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MEANS AND METHOD OF STORING AND TRANSFERRING GREASE TO GREASE GUNS

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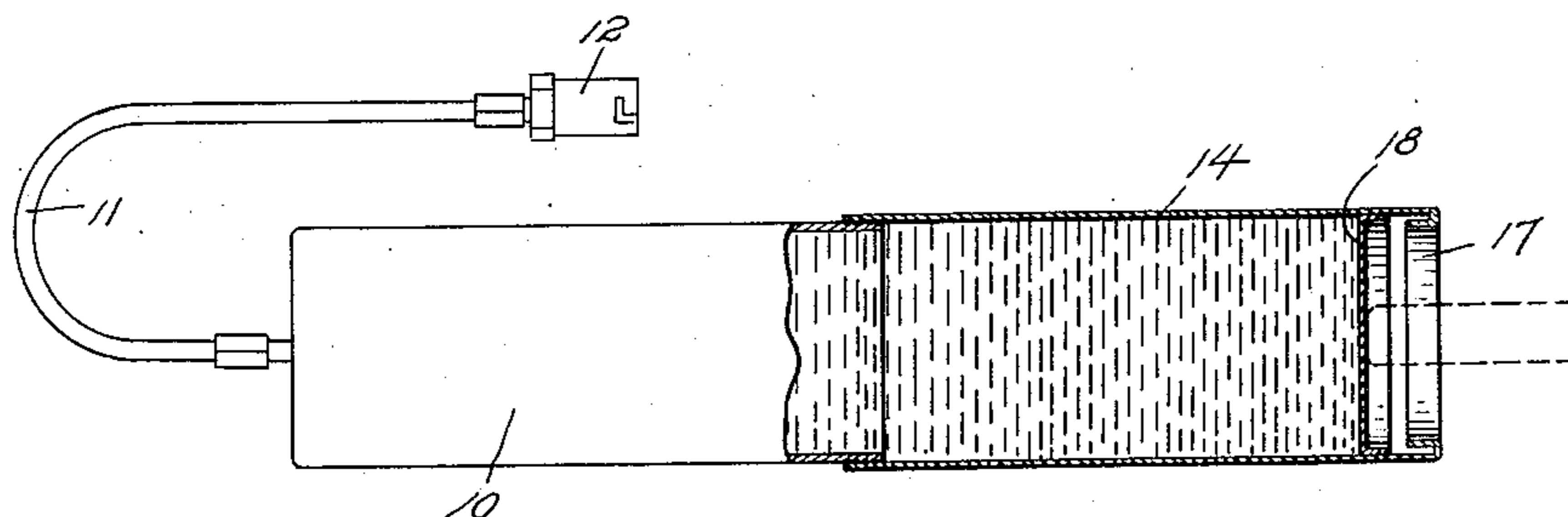


Fig. 1.

