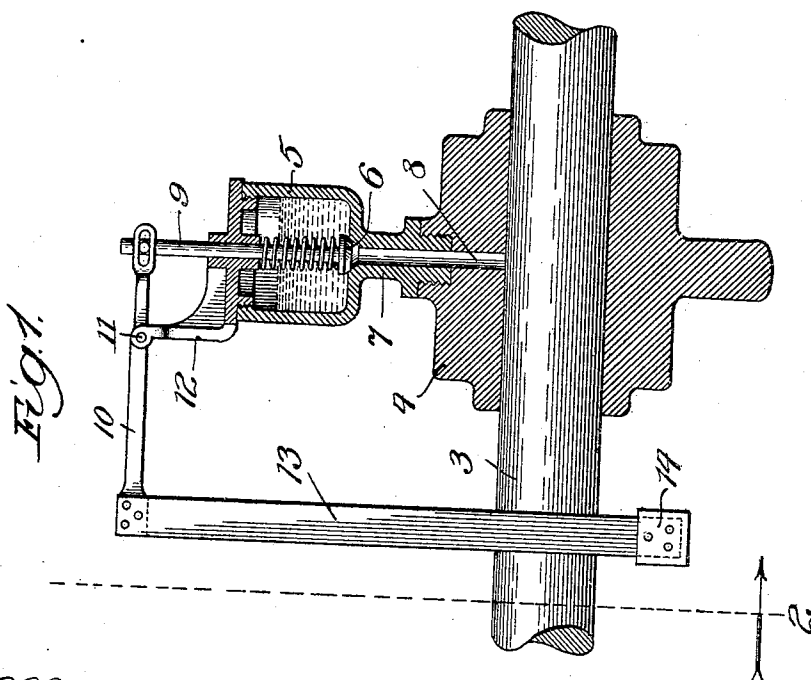
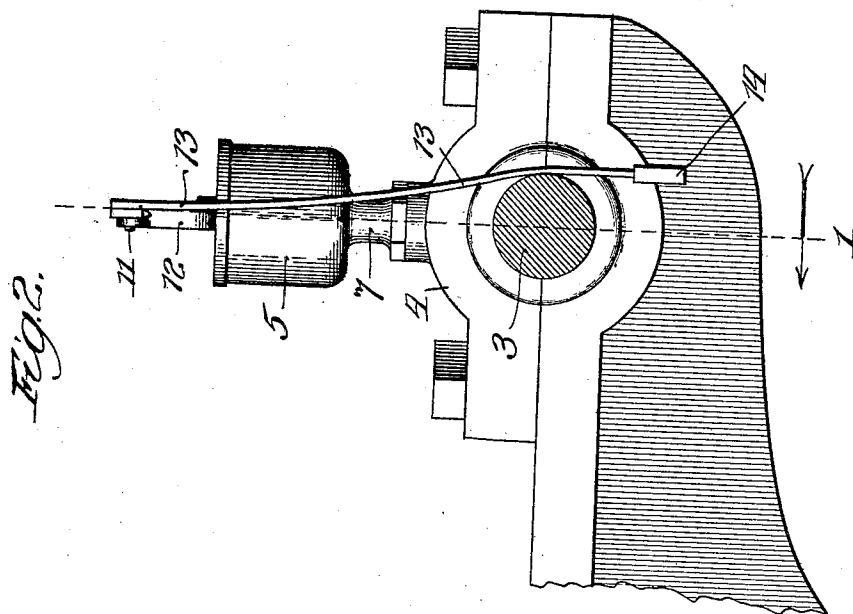


935,260.

J. KELLY.
LUBRICATOR.
APPLICATION FILED MAY 5, 1909.

Patented Sept. 28, 1909.



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UNITED STATES PATENT OFFICE.

JOHN KELLY, OF CHICAGO, ILLINOIS.

LUBRICATOR.

935,260.

Specification of Letters Patent. Patented Sept. 28, 1909.

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To all whom it may concern:

Be it known that I, JOHN KELLY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Lubricators, of which the following is a specification.

My invention relates to an improvement in the class of automatically-controlled lubricators or grease-cups for use in connection with shaft or journal bearings.

In the accompanying drawing, Figure 1 is a broken view in elevation, mainly sectional on line 1, Fig. 2, showing my improvement applied to a shaft-bearing, and Fig. 2 is a broken section on line 2, Fig. 1.

A shaft is represented at 3, journaled in bearings, one of which is shown at 4. Into the bearing is screwed a covered cup 5 for holding the lubricant and equipped with a spring-pressed valve 6 for controlling the discharge through the neck 7 of the cup which communicates with a duct 8 in the bearing. The construction of the bearing and valved cup may be that illustrated or any other that is desired. To the stem 9 of the valve, which works through the cup-cover, is connected one end of a lever 10, which is fulcrumed between its ends, at 11, on an arm 12 extending from the cup.

The feature of my invention is a strap 13, preferably of leather, though other flexible material may be used, depending from the free end of the lever to hang across and in contact with the shaft, the lower end of this strap carrying, by preference, a weight 14 tending to increase the frictional contact of the strap with the surface of the shaft.

The purpose of the automatic action of a lubricator in the class to which my invention relates is to cause the motion of the shaft or journal equipped with it to feed the lubricant to the bearing and to arrest the feeding by the stoppage of such motion. This purpose is accomplished by my improvement in the following manner: Rotation of the shaft by the frictional contact between its surface and that of the belt, exerts on the latter a drag or pull sufficient to depress the outer end of the lever 10 and thereby raise the valve 6 to open the feed. When the shaft is not in motion the valve

closes under the action of the controlling spring, or by its own gravity, thereby shutting off the discharge of lubricant from the cup until the shaft is again set in motion. The device operates whichever direction the motion of the shaft may be, the strap being adapted to be extended across either side of the shaft, and should the motion of the shaft be reversed, its frictional contact with the strap will carry the free end of the latter over to cause it to hang on the opposite side of the shaft to be actuated by its motion in the manner described.

While a weight is shown and described as being attached to the end of the strap to operate as means for maintaining the desired frictional engagement of the strap with the shaft, it is to be understood that the means may be other than the weight 14; for example, by employing a strap of greater length, the weight as a separate element may be dispensed with, and the strap of its own weight operate as such means.

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

1. In combination with a shaft, a bearing therefor and a valved lubricant-cup connected with said bearing, a lever connected with the valve, a strap of flexible material depending from said lever, and means for maintaining the strap in frictional contact with the shaft, for the purpose set forth.

2. In combination with a shaft, a bearing therefor and a valved lubricant-cup connected with said bearing, a lever connected with the valve, and a strap of flexible material depending from said lever in frictional contact with the shaft, and a weight on the free end of the strap, for the purpose set forth.

3. In combination with a shaft, a bearing therefor and a valved lubricant-cup connected with said bearing, a lever fulcrumed between its ends on said cup with one end engaging the valve-stem, a leather strap secured on the opposite end of the lever to depend therefrom, and means for maintaining the strap in frictional contact toward its free end with the shaft, for the purpose set forth.

4. In combination with a shaft, a bearing therefor and a lubricant-cup connected with

the bearing and provided with a cap, a valve
in said cup having a stem extending through
said cap, a spring surrounding said stem be-
tween the cap and valve, a lever fulcrumed
5 between its ends on said cap with one end
engaging the valve-stem, a flexible strap se-
cured to the opposite end of the lever to de-

pend therefrom, and means for maintaining
the strap in frictional contact with said
shaft, for the purpose set forth.

JOHN KELLY.

In presence of—

JOHN WILSON,

RALPH A. SCHAEFER.