April 9, 1963 B. J. DUFFEY ET AL 3,084,764

TOOL TRAY FOR VEHICLE GREASE RACKS

Filed Aug. 7, 1961

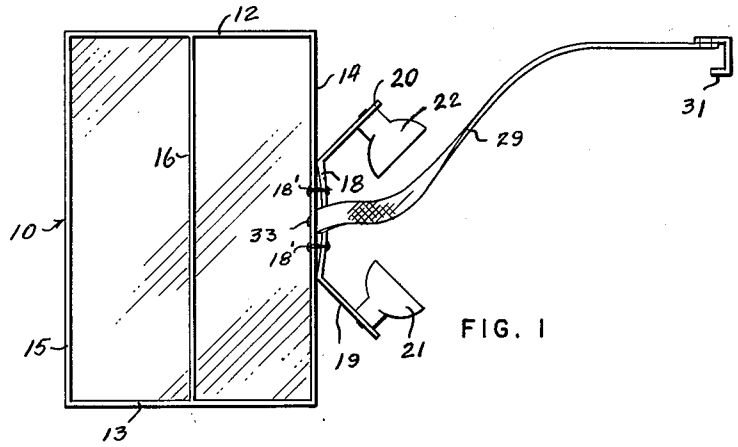


FIG. 1

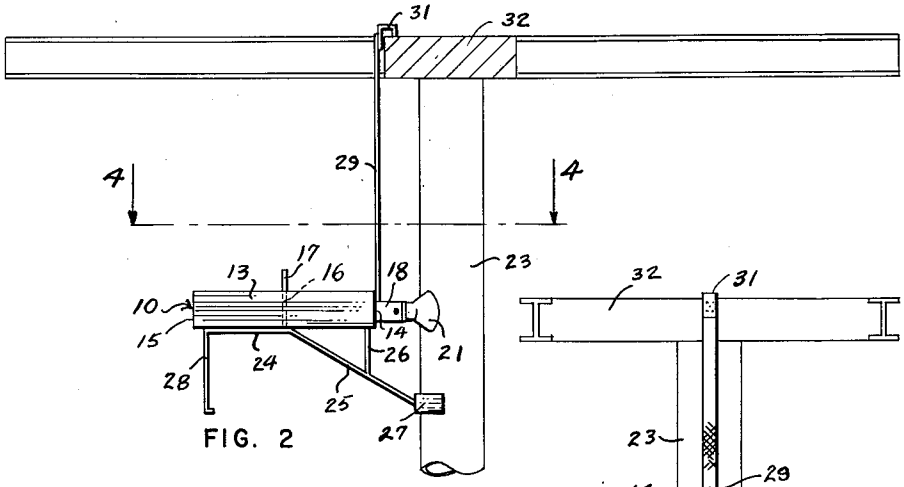


FIG. 2

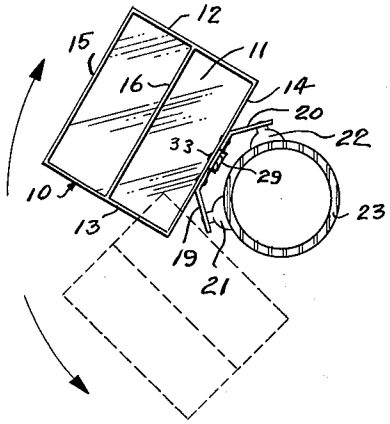


FIG. 4

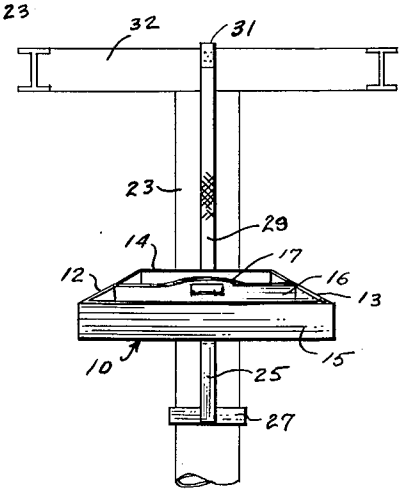


FIG. 3

INVENTORS:
BILLY JOE DUFFEY
LEROY H. FINNERN

BY: L. S. Saulsbury
ATTORNEY

United States Patent Office

3,084,764
Patented Apr. 9, 1963

3,084,764

TOOL TRAY FOR VEHICLE GREASE RACKS

Billy Joe Duffey, 3129 Barbados Place, and Leroy H. Finnern, 885 Capitol, both of Costa Mesa, Calif.

Filed Aug. 7, 1961, Ser. No. 129,773
5 Claims. (Cl. 187—8.41)

This invention relates to tool tray for vehicle grease racks.

