May 8, 1956 A. GEROSA 2,744,710

MOVABLE SUPPORT FOR CONTAINERS

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FIG. 1

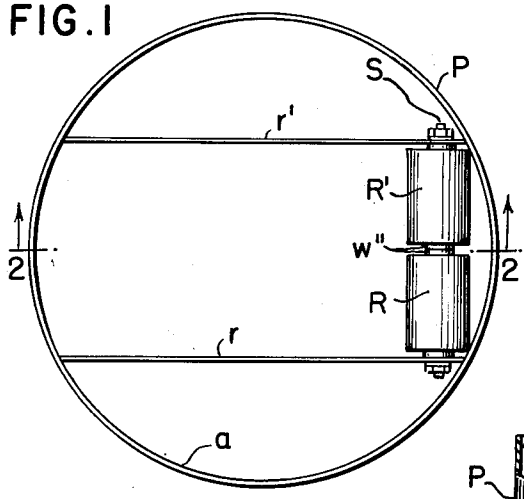


FIG. 5

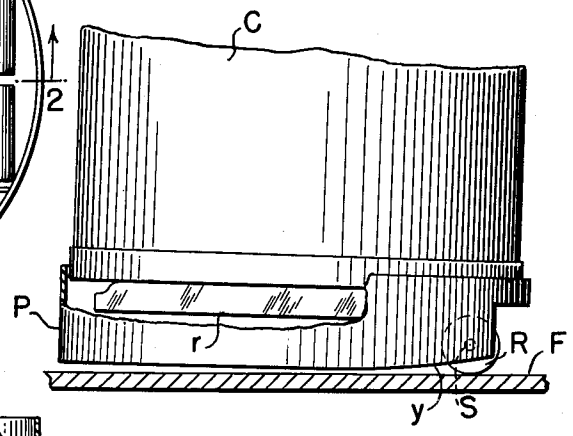


FIG. 2

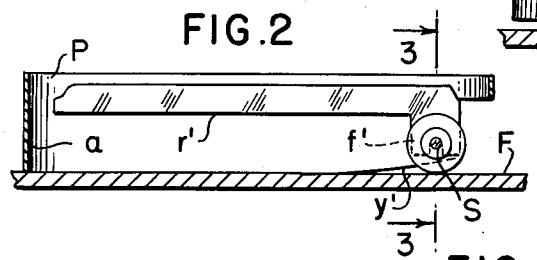


FIG. 3

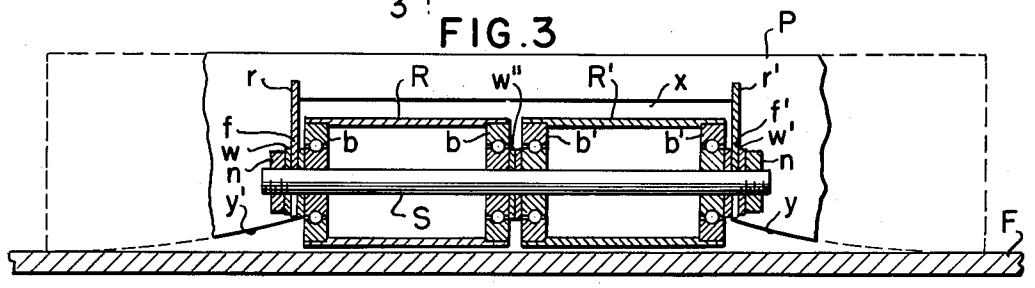
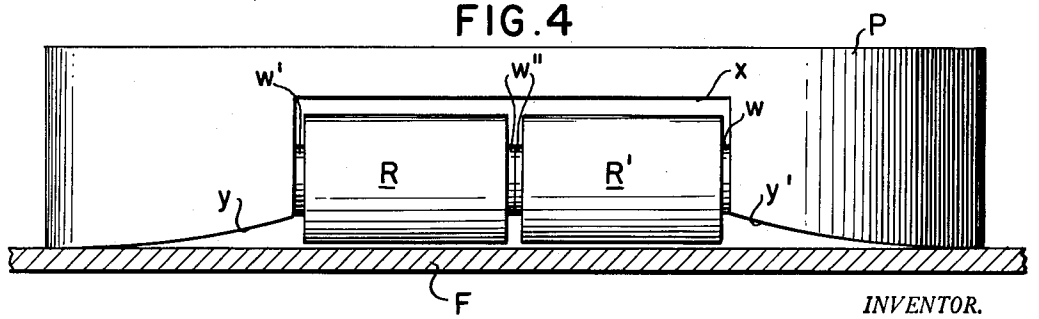


FIG. 4



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MOVABLE SUPPORT FOR CONTAINERS

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3 Claims. (Cl. 248—129)

This invention relates to containers and more particularly to a movable support means for containers and has for its objects the provision of an improved support means of simple, strong, compact construction which is adapted to be readily tilted and easily moved when in tilted position.

