GARBAGE AND REFUSE COLLECTING AND DISPOSAL MEANS
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Filed Nov. 6, 1964, Ser. No. 409,436
3 Claims. (Cl. 232—45.2)

This invention comprises a novel and useful garbage and refuse collecting and disposal means and more specifically pertains to a refuse disposal device having an improved construction, increased utility and accessibility and which is ideally adapted for incorporation into a wall construction for the deposition of garbage and refuse into the device on one side of the wall and enabling its subsequent removal at a different time from the other side of the wall.

The primary object of this invention is to provide a refuse collecting device for garbage, trash and other refuse which shall fully enclose refuse which may be deposited from time to time thereinto through an access opening at on end of the device, will be maintained in a sanitary and concealed position within the device, and may be periodically removed by a refuse collecting agency from the other side of the device.

A further important object of the invention is to provide a refuse device in accordance with the preceding object which shall include a housing capable of being embedded in and extending through a wall whether a building wall or a wall surrounding a piece of property, which shall be adapted for secure mounting and embedment in the wall without damage to either the receptacle or the wall and shall be provided with an inlet or access opening on top of the device at a front end thereof and an outlet opening or discharge opening on the rear or other end of the device together with one or more containers removably and slidably enclosed within the device and removable for removal through the outlet or discharge opening.

Another important object of the invention is to provide a device in accordance with the preceding objects which shall be provided upon the exterior of its side walls with means for anchoring or keying the housing into a wall structure such as a masonry wall, which anchoring or keying means shall also function as a stiffening and reinforcing element for the material of the housing side walls.

Still another object of the invention is to provide a device in accordance with the preceding objects which shall incorporate thereinto weathertight or waterproof seals on doors which control the access and discharge openings of the device and which will prevent water from thereby entering into the housing.

Still another object of the invention is to provide a device in accordance with the preceding objects in which the housing and the containers shall include cooperating end walls thereby enabling access openings in the containers to be disposed below and in registry with access openings in the housing to facilitate discharging refuse into the containers.

An additional object of the invention is to provide a device in accordance with the preceding objects wherein the housing shall include a downwardly and outwardly sloping bottom wall to thereby facilitate the drainage of any moisture which may be introduced into the device and also to facilitate washing and cleaning the interior of the housing from time to time as may be desired.

A still further object of the invention is to provide a device in accordance with the preceding objects in which the bottom wall shall be provided with slide rails projecting thereabove which will support the bottoms of the containers slidably in the housing and above the bottom wall to prevent their rusting or corrosion by moisture within the housing and will provide drainage channels beneath the containers.

A further object of the invention is to provide a device in accordance with the above set forth objects in which the containers shall be each provided with a pair of upper and lower handles upon the rear or outward end walls of the containers to facilitate their handling and dumping.

Yet another object of the invention is to provide a refuse disposal device corresponding to the above set forth objects in which there is provided a housing with removable containers slidably disposed therein, the housing having a horizontal top wall, a horizontally inclined bottom wall, a pair of vertically disposed side walls together with front and rear end walls each of which is vertically inclined and slopes downwardly and rearwardly.

An additional object of the invention is to provide a refuse disposal device in accordance with the preceding objects in which one or more containers are slidably disposed in an enclosing housing for removal through a rear end closure thereof and which containers have open tops and are of sheet metal construction with rolled beads at their upper edges for stiffening the latter.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view showing a refuse housing in accordance with this invention, the manner in which the housing is embedded and installed in a wall such as a masonry wall being indicated schematically;

FIGURE 2 is a perspective view of the receptacle with its discharge opening uncovered by raising the closure thereof and showing a container within the housing;

FIGURE 3 is a view in vertical transverse section taken substantially upon the plane indicated by the section line 3—3 of FIGURE 1 and with both doors of the housing being closed, with portions of a container therein being broken away and shown in vertical section and with the associated portions of a wall or partition in which the device is installed being indicated by dotted lines the device being also indicated by dotted lines;

FIGURE 4 is a fragmentary view in vertical longitudinal section taken substantially upon the plane indicated by the section line 4—4 of FIGURE 3 and showing further details of the housing, the containers and the mounting of the latter in the housing:

FIGURE 5 is a perspective view of a container forming a part of this invention; and,

FIGURE 6 is a further detailed view in vertical transverse section taken substantially upon the plane indicated by the section line 6—6 of FIGURE 1 and showing in particular one of the weathertight sealing means for an outlet or discharge door of the closure of the device.

