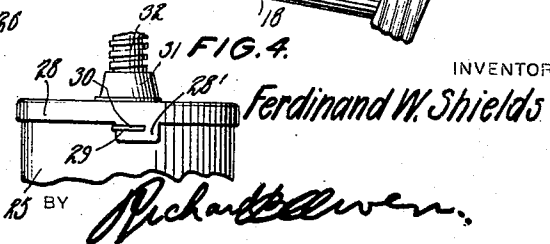
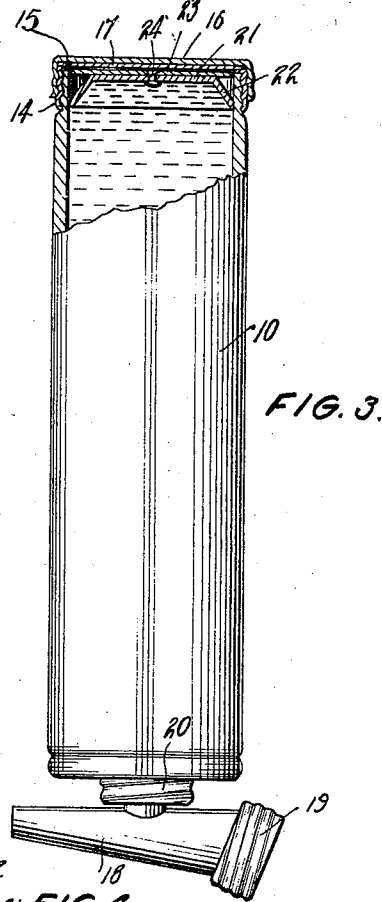
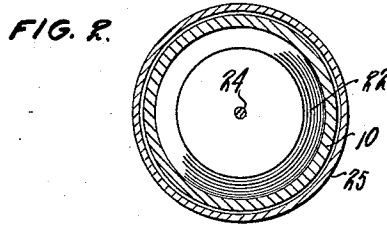
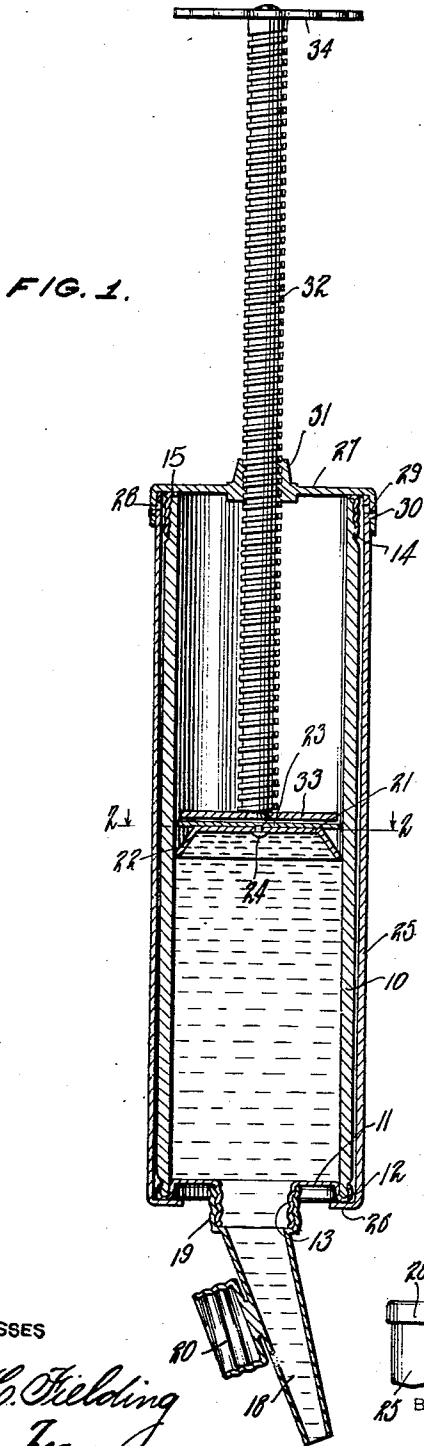


F. W. SHIELDS.
GREASE AND OIL INJECTOR.
APPLICATION FILED DEC. 17, 1917.

1,318,928.

