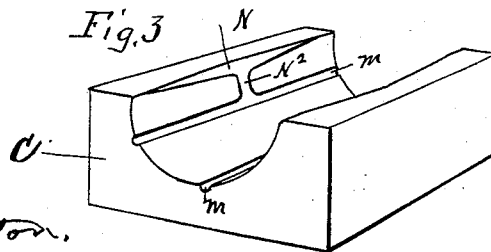
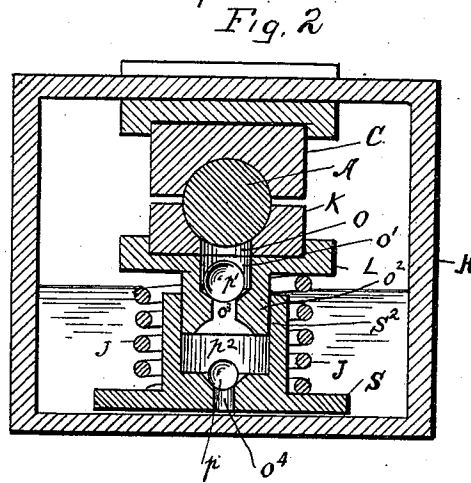
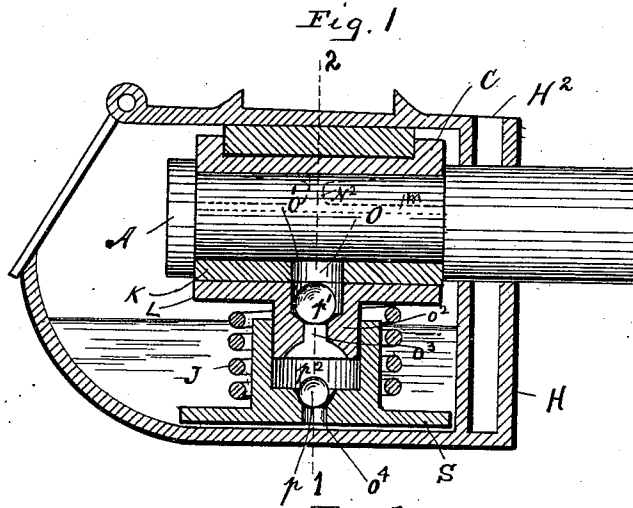


(No Model.)

G. F. GODLEY.
JOURNAL BOX.

No. 563,270.

Patented July 7, 1896.



Witnesses.
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UNITED STATES PATENT OFFICE.

GEORGE F. GODLEY, OF PHILADELPHIA, PENNSYLVANIA.

JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 563,270, dated July 7, 1896.

Application filed May 11, 1895. Serial No. 548,966. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. GODLEY, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Journal-Boxes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention has reference to journal-boxes; and it consists of features fully set forth in the following specification and accompanying drawings, forming part thereof.

The object of my invention is to provide a journal-box with an efficient and substantial means to lubricate the same.

It consists in combination with the box of an oil-lifting device having valves and adapted to be operated by the jarring motion of the car. In combination with the lifting device I provide an oil lifting and feeding or distributing device whereby the car-journal is evenly and continuously, while in action, supplied with its lubricant. This oil-distributing device consists of a plastic or flocculent substance held under spring-pressure against the journal diametrically opposite to the thrust-journal cap or to the cap of the journal through which the weight is carried thereto. I provide this cap with one or more longitudinal grooves, and one or more oil-carrying ducts carry the oil to these grooves after the same is collected by a recessed edge of the half-round cap or box aforesaid.

Figure 1 is a longitudinal section through my box; Fig. 2, a transverse section, being taken on line 1 2 of Fig. 1; Fig. 3, a perspective view of my thrust-block.

A is the shaft forming the journal. It is immaterial what class of journal this may be, whether used as a journal supported by a pillar-block, hanger, or car-axle.

C is the thrust-bearing for the journal.

K is the lubricant-block. This block can be made of either a plastic, flocculent, or solid substance. It supports no weight and is subject to no strains or stress except that given

it by the spring J. Its function is merely to hug the journal, that the lubricating liquid is thus continually kept in contact therewith. 55

L is the holder for the lubricant-block. O is a hole in the said block; O', a hole in the lubricant-block holder and coincident with the hole in the said lubricant-block. This latter hole is reduced in diameter, as shown at O³, at its lower end. The offset thus formed in this hole acts as a seat for the globular valve p', and the coinciding holes O and O' form a valve-chamber for the said valve p'. 60

S is the base of the support for the holder L, or, rather, the supporting-base for the guide for this holder. The guide proper consists of an integral cylindrical lug S³. A small aperture O⁴ is in the base S. This aperture is beveled on its inner end or edge, and thus is formed the valve-seat for the globular valve p. The valve-chamber for the valve p is formed by the lower portion of the hole formed by the annular flange S², as shown at p², Figs. 1 and 2. A spring J encloses the external face of the annular flange S² and is interposed between the upper side of the base S and the under side of the lubricant-block support L. The bottom of the case H forms an oil-well, in which are immersed the aforesaid valves and their connections, and thus is formed my pump. 65 70 75 80

m, Fig. 2, is a longitudinal groove in the journal-box. N² is a duct leading thereto, and N is a rounded edge which serves the function of gathering the oil, and as this rounded edge tapers toward the longitudinal center of the bearing the oil is gathered and carried toward the duct N² and therethrough delivered into the groove m, and thereby again distributed over the rotating axle evenly. 85 90

I could, of course, use any number of ducts or grooves, and do not limit myself to the single one shown in the drawings. 95

H² is the dust-shield chamber. Any one of the well-known dust-shielding substances could be used therein.

In practice, the spring J (shown in Figs. 1, 2, and 3,) serves to keep the lubricating-block K in close impingement with the journal or axle, and the jolting or jarring of the said axle, from any cause, will cause the support L to yield to the irregularities of motion, and 100

as the cylindrical valve-retaining lug O^2 is snugly fitted into its guide s^2 this movement will be in effect a slight vertical reciprocation, and as the respective chambers occupied by the valves p and p' are vacuums when not entirely filled with oil the jarring of the holder L in combination with the atmospheric pressure on the surface of the oil in the aforesaid oil-well will alternately open and close the globular valves p' and p and thus feed the oil up through the aperture O^4 in the well-known manner of pumps. The chamber $O O'$, in which the valve p' is situated, is thus continuously kept filled with oil, and as the axle A rotates it gathers the oil held in this chamber, carries it around, and delivers it to the longitudinal groove m through the duct N^2 in the manner and by the means described, thus keeping the axle continuously lubricated.

Having now described my invention, what

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

The combination in a journal-box of an oil-reservoir, a thrust-bearing, a lubricant-block, a lubricant-block support, the said block and its support being provided with coinciding apertures forming thereby a valve-chamber, a guide and lateral support for said block-support having therein a secondary valve-chamber, valves operatively located in said chambers, and a journal adapted to be impinged by said lubricant-block, whereby the jarring or jolting motion of the car will automatically actuate the said valves in the manner and for the purpose set forth.

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

GEORGE F. GODLEY.

Witnesses:

HOMER A. HERR,
JOSHUA R. MORGAN.