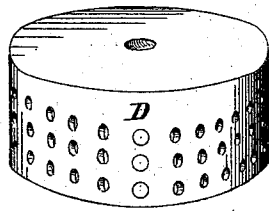
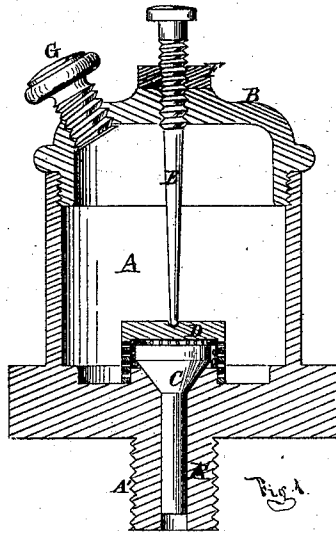


Bryan & Stainfield,
Lubricator.

No. 111,105.

Patented Jan. 24, 1871.



ATTEST

Frederick Eberle
Martha Stewart

INVENTOR

James A. Bryan
William Stainfield
per A. S.
Thos. S. Spang

United States Patent Office.

JAMES A. BRYAN AND WILLIAM STAINFIELD, OF KENT, OHIO.

Letters Patent No. 111,105, dated January 24, 1871.

IMPROVEMENT IN AUTOMATIC LUBRICATING-CUPS.

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

To whom it may concern:

Be it known that we, JAMES A. BRYAN and WILLIAM STAINFIELD, of Kent, in the county of Portage and State of Ohio, have invented a new and useful Improvement in an Automatic Lubricating-Cup; and we do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a vertical section of our improvement, and

Figure 2 is a detached view of the valve-cage.

Like letters indicate like parts in each figure.

The nature of this invention relates to an improvement in devices for supplying fluid lubricants to crank-pins and other revolving bearings automatically and without waste.

The invention consists in the novel and peculiar arrangement, within a closed oil-cup, of a valve in a channel leading to the bearing to be lubricated, and in a cage or strainer surrounding the head of the valve, whose lift is adjusted by a temper-screw passing down through the cover of the oil-cup, the whole arranged and operating as more fully hereinafter set forth.

In the drawing—

A represents a metallic oil-cup, closed at the top by a cap, B, threaded therein.

The cup is provided at the bottom with a hollow stem, A', which is tapped through the strap or cover, and the box of the bearing to be lubricated.

C is an ordinary wing-valve, opening inward, and seated at the top of the hollow stem A'.

D is a perforated cage or strainer, closed at the top, fitting loosely over an annular elevation in the bottom of the cup, concentric with the valve. At the

greatest depression of the strainer the valve will have a slight upward play from its seat.

E is a threaded stem, provided at the top with a proper head for turning it, and is screwed through the cap, its lower end stepped in a socket on the strainer-top. For obvious reasons it is also with a check-nut, F.

G is a screw in the cap, by removing which the cup may be filled with a suitable lubricant.

The cage D serves not only to keep the valve from lifting beyond the limit set by the stem E, but also to prevent the access of any impurities in the oil to the valve-seat to interfere with the operation of the valve. The flow of the oil is regulated by the stem E, which is adjusted to allow the valve and strainer to lift more or less, as may be required.

The device being tapped into the upper side of a crank-pin, pitman-wrist, parallel-rod, or other revolving bearing, its valve is closed during the entire circle described by the revolving part to which it is attached, except for an instant after passing the highest point, when the downward throw of the crank allows the centrifugal force developed, to lift the valve and thus permit the regulated amount of oil to flow down through the stem to the bearing.

Having thus described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

The construction and arrangement, with relation to the cup A and cap B, of the valve C, cage or strainer D, stem E, check-nut F, and screw G, as and for the purpose set forth.

JAMES A. BRYAN.
WILLIAM STAINFIELD.

Witnesses:

W. F. Fox,
H. H. McIntosh.