

Nov. 17, 1942.

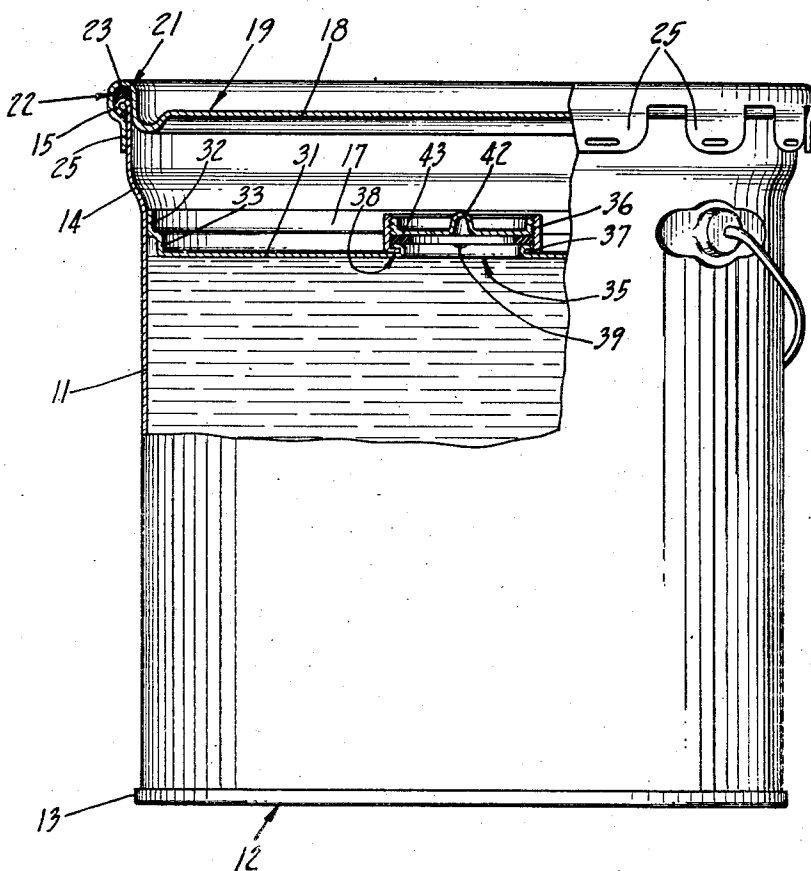
M. J. EBERHART
DISPENSING CONTAINER

2,301,933

Filed March 30, 1940

2 Sheets-Sheet 1

Fig. 1



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Fig. 2

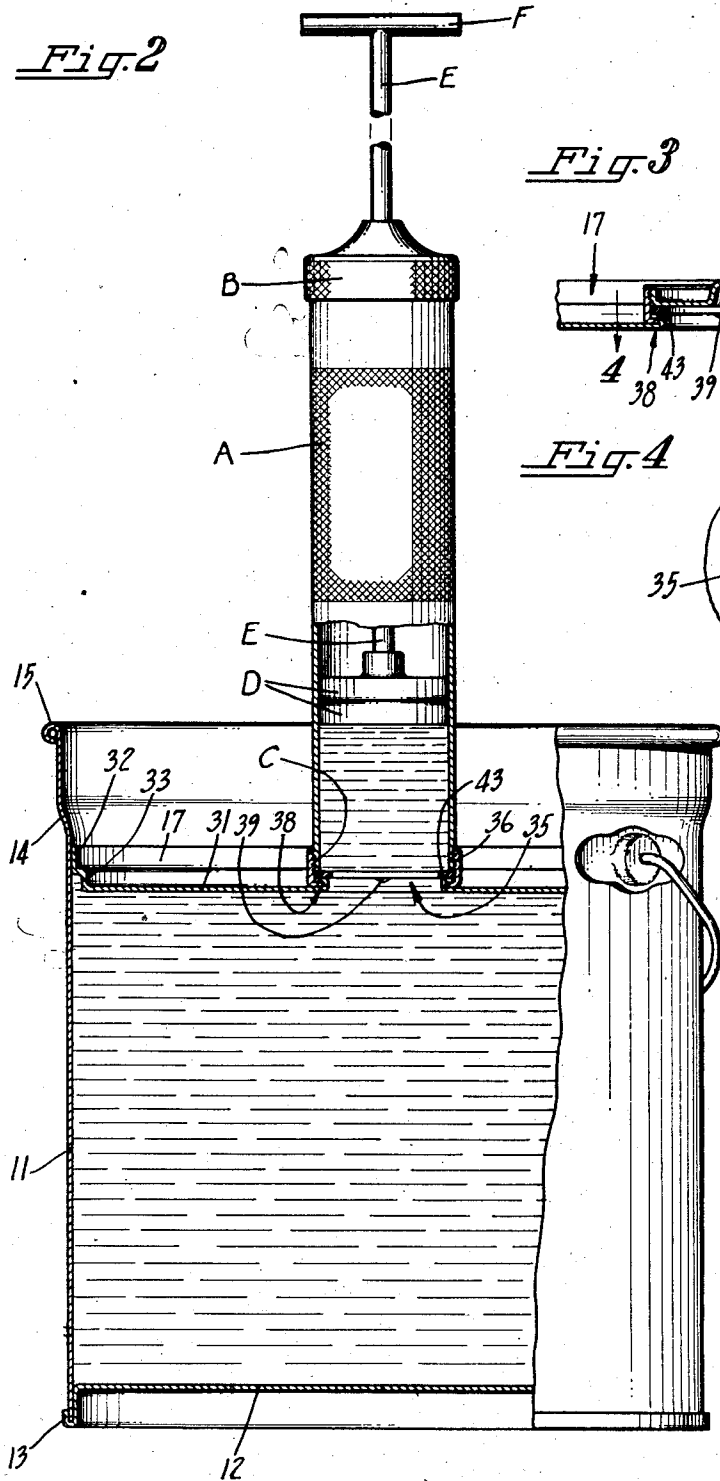


Fig. 3

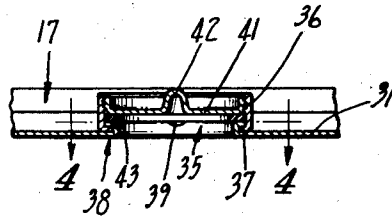
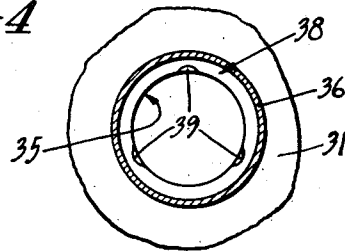


Fig. 4



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UNITED STATES PATENT OFFICE

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DISPENSING CONTAINER

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2 Claims. (Cl. 221—47.5)

The present invention relates to dispensing containers for lubricating grease and the like and has particular reference to an improved container to which a grease gun lubricator may be temporarily attached for filling.

An object of the invention is the provision of a dispensing container of simple construction wherein the fitting for the gun lubricator is made a part of an inner floating disc which after functioning to dispense the grease may be sealed whereupon it becomes a closure so that the cover which sealed the container during shipment and storage may be entirely discarded after the container is once opened for use.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

Referring to the drawings:

Figure 1 is a part side elevation and part sectional view of an initially sealed dispensing container embodying the instant invention;

Fig. 2 is a view similar to Fig. 1 showing the cover removed from the container and illustrating a grease gun in position for filling, portions of the gun being broken away and shown in section;

Fig. 3 is a fragmentary detailed view of the container fitting for the gun, showing how this part of the container may be sealed when the gun is removed; and

