

No. 649,535.

Patented May 15, 1900.

P. BROWN.
JOURNAL BOX,

(Application filed Nov. 29, 1899.)

(No Model.)

2 Sheets—Sheet 1.

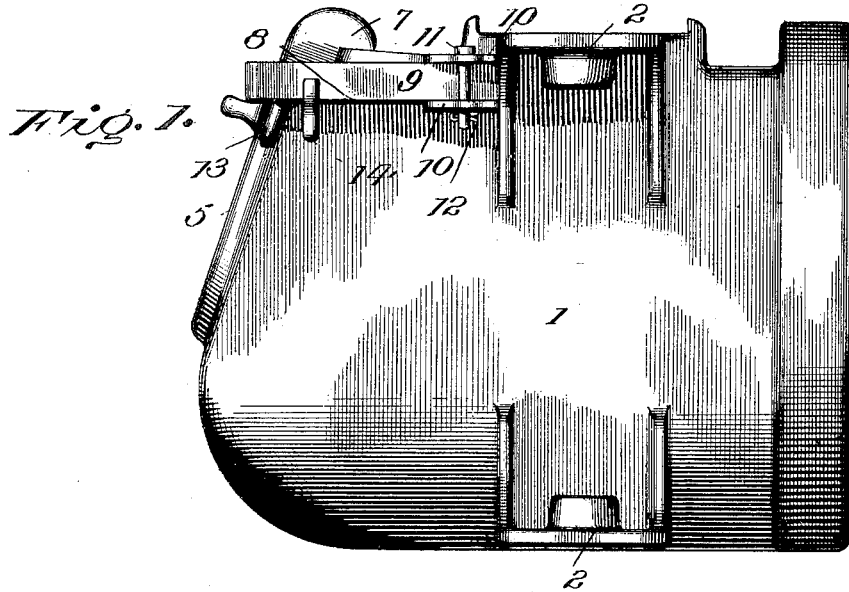
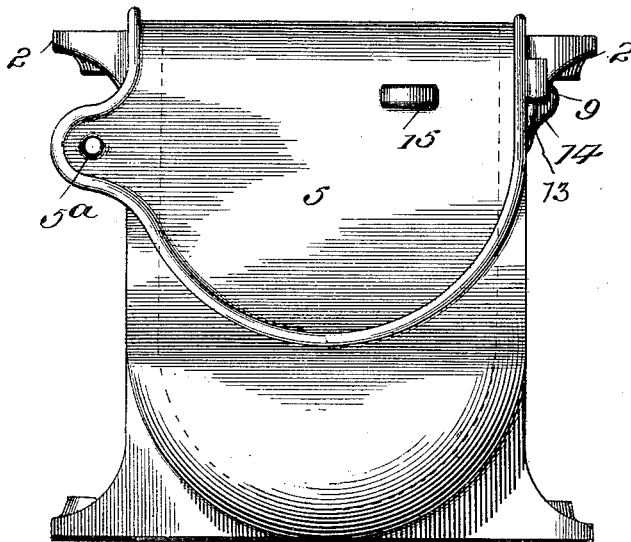


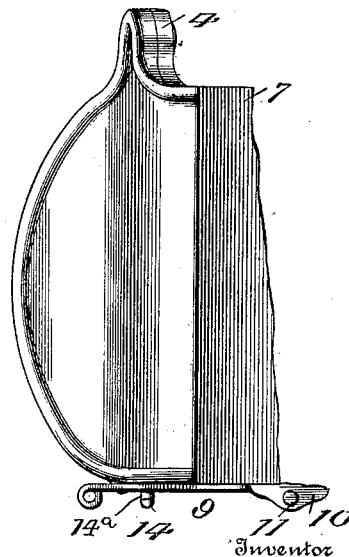
Fig. 2.



Witnesses

*Mr. Merrill
Stewart Rice.*

Fig. 3.



