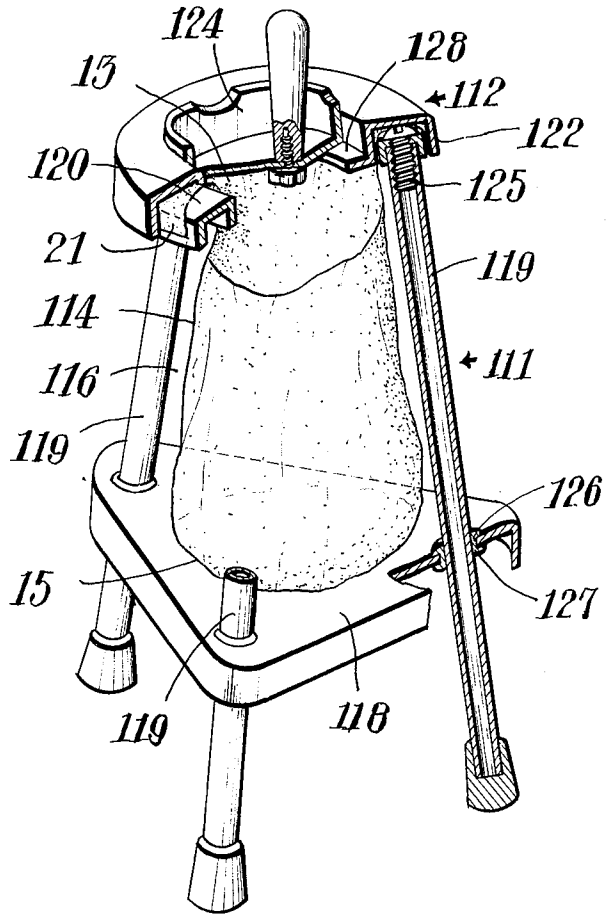
May 31, 1966 YUTAKA OKAZAKI 3,253,812

GARBAGE CONTAINER

Filed Jan. 2, 1964 2 Sheets-Sheet 1

Fig. 1

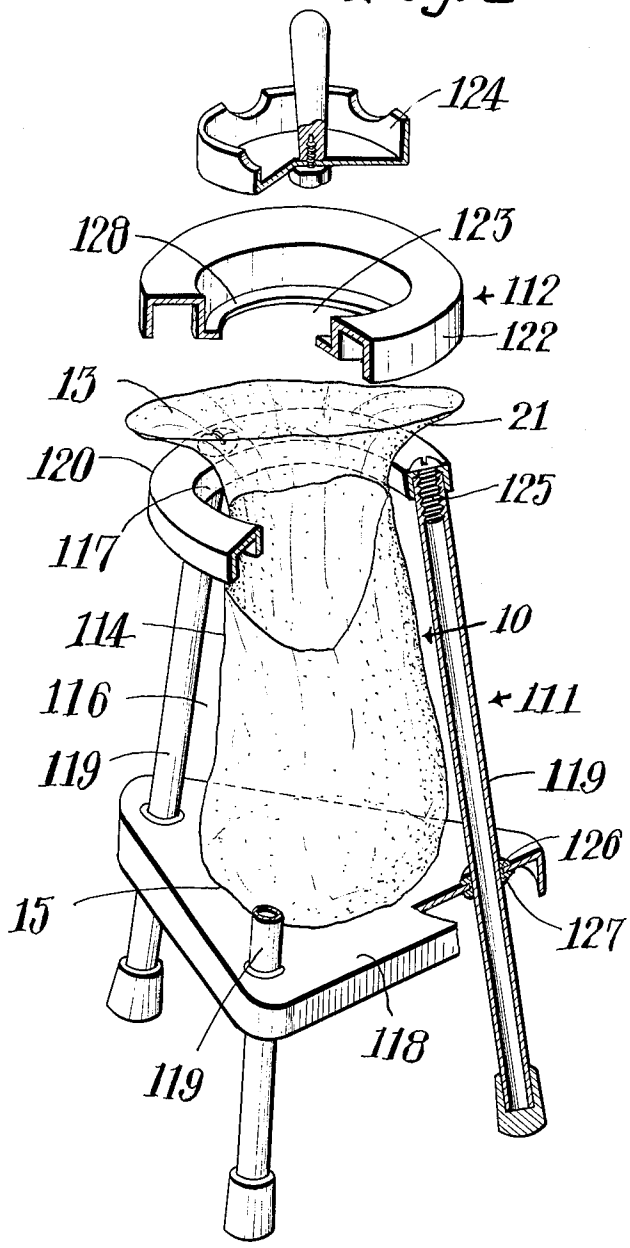


May 31, 1966 YUTAKA OKAZAKI 3,253,812

GARBAGE CONTAINER

Filed Jan. 2, 1964 2 Sheets-Sheet 2

Fig. 2



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GARBAGE CONTAINER

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6 Claims. (Cl. 248—97)

This invention relates to a holder or support for a replaceable garbage bag, and more specifically to a support for a bag which is water-tight and has its brim extending over the edge of the opening of a support frame and is covered with a gimp frame.

