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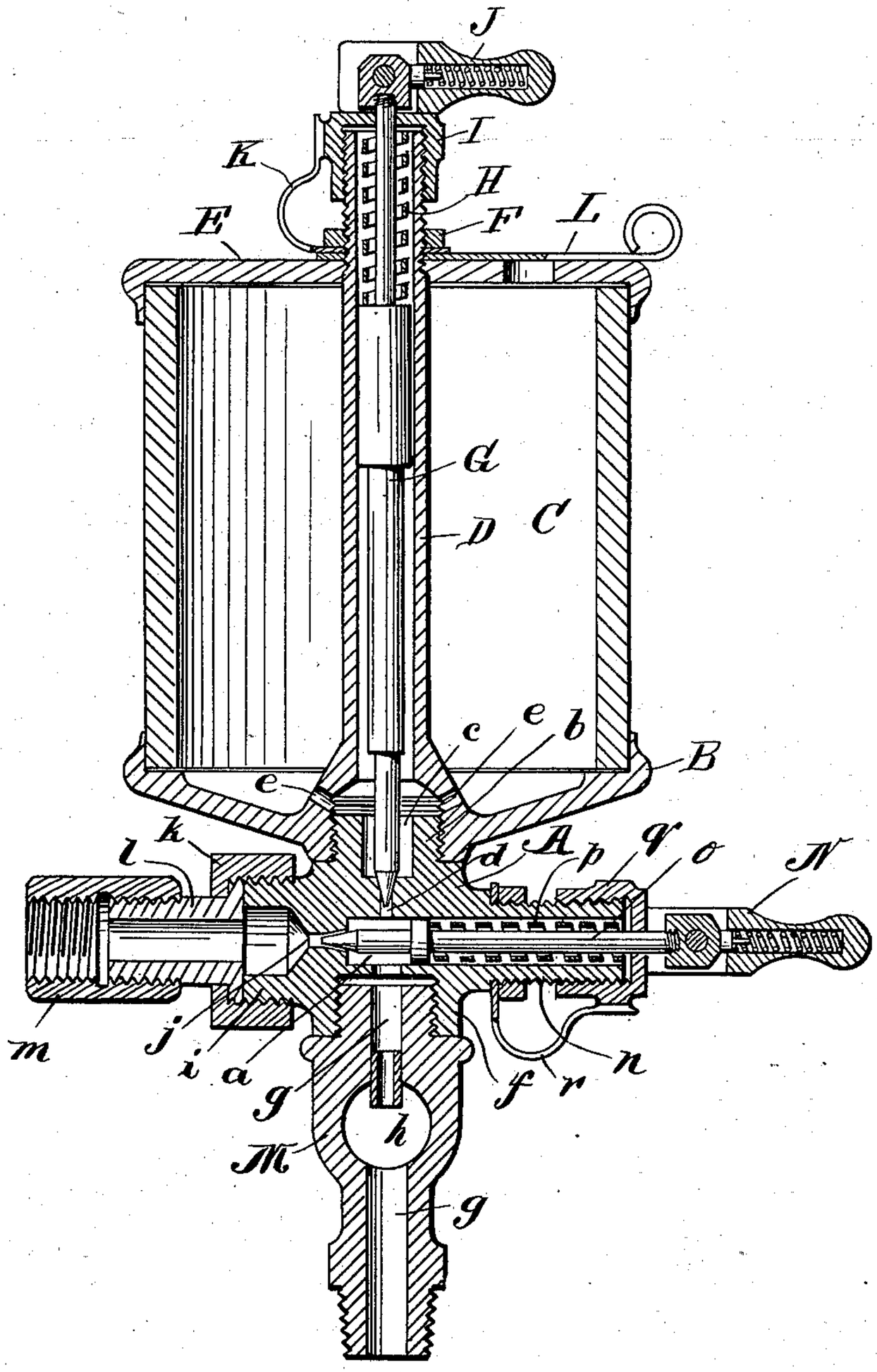
S. L. MOYER.

LUBRICATOR.

(Application filed June 25, 1900.)

(No Model.)



Witnesses.

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UNITED STATES PATENT OFFICE.

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LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 654,665, dated July 31, 1900.

Application filed June 25, 1900. Serial No. 21,473. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL L. MOYER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Lubricators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification.

My invention relates to that class of lubricators which have a constant source of oil-supply under pressure and which are generally coupled together to make this source of oil-supply common to a number of such lubricators and which in addition have an auxiliary oil-cup for each bearing, which can be brought into use at any time should the source of oil from the pressure-supply be at any time broken or cut off; and it has for its object the provision of such a lubricator which is both simple and cheap in construction and efficient in action.

The novelty will be hereinafter more fully set forth, and specifically pointed out in the claims.

In the accompanying drawing, the figure represents a central sectional view, in elevation, of a lubricator embodying my invention.

