July 6, 1954 J. R. REINSMA 2,683,012

TILTABLE LUBRICANT CONTAINER DOLLY

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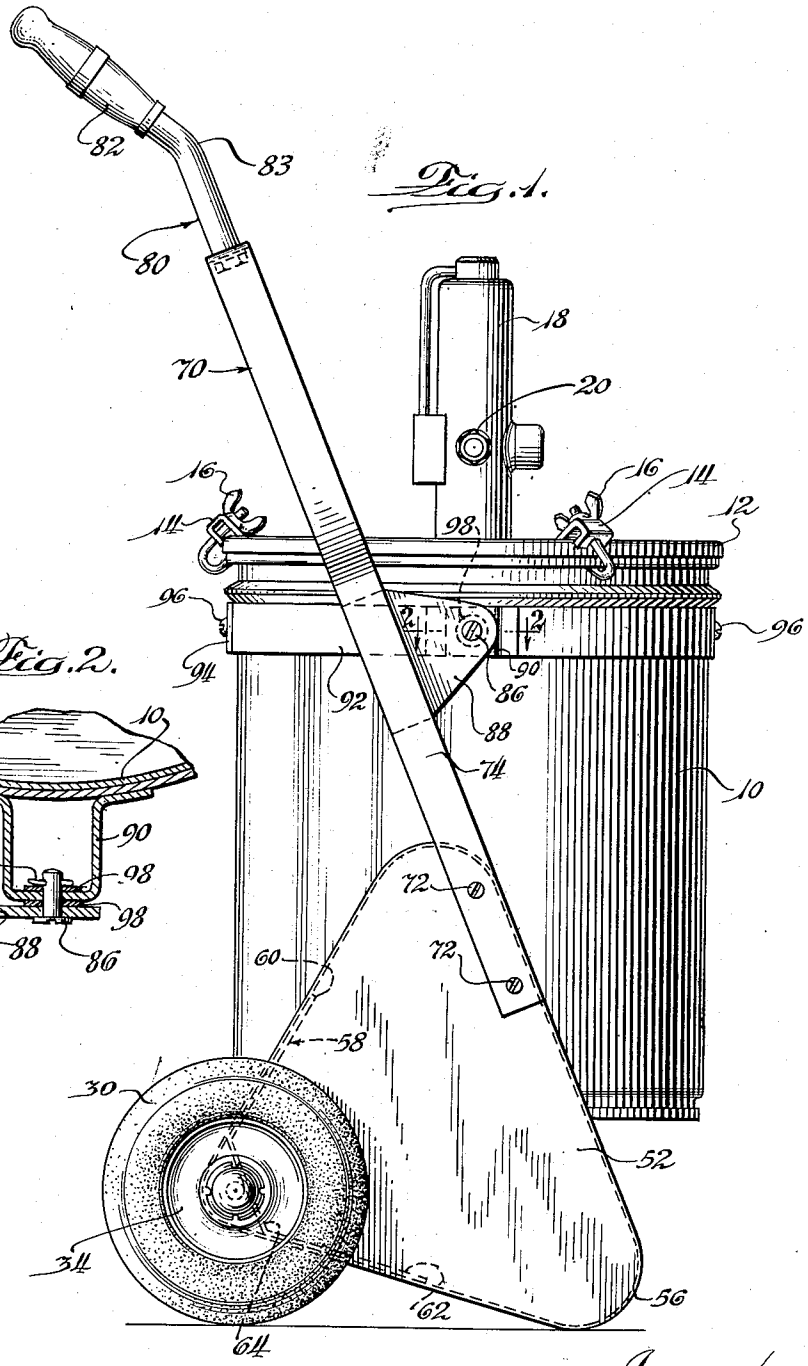


Fig. 1.

Fig. 2.

