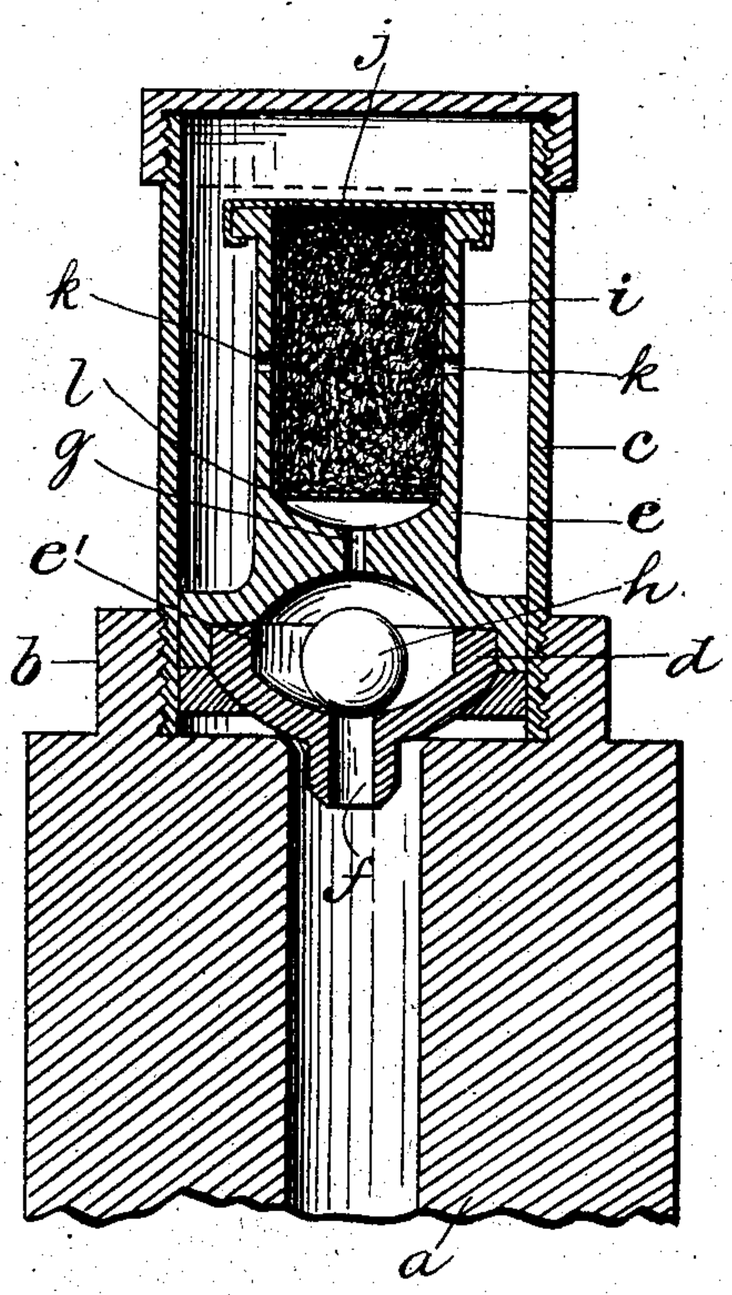
No. 791,771. PATENTED JUNE 6, 1905.

L. GLEASON.

OIL CUP.

APPLICATION FILED FEB. 2, 1905.



Witnesses

Jas. N. Blackwood

W. O. Blackwood.

By

Inventor

Lewis Gleason

N. W. Bladen & Son

Attorneys

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No. 791,771. Patented June 6, 1905.

UNITED STATES PATENT OFFICE.

LEWIS GLEASON, OF FRANKLIN, PENNSYLVANIA, ASSIGNOR TO GALENA-SIGNAL OIL COMPANY, OF FRANKLIN, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

OIL-CUP.

SPECIFICATION forming part of Letters Patent No. 791,771, dated June 6, 1905.

Application filed February 2, 1905. Serial No. 243,890.

To all whom it may concern:

Be it known that I, LEWIS GLEASON, a citizen of the United States, residing at Franklin, in the county of Venango and State of Pennsylvania, have invented new and useful Improvements in Oil-Cups, of which the following is a specification.

