Dec. 23, 1941. L. S. CURRIER 2,267,552

COMBINATION DRAIN OIL CONTAINER AND FUNNEL

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Fig. 1.

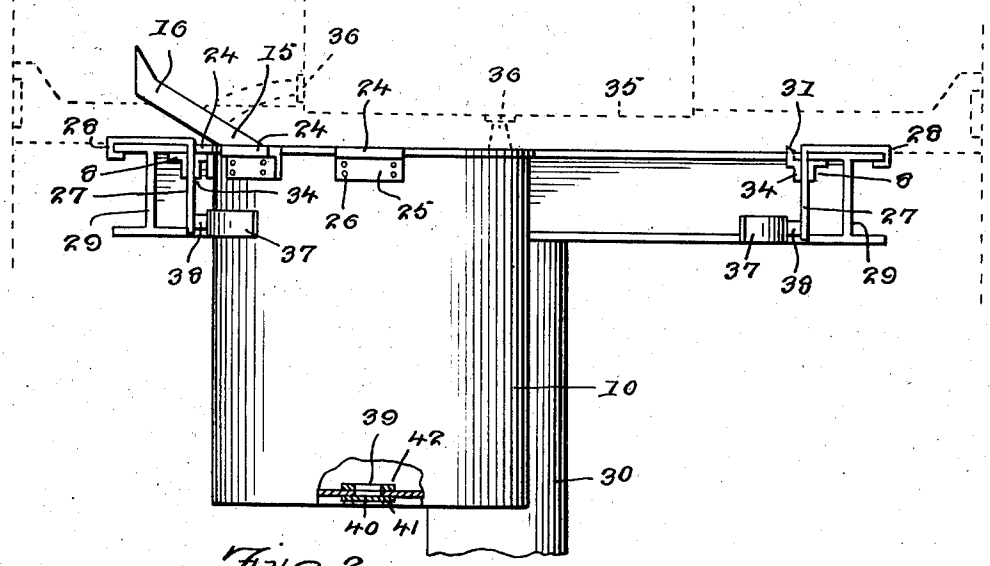
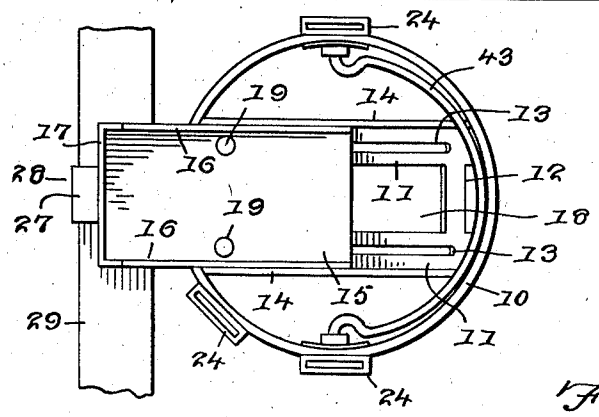


Fig. 2.



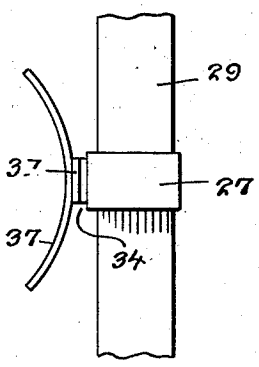


Fig. 5.

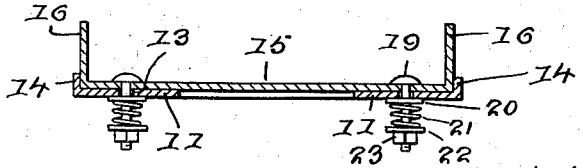


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Fig. 3.

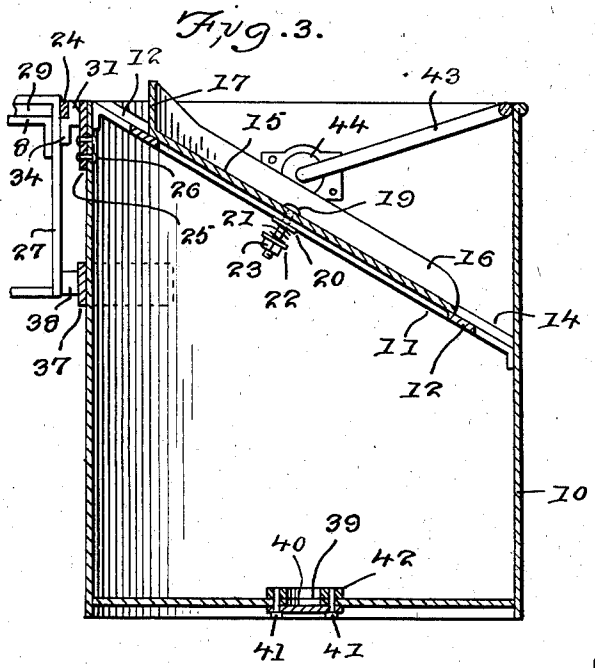


Fig. 6.