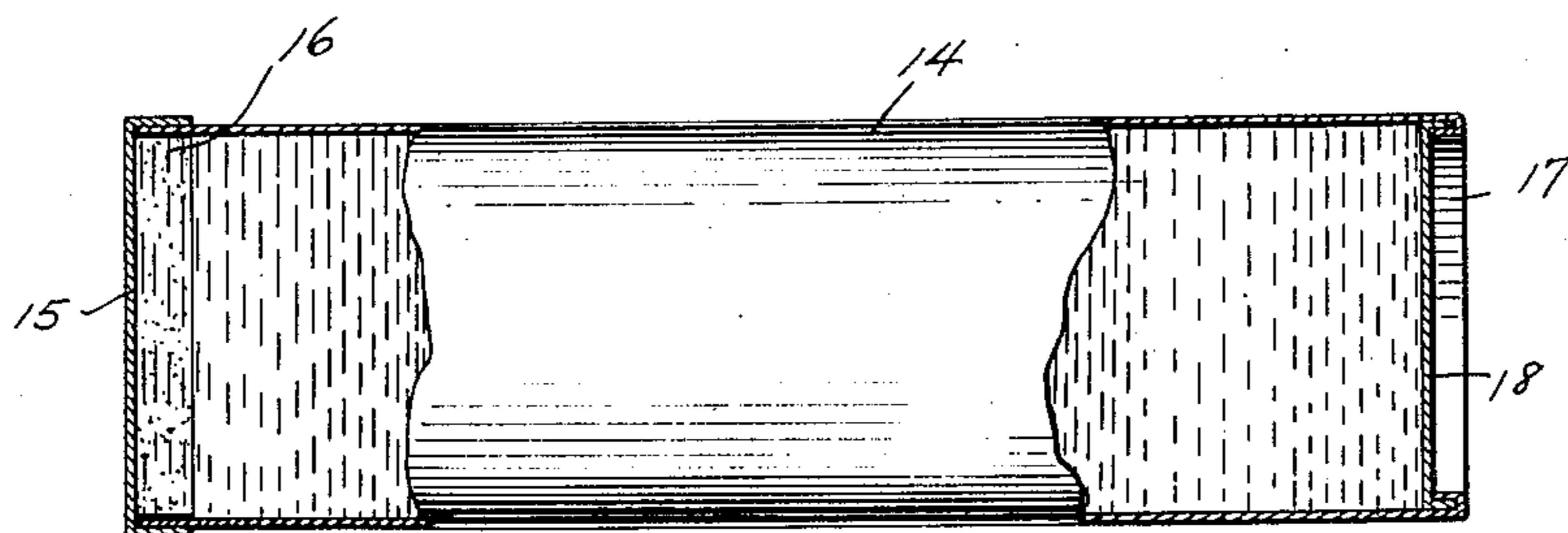


Fig. 2.

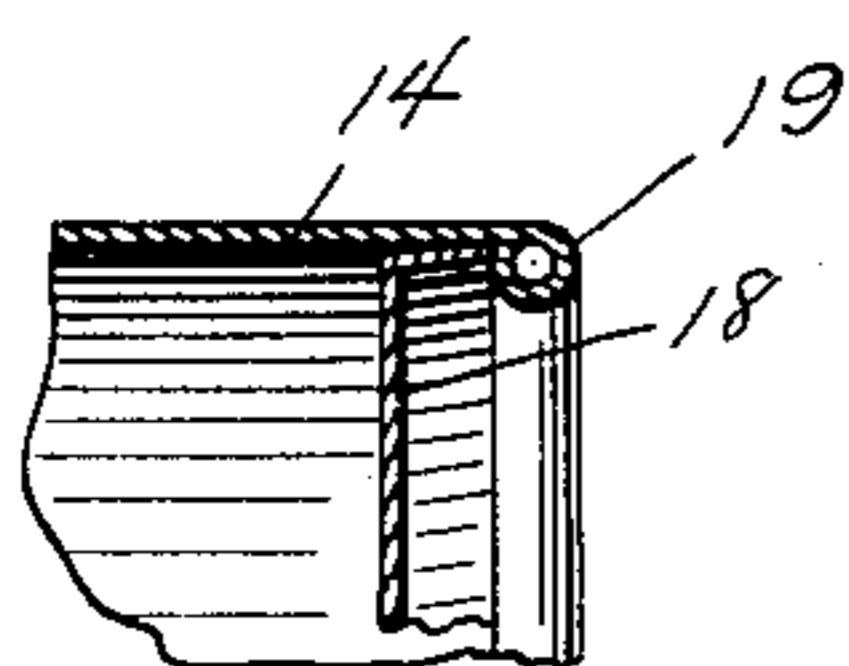


Fig. 3.