My invention relates to oil-cups; and its object is to provide a device to supply lubrication to a moving bearing by means that will effectually control the gradual and regular feed of the oil without danger of clogging the oil-passages or permitting impurities to be fed to the part to be lubricated and whereby the supply of oil will be automatically cut off when the part to be lubricated is at rest.

To this end my invention is embodied in preferable form in the device hereinafter set forth.

This device is illustrated in the accompanying drawing, in which the figure therein shown is a central sectional view of my improved oil-cup.

Referring to the drawing, *a* is a shaft, part of a motor, or other moving element of a mechanism to be lubricated, and to a suitable flange *b* thereon is screwed the body of the hollow oil-container *c*. This container is adapted to receive a supply of oil to be fed to the mechanism.

Suitably secured within the cup is a concave or semi-elliptical base portion *d*, on which is fitted a feed-cylinder *e*, having a semi-elliptical bottom which forms with the base an elliptical and circular valve-chamber *e'*. This valve is provided with an outlet-passage *f* and an inlet feed-hole *g*. A ball-valve *h* is loosely confined in this chamber and is adapted to rest upon and close the outlet-passage *f* when the mechanism carrying the cup is at rest. The ball is adapted to be moved from its seat by the motion of said mechanism and is confined in its movement by the wall of the chamber.

The cylinder *e* is adapted to receive an oil feeder and controller consisting of a packing *i*, of natural wool tightly compressed. This wool is maintained in its compressed condition by means of a cap or cover *j* closing the upper end of the cylinder *e*. The cylinder is provided in its wall with a series of holes *k* to admit oil from the cup or container to the wool feeder. At the bottom of the cylinder and supporting the wool is a perforated plate *l*, which serves as a strainer and serves to catch impurities that might otherwise pass through the feed-hole.

Natural wool has several advantages as a feeding medium, as it is resilient and durable and does not tend to become matted or to clog like cotton, nor can it ordinarily, owing to its resilience, be compressed so tightly as to prevent the percolation of oil therethrough. Hence by my device, where the wool is compressed and confined against expansion within the cylinder, it may be packed so closely as to control the supply of the oil to a constant and regular feed, while at the same time permitting the oil to percolate in sufficient quantity to keep the mechanism thoroughly lubricated. The motion of the machinery serves to splash the oil from the cup through the holes *k*, which serve to some extent to prevent the entrance of impurities into the feeder, and the wool itself and plate *l* serve to further strain the oil in its passage to the mechanism. The wool being kept saturated by the oil which splashes through the holes feeds down slowly, and the valve-ball being unseated by the motion of the mechanism permits the oil to drip through the outlet. When the machinery is at rest, the valve cuts off the supply. The combination of parts forms a feeding device reliable under all conditions of service and climatic influences.

It is obvious that changes in the details of construction of this device may be made without departing from the scope of the invention.

Having thus described my invention, what I claim is—

1. In combination with a movable part to be lubricated, a splash-feed oil-containing cup mounted thereon, a lubricator base portion having a passage-way communicating with said part to be lubricated through which the oil drips, and said base also having an upper

drip passage-way, an oil-receiving cylinder having ports in its wall communicating with the splash-cup, and a feed-controller consisting of a body of natural wool bearing against the bottom of said cylinder and a cap at the upper part of said cylinder compressing and confining said wool in said cylinder, substantially as described.

2. In combination with a movable part to be lubricated, a splash-feed lubricator having a vertical oil-containing cup, a feed-passage stem leading to said part to be lubricated, a body in the lower part of cup forming a chamber which communicates with said feed-passage, an automatic, rolling cut-off valve in said chamber, said body having an inlet feed-passage at the upper part of chamber, a cylinder with which said inlet-passage communicates, a strainer-plate above the bottom of the cylinder, said cylinder having inlet-ports communicating with the splash-cup, a body of natural wool in said cylinder, forming a feed-controller, and bearing on said strainer-plate, said controller-body being compressed and confined in said cylinder by a cap at the upper end thereof, substantially as described.

In testimony whereof I affix my signature in presence of two subscribing witnesses.

LEWIS GLEASON.

Witnesses:
C. P. HOCKINBURG,
W. H. STULTZ.