collar, said lugs cooperating with a portion of said non-rigid container to freely suspend said non-rigid container therefrom.

2. The refuse receptacle of claim 1 in which said non-rigid container includes a semi-rigid band connected to the top thereof, said band being crushable so that said non-rigid container may be removed from said lugs.

3. In a refuse receptacle of the class described having a roof and a refuse hatch in said roof; a collar circumscribing said refuse hatch, a plurality of inwardly projecting lugs connected to the inner surface of said collar and conforming to the configuration of said inner surface, said lugs being triangular in cross-section, and a non-rigid container having a semi-rigid band connected to the top thereof, said lugs cooperating with said band to operationally suspend said container in said receptacle, said band being crushable whereby said container may be removed from said lugs and dropped therefrom.

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