

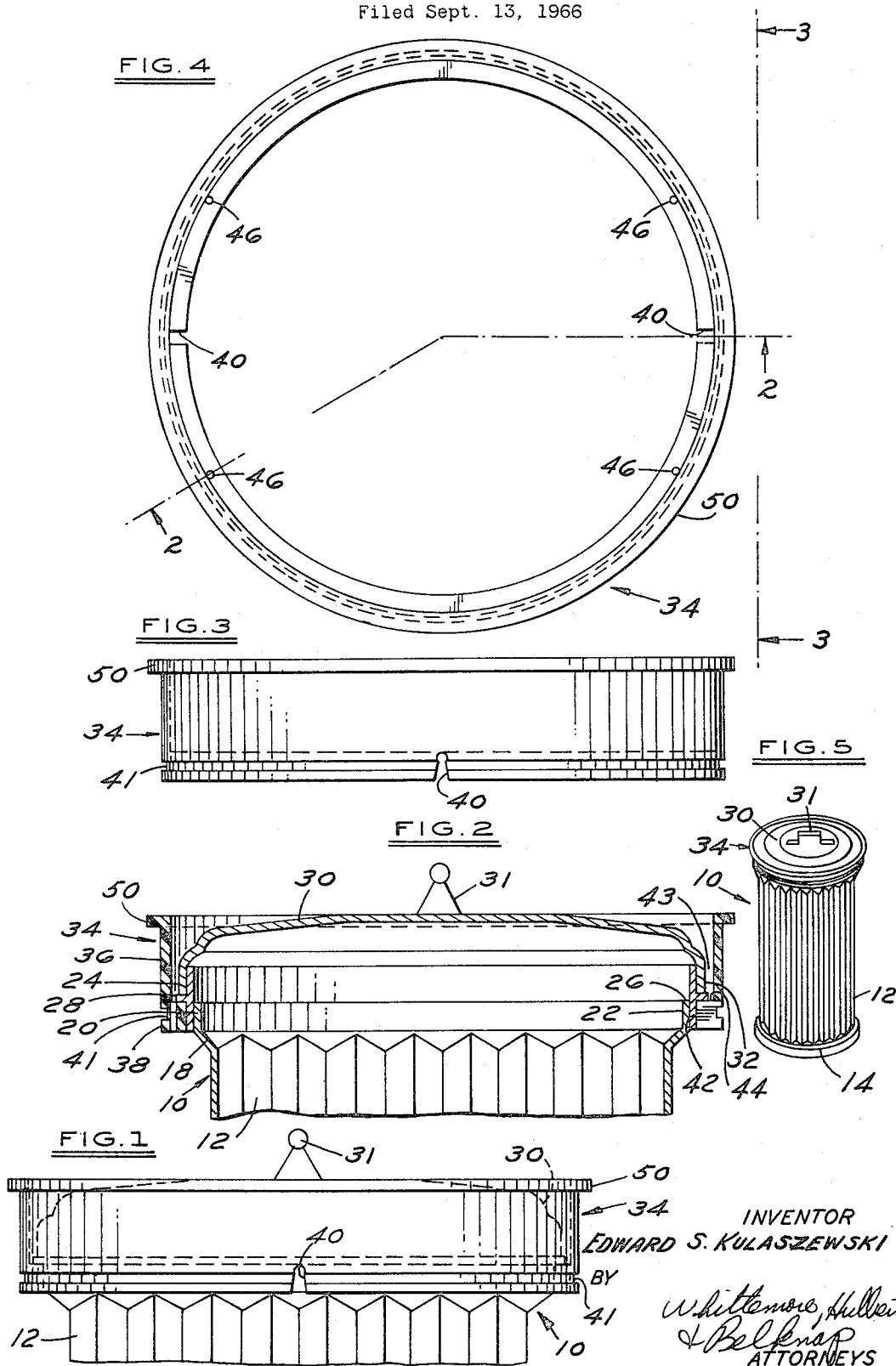
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RECEPTACLE RIM GUARD OR ACCESSORY

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RECEPTACLE RIM GUARD OR ACCESSORY

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ABSTRACT OF THE DISCLOSURE

A container and a protective rim guard therefor are disclosed, the container having a generally continuous rim extending around a top opening thereof upon which a cover is adapted to be mounted to close the opening. The rim guard is of resilient or flexible material, and includes a generally outwardly extending collar surrounding and laterally spaced from the rim, and of greater height than the latter, thus to provide an annular drained clearance space in which an edge portion of the container cover, is received, the guard providing a flexible protective shield to prevent the rim from becoming bent or damaged. The collar of the rim guard provides a resilient, laterally extending bumper flange.

