Sept. 11, 1945. N. T. THOREN 2,384,709

SANITARY WASTE RECEPTACLE

Filed Aug. 4, 1943

Fig. 1

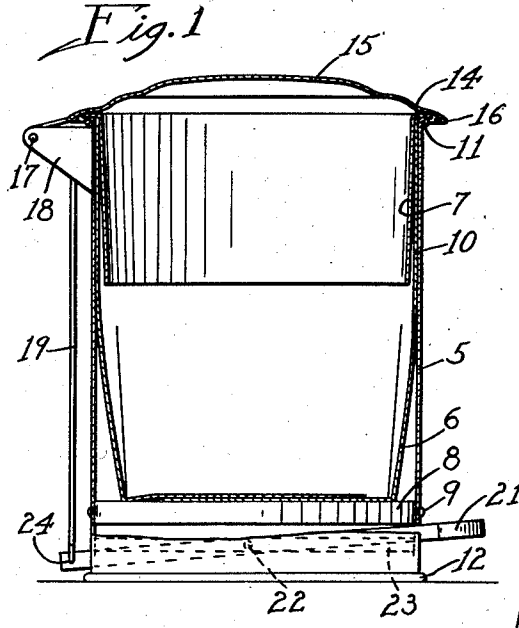


Fig. 2

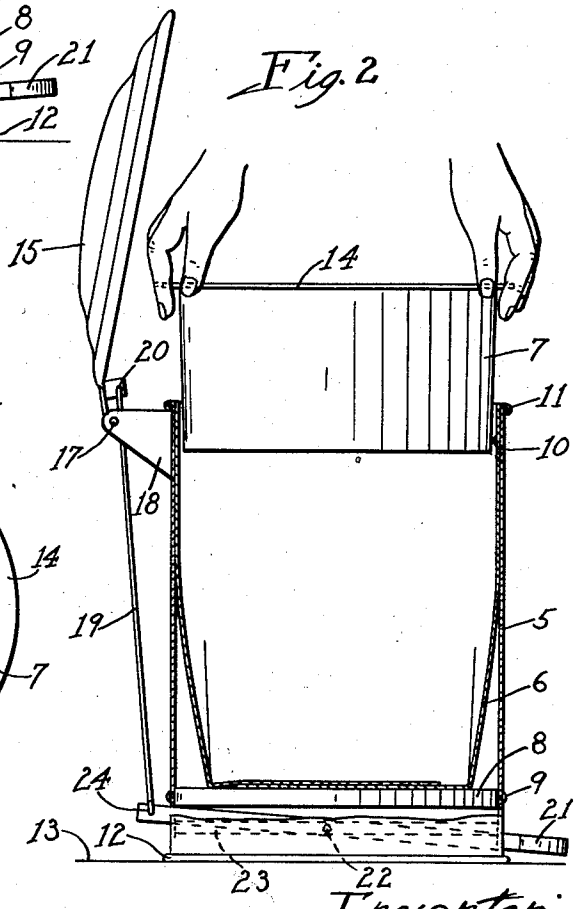
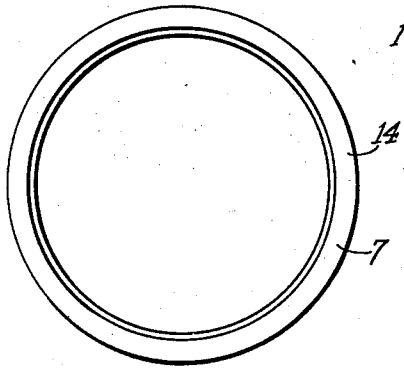


Fig. 3



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SANITARY WASTE RECEPTACLE

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2 Claims. (Cl. 220—65)

This invention relates to a new and improved sanitary waste receptacle, and more particularly to the type having a removable paper bag for the convenient and sanitary disposition of the contents.

