Oct. 31, 1933. L. O. VOLLAND 1,933,463

GREASE GUN FILLER

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Fig. 1.

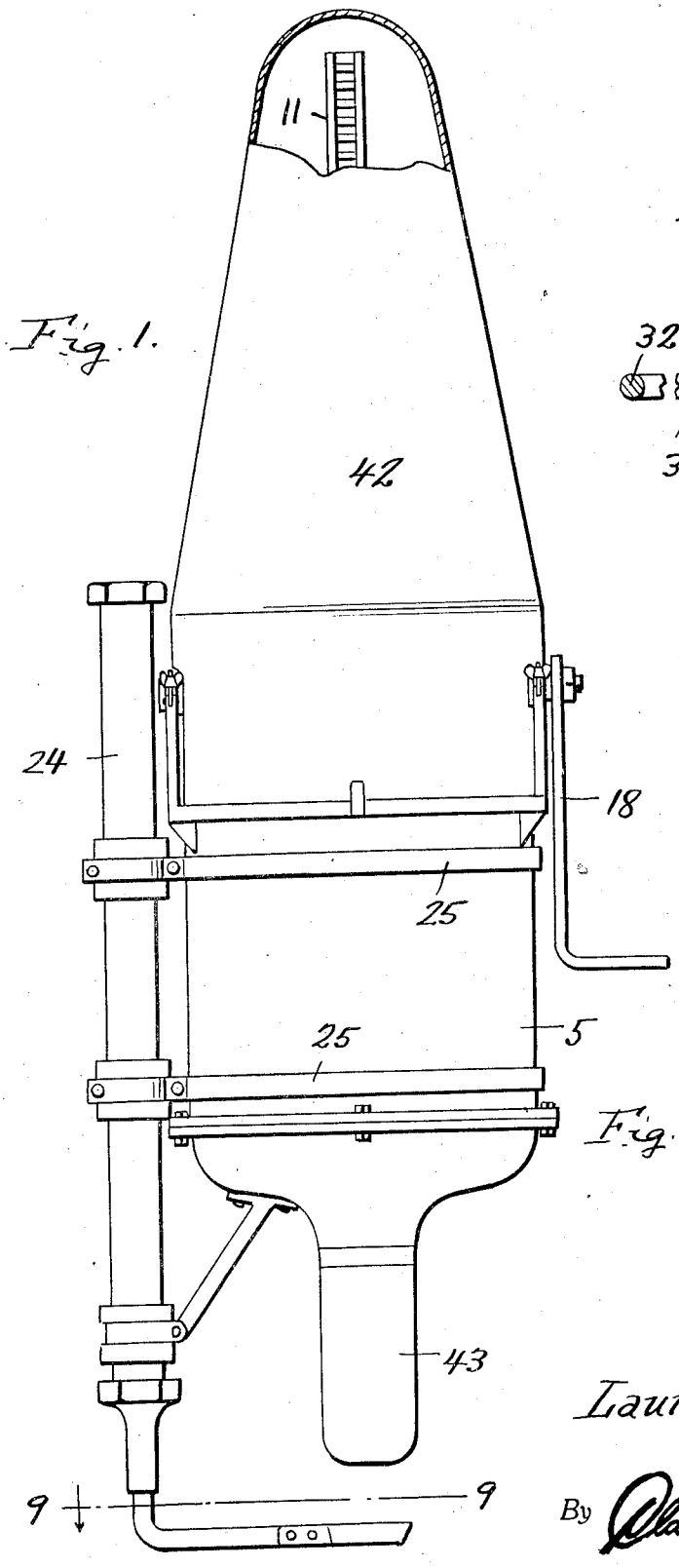


Fig. 9.

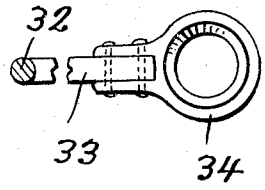
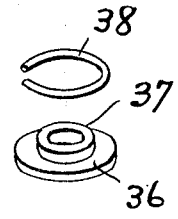


Fig. 10.



