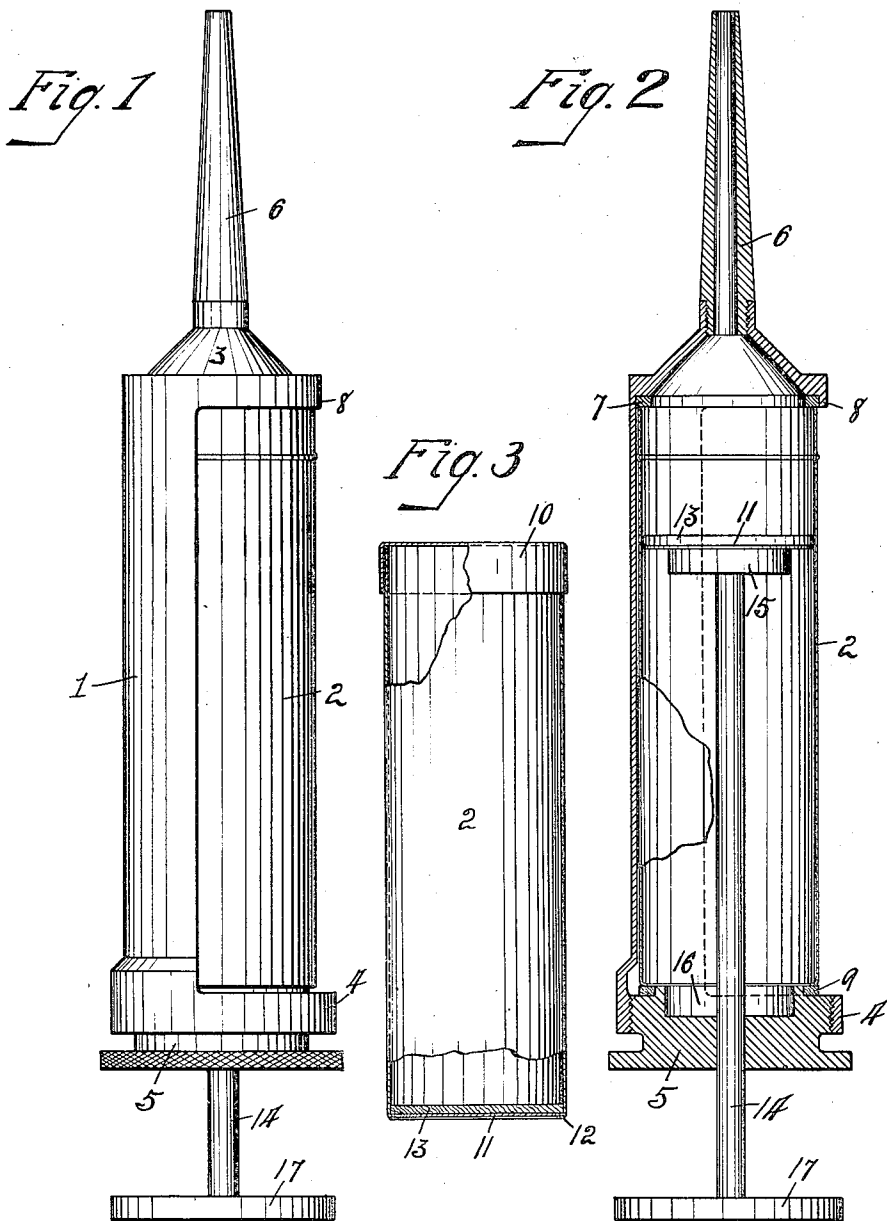


A. T. WOOD.
GREASE GUN.
APPLICATION FILED NOV. 4, 1910.

999,939.

Patented Aug. 8, 1911.



WITNESSES.
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UNITED STATES PATENT OFFICE.

ALFRED T. WOOD, OF DEFIANCE, OHIO.

GREASE-GUN.

999,939.

Specification of Letters Patent. Patented Aug. 8, 1911.

Application filed November 4, 1910. Serial No. 590,763.

To all whom it may concern:

Be it known that I, ALFRED T. WOOD, a citizen of the United States, and a resident of Defiance, in the county of Defiance and State of Ohio, have invented a certain new and useful Grease-Gun; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

The invention relates to grease guns, and has for its object the provision of an improved, simple and efficient device of this class, which is adapted to receive and hold a grease cartridge or package in which the grease is shipped from the manufacturer and sold to the user, in a manner enabling it to be easily and quickly secured within or removed from the gun or cartridge holder thus obviating the slow and unpleasant methods heretofore employed of filling of the grease barrel or receptacle of guns of this class by hand.

The invention is fully described in the following specification, and while in its broader aspect it is capable of embodiment in numerous forms a preferred embodiment thereof is illustrated in the accompanying drawings, in which,—

Figure 1 is an elevation of a grease-gun embodying my invention with a grease carrying cartridge in position therein. Fig. 2 is a central longitudinal section of the gun and its cartridge with the latter partly broken away, and Fig. 3 is an elevation of a grease-cartridge removed from the gun with portions thereof broken away.

Referring to the drawing, 1 designates the cartridge holder or body of my grease-gun, which is of circular form in cross-section to provide a seat for a grease-cartridge 2, and of a length substantially equal to the length of such cartridge. One end of the holder 1 is provided with a conical or funnel-like part 3 and its other end is provided with a collar or ring-like part 4 into which a cartridge holding plug 5 may be threaded. The conical part 3 of the gun is of suitable size to enable an end of a grease-cartridge 2 to seat against its marginal edge, and has a nozzle 6 projecting from its contracted end

for the purpose of directing the grease to the desired point of discharge, said nozzle being preferably removably attached to the part 3 as shown.

