(No Model.)

J. W. SKILTON.

LUBRICATING JOURNAL BOX.

No. 598,961. Patented Feb. 15, 1898.

Fig. 1.

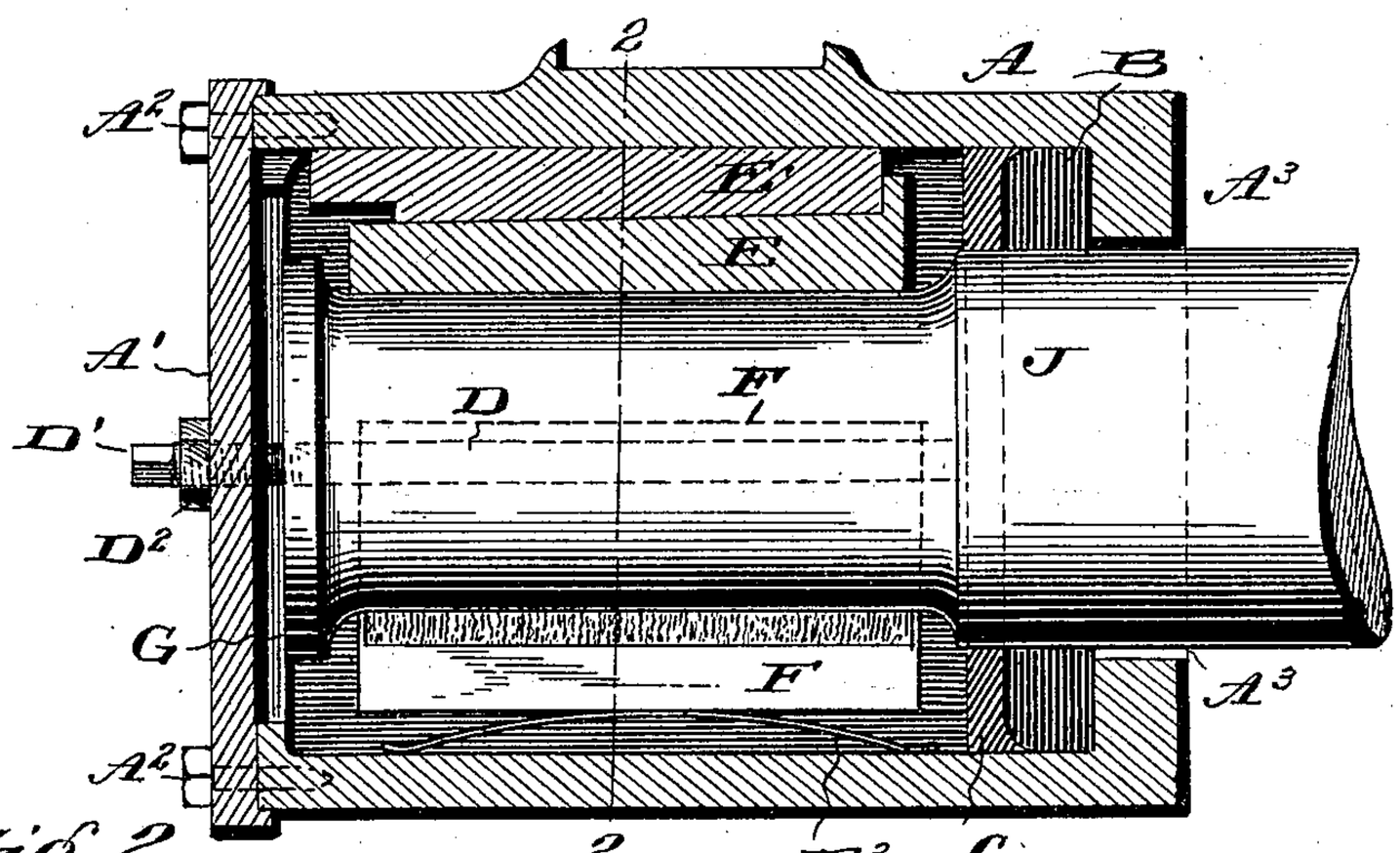

Fig. 2.