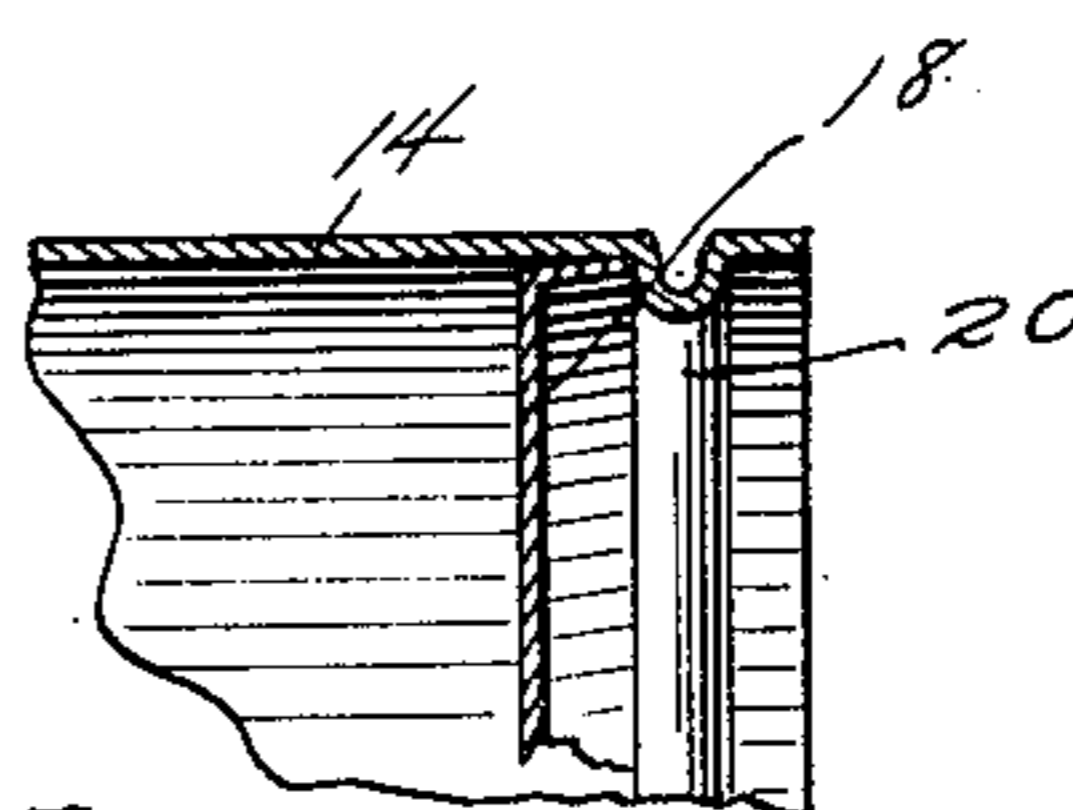


Fig. 4.

