

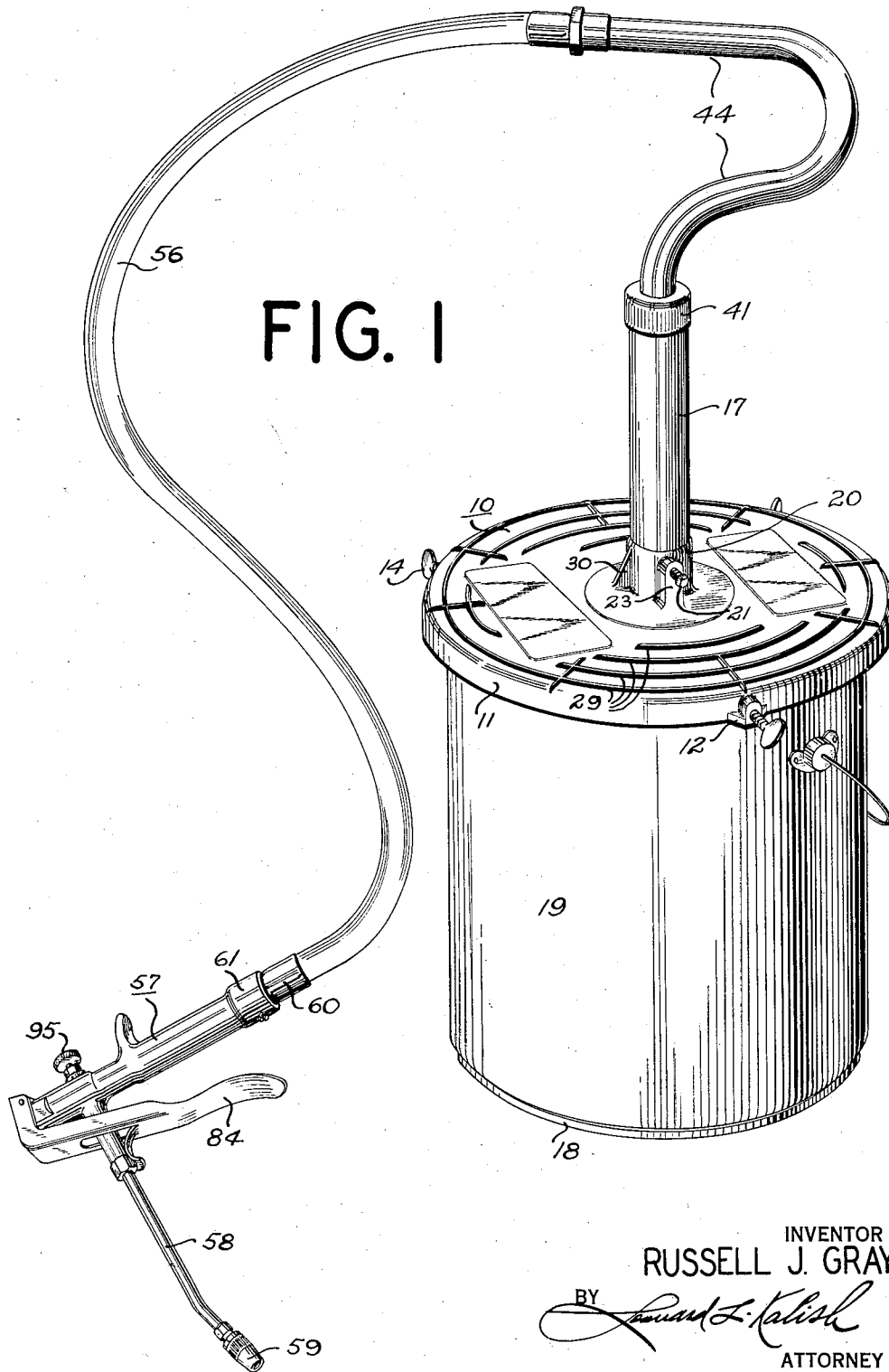
Dec. 23, 1958

R. J. GRAY
GREASE DISPENSER

2,865,540

Filed March 26, 1949

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R. J. GRAY
GREASE DISPENSER

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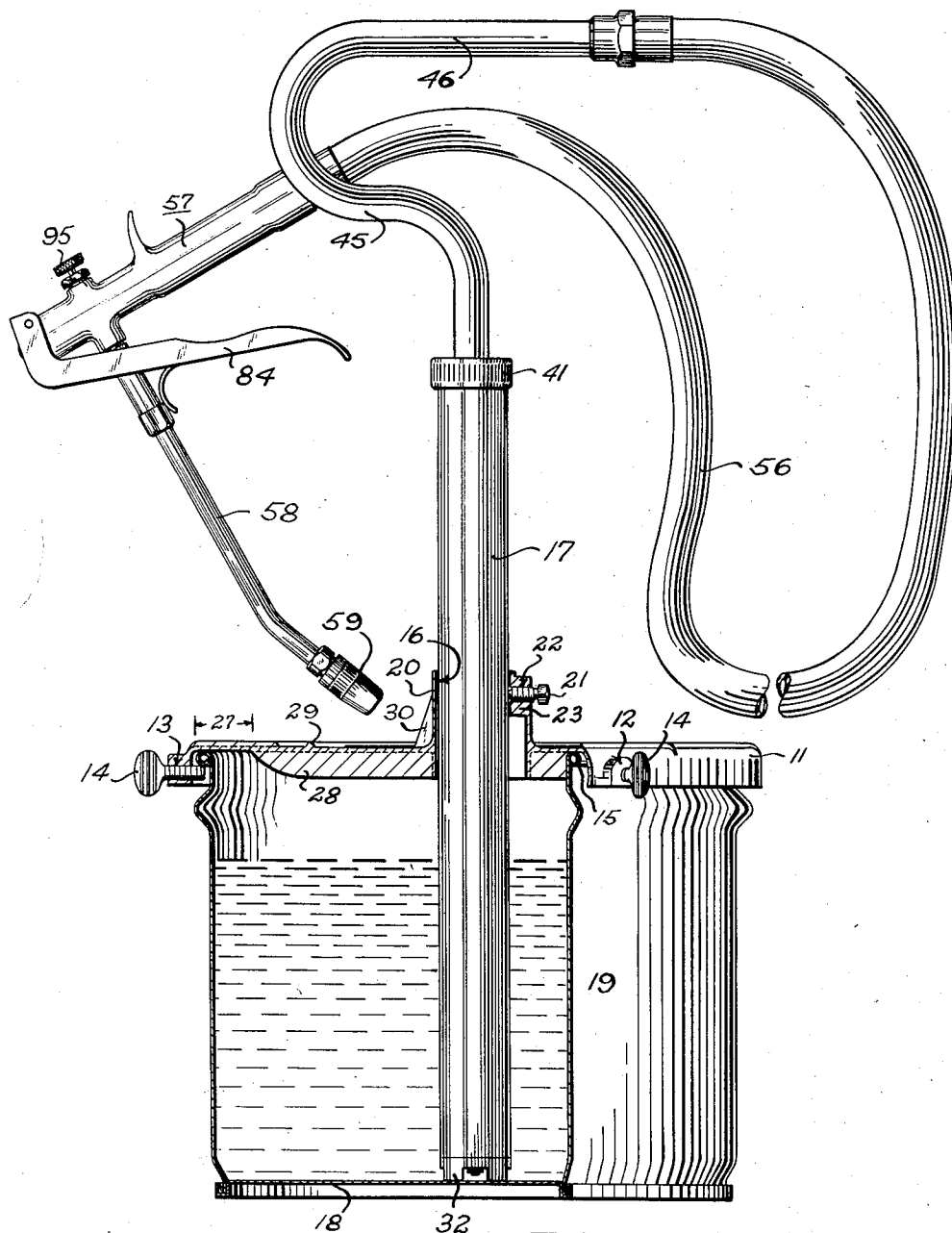


