March 28, 1950 C. L. DAVIS, JR 2,501,762

GARBAGE STORAGE RECEPTACLE

Filed Jan. 20, 1947

Fig 1

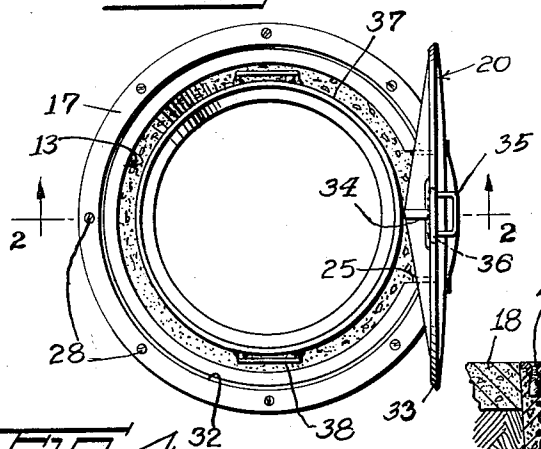


Fig 2

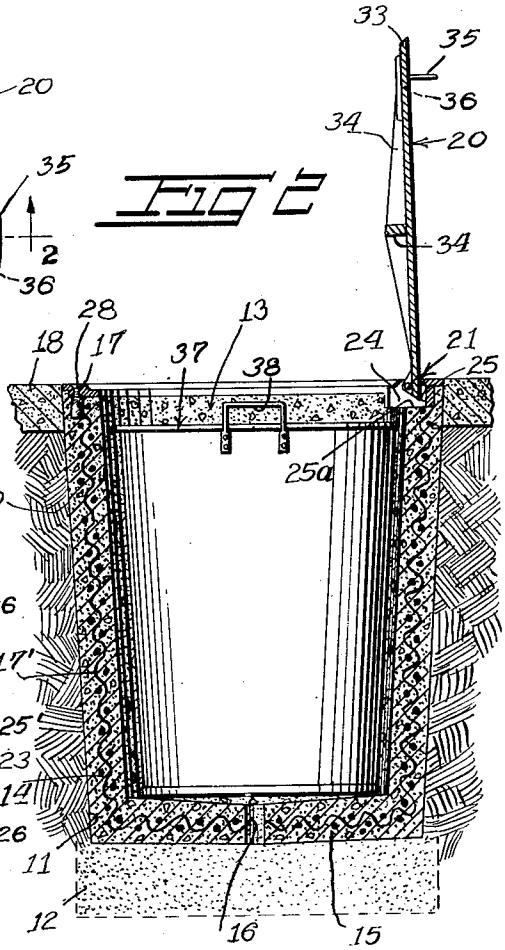


Fig 4

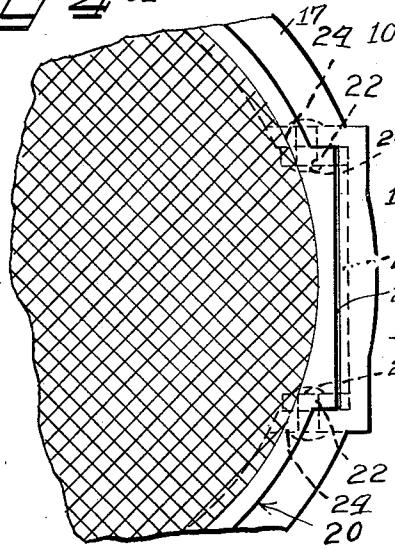


Fig 3

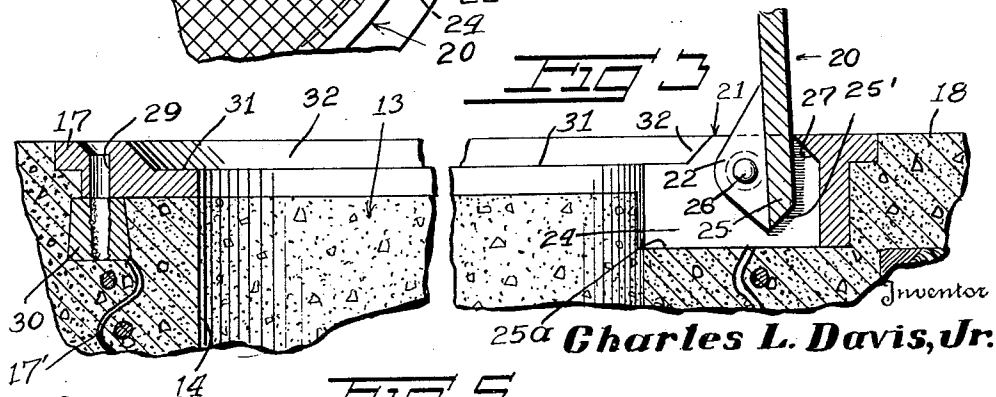
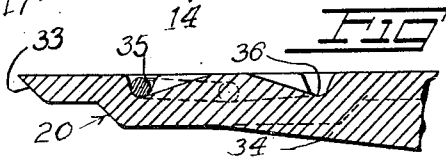


Fig 5



Inventor

Charles L. Davis, Jr.

