

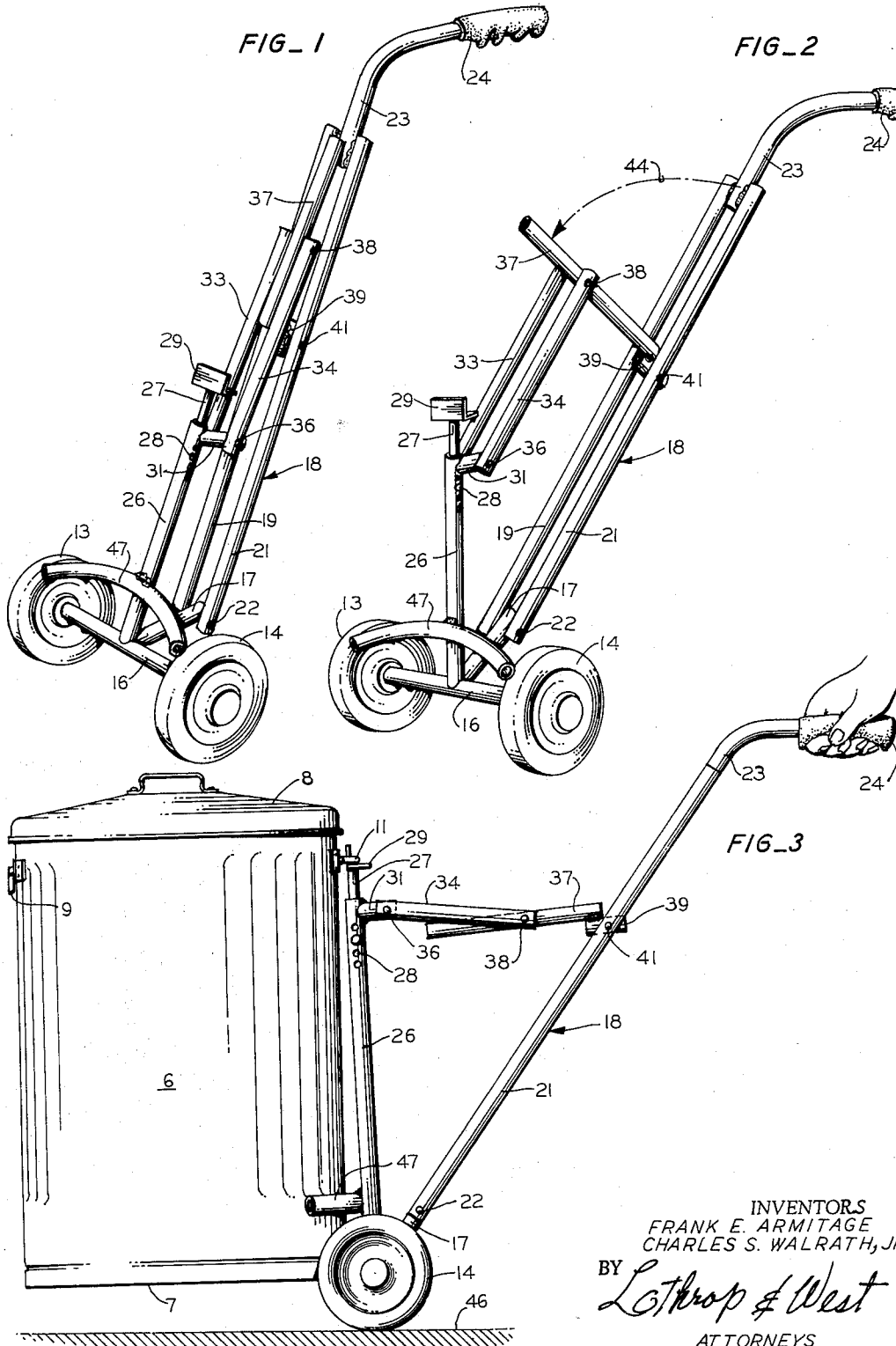
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CAN CARRIER

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CAN CARRIER

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Our invention relates to means especially useful in assisting a person or workman in transporting a can loaded with material for example a garbage can. The customary garbage can is a circular cylindrical container with a solid bottom and a removable top and is usually supplied with a pair of handle loops on opposite sides, the handle loops being movable from a relaxed position resting against the can into an extended and stopped position outstanding from the can. It is often necessary to move a garbage can or similar container from one location to another and this is not only awkward but the size of the customary can is such that when loaded it presents more of a burden to the mover than is ordinarily desirable or feasible.