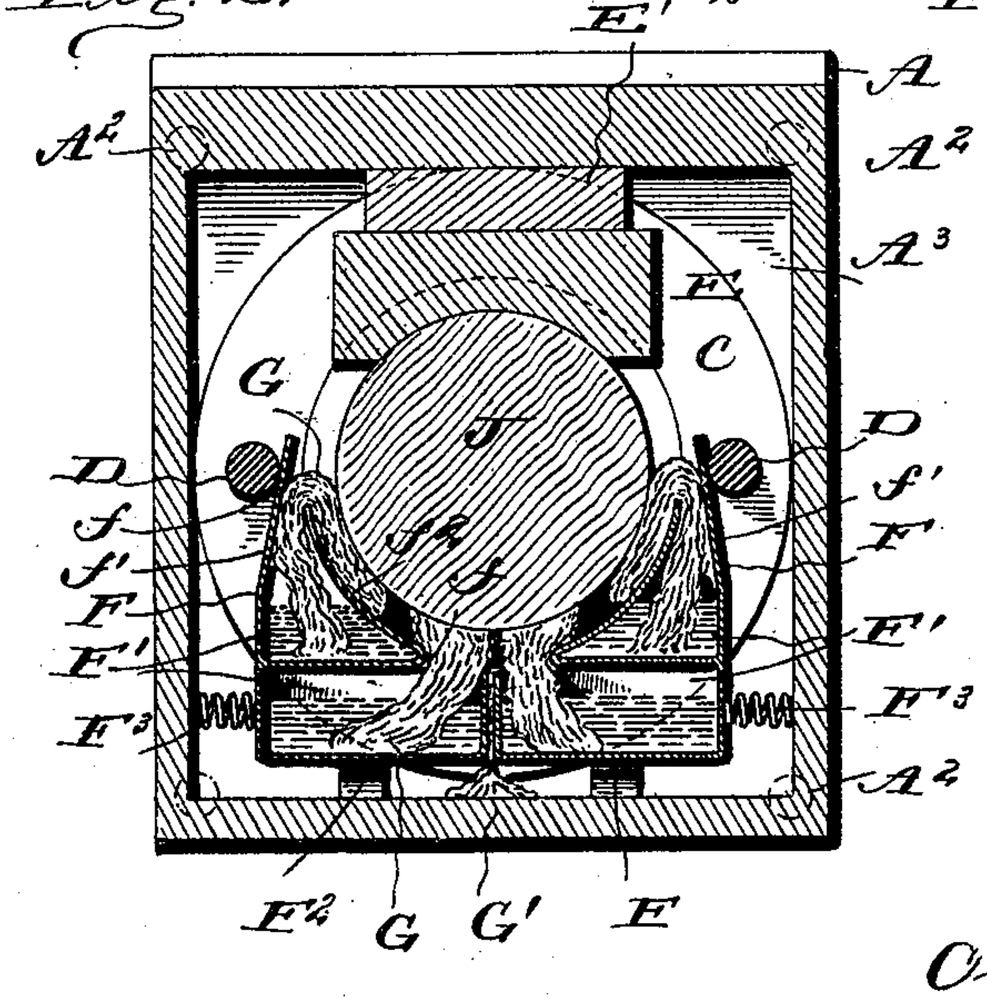

Fig. 3.

