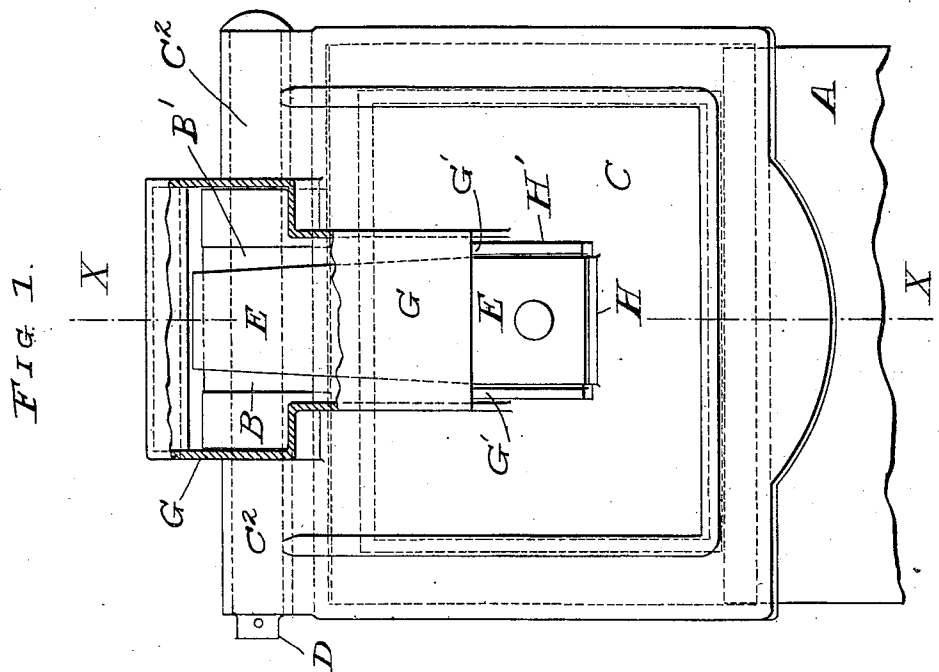
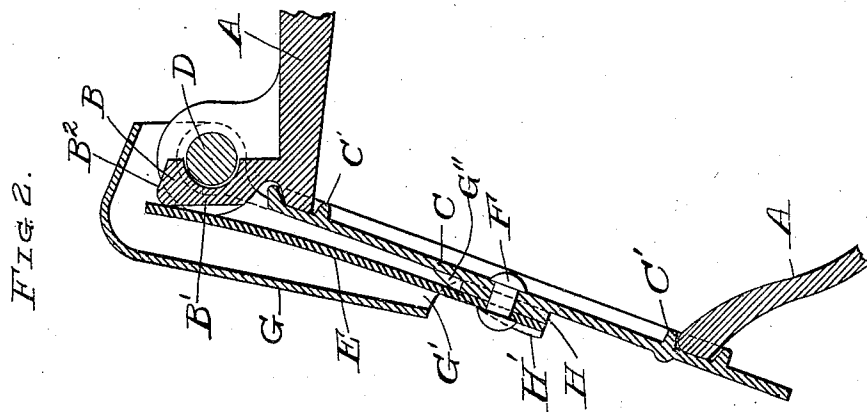


No. 855,947.

PATENTED JUNE 4, 1907.

C. G. HAWLEY.
JOURNAL BOX AND LID.
APPLICATION FILED OCT. 26, 1906.

2 SHEETS—SHEET 1.



Witnesses

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John P. Lefevre

Inventor

Charles G. Hawley

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2 SHEETS—SHEET 2.

FIG. 4.

