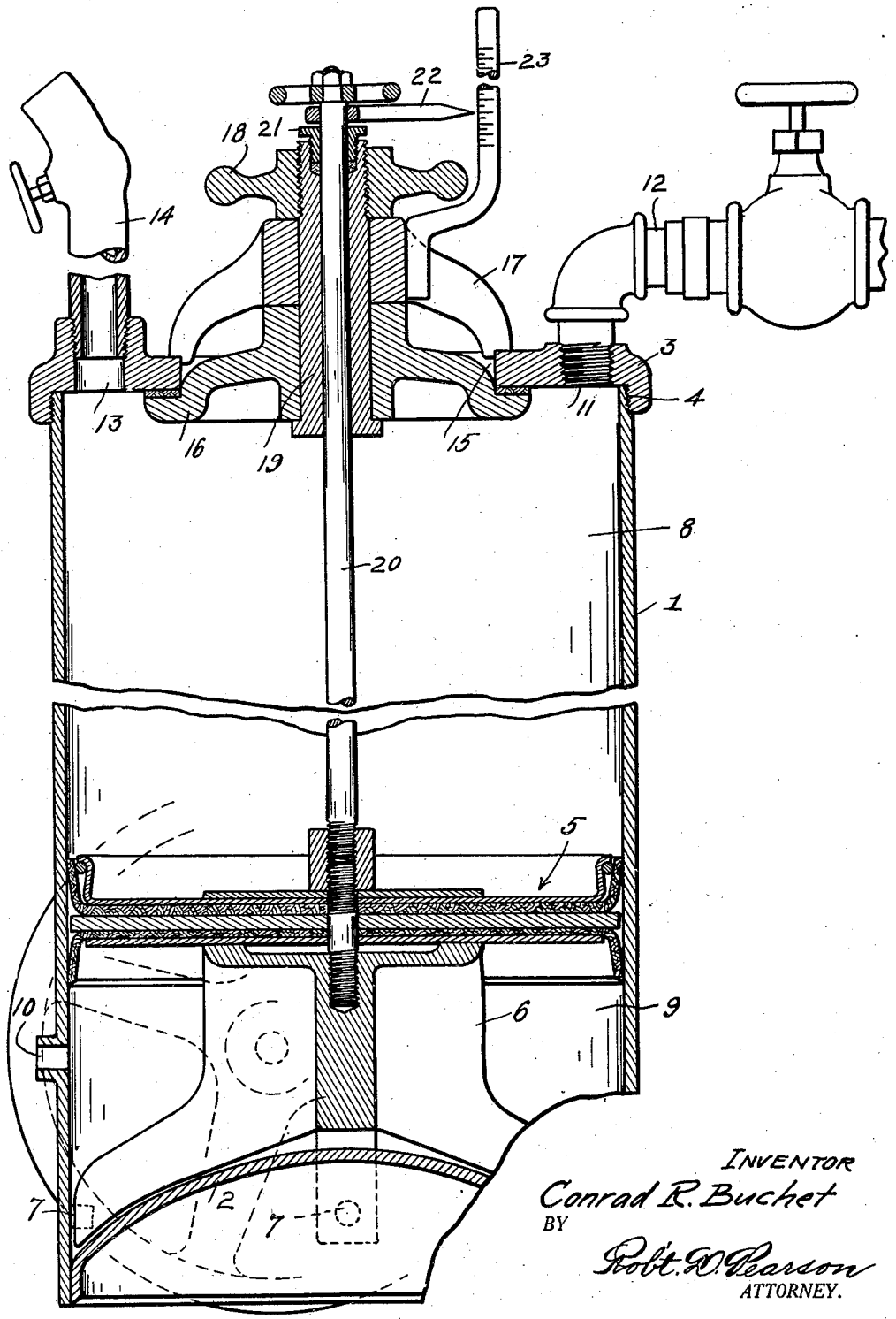
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GREASE DISPENSER

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GREASE DISPENSER

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This invention relates to grease dispensing apparatus especially designed for the forcing of grease into casings containing the working parts of machinery such for instance as the transmission and differential gearing casings of an automobile.