Waste receptacles of various constructions have been proposed with a view to use of a disposable paper bag. However, careful analysis shows that they have all been objectionable in one important respect or another. That is to say, if the receptacle was constructed with a view to easy access to the disposable bag, there was invariably the objection that the bag could not be handled without contamination or without danger of damaging the bag either in its insertion or removal or during the filling thereof, and, consequently, such receptacles were not successful commercially. On the other hand, other receptacles designed to insure sanitation in the handling of the disposable bag were invariably objectionable because of the complicated and expensive constructions devised to accomplish that purpose, some of these going so far as to necessitate practically the complete dismantling of the whole receptacle to permit removal of the filled bag through the bottom, thus necessitating the handling of every part of the receptacle, which work could hardly be done without thoroughly soiling the hands and possibly spilling the contents of the disposable bag. Some of the constructions proposed, in which the body of the receptacle is removably supported on a base, are clearly impractical because of the danger of having the receptacle come apart anytime that the cover is taken off or raised. It is, therefore, the principal object of my invention to provide a truly sanitary receptacle, which while it permits quick and easy as well as sanitary removal of the disposable bag avoids the objections noted in regard to prior constructions.

The invention is illustrated in the accompanying drawing, in which—

Fig. 1 is a central vertical section through a sanitary waste receptacle made in accordance with my invention;

Fig. 2 is a view partly in vertical section and partly in side elevation showing the lid of the receptacle raised and the insertible collar being removed to permit removal of the disposable bag, and

Fig. 3 is a top view of the collar removed from the receptacle.

The same reference numerals are applied to corresponding parts in these views.

The reference numeral 5 designates the sheet metal body of the receptacle, which is preferably, though not necessarily, of cylindrical form. Square or rectangular receptacles may be provided, more closely approximating the shape of the disposable paper bag 6, the aim being to utilize bags of a form commercially available at low cost without reducing too much the capacity of the receptacle and making it necessary to replace bags too often. I have found that a standard form and size of paper bag can be spread at the mouth to fit neatly inside the cylindrical body 5, without having too much waste space around the bottom of the bag, and there is no difficulty in the use of such a bag when the mouth of the bag is kept spread wide open by a sheet metal collar 7 provided in accordance with my invention. The paper bags may be waxed or otherwise waterproofed and will cost so little that they may be thrown away or burned with the contents. A bottom 8 which may be of wood and fastened in place by screws or nails, as indicated at 9, passed through the walls of the body 5 serves to support the disposable bag 6 with the mouth end 10 extending up to, or close to, the upper rim 11 of the body 5. The rim portion 11 is preferably curled outwardly to lend strength and rigidity to the mouth portion of the body. The bottom portion 12 of the body 5 is preferably curled outwardly in the same way for the same purpose, and the receptacle will, of course, rest on the floor 13 on this bottom rim. The collar 7 is made from sheet metal and is of circular form, and slightly larger in diameter at the outwardly flanged upper end 14 than at the lower end, so that the upper end portion will fit closely inside the mouth end 10 of the disposable bag when the collar is in place with the flange 14 resting on and extending outwardly slightly beyond the outer periphery of the top rim 11 of the body 5, as illustrated in Fig. 1. In that way, the collar can be inserted easily without danger of damaging or displacing the mouth portion 10 of the bag, although it serves thereafter to hold the mouth portion of the bag in place throughout the filling of the receptacle. When the receptacle is filled and the bag 6 is to be removed, the collar 7 can be raised, as shown in Fig. 2, by engagement of the finger tips with the outer periphery of the flange 14. The extent to which this flange projects beyond the top rim 11 makes it a simple matter for the operator to grasp it firmly enough to remove the collar without even touching the receptacle. The outer periphery of the flange is, moreover, far enough removed from the inside of the collar that there is little or no likelihood of