The weekly or other periodic collections of garbage and refuse by rural and municipal sanitation departments imposes the responsibility upon the householder to provide a sanitary arrangement for storing garbage and refuse from time to time between the intermittent periods of refuse collection.

It is the basic principle of this invention to provide a device which will enable the householder to more hygienically and safely deposit and collect refuse from time to time in a container which is at all times accessible for discharge by the collection agency without trouble to the householder. Inasmuch as garbage is frequently dropped from containers slidably and removably disposed in a protective enclosing housing, an unsightly and unsanitary
condition is created inside the housing which, if moisture is present, in time tends to rust or otherwise deteriorate the device, or attract disease carrying insects or animals, such as stray dogs which tend to scatter the garbage. Moreover, the presence of moisture from the elements entering the device likewise tends to contribute toward this last-mentioned condition.

It is the basic principle of this invention to provide an apparatus which will to a large extent minimize if not completely eliminate the above-mentioned undesirable conditions.

Disclosed in the accompanying drawings and in this specification is one exemplary embodiment of this invention set forth the manner in which it may be advantageously applied to and incorporated into a wall construction whether of or within a building or any wall surrounding a piece of property. The refuse collecting and disposal device is indicated generally by the numeral 10 and is shown somewhat diagrammatically in FIGS. 1 and 3 as being incorporated into a portion of a wall structure 12 which may be a masonry or other wall. Accordingly, in the embodiment illustrated, the structure of the device is specifically adapted for this particular usage thereof, although basically, most of the features of the device including the housing and the containers removably received therein are applicable for use in other environments than that of being installed into a wall structure.

The refuse collection and disposal device 10 comprises an enclosing cabinet-like structure or housing indicated generally by the numeral 14 and one or more containers or receptacles each indicated generally by the numeral 16, two such containers being illustrated in this embodiment. Both the housing and the containers are preferably of a suitable sheet metal material of the requisite strength and character to successfully withstand weathering, moisture and the like and to enable its incorporation into a wall structure.

Considering first the housing 14, it will be observed that this includes as essential components thereof a horizontal top wall 20, a sloping bottom wall 22 which is slightly inclined with respect to the horizontal, a pair of substantially vertical side walls each indicated by the numeral 24, together with vertically inclined and downwardly and rearwardly sloping front wall 26 and rear wall 28. These various walls are rigidly joined together to form a unitary receptacle or enclosure constituting the housing 14, in any desired manner which in itself forms no part of the invention. However, the two side walls 24 are each provided intermediate their ends between the front and back ends of the device with anchoring or keying means which may consist of vertically disposed channel members 30 welded or otherwise fixedly secured to the exterior surface of the side walls 24. Alternatively, a pair of angle members may be similarly located and positioned with respect to the side walls so as to provide laterally projecting vertically extending ribs or flanges adapted for embedment in the concrete or other material of the wall 12 as illustrated in FIG. 1.

With continuing reference to FIGS. 1 and 3 it will be understood that the length of the device from its front to its rear end is greater than the thickness of the mounting wall 12 so that the front end projects beyond what may be termed the interior side of the wall 12, for access thereto by the householder, and the rearward end projects from the exterior side of the wall 12 as to provide an outlet or discharge opening accessible to the collection agency. By way of example, the rear end of the device and the outlet or discharge opening thereof may be located in an alley or the like adjacent a property which is enclosed by the wall 12.

The housing is provided with at least a pair of openings providing access thereto. Thus, there is provided upon the forward portion of the top wall 20, a forwardly and downwardly sloping portion 32 converging toward an upper edge portion of front wall 26. An access opening 34 together with a cover or closure 36 is hinged at 38 to the top wall 20, and disposed of with a handle assembly 40 by which it may be raised or lowered in order to provide access to the interior of the housing or to close the access opening in a weathertight manner.

If it be sought for but one such access opening is indicated in the drawings, it will be appreciated that there may be provided a plurality of such openings and closures, one for each container 16 which is disposed within the housing.

Upon its rear wall 28, the device is provided with a discharge or outlet opening 42 which in turn is controlled by a cover or closure 44 hinged at 46 at its upper edge and provided at its lower edge with a handle means 48 so that the outlet or discharge closure may be swung vertically between its closed position as shown in FIGS. 1 and 3 and a fully opened position as shown in FIG. 2. In this last-mentioned position, the outlet opening 42 is fully uncovered permitting any one of the containers 16 to be readily withdrawn therefrom for the purpose of extracting the contents of the containers into the refuse collecting vehicle.

