

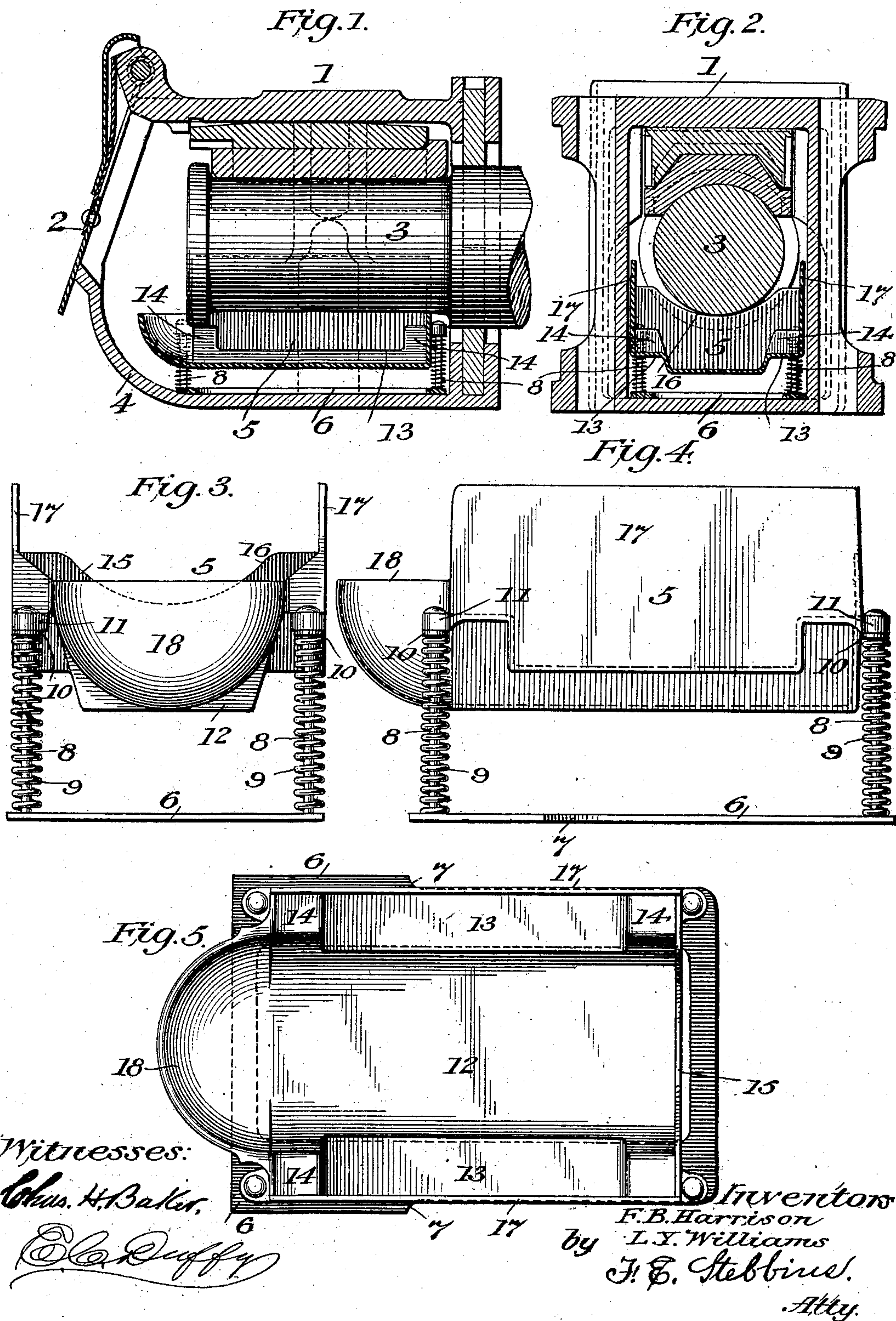
No. 720,026.

PATENTED FEB. 10, 1903.

F. B. HARRISON & L. Y. WILLIAMS.
LUBRICATING DEVICE FOR CAR AXLE JOURNALS.

APPLICATION FILED APR. 18, 1902.