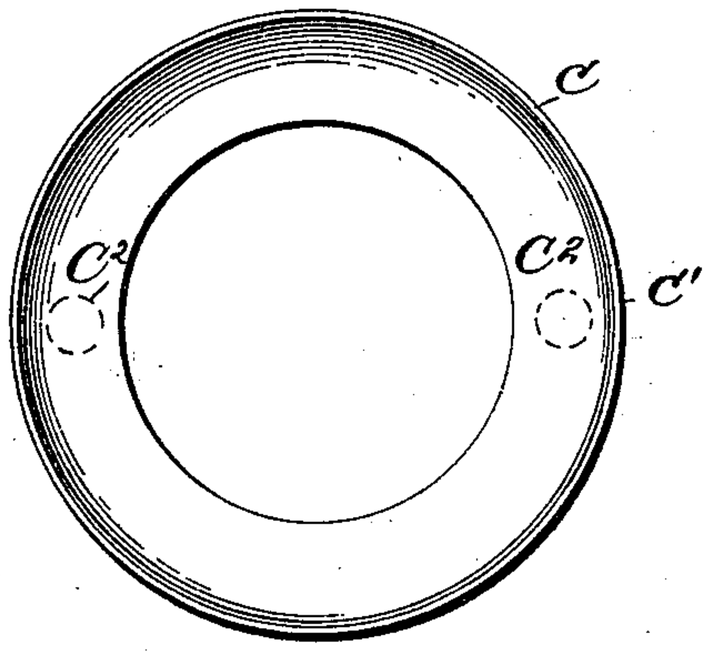

Fig. 4.

Witnesses
L. C. Hills.
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UNITED STATES PATENT OFFICE.

JOHN W. SKILTON, OF DAYTONA, FLORIDA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE SKILTON-BROWN INTERNATIONAL CAR BOX COMPANY, OF NEW ORLEANS, LOUISIANA.

LUBRICATING JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 598,961, dated February 15, 1898.

Application filed June 17, 1897. Serial No. 641,146. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. SKILTON, a citizen of the United States, residing at Daytona, in the county of Volusia, State of Florida, have invented certain new and useful Improvements in Lubricating Journal-Boxes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in lubricating journal-boxes; and it has for its object to provide lubricating means by which the journal will be thoroughly lubricated and a sufficient supply of oil may be carried to adapt the journal to run for a length of time without being further oiled.

It has also for its object to improve the construction of follower-plate, by which the packing adjacent to the journal is compressed.

It has for a further object to materially improve the details of construction of the oil-reservoirs and other parts of the box, so as to adapt the same for ready application to the journal-boxes now in use and to meet the practical requirements presented in journals which revolve at a high rate of speed and require a thorough lubrication to prevent overheating or injury of the parts.

Other objects and advantages will hereinafter appear and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a central vertical longitudinal section through the journal-box. Fig. 2 is a vertical cross-section on the line 2 2 of Fig. 1, looking in the direction of the arrows. Fig. 3 is a detail plan view of the follower-plate, and Fig. 4 is a vertical cross-section of the same.

Like letters of reference indicate like parts throughout the several figures.

Referring now to the details of the drawings by letter, A designates the outer casing, which is similar to the standard journal-box now in general use, except as hereinafter specified. The outer end of this box is closed by a plate or cover A′, which is secured to the end of the casing by screws A^2 or other suitable means. The inner end of this casing is provided with a depending flange A^3, which forms an abutment, against the inner face of which the packing B will be compressed by means of the follower-plate C, as shown in Fig. 1.

The follower-plate C is formed as an annulus, the opening of which will fit snugly around the journal J, as shown, while the outer edge of the plate is provided on its face next to the packing with a concave projecting flange C′. The packing B may be of any suitable compressible material, and the concave flange on the follower-plate will press the packing inward toward the journal, while the body of the plate will accomplish a compression of the packing against the flange A^3 of the casing. The desired pressure to adjust and hold the follower-plate C in contact with the packing is secured by means of rods D, which are threaded into threaded apertures in the plate or cover A′ and at their inner ends are seated in depressions and recesses C^2, formed upon the outer face of the follower-plate. The outer exposed end of each of these rods is provided with an angular portion D′ for the application of a wrench or other suitable tool to adjust the rods, and bearing against the front plate or cover at each rod there is located a jam-nut D^2 to lock and hold the rods in their adjusted positions.

Upon the upper face of the journal within the casing is the bearing-block E and the wedge-block E′, of ordinary construction, which is inserted in the usual manner to retain the bearing in its proper position. Supported upon the lower portion of the casing is a lubricating device consisting of oil-reservoirs F, from which extend absorbent wicks

G, of sponge or other suitable material, and against which wicks the journal bears.

