Jan. 26, 1960 L. E. MILLER ET AL 2,922,684

TOOL TRAYS

Filed Aug. 12, 1958

Fig. 1

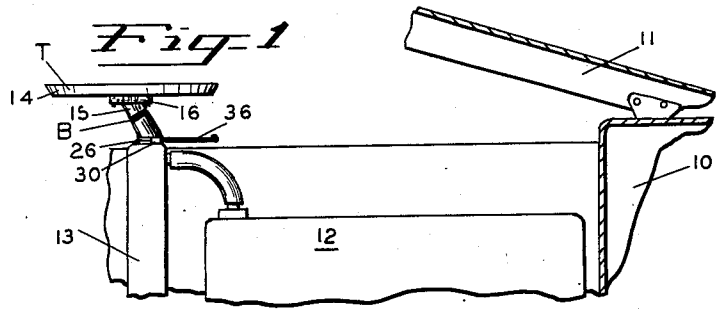


Fig. 2

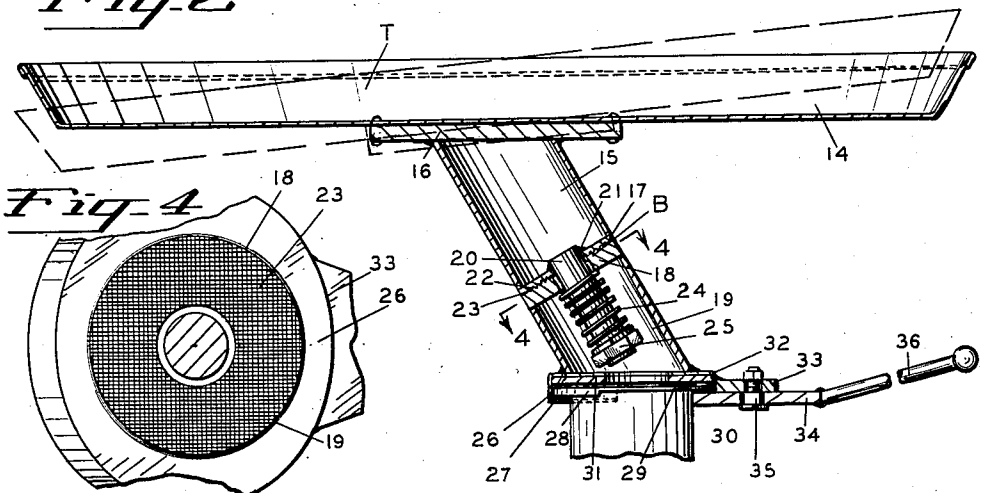
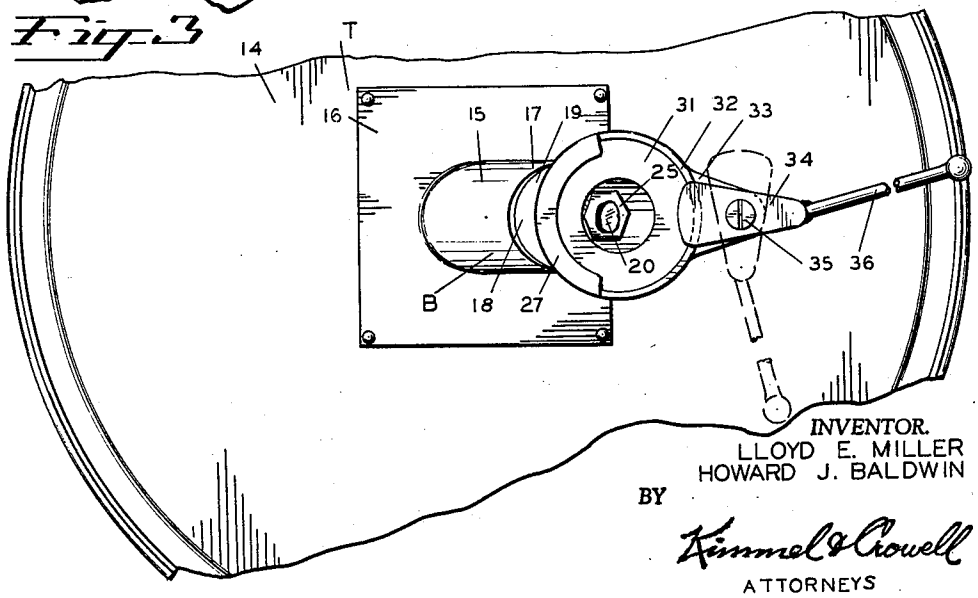


