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2,465,023

OIL CAN

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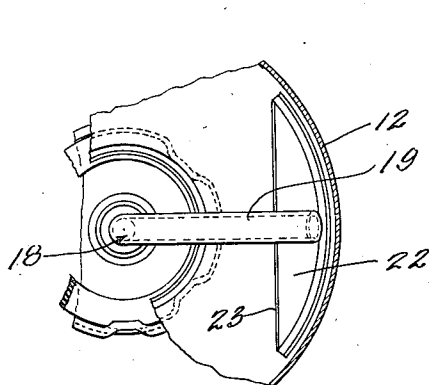


Fig. 2.

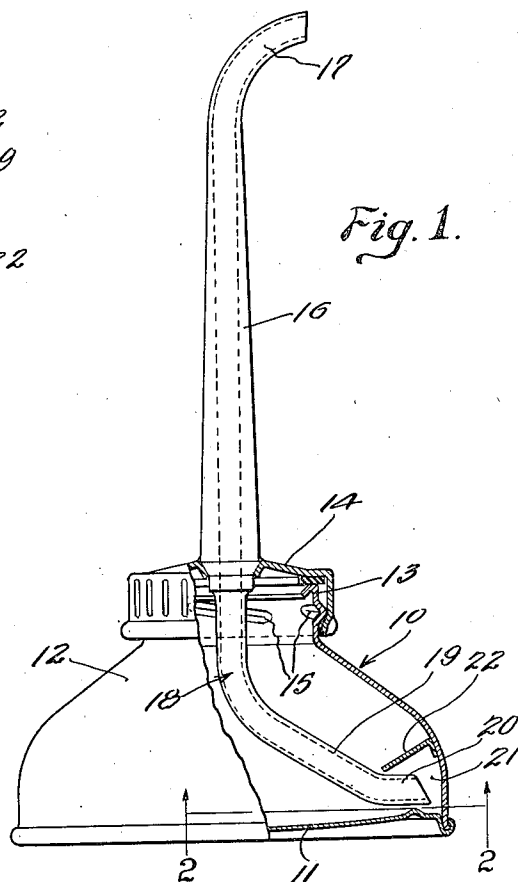


Fig. 1.

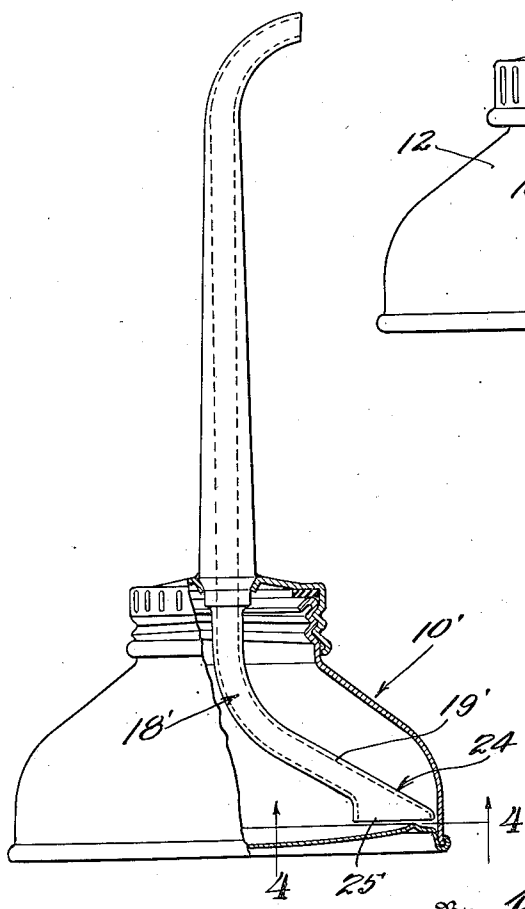


Fig. 3.

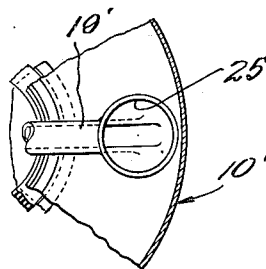


Fig. 4.

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OIL CAN

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1 Claim. (Cl. 222-211)

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This invention relates generally to oilers and pertains particularly to improvements in hand oilers or oiling cans.

The present invention has for its principal object to provide an improved oiling can which is designed in such a manner as to make possible the easy ejection of oil when the can is nearly empty, with the can in a partly or fully inverted position.

Oil cans as ordinarily constructed comprise a receptacle which tapers toward the top where a cap is detachably connected with the receptacle, which carries a spout through which the oil is ejected. When the contents of such a can gets low all of the oil cannot be discharged unless there is room to completely invert the can or, in other words, to hold the can entirely upside down. If it is necessary to hold the can partly inverted the small quantity of oil in the can will settle in the lowest part below the inlet end of the spout so that the oil cannot be ejected.

The present invention is designed to facilitate the ejection of all of the oil from the can when only a small quantity of oil remains, even though the can may be inverted only part way, by the provision of an oil trapping means at the angle formed between the bottom and the side wall of the can so that such oil as gathers in the low part of the can or receptacle when the can is only partly inverted, can be forced to and out through the can spout.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawing forming a part of the specification, with the understanding, however, that slight changes or modifications may be made in the structure without departing from the spirit of the invention so long as such changes or modifications are within the scope of the appended claim.