The oil-reservoirs F are composed of two compartments F′, one above the other, which are provided with openings *f*, through which the wicks extend. The reservoirs are supported from the bottom of the casing upon elliptical springs F^2, which support the oil-reservoirs and the wicks extending therefrom adjacent to the under surface and sides of the journal. The reservoirs are formed with inclined side walls *f′*, which are adapted to pass upon the adjacent sides of the oppositely-located rods D, whereby the upward pressure of the elliptic springs serves to center and hold the reservoir between the rods D and thus prevent lateral movement of the former. At the opposite sides of the lower portions of the oil-reservoirs I provide coiled springs F^3, to prevent lateral movement of the lower portion *s* of the reservoirs. The surface of the reservoir adjacent to the journal is curved upon a line practically concentric with the periphery of the journal, so as to fit neatly and closely about the same, as shown at f^2.

The reservoirs indicated in Fig. 2 are illustrated with a space between the meeting edges of the same, through which space a wick G′ may be extended, which will absorb any oil which may fall into the lower portion of the casing and feed the same to the rotating journal. By this means any surplus oil may be removed from the casing and the same kept in a practically dry and clean condition. Although the reservoirs have been shown as separate, the invention contemplates the connection of the two together by any suitable means, either at their ends or by joining them at their meeting edges, so that the reservoirs may be removed or replaced together.

By arranging the oil-reservoir with two compartments, one above the other, the oil will be evenly supplied to the sides and under surface of the journal and a continuous feed from the separate compartments assured, whereby the oil will be applied to the journal nearer the bearing-block than when a lubricating device is used only at the bottom of the journal, and practically the entire lower half of the journal is kept in a lubricated condition, which effectually prevents heating of the journal and the collection of any dust thereon. The reservoirs are also readily removable by removing the cap or cover to the casing, so that the compartments can be supplied with oil. The curved faces of the reservoirs adjacent to the journal provide a concentric support for the absorbent wicking, so that the same will be held between the journal and the reservoir and an extended and close contact of the wicking with the journal is secured. By the arrangement of the springs beneath and at the sides of the boxes, in connection with the inclined side walls bearing against the rods, the reservoirs are held against any rattling or movement liable to displace the same.

It is obvious that changes may be made in the details of construction which have been described in the specification, and that such modifications will not be a departure from the spirit of the invention.

Having described my invention and set forth its merits, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a journal and its casing, of a packing surrounding the journal, an annular follower-plate bearing against said packing, rods threaded through a portion of the casing so as to bear against and force said follower-plate into contact with said packing, and a removable oil-reservoir having inclined outer faces adapted to fit between said rods and journal, substantially as specified.

2. The combination with a journal and its casing, of a removable oil-reservoir having independent compartments for containing oil arranged in different planes, absorbent feeding material extending from said compartments and yielding supports for forcing said reservoir into contact with the journal, substantially as specified.

3. The combination with a journal and its casing, of an oil-reservoir composed of independent compartments one above the other, the upper of which is provided with an inner surface concentric to the lower portion of the journal, and an absorbent material extending from said reservoir and supported upon said concentric surface in contact with said journal, substantially as specified.

4. The combination with a journal and its casing, of an oil-reservoir yieldingly supported within said casing and provided with inclined side walls adapted to fit and wedge between the stationary portions of casing and the journal, and an absorbent material extending from said reservoir and thereby held in contact with said journal, substantially as specified.

5. The combination with a journal and its casing, of an oil-reservoir provided with independent compartments, a spring supported beneath said reservoir, a spring extending between the side wall of said reservoir and the side of the casing, and an absorbent material extending from each of said compartments into contact with said journal, substantially as specified.

6. The combination with a journal and its casing, of a packing surrounding said journal, a follower-plate, rods extending from the cover of the casing into contact with said follower-plate, an oil-reservoir provided with a curved face adjacent to said journal and adapted to fit between said journal and rods, a spring-support beneath said reservoir, a spring interposed between the side of said

reservoir and said casing, and an absorbent material extending from the reservoir into contact with said journal, substantially as specified.

7. The combination with a journal and its casing, of an oil-reservoir composed of separate sections having a space between the same, an absorbent material extending from said reservoir into contact with said journal, and an absorbent material extending between the sections of said reservoir into contact with the lower portion of said casing, substantially as specified.

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

JOHN W. SKILTON.

Witnesses:
W. WALTON,
W. L. VANN.