Perry Brown,

By Thos. E. Robertson

Attorney

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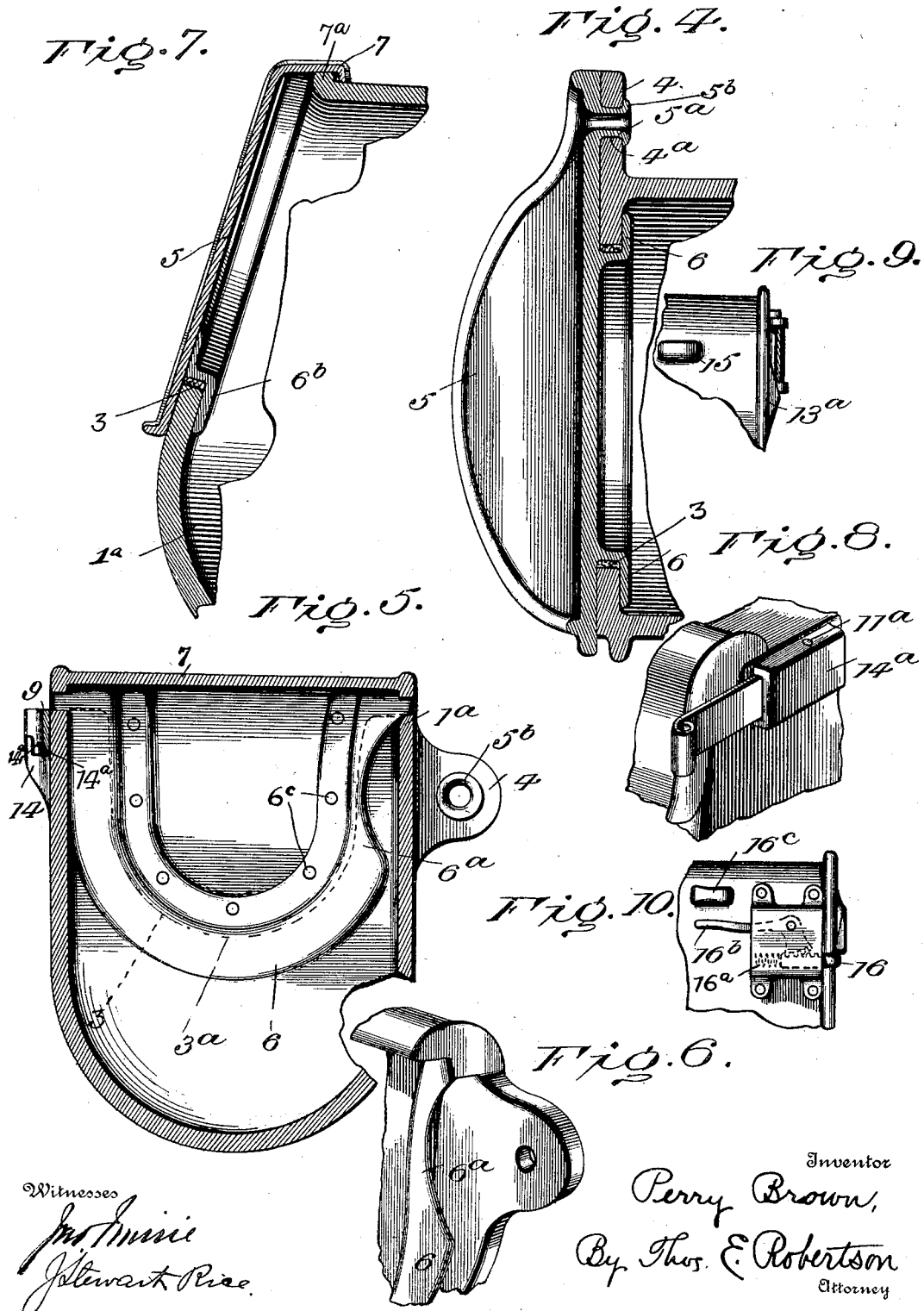
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2 Sheets—Sheet 2.



Witnesses
John H. Hines
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Inventor
Perry Brown,
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UNITED STATES PATENT OFFICE.

PERRY BROWN, OF WILMINGTON, DELAWARE.

JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 649,535, dated May 15, 1900.

Application filed November 29, 1899. Serial No. 733,683. (No model.)

To all whom it may concern:

Be it known that I, PERRY BROWN, a citizen of the United States, residing at Wilmington, in the county of New Castle and State of Delaware, have invented a certain new and useful Improvement in Journal-Boxes, of which the following is a specification, reference being had to the accompanying drawings.