By Wilfred E. Lawson

Attorney

Patented Mar. 28, 1950 2,501,762

UNITED STATES PATENT OFFICE

2,501,762

GARBAGE STORAGE RECEPTACLE

Charles L. Davis, Jr., New Orleans, La.

Application January 20, 1947, Serial No. 723,145

2 Claims. (Cl. 220—98)

1

This invention relates generally to improvements in sanitary receptacles and pertains particularly to an improved underground unit wherein garbage may be stored pending collection.

A principal object of the present invention is to provide a covered receptacle or chamber, so designed as to prevent the escape of odors and to be dog and cat proof, which is disposed entirely below the surface of the ground with a flush type hinged metal cover so that the receptacle may be installed in a sidewalk, neutral ground, or roadway where the garbage is readily accessible for collection.

Another object of the invention is to provide an underground garbage storage unit consisting of a reenforced concrete housing having an open top, fitted to receive, and to which is securely affixed, a metal ring or flange with a hingedly connected metal cover which, when in closed position, may rest upon the top edge of such ring to form a tight closing contact flush with the surface of a sidewalk, neutral ground, or roadway.

Another object of the invention is to provide an improved garbage storage receptacle which may be readily installed in the ground, sidewalk or roadway in areas in front of residences or stores where it is inconvenient to place cans or other receptacles, which, at the present time, are employed to store garbage awaiting collection, and stand upon the surface of the ground, the present garbage storage receptacle being designed to lie entirely below the surface of the ground and house a conventional type can, the receptacle being also designed with a hinged flat metal cover flush with the surface of the sidewalk, roadway, or neutral ground, so designed that it will fall closed of its own weight and present no dangerous obstruction or unlevel surface to stumble over.

Another object of the invention is to provide a garbage storage receptacle consisting of a tapered cylindrical container with a hinged flat metal cover and convex bottom, designed to lie entirely below the surface of the ground with the flat metal cover level with the surface and designed to receive and store a conventional type garbage can, which may be removed, emptied and replaced when the garbage is collected.

Another object of the invention is to provide a sub-surface garbage storage receptacle with an inner container in which garbage may be placed, and provided with a hinged flat metal cover of such strength as to meet the surface load requirements and present no obstruction in

2

a sidewalk, neutral ground, or roadway, which may be installed in any location conveniently situated for the collection of garbage and thus eliminate the garbage can from sight, the odors from same, and the possible scattering of the garbage by dogs, cats or other animals.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawings forming a part of the specification, with the understanding, however, that the invention is not confined to a strict conformity with the showing of the drawings but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawings:

Figure 1 is a view in top plan of a garbage disposal unit constructed in accordance with the present invention, showing the cover or lid in open position.

Figure 2 is a vertical sectional view taken substantially on the line 2—2 of Figure 1 and showing a portion of the surrounding ground structure.

Figure 3 is a fragmentary detail section on a vertical plane and on an enlarged scale, the planer section corresponding to that of Figure 2.

Figure 4 is a fragmentary top plane of a portion of the cover and attached metal rim showing the hinge connection.

Figure 5 is a fragmentary detail through a portion of the cover showing the countersunk lifting ring.

Referring now more particularly to the drawings, it will be seen upon reference, particularly to Figure 2, that in the construction of the present invention there is provided in the earth 10 a hole 11 of suitable depth and diameter, in the bottom part of which is placed a layer of gravel 12 of suitable depth.

Disposed within the hole 11, to rest upon the layer or bed 12 of gravel, is an open top receptacle or bucket which is generally designated 13 and which is formed or molded of concrete, the side and bottom walls, 14 and 15 respectively, being of substantial thickness as shown.

The bottom 15 slopes slightly toward the center, as shown in Figure 2, and has formed therethrough the drainage opening 16.

Secured in the top of the wall 14 is a metal ring or flange 17 which may be formed of steel, aluminum, or any other suitable material, and the top side of this ring or flange is exposed

and the ring or flange rests on the top edge of the wall 14. However, the entire concrete receptacle 13 lies slightly below the grade line 18 so that the top side of the ring or flange 17 is flush with the grade line 18.