the fingers being contaminated in the handling of the collar 7, and, of course, once the collar is removed, it may be placed on the floor with the flanged end on top while the filled bag 6 is being removed and a new bag is being inserted, after which the operator can pick up the collar 7 by handling it in the same way as before and insert it in the mouth of the new bag inside the receptacle. The collar 7 throughout the filling of the disposable bag affords ample protection for a sufficient length of the bag, in relation to its depth and diameter, at the mouth end 16 of the bag so that the operator will have no difficulty in removing the bag and closing the same thereafter, if necessary, in so far as any danger of soiling the hands is concerned. When the lid 15 for the receptacle is closed, it has the outer rim portion 16 thereof projecting outwardly over the edge portion of the flange 14, as illustrated in Fig. 1, so that this edge portion is pretty well protected against contamination and there is at the same time a reasonably good seal for the receptacle, which, of course, is important from the standpoint of sanitation. The lid 15 is pivoted at 17 on a bracket 18 projecting from the body of the receptacle, and has an operating link 19 pivotally connected thereto, as at 20, in radially spaced relation to the pivot 17. In that way the treadle 21 that is pivoted intermediate its ends, as at 22, on a cross-bar 23 in the bottom portion of the body 5 of the receptacle is arranged when depressed to raise the lid, as illustrated in Fig. 2, the outer end portion of the treadle 21 projecting through a slot in the side wall of the body 5 below the bottom-piece 8 for pivotal connection with the lower end of the link 19, as indicated at 24.

The operation of the receptacle is believed to be clear from the foregoing description. The construction is relatively simple and inexpensive and avoids the objections noted in regard to prior constructions. A receptacle of this type may, of course, be used wherever the novel features pointed out are of advantage. It may be used in the home, for example, as a receptacle for garbage, or it may be used in the toilets of schools and public buildings as a waste receptacle generally.

It is believed the foregoing description conveys a good understanding of the objects and advantages of my invention. The appended claims have been drawn to cover all legitimate modifications and adaptations.

I claim:

1. In a sanitary waste receptacle comprising a substantially cylindrical open-mouthed container having an outwardly projecting rim defining the mouth portion and containing a removable and disposable paper liner bag having the open end of the bag disposed in the open upper end of said container, means for holding open said liner bag and clamping the upper end thereof and protecting the clamped portion from contamination so that the bag may, when filled, be readily removed from said container without likelihood of a person soiling his hands on said bag in so doing, said means comprising an elongated substantially circular sheet metal collar presenting a substantially smooth inner surface throughout its circumference, said collar being of approximately the same outside diameter at the top thereof as the inside diameter of the container, said collar being slightly tapered substantially the full length thereof so that it is only slightly smaller in diameter at its lower end, whereby to facilitate entry of the lower end of said collar into the mouth of the bag and provide for wedging engagement of the upper end portion of the collar in the mouth of the bag, clamping the mouth portion in surface-to-surface engagement throughout the circumference thereof between said collar and the upper end portion of the container, said collar being of a length sufficient in relation to the depth and diameter of the bag to prevent contamination of enough of the mouth end portion of the bag to permit removal of the bag by a person without soiling his hands, and an annular outwardly projecting flange on the upper end of said collar adapted to rest on the rim of the container for support of the collar therein, said flange projecting outwardly sufficiently in relation to the rim of the container to be easily grasped by the edge portion thereof for easy removal and replacement of the collar by a person without having his fingers placed in contact with the container.

2. In a sanitary waste receptacle comprising a substantially cylindrical open-mouthed container having an outwardly projecting rim defining the mouth portion and containing a removable and disposable paper liner bag having the open end of the bag disposed in the open upper end of said container, means for holding open said liner bag and clamping the upper end thereof and protecting the clamped portion from contamination so that the bag may, when filled, be readily removed from said container without likelihood of a person soiling his hands on said bag in so doing, said means comprising a substantially circular collar of suitable material impervious to moisture presenting a substantially smooth inner surface throughout its circumference, said collar being of a length to reach nearly half the depth of the bag and being of approximately the same outside diameter at its upper end as the inside diameter of said container, and being slightly tapered substantially its full length and being only slightly smaller in diameter at its lower end than at its upper end, whereby to facilitate entering the collar in the bag and providing for wedging engagement in the mouth of the bag while protecting substantially the full length of the upper portion of the bag that is covered by said collar from soiling, said collar having an annularly outwardly projecting flange on the upper end thereof which rests on the projecting rim of the container for support of the collar, said flange projecting radially sufficiently in relation to the rim so that it may be easily grasped by the edge portion thereof for easy removal and replacement of the collar.

NORMAN T. THOREN.