Aug. 26, 1952 A. J. W. FONTAINE 2,607,945

VACUUM CLEANER DOLLY

Filed May 26, 1949

Fig. 1.

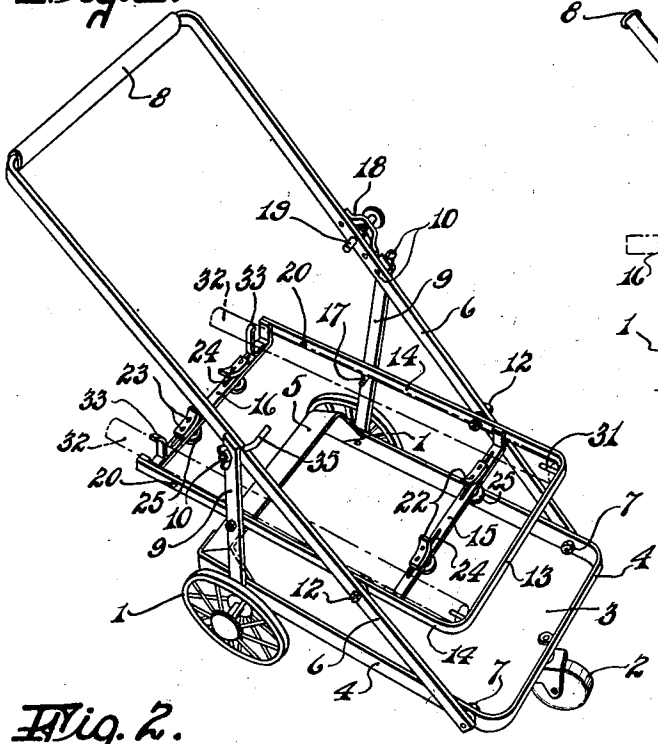


Fig. 3.

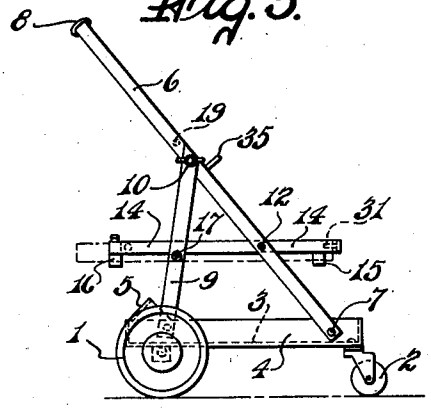


Fig. 2.

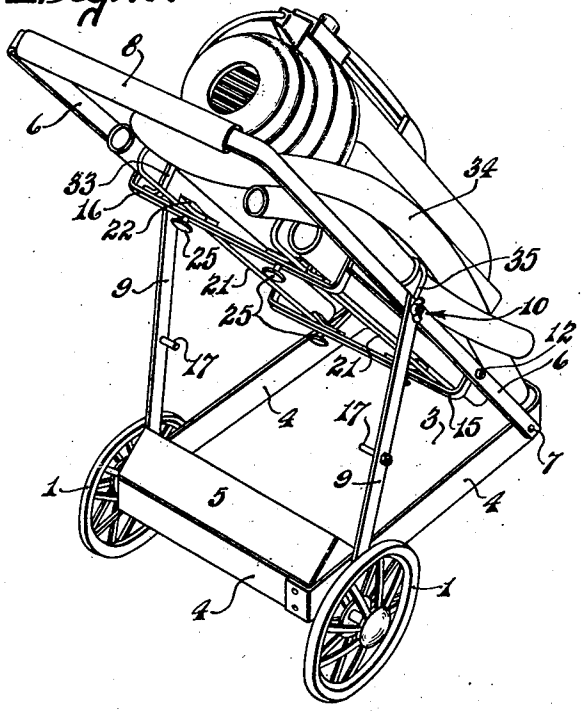


Fig. 4.

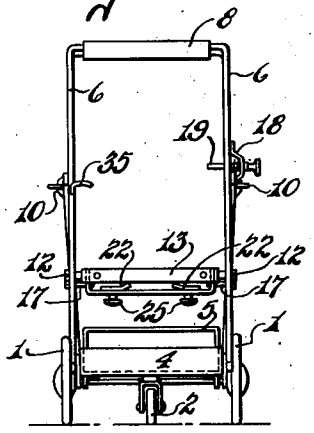


Fig. 5.

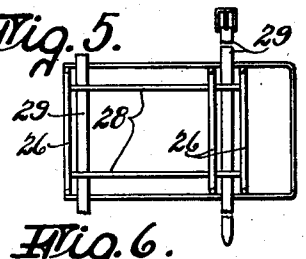
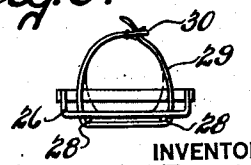


Fig. 6.



