D. Harrigan,

Oil Cup.

No. 96427. Patented Nov. 2. 1869.

Fig. 2.

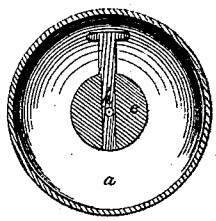
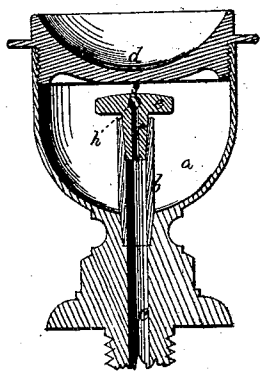


Fig. 1.



Witnesses.

Geo A. Lossing.

Edmund Griffith.

Dennis Harrigan,

by his Attorney.

Frederick Curtis.

United States Patent Office.

DENNIS HARRIGAN, OF SOMERVILLE, ASSIGNOR TO JOHN H. WIGGINS, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 96,427, *dated November* 2, 1869.

IMPROVEMENT IN OIL-CUPS FOR MOVABLE BEARINGS.

The Schedule referred to in these Letters Patent and making part of the same

To all to whom these presents shall come:

Be it known that I, DENNIS HARRIGAN, of Somerville, in the county of Middlesex, and Commonwealth of Massachusetts, have made an invention of a new and useful Improvement in Oil-Cups for Movable Bearings; and do hereby declare the following to be a full, clear, and exact description thereof, due reference being had to the accompanying drawings, making part of this specification, and in which—

Figure 1 is a vertical, and

Figure 2, a horizontal section of an oil-cup, embodying my invention or improvement.

The invention embraced in the following description, and comprising the subject-matter of these Letters Patent, has reference to a class of oil-cups now coming into extensive use, so made that it is only when the object to which they are attached is effecting a rapid descent, described through an arc of a circle, or otherwise, that the oil, thrown by the centrifugal force or descent of such object, from the body of the receiver of the cup to its upper part or cover, is allowed to fall and flow therefrom in small quantities to the bearing to be lubricated.

A special instance of the class of oil-cups above mentioned is exhibited in Letters Patent of the United States, issued to me on the 2d day of February, 1869.

In the production of such patented oil-cup, no means was adopted or contemplated for varying or regulating the amount of oil flung upward against the cover and through its perforated diaphragm, and as in practice it has been found advantageous, from obvious motives of economy in consumption of oil, to effect this purpose, and as in many instances the given construction of cup heretofore made would permit of the escape of too great an amount of oil, I have originated the device herein described.

The invention or improvement in question consists in applying to the upper extremity of the oil-escape tube of the cup, a shallow vessel, of flattened spheroidal or other proper form, or a circular or polygonal disk, the bottom of such vessel or disk having an outlet-passage for flow of oil to the tube, and its top an induction-orifice for entrance of oil, either one of such ports being closed by a valve for regulating the amount of flowing oil, or of entirely checking such flow.

In the drawings, to which allusion has before been made as accompanying this specification, and which illustrate my invention, the body or oil-receiver of the cup is exhibited at *a*, there being disposed within such cup an upright pipe, *b*, extending from its bottom to near its top, and communicating with the discharging-outlet *c* thereof.

The cover of the oil-cup is shown at *d*, as secured or otherwise introduced into the mouth of the same. As the operation of the device is not necessarily dependent upon the form or curvature of the under surface of the cover, I make no further reference to it.

To the upper portion of the tube *b*, I affix, by a screw or otherwise, a shallow vessel or disk, *e*, the bottom of such disk, as before premised, having a discharge-orifice, *f*, and at its top an inlet-port, *g*, either one or both of these ports being closed by a valve or cock, *h*, as represented.

An oil-cup such as above described is to be used upon the connecting-rod of a steam-engine, or in connection with bearings formed in movable objects in machinery of any kind; but whether applied to a crank-pin revolving in an orbit, or to a body making intermittent descents, the oil within the reservoir, or a portion thereof, is impelled in contact with the under side of its cover, and then drops upon the disk or vessel *e*, and through its port and the valve, and thence flows, by the outlet *b*, to the bearing to be lubricated.

That the valve *n* will permit of the change and regulation of the amount of oil passing from the reservoir, is self-evident, while the results obtained by its use will be understood and appreciated by intelligent persons.

Claim.

What I claim, and desire to secure by Letters Patent, is—

The combination, with the discharge-tube of an oil-cup, such as described, of a disk fitting over the mouth of the same, and provided with an orifice for entrance of oil to the tube, and a valve for opening or closing said orifice, constructed and arranged in the disk as herein shown and set forth.

DENNIS HARRIGAN.

Witnesses:

FRED. CURTIS,

GEO. A. LORING.