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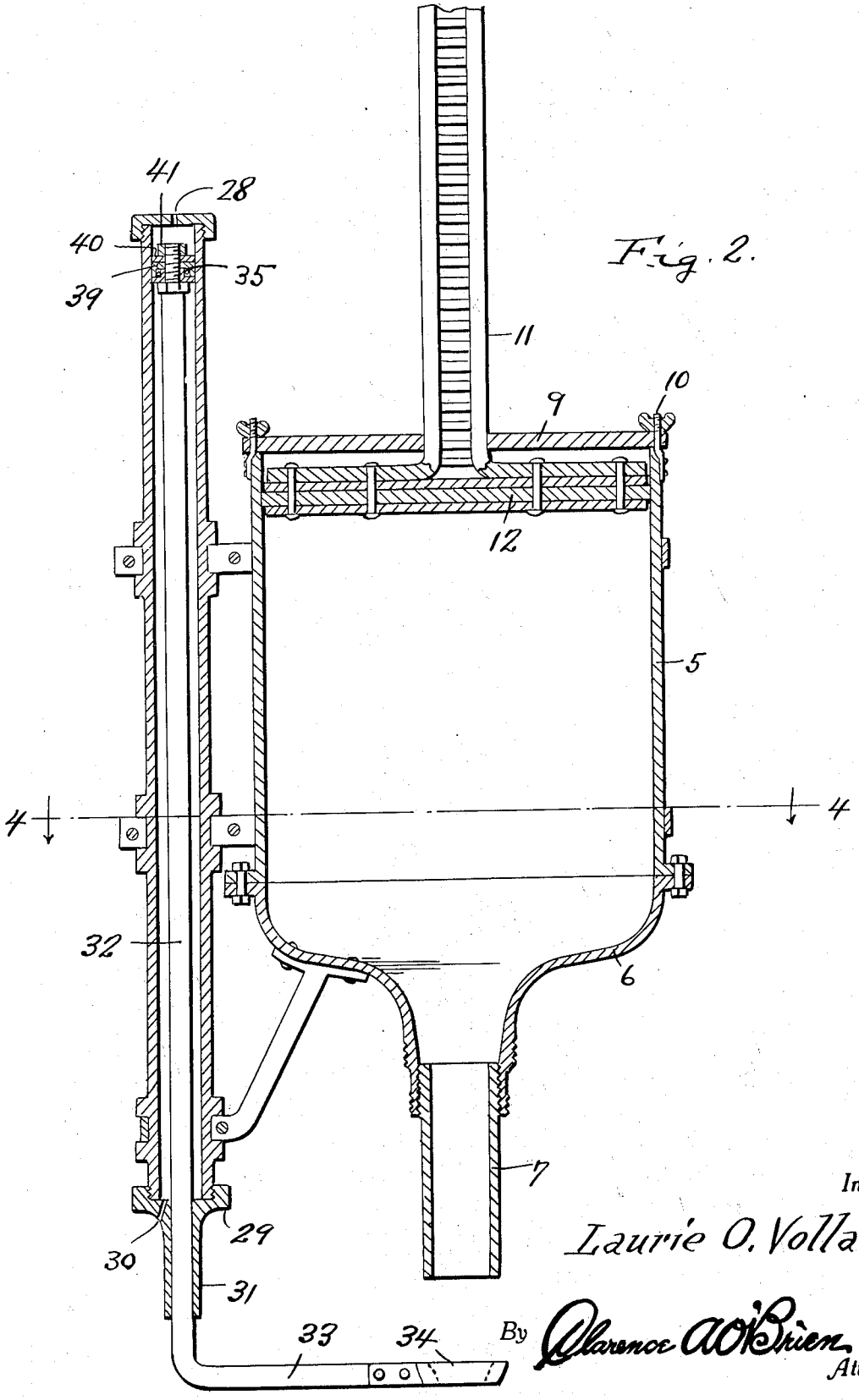


Fig. 2.

