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NONADULTERABLE CONTAINER

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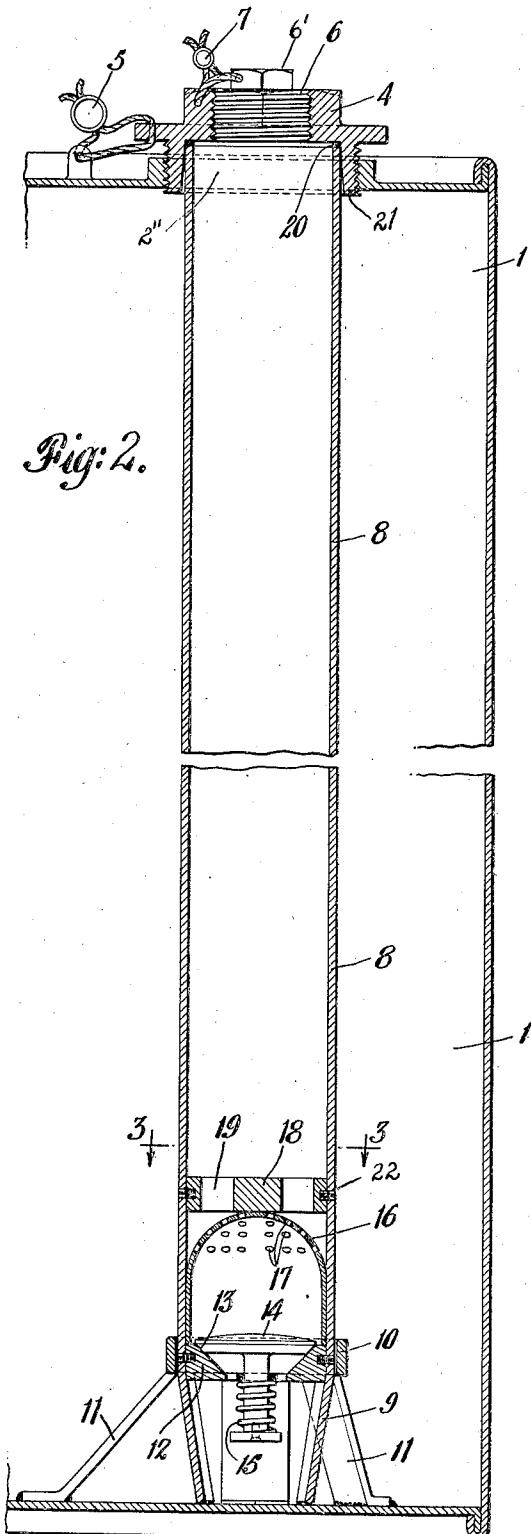
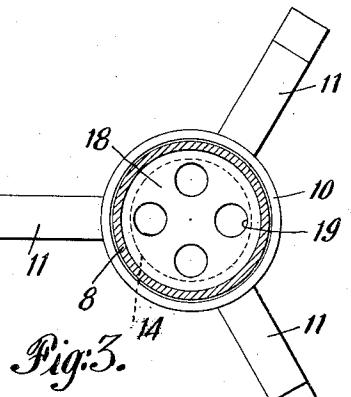
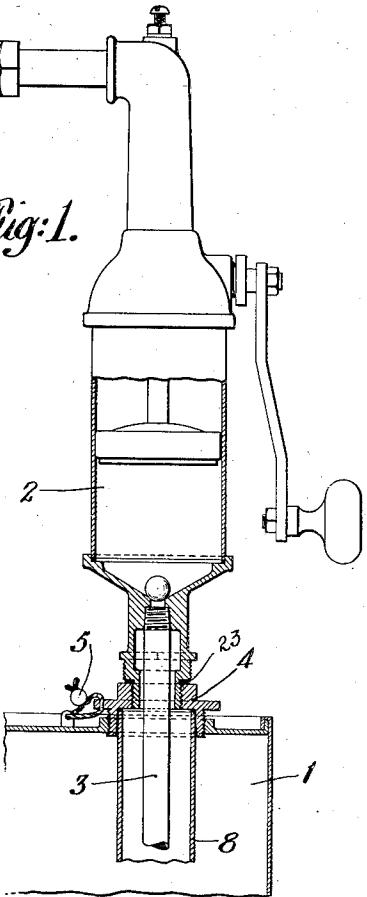


Fig. 1.



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NONADULTERABLE CONTAINER

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This invention relates to non-adulterable containers.

In the oil industry it is customary to ship lubricating oil in drums and in the case of higher grades of oil the bungs are sealed. Such protection is only efficacious during shipment as the service man is obliged to open a bung to insert his oil pump. Considerable money has been spent to educate the public to the use of the better grades of oil but avaricious and unscrupulous garage and service station men are substituting inferior oils by refilling drums that originally contained the better grades of oil and which have the trademark or other indicia of the better grades thereon.