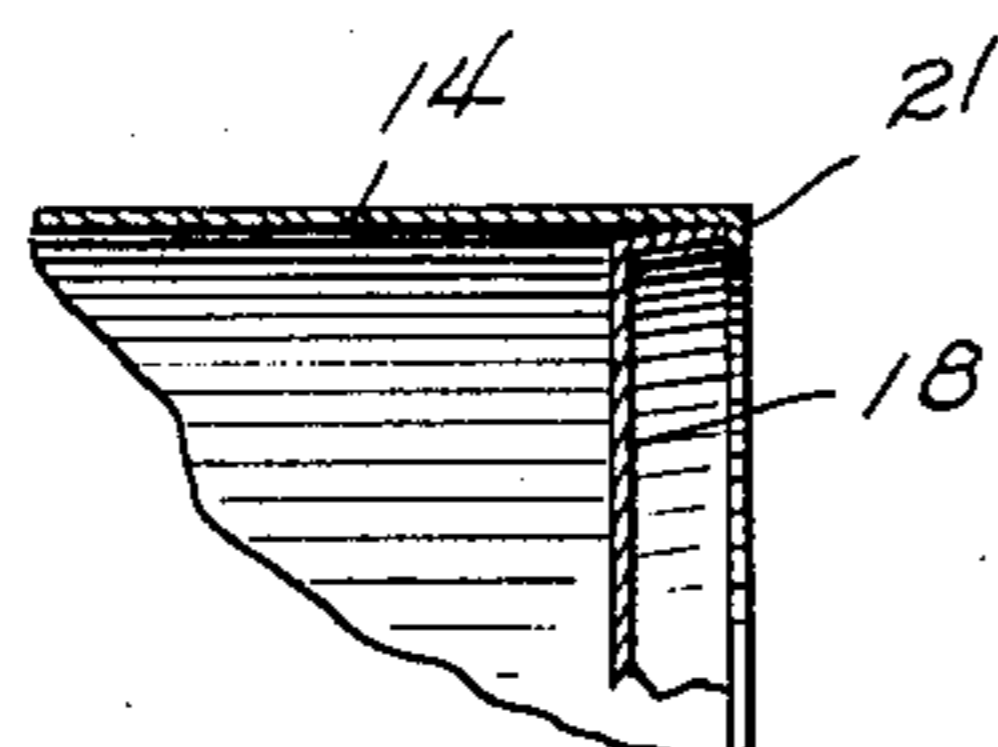


Fig. 5.

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UNITED STATES PATENT OFFICE.

HENRY E. ELROD, OF DALLAS, TEXAS.

MEANS AND METHOD OF STORING AND TRANSFERRING GREASE TO GREASE GUNS.

Application filed February 10, 1922. Serial No. 535,601.

To all whom it may concern:

Be it known that I, HENRY E. ELROD, a citizen of the United States, and a resident of Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Means and Methods of Storing and Transferring Grease to Grease Guns, of which the following is a specification.

My invention relates to means and method of storing and transferring grease to grease guns and has for its particular object to provide means for accomplishing this in a convenient, quick and economical manner.

Recently systems of lubrications have come into vogue which employ a grease gun in the form of a container to one end of which is attached a delivery tube for connection with the bearing to be lubricated. The grease is forced from the gun by means of a screw plunger which enables considerable pressure to be exerted upon the grease, which results in an efficient lubrication with but slight effort.

One of the outstanding advantages attributed to these systems of lubricating is that the operation may be accomplished without soiling the hands of the operator and without a waste of grease.

These features are obtained but difficulty is experienced in transferring a supply of grease to the gun and during this loading of the gun the hands of the operator are often soiled and a certain percentage of the grease usually wasted.

Therefore the particular object of my invention is to provide a container for the grease which is capable of being quickly and conveniently secured to the grease gun whereupon the contents of the container may be easily transferred to the gun.

The construction of my improved container therefore adapts itself to a method of transferring grease to the gun which enables this heretofore difficult operation to be accomplished in a cleanly manner and with no loss of grease.

An embodiment of my invention is described and illustrated in the accompanying specification and drawings so that those skilled in this particular art may readily appreciate the advantages thereof.

In the drawings:

Fig. 1 is a sectional view of my improved invention attached to a grease gun,

Fig. 2 is an enlarged longitudinal section through the container,

Fig. 3 is a detailed sectional view of a modification of the container,

Fig. 4 is a similar view of another modification, and

Fig. 5 is a similar view of still another modification.

Referring now more particularly to Fig. 1 it will be seen that there is illustrated a grease gun comprising a container 10 to one end of which is secured a delivery tube 11 the delivery nozzle 12 of which is adapted to be connected to the part to be lubricated. In practice the grease is forced from the container 10 by means of a plunger operated by a rod threaded in a cap which cap in turn is screwed on to the end of the container 11, screw threads 13 being shown for this purpose. The plunger, rod and cap are omitted from the drawings.

The container of my improved invention comprises a cylindrical body 14 open at both ends and adapted to be closed at one end thereof by a cap 15 fitting snugly over the end of the container. The inner circumference of the container adjacent the end thereof is coated with a layer of tin or lead or other similar material 16 so that the container 14 may be connected to the grease gun 10 by screwing the same onto the screw threads 13 of the grease gun, the layer of tin or lead being sufficiently soft to take hold of the threads of the grease gun.