As previously mentioned, the bottom wall 22 is sloping from the front to the rear end thereof so as to provide a natural drainage to the rear portion 26 of the front wall 22 and one or more other inclined surfaces, and there are provided sets of support rails 50 which may comprise channel members suitably secured to the bottom wall and which serve to support the bottoms of the containers 16 in an elevated position above the bottom wall of the housing so as to effect drainage beneath the container and the discharge of moisture from the housing without damage to the containers themselves.

Referring now especially to FIGS. 3 and 5 it will be observed that the container 16, whether comprising a single container filling the housing or a plurality of containers in side by side relation, consists of an open bin-like device including a substantially vertical rear wall 60, a pair of parallel vertical side walls each indicated at 62, together with a rearwardly and downwardly sloping or inclined front wall 64, together with a bottom wall 66 which is substantially horizontal or may be horizontally inclined. The container has an open top 68 and it will be observed from FIG. 3 that its rearwardly inclined front wall 64 is complementary to the front wall 26 of the housing so as to fit closely thereagainst with the open forward portion of the open top of the container being disposed in abutment with the upper edge portion of the front wall 26 thereby preventing the upper discharge 56 for easy discharge of refuse into the container with minimum spillage into the housing 14.

The rear wall is provided with upper and lower handles as at 66 and 70, so arranged as to enable the refuse collector to readily grasp the container at the top and bottom by these handles when the discharge closure 44 is open and thus withdraw the individual containers, lift them and discharge them into the refuse collection vehicle. When closed, the closure 44 engages the handle 68 as shown in FIGURE 3 to hold the container in abutment with the front wall 26.

For this purpose, the bottom walls of the containers are readily slid upon the support rails 50 in moving them into and out of the housing through the open discharge opening 42 thereof.

Inasmuch as it is economical to form the containers of a relatively thin sheet of plate metal, it is desirable to provide stiffening means therefor. Accordingly, as shown in FIG. 4, the upper ends of the side walls of the containers are preferably rolled over outwardly upon themselves to provide tubular beads as at 72 which thereby stiffen the side walls as well as provide spacing therebetween as shown in FIG. 4 when the two containers are disposed in side by side relation in the housing.

As previously mentioned, it is an important feature of this invention to provide a weathertight sealing means for
the access openings and their closures. For this purpose, the construction shown in FIGS. 2 and 6 as applied to the rear end of the device at the outlet or discharge opening is employed, it being understood that an identical type of sealing construction can likewise be employed for the access opening closure or closures.

Thus, as shown in FIGS. 2 and 6, the rearward edges of the side walls and of the rear wall and bottom wall are provided with laterally projecting flanges 80, each of which is provided with a recessed portion or pocket 82 therein, the latter thus forming a recessed frame within the exterior edge of the sides and bottom of the housing at its rearward end. A sealing member such as a gasket 84 of any suitable material is received in this pocket and is preferably flush with the top surface of the flange 80 so that it may be engaged by the flat surfaces 86 of the closure member 44. The surfaces 86 may constitute integral portions of the closure 44 but preferably comprise separate strips secured thereto which thus serve not only to seal against the gasket and within the pocket 82 but also serve to stiffen the material of the closure member itself. It will be understood that the same structure is provided for the access openings and closures and therefore a further description of the same is deemed to be unnecessary.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A refuse disposal assembly adapted to be mounted in a wall structure comprising, an enclosure extending through said wall structure having access openings on opposite sides of the wall structure, said enclosure including upper and lower wall portions converging toward an edge portion spaced from the wall structure on one side thereof, a bottom wall portion connected to the lower wall portion and side wall portions interconnecting the upper, lower and bottom wall portions, receptacle means slidably mounted on the bottom wall portion of the enclosure for removal therefrom through only one of said access openings on the other side of the wall structure from a position abutting said edge portion, closure means connected to the enclosure closing said one of the access openings and holding the receptacle means in abutment with said edge portion below the other of the access openings formed in the upper wall portion, said receptacle means including an open top exposed to said other of the access openings.

2. The combination of claim 1 wherein said receptacle means further includes at least one container having vertical side and rear walls, a front wall adapted to abut said lower wall portion of the enclosure and a bottom wall, and handle means mounted on said rear wall for exposure through said one of the access openings upon opening of the closure means.

3. The combination of claim 2 wherein said receptacle means still further includes at least another container, the side walls of both containers having beaded rims abutting each other and forming said open top.

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