NO MODEL.



UNITED STATES PATENT OFFICE.

FRANK B. HARRISON AND LACEY Y. WILLIAMS, OF TOLEDO, OHIO.

LUBRICATING DEVICE FOR CAR-AXLE JOURNALS.

SPECIFICATION forming part of Letters Patent No. 720,026, dated February 10, 1903.

Application filed April 18, 1902. Serial No. 103,665. (No model.)

To all whom it may concern:

Be it known that we, FRANK B. HARRISON and LACEY Y. WILLIAMS, citizens of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have jointly invented new and useful Improvements in Lubricating Devices for Car-Axle Journals, of which the following is a specification.

The object of our invention is the production of an improved lubricating device for car journal-boxes which shall be economical in the use of lubricating material, efficient in operation, cheap in first cost, durable, which shall be so shaped when desired that it can be inserted and withdrawn through the opening in the end of the box only when the box is raised from the journal and the wedge and brass removed, again lowering the box to the journal, and which withal shall possess other and desirable features and characteristics of construction constituting a superior means for performing the requisite functions of a perfect lubricator.

Our invention consists in certain novelties of construction and combinations and arrangements of parts hereinafter set forth and claimed.

The accompanying drawings illustrate an example of the physical embodiment of the invention constructed according to the best mode we have so far devised for the practical application of the principle.

Figure 1 is a sectional view of a car journal-box, showing the lubricating device in its relative position to the journal when in use. Fig. 2 is a section of Fig. 1. Fig. 3 is an end view of the device as a whole removed from the box. Fig. 4 is a side view of Fig. 3. Fig. 5 is a top plan view of Fig. 3, also showing in full and dotted lines the shape of the base-piece.

Referring to the several figures, the numeral 1 designates a car journal-box of the well-known Master-Car-Builders' type; 2, the journal-box lid, which normally closes an opening at the end of the box; 3, a journal of a well-known form, having a collar at the end; 4, the curved interior surface at the end and lower portion of the box; 5, the pan, which is

a structure with closed sides, ends, and bottom, so as to retain lubricating material and made of any suitable material by casting or by striking up sheet metal or in any other way.

6 is the base-piece, approximately rectangular in shape and preferably in skeleton form for the purpose of securing light weight.

7 designates the edges of the base, having the metal cut away to the right-hand end, so as to narrow the base and allow it to pass the stiffening-ribs present on the inner surfaces of the sides of the box, as shown.

8 designates headed metallic posts secured in the corners of the base-piece; 9, springs upon the posts; 10, headed cylindrical washers at the upper ends of the springs and having their lower ends within the coils; 11, perforated lugs at the four corners of the pan and through which lugs pass the posts 8, said lugs being loose upon the posts and upon their lower surfaces engaging the ends of the cylindrical washers.

12 is the bottom of the pan.

13 designates offsets from the bottom, having interior surfaces in a plane above the bottom.

14 designates inwardly-projecting portions at the four corners of the pan, serving when the textile lubricant-absorbing material is in place to prevent the longitudinal movement of the same.

15 is the rear end wall of the pan; 16, the curved edge of the end wall, which engages the curved surface of the journal; 17, the raised sides of the pan, extending approximately to the center line of the journal and with their edges adjacent the surface of the journal and with it practically closing the top of the pan when the latter is within the box sufficiently to prevent the waste from working out at the sides, and 18 is the cup-shaped end of the pan, projecting beyond the end of the journal and into which the lubricating material may be poured from a can or other receptacle.

It will be observed that the pan receives and retains the entire oil or other lubricating material, which will be absorbed in part by textile material inserted between the bottom of the pan and the journal. The springs will

hold the textile material in frictional contact with the under surface of the journal at all times, and the drip from the journal will fall by gravity into the pan. The device will be held in its proper position relative to the journal, inasmuch as the sides of the base are in contact with the inner surfaces of the box or adjacent thereunto, and the curved surface at the end of the box prevents longitudinal movement of the device toward the front end of the box. As shown in Fig. 1, the pan and base are of such shape that they cannot be removed from or inserted through the opening in the end of the box without removing the wedge and brass from the journal. This feature of the device is of some importance, as it prevents the purloining of the same by unauthorized persons.