It is the principal object of the present invention to provide a tool tray that can be supported upon the ram lift shaft of a grease rack in such a manner that it can be turned about the grease ram lift shaft and made easily accessible to the mechanic working under the ram lift at opposite sides thereabout.

It is another object of the invention to provide a tool tray for vehicle grease racks that will be connected to the ram lift shaft to turn thereabout by means of cups disposed at an angle from one another and attached to the greased surface of the ram lift shaft and while being held against outward displacement by the air suction cup can slide about the oiled surface of the shaft with provision being simply made for holding the same against downwardly displacement by a hang strap having a hook thereon extended over the top edge of the grease rack.

It is still another object of the invention to provide a tool tray for use on vehicle grease racks that engages the sides of the grease ram lift shaft by means of suction cups and wherein there is a bracing bracket on the underside of the tray which holds the tray against tilting displacement and wherein this bracket has a handle depending from the opposite end of the tray and upon the tray being removed the bracket serves as a support for the tray upon a horizontal surface, the bracket having horizontal engagement with the ram lift and easily turnable thereabout.

Other objects of the invention are to provide a tool tray for vehicle grease racks, having the above objects in mind, which is of simple construction, inexpensive to manufacture, has a minimum number of parts, easy to install upon the rack lift, easily accessible to the operator, durable, efficient and effective in use.

For other objects and a better understanding of the invention, reference may be had to the following detailed description taken in connection with the accompanying drawing, in which

FIGURE 1 is a top plan view of the tool tray with the suction cups and the suspension strap extending therefrom,

FIG. 2 is a side elevational view of the tool tray installed upon the grease rack with the suction cups engaging the rack lift shaft at the side thereof and the suspension hook extended over the top of the rack to hold the tray against downward sliding displacement upon the rack lift shaft,

FIG. 3 is a front perspective view of the tool tray connected to the grease rack, and

FIG. 4 is a top plan view of the tool tray with a section having been taken through the suspension strap and the ram lift shaft and as viewed on line 4—4 of FIG. 2 and looking in the direction of the arrows thereof.

Referring now to the figures, **10** represents a tray of generally rectangular shape having a bottom **11**, end walls **12** and **13**, side walls **14** and **15** and an intermediate partition wall **16** extending between the end walls **12** and **13** and extending upwardly beyond the walls to provide for a carrying grip portion **17**.

Connected to the rear side wall **14** is a two prong bracket **18** having extensions **19** and **20** angled outwardly and bearing respectively inwardly-extending suction cups

21 and **22** adapted to conform to the round greased surface of the rack ram lift shaft **23**. These suction cups extend at an angle to one another and engage the round surface of the rack ram lift shaft **23** at angularly disposed positions relative thereto, the same being angled from each other with the center of the shaft **23** as the pivot point approximately ninety degrees apart. The bracket **18** is held on the wall **14** by screws **18'**.

Fixed to the underside of the tray **10** is a depending bracket **24** having a downwardly and rearwardly extending arm **25** braced with the bottom **11** of the tray by an upright brace rod **26**. Fixed upon the lower end of the arm **25** is an arcuate shape member **27** conforming to the contour of the ram lift shaft **23** and adapted to swing freely thereover and extending sufficiently about the shaft to prevent the tool rack from angling about an axis extending radially from the center of the ram shaft **23** and longitudinally of the tray. Depending from the forward end of the bracket **24** is a handle arm **28** which can be used to turn the tool tray upon ram lift shaft **23** in a manner as illustrated in FIG. 4.

To finally support the tool tray upon the grease rack against vertical displacement upon the surface thereof is a suspension strap **29** connected to the bracket **18** and extending upwardly therefrom and having a hook **31** on its upper end adapted to be extended over the edge of the platform **32** of the lift rack. This suspension strap **29** holds the tool tray from displacement and maintains the elevation of the tool tray upon ram lift shaft **23**. It is attached to the wall **14** of the tray **10** and bracket **18** by a screw **33** threaded into bracket **18**. If it is desired to move the tool tray from one side of the grease rack to the other, the hook **31** is disengaged and relocated at the opposite side of the grease rack. The strap **29** is flexible and can be folded into the tray when not in use.