Patented Oct. 14, 1919.



WITNESSES

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GREASE AND OIL INJECTOR.

1,318,928.

Specification of Letters Patent.

Patented Oct. 14, 1919.

Application filed December 17, 1917. Serial No. 207,478.

To all whom it may concern:

Be it known that I, FERDINAND W. SHIELDS, a citizen of the United States, residing at Shreveport, in the county of Caddo and State of Louisiana, have invented certain new and useful Improvements in Grease and Oil Injectors, of which the following is a specification.

This invention has relation to grease and oil injectors, and has for an object to provide a carton for supplying heavy lubricants to the trade, of a specific construction for coaction with a holder of my invention whereby, the lubricant may be forced directly from the carton into the working parts of the machine to be lubricated.

Another object of the invention is to provide an improved cartridge-like carton for supplying heavy oils to the trade, embodying a follower of a specific construction, and a removable spout, for coaction with a holder including means for engaging and moving the follower when the carton is inclosed within the holder to force the lubricant through the spout.

A still further object of the invention is to provide a holder for a cartridge-like carton of the character above set forth and embodying a screw feed follower for insertion in one end of the carton when the same is inclosed within the holder to engage the follower of the carton to force the lubricant therefrom.

A still further object of the invention is to provide a holder for grease containing cartons of the character above set forth which is extremely simple in construction, thereby permitting its manufacture economically.

In addition to the foregoing my invention comprehends improvements in the details of construction and arrangement of the parts to be hereinafter more fully described, and particularly set forth in the appended claims.

In the accompanying drawings in which similar and corresponding parts are designated by the same characters of reference throughout the several views in which they appear:—

Figure 1, is a view in longitudinal section

of my improved grease containing carton, and my holder designed to receive the same, illustrating the parts in their correlative position.

Fig. 2, is a transverse section taken on the line 2—2 of the preceding figure.

Fig. 3, is a view in side elevation, with parts broken away of the carton, and

Fig. 4, is a fragmentary view in side elevation of the holder illustrating the manner in which the end cap is secured thereto.

With reference to the drawings 10 indicates the carton which is preferably of cylindrical configuration, and which may if desired, be formed of cardboard. One end of the carton is closed by means of a metallic cap 11 having its periphery crimped about the end of the container as at 12, its central portion formed with an outwardly threaded flange 13, forming an exit for the grease as will be presently seen. The opposite end of the carton is provided with a metallic band 14 embraced thereabout and formed with screw threads. The band is formed with an inwardly extending annular flange 15 designed to engage the end of the container to reinforce the same, and to coact with the cover to form a shield. The cover indicated at 16 is in the nature of a cap, formed with threads complementary to the threads of the metallic band 14 whereby to tightly engage the same, and a strip of paper or other suitable material 17 is located within the cap whereby when the cap is in place the paper affords a tight joint by engaging the flange 15 of the metallic band 14 as shown in Fig. 3.

A spout 18 is provided having its large end formed with a threaded cap 19 which may be engaged upon the threaded flange 13 as shown in Fig. 1. A second cap 20 is secured to one side of the spout for attachment to the threaded flange 13 during shipment of the carton to form a seal. The use of the cap 20 in this capacity is illustrated in Fig. 3. After the carton is filled, a follower is inserted in the end closed by the cap 17, said follower comprising a disk-like member 21 having a peripheral flange 22 bent out of the plane of the disk member

and directed to the spout end of the container when the follower is in place. Secured to the disk 21 is a second disk 23 which is of a diameter corresponding to the inner diameter of the container and which is secured to said disk 21 through the medium of a rivet or the like 24 inserted through the disk centrally thereof. These cartons are supplied to the trade filled with the lubricant and containing the follower, and are designed for use in connection with my holder therefor, illustrated clearly in Fig. 1.