FIG. 2

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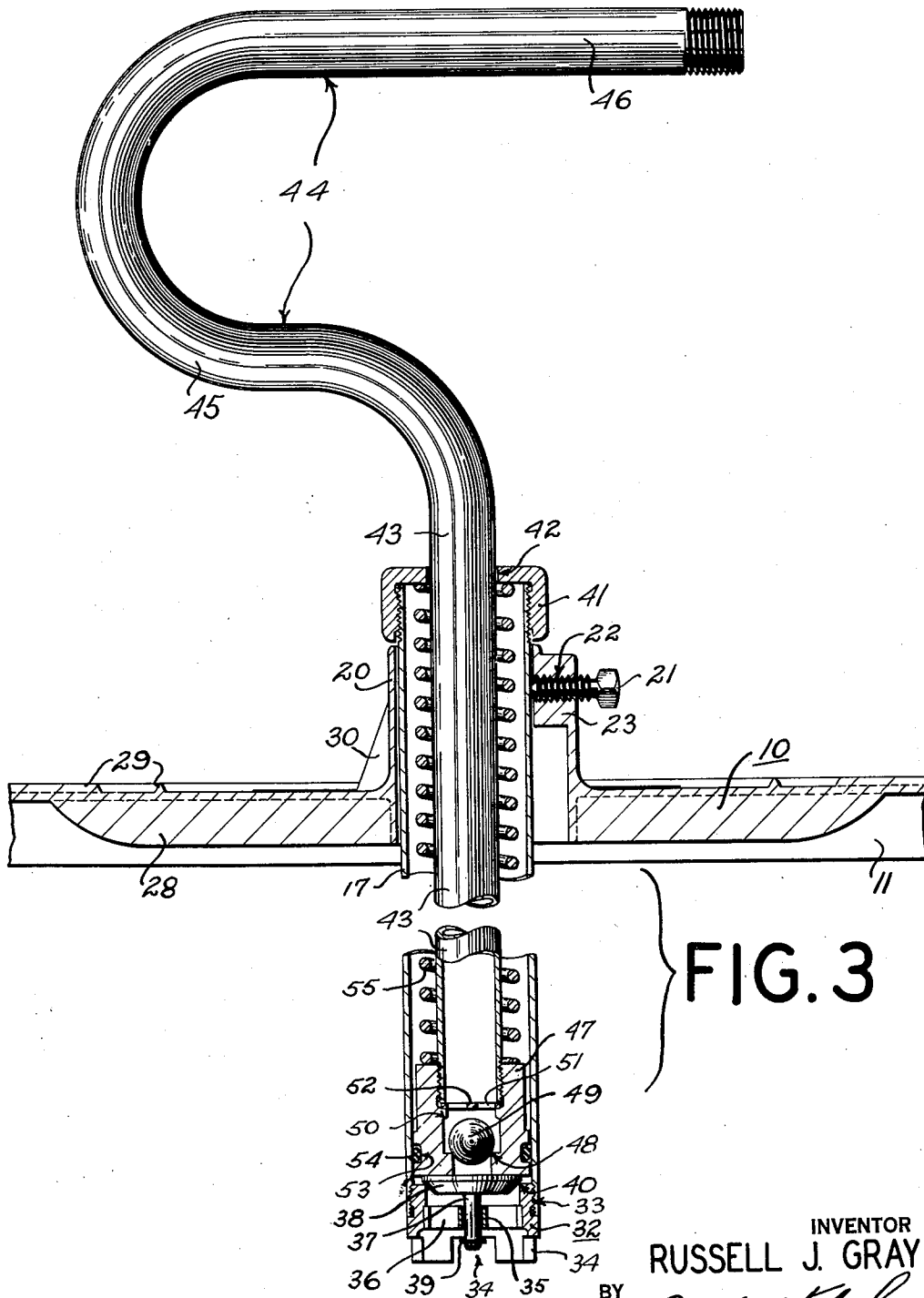


