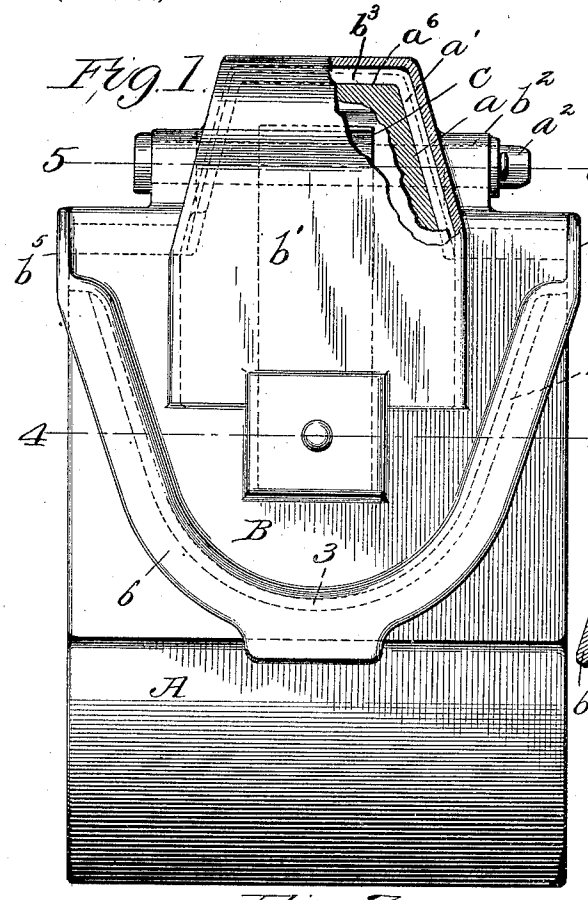
No. 690,975. Patented Jan. 14, 1902.

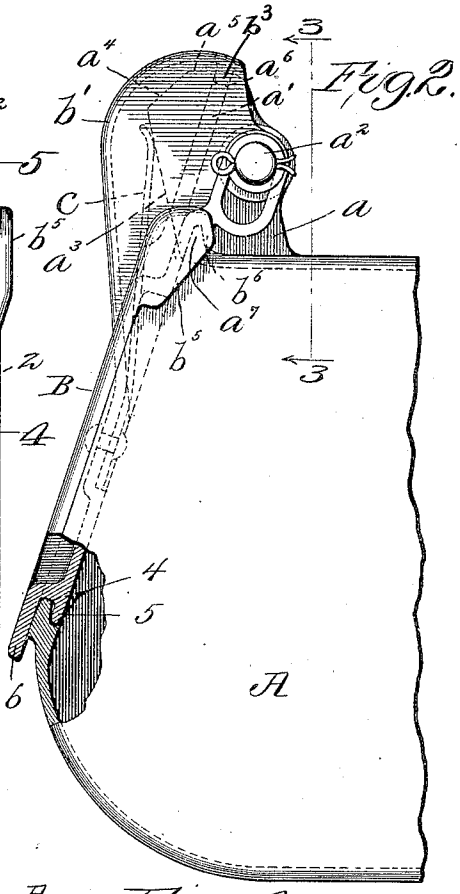
G. S. MARSHALL.

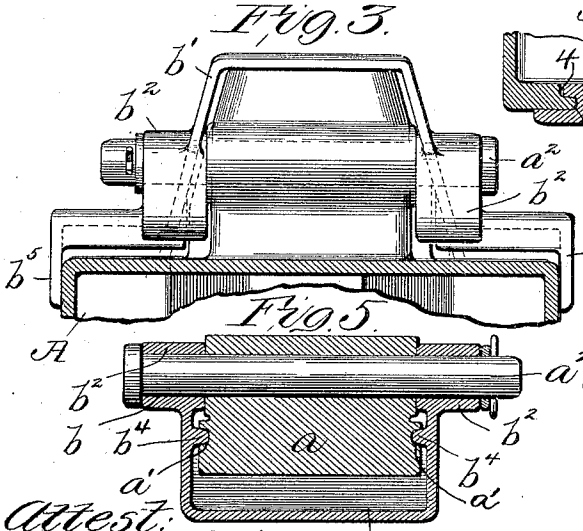
JOURNAL BOX.

