No. 652,566. Patented June 26, 1900.

J. D. MURRAY.

JOURNAL BOX AND LID.

(Application filed Jan. 25, 1900.)

(No Model.)

Fig. 1

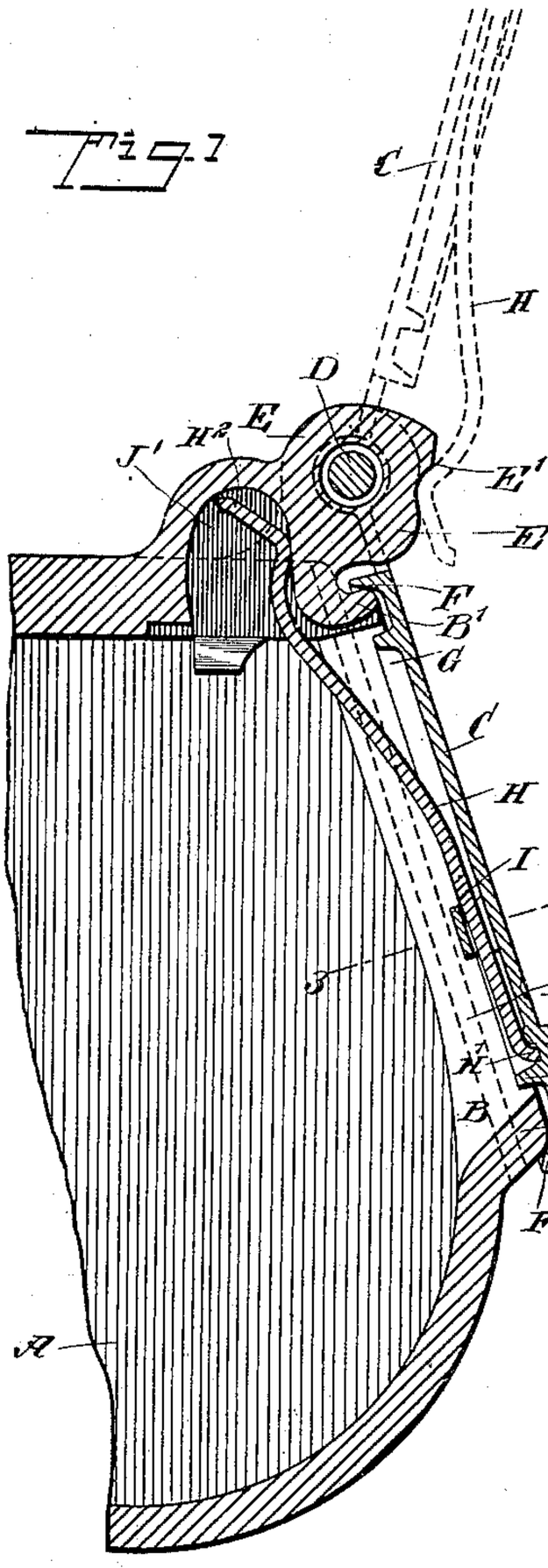
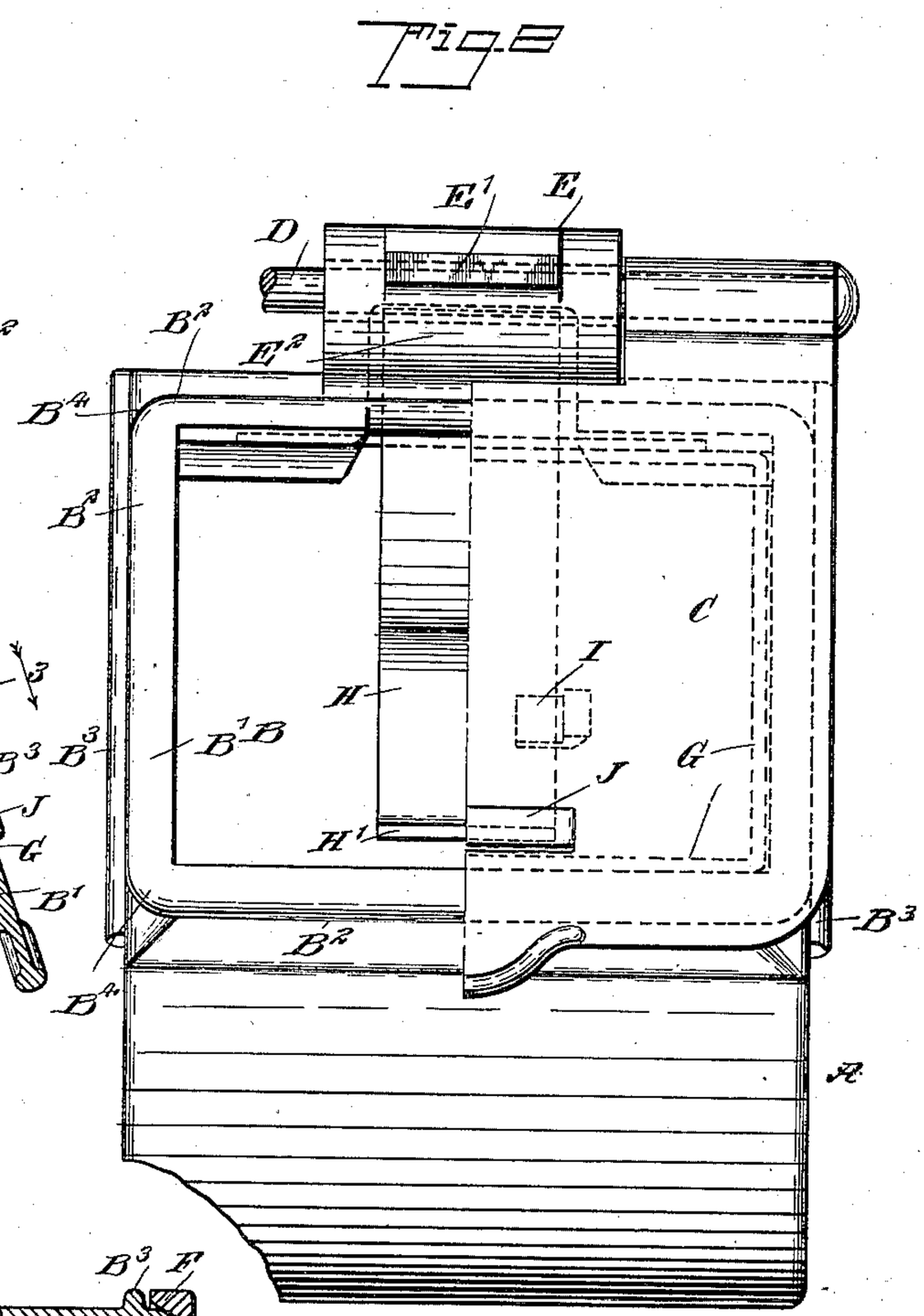