FIG. 3

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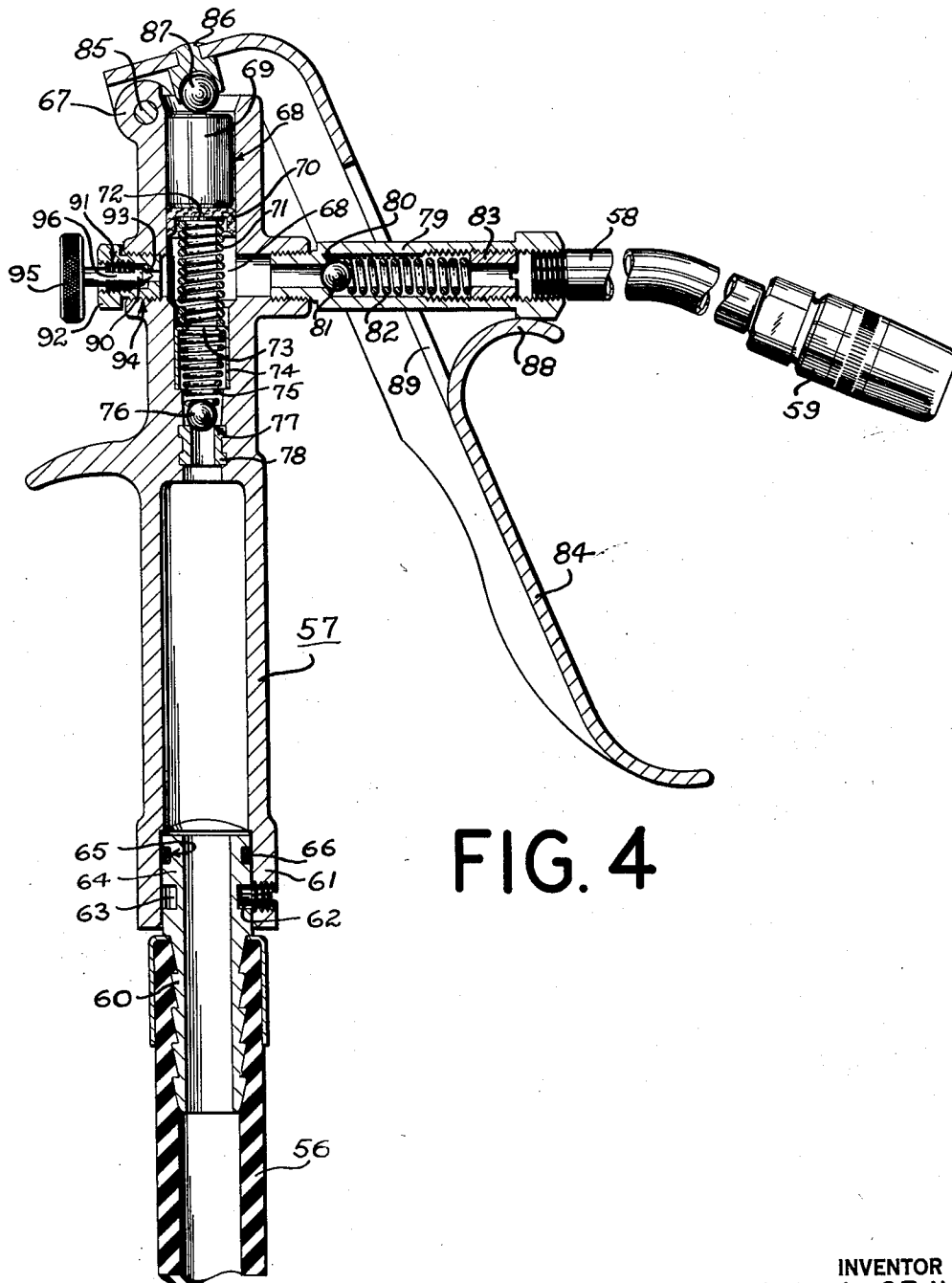


FIG. 4

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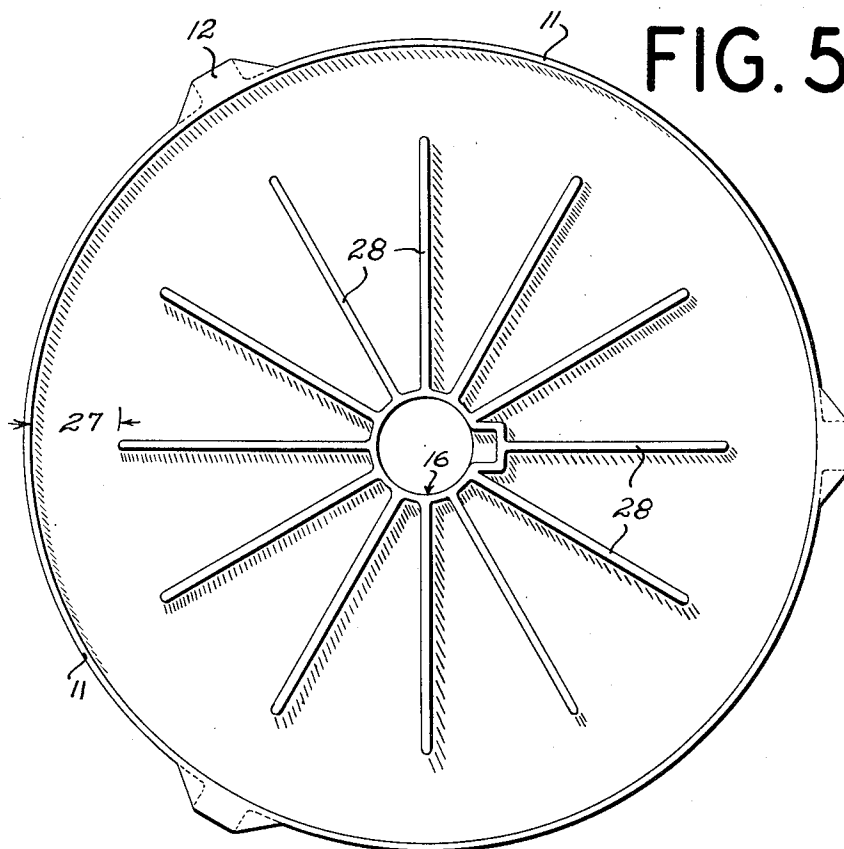
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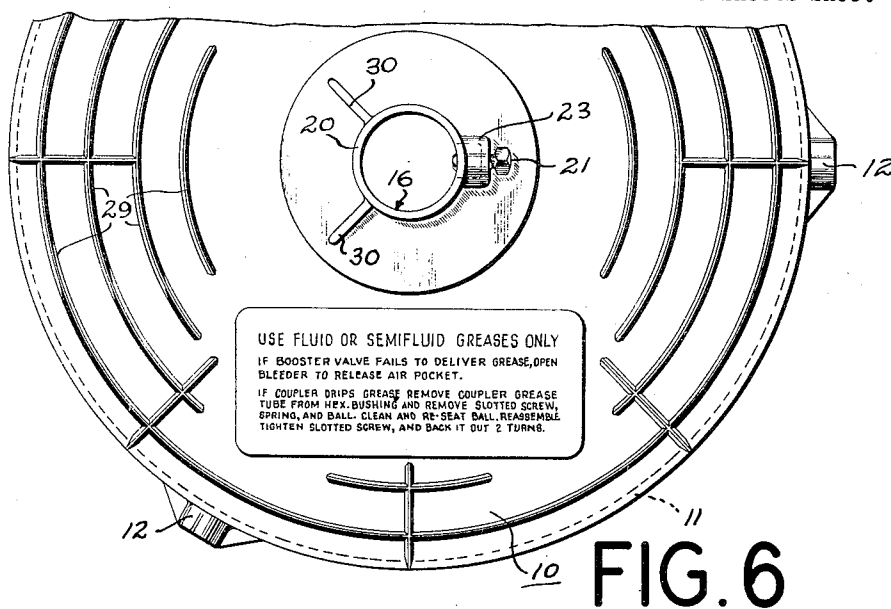
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R. J. GRAY
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8 Sheets-Sheet 6



