June 24, 1969 J. F. MORGAN 3,451,582

REFUSE RECEPTACLES

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FIG. 2.

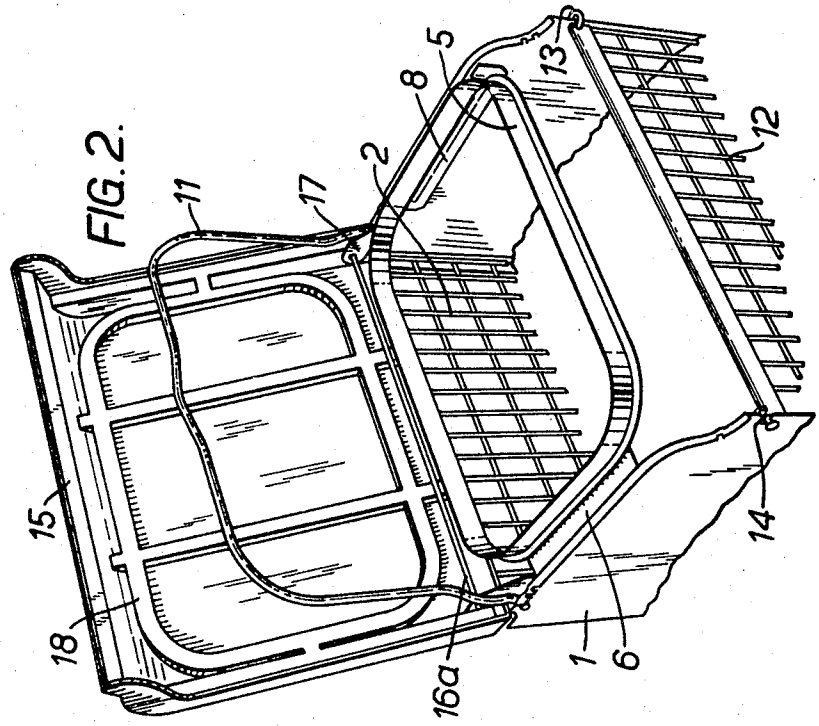
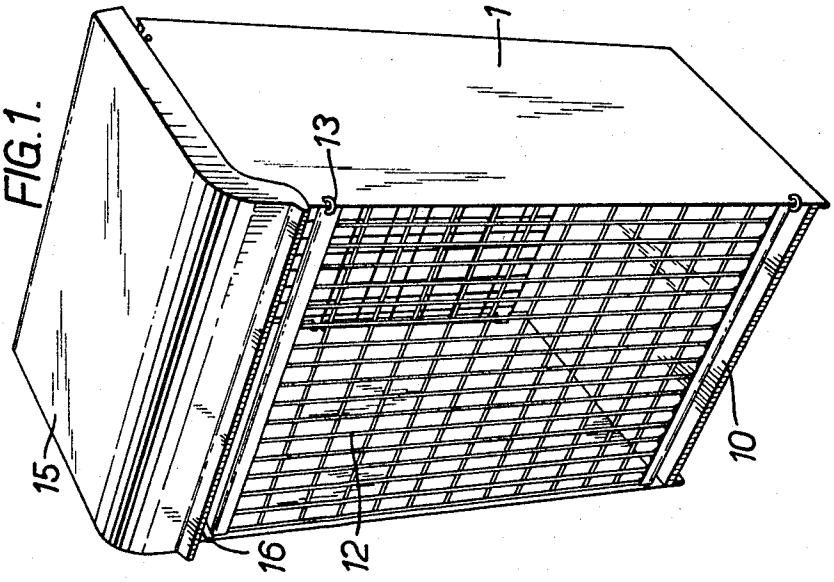


FIG. 1.