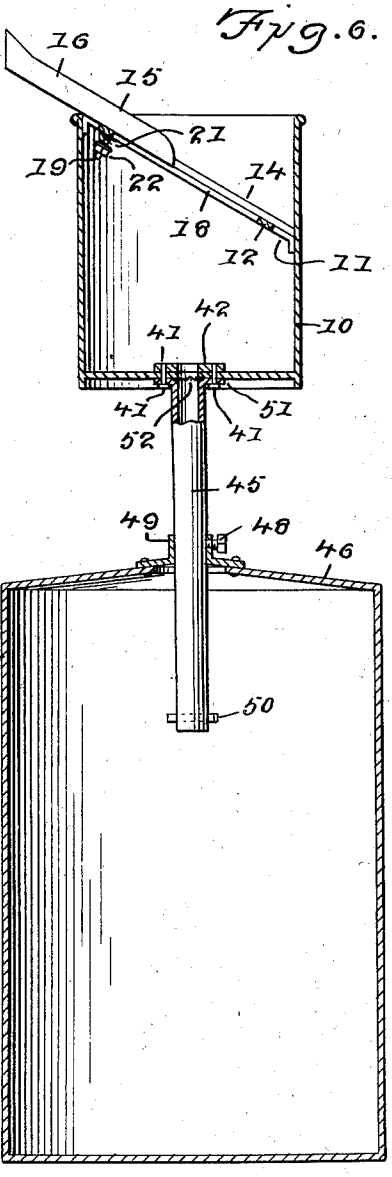
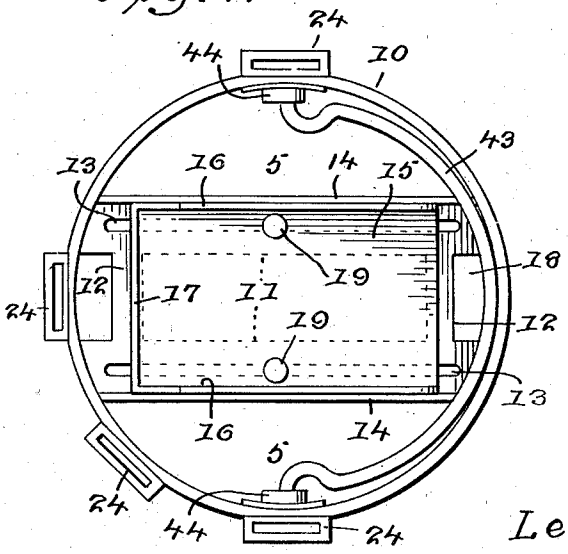


Fig. 4.



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COMBINATION DRAIN OIL CONTAINER AND FUNNEL

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Application June 11, 1941, Serial No. 397,603

3 Claims. (Cl. 184—1.5)

This invention relates to a combination drain oil container and funnel and has for an object to provide a device of this type which may be mounted on an I-beam of a draining hoist and close up to the crank case of a motor vehicle and may be adjusted to receive drain oil from a center drain opening, end or side drain opening on the crank case without danger of the draining oil being spilled, thus eliminating the attention of an attendant during the draining operation.

A further object is to provide apparatus of this character which will be formed of a few strong, simple and durable parts, which will be inexpensive to manufacture, and which will not easily get out of order.

With the above and other objects in view, the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings forming a part of this specification:

Figure 1 is a side elevation of a combination drain oil container, constructed in accordance with the invention, applied to an I-beam of a motor vehicle supporting hoist.

Figure 2 is a plan view of the container and hoist shown in Figure 1, with parts removed.

Figure 3 is a cross sectional view of the container with the deflector in released position.

Figure 4 is a plan view of the container shown in Figure 3.

Figure 5 is a detail cross sectional view showing deflector adjustably mounted on the supporting guide rails thereof.

Figure 6 is a cross sectional view of the container equipped with a funnel pipe which is telescopically assembled with a large oil drum.

Referring now to the drawings in which like characters of reference designate similar parts in the various views, 10 designates an oil container having a pair of inclined guide rails 11 secured at the upper and lower ends to the inner surface of the container. The guide rails are connected at the upper and lower ends by cross bars 12 and each guide bar is provided with a longitudinal slot 13 extending substantially from end to end theroef. Upturned flanges 14 are formed on the outer longitudinal edges of the guide rails.

A deflector 15 in the nature of a substantially oblong metal sheet, is slidably mounted on the guide rails and is provided at the longitudinal edges with guide flanges 16 which engage the guide flanges 14 of the guide rails and also form splash flanges to prevent oil spilling laterally from the deflector when a crank case is being drained. A flange 17 connects the upper ends of the flanges 16. Oil drained into the deflector passes down the deflector and escapes through the space 18 between the lower cross bar 12 and the wall of the container.

For adjustably mounting the deflector on the guide rails, bolts 19 are engaged through the deflector and through the slots 13 of the guide rails. Washers 20 are disposed on the bolts and engage the underneath faces of the guide rails. A helical spring 21 is sleeved on each bolt and is confined between the washer 20 and the washer 22 which is disposed against the nut 23 of the bolt. The bolts and springs yieldably hold the deflector in adjusted positions to extend upwardly and outwardly beyond the rim of the container or to be disposed entirely within the container according to the position of the drain opening in the motor vehicle crank case.

