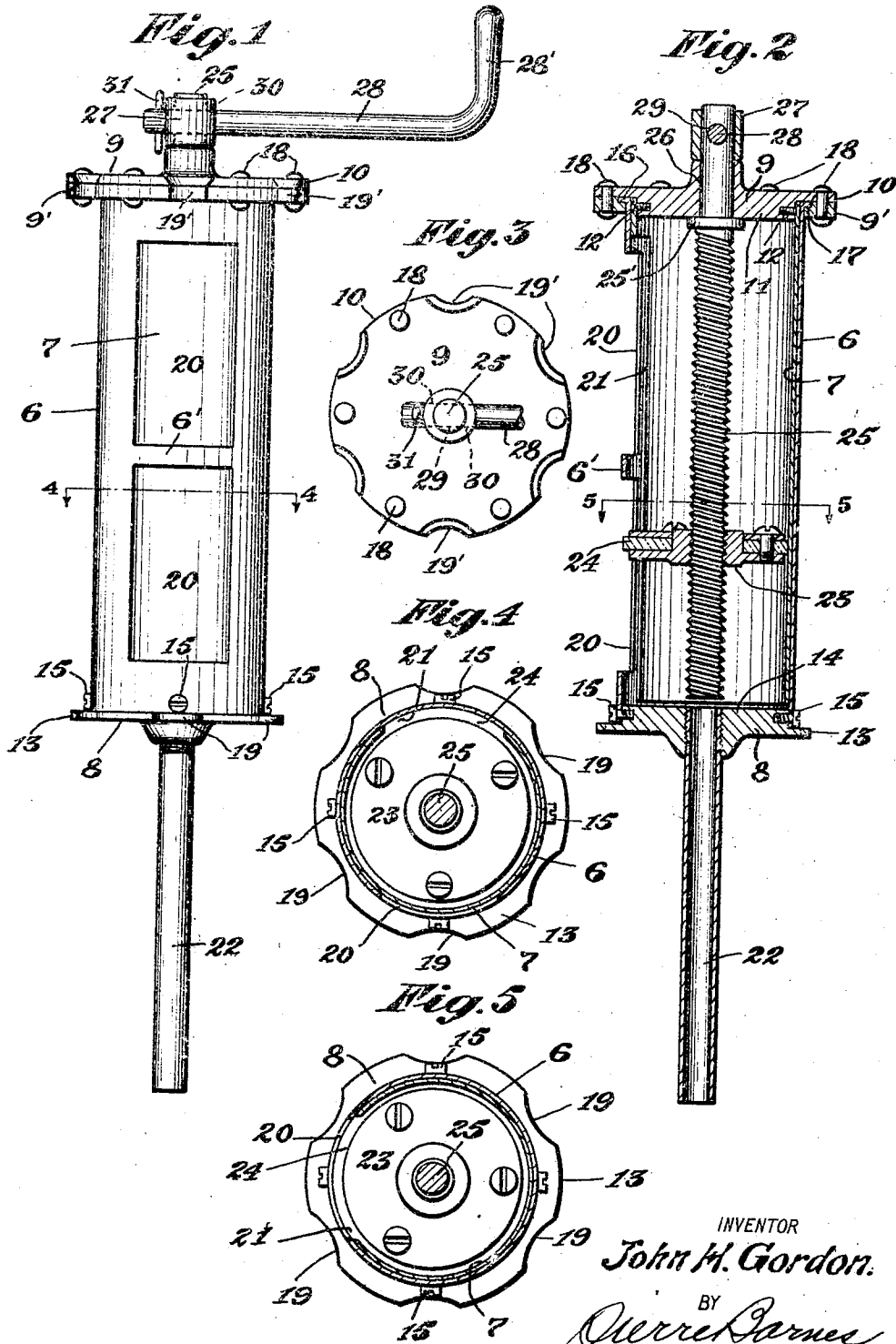


1,235,134.

Patented July 31, 1917.



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JOHN H. GORDON, OF ARLINGTON, WASHINGTON, ASSIGNOR OF ONE-HALF TO NEIL BROWN, OF ARLINGTON, WASHINGTON.

GREASE-GUN.

1,235,134.

Specification of Letters Patent.

Patented July 31, 1917.

Application filed December 4, 1916. Serial No. 134,810.

To all whom it may concern:

Be it known that I, JOHN H. GORDON, a citizen of the United States, residing at Arlington, in the county of Snohomish and State of Washington, have invented certain new and useful Improvements in Grease-Guns, of which the following is a specification.

This invention relates to grease guns such as are employed, for example, to supply grease for lubricating purposes into the gear case of an automobile; and it has for its object to provide a simple, compact and efficient device of this character which is adapted to be expeditiously charged with grease and from which the latter may be conveniently expelled.

With these ends in view, the invention consists in the novel construction, arrangement and combination of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is an elevational view of my improved grease gun. Fig. 2 is a longitudinal section. Fig. 3 is a top plan view. Fig. 4 is a horizontal section through 4—4 of Fig. 1, and Fig. 5 is a similar view through 5—5 of Fig. 2.