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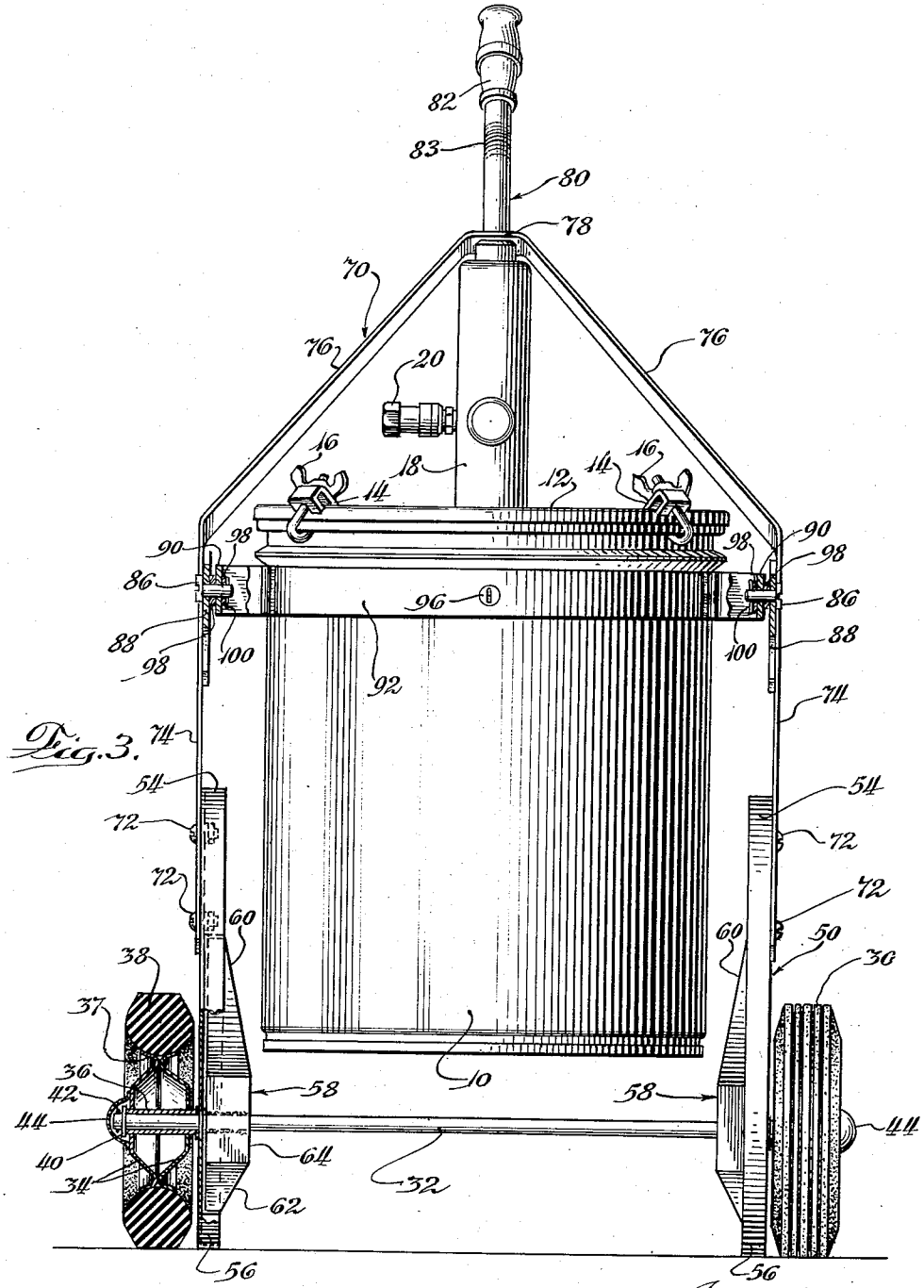


Fig. 3.

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UNITED STATES PATENT OFFICE

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TILTABLE LUBRICANT CONTAINER DOLLY

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2 Claims. (Cl. 248—129)

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The present invention relates to a tiltable dolly for carrying a lubricant drum or the like in an upright position.

One object of the invention is to provide an improved dolly of the above character having a simplified, sturdy construction susceptible of extremely economical manufacture.

A related and more specific object is to provide such a tiltable dolly having greatly simplified, yet convenient means for carrying a lubricant drum or the like always in the upright position.