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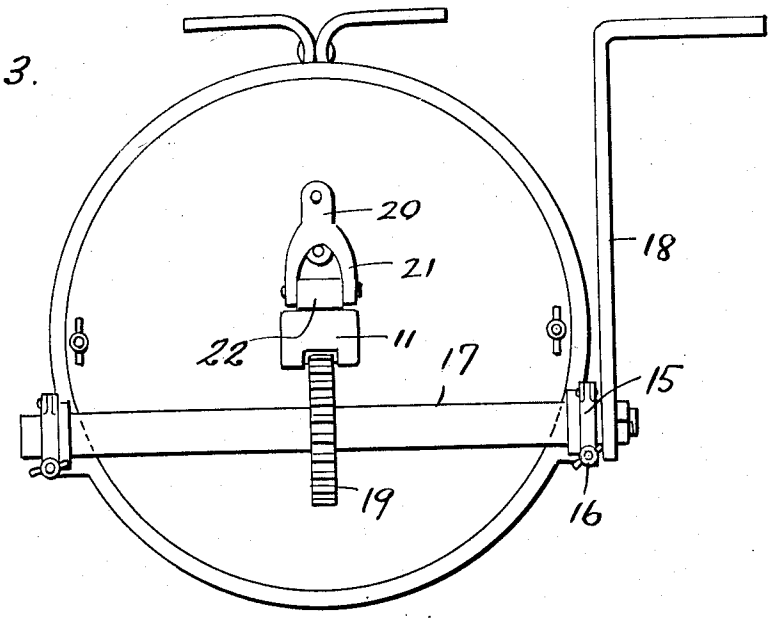
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GREASE GUN FILLER

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Fig. 3.



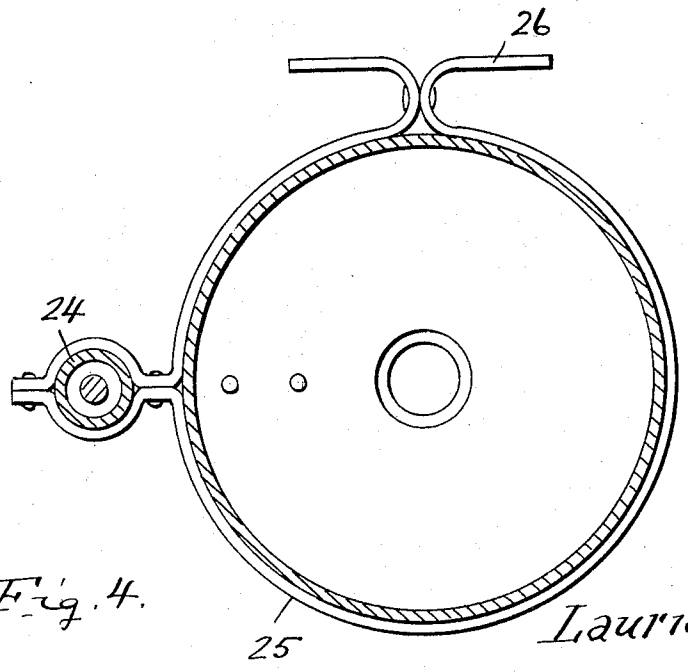


Fig. 4.