Another object of the invention is to provide an improved movable support means or platform for a container which is substantially immovable when in rest position on a floor or base but which is readily up-tilted to engage a pair of rollers with the floor surface and to be moved from said rest position to any other desired rest position.

Still another object is to provide a movable support means for containers, such as garbage cans, ash cans, trash cans, barrels, drums, carboys and the like difficultly movable containers, which is adapted to receive and support the loaded container immovably in a rest position but adapted to be tilted to a position engaging a pair of rollers with the surface of the floor or base on which it is sustained and to be readily movable when in said up-tilted position on the said rollers to a new or desired other location on said floor or base and returned to rest position.

Still another object is to provide an improved movable support base or platform for weighted containers of different types and kinds.

Other objects will be apparent as the invention hereinafter is more fully disclosed.

In accordance with these objects I have discovered that by sustaining a pair of rollers under and adjacent one side of a supporting base or platform for a container at a horizontal level locating the roller surface slightly above the floor surface on which the supporting base or platform rests, the said supporting base or platform with the weighted container thereon may be readily up-tilted onto said rollers and when in this up-tilted position the container and support base therefor may be readily moved on said rollers to a new location for return to rest position.

The invention is readily adapted to be applied to and used with a plurality of different types and kinds of supporting bases or platforms, such as round, square or rectangular shaped platforms but will be described as it has been adapted to be applied and used with substantially round supporting platforms, as the majority of containers, such as garbage cans, ash cans, trash cans, barrels, drums, carboys and the like, are substantially cylindrical in shape with one end closed and the other end open in part or in whole. The closed end of the cylindrically shaped container is usually referred to as the bottom and rests on the platform. Such containers are of different diameters but within limits this is immaterial for the purposes of the present invention, as will hereinafter be apparent.

Referring now to the drawings:

Fig. 1 is a plan view of the movable support means of the present invention;

Fig. 2 is a sectional view of the same taken along plane 2—2 of Fig. 1;

Fig. 3 is a sectional view on an enlarged scale taken along plane 3—3 of Fig. 2;

Fig. 4 is an enlarged side view of the device of the present invention, the device being shown in rest position; and

Fig. 5 is a side elevation of the same in up-tilted position illustrating the movability of the device.

As may be seen in the drawings, the device of the present invention consists in the specific embodiment illustrated, of a substantially round platform P adapted to rest upon and to engage the surface of a floor over the greater portion of its periphery on which platform P a container C may be disposed, the said platform P being provided with a pair of rollers R—R′ mounted under and adjacent one side thereof with a cut-away section of the platform adjacent the said rollers adapting the platform P to be up-tilted to the position shown in Fig. 5 engaging the rollers with the surface of the floor and carrying the weight of the platform and container thereon, thereby to impart movability to the platform.

Platform P may be constructed in a plurality of ways and out of a plurality of materials without essential departure from the invention. In the specific embodiment shown the platform P is constructed of iron for greater strength with minimum material. As illustrated, platform P consists of an annular band, hoop or ring *a* of heavy gauge steel having a diameter approximating 14½″, a width of about 3″ and a thickness of about ⅛″. This diameter platform arbitrarily has been selected by me as being widely adapted for use with a relatively large number of garbage, ash and trash cans and pails now being used and of standard sizes.

Ribs *r*—*r*′ are welded in position, substantially as shown, to function as braces for the ring *a*, as a platform on which to seat the container C and as a bearing support for rollers R—R′. As shown in Fig. 2 the brace ribs *r*—*r*′ are comprised of ⅛″ steel strip steel of about ¾″ width and are located with the upper edge about ⅜″ below the upper edge of the ring *a*, thereby to provide a retaining ledge to hold the container C in position on the platform P.

As may be noted in Figs. 2 and 3, each rib *r*—*r*′ is provided with a depending flange *f*—*f*′ each provided with a recess adapted to receive therein the opposite ends of shaft S which is secured in position therein by means of nuts *n*—*n*′ and lock washers *w*—*w*′ at a horizontal level adapted to bring the roller surfaces of rollers R and R′ mounted on the shaft S the desired small distance above the horizontal level of the floor F and the bottom peripheral edge of ring *a*, said rollers being located adjacent the rim *a* wholly within the circumferential boundary line of the rim. Rollers R—R′, preferably, are provided with ball-bearings *b*—*b* and *b*′—*b*′ to provide for relatively free rotation of the rollers in either direction on the shaft S as is indicated in Fig. 3.