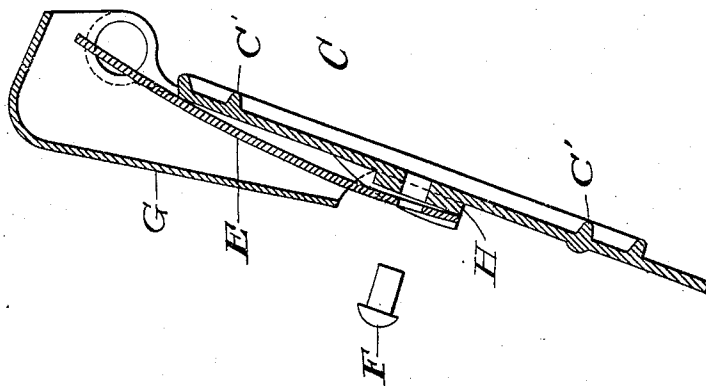
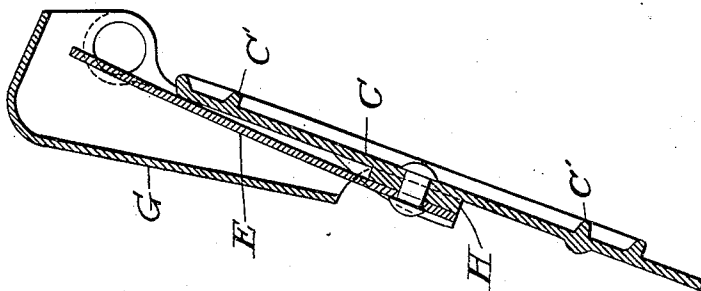


FIG. 3.



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JOURNAL-BOX AND LID.

No. 855,947.

Specification of Letters Patent.

Patented June 4, 1907.

Application filed October 26, 1906. Serial No. 340,684.

To all whom it may concern:

Be it known that I, CHARLES GILBERT HAWLEY, a citizen of the United States, and a resident of the city of Chicago, county of Cook, and State of Illinois, have invented a certain new, useful, and Improved Journal-Box and Lid, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in journal boxes for railway cars, and has special reference to improvements in spring pressed lids for such journal boxes.

The object of my invention is to provide a journal box with a flat imperforate lid, that shall be adapted to close the opening of the box and which shall be equipped with an external spring capable of firmly seating the lid upon the box and also adapted to hold the lid in raised or opened position.

My invention consists generally in a journal box, preferably of the Master Car Builders type, having the usual hinge lug and hinge pin at its top, in combination with a flat imperforate lid hinged upon said pin, a leaf spring having its lower end fixed upon the outer face of said lid and its upper end pressing against said hinge lug to hold the lid in closed and opened position; all as hereinafter described and particularly pointed out in the claims.

The invention will be more readily understood by reference to the accompanying drawings, forming a part of this specification and in which;

Figure 1 is an end elevation of a journal box and lid embodying my invention, the upper portion of the hood or spring protector being broken away to disclose the hinge lug on the box and the upper end of the spring; Fig. 2 is a sectional view on the line X—X of Fig. 1; Fig. 3 is a sectional view of the lid and its spring, as the same appear when separated from the box; and, Fig. 4 is a similar view showing the spring in position to be secured to the lid, disclosing the form of the spring before it is riveted thereto.

As shown in the drawings, A, represents a journal box having a hinge lug, B, on its top. This box is identical with the well known boxes denominated as of the Master Car Builders type and its lug, B, has the characteristic form, presenting flat surfaces, B¹ and B², upon its outer face and top.

C represents a flat imperforate plate or lid

preferably having flanges, C', on its inner side to fit the marginal portion of the box. The upper edge of the plate, C, is provided with two hinge lugs, C², and the hinge lugs B and C², are joined by the usual horizontal hinge pin, D. Thus the lid is adapted to be raised and lowered to open and close the journal box. The lid proper, *i. e.*, the plate portion, C, contains no openings, and it is obvious that it will effectually exclude dust from the journal box when closed. For holding the lid closed and also in opened position, I employ the peculiar spring, E. This is a leaf spring which either has a set inward curve as shown in Figs. 1 to 4, or which is initially straight, as in that form of the invention shown in Figs. 5 to 7.