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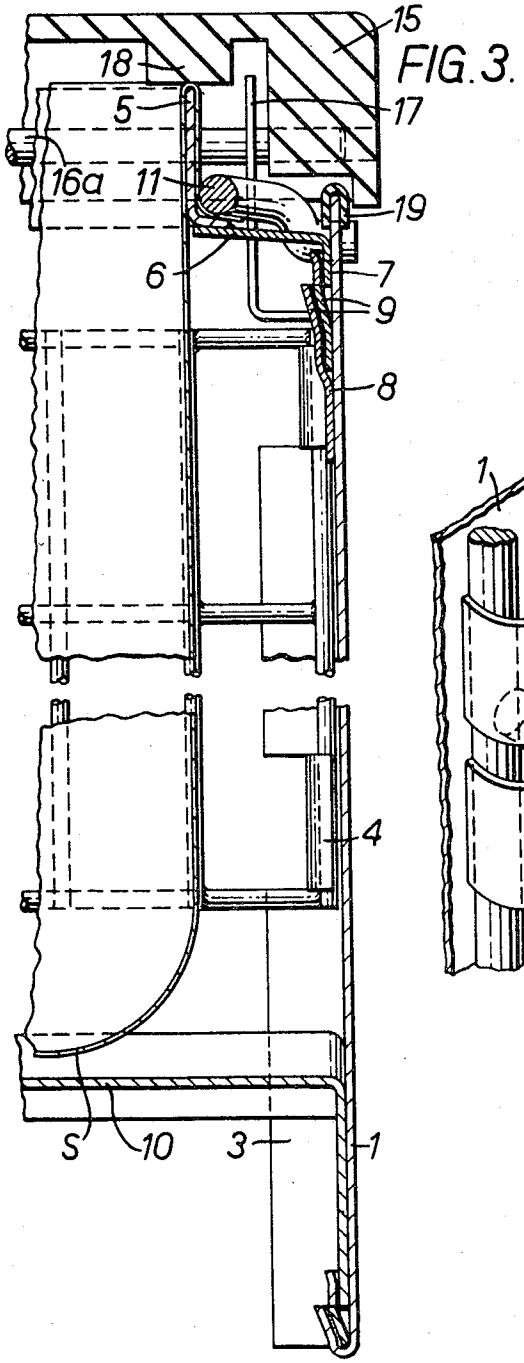


FIG. 3.

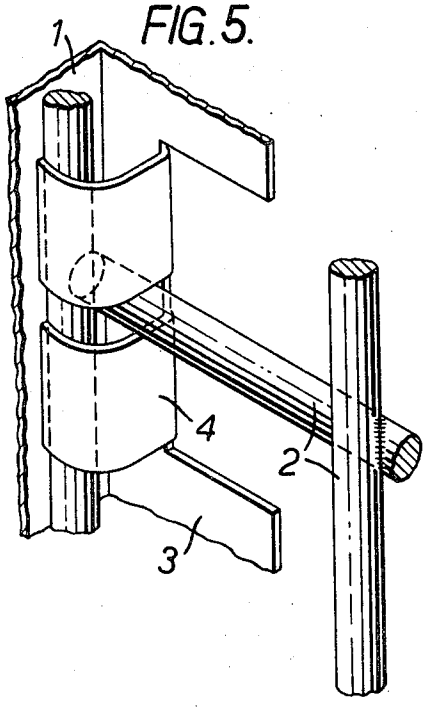


FIG. 5.

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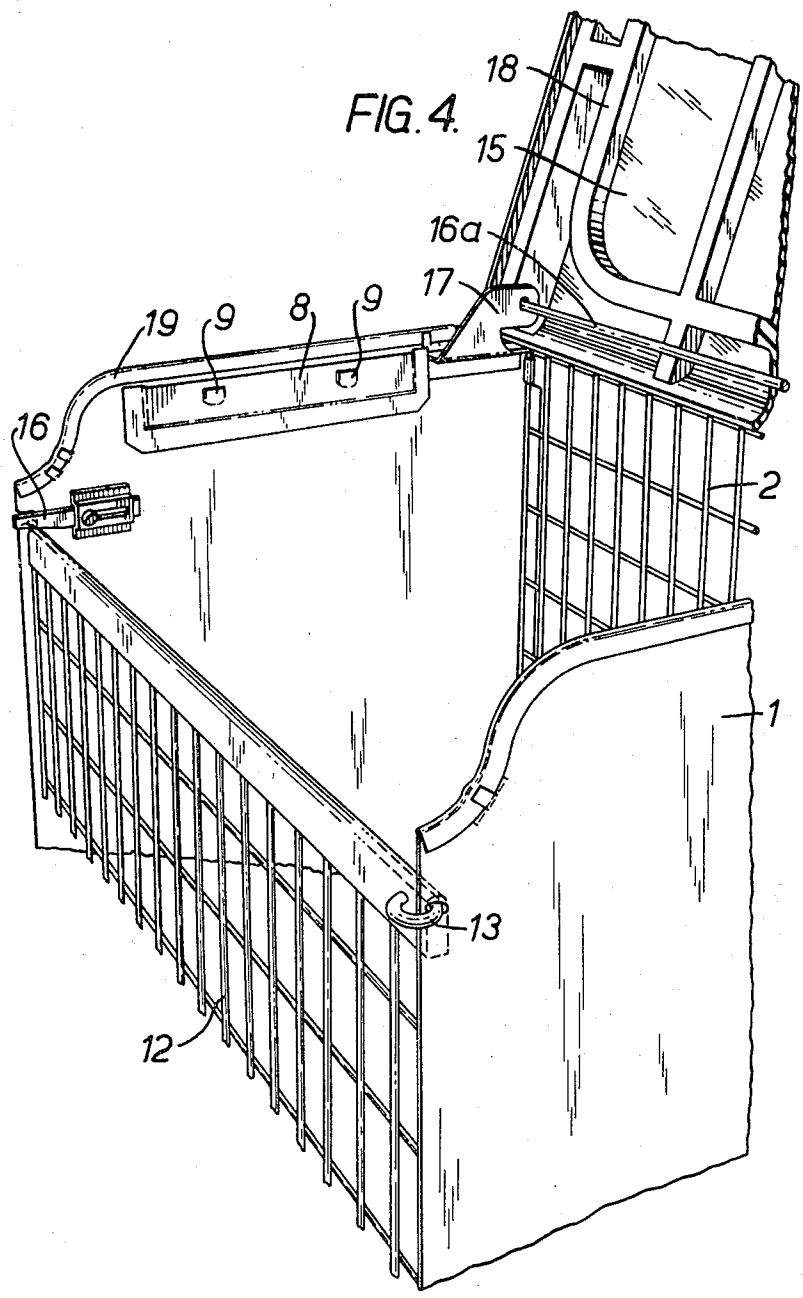
By: Norris & Bateman, Attys