The other end of the container 14 is bent over as at 17 to form a circumferential slot to receive the edge of a cupped disc 18 which is of such diameter as to fit within the container and be slidable therethrough. The disc 18 besides closing one end of the container 14 acts as a follower to eject the grease.

The diameter of the inside of the container 14 is the same as the outside diameter of the threads 13 of the grease gun 10 and when it is desired to fill the grease gun 10 the cap 15 of the container is removed and the open end thereof screwed onto the open end of the gun 10, the soft coating of tin or lead or the like taking hold of the threads 13 sufficiently to temporarily connect the container 14 to the grease gun 10. The cap, plunger and the rod of the grease gun have of course been previously removed from the gun.

With the end of the container screwed

onto the open end of the gun 10 the grease contained in the container may now be ejected from and into the gun 10. To accomplish this the disc 18 is forced through
 5 the container in the direction of the gun and consequently ejects the grease from the container. The movement of the disc 18 may be accomplished by placing the plunger of the gun which has previously been removed or a hammer-handle or other convenient article against the disc and pushing the same inward thus completely ejecting all of the grease contained within this container. After the contents of the container
 10 have been transferred to the gun the same is unscrewed from the end of the gun 10 and discarded. The plunger and cap of the gun may then be replaced thereby fitting the gun for further use. Obviously the operation has been accomplished without soiling the hands of the operator or wasting any of the grease.

In Fig. 3 I have shown a modified construction for the end of the container 14. Instead of bending the end back as at 17 of Fig. 2 I roll the edge of the container thereby forming a bead 19 which the edge of the cup disc 18 is adapted to engage.

In Fig. 4 a stop for the disc 18 is formed by pressing the container inwardly to form an annular rib 20.

In Fig. 5 the movement of the disc 18 is limited in an outward direction by means of the stop edge 21 formed by bending the edge of the container 14 inwardly at right angles to the body portion thereof.

Obviously various changes in the details of construction may be resorted to, it being essential only that the movement of the disc
 40 18 be limited in its outward movement so that it will be maintained in position adjacent the end of the container and act as a bottom therefor. Obviously in filling the container the disc 18 is placed in position and the container filled with grease and the cap 15 then placed upon the open end of the container. It is my purpose to form these containers in sizes to suit the various sizes of grease guns now manufactured and the contents of the can will contain a sufficient
 45 quantity of grease to last a considerable length of time. Thus a person can pur-

chase a container of grease and keep the same for instance under the seat of his automobile, the supply being sufficient in most
 55 instances to last a year.

From the foregoing it is obvious therefore that my invention contemplates means for storing or carrying grease and a method of transferring the grease to grease guns. The illustration in the drawings of several structural modifications is evidence of the fact that various changes may be made in the details of constructions without departing from the spirit and scope of my invention and to this end I reserve the right to make such changes as may come within the purview of the accompanying claims.

Having thus described my invention what I claim is:

1. A grease container comprising a container body and a layer of material softer than said body arranged at the end thereof whereby said container may be connected to a grease gun or the like by screwing the same onto said gun.

2. A grease container for use in combination with a grease gun comprising a tubular body, a removable cap covering one end of said body, a displaceable disc closing the other end of said body, a soft coating material applied to the inner circumference of one end of said body whereby it may be threaded upon the end of the grease gun, the contents of the container being ejected
 85 by longitudinally displacing said disc.

3. A container of the class described for use in combination with a grease gun comprising a tubular body, the inner circumference of said body at the front end thereof being coated with a soft metal, a removable cap covering this end of the body, a stop formed on the rear end of said body, a cupped disc closing this end of said body and abutting said stop, said container being adapted to be connected to said gun by screwing the front end thereof onto the open end of the gun, the coating of soft metal engaging the screw threads of the container, the contents of the container being forced into the gun by displacing said disc.

HENRY E. ELROD.