From the foregoing description, taken in connection with the drawings, it becomes obvious that we have produced a lubricating device which fulfils all the conditions set forth as the end and object of our invention. The saving in oil and cotton-waste by the use of our lubricator is especially noteworthy.

While we have specifically illustrated and described only one example of the physical embodiment of our invention, we do not thereby intend to limit the scope of the same to such details, inasmuch as in practical application changes may be introduced and substitutions of parts made without constituting substantial departures.

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

1. The combination with a closed journal-box and journal, of an oil-pan made in one piece, entirely closed at the bottom so as to retain oil, and having an open top to receive the journal; a loose base-piece; posts having their lower ends secured to the base-piece and engaging the corners of the pan at their upper ends; and springs on the posts bearing against the pan.

2. The combination with a closed journal-box and journal, of an oil-pan made in one piece, entirely closed at the bottom so as to retain oil, and having an open top to receive the journal; a loose base-piece of substantially the width of the interior of the box; posts secured to the base-piece at their lower ends and loosely engaging lugs on the corners of the pan at their upper ends; and springs upon the posts.

3. The combination with a closed journal-box and journal, of an oil-pan made in one piece, entirely closed at the bottom so as to retain oil, and open at the top the entire width of the pan to receive the journal; spring mechanism located at the four corners of the pan for forcing the pan against the journal; and means for holding the pan against longitudinal and sidewise movements, the interior of said pan being unobstructed and adapted to receive waste.

4. The combination with a closed journal-box and journal, of an oil-pan made in one piece, entirely closed at the bottom so as to contain oil and having an open top to receive the journal; spring mechanism for forcing the pan against the journal; and means for holding the pan against longitudinal and sidewise movements; said pan having offsets 13 at the sides in a plane above the bottom of the pan.

5. The combination with a closed journal-box and journal, of an oil-pan made in one piece, entirely closed at the bottom so as to retain oil and having an open top to receive the journal; spring mechanism for forcing the pan against the journal; and means for holding the pan against longitudinal and sidewise movements; said pan being provided with inwardly-projecting portions 14 at the corners to prevent the displacement of the waste or packing.

6. The combination with a closed journal-box and journal, of an oil-pan made in one piece, entirely closed at the bottom so as to retain oil and having an open top to receive the journal; spring mechanism located at the four corners of the pan for forcing the pan against the journal; and means for holding the pan against longitudinal and sidewise movements; said pan having raised sides 17 extending upwardly to the central line of the journal for the purpose of preventing the displacement of the waste or packing.

7. The combination with a closed journal-box and journal, of an oil-pan made in one piece, entirely closed at the bottom so as to retain oil and having an open top to receive the journal; spring mechanism located at the four corners of the pan for forcing the pan against the journal; and means for holding the pan against longitudinal and sidewise movements; said pan having an open cup-shaped end projecting beyond the end of the journal when in place and being unobstructed on the interior so as to be adapted to hold waste.

8. The combination with a journal-box and journal of an oil-pan closed at the bottom and open at the top; a base-piece with posts; and springs; said base-piece being cut away at 7, 7, so as to allow the end to pass the perpendicular stiffening-ribs on the inner surface of the box.

9. The combination with a journal-box having an opening at the end above the bottom of the box closed by a lid 2; a journal; and a lubricating device comprising a pan made in a single piece and entirely closed at the bottom and located below the journal, said lubricating device being of larger dimensions than the opening between the end of the journal and the opening in the end of the box; whereby the lubricating device can be withdrawn from the box only after the box has been raised, the wedge withdrawn and the box lowered.

10. The combination with a closed journal-
box and journal, of an oil-pan closed at the
bottom and open at the top to receive the
journal; a base-piece; posts secured to the
5 corners of the base-piece; and springs on the
posts; said pan having perforated lugs 11
through which pass the upper ends of the
posts.

In testimony whereof we affix our signa-
tures in presence of two witnesses.

FRANK B. HARRISON.
LACEY Y. WILLIAMS.

Witnesses:

F. C. HARRISON,
BLANCHE BARROR.