Fig. 4 is a horizontal sectional view taken substantially along the line 4—4 in Fig. 3.

As a preferred embodiment of the instant invention the drawings illustrate a sheet metal container comprising a cylindrical body 11 having a bottom closure 12 secured thereto in a suitable seam 13. The upper portion of the body is preferably enlarged as indicated at 14 and this enlarged portion terminates in a smooth outwardly bent edge curl 15 which defines the mouth of the container.

After the container is filled with its contents a gun or follower plate 17 is inserted in the container and the latter is thereafter closed and sealed with a cover 18. The cover is preferably formed with a countersunk panel 19 which is surrounded by an inverted U-shaped channel section 21 enclosing an annular channel space 22. The channel retains a resilient sealing gasket 23 in place and when the cover is in position on the container body the gasket seats tightly on the body curl 15 while the walls of the channel section 21 fits down over the curl.

Depending tabs 25 formed on the outer edge of the cover extend down adjacent the side of the container body and are bent inwardly under the curl 15 and thus hold the cover tightly in sealing position on the container.

The gun or follower plate or disc 17 is preferably of sunken panel character having a flat bottom wall section 31 which at its outer edge merges into a flange or side wall section 32 having an offset section 33 of reduced diameter. Such a flange construction provides an annular peripheral shoulder which serves to greatly strengthen the plate and makes it rigid. The outer wall section 32 frictionally engages against the inside surface of the container body side wall in order to provide as nearly as possible an air-tight fit.