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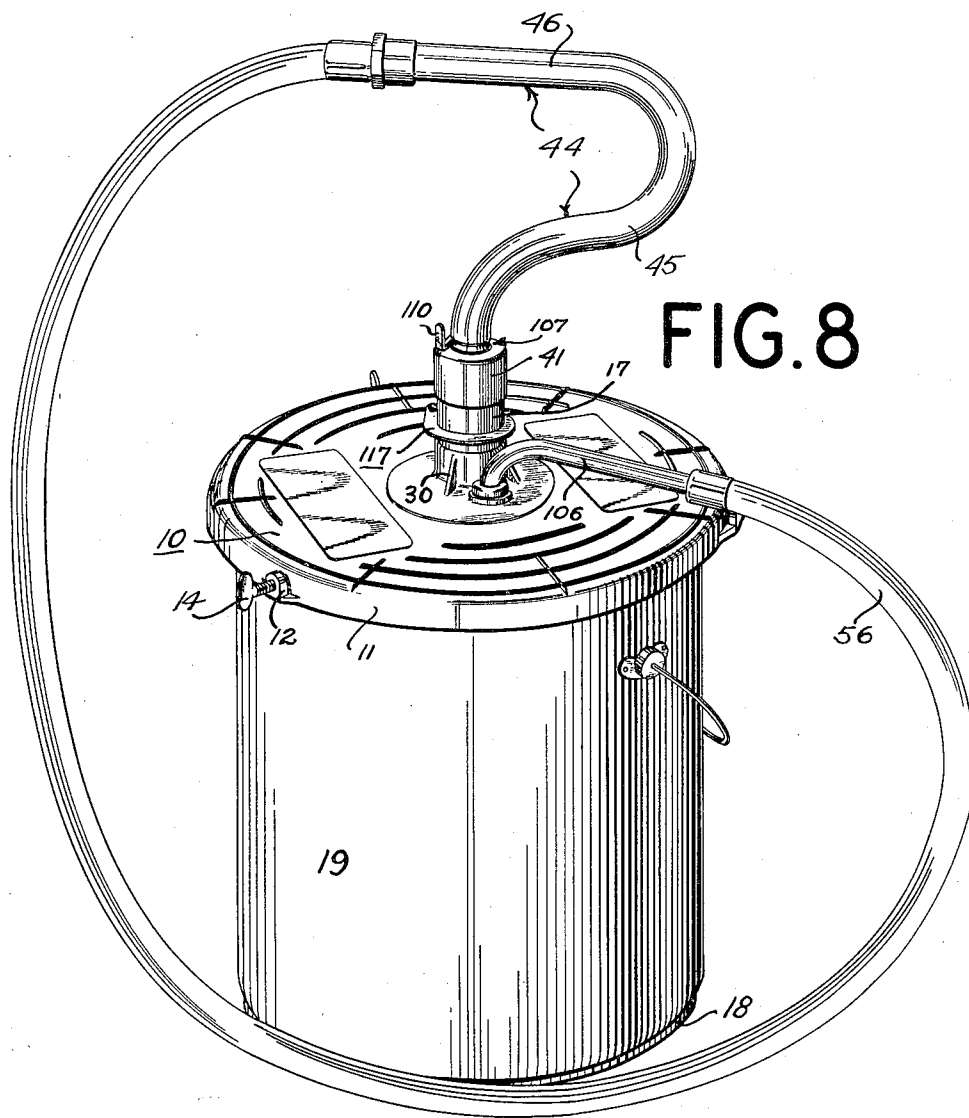
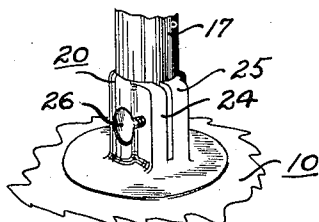
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8 Sheets-Sheet 7



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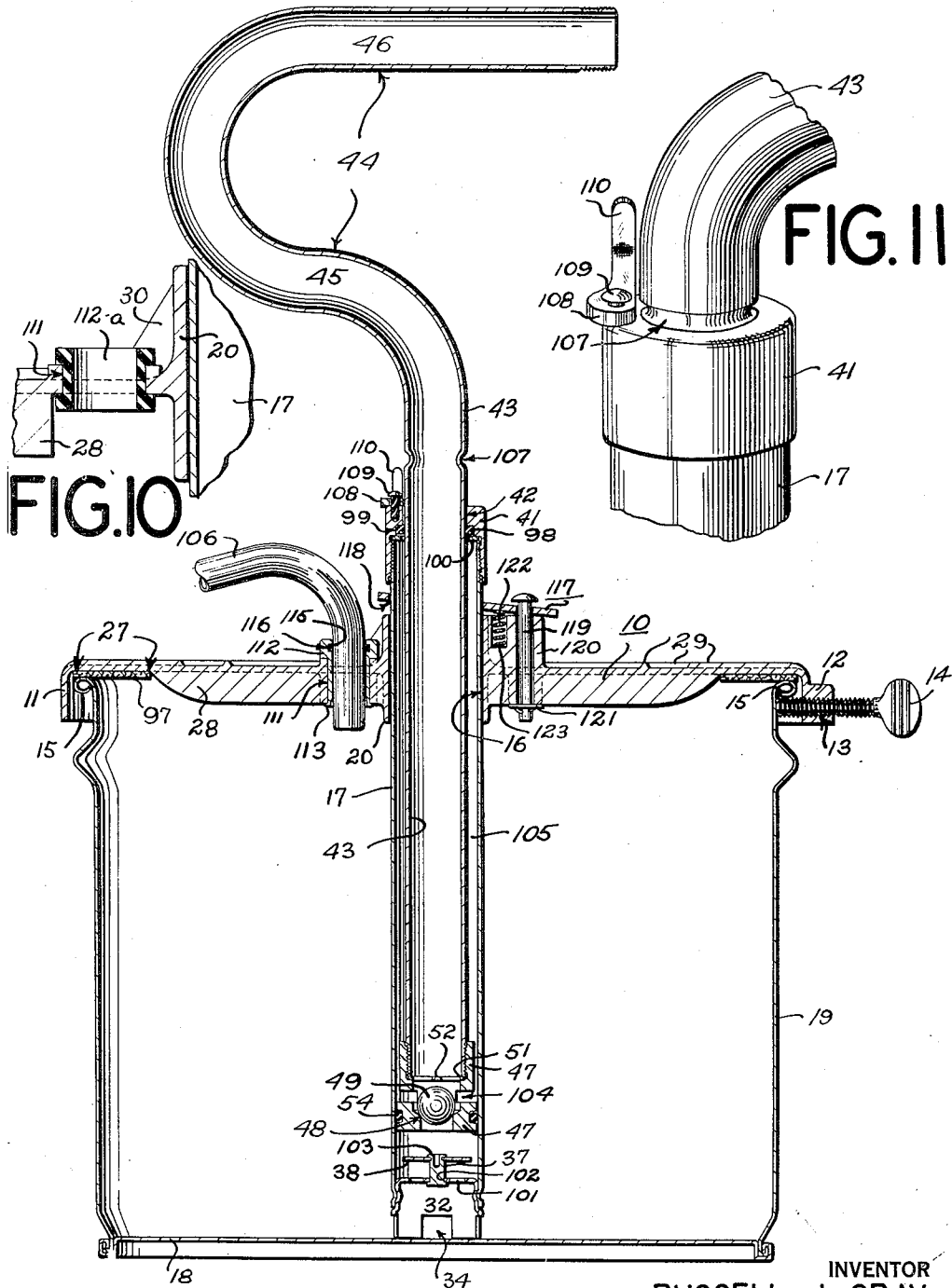