This application is a continuation-in-part application of my copending United States application, Ser. No. 348,437, filed Mar. 2, 1964, now abandoned, entitled, "Rimmed, Rubbish and or Garbage Containers."

This invention relates to a receptacle rim guard or accessory and relates more particularly to the combination of a container and a protective rim guard, such rim guard providing a protective shield for the rim of the container to prevent same from becoming bent or damaged during the unloading of the container.

In particular the invention is primarily designed for use as an accessory or as an integral part of conventional rubbish and/or garbage cans which are utilized extensively by the inhabitants of domestic dwellings and commercial establishments.

Garbage containers and rubbish containers are of substantially identical construction and such containers are normally located at the rear of a parcel of property adjacent to the alley. Such containers are continuously exposed to the elements resulting from a variety of weather conditions during a normal year. In most instances such containers are not sheltered.

In many metropolitan areas the municipality provides for the pick-up of garbage once a week and the pick-up of rubbish every two weeks. At the time such containers are emptied the collector picks up a container and dumps the contents of the container into a garbage truck or other refuse type of vehicle. At such time the collector generally strikes the rim of the container against the hopper of the vehicle and as a result thereof damages the rim of the container. The containers, which are generally of circular cross section, are thus subjected to detrimental forces. Thus the rim, once distorted, makes it extremely difficult to place the cover on the rim of the container.

It has been found that after the container has been unloaded several times that the cover will not fit on the distorted rim thus creating certain economic and sanitary hardships. It will be appreciated that if the cover doesn't fit on the container that the various elements may enter the container such as ice, snow, water, etc. As a result thereof the inner base or bottom of the container rusts and thus diminishes the useful life of the container. In addition it has been found if the cover is not fitted or secured properly to the container that the contents thereof become exposed to such pests as mice, rats, stray ani-

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mals, flies, etc. Thus such conditions affect the public health and welfare.

The present invention has overcome many of the problems enumerated heretofore by providing a rim guard for the container or can which is constructed and arranged on the container to prevent the rim thereof from becoming bent or damaged. Thus when a workman or collector empties the container the rim guard of the container will strike the hopper of the vehicle and will prevent the rim of the container from striking the hopper. It is recommended for most applications that the rim guard or accessory be made from a resilient material so that when the rim guard strikes the hopper of the vehicle it will return to its natural state and shape once the impact forces have been removed. The rim guard of the present invention will protect the rim of the container throughout 360° thus insuring that the cover of the container will fit properly on the container at all times and thereby eliminating the aforementioned health hazards heretofore enumerated.

It is an object of the present invention to provide a novel combination of a container and a protective rim guard, such container comprising a generally tubular body closed at one end and opened at the other end thereof, said other end of the body being provided with a generally continuous rim extending around the opening in the body and upon which a cover is adapted to be mounted to close the other end, such rim extending in an outwardly direction away from the closed end of the body, such rim guard including a generally outwardly extending collar surrounding and laterally spaced from the rim to provide an annular clearance space in which the edge portion of the cover for the container is adapted to be received, and means for securing the rim guard to the other end of the container to maintain the rim and the collar in spaced relationship, such rim guard providing a protective shield for the inner rim to prevent same from becoming bent or damaged.

Another object of the present invention is to provide a combination of the type previously described wherein the rim is provided with a generally continuous laterally extending flange adapted to engage the edge portion of the cover.

Still another object of the present invention is to provide a combination of the type previously described wherein the collar has a height greater than the height of the rim, the outer end portion of the collar extending outwardly beyond the rim.

A further object of the present invention is to provide a combination of the type previously described wherein the rim guard is red in color to denote that the container is to be used for rubbish purposes.

A still further object of the present invention is to provide a combination of the type previously described wherein the rim guard is green in color to denote that the container is to be used for garbage purposes.

Another object of the present invention is to provide a combination of the type previously described wherein the rim guard is made from a resilient material.

Still another object of the present invention is to provide a combination of the type previously described wherein the rim guard includes an annular sleeve on the inner end portion of the collar which engages the other end of the body and maintains the rim and collar in spaced relationship, the outer surface of the sleeve defining the bottom of the clearance space.

A further object of the present invention is to provide a combination of the type previously described wherein the outer end of the collar is provided with a generally laterally extending resilient flange defining a bumper.

A still further object of the present invention is to provide a combination of the type previously described

wherein the outer surface of the sleeve of the rim guard is provided with a plurality of drain holes to permit fluids to escape from the clearance space.