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FIG. 4.



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United States Patent Office 3,451,582 Patented June 24, 1969

3,451,582

REFUSE RECEPTACLES

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Filed June 19, 1967, Ser. No. 647,079
Int. Cl. B65d 7/20
U.S. Cl. 220—7 8 Claims

ABSTRACT OF THE DISCLOSURE

The invention provides a refuse receptacle of the kind comprising an impervious sack or bag of paper, plastics or similar material detachably secured around its mouth to a frame member, the sack and frame member being enclosed by a casing which can be folded to provide a convenient pack for transportation and which, on arrival at a desired site, can be assembled easily by means of interengaging or interlocking connections provided on the sides of the casing.

This invention relates to refuse receptacles of the kind consisting of an impervious sack or bag of paper, plastics or similar material detachably secured around its mouth to a frame member, the sack and frame being enclosed by casing which protects the sack against damage, for example by scavenging animals.

The object of the present invention is to provide an improved receptacle of this character and in particular to provide a construction which can be conveniently packed and transported in a "knock-down" condition whilst being easy and readily erected when desired without the need of skilled labour.

According to the invention the improved receptacle comprises basically a casing consisting of a series of hingedly or detachably interconnected panels capable of flat folding or flat stacking, and a base to said casing, said base and the frame for supporting the sack having interengaging or interlocking connections with the casing such that when attached thereto they secure the casing firmly in its extended or operative position.

The casing preferably includes a hinged cover and also a hinged or detachable front door or panel for easy access to the sack, both these members being formed for quick and easy attachment to the casing, and these and other features of the invention will be more fully understood from the following description of a preferred embodiment, reference being made to the drawings wherein:

FIG. 1 is a perspective view of the complete unit,

FIG. 2 is a fragmentary perspective view of the upper end of the unit with the lid opened and with the sack holding means in the condition for applying a sack thereto,

FIG. 3 is a fragmentary transverse section through the device showing details of a wall construction,

FIG. 4 is an enlarged fragmentary perspective view showing details of the front door mounting and locking means, and

FIG. 5 is another fragmentary perspective view showing details of the manner of interconnecting rear and side panels.