Fig. 4

Fig. 3



INVENTOR.
LLOYD E. MILLER
HOWARD J. BALDWIN

BY

Kimmel & Crowell

ATTORNEYS

United States Patent Office 2,922,684 Patented Jan. 26, 1960

2,922,684

TOOL TRAYS

Lloyd E. Miller and Howard J. Baldwin, Winston, Oreg.

Application August 12, 1958, Serial No. 754,584

3 Claims. (Cl. 311—21)

The present invention relates to adjustable tool trays of the type used in connection with the servicing of motor vehicles.

The primary object of the invention is to provide a tool tray that can be supported on and attached to the filler spout of the radiator of the vehicle after removal of the radiator cap.

Another object of the invention is to provide a tool tray having means for adjusting its angle to the horizontal thereby being able to level the tray.

A still further object of this invention is to provide a simple clamping device associated with the base of the tray for securing the tray to the upper rim of the filler spout of the radiator.

Other objects and advantages will become apparent in the following specification when considered in the light of the attached drawings in which:

Figure 1 is a side elevation of the invention shown attached to the upper portion of a motor vehicle engine radiator, partially broken away and in section for convenience of illustration;

Figure 2 is an enlarged vertical sectional view of the invention;

Figure 3 is a fragmentary bottom plan view of the invention; and

Figure 4 is an enlarged fragmentary sectional view, taken on line 4—4 of Figure 2, looking in the direction of the arrows.

Referring now to the drawings in detail wherein like reference characters indicate like parts throughout the several figures, the reference character T indicates generally a tool tray constructed in accordance with the invention. The tool tray T is used with a motor vehicle having a body 10, a hood 11, motor block 12 and radiator 13. The tool tray T includes a pan 14 having a supporting base assembly B. The base assembly B includes an upper supporting leg 15 fixedly secured to the pan 14 by means of a flange 16.

The lower end 17 of the leg 15 is rotatably mounted to the upper end 18 of a lower supporting leg section 19. The lower end 17 of the upper leg 15 has a stem 20 fixedly secured thereto by welding 21. The lower surface of this end has a knurled face 22, which engages a knurled face 23 on the upper end 18 of the lower leg 19.

A spiral spring 24 surrounds the stem 20 and is held in tension by a lock nut 25. The spring 24 provides a friction pressure between the ends 17 and 18 of the legs 15 and 19, preventing the pan 14 from revolving once it is adjusted. Rigidly secured to the lower end of the leg 19 is a base plate 26 arranged at an angle to the leg 19.

A jaw 27 is formed on one side of base plate 26 to embrace the conventional outwardly reverted portion 28 formed on the flange 29 of the filler spout 30. Disposed between the base 26 and the flange 29 is a washer 31 of any suitable material.

Extending from jaw 27 completely around the base 26 is a downwardly extending flange 32, which centers the base on the flange 29 of the filler spout 30. Forming part of the base 26 is an outwardly ear 33. Pivotally mounted to the ear 33 is a cam 34 secured by a pivot screw 35. The cam 34 has an outwardly extending handle 36 secured thereto for operating the same.