FIG. 9

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GREASE DISPENSER

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Application March 26, 1949, Serial No. 83,710

2 Claims. (Cl. 222—341)

The present invention relates to new and useful greasing apparatus and it relates more particularly to apparatus for dispensing grease either under low pressure as, for instance, into the differential housing or transmission housing of an automobile, tractor or the like, or under high pressure as, for instance, into bearings of automobiles and other machinery equipped with so-called high-pressure "fittings." The object of the present invention is to dispense the grease directly from the original container in which the grease is initially packed, stored, transported and sold, without the necessity of transferring the grease into the reservoir of a dispenser or into any second container, and to permit the same dispensing apparatus or greasing apparatus to dispense the grease from original containers of varying diameters and heights within the range of sizes generally used for packaging grease, so that the most economical and efficient use of the grease may be made with a minimum of handling and so that the ultimate user may avail himself of the commercially most economical size of grease package, suitable to his needs, without having to change his dispensing apparatus specially to fit the size of the grease package.

With the above and other objects in view which will appear more fully from the following description and accompanying drawings, the present invention comprises a grease-dispensing unit including a flanged pump-supporting cover, the inner diameter of the flange of which is sufficiently great to embrace within it, and permit it to telescope over, the rolled peripheral bead at the top of conventional sheet-steel pails or containers of the 25 pound to 50 pound size, more or less, and with an annular pail-seating surface on the underside of said cover, within the flange thereof, of a radial width sufficient to accommodate the smallest as well as the largest pail-diameter in this size-range, which seat may be gasketed or surfaced with a resilient gasket adhered thereto, to form a more or less tight seal between the upper edge of the peripheral bead of the sheet metal container, or pail, a plurality of circumferentially distributed bead-engaging means carried by said flange as, for instance, headed or winged set-screws extending through said flange radially at a level which will cause the screws wedgingly to engage the container-bead and to draw the cover tightly against the bead, an aperture in said cover, a generally upright pump-cylinder extending therethrough, an elongated pump-guiding sleeve in alignment with said aperture for maintaining the pump-cylinder in predetermined alignment, means for locking said pump-cylinder in said sleeve at any predetermined height, stiffening webs extending transversely of said cover between the annular bead-receiving seat thereof and said sleeve for maintaining said sleeve in more or less rigid relation to said bead-receiving seat, said pump-cylinder being of a length sufficient to accommodate the greatest vertical dimension of conventional sheet-metal grease-containers or pails within the aforesaid size-range,

a foot-valve at the lower end of said cylinder, a hollow or tubular piston-rod of an outside diameter substantially smaller than the inside diameter of said cylinder and extending thereinto, a valved piston at the lower end of said piston-rod, a tubular handle formed in continuation of said piston-rod exteriorly of the cylinder and in rigid relation to the piston-rod and, said tubular handle being generally U-shaped and being disposed transversely of the piston-rod with a shorter leg of the U formed in continuation of the piston-rod and with a longer leg of the U being more or less centered in the relation to the axis of the piston rod so as to constitute a piston-operating handle and also a handle for carrying the dispensing apparatus and the pail of grease to which it is attached.

The low-pressure embodiment of the present invention also includes certain other features, while the high-pressure embodiment of the present invention includes certain other features; all of which will appear more clearly from the following description and the accompanying drawings and appended claims.

For the purpose of illustrating the invention, there are shown in the accompanying drawings, forms of the invention which are at present preferred, although it is to be understood that the various instrumentalities of which the invention consists can be variously arranged and organized and that the invention is not limited to the precise arrangements and organizations of the instrumentalities as shown and described herein; reference being had to the accompanying claims to define the present invention.

Referring to the accompanying drawings, in which like reference characters indicate like parts.

Figure 1 represents a perspective view of the high-pressure embodiment of the present invention, as applied to a standard pail of grease.

Figure 2 represents a front elevational view of the high-pressure embodiment of the present invention, shown partly in vertical section.

Figure 3 represents a vertical cross-sectional view of a fragmentary portion of the high-pressure embodiment of the present invention.

Figure 4 represents a cross-sectional view of the hand-grip booster and control valve forming a part of the high-pressure embodiment of the present invention.

Figure 5 represents a plan view of the underside of the cover member.

Figure 6 represents a fragmentary plan view of the top of the cover member.

Figure 7 represents a perspective view of a form of cylinder-locking means employed on the high-pressure embodiment of the present invention.

Figure 8 represents a perspective view of the low-pressure embodiment of the present invention as applied to a standard pail of grease.

Figure 9 represents a fragmentary vertical cross-sectional view of the low-pressure embodiment of the present invention.

Figure 10 represents a vertical cross-sectional view of a modified form of gasketed nose-receiving hole in the low-pressure embodiment of the present invention.

Figure 11 represents a fragmentary perspective view of the piston-rod locking-cam employed on the low-pressure embodiment of the present invention.

In each of the embodiments of the present invention the pump-supporting cover, designated generally by the numeral 10, is provided with a depending peripheral flange 11 having a plurality (preferably three) of bosses 12 generally uniformly distributed around the circumference of the cover, each of said bosses provided with a generally radial threaded opening 13 for screw-threadedly receiv-

ing the winged or headed set screws 14 which are adapted wedgingly to engage beneath the upper, peripheral rolled bead 15 of the conventional sheet-steel or like grease pail 19 (after the crimped, bead-engaging original lid of such pail has been pried off and removed from the pail).

The cover 10 may be formed of pressed sheet-metal, such as an adequate gauge sheet-steel, or it may be cast—preferably die-cast.

An aperture 16 is provided in the cover 10, preferably (though not necessarily) centrally there-through, through which the pump-cylinder 17 may extend, with the upper end of the pump cylinder above the cover and the rest of the pump cylinder beneath the cover, extending to the bottom 18 of the pail 19.

A generally tubular guide-sleeve 20 is either formed integrally with the cover 10, as for instance in the cast or die-cast forms of such covers shown in the drawings, or it may be welded or brazed thereto in the case of a pressed-sheet-steel cover.