Referring to Figs. 1 to 4 the initial curve or set of the spring is considerable. The spring reaches from substantially the middle of the lid to the top of the box lug, B, and presents its concave side to the outer face of the lid. At approximately the middle of the lid, I provide either a thick washer (not shown) or a raised portion, H, having spring holding ribs, H', at its edges. The spring contains a rivet hole; likewise the lid and the spring being placed on the part, H, is secured to the lid by the rivet, F. In its initial position, when first attached to the lid the lower end of the spring is fastened upon the projection, H, and its upper portion rests upon and presses against the upper edge of the plate or lid, C. In other words, when the spring is drawn down by the act of riveting it to the lid, the spring is placed under initial tension; it will then present the appearance shown in Fig. 3. It will be noted that in this position the upper end of the spring intersects the projected plane of the outer surface of the lid.

When the lid is placed upon the box, considerable force must be used to press its lugs into alinement with the lug on the box; and when the hinge pin has been inserted, it will be found that the spring, initially tensioned as explained, will exert great force against the lug, B, thereby, by reaction through the hinge, exerting a heavy pressure upon the lid to hold it in place against the box.

G, represents a hood or spring protector preferably formed integrally with the lid and having a large opening, G', at its lower end to prevent the lodgment of cinders or dust within the hood. For a like reason, the discharging of cinders, I prefer to incline the upper ends of the spring holding ribs, H', merg-

ing said ends with the face of the lid (see G''). The round washer (not shown) which I sometimes employ in place of the integral portion, H, possesses like advantages as to ready discharge of cinders from the hood.

As various modifications of my invention will readily suggest themselves to one skilled in the art, I do not confine my invention to the specific construction herein shown and described.

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

1. A journal box having a hinged lug on its top, in combination with a hinge pin in said lug, a flat imperforate lid hinged upon said pin, a slightly curved leaf spring presenting its concave side to said lid, a projection upon the outer face of said lid means permanently securing the lower end of the spring thereto, whereby the spring is placed and held under tension at all times substantially as described.

2. A journal box having a hinge lug, a hinge pin in said lug, in combination with a flat imperforate lid hinged on said pin and provided with a projection upon its outer face, and a curved leaf spring having its lower end pressed and riveted upon said projection and having its upper end engaged with the lug on the box, substantially as described.

3. A journal box lid comprising an imperforate plate having hinge lugs on its upper edge, in combination with a single leaf spring, a thickness of metal between the lower end of said spring and said lid, and a rivet securing the spring thereon and initially causing the spring to press against the upper edge of the lid, substantially as described.

4. A journal box lid comprising an imperforate plate, having hinge lugs on its upper

edge, in combination with a single leaf spring, a thickness of metal between the lower end of said spring and said lid, a rivet securing the spring thereon and causing the spring to press against the upper edge of the lid and a spring hood or protector covering the upper part of said spring and open at top and bottom, the lower end of the spring and said rivet being exposed below the end of the hood substantially as described.

5. A journal box lid comprising a flat imperforate plate having hinge lugs on its upper edge and provided with a projection, H, upon its outer surface, in combination with a curved spring presenting its concave side to the outer face of said lid and riveted upon said projection, substantially as described.

6. A journal box lid comprising a flat imperforate plate having hinge lugs on its upper edge and provided with projections, H and H', upon its outer surface, in combination with a curved spring presenting its concave side to the outer face of said lid and riveted upon said projection H, between said projections, H', substantially as described.

7. A journal box having a hinge lug on its top, in combination with a hinge pin in said lug, a flat imperforate lid hinged upon said pin, and a flat leaf spring having its lower end secured upon the outer face of said lid and its upper end engaged with the lug on said box, said spring being adapted to press on the edge of the lid when the latter is removed from the box, substantially as described.

In testimony whereof, I have hereunto set my hand, this 16th day of October, 1906, in the presence of two subscribing witnesses.

CHARLES GILBERT HAWLEY.

Witnesses:

F. G. KNIGHT,
ARTHUR L. SLEE.