Another object of the present invention is to provide a combination of the type previously described wherein the outer periphery of the sleeve of the rim guard is provided with one or more expansion slots to adapt such rim guard to fit containers of various sizes.

Still another object of the present invention is to provide a combination of the type previously described wherein the outer periphery of the base of the rim guard is provided with an annular groove which is adapted to receive means for securing the rim guard to the container.

It is thus another object of this invention to provide a simplified low cost structure of the aforementioned type having certain advantages contributing to efficiency, reliability and long life as well as ease of maintenance.

Further objects and advantages of the present invention will be apparent from the following description, reference being had to the accompanying drawing wherein a preferred form of the present invention is clearly shown.

FIGURE 1 is a fragmentary elevational view of the upper end of a container provided with a rim guard.

FIGURE 2 is a fragmentary vertical sectional view through the container and rim guard assembly and taken on the line 2—2 of FIGURE 4.

FIGURE 3 is a vertical elevational view of the rim guard taken on the line 3—3 of FIGURE 4.

FIGURE 4 is a plan view of the container and rim guard assembly with the cover removed.

FIGURE 5 is a perspective view of a conventional garbage or rubbish type of container.

Referring now to the drawing, FIGURE 5 illustrates a conventional garbage or rubbish container or can 10 having a generally tubular body 12 which is closed on the bottom end thereof by a lid or base 14. The upper end of the container is open and is adapted to be closed by a cover 30. It should be appreciated that the container 10 may be made from metal or from a suitable plastic material as is well known in the art. In addition, the container 10 may be of various cross sections such as circular, oval, rectangular, square, or the like. In addition, the container 10 may be of various sizes and capacities as is well known in the art. It is sufficient to say that the sizes of the containers are standardized by the industry.

FIGURE 2 illustrates the container 10 as having on the upper or outer end thereof an outwardly sloping wall portion 18 terminating in an outwardly opening and generally continuous flange 20 which surrounds the usually circular opening 22 of the container 10. The flange 20 has secured thereto an annular and normally rolled rim 24. The rim 24 extends outwardly beyond the upper edge 26 on the flange 20. The rim 24, which is conventional in the art, is provided with a laterally or radially extending continuous flange 28. The rim 24 serves as a friction ring for the cover 30 as is well known in the art. The flange 28 is engageable with the edge portion 32 of the cover 30 as is best illustrated in FIGURE 2. The cover is provided with a handle 31.

The structure of the container 10 described heretofore is old in the art. The rim 24, as explained previously, was generally bent and distorted by the garbage and rubbish collector thus preventing the cover 30 from seating and fitting properly on the rim 24 against the flange 28 as illustrated in FIGURE 2. The rim guard 34 of the present invention is adapted to fit over the upper end of the container 10 and to protect the rim 24 from damage. In the majority of instances it is recommended that the rim guard 34 be made from a resilient material which will deform upon striking the hopper of the refuse vehicle and will tend to return to its original shape once the impact forces have been removed. The guard 34 must have sufficient strength so that it can withstand

continued striking against a solid object. In addition the guard 34 must be made from a suitable material which will not be adversely affected by heat and cold. As an example, the rim guard 34 may be made from a vinyl plastic material or from other synthetic materials such as rubber compounds or other equivalent resilient materials. In certain cases rubber may also be used.

The resilient rim guard 34 includes a tubular collar 36 having at the inner or lower end thereof an annular sleeve or base 38. The guard 34 is adapted to be resiliently deformed so that the inner periphery of the sleeve 38, which is generally tapered, fits over the flange 28 and is thereafter adapted to resiliently and frictionally engage that portion of the rim 24 located below the flange 28 as best illustrated in FIGURE 2.

It has been found that in certain instances the resiliency of the sleeve 38 and rim guard 34 is sufficient to hold and maintain the rim guard in its proper position on the container 10, with the collar 36 located in a generally parallel and spaced relationship with respect to the rim 24.

Due to the fact that the diameter or the size of the container 10 surrounding the opening 22 may vary from manufacturer to manufacturer, the rim guard 34 is provided with a pair of diametrically opposed compression or adjustment key slots 40 as best illustrated in FIGURES 3 and 4. The slots 40 are generally located in the resilient sleeve 38 of the guard 34 and are adapted to open or close when required to provide a proper fit between the guard 34 and the rim 24. The sleeve 34 is provided with a continuous groove 41 on the outer periphery thereof. The groove 41 is adapted to accommodate a clinch strap and anchor screws, not shown. It should also be appreciated that the sleeve 38 of the rim guard 34 may be secured to the rim 24 of the container 10 by other appropriate fastening means and techniques as an example by resin, plastic glue, rubber adhesion or by a metallic band. In addition, it should be appreciated that the entire rim guard 34 may be made as an integral part of the container 10 during the normal forming and processing operation regardless of whether the container 10 is made from a plastic material or from a metal material.