In carrying out my invention, I provide a barrel formed of outer and inner cylindrical members having peripheral walls 6 and 7 which are respectively secured to the bottom and top heads 8 and 9. As shown, the top head 9 is provided with a circumferential flange 10 formed integral with a circular portion 11 fitted within the upper end of the wall 7 of said inner member and to which it is rigidly secured, as by screws or pins 12.

The bottom head 8, in like manner, is provided with a circumferential flange 13 from which a protruding circular portion 14 extends into and is detachably secured to the outer member, and to which the head 8 is rigidly secured by screws 15.

The upper end of the wall 6 is, moreover, provided with a peripheral flange 16 engaging in a recess 17 formed in a ring 9¹ which is secured to the head 9 by rivets 18 and constitutes, in effect, a part of such head.

By thus rigidly securing the inner wall to the top head and connecting thereto, as explained, the outer wall, the two members are coupled against separation but are capable of being rotated, one relative to the

other, by the operator turning the same through the instrumentality of the heads. To enable the operator to better grasp the heads, they are provided with peripherally disposed notches 19 and 19¹.

The peripheral walls 6 and 7 of said members are respectively provided with apertures or openings 20 and 21 which, by suitably turning the members, may be brought into register, as in Figs. 2 and 5, when charging the gun with grease, after which the members are relatively turned into the positions in which they are illustrated in Figs. 1 and 4 with the openings 20 and 21 diametrically opposite, or nearly so. The opening 21 of the inner member desirably extends almost the entire length of the wall 7, while the openings 20 of the other wall extend for substantially the same distance but are separated by a bar 6¹ which acts to maintain the barrel in circular form when subjected to an internal pressure.

The bottom head is provided with an axially disposed outlet from which extends a delivery tube 22.

23 represents a piston having a packing disk 24 of leather or other suitable material which will afford a substantially non-leakable fit with the inner surface of the inner member and also against the inner surface of the outer member where the latter is exposed through the opening 21. Said piston is provided with a threaded hole in which engages a screw 25 whereby the piston may be retracted prior to charging the gun, and subsequently forced down to expel the grease through the delivery tube 22. Said screw extends through a hole 26 bored into the top head 9, and below the same the screw is provided with a collar 25¹ which may be made integral or otherwise rigidly secured to the screw.

The office of this collar is to receive the end thrust of the screw when the piston is employed in forcibly ejecting the grease.

To prevent axial movements of the screw in the opposite direction, I provide a sleeve 27 on the screw to engage against the outside of the head 9, said sleeve being detachably connected to the screw by a rod 28 which extends through aligned holes 29 and 30 provided therefor in the screw and sleeve. This rod also serves as the operating handle for the screw, and is accordingly formed with a crank extremity 28¹.

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31 represents a so-called split pin extending through the handle, as shown, to prevent the accidental withdrawal of the same from the screw.

5 An important characteristic of my improved gun resides in the means whereby the piston and its operating screw 25 may be removed from the barrel, such action being accomplished by withdrawing the
10 screws 15, then taking out the head 8, so that when the handle-rod 28 is disengaged from the screw 25, the latter, together with the piston, can be removed from the open end of the barrel.

15 The gun is readily filled by manipulating the barrel members to present the charging opening into register and by the use of a screw for forcing the piston against the charge even the thickest varieties of grease
20 may be ejected from the spout with the exercise of but little manual effort.

When in operation the piston is prevented from rotating by reason of a packing 24 projecting into and engaging against a side
25 of the wall opening 21.

What I claim, is—

1. In a grease gun, a barrel comprising two interfitting tubular elements having side openings, and head elements rigidly
30 secured to the respective tubular elements, the head element of one of said members being rotatably connected with the tubular element of the other member and positively connecting the two members against relative axial movements, a piston operable
35 within the inner member, and means ex-

tending through one of the heads for actuating the piston for the purpose of discharging material through an outlet provided in the other of said heads.

2. In a grease gun, the combination of a
40 barrel comprising two members, each of said members having a head and an apertured peripheral wall rigidly connected to the respective head, the peripheral wall of
45 one of said members being provided with a flange to rotatably engage the same with the head of the other member, a piston within said barrel, and a screw engaging said piston and extending through a hole pro-
50 vided in one of the heads, and means to rotate the screw whereby the piston is actuated to eject material from an outlet provided in the other head.

3. In a grease gun, the combination of a
55 barrel comprising two concentric relatively rotatable cylindrical members, each of said members having a head and a peripheral wall, openings provided in the peripheral walls of said members, the openings of
60 the outer of said walls being separated by a circumferentially arranged bar serving to maintain the inner wall of a circular shape when subjected to an internal pressure, a piston operable within the inner member,
65 and means to actuate the piston to discharge material from the barrel through an outlet provided in one of said heads.

Signed at Arlington, Wash., this 25th day of November, 1916.

JOHN H. GORDON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."