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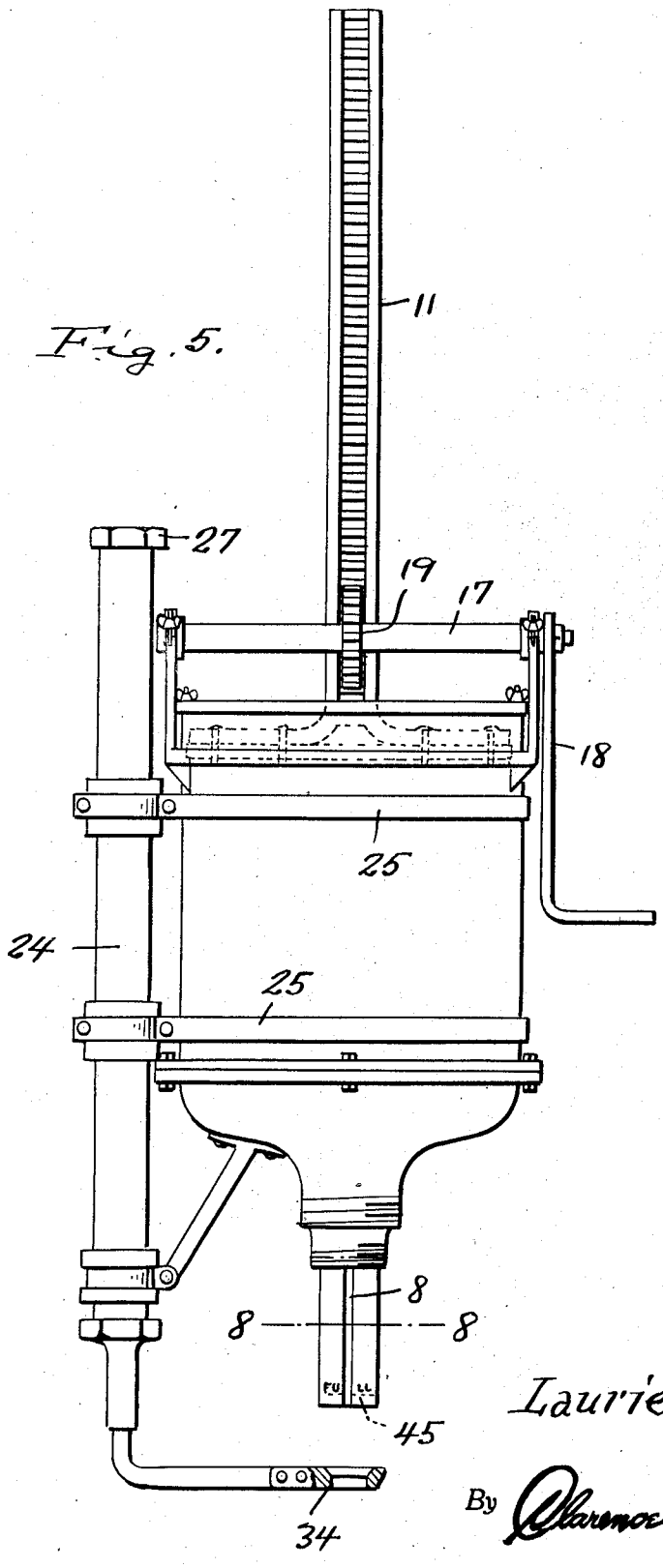
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Fig. 5.



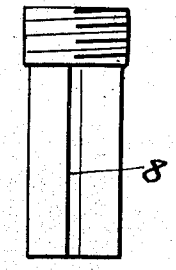


Fig. 7.

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GREASE GUN FILLER

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Fig. 6.