The tray is for holding tools to facilitate and aid the mechanic working upon a vehicle elevated by a grease rack. These grease racks are hydraulically operated by the ram or stanchion shaft **23** which has a polished surface but is covered by a thin film of oil which will help to create a suction for the suction cups **21** and **22** and make it difficult for the same to be dislodged from the surface of the stanchion. At the same time, however, while the oil protects the suction within the suction cups, the thin film permits the suction cups to be readily and easily turned upon the surface of the ram lift shaft **23** and thus advantage is taken of this thin oil film. The tray can actually be turned easily and still have the cups adhere to the ram lift and this can be done through three hundred and sixty degrees, use thereby being made of the film of oil to automatically provide a tool tray for use with these racks which is available and turnable upon the ram lift shaft. The flexible strap **29** may be adjustable by removing attaching screw **33** and inserting it in different locations in the strap **29**. The tool tray can thereby be elevated to different heights and still be retained against downward displacement. This shaft **29** and its hook **31** thus prevent the tool tray from sliding down the ram lift shaft **23**. Thus there has been provided a tool tray adapted to be retained by suction cups upon an oil filmed surface of a ram shaft in such a manner as to be able to travel around their own support taking with it the tray. There is sliding movement between the oil molecules or particles thus giving to the tray the lazy susan effect upon the ram lift shaft.

It should now be apparent that there has been provided a very effective tool tray for use by a mechanic working under a raised car on a hydraulic ram lift grease rack, which can be easily handled on or off the grease rack shaft **23**. It should also be apparent that once the tray is upon the pole it can be easily turned thereabout.

While various changes may be made in the detail con-

struction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

What is claimed is:

1. A tool tray for use with vehicle hydraulic ram lift grease racks having a greased round lift shaft, comprising a tray having a bottom, side and end walls, a bracket extending from one of said walls, said bracket having wings angled relative to one another and adapted to extend about the round grease rack ram lift shaft, each of said wings having respectively air suction cups angled apart and adapted for engagement with the round surface of the ram lift shaft and adapted to grip the shaft surface to hold the tray against outward displacement therefrom while permitting angular turning of the tray thereupon, and a suspension member connected to the tray and adapted to be hooked over the top of the ram lift rack to hold the tray against downward displacement upon the ram lift shaft.

2. A tool tray for use with vehicle hydraulic ram lift grease racks having a round grease lift shaft, comprising a tray having a bottom, side and end walls, a first bracket extending from one of said walls, said bracket having wings angled relative to one another and adapted to extend about the round grease rack ram shaft, each of said wings having respectively air suction cups angled apart and adapted for engagement with the round surface of the ram lift shaft at the opposite sides thereof and adapted to grip the shaft surface to hold the tray against outward displacement therefrom while permitting angular turning of the tray thereupon, a flexible suspension member connected to the tray and adapted to be hooked over the top of the ram lift rack to hold the tray against downward displacement upon the ram lift shaft, a second bracket depending from the bottom wall of the tray and having a downwardly-extending arm, and a horizontally-extending arcuate member fixed to the lower end of said downwardly-extending arm conforming to the shape of a ram lift shaft and adapted to and encompass engage the face thereof for free rotation thereover, whereby said tray will be retained against inward displacement upon the tray being mounted upon a ram lift shaft while permitting the angular turning of the tray about the ram lift shaft.

3. A tool tray for use with vehicle hydraulic ram lift grease racks as defined in claim 2, and said second bracket further having a solitary leg member depending from the bottom of said tray equal to the extent of the arcuate ram lift shaft engaging member and serving as a handle when the tool tray is mounted upon the rack lift shaft by which the tool tray can be lifted from or swung about the ram lift shaft and further may serve as a leg support for the tray when the tray is removed from the rack lift and supported upon a horizontal surface.

4. In combination, a vehicle grease rack having a greased vertically-extending round ram lift shaft with a polished surface, a tool tray adapted to be mounted upon said ram lift shaft having laterally extending and angularly disposed air suction cups engaging with the surface of said ram lift shaft and by virtue of a film of grease upon the surface of the shaft can be turned thereover without losing its suction grip thereon and a suspension member connected to the tray and hooked to an upper part of the grease rack to support the tray upon the ram lift shaft against downward displacement thereover while permitting turning movement thereabout.

5. In combination, a vehicle grease rack having a greased vertically-extending round ram lift with a polished surface, a tool tray adapted to be mounted upon said ram lift shaft having laterally-extending and angularly displaced air suction cups engaging with the greased surface of said shaft and by virtue of a film of grease upon the surface of the shaft can be turned thereover without losing its suction grip thereon, a suspension member connected to the tray and hooked to an upper part of the grease rack to support the tray upon the ram lift shaft against downward displacement thereover while permitting turning movement thereabout, a bracket depending from the bottom of the tray and having an arm extending downwardly toward said ram lift shaft, a laterally-extending arcuate member secured to the lower end of said arm and conforming to the shape of the ram lift shaft and engaging the face thereof and said depending bracket and arcuate member adapted to turn with the tray and the suction cups as the tray is turned about the ram lift shaft.

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