In the construction shown two solid side panels **1** and a mesh rear panel **2** are hingedly interconnected so that they can be folded flat for storage and transport, the hinge connection in this instance being formed by providing inwardly-directed flanges **3** on the rear edges of the side panels and the flanges being slit transversely at spaced intervals to define tabs **4** which are bent around the vertical side bars of the mesh panel **2**, as shown in FIGURES 4 and 5. Disposed at the upper end of the

casing is a frame **5** over which is folded the mouth portion of a paper or like sack indicated at S in FIGURE 3, said frame being welded at opposite sides to supporting plates **6** which have downturned flanges **7** adapted to be received in sockets formed by welding plates **8** to the side panel **1**. Pressed up tongues **9** on the flanges **7** engage behind similar tongues on the plates **8** to lock the frame supporting structure in these sockets, the arrangement being such that when the frame is pressed or snapped down into the sockets, it is locked in position and it simultaneously secures the casing structure firmly in the erected or extended condition. The lower end of the casing is closed by a floor **10** which has a form of interconnection with the side panels similar to that of the frame structure **5, 6** and the floor when in position provides additional locking means securing the casing structure in its erected condition. The floor may incline slightly towards the front or rear for drainage purposes. A clamping bar **11** co-operates in known manner with the angle-section frame member **5** to clamp a sack thereon, the clamping bar in this instance having out-turned end portions by which the bar is hingedly mounted in sockets in the side panels so that it may be raised as shown in FIGURE 2 to fit or remove a sack. The casing is closed at the front side by a mesh door or panel **12** which has a simple form of attachment for easy assembly. As shown, the door is hinged to one side panel by eyes **13** formed on the ends of transverse bars and which are slightly open at one point to facilitate engagement with holes in the supporting side panel. The other ends of the transverse bars are received in slots **14** in the opposite side panel, these slots being of angled or inverted L shape so that the bars can drop down the slots under the weight of the door to retain the door in the closed position. Preferably, a sliding bolt or latch **15** mounted on one of the side panels is operable to lock the door in the closed position, said bolt having an inclined lower edge which, as the bolt is shot, engages the upper edge of the top rail of the front door **12** and so forces the door downwards into the locking position.

The casing is closed at the upper end by a hinged lid or cover **15** preferably moulded from rubber, plastics or similar material, the lid being readily attached to the casing with the aid of a hinge pan **16***a*, the ends of which have frictional fit in socketed bosses moulded integrally in the lid. Intermediate its ends the pin **16** passes through apertured brackets **17** spot-welded or otherwise fixed to the side panels. The lid is preferably formed with a rib or beading **18** on its underside which, when the lid is closed, engages with the mouth of the paper sack where it is folded over the frame to seal off the interior of the sack, whilst the upper edges of the side panels may be protected by appropriate rubber channel or like strip **19** if desired.

It will be understood that the combination of solid and mesh walls in the casing structure is given by way of example only and if desired the casing may comprise all solid walls or all mesh walls and any other form of hinge or detachable connection may be used which will permit flat folding or flat storage of the casing with quick easy erection.

I claim:

1. A refuse receptacle comprising lateral panels hinged along their edges for providing a body structure capable of being folded to substantially flat condition, a base member providing a bottom for said receptacle, a frame member at the top of said receptacle, means for releasably clamping the upper open end of a refuse container on said frame so that the container will depend therefrom into the body structure of the receptacle, cooperating socket means on each of said members and opposed panels of said body structure for mounting said members on the

unfolded body structure, said frame member and base member when so mounted firmly securing said body structure in extended condition, and an openable top extending over the upper end of said receptacle.

2. In the refuse receptacle defined in claim **1**, said socket means comprising upwardly open sockets on the opposed panels and downwardly projecting flanges on the respective members fitting into the open sockets.

3. In the refuse receptacle defined in claim **2**, cooperating snap lock means in each of said socket means for detachably holding said members in assembly with the body structure.

4. In the refuse receptacle defined in claim **1**, said receptacle top being hinged to the body structure and having an internal rim adapted to extend around said frame when the top is in closed condition for sealing closed the upper end of said refuse container.

5. In the refuse receptacle defined in claim **1**, said clamping means comprising a bar having opposite ends pivoted on said body structure and an intermediate section adapted to extend snugly around said frame with the container upper end therebetween.

6. In the refuse receptacle defined in claim **1**, said body structure comprising opposed side panels having flanged rear edges connected by a rear panel, an openable front panel having a detachable hinged connection

to the edge of one side panel and a releasable connection to the other side panel.

7. In the refuse receptacle defined in claim **6**, said front panel at said removable connection having a bar extension fitting into a socket opening in the associated panel edge, and there being an adjacent latch for retaining the front panel in closed position.

8. In the refuse receptacle defined in claim **6**, said rear panel comprising vertical bars at least along opposite edges, and said side panels having flanges cut and bent around said bars to provide the hinged connections.

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GEORGE E. LOWRANCE, *Primary Examiner.*

U.S. Cl. X.R.

220—65