In manufacturing a support of the above type intended specifically for the disposal of garbage, it is essential that the garbage bag be perfectly water-tight as garbage is usually watery. Also, the bag must be made of an inexpensive material since it is to be discarded together with garbage contained.

The garbage bag fitted inside the support must have its mouth kept open so that it can readily receive all of the refuse to be thrown therein.

Also, the garbage bag fitted inside the support should be securely attached thereto lest it should yield to the weight of garbage received, or have its opening clogged by the garbage.

It is further necessary that the means to keep the mouth of the garbage bag open and the means to attach the bag to the support should be such as to permit a filled bag to be removed from the support with ease.

Moreover, it is advisable that the support itself be so designed as to enable the garbage bag to be removed readily therefrom.

Just as important, the garbage bag fitted inside the support must allow the garbage to drop directly to the bottom of the bag without sticking to the mouth of said bag, because one may contact the mouth of the bag when the bag is to be changed.

These problems are very difficult to solve. When a thin film of synthetic resin such as vinyl is used in order to minimize the cost of the bag, it is difficult to attach the bag securely to the support, because a synthetic resin film is generally slippery and tends to be torn off even upon light impacts. Also, as it is fragile, the bag of synthetic resin may be torn by the weight of the garbage, if it is suspended on the upper portion of the support.

Also, while the mouth of the garbage bag may be protected with a suitable cover in order to keep the mouth clean, the covering will make it difficult to replace the filled bag by a new one.

An object of the present invention is to provide an attaching means whereby a water-tightly formed garbage bag placed into a support can be securely attached to a portion around the opening of said support while the mouth of said bag is kept open, and so that the bag can be removed from the support and released therefrom in a simple manner.

Another object of the invention is to provide a support for a garbage bag which permits the garbage bag to be readily taken out when it has to be replaced by a new one.

Another object of the invention is to provide a means to prevent the mouth of the garbage bag secured to the support from being soiled by garbage deposited thereon, without any obstruction to subsequent replacement of the bag.

Another object of the invention is to provide a means to support the bottom of the bag in a foolproof manner thereby to prevent the garbage bag fitted inside the support from being torn by the weight of the garbage therein.

Still another object of the invention is to provide a support with a structure that can be collapsed with ease to a compact size for convenience of storage and transportation and that can be readily reopened.

These and other objects and advantages of the present invention will become apparent from the description given hereunder.

In the accompanying drawings:

FIG. 1 is a partly sectional front view of a garbage container according to the invention, in assembled state; and

FIG. 2 is a partly sectional view of the garbage container of FIG. 1, in exploded view.

Referring to FIG. 1, the garbage receptacle of the present invention comprises principally a bag **114** in which garbage is to be dumped, and a support body **111** for the bag comprising a supporting plate **118** on which the bottom of the bag rests, a plurality of supports **119** standing upright and passing through the supporting plate, an annular frame **120** fitted on top of the supports **119** and defining the opening of the garbage receptacle, a gimp frame **112** to be mounted on the annular frame **120** to clamp the end brim of the bag, and a lid **124**.

The annular frame **120** which defines the top opening **117** of the support body **111** is formed separately and independently of the supporting plate **118** for supporting the bottom **15** of the garbage bag **114**. They are connected together by the three separately-formed supports **119**. Thus, the space **116** provided for receiving the garbage bag **114** communicates with the outside through the space between each pair of the adjacent supports **119** so as to enable the garbage bag **114** to be inserted in or removed from the support body **111** through any space between the supports **119**. In other words, replacement of garbage bag **114** can be accomplished by pulling out a waste-filled bag from and placing a new empty one into the support body, all laterally with respect to the support body.

Further, in this garbage receptacle, the annular frame **120** defining the opening **117**, the supports **119** which constitute the side wall and the supporting plate **118** of the support body **111** are individually separable, and the supporting plate **118** and the opening **117** are in such a relationship that the distance therebetween is adjustable to some extent.

The top ends of the supports **119** abut the under face of the annular frame **120** defining the opening **117**, and screws inserted from the top surface of the annular frame **120** are screwed into the top ends of the supports **119**, thereby connecting the annular frame **120** to the supports **119**. The supporting plate **118** is provided with holes **126** at its margin positions corresponding to the feet of the supports **119**, and these holes permit the supports **119** to be inserted therein. Each of the holes **126** is fitted with an elastic ring **127** of a material such as rubber for securing each support **119** therein. As the rings **127** fasten the supports **119** tightly, the supporting plate **118** can be fixed to the supports **119** securely.

The annular frame **120** can be fitted on or detached from the supports **119** simply by screws **125**. When supporting plate **118** is caused to slide along the supports **119**, the plate will move up and down accordingly with respect to the supports, whereby the height of the supporting plate from the bottom of the supports can be regulated as desired. Further, the supports **119** can be pulled out of the supporting plate **118** and the holes **126**.