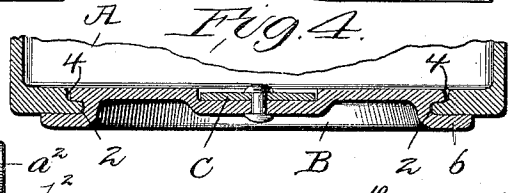
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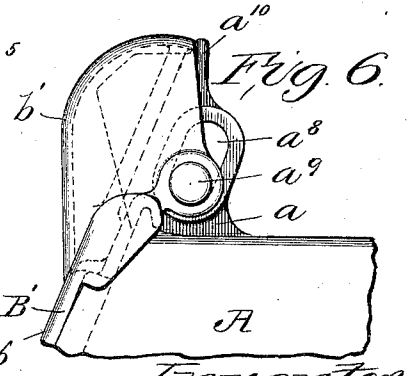
(No Model.)











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by Baker, Rue & Conway, Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE S. MARSHALL, OF ST. LOUIS, MISSOURI.

JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 690,975, dated January 14, 1902.

Application filed February 8, 1901. Serial No. 46,520. (No model.)

To all whom it may concern:

Be it known that I, GEORGE S. MARSHALL, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Journal-Boxes, 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, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevational view of my improved journal-box. Fig. 2 is a side elevational view of the same, partly in section. Fig. 3 is a vertical sectional view on line 3 3 of Fig. 2. Fig. 4 is a horizontal sectional view on line 4 4 of Fig. 1. Fig. 5 is a horizontal sectional view on line 5 5 of Fig. 1; and Fig. 6 is a side elevational view of a portion of my improved journal-box and its lid, illustrating a slightly-modified form of construction.

This invention relates to a new and useful improvement in journal-boxes, such as are usually employed on car-trucks, the object being to provide a journal-box which when its lid is closed will tightly seal the opening in the journal-box, said lid being held in its closed or sealed position against accidental displacement.

With this object in view the invention consists in the construction, arrangement, and combination of the several parts, all as will hereinafter be described and afterward pointed out in the claims.

In the drawings, A indicates a portion of my improved journal-box, which is provided with the usual opening in its front wall, said box also having an upwardly and outwardly extending hinge-lug *a* on its upper face, which hinge-lug is formed tapering or has two of its side faces formed inclined and converging toward its upper end, as shown in Fig. 1, said inclined faces being each provided with a groove *a'*, lying in the plane of the front wall of the box, as shown in Fig. 2, the purpose of which inclined faces of the lug *a* and their groove *a'* will hereinafter be described.

a^2 indicates a pintle arranged on and extending laterally through the lug *a* for coöperating with an elongated slot *b*, formed in the lid B of the box. This lug *a* is also provided upon its front and upper sides with inclined faces a^3, a^4, and a^5, the same being arranged for coöperation with a leaf-spring C, secured to the lid, whose function is to hold the lid tightly closed when in that position and to hold the same open when in an open position, as is well understood. The opening formed in the front wall of the box is bounded by a horizontal upper edge, the side edges 2 extending downwardly therefrom in converging lines, merging into a curved lower edge 3 in the form of an arc of a circle, as is illustrated by dotted lines in Fig. 1. The inner face of the front wall of the box adjacent the edges 2 and the circular edge 3 is preferably cut away, leaving a recess or seat 4, the same being formed to receive an inner marginal flange 5, formed on the tapering side and curved lower edges of the lid B when the latter is in its home position. This lid B of the box is also provided with a second or outer marginal flange 6, which is designed when the lid is closed to rest against and overlap the outer face of the front wall of the box, as is clearly shown in Fig. 4 of the drawings.

b' indicates a housing for the spring C and the lug *a*, the same being formed integral with the lid B and having inclined side faces which conform to the inclined side faces of lug *a*. Extending laterally from the inclined side faces of said hood are elongated bosses b^2, in which the elongated slots *b* are formed.

a^6 indicates a groove formed in the upper face a^5 of lug *a*, the same being preferably so arranged as to register with the grooves *a'*, and into which grooves a^6 and *a'* are received, when the lid is in its home position, ribs or projections b^3 and b^4, respectively, formed on the inner face of the housing *b'* of the lid. In order to further render the box dust-proof, I have arranged on the upper outer corners of the lid B overhanging portions or hooded extensions b^5, which rest against the side of the box, and upon the upper edge of said box I have arranged a rib or flange a^7 on each side of the lug *a*, over which a downturned flange b^6 on the lid B extends. When the lid of the box is in its home or closed position, as is illustrated in the drawings, it will be observed that the flanges 5 and 6 fit snugly in the recess 4 and against the outer face of the

front wall, respectively, of the box, that the ribs or projections b^3 and b^4 are seated in their respective recesses or grooves a^6 and a', and that the elongated slot b has the pintle in its upper end. By this arrangement of the parts accidental opening of the lid of the box is prevented and dust, cinders, &c., are prevented from entering the inside of the journal-box. When it is desired to open the lid of the box, all that is necessary to do is to slide the lid upwardly until the flanges 5, b^3, and b^4 rise out of the seat 4, recesses a^6, and recess a', respectively, which they are permitted to do through the instrumentality of the elongated slot b. The lid being now raised as far as the elongated slot will permit it, the upper end of spring C will have passed the meeting-point of the faces a^3 and a^4, causing said spring to exert a pressure to open the lid, whereupon said spring will rest upon the face a^4 and hold said lid in a partially-open position. When it is desired to wholly raise the lid, the same is raised until the spring C rests upon the flat face a^5, as is obvious.