The inner periphery 42 of the rim guard sleeve 38 is generally tapered in a downwardly and inwardly direction to facilitate the insertion of the rim guard 34 over the flange 28 of the rim 24. As mentioned heretofore the collar 36 and the rim 24 are spaced apart in a generally parallel relationship to define a clearance space 43, the bottom of which is defined by the upper surface 44 of the sleeve or base 38 of the rim guard 34.

The base or sleeve 38 is provided with a plurality of generally equally spaced openings or holes 46 which provide drain openings for the clearance space 43. It will be appreciated, when the cover 30 is assembled in the rim 24 as illustrated in FIGURE 2, that rain may collect in the clearance space 43. The openings 46 will drain the water and thus prevent such water from rusting the container 10 and cover 30.

The rim guard 34 may be made in various sizes and shapes in order to properly mate with and fit the upper end of a container. The guard 34 when used as an accessory is usually molded in one piece from a suitable plastic material, with the tapered and slotted base or sleeve 38 formed during such molding operation. The rim guard 34 does not interfere with the normal insertion and removal of the cover 30 with respect to the container 10. It should also be noted that the collar 36 of the rim guard 34 has a height greater than the height of the rim 24 as best illustrated in FIGURE 2. With such a construction the upper or outer end portion of the collar 36 extends outwardly beyond the rim 24 a sufficient distance to provide adequate protection for the rim 24.

The rim guard 34 includes several additional features. The outer or upper end of the collar 36 is provided with a laterally extending and continuous flange 50 which

forms a resilient bumper. The bumper 50 provides a reinforced area for the guard 34 and it is generally that portion of the guard 34 which strikes the hopper of the refuse vehicle. Another important feature of the present invention is the manner in which the rim guard 34 is colored so that any person may readily observe the specific purpose for which the container is intended. The rim guard 34 will be painted or colored red and will, when mounted on a container 10, designate such container 10 as a rubbish receptacle. The guard 34 will also be painted or colored green and, when mounted on a container 10, will designate that container as a garbage receptacle.

Thus the rim guard 34, which is inexpensive, may be installed with ease on the container 10 by an unskilled person. The guard 34, when installed, will extend the period of sanitation and serviceability of such container.

The drawing and the foregoing specification constitute a description of the improved receptacle rim guard or accessory in such full, clear, concise and exact terms as to enable any person skilled in the art to practice the invention, the scope of which is indicated by the appended claims.

What I claim as my invention is:

1. The combination of a container and a protective rim guard, said container comprising a generally tubular body closed at one end and opened at the other end thereof, said other end of the body being provided with a generally continuous rim extending around the opening in said body and upon which a cover is adapted to be mounted to close said other end, said rim extending in an outwardly direction away from the closed end of said body, said rim guard being of resilient material and including a generally outwardly extending collar surrounding and laterally spaced from said rim to provide an annular clearance space therebetween in which the edge portion of the cover for the container is adapted to be received, and means for securing said rim guard to the other end of said container to maintain said rim and said collar in spaced relation-

ship, said rim guard providing a protective shield for said rim to prevent same from becoming bent or damaged, said rim guard including an annular sleeve on the inner end portion of said collar which engages said other end of the body and maintains said rim and collar in spaced relationship, the outer surface of said sleeve defining the bottom of said clearance space.

2. The combination defined in claim 1, in which said collar has a height greater than the height of said rim.

3. The combination defined in claim 1, in which said collar has a height greater than the height of said rim, the outer end portion of said collar extending outwardly beyond said rim and the other end of said body.

4. The combination defined in claim 1, in which said rim guard is colored distinctively, in reference to said container.

5. The combination defined in claim 1 wherein the outer end of said collar is provided with a generally laterally extending resilient flange defining a bumper.

6. The combination defined in claim 5 wherein the outer surface of the sleeve of said rim guard is provided with a plurality of drain holes to permit fluids to escape from said clearance space.

7. The combination defined in claim 6 wherein the outer periphery of the sleeve of said rim guard is provided with one or more expansion slots to adapt such rim guard to fit containers of various sizes.

8. The combination defined in claim 7 wherein the outer periphery of the base of said rim guard is provided with an annular groove which is adapted to receive means for securing the rim guard to the container.

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