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A. W. OLSON ET AL

2,295,910

GREASE PUMP

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*Fig. 1.*

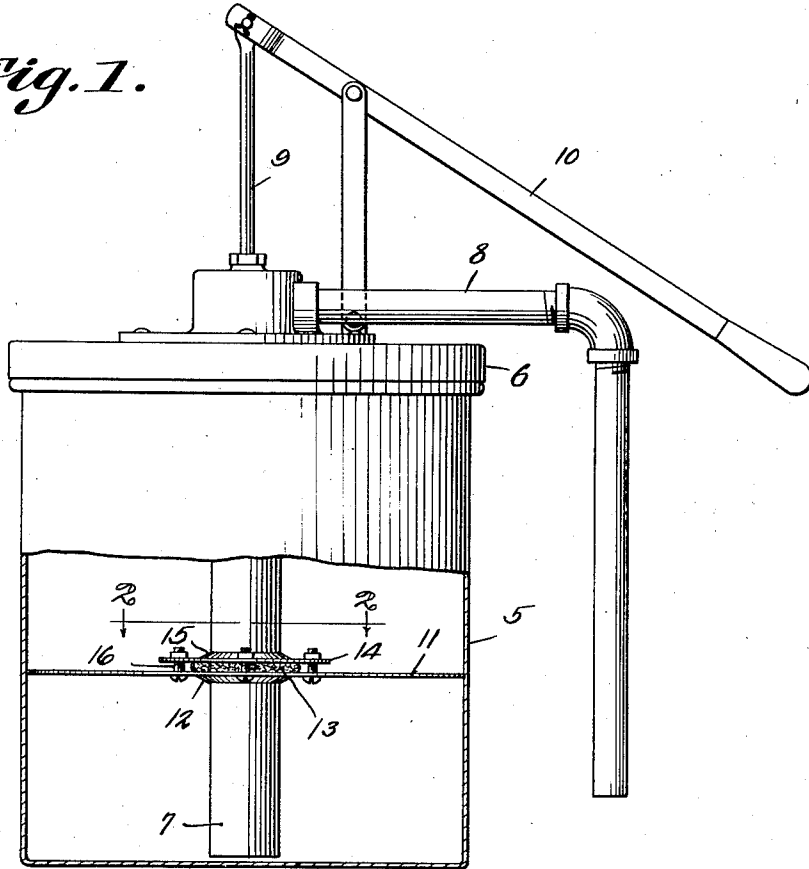


*Fig. 2.*

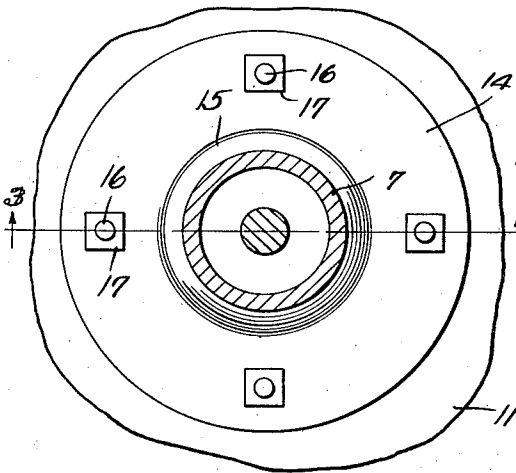
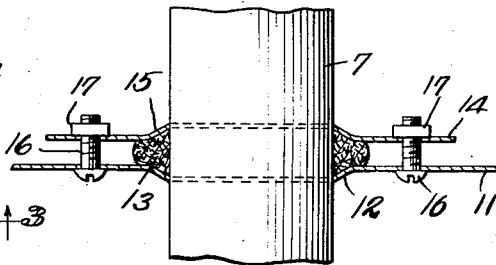


*Fig. 3.*



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## UNITED STATES PATENT OFFICE

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## GREASE PUMP

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## 1 Claim. (Cl. 221—80)

This invention relates to grease pumps, designed primarily for use in dispensing grease from drums, cans or the like in which grease is contained for shipment.

By way of explanation, it might be stated that in grease dispensing apparatus now in general use, and wherein air pressure is forced directly against the surface of the grease, the grease adheres to the sides of the container adjacent to the bottom thereof, and an appreciable quantity of the grease remains in the container, and cannot be dispensed in the usual manner.

It is therefore the primary object of the present invention to provide a dispensing apparatus wherein a follower is provided, and against which the air pressure is directed in forcing the grease from the drum or container.

An important object of the invention is to provide a follower of this character having means for insuring a close fit between the follower and pipe over which the follower moves, thereby insuring against air leaking past the follower and the grease being forced to that portion of the container above the follower, when air pressure is directed against the follower to dispense the grease.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein described, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawing:

Figure 1 is an elevational view of a container equipped with a grease pump constructed in accordance with the invention, a portion of the container having been broken away to illustrate the follower.

Figure 2 is a sectional view taken substantially on line 2—2 of Figure 1.

Figure 3 is a sectional view taken on line 3—3 of Figure 2.

Referring to the drawing in detail, the reference character 5 designates a grease container which may be in the form of a drum or can used in shipping the grease.

The pump comprises a base 6 which is in the form of a cap to be fitted on the container 5, in lieu of the usual cover. Suitable means not shown are provided for securing the base 6 in position on the container.

The pump also includes a pipe 7 that is con-

nected with the base 6, the lower end of the pipe 7 being spaced from the bottom of the container 5, as that grease may be forced upwardly into the pipe 7. The pipe 7 communicates with the pipe 8, through which the grease is dispensed.

The reference character 9 designates the pump piston rod, which is actuated by means of the lever 10, in the usual and well known manner.

The reference character 11 designates the follower, which plays an important part in the invention, the follower being disk-like in formation and constructed of sheet metal material, the central portion of the follower being formed with an opening of a diameter to accommodate the pipe 7. As clearly shown by Figure 3 of the drawing, the portion of the follower adjacent to the central opening thereof is bent downwardly as at 12, providing a recess in which the packing material 13 is held.

Forming a part of the follower, is a disk 14, which is also formed with a central opening, the portion of the disk adjacent to the central opening being bent upwardly as at 15 so that the packing material will be held therein. Bolts 16 extend through aligning openings formed in the follower 11 and disk 14, the bolts 16 being supplied with nuts 17, whereby the disk 14 may be drawn towards the follower proper, compressing the packing material 13, and forcing the packing material into close engagement with the pipe 7, in such a way as to insure against air passing between the follower and pipe 7, or the leakage of the grease past the pipe 7, to the portion of the container, above the follower 11.

Thus it will be seen that due to the construction shown and described, air pressure directed against the follower 11, will act to move the follower 11 downwardly against the grease held within the container. The follower will force the grease into the pipe 7, on its downward movement, insuring a complete emptying of the container 5, when the follower reaches the bottom of the container.

As previously stated, applicant's invention embodies a pump structure which is so designed that it may be readily and easily secured to the usual container or can in which grease is shipped, when the usual closure of the container or can has been removed.

What is claimed is:

A leakproof follower for grease containers having central discharge pipes, comprising a main disk-like body portion having a central opening for the reception of the discharge pipes, the body portion adjacent to the central opening being de-

pressed providing an inclined surface, a disk having a central opening, fitted over the central discharge pipe and normally spaced from the main disk-like body portion, the portion of the disk adjacent to the opening being pressed upwardly 5 providing an inclined surface, bolts connecting the main body portion and disk, a packing gland

fitted between said inclined surfaces, and said inclined surfaces adapted to force the packing gland into engagement with the discharge pipe when the disk is moved toward the main body portion, by the action of the bolts.

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