The object of the invention is to provide a simple, durable and efficient apparatus for the purpose above set forth and for other purposes which will be hereinafter pointed out in the following description and exemplified in the accompanying drawings, in which:

The single figure is a vertical section through an apparatus embodying the invention.

In carrying out the invention, 1 represents a cylinder provided with the concavo convex bottom 2 and the top or head 3 which is removably secured to the cylinder by means of the screw threads 4.

Mounted to slide in the cylinder 1 is a piston, which is provided on its bottom with a downwardly projecting spider member 6, adapted to engage with the bottom 2 to limit the downward movement of the piston.

The spider is also provided with a plurality of plugs 7 adapted to engage with the inner circumferential surface of the cylinder in order that the piston 5 may be properly guided in the cylinder.

The cylinder is divided into two chambers by the piston 5, the space between the head 3 and the piston serving as a container 8 for the reception of grease and the space between the piston 5 and the bottom 2 serving as a pressure chamber 9, said chamber having an outlet opening 10 leading thereto.

The head 3 is provided with a grease inlet port 11 having a valve controlled pipe 12 leading thereto from a source of grease supply (not shown) and an outlet port 13 to which is connected a suitable hose or pipe 14 adapted to lead to the part of the machine to be lubricated.

The head 3 is also provided with a suitable hand hole 15 which is normally closed by means of the cap member 16, held in place by the spanner 17 which in turn is held clamped against the outer surface of the head by means of the hand wheel 18 threaded to a centrally disposed bolt 19 which passes through both the cap 16 and the spanner 17.

Secured to the piston 5 is an upwardly extending stem 20 which passes through a gland 21 in the bolt 19 and projects outside of the cylinder and has secured to its outer end a pointer 22 which cooperates with a suitable measuring gauge 23 which is secured to the spanner 17.

By providing the spider 6 the piston 5 is adequately guided in the cylinder, independent of the stem 20, making it possible to use a stem of the smallest diameter having sufficient strength only to lift the grease in container 8 to the top of the cylinder 1.

In utilizing the apparatus, the grease is forced in any desired manner through the pipe 12 into container 8 and then the valve in said pipe is closed, or the grease may be placed into said container 8, through the opening 15 upon removing the cap 16. Compressed air or high pressure steam is then admitted through port 10 into the pressure chamber 9 which causes the piston 5 to ascend and thus force the grease out through port 13 and pipe or hose 14, with valve 24 open, which has been previously connected to the part to be lubricated. After the desired portion of grease has been dispensed, the quantity dispensed may be ascertained by the reading on the gauge 23 and a suitable and accurate charge may be made for the service.

Having thus described my invention what I claim is:

1. A grease dispenser comprising a cylinder, a piston mounted to reciprocate in said cylinder, a piston stem, said cylinder having a fluid pressure inlet below said piston and a grease inlet and a grease outlet above said piston, the head on the upper end of said cylinder having an opening therein, a cap for engaging the inner side of said head over said opening, a spanner engaging the outside of said head and said cap, a bearing bolt extending through said cap and said spanner through which bolt said stem extends, and a nut screw seated on the outer end of said bolt and engaging said spanner.

2. A grease dispenser comprising a cylinder, a piston mounted to reciprocate in said cylinder, said cylinder being provided with a fluid pressure inlet below said piston, and a head detachably mounted on the upper end of said cylinder provided with a grease inlet and a grease outlet, and with an opening and a cap for closing said opening, and a bearing extending through said cap, through which bearing said stem reciprocates.

3. A grease dispenser comprising a cylinder, a piston mounted to reciprocate in said cylinder, a piston stem, said cylinder having a fluid pressure inlet below said piston and a grease inlet and a grease outlet above said piston, the head on the upper end of said cylinder having an opening therein, a cap for engaging the inner side of said head over said opening, a spanner engaging the outside of said head and said cap, a bearing bolt extending through said cap and said spanner through which bolt said stem extends, and a nut screw-seated on the outer end of said bolt and engaging said spanner, said bolt having an internal head at its inner end adapted to bear against the inner surface of said cap.

In testimony whereof I affix my signature.

CONRAD R. BUCHET.