

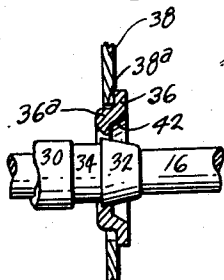
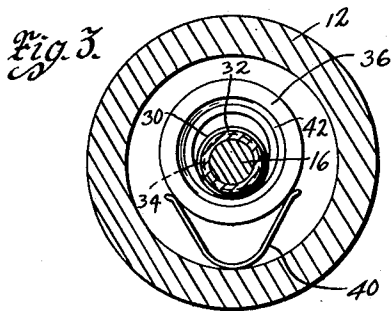
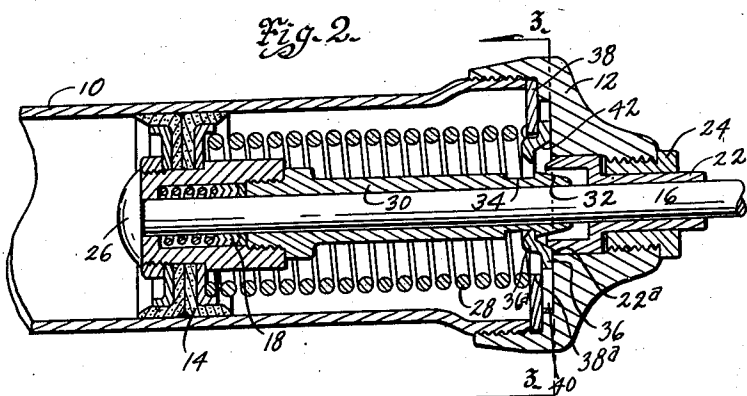
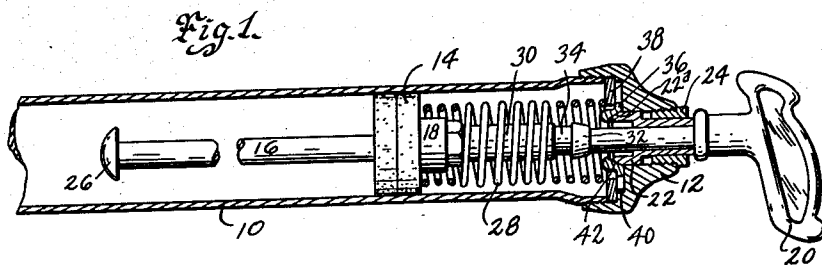
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I. L. EASTMAN

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GREASE GUN RESERVOIR CONSTRUCTION

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Witness
Ray Fisher

Inventor
Ivan L. Eastman
by Bair, Freeman & Sinclair
Attorneys

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GREASE GUN RESERVOIR CONSTRUCTION

Ivan L. Eastman, Bryan, Ohio, assignor to The
Aro Equipment Corporation, Bryan, Ohio, a
corporation of Ohio

Original application October 17, 1932, Serial No.
638,105. Divided and this application Janu-
ary 23, 1933. Serial No. 653,114

10 Claims. (Cl. 221—47.3)

An object of my invention is to provide a grease gun reservoir construction having a grease follower and novel mechanism of durable and comparatively inexpensive construction for retracting the grease follower and latching it in retracted position.

My present application is a division of my application on a Grease gun head and reservoir construction, filed October 17, 1932, Serial No. 638,105.

Still a further object is to provide a grease reservoir construction in which a releasable latch is included for holding a spring urged reservoir follower piston in retracted position during the filling operation of the reservoir.

Still a further object is to provide a latch for holding a spring urged follower piston in retracted position with the means for retracting the piston being operable to release the latch.

Still another object is to provide a latch in the form of a latch washer which is biased to an eccentric latching position and to provide means engageable with the latch washer to move it toward concentric unlatching position.

With these and other objects in view my invention consists in the construction, arrangement and combination of the various parts of my device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawing, in which:

Figure 1 is a sectional view through a reservoir construction showing my invention applied thereto.

Figure 2 is an enlarged sectional view of the reservoir in Figure 1 showing the parts in a different position.

Figure 3 is a sectional view on the line 3—3 of Figure 2; and

Figure 4 is a view of parts in Figure 2 shown in still another position.

On the accompanying drawing, the reference numeral 10 indicates a grease reservoir of cylindrical formation. It is provided with a head 12.

Within the cylinder 10, I provide a grease follower piston 14. For retracting the piston 14, I illustrate a retracting rod 16. It extends slidably through a packing 18 of the piston 14 and terminates in a handle 20. The rod 16 also extends slidably through a latch actuator 22, which

in turn is slidable in a sleeve 24 mounted in the head 12. The rod 16 has a head 26 to engage the piston 14 during the retracting operation.

A spring 28 is used for tending to extend the piston 14 for expelling grease in front of the piston into a discharge head or booster pump or the like in the ordinary manner. (The discharge head is not illustrated on the drawing.)