Fig. 2



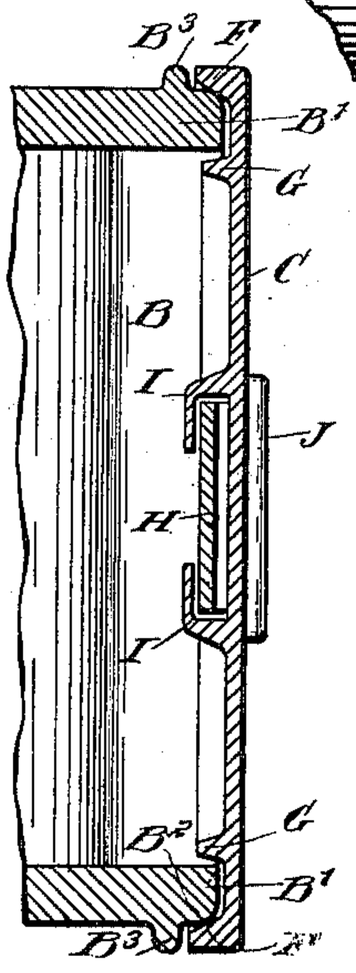


Fig. 3

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JOURNAL-BOX AND LID.

SPECIFICATION forming part of Letters Patent No. 652,566, dated June 26, 1900.

Application filed January 25, 1900. Serial No. 2,770. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. MURRAY, a citizen of the United States, and a resident of Albany, in the county of Albany and State of New York, have invented a new and Improved Journal-Box and Lid for Railway Equipment, of which the following is full, clear, and exact description.

The object of the invention is to provide a new and improved journal-box and lid for railway equipment and arranged to render the journal-box completely dust-proof, to prevent the lubricant from working out at the joint of the lid with the box, and to allow of conveniently opening the lid for proper inspection of the interior of the box.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a transverse section of the improvement. Fig. 2 is a front elevation of the same with parts broken out, and Fig. 3 is a sectional plan view of the same on the line 3 3 in Fig. 1.

The journal-box A is provided with an opening B, normally closed by a lid C, mounted to swing on a pin D, carried by a lug E, integral with the top of the journal-box. The projecting walls B′ of the opening B at the front of the box form a continuous rim which has its outside corners rounded off, as at B^4, and the outside edges rounded off, as at B^2, the said outside edges being adapted to be engaged by a continuous flange F, formed on the inside of the lid C, the inside of the flange being tapered or beveled, the tapered sides of the flange resting on the rounded edges B^2 of the box.

The bearing or contact between the box and the lid forms a line contact which practically renders the box dust-proof at the joint of the flange F with the wall B′. On a new box this bearing or line contact rapidly wears into a perfect joint, and thereby renders the same absolutely dust-proof. A second continuous flange G is formed on the inside of the lid C and projects into the opening B to form a deflecting-flange for the lubricant liable to be thrown outward from the box against the lid, the said flange then serving to turn the lubricant back into the box.