It is therefore an object of our invention to provide a can carrier which can easily be utilized to lift and transport the customary garbage can.

Another object of the invention is to provide a can carrier which can be extended for use but can be collapsed for storage and portability when not in use.

A further object of the invention is to provide a can carrier which easily can be operated by a single user.

Another object of the invention is to provide a can carrier which will extend itself virtually automatically upon use.

Another object of the invention is to provide a can carrier which will readily engage with a garbage can despite limited room.

Another object of the invention is to provide a can carrier which will engage a garbage can and hold it in a well balanced position for portability.

Another object of the invention is to provide a can carrier which is simple and cheap to manufacture and is devoid of elaborate machinery and avoids costly repairs.

Other objects of the invention, together with the foregoing are attained in the exemplary embodiment described in the accompanying description and shown in the accompanying drawings, in which

FIGURE 1 is a perspective view of the can carrier in compact condition,

FIGURE 2 is a perspective view of the can carrier in partially erected condition, and

FIGURE 3 is a side elevation of the can carrier in engagement with the can and in erected position.

While the can carrier can be embodied in a number of different ways and can be easily adapted to lift and transport other items than garbage cans it has with considerable success been incorporated and designed especially for can transport and for that reason the description herein is applied to such an environment.

The customary garbage can is a circular cylindrical body 6 having a closed bottom 7 and a removable lid 8. Handles 9 and 11 are supplied on opposite sides of the can. These handles normally depend as shown by the handle 9 in FIGURE 3 but other times extend against a stop as shown by the handle 11 in FIGURE 3.

For use in connection with a garbage can of this sort we provide a car carrier including a pair of ground engaging wheels 13 and 14 preferably rubber tired and mounted for rotation at the ends of an axle 16. Projecting rearwardly from the central portion of the axle 16 is a lower stub tube 17 to the free end of which is connected a handle frame generally designated 18. Included in the handle frame is a pair of rearward frame tubes 19 and 21 arranged parallel to each other and lying

on opposite sides of the lower stub tube 17, being fastened thereto for pivotal motion by a through bolt 22. At their upper ends the parallel rearward frame tubes 19 and 21 are fixed to a handle 23 curved into substantially a horizontal position in the normal orientation of the parts and provided with a cushioned hand grip 24.

Also secured to the central portion of the axle and upstanding therefrom at an acute angle with regard to the lower stub tube is a forward upright tube 26 extending upwardly to receive a slidable tube 27. The tube 27 is freely telescoped within the forward upright tube 26 but is held in any one of several selected positions therein by a pin 28 which passes through an appropriate aperture in the upright tube 26 and also passes through any one of a number of apertures (not shown) in slidable tube 27. At its upper end the slidable tube carries a can hook 29 conveniently fabricated of a short length of angle iron welded to its upper end.

Also secured to the forward upright tube 26 is an upper stub tube 31 extending rearwardly therefrom substantially in the plane of the lower stub tube 17. To either side of the free end of the upper stub tube 31 is disposed one of a pair of forward toggle tubes 33 and 34. These are pivotally held by a through bolt 36 and are arranged in parallel relationship. In this position of the device the tubes 33 and 34 also lie on either side of a rearward toggle tube 37 to which they are connected by a through pin 38. The lower end of the rearward toggle tube is provided with a pivot tube 39 to which it is welded firmly. The pivot tube 39 lies between the two rearward frame tubes 19 and 21 of the handle frame 18 and is pivotally connected thereto by means of a through bolt 41. The arrangement of the various pivots 22, 36, 38 and 41 is such that, as shown in FIGURE 1, when the rearward toggle tube is moved adjacent the handle frame 18 the free or operating portion of the tube 37 pulls the structure virtually together so that it is in compact condition and may be easily stowed or stored.