In order to use this new and improved tool tray, the filler cap (not shown) is removed from the filler spout 30. The base plate 26 is engaged over the flange 29 of the filler spout 30, the jaw 27 being brought towards the spout 30 in the process. After engaging the flange 29, the handle 36 is operated so as to bring the inner end of the cam 34 under the flange 29 of the filler spout 30 and against the side of the filler spout 30, creating a tightening effect.

By revolving the upper leg 15 and the pan 14 in either direction, the angle of the pan 14 with respect to the horizontal will be changed as indicated by the broken lines, Figure 2, due to the slope or incline of the base B in regards to the base of the pan 14 and to the vertical line of the radiator filler spout 30. This provides any adjustment desired by the mechanic, so that he can best reach his tools lying on the pan 14. Furthermore, the adjustment of the pan 14 permits the pan 14 to be level even if the axis of the filler spout 30 is at an angle to the vertical.

Having thus described the preferred embodiment of the invention, it should be understood that numerous modifications and adaptations may be resorted to without departing from the scope of the appended claims.

What is claimed is:

1. A tool tray for detachable engagement with the filler spout of an automobile radiator comprising a pan, a leg rigidly secured to said pan and extending downwardly therefrom at an angle to the axis of said pan, a second leg axially aligned with said first leg in depending relation thereto, means securing said legs together for axial rotation, said means comprising a transversely extending knurled plate secured to said first leg at the lower end thereof, a second transversely extending knurled plate secured to said second leg at the upper end thereof for cooperative engagement with the knurled plate on said first leg, a post secured to one of said legs and extending axially of the other of said legs with the other of said legs journalled thereon, a spring mounted on said post and normally biasing said knurled plates into engagement with each other, and means on the bottom of said second leg for detachably securing said second leg to the filler spout of an automobile radiator.

2. A tool tray for detachable engagement with the filler spout of an automobile radiator comprising a pan, a leg rigidly secured to said pan and extending downwardly therefrom at an angle to the axis of said pan, a second leg axially aligned with said first leg in depending relation thereto, means securing said legs together for axial rotation, said means comprising a transversely extending knurled plate secured to said first leg at the lower end thereof, a second transversely extending knurled plate secured to said second leg at the upper end thereof for cooperative engagement with the knurled plate on said first leg, a post secured to one of said legs and extending axially of the other of said legs with the other of said legs journalled thereon, a spring mounted on said post and normally biasing said knurled plates into engagement with each other, and means on the bottom of said second leg for detachably securing said second leg to the filler spout of an automobile radiator, said last mentioned means comprising a rigid jaw rigidly secured to the lower end of said second leg, and a cam pivotally secured to said second leg in opposed relation to said jaw.

3. A tool tray for detachable engagement with the filler spout of an automobile radiator comprising a pan, a leg rigidly secured to said pan and extending downwardly

therefrom at an angle to the axis of said pan, a second leg axially aligned with said first leg in depending relation thereto, means securing said legs together for axial rotation, said means comprising a transversely extending plate secured to said first leg at the lower end thereof, a second transversely extending plate secured to said second leg at the upper end thereof for cooperative frictional engagement with the plate on said first leg, a post secured to one of said legs and extending axially of the other of said legs with the other of said legs journalled thereon, resilient compressible means on said post normally biasing said plates into engagement with each other, and means on the bottom of said second leg for detachably securing said second leg to the filler spout of an automobile radiator, said last mentioned means comprising a

rigid jaw rigidly secured to the lower end of said second leg, and a cam pivotally secured to said second leg in opposed relation to said jaw.

References Cited in the file of this patent

UNITED STATES PATENTS

1,092,867	Sellew	Apr. 14, 1914
1,858,144	Fariello	May 10, 1932
1,919,189	Andrie	July 25, 1933
1,978,577	Harris	Oct. 30, 1934
2,685,759	Ravich	Aug. 10, 1954
2,805,778	Yordi	Sept. 10, 1957
2,827,556	Kersey	Mar. 18, 1958