

C. REINKER.
AUTOMATIC OILING DEVICE.
APPLICATION FILED MAR. 13, 1905.

FIG. 1.

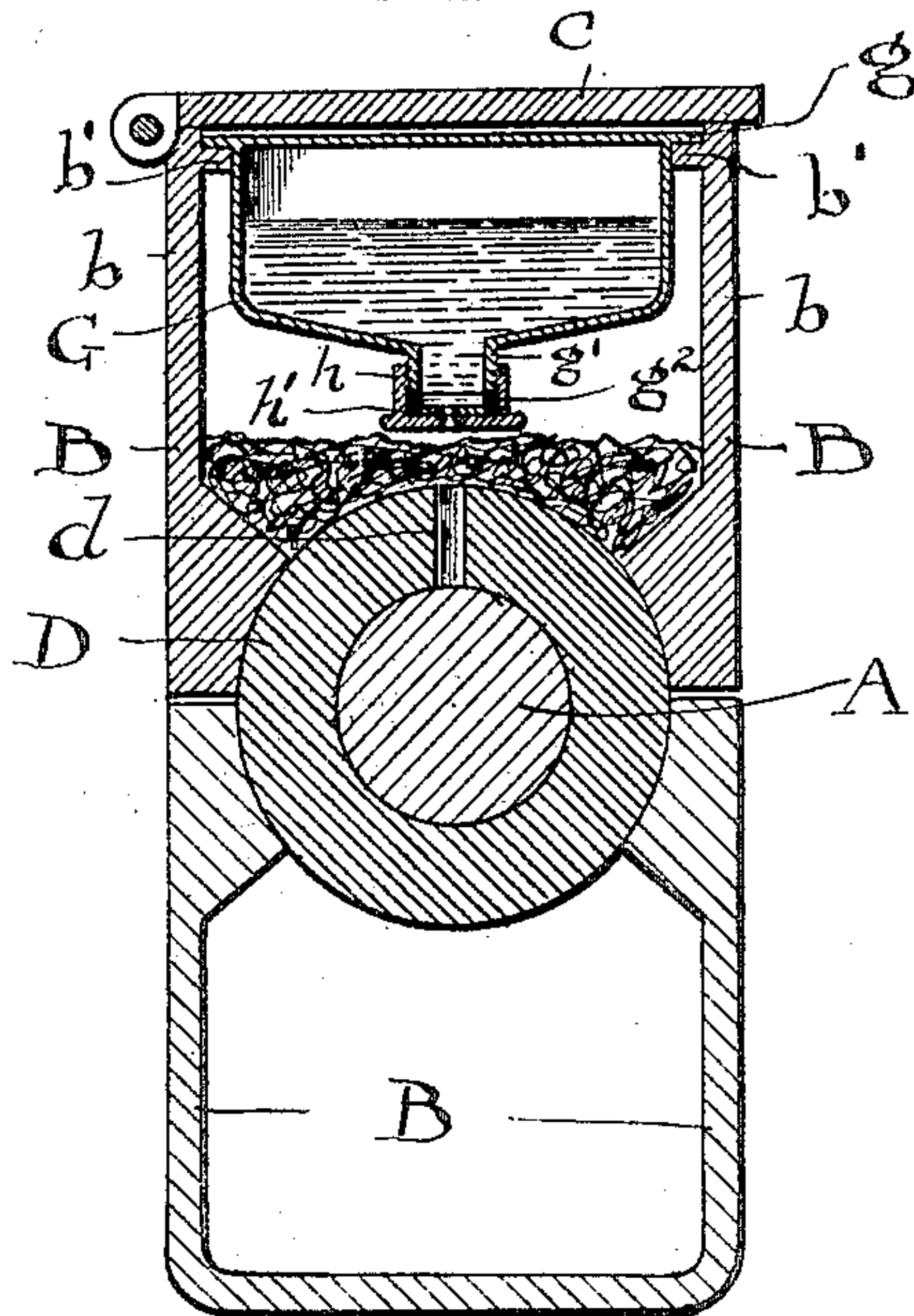


FIG. 2.