The container is provided on the outer side thereof near the rim with hanger handles in the nature of substantially rectangular loops 24, two of which are disposed diametrically opposite each other and the remaining handle being disposed laterally of and adjacent to one of the pair of loops just mentioned, as best shown in Figure 2. Each hanger handle is provided with a depending flange 25, best shown in Figure 1, which is riveted as shown at 26 or otherwise secured to the container.

A pair of angular hangers 27 are provided with hooks 28 to hook underneath the upper flanges of respective I-beams 29 of a motor vehicle hoist. The upper arms of the hangers slidably fit the top faces of the I-beams and the vertical arms of the hangers extend downward and slidably engage the lower flanges of the I-beams, as best shown in Figure 1. An angle guide 8 is secured to the vertical arm of each hanger and coacts with the hook 28 in slidably mounting the hanger on the I-beam. Each hanger is provided with a tongue 31, best shown in Figure 3, which is offset from a plate 34 which is rigidly secured, in any preferred manner, to the hanger near the upper end thereof.

The tongue is adapted to be interchangeably received in the handles 24 to hang the container from either one of the pair of hangers, which will position the container close up to the crank

case 35 of the motor vehicle, adjacent to the drain opening 36 thereof.

If the drain opening is at the center of the bottom of the crank case, the container may be suspended from either I-beam, but if the drain opening is at the back of the crank case or on the side of the crank case, then a handle 24 must be selected to receive the tongue of a hanger to dispose the container in position to receive the draining oil when the deflector 15 is slid upwardly and outwardly to intercept laterally or rearwardly directed oil streams and divert the same into the container.

For steadying the container and prevent swaying of the same with consequent spilling of the oil, each hanger is equipped with an arcuate bar 37 which is adapted to embrace a portion of the wall of the container and is secured to a spacing bar 38 carried by the respective hanger near the lower end thereof.

A drain opening 39 is formed in the bottom of the container. The opening is closed by a disk closure 40 which is secured to the underneath face of the container bottom by screw bolts 41 engaged through the bottom and threaded into a washer 42, which is secured to the upper face of the bottom around the drain opening, in any preferred manner, as best shown in Figure 3.

For transporting the container a conventional bail 43 is secured at the ends in socket members 44 carried by the inner surface of the container near the rail thereof, as best shown in Figure 3.

If desired, the container 10 may be provided with a funnel pipe 45 which is telescopically engaged in the top 46 of a large oil drum 47. A set screw 48 is engaged through a guide collar 49 carried by the top of the drum, for adjustably securing the funnel pipe to the drum. The lower end of the funnel pipe is provided with a stop pin 50 for limiting upward movement of the pipe relative to the drum.

The funnel pipe 45 is provided at the upper end with a flange 51. The pipe is provided at the flange with a screen 52 which prevents the motor vehicle drain plug accidentally dropping through the funnel pipe into the drum. To attach the container to the funnel pipe, the screw bolts 41 are removed and the disk closure 40 removed from sealing position over the drain opening 39. Then the screw bolts 41 are engaged through the flange 51 of the funnel pipe, through the container bottom and are threaded into the washer 42 carried by the bottom of the container.

Since the operation of the parts has been described as the description of the parts progressed, it is thought the invention will be fully understood without further explanation.

What is claimed is:

1. Crank case oil draining apparatus comprising, a container fully open at the top, guide rails within the container inclined downwardly from the upper edge of the container, an oil deflector plate mounted on the rails, means for adjustably securing the deflector plate on the rails to extend with its upper end beyond the container or to be disposed within the container with its lower end spaced from the wall of the container, a plurality of hanger loops secured to the exterior of the container near the upper edge thereof, and hangers adapted to be slidably mounted on the I-beams of a grease lift, said hangers having portions interchangeably received in the loops to disposed the deflector plate to extend from an end or side of a motor vehicle crank case to direct oil therefrom into the container.

2. Crank case oil draining apparatus comprising a container fully open at the top, longitudinally slotted guide rails within the container inclined downwardly from the upper edge of the container, an oil deflector plate, bolts engaged through the slots slidably connecting the deflector plate to the rails, helical springs on the bolts yieldably holding the deflector plate at adjusted positions on the rails to extend with its upper end beyond the container or to be disposed within the container with its lower end spaced from the wall of the container, a plurality of hanger loops secured to the exterior of the container near the top thereof, and hangers adapted to be slidably mounted upon the I-beams of a grease lift and being adapted to be interchangeably received in the loops to dispose the deflector plate to extend from an end or side of a motor vehicle crank case to drain oil therefrom into the container.

3. Crank case oil draining apparatus comprising, I-beams of a grease lift, hangers permanently assembled with the I-beams and slidable therealong, a drain oil container fully open at the top, hanger loops on the exterior of the container adjacent the top of the container, hooks on the hangers selectively engageable with the loops, an oil drum, a funnel pipe connected to the bottom of the container and telescopically assembled with the oil drum, a deflector plate carried by the container in a downwardly inclined position and adapted to be adjusted to extend above the container, and side flanges on the deflector plate.

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