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VACUUM CLEANER DOLLY

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5 Claims. (Cl. 15—257)

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This invention relates to improvements in carrier or dolly structures for use with a tank type household vacuum cleaner. The present application is related to my co-pending application Serial No. 31,725, filed June 8, 1948, for "Vacuum Cleaner Dolly," now abandoned, and has for an object an improved construction of the unit as disclosed therein.

In general the object of the invention is to provide a serviceable and compact wheeled unit for the carriage of the cylindrical tank of this type of cleaner when in use and for its convenient transportation or storage when not in use. Provision is also made for the ready and convenient storage and accessibility of the various fixtures and attachments commonly used with the tank.

The advantages of the new construction over prior art devices of this character will be readily appreciated from the following disclosure in connection with the accompanying drawings, in which,

Fig. 1 is a perspective view showing the framework of the carrier with its parts arranged in operative position;

Fig. 2 is a perspective view of the carrier with a tank mounted thereon in storage position of the carrier parts;

Fig. 3 is a side elevation of the carrier in the same relative position of parts as in Fig. 1;

Fig. 4 is a front elevation of the carrier; and

Figs. 5 and 6 are plan and end views respectively of a modified carrier construction showing means for retaining a tank thereon.

Referring to the drawings, the cylindrical tank supporting structure comprises a framework supported by two rear wheels 1 and a single front wheel 2 of the caster type for swivelling action at the front of the carrier. The bottom of the frame is formed as a platform tray 3 having shallow walls 4 and a rear hood 5 extending upwardly from the rear wall 4 and forwardly at an angle.

At opposite sides of the front part of tray 3 parallel rearwardly and upwardly inclined side members 6 are attached at their lower ends as at 7 to walls 4. The members 6 are joined at their upper ends by a horizontal handle portion integral with the members 6 and this portion is encased by a cylindrical handle grip 8 as shown.

The side members are supported in the inclined position by rear braces 9 attached on each side of the tray at the rear of the same. The braces extend substantially in vertical position and are fastened to the members 6 by wing nut and bolt attachments as at 10. The wing nut assembly provides for easily dismantling the side frame structure as for shipment. Members 6 and 9 are disconnected and the parts swung downwardly to lie substantially flat on the tray.

Approximately midway of the lower portion of member 6 between the attachment points 7 and 10 and in the lower section of the frame is pivotally mounted as at 12 a cradle for support of the vacuum cleaner tank. The cradle is mounted adjacent its forward end and comprises a U-shaped metal strap with a front end 13 and sides 14, the latter being pivotally joined at 12 to said side members. Between the sides 14 are joined as by welding two cross straps 15 and 16 on which a tank may be supported as will be described. As shown by Figs. 1 and 2 inwardly directed pegs 17 are fixed on braces 9 in the path of sides 14 and when the cradle is pivoted to horizontal position in the frame the pegs support it in said horizontal or operative position.

For holding the cradle pivoted in a rearwardly inclined position parallel to said side members a support in the form of a spring latch means is provided on a side 6 near the rear of the adjacent side 14. As shown by Figs. 1 and 4 a bracket 18 is mounted on the outside of member 6. A slide 19 movably guided in aligned openings of the member and bracket is spring pressed inwardly to register with and engage the adjacent side 14 of the cradle in a latch opening 20. Thus the cradle may be releasably held in the position shown by Fig. 2. This position (Fig. 2) is best suited for transportation and storage of the tank on the carrier.

Means for releasably retaining a cylindrical tank on the cradle is shown by Figs. 1 and 2. The usual tank is commonly supported on runners 21 (Fig. 2) which are offset along its underside. A tank may then be releasably held with its runners secured by clamps 22 fixed on the cross straps 15 and 16. Each clamp 22 has two spaced bolts 23 projecting through slots 24 in the straps. The outer bolt is fixed to hold the outer end of the clamp in snug slidable relation on the strap while the inner bolt is threaded into a knob 25 on the underside of the straps. This

enables the inwardly facing upturned lip of the clamps to be drawn downwardly by knobs 25 on the runners 21. The opposite slots 24 of each strap 15 or 16 are elongated for adjustment of the spacing between clamps to accommodate tanks having differently spaced runner mountings.

Certain tank type cleaners are not furnished with runners 21 in which event a different arrangement may be provided as shown by Figs. 5 and 6.

Cross bars 26 welded to opposite sides of the carrier are connected by longitudinal struts 28. Flexible belt straps 29 with buckles 30 are looped under the struts 28 and over the top of the tank so as to secure the same tightly on the cradle. This is clearly shown by Fig. 6.

In use a tank is securely fixed to the cradle which is then pivoted to horizontal position. A suction hose is attached to the front of the tank in the usual manner and the operator pulls the entire unit wherever desired for cleaning operations. The front caster wheel provides an easy swivel action for steering the unit in any direction.