Embedded centrally in the wall 14 and in the bottom 15 is a reenforcing fabric 17' of suitable weight reenforcing wire.

The numeral 20 generally designates the lid or cover for the embedded concrete receptacle 13 which is hingedly joined to the metal ring or flange 17 by a hinge unit which is generally designted 21. This hinge unit 21 includes two spaced lug members 22, of suitable strength, formed integrally with the underside of the lid or cover 20. Also forming a part of the hinge structure 21 is a hinge box which is formed by providing an offset recess 23 upon the inner periphery of the ring 17, which recess is bordered at opposite sides by the ears 24 which extend downwardly into a recessed area 25a formed in the concrete wall 14 of the receptacle 13. The lugs 22 which lie between the ears 24, are cast on a straight tongue portion 25 which projects from the periphery of the lid or cover 20 and which fits into the cut-out or recessed area 23 as shown in Figure 4. These lugs 22 are pivotally joined to the adjacent ears by pivot pins 26 which are preferably formed of bronze.

As shown in detail in Figure 3 the straight back edge portion of the tongue 25 which forms a part of the lid or cover is beveled as indicated at 25' and the straight portion or wall of the recess 23, which extends from one side of the recess to the other, is undercut to form the stop shoulder 27, against which the beveled edge 25' of the tongue 25 abuts when the cover is closed. When the cover is opened the top edge of this shoulder 27 is contacted by the top surface of the cover and prevents the cover from being opened to a straight vertical position. Preferably the construction is such as to prevent the cover from opening more than 86° although, it is to be understood, that the invention is not limited to this specific angle.

The ring or flange 17 is secured to the top edge of the concrete receptacle 13 by countersunk, flat head screws 28 which are passed through apertures 29 in the rim and are threaded into lead inserts 30, embedded in the concrete material.

The top side of the ring or flange 17 is recessed from the inner edge to provide a flat shoulder 31 upon which the cover 20 rests, the outside bordering inclined or beveled wall 32 of which is contacted by the correspondingly beveled edge 33 of the cover 20. By this arrangement there is provided a tight fit between the cover around its periphery and the rim or flange which is secured to the top of the concrete receptacle 13.

For the purpose of strengthening the cover 20 without adding materially to the weight thereof, the underside of the cover is formed with the integral cross webs 34.

As will be readily apparent upon examination of Figure 2, the lid or cover 17, when in closed position, is flush with the grade line 18 of the sidewalk, neutral ground, or roadway in which the receptacle 13 is sunk.

The numeral 35 designates the lift handle for the lid or cover 17. This handle is here shown as a U-bolt free to swing in an arc of 180 degrees and lie flat in a counter-sunk position in a recess 36 provided in the lid or cover 17.

As will be readily apparent, the sunken concrete receptacle 13 is designed to have placed therein a suitable metallic receptacle 37 in which waste material may be placed. Such a metallic receptacle is, of course, provided with the usual handles 38 or other suitable means to facilitate removing it from the sunken receptacle for emptying.

From the foregoing it will be readily apparent that there is provided in the present invention a novel garbage storage receptacle means for residential and commercial properties, which eliminates the usual garbage can from above ground, placing it underground in such a manner that the contents thereof cannot be reached and scattered by stray animals, and under all conditions can be kept tightly covered to prevent the diffusion of any odors which might develop in the receptacle.

I claim:

1. An underground garbage storage unit, comprising a bucket like receptacle formed of concrete and having a circular side wall and a bottom wall, the receptacle being open at its top and designed to be buried with the open top slightly below ground level, a metal ring secured to the top of the receptacle with its top surface flush with the ground level, said ring having its top surface cut away at the inner edge to form a circular shoulder, means formed integral with said ring and projecting below said shoulder forming a box having spaced parallel ears, the shoulder having an outwardly sloping encircling wall, a cover plate adapted to rest upon said shoulder and having a beveled edge adapted to have tight contact with said sloping wall, depending lugs carried by the cover plate and each disposed adjacent to the inner side of an ear, pivot members connecting the lugs and the adjacent ears, the ring having an undercut shoulder between said ears, and the cover plate between the lugs having a beveled edge designed to contact tightly with said undercut shoulder when the cover is closed.

2. An underground garbage storage unit of the character stated in claim 1, in which said shoulder has an inwardly directed edge, and the said pivots for the cover are positioned relative to said edge to limit the open position of the cover to less than 90 degrees from the horizontal.

CHARLES L. DAVIS, JR.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
962,887	Bolger	June 28, 1910
988,668	Short	Apr. 4, 1911
1,139,183	Kane	May 11, 1915
2,217,097	Brooks	Oct. 8, 1940