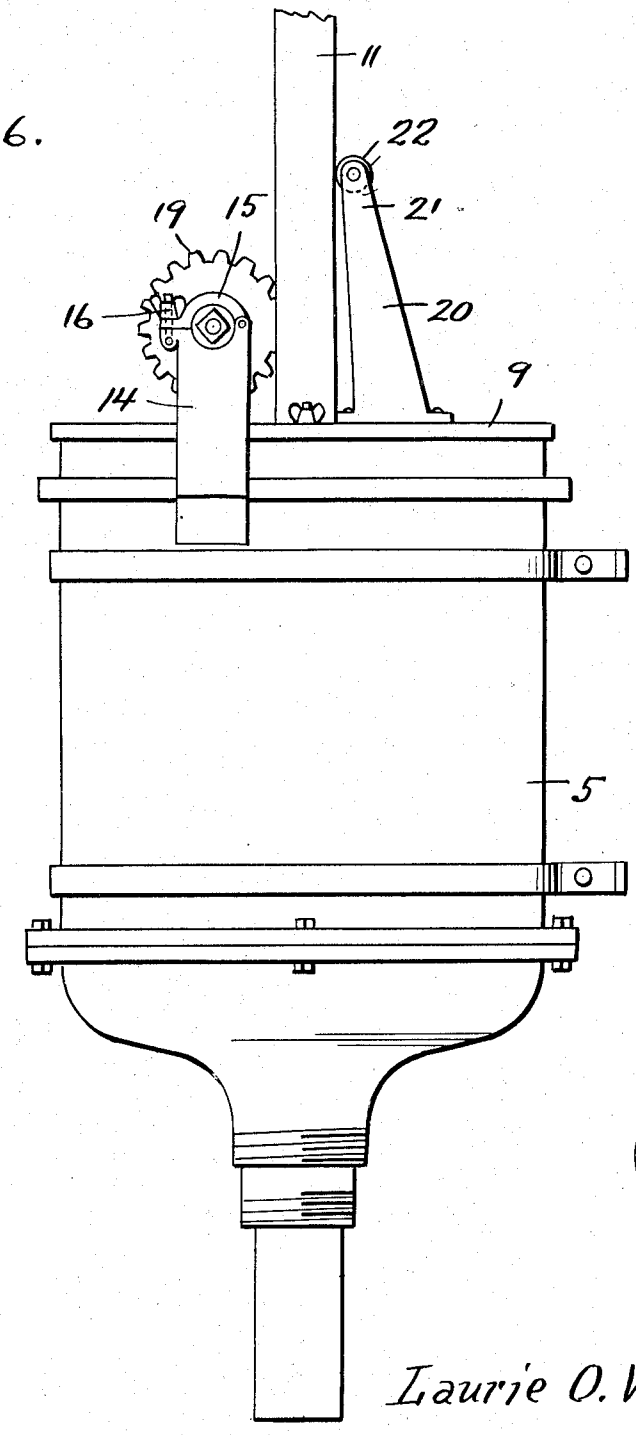
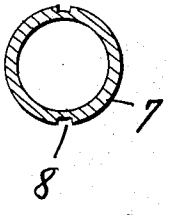


Fig. 8.



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1,933,463

UNITED STATES PATENT OFFICE

1,933,463

GREASE GUN FILLER

Laurie O. Volland, Crookston, Minn.

Application April 7, 1933. Serial No. 664,973

4 Claims. (Cl. 226—125)

The present invention relates to a device for filling grease guns and has for its object to provide a device of this nature which includes means for holding the gun to be filled and allowing the gun to move as it is being filled.

Another very important object of the invention resides in the provision of a device of this nature which is comparatively simple in construction, strong and durable, convenient, compact in its arrangement of parts, thoroughly efficient and reliable in use and operation and otherwise well adapted to the purpose for which it is designed.

With the above and numerous other objects in view as will appear as the description proceeds, the invention consists in certain novel features of construction, and in the combination and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawings:

Figure 1 is a side elevation of a device embodying the features of my invention showing the upper portion of the housing in section.

Figure 2 is a vertical section through the device showing the housing and cap removed.

Figure 3 is a top plan view of the device with the housing removed.

Figure 4 is a horizontal section taken substantially on the line 4—4 of Figure 2.

Figure 5 is a side elevation of the device with the housing and cap removed.

Figure 6 is another side elevation taken at right angles to that shown in Figure 5.

Figure 7 is a detail elevation of the filling tube.

Figure 8 is a section therethrough taken substantially on the line 8—8 of Figure 5.

Figure 9 is a section taken substantially on the line 9—9 of Figure 1, and

Figure 10 is a perspective view showing a disk and spring forming part of a piston.

Referring to the drawings in detail it will be seen that the numeral 5 denotes a cylindrical container on the bottom of which is fixed a head 6 into which is threaded a filling tube 7 which depends downwardly therefrom. This tube 7 is provided on its outer surface with longitudinally extending vent grooves 8. A top 9 is detachably fixed as at 10 on the upper end of the cylinder 5 and has an opening through which slides a rack bar 11 on the lower or inner end of which is fixed a plunger 12. Brackets 14 rise from the cylinder and have bearings in their upper ends including hinged caps 15 held in closed position by suitable means 16 and a shaft 17 is journalled in these bearings and may be easily and quickly removed. The shaft 17 is rotated by a hand crank 18 or other suitable means. A rack gear 19 is fixed on the shaft 17 and meshes with the teeth of the rack bar 11. A bracket 20 rises from the top 9 and has a forked upper end 21 in which is journalled a roller 22 which bears against the rack bar 11 to brace it in engagement with the rack gear 19.

