J. EVANS.

Lubricators.

No. 151,108. Patented May 19, 1874.

FIG. 1.

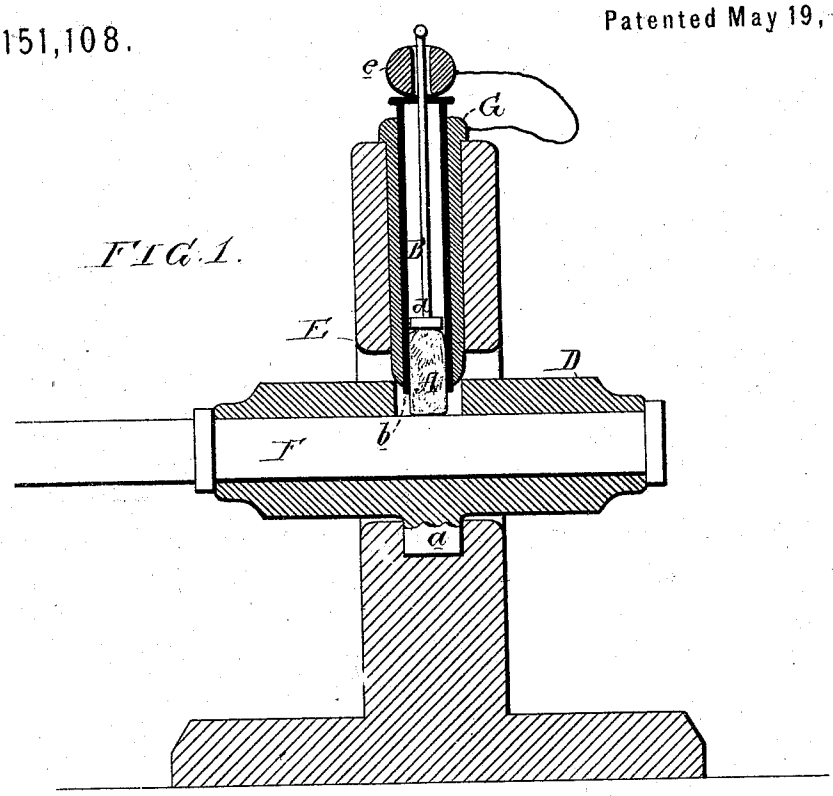


FIG. 2.

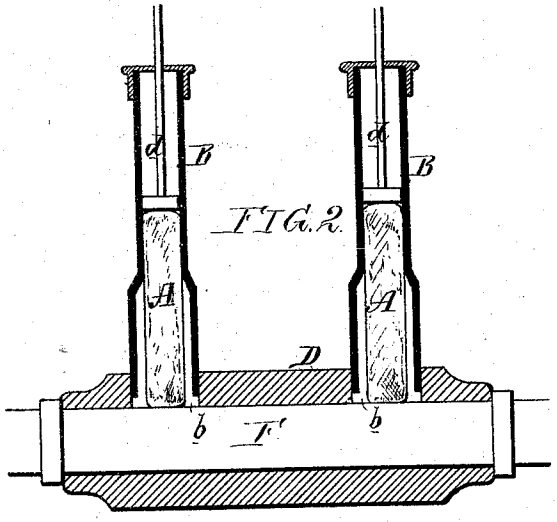
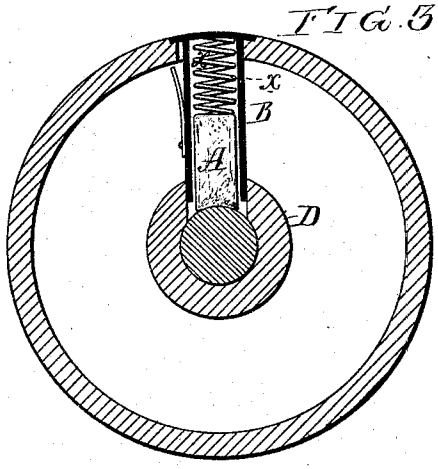


FIG. 3.



Witnesses Harry Smith
Thomas M. Evans

John Evans
by his Attys.
Howson and Son.

UNITED STATES PATENT OFFICE.

JOHN EVANS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN LUBRICATORS.

Specification forming part of Letters Patent No. **151,108**, dated May 19, 1874; application filed December 13, 1873.

To all whom it may concern:

Be it known that I, JOHN EVANS, of the city of Philadelphia, Pennsylvania, have invented an Improvement in Lubricating Bearings, of which the following is a specification:

The object of my invention is to insure the thorough and continuous lubrication of bearings and journals by a block of tallow or other solidified lubricating material, A, arranged to slide freely in a tube, B, adapted to a bearing, D, and maintained in contact with the said bearing or journal by its own gravity, or by the pressure of a spring or weight, all as shown in the sectional elevation, Fig. 1, of the accompanying drawing. The frame E may represent a pedestal, hanger, or bracket, for the support of the shaft F, the journal of which turns in the bearing D, which is supported below by a stud, *a*, and above by the detachable pin G, in such a manner that it may be self-accommodating to the shaft. The pin G is made hollow throughout for the reception of a tube, B, preferably of sheet metal, the lower end of which extends into the opening *b* in the bearing, but is free from contact with the journal F. This tube contains a block, A, of tallow or other solidified lubricating material, the lower end of which rests upon the journal, and lubricates both the latter and the bearing, the block being of somewhat less diameter than the tube, so that it may slide downward freely, and be self-feeding to the journal until it is entirely consumed.

If desired, however, the block of tallow may be forced against the journal or bearing with a slight degree of pressure by a weight or spring; and this will be necessary for hangers in which the tube cannot be conveniently placed in a vertical position. If the inner end of the tube B were in contact with the journal, or if it extended quite to the end of the block of lubricating material, it would become more or less heated, which would cause a too rapid melting of the end of the said lubricant; hence I propose, in some instances to terminate the tube at some little distance from the journal, and to permit the end of the block of tallow to cross the open space *b*, as shown in Fig. 1, while in other instances I propose to enlarge the inner end of the tube, so that it may be entirely free from contact with the block of tallow, as shown in the sectional elevation, Fig. 2, of the drawing. The sliding rod *d*, resting upon the upper end of the block of tallow, and projecting through the top of the tube B, serves as a gage to indicate the quantity of tallow in the latter, and when the supply has been quite exhausted the rod descends into the tube, and releases a ball, *e*, thus indicating at a glance that the tube needs replenishing. For long bearings, which require lubrication at two or more points, the arrangement shown in Fig. 2 may be employed, the tube B being, in this instance, secured directly to the bearing instead of to the hanger.

Fig. 3 illustrates my invention applied to a loose pulley, the tube B being inserted through the rim and into the hub of the pulley, and the block of tallow being maintained in contact with the shaft by a spring, *x*.

I claim as my invention—

1. The combination, with a bearing and journal, of a tube arranged to receive a block of tallow, to be maintained in contact with the journal, as set forth.

2. The tube B, constructed and applied to a bearing, substantially in the manner described, so as to be free from contact with the inner end of the block of lubricating material, for the purpose specified.

3. The combination of the sliding rod *d* and ball *e* with the tube B and block of tallow contained therein, for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN EVANS.

Witnesses:

WM. A. STEEL,

HARRY SMITH.