The cylinder 17 may be locked at any desired height in the guide sleeve 20 by means of a winged or square-headed or hexagonally-headed or other type of set screw 21, screw-threadedly supported in a radially threaded aperture 22 in a suitable box-like portion 23 on said sleeve (as shown particularly in Figures 1, 2, and 3) or the pump-cylinder 17 may be locked in said sleeve 20 by slitting the sleeve on one side thereof, part of the way, and forming wings or flanges on the juxtaposed slit-portions of the sleeve as at 24 and 25 (shown in Figure 7), to be drawn together by a set-screw or other fastening means 26.

In the cast (sand-cast or die-cast) form of cover shown in the drawings, immediately within the flange 11, an annular surface 27 is provided on the underside of the lid, of a width sufficient to accommodate the various pail-diameters, and this surface may be gasketed as shown in Figure 9.

Between the annular surface 27, and the lower end of the sleeve 20, a plurality of radial reinforcing ribs 28 may be formed integrally with the sleeve 20 and the main body of the cover to maintain the sleeve 20 in more or less rigid relation with the seating surface 27, which is adapted to rest upon and bear tightly against the upper peripheral bead 15 of the pail 19.

Upper raised ribs 29 may be formed upon the upper surface of the cover, having preferably inverted V-shaped cross-sections, to provide a more or less non-slipping foot-treading surface upon which the operator may place one foot or both feet when priming or charging the pump or operating the pump, and also serving to reinforce the cover tangentially. When making the covers out of pressed sheet-steel, the non-slipping foot tread surface may be formed by pressing or coining suitable raised or irregular surface formations on the top of the cover.

Upright webs 30 may also be interposed between the upper exterior portion of the sleeve 20 and the top of the cover 10, further to preclude any tilting of the sleeve when operating the pump.

In the high-pressure embodiment of the present invention as shown in Figure 3, a foot-valve 32 is screw-threadedly secured as at 33 to the lower end of the cylinder 17, said foot-valve member having its lower end slitted, as at 34, to permit the ingress of grease, and having a central hub or bearing 35 supported therein by radial webs 36, in which bearing 35 the stem 37 of the tapered poppet valve 38 is adapted to be slidably maintained and guided, held against withdrawal therefrom by a snap ring or split retainer ring 39 snapped into a suitable groove of the valve-stem 37. The upper inner edge 40 of the foot-valve housing 32 forms a valve-seat against which the poppet valve 38 is adapted to rest when closed in its lower position.

To the upper end of the cylinder 17 a screw cap 41 is

screw threadedly secured, having a central aperture 42 sufficient to form a sliding by an air-tight fit with the outer diameter of the hollow or tubular piston rod 43, which piston rod extends through said aperture and is guided thereby. An unequal-leg U-shaped, hollow, tubular handle-member 44 is rigidly connected with and preferably formed integrally with the upper end of the piston rod 43 as shown particularly in Figures 1, 2 and 3 with the shorter leg 45 of the U connected with the piston rod 43 and with the longer leg 46 of the U more or less centered across the axis-line of the piston.

To the lower end of the piston rod 43 a generally hollow piston member 47 is screw-threadedly secured, as shown particularly in Figure 3. The piston 47 is formed with a valve-seat 48 against which the ball check valve 49 is adapted to sit by gravity. Beneath the internally threaded portion of the piston 47, into which the lower end of the piston-rod is threaded, a circular, inwardly-extending flange 50 is provided (whose inner diameter is larger than the ball 49). A ball-retaining spider-ring 51 is interposed between the inwardly extending flange 50 and the lower end of the piston-rod 43 which is threaded into the piston 47, which ring may have one or more webs 52 extending across it, for preventing the ball 49 from rising above the elevation required for an adequate valve opening.

A peripheral ring-receiving groove 53 (more-or-less square in cross-section) is formed in the outer periphery of the piston 47, and in said groove a piston-sealing ring 54 is mounted, with clearance in an axial direction; the sealing ring 54 being of generally round cross-section and formed of rubber or synthetic rubber or similar elastic, oil-resistant composition and being compressed radially between the inner surface of the cylinder 17 and the inner or bottom of the ring-receiving groove 53 thereby to form a hydraulic seal between the piston and the cylinder wall.

A helical compression spring 55, of suitable strength is interposed between the piston 47 and the cap 41, urging said piston 47 and piston rod 43 and handle 44 downwardly.

By raising the handle 44, against the force of the spring 55 (and thereby compressing the spring 55) grease is drawn in through the foot-valve 32 (the valve 40 being raised by the grease) thereby filling the space between the cylinder 17, piston rod 43, the valve 38 and the piston 47. When the handle 44 is released, the spring 55 urges the piston 47 downwardly and thereby forces the so entrapped grease past the ball-check valve 49 into the tubular piston 43 and handle 44 out through the hose 56 to the manually operable valve and booster 57. If the valve 57 is open, the spring 55 will force the grease out through the hose and out through the discharge pipe stem 58 and out through the coupler 59. If the valve 57 is closed the grease entrapped within the cylinder 17 between the piston 47 and the valve 38 is held under compression, ready for use, whenever desired.

The hand-grease booster and control valve 57 is preferably swivelably connected to the end of the hose 56 by means of any suitable swivel connection, for instance, the hose stud 60 journaled in the receiving end 61 of the body of the booster-valve 57 and held therein by a set-screw 62 riding in a groove 63 of the journaled portion 64 of the hose-stud 60; said journaled portion having a ring-receiving groove 65 in which an O-ring 66 is disposed to form a hydraulic seal between the body 61 and the booster-valve and the journaled portion 64 of the hose-stud 60.

At the opposite end 67 of the booster valve 57 is a high-pressure cylinder or cylinder-bore 68, in which is mounted a short high-pressure booster-piston 69, against inner end of which a hydraulic-sealing, resilient cup-washer 70 is operatively held by the spring 71 and the metallic washer 72. The other end of the spring 71 rests against the stationary in-turned flange 73 of the thin

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sheet-metal spacer-tube 74 which, in turn, holds the valve-closing spring 75 between its in-turned flange 73 and the ball check valve 76, which later rests against the valve seat 77 in its closed or said position, the valve-seat 77 being preferably formed in a separate valve-seat member 78, of suitably hard metal which is preferably cast in place within the hollow bore of the booster-valve body as shown in Figure 4 (the booster valve body preferably being die-cast).