These cartons, which are in the nature of cartridges, are inserted in the cylindrical or tubular portion 25 of the holder, spout end foremost toward the end of the holder which is provided with inwardly extending radial lugs 26 forming an abutment or stop to limit movement of the cartridge. The cartridge is of a length corresponding to the length of the holder whereby to be entirely inclosed thereby, and prior to the insertion of the cartridge in the holder the cap 16 is removed, permitting the follower to remain intact in the carton. A cap 27 is applied to the end of the holder adjacent the open end of the carton, said cap 27 having a peripheral flange 28 designed to embrace exteriorly the holder and is formed at diametrically opposite points with lugs 28' having circumferentially extending slots 29 extending partly therethrough. A pair of lugs are provided on the holder adjacent the ends designed to be covered by the cap, said lugs being indicated at 30 and are preferably struck outwardly from the material of the holder whereby to enter the slots 29 of said lugs 28'. The cap is applied to the holder and then given a twist whereby the lugs 30 may enter the said slots. Formed centrally upon the cap 27 is an enlargement 31, threaded interiorly to receive a screw threaded rod 32 designed for movement axially of the holder. To the inner end of the screw threaded rod there is swiveled a follower plate 33, while to the opposite end of the screw threaded rod there is secured a handle 34 which may be of any desired configuration for rotating the rod.

With the carton within the holder, and the cap of the holder secured in place, to effect a discharge of the grease, it is but necessary to transpose the position of the spout 18 from the position shown in Fig. 3 to that of Fig. 1, and then rotate the screw threaded rod 32 by means of the handle 34, whereupon the follower plate 33 of the screw will engage the disk 23 mentioned above, and forming a part of the carton so as to cause the movement of the disk 21 thus produced to force the grease from the carton through the spout. It will be noted that owing to the outwardly flar-

ing flange 22 of the disk follower 21 the said flange is caused to tightly engage the interior wall of the carton and to form a packing to preclude the escape of grease behind the follower, and to insure the removal of the grease by ejection. The disks 21 and 23 may be formed of cardboard if desired, as the follower plate 33, being formed of metal or other rigid material prevents collapse of the disks 21 and 23.

Thus it will be seen that I have provided a novel form of container for lubricant, embodying a spout, a follower within the container, and an effective seal to prevent leakage of the material. I have also provided a novel form of holder of an extremely simple construction, designed to receive the carton or container of my invention, with means whereby the carton may be quickly inclosed and locked therein, and means operable when the cover of the container is removed to enter the same to force material from the container through the spout.

While I have illustrated and described my invention with some degree of particularity, I realize that in practice various alterations thereover may be made, and I therefore desire to reserve the right and privilege of changing the form of the details of construction, or otherwise altering the arrangement of the correlative parts, without departing from the spirit of the invention or the scope of the appended claims.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:—

1. A lubricant injector comprising an outer casing, a lubricant containing carton adapted to be placed within said casing, said carton provided with a discharge opening, a follower adapted to be carried in one end of said carton and adapted to be used for injecting material from said carton, said follower provided with peripheral flanges bent out of the plane of the disk member and directed toward the discharge opening of the carton, a second disk of the same diameter as the interior of the carton secured to said first mentioned disk, a cap carried by said casing, a threaded rod extending through said cap, a follower plate swiveled to the inner end of said threaded rod and adapted to contact with said second disk for the purpose of efficiently forcing said follower longitudinally of said carton without rotating said follower within said carton.

2. A lubricant injector comprising a substantially rigid casing, a comparatively fragile carton mounted within said casing, said casing provided with an inwardly projecting flange upon the lower end thereof, a detachable cap mounted upon the opposite end of said casing, a metallic reinforcing means fitted upon each end of said carton

and adapted to respectively engage said
flange and removable cap whereby said car-
ton will be firmly held in clamped engage-
ment within the casing between said cap and
5 flange, and injecting means adapted to work
within said carton.

In testimony whereof I affix my signature
in presence of two witnesses.

FERDINAND W. SHIELDS.

Witnesses:

M. E. JONES,
J. W. BOHRER.