Further objects, advantages and features of the invention will become apparent from the following description of an illustrative embodiment taken with the drawings, in which:

Fig. 1 is a side elevational view of a wheeled lubricating apparatus constructed in accordance with the invention;

Fig. 2 is a fragmentary sectional plan view taken as indicated by the line 2—2 in Fig. 1; and

Fig. 3 is a front elevational view.

The illustrative apparatus shown in the drawings includes a generally cylindrical container or drum 10 adapted to hold a considerable quantity of lubricant which may be about 50 lbs., for example. A cover 12 may be secured to the top of the drum 10 by means of clamps 14 which are adjusted by means of wing nuts 16. A pump 18 for withdrawing lubricant from the drum 10 and supplying it under pressure is mounted at the center of the cover 12, the pump extending downwardly into the drum and protruding upwardly above the cover. The pump may be operated from a source of power such as an electrical outlet or a compressed air line. The pump supplies lubricant under pressure to an outlet fitting 20 adapted to receive a lubricant hose (not shown) for conveying lubricant to a control valve and thence to machine parts which are to be lubricated.

The dolly is provided with two wheels 30 carried rotatably at the opposite ends of an axle 32. The wheels comprise a pair of dished discs 34 secured together face to face and mounted on a tubular hub 36. The discs have rims 37 to support a tire 38 made of rubber-like material. Washers 40 are positioned at the ends of the hubs, and the hubs are secured on the axle 32 by means of pins 42. The ends of the axle are covered by hub caps 44.

The axle is carried at its ends just inside the wheels by a pair of side frame members 50. Each of the members 50 includes a generally triangular plate or web 52 having a narrow reinforcing flange 54 extending inwardly along its entire periphery which extends around a forward apex, a rear apex, and an upper apex defined on the plate. The front corners or apexes 56 of the side members 50 are rounded to form skids.

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Each of the side members 50 is reinforced by a rib 58 having an upper leg 60 welded to the inside of the portion of the flange 54 extending along the rear edge of the triangular web 52. The rib 58 has a lower leg 62 welded to the inside of the portion of the flange 54 extending along the lower edge of the web 52. The upper and lower legs of the rib are connected by a portion 64 of the rib extending diagonally across the web near its rear corner. The axle 32 extends through the rear apexes of the webs 52 immediately to the rear of the diagonal portions 64 of the ribs, and the axle may be welded to the diagonal portions which extend substantial distances along the axle, as shown. The diagonal portion 64 of each of the ribs is wider than the flanges 54 and the legs 58 and 62 are tapered outwardly from the width of the diagonal portion to the width of the flanges 54.

A generally arch-shaped bar 70 interconnects the upper portions of the side members 50. The lower ends of the bar 70 are secured by bolts 72 to the outer side of the web 52 adjacent the upper portion of its front edge, the front edge of the bar and the front edge of the web being in the same plane.

The bar has a pair of lower legs 74 extending parallel to the outer surfaces of the webs 52 and a pair of oblique connecting portions 76 terminating at their upper ends in a short apex portion 78. A round handle 80 carrying a grip 82 is bolted to the apex portion 78 of the bar and extends upwardly and rearwardly therefrom, the handle having a rearward bend 83.

The lubricant drum 10 is suspended between the upper ends of the lower legs of the bar 70 by means of a pair of headed pivots 86 extending through a pair of generally triangular brackets 88 welded to the inner sides of the bar 70. The pivots extend inwardly through U-shaped brackets 90 which may be welded to a receiver comprising a band 92 embracing the container 10 well above its center of gravity. The band may have a lapped-over joint 94 on the rear side of the container to facilitate removal of the band from the container. The band may be secured to the container by bolts 96 threaded into the container. Washers 98 are interposed between the triangular brackets 88 and the U-shaped

brackets 90. The pivots 86 may be secured in place by means of transverse cotter pins 100. If desired, the U-shaped brackets 90 may be welded directly to the container 10 and in that case the band 92 may be omitted.