It is desirable to latch the piston 14 in retracted position. For this purpose, I provide a sleeve 30 operatively connected with the piston 14 and having a tapered nose 32 and a latch groove 34. A latch washer 36 is adapted to coact with the latch groove 34. The latch washer is retained between the head 12 and a washer 38.

The latch washer 36 has a hub 36a smaller in external diameter than a bore 38a of the washer 38. A leaf spring 40 tends to constrain the latch washer 36 to an eccentric position relative to the washer 38, as shown in Figures 3 and 4.

The latch washer 36 has a tapered bore 42 with which the latch actuator sleeve 22 is adapted to coact. As shown in Figure 1, the handle 20 may be pressed in for causing such coaction whereupon a tapered end 22a of the latch actuator 22 will engage the tapered bore 42 of the latch washer 36 to move it toward a concentric position relative to the washer 38 and thereby release the piston 14 so that the spring 28 can expand to exert pressure on the grease in the reservoir cylinder 10. When compressing the spring 28, the tapered nose 32 will engage the bore of the latch washer 36 as shown in Figure 4 and move it against the action of the spring 40 until it can snap into the latch groove 34. Thus the piston is automatically locked in its retracted position when the handle 20 is pulled outwardly and may be unlocked by pressing the handle 20 against the latch actuator 22 (Figure 1). This provides for both latching and unlatching of the follower piston by manipulating the one handle 20.

Some changes may be made in the construction and arrangement of the parts of my device without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims, any modified forms of structure or use of mechanical equivalents, which may be reasonably included within their scope.

I claim as my invention:

1. In a grease gun reservoir construction, a

said follower piston in retracted position, said means comprising a latch washer having an internal flange for coaction with said latch shoulder, a retainer washer spaced from said head, said latch washer having an external flange slidable in the space between said head and said retainer washer and a latch actuator having a cam surface engageable with said latch washer to move the same to unlatched position relative to said latch shoulder, said retracting rod being operatively associated with said latch actuator to move it and thereby unlatch said latch washer from said latch shoulder.

6. In a grease gun reservoir construction, a reservoir cylinder, a head thereon, a spring extended follower piston in said reservoir cylinder, a retracting rod therefor and extending through said head, said follower piston having a latch shoulder and means coaxing therewith to latch said follower piston in retracted position, said means comprising a latch washer having an internal flange for coaction with said latch shoulder, a retainer washer spaced from said head, said latch washer having an external flange slidable in the space between said head and said retainer washer, means within said space biasing said latch washer to eccentric latching position relative to said retracting rod and a latch actuator having a cam surface engageable with said latch washer to move the same against the biasing action thereon to unlatched position relative to said latch shoulder, said retracting rod being operatively associated with said latch actuator to move it and thereby unlatch said latch washer from said latch shoulder.

7. In a grease gun reservoir construction, a
reservoir cylinder, a head thereon, a spring ex-
tended follower piston in said reservoir cylinder,
a retracting rod therefor and extending through
said head, said follower piston having a latch
shoulder and means coacting therewith to latch
said follower piston in retracted position, said
means comprising a latch washer having an in-
ternal flange for coaction with said latch should-
er, a retainer washer spaced from said head, 120
said latch washer having an external flange slid-
able in the space between said head and said
retainer washer and means for moving said latch
washer to unlatched position relative to said latch
shoulder.

8. In a grease gun reservoir construction, a reservoir cylinder, a head thereon, a spring extended follower piston in said reservoir cylinder, a retracting rod therefor and extending through said head, said follower piston having a latch shoulder and means coacting therewith to latch said follower piston in retracted position, said means comprising a latch washer having an internal flange for coaction with said latch shoulder, a retainer washer spaced from said head, said latch washer having an external flange slidable in the space between said head and said retainer washer and means for moving said latch washer to unlatched position relative to said latch shoulder, said means extending through said head and being accessible exteriorly thereof.

9. In a grease gun reservoir construction, a reservoir cylinder, a head thereon, a spring extended follower piston in said reservoir cylinder, a retracting rod therefor and extending through said head, said follower piston having a beveled latch shoulder and means coacting therewith to latch said follower piston in retracted position, said means comprising a latch washer having an internal beveled flange for coaction with said

latch shoulder, a retainer washer spaced from said head, said latch washer having an external flange slidable in the space between said head and said retainer washer and means engageable exteriorly of said head to unlatch said latch washer relative to said latch shoulder. 80

10. In a grease gun reservoir construction, a reservoir cylinder, a head thereon, a spring extended follower piston in said reservoir cylinder, a retracting rod therefor and extending through said head, said follower piston having a beveled latch shoulder, a latch washer for coaction therewith, means biasing said latch washer to eccentric latching position and a sleeve extending through said head and engageable exteriorly thereof to move said latch washer to concentric unlatching position relative to said latch shoulder. 85

IVAN L. EASTMAN.

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