A represents a valve-casing with a central chamber *a*. On the upper side of the valve-chamber is an exteriorly-threaded stem *b* with a central chamber *c*, from which an oil-exit passage *d*, having a tapered upper end, extends into the chamber *a*. Screwed upon the stem *b* is the base B of an ordinary glass-bodied cylindrical oil-cup C, with a hollow central stem D extending up from the base through the cap E, which is held down by a nut F, screwed upon the upper projecting threaded end of the stem D. Within the bore of the stem D is fitted a valve-stem G, whose lower pointed end fits into the tapered end of the aperture *b* to close the same. H is a coiled spring around the upper part of the stem G and confined between an enlargement or collar upon said stem and an adjusting cap-nut I, screwed upon the upper end of the stem. J is a spring-held snap arm or lever pivoted to a block upon the upper end of the stem for opening the aperture *d* when in one position and closing it when in the other position. All of this construction of the oil-cup C and its parts, together with the holding-spring K for the adjusting-nut, the swinging cover L for the filling-opening in the top of the cup, and the oil-exits *e* from the base into the chamber *c* is common and well known and needs no further description here.

Upon the under side of the valve-casing A is an interiorly-threaded projection or nipple *f*, into which is screwed the attaching-stem M, by which the apparatus is screwed to the bearing to be lubricated. The stem M has a central bore *g* through it, with interposed circular openings *h* for sight-feed glasses, and its upper end communicates with an opening into the chamber *a*.

Upon one side of the valve-casing A is a suitable means of connection to the pipe containing the constant source of oil-supply under pressure. In this instance the connecting means consist of an exteriorly-threaded nipple *i*, having an opening *j* through it into the chamber *a*, a union-coupling *k* screwed upon said nipple and holding an exteriorly-threaded thimble *l*, which is united to the oil-supply pipe (not shown) by a right-and-left-threaded coupling *m*. Opposite to the aperture *j* and extending outward from the chamber *a* is a bore in a projecting exteriorly-threaded nipple *n*, containing a valve-stem with exterior means for operating the same for opening and closing the aperture *j* as desired, the end of the valve-stem being pointed to snugly fit the tapered bore of the aperture *j*. In this instance the valve-stem *o* last referred to has a coiled spring *p* around it confined between a collar on the stem and an adjusting cap-nut *q*, screwed on the end of the nipple and held in any of its adjusted positions by a spring *r* of well-known construction and similar to the spring K. The outer end of the valve-stem *o* is coupled to a spring snap-arm N, similar to the arm J, for opening and closing the aperture *j*.

In operation the aperture *d* is kept closed to entirely shut off the supply of oil contained in the cup C, and the aperture *j* is opened to the required extent to feed the oil from the source of pressure-supply through the chamber *a*, thence down through the bore *g* and sight-feed opening *h* to the bearing to be lu-

bricated. Should, however, the oil-supply from the aperture *j* be at any time interrupted from any cause, such as a break in the pipes or the temporary exhaustion of the source of oil-supply, the aperture *j* is at once closed and *d* opened to permit oil from the cup C to be fed to the bearing until the pressure-supply is again brought into action, whereupon the aperture *d* is again closed and the aperture *j* opened.

In my construction, unlike that of others, which take the pressure-supply directly into the cup C, and thereby put a leaking or even a breaking pressure upon the cup C, there is no pressure upon the cup C, which stands constantly as a source of auxiliary supply whenever the pressure-supply is interrupted.

Having thus fully described my invention, I claim—

1. In lubricator construction, a valve-chamber communicating with the bearing to be lubricated and having a sight-feed between the bearing and valve-chamber, an auxiliary oil-cup connected to said valve-chamber and provided with a valve-controlled aperture leading into said valve-chamber, a coupling for a source of oil-supply under pressure also leading into said valve-chamber through a valve-controlled aperture, and valve mechanism for said apertures, substantially as described.

2. In lubricator construction, the valve-casing A provided with a chamber *a*, a conduit from said chamber provided with a sight-feed between the latter and the bearing to be lubricated, an oil-cup carried by said valve-chamber and having a valve to control an opening from the oil-cup into the valve-chamber, a source of oil-supply under pressure also opening into said valve-chamber, and a valve for controlling the opening from said source of oil-supply under pressure to the valve-chamber, substantially as described.

3. The combination of the oil-cup C, the valve-casing A upon which the oil-cup is secured and provided with the chamber *a*, the aperture *d* from the oil-cup into the chamber *a* controlled by a valve whose stem extends through the oil-cup, the coupling extension *i* for the source of oil-supply under pressure having an aperture *j* into the chamber *a*, an exteriorly-operated valve for the aperture *j*, and the attaching-stem M secured to the under side of the valve-casing and provided with a central bore leading from the chamber *a* and having a sight-feed *h* therein, substantially as described.

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Witnesses:
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