The pressure of the spring 55 upon the grease entrapped within the pump-cylinder 17 (between the valve 38 and piston 47, when the handle 44 is raised against the force of the spring 55) must be sufficient to lift the check valve 76 off its seat 77 against the force of the spring 75. This is done by so proportioning the spring 75 to the spring 55 in relation to the diameter of the piston 47 and the diameter of the valve seat 77 (with a sufficient allowance for pressure-drop by reason of friction in the passage of grease through the hose 56 and piston rod 43 and handle 44) that the hydraulic pressure on the intake side of the check valve 76, tending to unseat said valve, will always be sufficient, in all positions of the pump-piston 47 to unseat said check valve 76 so as to fill the high-pressure cylinder 63 of the booster-valve 57. A discharge-valve housing 79 is either formed integrally with or is screw-threadedly connected to the main booster-valve housing, preferably transversely thereof and in communication with the high-pressure cylinder-bore 63 thereof. The discharge-valve housing 79 contains a valve seat 80, against which the discharge check-valve 81, also preferably of the ball-type, is seated by the valve-closing spring 82 held in place by a tubular screw-plug 83 in the threaded bore of the valve housing 79, which screw-plug is screwed in to an extent sufficient to compress the spring 82 to the point where the discharge valve 81 will not be unseated by the hydraulic pressure generated within the high-pressure cylinder-bore 63 by the pump-spring 55 (in its greatest compression), so that the discharge check-valve 81 will prevent the grease from discharging from or through the booster-valve solely under the influence of the pump-spring 55, and so as to require the actuation of the high-pressure piston 69 to cause any discharge from the booster valve.

To the pipe stem 58, connected to the end of the valve housing 79, an attachable-detachable hydraulic coupler 59 is secured for temporary attachment to the "fittings" of the bearings of automobiles, tractors, farm and industrial machinery, and other machinery.

A hand-grip handle 84 is pivotally mounted upon the booster-valve housing by means of the pivot 85, and carries a piston-depressing member 86, preferably riveted or otherwise fixedly secured to the pressed-steel handle member 84, near the pivot end thereof; in which member 86, an anti-friction, steel contact-ball 87 is rotatably mounted, which steel ball, in turn, bears across the end of the high-pressure booster piston 69.

The pressed steel handle has a stop member or tongue 88 struck therefrom or pressed outwardly therefrom (as shown particularly in Figure 4) to serve as deflection-limiting means for the handle and also to provide an elongated opening 89 in the handle through which the discharge-valve housing 79 may freely extend without interfering with the movement of the handle 84. The deflection-limiting stop-member 88 comes to rest against the underside of the discharge-valve housing 79 in its outward position and in the retracted position of the high-pressure booster-piston 69; being urged into that position by the spring 71 which returns the high-pressure booster-piston to its retracted position. To discharge grease, the handle 84 is deflected towards the main body of the booster-valve 57 by gripping both the handle 84 and main body 57 in one hand and squeezing them together.

A relief valve 90 is preferably provided in communication with the high-pressure cylinder-bore or chamber 63 of the booster-valve, which relief valve is normally closed

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but which may be opened if and when necessary to relieve any pockets of air which may have been entrapped in the grease and which pockets of air may interfere with the most effective operation of the booster. The relief-valve 90 is carried by a screw-threaded valve stem 91 mounted in a relief-valve housing 92 having a valve seat 93. The valve-housing 92 is preferably screw-threadedly mounted in the side opening 94, communicating with the high-pressure cylinder-bore or chamber 63. The valve stem 91 has a knurled or other suitable knob or handle 95 on its outer end, and has a relief-slot 96 cut lengthwise thereof, across its threaded portion so that by unscrewing the stem just enough to unseat the valve 90 from the valve seat 93 any pockets of entrained air will be promptly relieved whereupon a slight reverse turn of the knob 95 will re-set the valve 90.

In operation of the high-pressure embodiment of the present invention the handle 44 is raised to the maximum position to load the grease into the pump-cylinder 17 and thereafter, the greasing of the fittings is proceeded with, at will, the booster-valve 57 operating at a point remote from the grease pail (depending on the length of the hose 56) until the grease-supply in the pump-cylinder 17 has been used up, whereupon the pump-cylinder 17 is again reloaded by a simple lifting of the handle 44.

In the low-pressure embodiment shown particularly in Figures 8 to 11 inclusive a resilient sealing gasket 97 is preferably provided upon the annular pail-seating surface 27 on the underside of the cover 10 to form a more or less fluid-tight seal between the bead 15 of the pail 19 and the cover, so as to prevent the more fluid gear lubricant from being spilled out or slopped out or leaked out of the pail 19 when the pail (with the dispenser thereon) is moved about. The resilient gasket 97 is preferably an oil resistant gasket material such as oil resistant synthetic rubber or felt.

In the low-pressure embodiment of the present invention, a hydraulic (slidable) seal is maintained between the guide aperture 42 in the cap 41 and the tubular piston rod 43 by means of any suitable sealing ring such as the elastic synthetic-rubber V-block ring 98 disposed in a suitable ring receiving recess 99 in the cap 41, and held in place by a washer 100. The washer 100 rests on the upper end of the cylinder 17, as shown particularly in Figure 9.

In this embodiment of the invention, the foot-valve housing 42 may be formed by pressing it out of sheet metal, such as sheet steel; namely, by pressing a generally cup-shaped member out of sheet steel and forming the slots 34 in the end of the flange thereof, to allow for the ingress of grease while the foot-valve member 32 is adjacent to the bottom 18 of the pail 19. The upper flat surface of the cup-shaped foot-valve housing serves as a flat valve seat for the flat disc-type valve 38. One or more holes 101 through the flat upper seat-forming portion of the housing 32 serve as intake ports, while a central aperture 102 in said upper flat seat-portion guides the valve stem 37 and gives slidable support therefore; the lower end of the valve stem having a slight flange or head at its lower end, to limit its upward travel or displacement, while the valve-disc 38 is riveted or otherwise secured to the upper end of the valve stem 37, as for instance, by crimping the tubular upper end of the stem 37 over the edge of the hole in the valve-disc as at 103.

The valve housing 32 is telescoped into the lower end of the cylinder 17 and is locked therein either by spot welding or by crimping the side-wall of the housing 32 and the cylinder in annular crimps which may be rolled in as shown in Figure 9, or by screw threading the two to each other.

The piston 47, in the low-pressure embodiment of the present invention is provided with two opposed horizontal slots 104, for establishing free communication between the inner bore and the outer diameter of the

piston above the sealing-ring 54 and above the valve-seat 48 thereof, so that the grease which is forced past the check valve 49 in the piston 47, on the down-stroke of the piston, will, in part, enter into the interior of the tubular piston rod 43 and in part enter into the space 105 between the cylinder 17 and the piston-rod 43 so as also to fill said space. Upon the up-stroke of the piston 47 the grease in the space 105 then passes through the slots 104, into the interior of the hollow piston-rod 43, to be discharged therethrough. Thus, in this embodiment, the discharge of the grease through the metallic nozzle or pour spout 106 in the end of the hose 56, is affected both on the down-stroke as well as the up-stroke of the piston 47.