To facilitate the up-tilting of the platform P onto rollers R—R′, the ring *a* is provided with a cut-out section X and adjacent rounded off areas Y—Y′, as shown in Fig. 4, which sections X and Y—Y′ may be variously shaped without essential departure from the invention.

The particular diameter of shaft S and its length may be varied widely without departure from the invention depending upon the anticipated load it is designed to carry and the width of rollers R—R′. I prefer to provide two (2) relatively wide and close spaced rollers R—R′, as shown in the drawing, to facilitate turning the platform when in up-tilted movable position, although it is to be understood that relatively narrow and heavier rollers with wider spacing therebetween also may be used and are to

be considered as equivalents for the roller structure shown for the purposes of the present invention.

It is believed apparent from the specific embodiment of the invention shown in the drawings that the platform P is substantially immovable when in rest position as better than three-fourths of the bottom edge of ring *a* engages the surface of the floor F and rollers R—R′ are out of contact with the floor surface. However, when it is desired to move the platform P to a new location it is only necessary to tilt the platform to the position shown in Fig. 5 where the whole weight of the platform P and container C is carried by the rollers R—R′. In this tilted position the platform P with its container C thereon is readily moved forwardly or reversely and may be turned in either direction on said rollers.

Where platform P is either square or rectangular in shape, the rollers R—R′ can be disposed in substantially the same position under and adjacent one bottom edge thereof with the adjacent sides of the platform cut away sufficiently to permit the tipping of the platform upwardly onto the rollers, as provided for with the round platform P of the specific embodiment.

In substitution for rim member *a* in the specific embodiment shown I may employ at least four equi-spaced legs to sustain the platform immovably upon a floor without essential departure from the invention as one skilled in the art will recognize, and such modification is contemplated as being within the scope of the invention as it is hereinafter defined in the claims.

Various other modifications and departures from the invention as hereinabove disclosed will be apparent to those skilled in the art but all modifications and departures from the invention are contemplated as may fall within the scope of the following claims.

What I claim is:

1. A movable support for containers, said support comprising a platform upon which the container is to be seated, a rim member surrounding the platform to which the platform is rigidly secured, said rim member extending above and below the platform, the depending portion of the rim member terminating in an edge adapted to engage a floor over the greater portion of its extent to sustain the platform in a stable manner on the floor and in parallel spaced relation thereto, and the upstanding portion providing a flange adapted to retain a container in position on said platform, a pair of rollers, mounting elements retaining the rollers in spaced axial alignment under the platform and adjacent the rim member wholly within the circumferential boundary line thereof, said mounting elements locating the roller surfaces at a level slightly above the level of the floor engaging edge of said rim member, and the portion of said rim member adjacent to and on both sides of said rollers being cut away to permit the tipping of said support from rest position to lower said rollers into supporting engagement with the floor for movement of the support thereon.

2. A movable support for substantially cylindrical shaped containers, said support comprising a platform on which the container is to be seated, an annular rim member surrounding said platform and extending above and below the same, the platform being rigidly secured to the rim member at the inner side thereof, the bottom edge of the rim member being adapted to engage a floor surface over the greater portion of its extent to sustain the platform in a stable manner on the floor in parallel spaced relation to the floor surface, and the upstanding portion of the rim member providing a flange adapted to retain a container in position on the platform, a pair of rollers, mounting elements retaining the rollers in axial alignment under the platform adjacent said rim member wholly within the circumferential boundary line thereof, said mounting elements locating the roller surfaces in a position just above the level of the floor engaging edge of the rim member, and the portion of said rim member adjacent to the rollers being cut-away and rounded off to permit the up-tilting of the support from rest position to lower said rollers into supporting engagement with the floor for movement of the support thereon.

3. A movable support for substantially cylindrical shaped containers according to claim 2, and in which the platform comprises a pair of spaced strip members extending transversely of the rim member within the same with the side faces of the strips vertically disposed, said strips being rigidly secured at opposite ends to the rim member at the inner side of the latter, and the mounting elements for the pair of rollers comprise a bearing on each of said strip members below the upper edge thereof and a shaft extending horizontally substantially at right angles to said pair of strip members and supported at opposite ends in said bearings, the rollers being rotatably mounted on said shaft.

References Cited in the file of this patent

UNITED STATES PATENTS

581,409	Smith	Apr. 27, 1897
806,885	Focht	Dec. 12, 1905
808,739	Focht	Jan. 2, 1906
926,288	Rice	June 29, 1909
2,311,928	Buehler	Feb. 23, 1943
2,321,981	Bowers	June 15, 1943
2,347,947	Hamilton	May 2, 1944
2,634,933	Grimslet	Apr. 14, 1953