The lid C is firmly held to its seat on the wall B′ by a plate-spring H, fastened to the lid C, at the inside thereof, by extending between its ends in lugs I, integral with the inside of the lid C. The lower outwardly-curved flange H′ of the spring H fits into a recess J, likewise formed on the inside of the lid C, adjacent to the lower part of the flange G, as is plainly indicated in Fig. 1. The upper or free end H^2 of the spring H is curved inward—that is, in an opposite direction to the curved end H′—and the said free end of the spring normally rests against the front wall of the recess J′, formed in the top of the box A at the rear of the lug E, as will be readily understood by reference to Fig. 1.

The front of the lug E is formed with a recess E′, so that when the lid C is swung into an open position, as indicated in dotted lines in Fig. 1, then the curved portion of the free end of the spring rests in the said recess E′ and temporarily holds the lid C in an open position—that is, in nearly a vertical position—to allow of convenient inspection of the interior of the box or refilling of the latter with lubricant, as the case may be. By arranging the lid C as described it may be swung past the nearly-vertical position, in which it is held by the spring, and then laid back on the top of the box, if desired.

The end H^2 of the spring H is curved inward in the manner described, so as to readily pass inward and outward under the upper portion of the wall B′ when the lid C is closed or swung into an open position. In order to prevent the free end of the spring from catching on the upper portion of the wall B′ when the lid is closed, the lug E has its front end formed with a rounded projection E^2 between the recess E′ and the upper portion of the wall B′, as is plainly shown in Figs. 1 and 2, so that when the lid is closed the said rounded-off portion E^2 presses the free end of the spring down to allow the spring to readily pass under the upper portion of the wall B′. It is understood that when the lid is in a closed position the spring H draws the lid C

uniformly in an inward direction and holds the flange F firmly in contact against the rounded-off edges B^2 of the wall B′ to render the joint between the lid and the wall B′, all around completely dust-proof to prevent dust from passing to the inside of the box, the lid also preventing escape of lubricant from the box.

On the sides of the wall B′ are formed deflecting-flanges B^3 for preventing currents of air from passing to the inside of the lid adjacent to the sides of the flange F, thereby preventing the tendency to lift the lid by a strong current of air when the car is in motion.

As shown in Fig. 1, the pivot pin or pintle D fits loosely in the lug E to allow a ready adjustment of the lid C on its seat on the wall B′, it being expressly understood that the spring H firmly pulls the lid upon its seat on the wall B′, no matter how loosely the lid is pivoted on the pin D.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A journal-box having a recess in its top, a lid hinged to the box, and a plate-spring fastened to the inner face of the lid, the upper free end of the spring being curved inward to pass under the upper rim of the box-opening into the said recess, the said spring constantly pulling the lid uniformly against its seat when the lid is closed, to render the box dust-proof, substantially as shown and described.

2. A journal-box for railway equipment, having a rounded projection on the front side of the lug between a recess thereon and the upper wall of the opening, a lid hinged on the said lug, and a spring secured to the inner face of the lid and having its free end curved inward to pass over said rounded projection and to engage said recess, as set forth.

3. A journal-box having a lug on its top and a recess on the inside of the box at the rear of the lug, a lid hinged on said lug, and a spring having its lower end secured to the inner face of the lid and its upper free end curved inward and extending into said recess, when the lid is closed, the spring constantly pulling the lid when closed uniformly against its seat to render the box dust-proof, substantially as shown and described.

4. A journal-box having a lug on its top and a recess in the front of the lug, a lid hinged to the lug, and a spring having one end secured to the lid and provided at or near its free end with a curved portion adapted to rest in the said recess when the lid is in an open position, as and for the purpose set forth.

5. A journal-box provided on its top with a lug and a recess on the inside in rear of the lug, said lug having a recess in its front face, a lid hinged to the lug, and a spring having one end secured to the lid, the free end of the spring being adapted to enter the recess of the box when the lid is closed and to rest in the recess of the lug when the lid is opened, substantially as described.

6. A journal-box for railway equipment, provided with a lug having a rounded projection on its front, and with a recess in its top in rear of the lug, a lid hinged to said lug, and a spring carried by said lid and having its free end adapted to be pressed down by said projection and pass under the upper portion of the wall of the opening into the said recess of the box when the lid is closed, as set forth.

7. A journal-box having the wall of its opening projecting from the front of the box to form a rim, and provided with a recess in its top, a lid hinged to the box and having a continuous flange on its inner face for engagement with the said rim, and a spring having one end secured to the inner face of the lid, the free end of said spring projecting into the said recess when the lid is closed, substantially as described.

8. A journal-box having the wall of its opening formed with a projecting rim and provided with a lug at its top and with a recess on the inside of its top in rear of the lug, a lid hinged to the lug and having two continuous spaced flanges on its inner face, between which flanges the said rim projects when the lid is closed, and a plate-spring having one end secured to the inner face of the lid, the free end of the spring being adapted to enter the recess in the box when the lid is closed, substantially as described.

9. In a journal-box, the combination with a hinged lid provided with lugs on its inner face, and with a recess also in its inner face, of a spring extending between the said lugs and having its end curved outwardly and fitting in the said recess of the lid, substantially as described.

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

JOHN D. MURRAY.

Witnesses:
THEO. G. HOSTER,
EVERARD BOLTON MARSHALL.