The lubricating apparatus, together with its dolly, is shown in its parked position in Figs. 1 and 3 of the drawings. The apparatus occupies this position during normal use. In this position the skids 56 rest upon the floor surface. The pivots 86, which support the lubricant container 10, are positioned approximately midway between the axle 32 and the point at which the skids contact the floor surface. Consequently, the lubricating apparatus is unusually stable in its parked position and there is little possibility of tipping over the apparatus during use. Because of its pivotal connection to the dolly, the lubricant container 10 is maintained in upright position.

When the lubricating apparatus is being moved from place to place, the dolly is tilted rearwardly by means of the handle 83 to disengage the skids 56 from the floor surface. The dolly may then be moved on its wheels 30 with great facility. The lubricant container 10 swings on its pivots 86 to maintain the container in its upright position.

When the container 10 is to be removed from the dolly, the apparatus may be tilted to either of two positions. The dolly may be tilted rearwardly on its wheels to lower the lubricant container to the floor surface at a point to the rear of the wheels. The container may then be removed from the dolly by withdrawing the cotter pins 100 and the pivots 86. If the lubricant container is to be transferred to a low platform, or is to be placed adjacent a wall, it is more convenient to tilt the dolly forwardly on the skids 56, which are conveniently rounded for this purpose. The container 10 swings on its pivots 86 and is deposited on the floor surface at a point in front of the skids 56.

When all of the lubricant has been withdrawn from the container 10 by the pump 18, the container may be removed as described above, and exchanged for a full container. The container may also be refilled while it is in position on the dolly. Refilling may be conveniently accomplished when the container is moved into either of its two positions on the floor surface, or into the parked position shown in the drawings.

The arched supporting bar 70 is made sufficiently high and the pivots 86 are located so that clearance is provided for the pump 18 to swing under the bar 70 when the dolly is tilted forwardly on its skids 56. The container is suspended high enough by the pivots so that clearance is provided between the axle and the lower part of the container when the dolly is tilted forwardly and backwardly.

As indicated by the appended claims, the essentials of the invention may be practiced without strict adherence to all of the details of the apparatus described above to explain and illustrate the invention.

I claim:

1. A tiltable dolly for carrying a lubricant drum or the like in the vertical position, comprising, in combination; a pair of similarly shaped, triangular support plates positioned in opposed spaced relation to each other; each of said plates defining a forward apex shaped to form a support skid adapted to rest directly on a floor surface or the like, a rear apex disposed rearwardly on said forward apex, and an upper apex above said forward and rear apexes; support means comprising a pair of legs secured to the upper apexes of said respective plates and extending upwardly therefrom to connect with handle means for the dolly, an axle extending through said rear apexes of said respective plates, a pair of support wheels journaled on said axle, reinforcing means fixed to said respective plates adjacent said rear apexes thereof, said respective reinforcing means extending alongside said axle for substantial distances and being rigidly attached thereto to fix said axle against rotation and to form sturdy cantilever supports for said plates, a pair of opposed pivotal mounts on said respective legs above said plates, a support band adapted to encircle a container drum in supporting relation thereto, and diametrically opposed means on said band supporting the latter on said respective mounts.

2. A tiltable dolly for carrying a lubricant drum or the like in an upright position, comprising, in combination, upright support means including a handle portion on the upper end thereof and a pair of generally parallel downwardly extending legs; a pair of similarly shaped, opposed plates fixed to the lower ends of said respective legs and disposed in spaced relation to each other; the forward portions of said respective plates being shaped to form skids adapted to rest directly on a floor surface or the like, an axle extending through the rear portion of said respective plates in rearwardly spaced relation to said skids, a pair of support wheels journaled on said axle, reinforcing means fixed to said respective plates, said reinforcing means extending alongside said axle for substantial distances and being rigidly attached thereto to fix the axle against rotation and to form sturdy cantilever supports for said plates, pivot means on said respective legs, and a receiver pivotally mounted on said pivot means and adapted to support a lubricant container therein.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
720,422	Green	Feb. 10, 1903
1,814,342	Smith	July 14, 1931
1,832,523	Berger	Nov. 17, 1931
2,577,186	Florer	Dec. 4, 1951