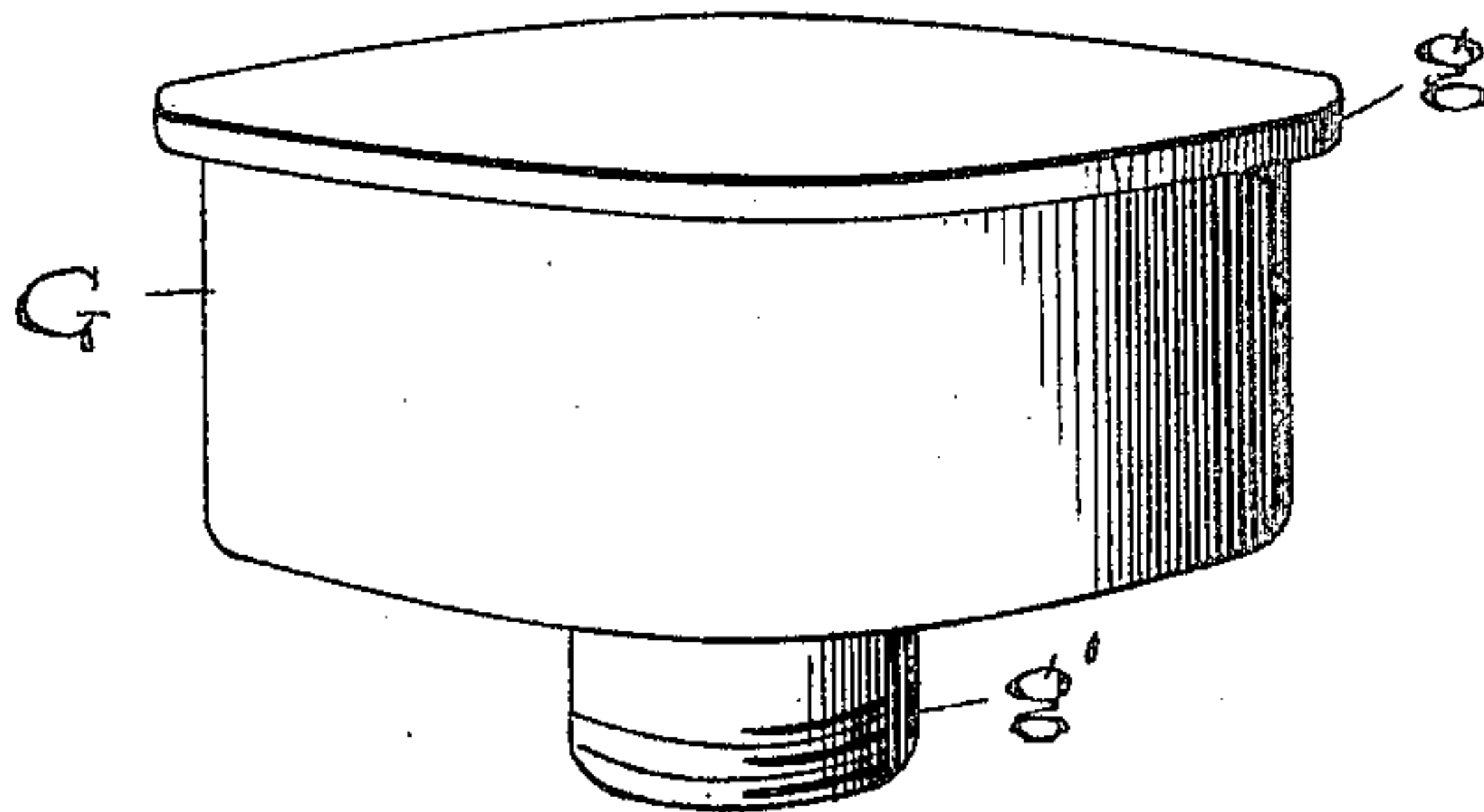


FIG. 3.



FIG. 4.



FIG. 5.



Witnesses
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By his Attorney H. J. Fisher

UNITED STATES PATENT OFFICE.

CHRISTIAN REINKER, OF CLEVELAND, OHIO.

AUTOMATIC OILING DEVICE.

No. 803,133.

Specification of Letters Patent.

Patented Oct. 31, 1905.

Application filed March 13, 1905. Serial No. 249,689.

To all whom it may concern:

Be it known that I, CHRISTIAN REINKER, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Automatic Oiling Devices; and I do declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to 5 which it appertains to make and use the same.

My invention has reference to an automatic oiling device for electric street-car motors and other uses; and the invention consists in the construction substantially as shown and 15 described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical cross-sectional elevation of my new and improved oiling device with the device in 20 working position. Fig. 2 is a perspective view of the device itself as an article, and Figs. 3, 4, and 5 are details of parts, as will hereinafter fully appear.