The platform tray 3 is utilized as a supporting body to hold the smaller accessories and different hose nozzle attachments as brushes, etc., for specific cleaning operations. Such fixtures being at hand on the carrier are conveniently and readily available at all times, the tray providing an accessible depository for quick changes.

Larger hose accessories as metal hose extension members are carried on the cradle. At each side of the front end 13 of the cradle are fixed pins 31 over which the front ends of extension members 32 are placed. Bracket clips 33 on the rear strap 16 at each end thereof are provided so that the extensions 32 may be snapped into storage position at each side of the cradle (Figs. 1 and 2).

The hose 34 when not in use is stored by looping the same lengthwise around the tank on the cradle. A finger piece 35 on a side member 6 overlies the edge of the cradle when the cradle is in parallel relation with the side members. One end portion of the hose is tucked under the finger piece as in Fig. 2, the hose wound around the tank with its opposite end portion being extended over the finger piece, and this end portion is inserted under the hose on the other side of said finger piece 35.

It will be noted that the larger rear wheels 1 will permit the relatively easy transportation of the carrier up and down stairs and as a unit with all cleaner accessories remaining together. The attachments in the tray 3, are prevented from falling out by hood 5 in the event the unit is tipped. In the position of storage or transportation (Fig. 2) the entire unit can be placed handily in a closet or elsewhere while keeping all the parts together and available for instant use.

Having described my invention I claim:

1. A dolly carrier for use with a tank type vacuum cleaner comprising, a cradle movable from a horizontal operative position to an upwardly and rearwardly inclined storage and transporting position, means for semi-permanently securing a vacuum tank to the cradle, a wheeled frame structure pivotally mounting the cradle adjacent the forward end of the cradle and in the lower section of said frame and having an accessory supporting body adjacent the base of the frame, and supports on the frame to releasably retain the cradle in either of said positions.

2. A dolly carrier for use with a tank type vacuum cleaner comprising, a cradle movable from a horizontal operative position to an upwardly and rearwardly inclined storage and transporting position, means for semi-permanently securing a vacuum tank in the cradle, a wheeled frame structure including a rearwardly inclined pair of side members and vertically disposed rear braces supporting the same, said cradle being pivotally mounted adjacent its forward end between said members and in the lower section of said frame, said frame having an accessory supporting body adjacent the base of the frame, and supports on the frame to releasably retain the cradle in either of said positions.

3. A dolly carrier for use with a tank type vacuum cleaner comprising, a cradle movable from a horizontal operative position to an upwardly and rearwardly inclined storage and transporting position, said cradle having cross pieces provided with slotted portions and clamps mounted in said portions for securing a vacuum tank on said cradle, a wheeled frame structure including a rearwardly inclined pair of side members and vertically disposed rear braces supporting the same, said cradle being pivotally mounted adjacent its forward end between said members and in the lower section of said frame, said frame having a platform tray at the bottom of the frame, latching means on a side member engageable with said cradle to hold the cradle in said storage position, and inwardly directed supporting pegs on said rear braces to support the rear portion of said cradle when the latter is pivoted horizontally to its operative position.

4. A dolly carrier for use with a tank type vacuum cleaner comprising, a cradle movable from a horizontal operative position to an upwardly and rearwardly inclined storage and transporting position, releasable securing means for retaining a vacuum tank on said cradle, a wheel frame structure including rearwardly inclined parallel side members joined at their upper ends by an integral handle portion and at their lower ends mounted on opposite sides of the forward end of said frame, and vertical braces fixed to said members and mounted at the rear of said frame for supporting the members, said cradle adjacent its forward end being pivoted between said members in the lower section of said frame, a walled tray construction at the bottom of the frame, a spring latch on a side member for engagement with the cradle to hold the cradle in the said storage position and parallel to said members, and inwardly directed supporting pegs on said rear braces to support the rear portion of said cradle when the latter is pivoted horizontally to its operative position.

5. A dolly carrier for use with a tank type vacuum cleaner comprising, a frame structure having front and rear ground wheels for support thereof and including a pair of side members extending from the front portion of the frame upwardly and rearwardly and overlying said rear wheels, and substantially vertical rear braces extending upwardly from the rear of the frame and attached to said side members at point vertically disposed over said rear wheels, a cradle pivotally held adjacent the forward end thereof between said side members below the upper ends of said braces and extending in a horizontal operative position rearwardly of said rear braces, and located in said position substantially midway between the top and bottom of said braces, the center of gravity of said cradle being rearwardly of said pivotal attachment to the side members and

forwardly of the braces, means on the frame to retain said cradle in said horizontal position, said cradle being pivotally movable to an upwardly and rearwardly inclined storage position lying parallel with said side members, releasable means for maintaining said cradle in storage position, and means for semi-permanently securing a vacuum tank to the cradle, said frame having an accessory supporting body adjacent the base thereof.

ALVIN J. W. FONTAINE.

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