A gasket 7, against which the edge of the forward open end of a cartridge 2 is intended to seat, is carried by the part 3 and retained to its seat therein by the coöperating action of the body 1 and a flange 8 at the rear edge of said part as shown. The plug 5 also carries a gasket 9 which seats against the rear edge of a cartridge 2 when in position within the gun, and forms a close seat between said plug and the associated cartridge end when the plug is screwed home within the holder. While the grease-gun being of cylindrical form it may be of any other suitable shape in cross-section as desired. The cartridge 2 has one end closed by a cap 10 which is capable of being easily removed therefrom, and has its opposite or rear end closed by a disk or bottom-piece 11 which is mounted for reciprocatory movements within the cartridge 2, in the manner of a plunger, and has its outward movement limited by the inward rolling or flanging of the rear end of the cartridge wall, as indicated at 12. The inner side of the disk 11 is faced with felt or other suitable material 13 which fits closely against the cartridge wall and prevents a leakage of grease from the cartridge around the disk 11.

When a cartridge is placed within the holder 1 the disk 11 is forced therethrough to effect a discharge of grease from the cartridge through the part 3 and nozzle 6 of the gun by inward pressure on a plunger rod 14 which works through a central opening in the plug 5 and carries a plate or plunger 15 at its inner end in contact with the outer side of the disk 11. When the plunger rod 14 is at the limit of its outward movement the plunger 15 thereof seats within a receiving socket 16 in the inner side of the plug 5 so as not to interfere with a removal of a cartridge from the holder when the plug 5 is unscrewed slightly for such purpose. The outer end of the plunger rod 14 is provided with a handle 17.

In the use of my improved grease-gun, a grease cartridge 2 may be easily and quickly placed in operative position within the holder by simply removing the cap 10 from the cartridge and then placing the cartridge within the holder 1 with its opposite ends

in register with the respective gaskets 7 and 9, after which the plug 5 is screwed home within the holder, forcing the forward or open end of the cartridge to its seat against the gasket 7, to prevent leakage between said end and its seat, and to force the gasket 9 of the plug to its seat against the rear edge of the cartridge. To eject grease from the nozzle 6 the operator forces the plunger rod 10 14 inwardly, which in turn acts on the disk 11 to force it through the package.

It is thus apparent that I have provided a simple and cheap grease-gun, from which an empty cartridge can be quickly removed and a filled cartridge substituted therefor, and that when a cartridge is secured in operative position within the holder leakage is prevented around its end edges due to the close seating of such edges against the gaskets 7 and 9.

I wish it understood that my invention is not limited to any specific construction or arrangement of the parts except in so far as such limitations are specified in the claims.

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

1. The combination with a grease-cartridge having an open end, of a holder into which such cartridge removably fits, said holder comprising a body part having a discharge nozzle at one end and a plug receiving part at its opposite end, a plug threaded into said part and adapted to act on the cartridge to force it to a close seat against said nozzle with its open end in register with the nozzle bore, and means for forcing matter through said cartridge.

2. A grease-gun comprising a cartridge holder having a body part provided at one end with a nozzle and at its other end with a part for holding a cartridge thrust member, a cartridge thrust member threaded into said part, a gasket carried at the inner end of said nozzle, a grease-cartridge removably mounted within the holder and having an open end, the edge of which seats against said gasket, being held thereto by a screwing home of said thrust member, and plunger means for working through the cartridge to force matter therefrom.

3. A grease-gun comprising, in combination, a body part having opposite end parts which coöperate therewith to removably hold a grease-cartridge therein, one of such ends forming a discharge nozzle, a grease cartridge removably mounted in said holder and having an end open and in register with the throat of said nozzle, and plunger means

capable of working through the cartridge to force matter therefrom.

4. A grease-gun comprising, in combination, a cartridge holder having opposite end portions between which a cartridge may fit, and a part rigidly connecting said end portions and forming a seat for a side of a cartridge, said end portions and part co-operating to removably hold a cartridge, and one of said end portions forming a discharge nozzle, a cartridge removably fitted within the holder and having an open end in register with the nozzle throat, said cartridge having an end-portion movable therethrough, and means carried by the holder for forcing the end portion of said cartridge therethrough.

5. A grease-gun comprising, in combination, a cartridge holder having a connecting part and opposite end portions, one of said end portions forming a discharge nozzle and the other a thrust member, a cartridge capable of fitting within said holder between its end portions, said cartridge having an open end seating against the nozzle portion in register with its discharge throat, and an end portion in its opposite end capable of movement therethrough, said cartridge being held to its seat within the holder by thrust pressure thereon and plunger means for coacting with the movable end portion of said cartridge to force it through the cartridge.

6. A grease-gun comprising in combination an elongated body portion which is concavo-convex in cross-section to form a seat for a cartridge and having a laterally offset discharge nozzle at one end and an axially registering ring portion at its opposite end, a cartridge capable of removably seating within said holder, said cartridge having an open end seating against the nozzle portion thereof in register with the nozzle throat and a part closing the opposite end thereof and capable of movement therethrough, a thrust plug threaded within the ring-portion of said holder and adapted to coöperate therewith to hold the cartridge to its seat therein, and a plunger carried by said plug and adapted to coact with the end member of said cartridge to force it through the cartridge.

In testimony whereof, I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

ALFRED T. WOOD.

Witnesses:

K. GROWEG,
A. GROWEG.