Numerous devices of widely-different character have from time to time been employed 25 for oiling or lubricating street-car-motor journals, as well as other journals, shafts, and axles, and I am personally and practically familiar with many such devices of widely-different constructions; but I have never before known or seen a lubricating or oiling 30 device built upon the principles of my present invention, and therefore believe the same to be new and original with me. As shown, the device embraces what is substantially a bottle or bottle-like receptacle adapted to be supported in inverted position and which will feed oil when oil is really needed and will not feed or waste the same when the motor or 40 part to be lubricated is not at work.

To these ends I construct a box B for the journal, axle, or shaft A, which is provided with a walled chamber *b* at its top, on which is a hinged cap or cover C, adapted to rest 45 down upon or over said chamber *b* and close the same. A bearing-sleeve D is shown for the journal or shaft and rests in or within the box B, and the lubricating-chamber comes above or over these parts, and said sleeve has an oil-hole *d* to convey oil to the said journal. About the top of said chamber-wall *b* on its inside is a rib or ledge *b'*, upon which the oil 50 receptacle or bottle G is suspended by means of a flange *g* about the bottom of the said receptacle, and thus the bottle is held in inverted position when in use. The said bottle or

receptacle may be made of sheet metal, glass, rubber, or any other suitable material, and if of glass it has the manifest advantage of disclosing its contents at once to the eye to 60 tell whether refilling is necessary or not.

Upon the neck *g'* of the oil-receptacle I engage a screw-cap *h*, and the said neck is externally threaded to make such engagement secure but removable. At its center the said 65 cap has an orifice for the passage of oil from within, and next inside the cap is a washer *h'* with an orifice graduated in size according to the volume of oil wanted, and I provide disks with larger and smaller orifices, at the choice 70 of the user and according to his needs. A gasket *g''* makes the joint complete and prevents any leakage of oil about the edge of said disk. Both gasket and disk are locked together by cap *h* against the end of neck *g*. 75 This is one manner of securing a graduated flow of oil from the receptacle; but I might suggest others equally good, possibly, and at any rate equivalent to this arrangement in practical results. Obviously with a close bot- 80 tle or receptacle no oil whatever can get out when the receptacle is inverted except as an equivalent portion of air is admitted, and with the receptacle closed, as shown, and only a very small open passage entering the same 85 it is obvious that there can be no flooding or waste of oil at any time. Indeed I have found that nothing short of the effect which an active or rotating journal produces is sufficient to obtain a flow of oil at any time, and 90 this gives me the very material advantage of an automatic shut-off when not at work and an automatic feed when at work. So it occurs if the motor or machine is quiet there will be no running or dropping of oil. 95

This device has the further considerable advantage of being interchangeable for a full bottle when it is exhausted. It can of course be taken out and refilled and set back again; but for service-cars, which generally have not 100 the time to stop long enough to fill a number of receptacles and replace them, the better practice is to take to the car the requisite number of receptacles and merely remove the empty ones and place full ones in their stead. 105 This can be done in a few moments by unskilled help and works a great convenience in operating a busy road.

In the bottom of oil-chamber *b* I place more or less absorbent, which will intercept any 110 possible grit or dirt which may have gotten into the oil; but if the oil be clean which is

filled into the receptacle it will come away clean, and there being a double seat at the top of the oil-chamber *b* there is at least little possibility of dirt working into said chamber.

5 Over night or when the journal is not running and the parts get cool the dripping of oil ceases; but when work is resumed and the receptacle gets warm or heated and the atmosphere therein expanded and the oil be-
10 comes thinned it is started, and lubrication goes on as needed.

What I claim is—

1. A lubricating-bottle constructed to be supported in an inverted position and pro-
15 vided with a threaded neck, a cap engaging said neck having a restricted opening, and a removable flow-regulating disk within said cap

provided with an orifice for the escape of oil through the same.

2. A lubricating-bottle having a flange about 20 the outside of its base from which the bottle is adapted to be supported in working position and a neck at its opposite end threaded externally, in combination with a cap threaded on said neck provided with a hole in its 25 center, and an interchangeable disk in said cap provided with a hole for the escape of oil.

In testimony whereof I sign this specification in the presence of two witnesses.

CHRISTIAN REINKER.

Witnesses:

H. T. FISHER,
R. B. MOSER.