An annular groove 107 is rolled into the upper end of the hollow or tubular piston-rod 43, at a point which will bring said groove 107 into registration with the latching or locking cam or eccentric 108 when the piston is in its lowermost position. The cam 108 is pivoted upon the pivot-pin 109 to the top of the cap 41, said cam or eccentric 108 having an up-turned arm 110, by means of which it can be rotated so as to bring the larger diameter portion of the eccentric into the groove 107, thereby to lock said piston rod in its lowermost position, so as to permit the carrying of the dispenser with the pail attached thereto by means of the handle 46.

A sleeved aperture 111 may be provided in the cover 10 for receiving the bent discharge end of the pour spout or nozzle 106 in the end of the hose 56, when the unit is not in use, so as to prevent dripping from the nozzle or pour spout and to prevent dirt from getting into the grease when the dispensing apparatus is not in use, the hole 111 may be more or less sealed around the end of the pour spout 106 by a resilient grommet or double flanged bushing 112a of oil resistant synthetic rubber, to line the hole as shown in Figure 10, or a metallic bushing 112 may be placed into the aperture or sleeve 111, with its lower end crimped under as at 113, to hold it in place, and an O-ring 115 placed in a ring-receiving groove 116; the ring 115 serving as a seal between the nozzle 106 and the hole, when the device is not in use.

Instead of the cylinder-locking means I have described, a friction latch 117 may be used, having an opening 118 therein slightly greater than the inner diameter of the operative 116 in the sleeve 20, and held in general alignment therewith by the headed pin 119 which extends through the boss or offset 120 and is held in place by the retainer ring 121 or by any other similar retainer such as a nut, cotter pin, or the like. A helical compression spring 122, beneath the latch 117, and aperture or recess 123, serves to deflect the latch upwardly into the angular position shown in Figure 9, whereby the inner edge of the aperture 118 frictionally grips the outer surface of the cylinder 17 at diametrically opposite points. The grip is released with a downward push on the cylinder but is intensified by any attempt to pull the cylinder upwardly; thereby retaining the cylinder in the lowermost position once it is pushed down into the pail 19 through the sleeve 20.

To apply either embodiment of the present invention to a standard pail within the size-range indicated, the original lid is first removed from the pail and the cover is then applied at the top of the upper bead 15 of the pail, and the screws 14 screwed into place until they wedgingly engage against the underside of the bead 15. The screws are preferably so located in respect to the pail seat 27 or gasket 97 that the bead 15 will be slightly crushed on its underside by the screws 14, so that a firmer securement is obtained.

The cylinder 17 is then moved down through the sleeve 20 until the foot-valve 32 in the lower end thereof comes in contact with the bottom 18 of the pail 19, 75

whereupon the cylinder 17 is locked in place by the screw means first described, or by the frictional latch last described (the latter being automatic in its locking action).

Thereupon the device is ready for operation as a high-pressure lubricant dispenser as shown in Figures 1 through 7 inclusive or a low-pressure dispenser as shown in Figures 8 through 11 inclusive.

In the low-pressure embodiment of the present invention, the inner diameter of the cylinder 17 and the outer and inner diameters of the hollow piston-rod 43 may be so proportioned in relation to each other that a predetermined amount of grease such as $\frac{1}{2}$ pound or $\frac{1}{3}$ of a pound or $\frac{1}{4}$ of a pound will be dispensed with each up-stroke and each down-stroke of the piston 47 or so that a predetermined amount, such as $\frac{1}{3}$ or $\frac{1}{2}$ of a pound or a whole pound will be dispensed by any multiples of a single stroke; thereby enabling the dispensing unit also to serve as a measuring device.

Having thus described my invention what I claim is the following:

1. A hand-operated grease-dispensing apparatus for dispensing more or less viscous lubricants from original vendable merchandising containers and for detachable mounting upon and use with such containers, including a pump supporting cover-plate, a generally upright cylinder carried by and depending from said cover-plate, said cylinder extending upwardly beyond said cover-plate in movable relationship thereto, a spring-tensioned friction latch pivotally mounted upon the upper side of the cover-plate and constructed and arranged releasably to grip said cylinder, thereby to permit said cylinder to be vertically adjusted relative to said cover-plate so as to fit containers of different depth, a spring urging said latch upwardly into wedging relationship with said cylinder, said cylinder and said latch being relatively movable when said cylinder is pushed downwardly in respect to said latch, said cylinder being upwardly movable with respect to said latch when said latch is manually depressed against said spring, an intake port at the lower end of said cylinder, an upwardly facing valve-seat at said intake port, a downwardly closing valve in operative juxtaposition to said valve-seat, a hollow piston reciprocably mounted in said cylinder having a passageway therethrough, an upwardly facing valve-seat in the passageway of said piston, a downwardly closing valve carried by said piston in operative juxtaposition to the valve-seat thereof, a hollow tubular piston-rod connected with and extending upwardly from said piston to a point exteriorly of said cylinder, said tubular piston-rod being in fluid communication with the passageway of said piston, a helical compression spring compressed between the top of said cylinder and said piston and surrounding said tubular piston-rod and disposed in the space between it and said cylinder, a hand grip on the outer portion of said tubular piston-rod for moving the piston and rod upwardly through their cylinder-charging stroke, said tubular piston-rod having a discharge opening exteriorly of said cylinder.

2. A hand-operated grease-dispensing apparatus for dispensing more or less viscous lubricants from original vendable merchandising containers and for detachable mounting upon and use with such containers, including a pump supporting cover-plate, said cover-plate having a plurality of integrally-formed raised arcuate ribs and intersecting radial ribs on its upper surface serving to strengthen the cover-plate and to provide a non-slipping foot-rest for the operator of the apparatus, a generally upright cylinder carried by and depending from said cover-plate, said cylinder extending upwardly beyond said cover-plate in movable relationship thereto, an intake port at the lower end of said cylinder, an upwardly facing valve-seat at said intake port, a downwardly

closing valve in operative juxtaposition to said valve-seat, a hollow piston reciprocably mounted in said cylinder having a passageway therethrough, an upwardly facing valve-seat in the passageway of said piston, a downwardly closing valve carried by said piston in operative juxtaposition to the valve-seat thereof, a hollow tubular piston-rod connected with and extending upwardly from said piston to a point exteriorly of said cylinder and in fluid communication with the passageway of said piston, a helical compression spring compressed between the top of said cylinder and said piston and surrounding said tubular piston-rod and disposed in the space between it and said cylinder, a hand grip on the outer portion of said tubular piston-rod at a working distance from said foot-rest for moving the piston and rod upwardly through their cylinder-charging stroke, said tubular piston-rod having a discharge opening exteriorly of said cylinder.

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