While I have shown and described the ribs or projections b^3 and b^4 on the housing of the lid and the grooves a^6 and a', which receive them, formed in the lug a, it is obvious that the grooves might as well be formed in the housing of the lid and the projections formed on the lug a.

In Fig. 6 I have shown a construction wherein an elongated slot a^8 is formed in the lug a, and the pintle a^9 secured to the lid B', which construction accomplishes the same result as that obtained by the construction illustrated in Figs. 1, 2, and 3 of the drawings so far as the movement of the lid relative to the box is concerned. In this construction shown in Fig. 6 I have preferred to omit the projection b^3 on the lid and its coöperating groove a^6 in the lug a and have provided upon the lug a an upwardly-extending projection a^{10}, against which the upper inner edge of the housing rests when in its home position for preventing the ingress of dust, &c.

I am aware that minor changes in the arrangement, construction, and combination of the several parts of my device can be made and substituted for those herein shown and described without in the least departing from the nature and principle of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a journal-box having a tapered hinge-lug whose side faces are inclined, of a lid having a tapered housing for coöperating with said hinge-lug; substantially as described.

2. The combination with a journal-box having a tapered hinge-lug provided with grooves in its side faces, of a lid having a housing provided with converging ribs coöperating with the grooves in the hinge-lug; substantially as described.

3. The combination with a journal-box having a hinge-lug provided with a groove in its upper face, of a lid having a housing formed with a rib on the under side of its top wall for coöperating with the groove in the hinge-lug; substantially as described.

4. The combination with a journal-box having a tapered hinge-lug provided with grooves in its side faces and a groove in its upper face, registering with the side grooves, of a lid having a housing, and ribs on the under faces of the walls of said housing for coöperating with the grooves in the hinge-lug; substantially as described.

5. The combination with a journal-box having an opening in its front wall, the side and bottom edges of said opening being recessed, and a lid having laterally-extending flanges 5 and 6 for coöperating with the recessed edges of the opening; substantially as described.

6. The combination with a journal-box having a hinge-lug formed with flat faces, said journal-box having an opening in its front wall, the side and bottom edges of said opening being recessed, of a lid formed with a housing coöperating with the hinge-lug, a pintle coöperating with a slot in said lid, whereby said lid is pivotally mounted on the hinge-lug and is likewise movable in a direction at right angles to the axis of the pintle, said lid having flanges 5 and 6 for coöperating with the side and bottom edges of the opening in the front wall of the box, and a spring carried by the lid for coöperating with the flat faces on the hinge-lug; substantially as described.

7. The combination with a journal-box having a tapered hinge-lug whose side faces are provided with grooves, the front wall of said box having an opening whose edges are recessed, of a tapering lid having flanges for coöperating with the edges of the opening in the front wall of the box, said lid also having a tapered housing provided with ribs coöperating with the grooves in the converging faces of the hinge-lug, and having elongated slots in its side wall, a pintle arranged in the hinge-lug and passing through the slots in the side walls of the housing on the lid, and a spring secured to the lid for coöperating with the hinge-lug; substantially as described.

8. The combination with a journal-box having a flange a^7 and a hinge-lug, of a lid pivoted to the hinge-lug, said lid being capable of moving bodily in a vertical direction with respect to said hinge-lug, and having a recess for receiving the flange a^7, which flange a^7, when in the recess, locks the lid in position, substantially as described.

9. The combination with a journal-box having a hinge-lug and flanges a^7 at the forward edge of its top wall on each side of said hinge-lug, of a lid having a slot-and-pin connection with the hinge-lug, and also having a housing for receiving the hinge-lug, and hooded extensions on each side of the housing for co-

operating with the flanges a^7; substantially as described.

10. The combination with a journal-box having a grooved hinge-lug and flanges a^7 arranged on each side of said hinge-lug, the side and bottom edges of the opening in the front wall of the box being recessed and formed with a seat 4, of a lid having a ribbed housing for coöperating with the grooved hinge-lug, a seat for a spring, and marginal flanges 5 and 6 for coöperating with the seat 4, substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 28th day of January, 1901.

GEORGE S. MARSHALL.

Witnesses:
WM. H. SCOTT,
GEORGE BAKEWELL.