One of the objections of this invention is to provide a drum, the contents of which cannot be adulterated or refilled by the garage or service men without indicating such fact. Still another object of the invention is to provide a non-adulterable drum wherein only the bung requires a change from the usual form of drum. Still another object of the invention is to provide a non-adulterable drum wherein the usual form of delivery pump may be used. A still further object of the invention is to provide means to prevent the adulteration of the contents of a drum which means shall be of relatively low cost.

Referring to the drawings:

Figure 1 is a view in elevation partly in section showing a pump in connection with the device.

Figure 2 is a view in longitudinal section of a device embodying the principles of my invention.

Figure 3 is a sectional view along the line 3, 3, of Figure 2, looking in the direction of the arrows.

The usual metallic drum for shipment of oils is of sheet metal and has a head at each end. These heads are either welded or crimped within and to the cylindrical side walls at each end.

My device can be utilized with any of the commercial drums.

In carrying out my invention the usual drum 1 has the customary bung hole 2" in

one of the heads. The usual bung 4 may be threaded or welded or otherwise secured within the bung hole. Cylindrical collar 21 which forms the securing means of bung 4 is adapted to receive well 8. Well 8 may be 55 of metal tubing or other suitable material. A washer 20 of cork or other suitable material is located between the end of tubing 8 and the underside of bung 4 to provide and air tight connection and to permit of 60 more tightly securing of bung 4 where it is threaded into the bung hole. A screw threaded hole 6 in bung 4 communicates with the interior of well 8 and the atmosphere. Plug 6' is adapted to fit therein for 65 shipment purposes and I propose to provide a seal 7 which may be secured to cap 6' and bung 4 to prevent tampering in shipment. Bung 4 is likewise sealed to the head of drum 1 by seal 5 to prevent tampering 70 while the drum is on service. Although I have shown one form of sealing yet my invention is adapted to utilize any of the well known forms of bung sealing means.

Within well 8 I provide guard 18 having 75 holes 19 and secured by any well known means to the walls of well 8 such as by screws 22. Below guard 18 I provide spacing shield and strainer 16. Below strainer 16 is valve seat 12 and valve 14. Valve 14 is preferably 80 a mushroom or poppet valve with seating spring 15. Valve seat 12 guides the stem and supports valve 14. The lower portion of tube 8 has cut out flaps 9 which are bent in to permit the oil to flow into the bottom part 85 of well 8 and to prevent valve 14 from being forced down from above. In the event of the forcing down by breaking down guard 18 and crushing of spacing strainer 16 with the consequent displacement of valve seat 12 90 to the bottom of the well 8, the flaps 9 will simply close up the openings and prevent the flow of oil. Any puncturing of the walls of well 8 will prevent the flow of oil since the same vacuum must be created between pump shaft 3 and well 8 as occurs in pump shaft 3. Any removal of bung 4 will be indicated by the breaking of seal 5.

I preferably provide some means of securing the tubing to the bottom of the drum to 100

prevent breakage or displacement of well 8 from bung 4 due to the movement of the oil in shipment. The form shown is ring 10 having feet 11 which may be welded to the drum head.

In operation drum 1 is filled in the usual way at the refinery and well 8 is likewise filled. Cap 6' is inserted and the seals 5 and 7 are secured and the drum is ready then for 10 shipment. Upon receipt by the garage or service station man cap 6' is removed and pump 2 is screwed into bung 4. A washer 23 should be used as shown in Figure 1 to give an air-tight connection. The pump is now 15 ready to deliver. As the oil is withdrawn from well 8 by pump 2 valve 14 opens permitting the withdrawal of oil as replacement in well 8. Valve 14 opens and closes with each stroke of the pump and is normally 20 closed.

What I claim is:

1. A container, an opening in said container, a ring in said opening, a tubular well secured to said ring, a packing ring between 25 the end of said well and said ring, said ring adapted to receive a shipping cap and a pump, said well adapted to receive the shaft of a pump, openings in the bottom of the walls of said well, said openings formed by 30 bent in cutout tongues, a valve seat secured in said well by said bent in tongues, a valve supported and guided by said valve seat, a spring to normally maintain said valve closed, a spacer and strainer above said valve 35 and secured to the walls of said well.
2. A container comprising a drum having two heads, a bung opening in one of said heads, a bung for said bung opening, said bung adapted to receive on its underside a 40 tubing forming a well, a gasket between the end of said tubing and said bung, a threaded opening in said bung adapted to receive a shipping cap and a pump, means for sealing said bung to said drum head, means for sealing 45 said shipping cap to said bung, the walls of said well at the lower end having tongues cutout and bent in to permit ingress of the contents of said container into said well and to support a valve seat in said well, a valve 50 seat in said well, a valve for said valve seat, a spring to maintain said valve against its seat except when the contents of said well are removed by a pump therein, a spacer and 55 strainer above said valve, a guard above said spacer and strainer, means for securing said guard to the walls of said well.

Signed at New York, in the county of New York and State of New York.

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