Numeral 24 denotes an elongated cylinder of small diameter as compared with the container 5. This cylinder 24 extends alongside the container and extends above and below it and is held in place by suitable bracket straps 25 which include extensions 26 so that the device may be secured to a suitable support. A cap 27 closes the upper end of the cylinder 24 and has a small vent opening 28. A cap 29 is mounted on the lower end of the cylinder and has a small vent opening 30 and an elongated bearing 31 through which is slidable a rod 32. The outer or lower portion of the rod has a right angle extension 33 on which is mounted a dished fitting 34 for supporting a grease gun. On the inner or upper end of the rod 33 there is mounted a plunger or piston 35 which includes a disk 36 having a central opening with a flange thereabout as at 37 and about this flange is a spring 38 which is tensioned to expand outwardly against a flexible washer 39 which is held in place by a metal washer 40 and a nut 41.

Numeral 42 denotes a housing which is placed on the top of the container to house the rack and the shaft. Numeral 43 is a removable cap for the tube 7.

To fill the container, of course the top 9 is removed with the plunger and rack.

The grease gun to be filled is mounted in the fitting 34 and slid up over the tube 7. The crank 18 is turned thereby causing the plunger 12 to move downwardly and force the grease into the barrel of the grease gun and the air escapes through the grooves 8. As the barrel of the grease gun fills it telescopes off the tube moving the fitting and the rod as will be quite apparent. A line or the like 45 may be provided adjacent the bottom end of the tube 7 so that when it becomes visible it will be an indication that the grease gun barrel is full.

It is thought that the construction, operation, utility and advantages of this invention will now be quite apparent to those skilled in this art without a more detailed description thereof.

The present embodiment of the invention has been described in considerable detail merely for the purposes of exemplification since in actual practice it attains the features of advantage

enumerated as desirable in the statement of the invention and the above description.

It will be apparent that changes in the details of construction, and in the combination and arrangement of parts may be resorted to without departing from the spirit or scope of the invention as hereinafter claimed or sacrificing any of its advantages.

Having thus described my invention, what I claim as new is:

1. A grease gun filler comprising a container, a tube extending from the container in communication therewith, means for ejecting the contents of the container through the tube. said tube being formed on its outer surface with a longitudinally extending groove, and movable means for holding a grease gun barrel on the tube to be moved by the barrel as it is filled and forced off the tube.

2. A grease gun filler comprising a container, a tube extending from the container in communication therewith, means for ejecting the contents of the container through the tube, said tube being formed on its outer surface with a longitudinally extending groove, and movable means for holding a grease gun barrel on the tube to be moved by the barrel as it is filled and forced off the tube, said means comprising a cylinder, a rod slidable in the cylinder, a piston on the rod in the cylinder, and a fitting on the rod for holding the grease gun barrel.

3. A grease gun filler comprising a container, a tube extending from the container in communication therewith, means for ejecting the contents of the container through the tube, said tube being formed on its outer surface with a longitudinally extending groove, and movable means for holding a grease gun barrel on the tube to be moved by the barrel as it is filled and forced off the tube, said means comprising a cylinder, a rod slidable in the cylinder, a piston on the rod in the cylinder, and a fitting on the rod for holding the grease gun barrel, said cylinder having caps at its ends with vent openings.

4. A grease gun filler comprising a container, a tube extending from the container in communication therewith, means for ejecting the contents of the container through the tube, said tube being formed on its outer surface with a longitudinally extending groove, said means comprising a top for the container with an opening, a rack bar slidable through the opening, a plunger on the rack bar within the container, a shaft, means for rotatably mounting the shaft on the container, a rack gear on the shaft meshing with the rack bar, a bracket rising from the top, and a roller journalled on the bracket and bearing against the rack bar and holding it braced in engagement with the rack gear.

LAURIE O. VOLLAND.