When the operating portion of the rearward toggle tube 37 is moved outwardly and downwardly as indicated by the arrow 44 in FIGURE 2 then the forward toggle tubes 33 and 34 are moved substantially toward and into a straight line position with respect to the rearward toggle tube 37. This motion moves the forward upright tube 26 away from and apart from the handle frame 18. Alternatively, if the forward upright tube 26 is pulled away from the handle frame 18, the various toggle tubes are thereby pulled into a substantially straight line position.

In the forward position of the upright tube 26 the can hook 29 is in position to engage the outwardly extending handle 11 of a garbage can. Initially this engagement is made when the can is resting on the ground 46 on which the wheels 13 and 14 rest. In this position the forward upright tube 26 is inclined toward the garbage can at its upper end although the wheels 13 and 14 are away therefrom. When the user, having so guided the mechanism, then depresses the handle grip 24 the wheels 13 and 14 in effect roll forwardly and the can is lifted by the handle 11 and swings back toward the forward upright tube until it rests against a curved can bar 47 secured at its center to the forward upright tube and extending partly around the periphery of the garbage can 6. If desired, the can hook can be engaged with the can handle 9 before the toggle tubes are in straight line position.

The parts finally come into transport rest position approximately as shown although the handle can be further depressed and the center of gravity of the can 6 can move directly above the axle 16 so that it is merely necessary for the user to wheel the can to a new location. Thereat the handle 23 can be tipped forwardly until the

bottom 7 of the garbage can again engages the ground 46 thus transferring the weight from the carrier to the ground. Further movement of the handle 24 upwardly rolls the wheels back and disengages the can hook 29 from the handle 11 so that the carrier is disengaged. A rotation of the handle 37 from its straight out toggle position as shown in FIGURE 3 through the FIGURE 2 position and into the collapsed position shown in FIGURE 1 restores the parts to their original location so that the device can be compactly stowed for future use.

By removal of the pin 28 and vertically adjusting the tube 27 within the tube 26 and then repinning it in the new position the height of the can hook 29 can be adjusted to accommodate the device for engagement with any size garbage can. If desired a catch can be provided to hold the handle or operating portion of the tube 37 in the same plane as the forward toggle tubes 33 and 34 when in the FIGURE 3 position.

What is claimed is:

1. A can lifter comprising an axle, a pair of ground engaging wheels on said axle, a forward upright tube on said axle, a curved can bar mounted on and extending transversely from said forward upright tube, a can hook mounted at the upper end of said forward upright tube, a pair of rearward frame tubes parallel to each other, means for mounting said rearward frame tubes at their lower ends to pivot relative to said axle, a handle joined to the upper end of said rearward frame tubes, a pair of forward toggle tubes parallel to each other, means for mounting said forward toggle tubes at their forward ends to pivot relative to said forward upright tube, a rearward toggle tube adapted to pass between said forward toggle tubes and said rearward frame tubes, means for pivoting said rearward toggle tube at one end to said rearward frame tubes, and means for pivoting said rearward toggle tube intermediate its ends to said forward toggle tubes.

2. A can lifter as in claim 1 including a tube slidable within said forward upright tube for supporting said can hook.

3. A can lifter as in claim 2 including means for hold-

ing said slidable tube at any one selected location within said forward upright tube.

4. A can lifter as in claim 1 in which said means for mounting said rearward frame tubes to pivot relative to said axle includes a lower stub tube projecting upwardly from said axle behind said forward upright tube.

5. A can lifter as in claim 1 in which said means for mounting said forward toggle tubes to pivot relative to said forward upright tube includes an upper stub tube extending rearwardly from said forward upright tube.

6. A can lifter comprising an axle structure, a pair of ground engaging wheels on said axle structure, a forward upright tube structure upstanding from the center of said axle structure, a can bar mounted on and extending transversely of said forward upright tube structure, a handle frame, means for pivotally connecting the lower end of said handle frame to said axle structure, a toggle linkage pivotally connected to said handle frame and to said forward upright tube structure, and a can hook mounted on said forward upright tube structure.

7. A can lifter as in claim 6 in which said can hook is an angle iron adapted to be received in the looped handle of a can.

8. A can lifter as in claim 6 in which said can hook is adjustable as to height above the upper end of said forward upright tube structure.

9. A can lifter as in claim 6 in which said toggle linkage is in extended position when said forward upright tube structure and said handle frame are relatively far apart.

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