The gun plate or disc 17 is provided with a circular opening 35 (Figs. 2, 3 and 4) which is located in the center of the bottom wall section 31. The opening is surrounded by an internally threaded nozzle 36 which adjacent its bottom end is formed with an inwardly extending flange 37. The metal of the plate bottom wall 17 around the opening 35 is bent upwardly and outwardly over the flange 37 of the nozzle thus forming a suitable seam 38 which tightly holds the nozzle in place. In order to prevent loosening and turning of the nozzle in its seam, spaced indentations 39 are formed in the seam which permanently interlock the seam parts.

The nozzle is normally closed with a threaded cap 41 having a raised finger lug 42 formed therein for screwing the cap into closing position, as shown in Figs. 1 and 3. A resilient gasket 43 is preferably interposed between the cap and the nozzle seam 38 to provide an airtight joint.

Such a container is especially designed for lubricating greases and the like which are adapted to be filled into and dispensed from the well known grease gun type of lubricator such as disclosed in United States Patent 1,692,423, issued November 20, 1928, to A. T. Shere, on Grease gun. Such a gun preferably includes a tubular body A, having at one end a cover B and at the other end a threaded section C on which the dispensing nozzle of the gun is secured. Within the gun body there is a piston D secured to a piston rod E which extends through the cover B and terminates in a handle F.

In the container of the instant invention the gun itself, after its dispensing nozzle end has been removed, is adapted to be applied to the nozzle of the gun plate 17 for filling. In such a use the the cover 18 of the container is first removed by

bending back its lugs 25 and lifting the cover

thus released from its seat on the container. The removed cover may be discarded as it has no further function to perform after the container is once opened.

The cap 41 is then unscrewed from the nozzle 36 and the threaded end of the gun screwed in place in its stead. The gun may then be readily filled upon drawing the piston D upwardly within the gun cylinder by pulling on the handle F. This movement of the piston creates a vacuum at the opening 35 in the gun plate 17.

Since the entire top of the plate or disc member is exposed to the pressure conditions of the outside atmosphere the latter forces the plate down against the grease in the container. This pressure created on the grease forces it up into the cylinder of the gun. One stroke of the gun piston fills the gun and it is thereafter unscrewed from the plate nozzle and its own dispensing nozzle is replaced ready for use.

Between fillings the cap 41 may be screwed in place within the plate nozzle 36 and thereby serves as a reclosure cap for sealing the container against the entrance of air thereinto. The gun plate thus serves a double function. As the grease is withdrawn from the container the gun plate 17 recedes within the container and always remains in contact with the surface level of the grease.

With such a construction of container the filling of the gun may be performed very rapidly. Since there are no parts other than the gun or follower plate and its nozzle, its construction is exceedingly simple and in consequence of this it has been found to be most efficient in operation. The bottom of the plate being flat with no parts projecting below it permits the plate to recede to the very bottom of the container so that the container may be entirely emptied of its contents by the use of the gun.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. A dispensing container adapted to receive a piston type lubricating grease gun for filling, comprising a body member having its upper portion flared outwardly and open at its top, a removable cover member for sealing said container only during shipment and storage, a follower disc disposed within said body member and having a peripheral flange in frictional engagement with the inner wall surface of said body member for sliding movement therein, said flange being offset inwardly adjacent its wall engaging portion to provide an annular shoulder for reenforcing said disc against distortion due to pressure strains, an upstanding cup shaped nozzle secured to a central upstanding portion of said disc and having a threaded wall section adapted to receive and hold the threaded end of a gun type lubricator for filling said lubricator with the contents of the container, and a threaded reclosure cap for sealing said nozzle in all positions of said disc relative to the container body when said lubricator is not attached thereto in filling position on said disc.

2. A dispensing container adapted to receive a piston type lubricating grease gun for filling, comprising a body member having its upper portion flared outwardly in a section of enlarged diameter terminating in an open top, a removable cover member for sealing said container only during shipment and storage, a follower disc disposed within said body member and having a peripheral flange in frictional engagement with the interior wall of said body member, said flange being offset inwardly below its wall engaging portion to provide a peripheral shoulder for reenforcing and strengthening said disc against distortion due to pressure exerted thereon, an upstanding cup shaped nozzle having a flange seamed to said disc above its upper surface surrounding a central opening in the disc and secured thereto against relative turning movement, said disc nozzle having a threaded wall section for removable engagement with the inner end of a gun type lubricator for filling said lubricator with the contents of the container, and a threaded reclosure cap for sealing said nozzle in all positions of said disc relative to the container body when said lubricator is not in attached filling position on said disc.

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