In the present invention, the gimp frame **112** is so formed that it can be fitted on the annular frame **120** defining the opening **117** of the support body **111**. It need not be fitted on the frame very tightly, but can simply rest over the brim **21** of the garbage bag **114** which extends over the top surface of the annular frame **120** so as to press said brim **21** on the top surface of said annular frame **120** by its own weight.

It is preferable that the downwardly depending part **122** formed on the outer periphery of the gimp frame **112** be as long as possible. The length of the downwardly depending part should at least be sufficient to cover completely the brim **21** of the garbage bag **10** which constitutes a flap outside the annular frame **120**.

The gimp frame **112** is provided at the center thereof with an opening **123** which permits garbage to be thrown therethrough into the bag **10**. It is smaller in diameter than the opening **117** of the support body **111**. In this case, it is desirable that, the inner periphery of the gimp frame **112** facing the opening **123** is inclined gradually downward thereby to form a funnel. With such a structure, garbage thrown into the container through the opening **123** is guided without fail to the central portion of the garbage bag **114**. Also, it is made possible that the lid covering the opening may be small and compact.

In order to reduce the diameter of the opening **123**, an inwardly extending rack (flange) **128** may be formed on the inner periphery of the gimp frame **112**, as shown in FIGS. 1 and 2. Provision of such a rack or flange is advantageous in that it facilitates fitting of the lid **124** securely in place. In such structure, the container may also be used as an ash tray stand by forming the lid **124** as an ash tray and by fitting the lid onto the rack as shown in the drawing. In this case, if the ash tray is filled up with cigarette butts, the butts may be dumped into the garbage bag **114**. Thus the ash tray can be kept always clean with little effort.

The method of handling the garbage receptacles according to the present invention will be described hereinabove.

A garbage bag **114** is inserted into the support body **111**. The bottom **15** of the garbage bag **114** is placed on the supporting plate **118** and the garbage bag is stretched out for use. Then, the brim **21** of the garbage bag **114** is extended outwardly over the annular frame **120** at the periphery of the opening **117**, and is capped by the gimp frame **112** thereon.

With such an arrangement, the mouth of the garbage bag **114** is held open, and the bag is attached securely to the support body **111**. Thus, when garbage is thrown in through the opening **123** of the gimp frame **112**, it is dumped into the garbage bag **114**.

The bottom **15** of the garbage bag **114** rests on the supporting plate **118**. Also, the brim **21** of the garbage bag **114** is clamped between the gimp frame **112** and the annular frame **120** of the support body **111**, whereby it is held securely. Therefore, there is no possibility of the garbage bag **114** slipping down to the lower part of the support body **111** or being torn off midway of its length due to the weight of the garbage.

In addition, if very watery waste is thrown into the bag through the opening **123** with a splash, the dirty liquid will not splash out of the receptacle to soil the clothes of the user, as it is intercepted by the constricted opening **123**. When the garbage bag **114** is filled up with waste and is to be removed, the bag is gripped at its neck by inserting a hand between any two adjacent supports **119**, and the bag is pulled outside of the support body **111** between the supports **119** after the gimp frame has been removed.

When the bottom of the garbage bag **114** fails to reach the supporting plate **118**, the plate can be raised up to the point where the bottom of the bag can rest thereon.

For the purpose of transportation or storage, the support body may be dismantled to its component parts. Its volume can therefore be reduced to a remarkable degree. Further, leakage of offensive odor of the garbage can be prevented by closing the opening **123** with lid **124**.

From the foregoing description it will be apparent that the present invention is well adapted for achieving the purposes set forth hereinabove, and for accomplishing other various specific advantages in regard to the structure.

It is to be understood that numerous modifications may be made to the present invention without departing from the spirit and scope thereof, and therefore the embodiment shown in the accompanying drawings and described herein should be regarded as illustrative, not restrictive.

What is claimed is:

1. For supporting a garbage bag: a main support body including an annular frame having an opening sufficiently large to permit the dumping of waste, a plurality of supports supporting said annular frame, a supporting plate on said supports below said frame; a gimp frame fitted over said annular frame for securing the brim of a garbage bag between said frames, said gimp frame including an inner flange provided with an opening which is smaller in diameter than the opening of the said annular frame, a lid on the flange of the said gimp frame to close the opening therein, said supporting plate being provided with a plurality of holes corresponding to the number of the said supports, and rings of elastic material inside said holes to fasten the said supports to the supporting plate, the level of the said supporting plate with respect to the supports being adjustable.

2. The apparatus as claimed in claim **1**, wherein the frame, supports and supporting plate are detachably assembled, whereby to enable dismantling for transportation and storage.

3. The apparatus as claimed in claim **1** wherein said lid has an annular depository therein and is provided with at least one notch for supporting cigarettes.

4. The apparatus as claimed in claim **1** comprising screws extending through said annular frame and axially into said supports.

5. The apparatus as claimed in claim **1** wherein the supports are tubular legs arranged in substantially upright position.

6. The apparatus as claimed in claim **1** wherein openings are provided between said supports.

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