In the drawing:

Figure 1 is a view partly in side elevation and partly in vertical section of an oil can constructed in accordance with one embodiment of the present invention.

Figure 2 is a sectional view partially through the lower part of the receptacle, taken on the line 2-2 of Figure 1.

Figure 3 is a view partly in side elevation and partly in section of another embodiment of the invention.

Figure 4 is a partial sectional view taken substantially on the line 4-4 of Figure 3.

Referring now particularly to the drawing, especially Figures 1 and 2 thereof, the numeral

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10 generally designates a receptacle of the usual form or design, having the outwardly bowed bottom wall 11 which is resilient and functions as a pumping diaphragm to force the oil from within the receptacle. Such hand oilers have the side wall 12 tapered to the circular neck 13 defining the outlet opening for the receptacle and such neck is provided with suitable screw threads to facilitate the attachment thereto of the cap 14.

In the construction shown in Figure 1, broken threads 15 are illustrated, such type of thread being particularly desirable when it is required that the cap 14 be connected with the neck 13 with a minimum of rotation. However, it is to be understood that the invention is not limited to the use of this particular type of thread as any other suitable connecting means between the cap and the neck may be employed.

Attached at one end to and opening through the central part of the cap 14, is the spout 16 which is straight throughout the major portion of its length and disposed upon the axial center of the receptacle 10. At its outer end the spout has the laterally curved discharge tip 17, the particular purpose of which will be hereinafter more fully described.

At its inner end there is connected with the spout, one end of a tube 18 which is bent to provide the obliquely extending portion 19 which terminates in the short straight inlet tip 20. The length of the tube 18 is such that when the cap 14 is threaded tightly onto the neck 13, the inlet tip 20 will lie in close proximity to the bottom of the can and to the side wall thereof or, in other words, the inlet tip will lie in the corner or angle formed between the bottom and the side wall.

Means is provided at the inlet tip of the tube 18 to form a trap which is designated 21 and in the embodiment of Figure 1 this trap is provided by securing to the inner side of the wall 12 a plate or web 22 which extends downwardly and inwardly toward the bottom 11, leaving just sufficient space between its free inner edge 23, and the bottom of the can, for the tip 20 to extend thereunder. Thus the inlet end of the tip 20 is entirely within the oil trap 21.

The terminal inlet tip 20 of the tube 18 extends in the same direction as the outlet tip 17 of the nozzle and the pitch of the threads 15 is such that when the cap 14 is screwed down tightly upon the neck 13 the tip 20 will be brought into position beneath the web 22 or in the oil trap. Thus when the can is tipped or turned onto its

side for the purpose of ejecting oil from the dis-

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charge tip 17, if the oil is low in the can it will collect or be caught in the trap 21 where the inlet end of the tube 18 lies and thus when the bottom is forced inwardly to create the necessary internal pressure for ejecting the oil through the nozzle, the trapped oil will be discharged into the tube 18 and forced through the nozzle.

Another embodiment of the invention is illustrated in Figures 3 and 4. In this construction the receptacle is generally designated 10' and the cap and nozzle are the same as in the form shown in Figure 1 and need not, therefore, be specifically described.

In this embodiment the tube 18', which carries the oil from the bottom part of the receptacle to the discharge spout, has the obliquely directed portion 19' which is in the same relation with the tip of the spout as the portion 19 of the structure shown in Figure 1, but the oil trap forms an integral part of the inlet end of the tube, such trap here being generally designated 24. This trap 24 is in the form of an inverted receptacle 25, which forms an integral part of the end of the oblique portion 19' of the tube and is shown as being of circular design although any other form or design may be employed.

The open side of the receptacle 25 is directed downwardly toward the bottom of the receptacle 10' and is in close proximity thereto as shown in Figure 3 in addition to being disposed closely in the angle between the can or receptacle bottom and side walls.

It will be seen from the foregoing that the action of the embodiment of Figures 3 and 4 will be the same as that of the embodiment of Figures 1 and 2 which is that when the receptacle is partly inverted and is only partly filled with oil or the oil level has dropped to a very low point where the receptacle is practically empty, such oil will collect in the corner between the side and bottom walls and when the can is in the proper position for discharging from the nozzle tip, the collected oil will be received in the trap 24 from which it can be readily ejected when the bottom wall of the can is pressed inwardly.

From the foregoing it will be readily apparent

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that an oil can constructed in accordance with the present invention provides means whereby practically the last drop of oil may be ejected therefrom even though it may not be possible to completely or entirely invert the can as is necessary in those types of oil cans where complete inversion is required to get the last bit of oil into the cap for discharge into the nozzle.

I claim:

A liquid dispenser of the character stated, comprising a receptacle having a bottom and a side wall which tapers to a central top opening, a spout connected with said opening, a tube connected at one end with the inner end of the spout and extending downwardly and laterally in the receptacle and terminating in a short straight inlet tip portion having its end relatively close to the side wall of the receptacle and in the angle between said side wall and the receptacle bottom, and means forming a liquid trap at the inner end of the tube, with which the said end of the inlet tip portion is in communication, the said trap comprising a web extending transversely of and attached to the receptacle wall and having a free edge in spaced relation with the bottom wall and extending across the top of and spaced from said tip portion, the said free edge of the web being the same distance throughout its length from the receptacle bottom wall whereby the tip portion may be shifted in either of two directions horizontally from beneath the web.

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