This improvement is designed to provide a journal-box of the character shown in my application, Serial No. 701,494, filed on January 7, 1899; and my aim is to form a journal-box with the interior of its bottom substantially the shape of the lower half of the journal, so that no superfluous lubricant is needed to fill up waste spaces and no sharp corners are formed to interfere with the proper filling of the box with the lubricant.

Another object of my improvement is to provide a lid or cover arranged to be swung into position and which can be arranged to hold itself in its open position when desired.

Having in view the attainment of these ends and the improvement of the box generally, my invention consists in the peculiar construction, arrangement, and combinations of parts hereinafter described and then definitely claimed.

In the accompanying drawings, Figure 1 is a side elevation of a journal-box made according to one of the forms of my invention, showing my swinging door and its fastening means. Fig. 2 is a front elevation of the same. Fig. 3 is a top plan. Fig. 4 is a horizontal section through the hinge of the door. Fig. 5 is a section looking at the door from the interior. Fig. 6 is a detail showing the portion of the door nearest the pivot. Fig. 7 shows a modified form of door; and Figs. 8, 9, and 10 show modified forms of fastening devices.

Referring now to the details of the drawings by numerals, 1 represents the box proper, which is cast with the usual ribbed and perforated bosses 2 2 for securing it in place. The interior of the bottom of this box is made rounded or semicircular in cross-section, as clearly shown in Fig. 5, and the interior of the front end is also rounded or curved, as shown at 1^a in Fig. 7, thus doing away with all superfluous and waste room and leaving the inside of the bottom of the box of a shape more nearly resembling the journal and mak-

ing it without the usual sharp corners or projections to retard or hinder the placing of lubricant in the box.

In the front of the box is the usual feed-opening 3, which is preferably rounded at its lower edge, as shown by dotted lines at 3^a.

Projecting from one side of the box, preferably the left-hand side, is an ear 4, perforated at 4^a, and pivoted to this ear and closing the feed-opening 3 is a "lid" or door 5, the bottom of which is preferably made curved to conform with the curve of the feed-opening 3. This lid or door 5 may be riveted or bolted to the ear 4; but I prefer to form it with a hollow tube 5^a cast thereon, (see Fig. 4,) and this tube after being passed through the perforations in the ear 4 is turned over or riveted, as shown at 5^b.

The box around the feed-opening is preferably flat, as shown in Figs. 1, 4, and 7, and of course the lid or door 5 is flat to correspond; but on the inside of the door is cast an inwardly-projecting flange 6, forming a groove all around the sides and lower circular part of the door and which is constructed to fit over on each side of the flanged metal forming the feed-opening, as very clearly seen in Fig. 4. This flange is slightly cut away, as shown at 6^a in Fig. 6, to allow it to clear the upper edge 1^a of the box. (See Fig. 5.) Between the groove formed in the flange packing may be placed, as indicated in the drawings. This door 5 is provided with an overhanging flanged edge, forming a hood 7, which as the door is swung into and closes the feed-opening rests on the top of the box, the latter being provided with a rib 7^a, which coacts with the hood 7 on the door 5, as clearly shown in Fig. 7, and thus effectually closes the top of the box.

If preferred, the lid or door 5 may be made of sheet metal, as shown in Figs. 5 and 7, in which case the inwardly-projecting flange 6^b is also made of sheet metal and riveted to the door, as shown at 6^c in the former figure.

On the side of the box opposite the pivot of the lid or door is the latch or fastening device, which in the form shown in Figs. 1 to 5 consists of a spring-catch 9, passing between two lugs 10 10, cast on the box, and secured therein by a bolt or pin 11 passing through perforations in said lugs, there be-

ing a cotter 12 to hold the pin in place. The free end of the spring-catch 9 passes forwardly beyond the lid and has its end curled and engages with an inclined catch 13, cast on the door. A stop 14 (see particularly Figs. 3 and 5) is provided, which allows limited movement of the spring in the recess 14^a, but which is designed to prevent too much lateral movement of the spring-catch. Various modifications of this catch may be made. For instance, in Fig. 8 the stop 14 is dispensed with and a pocket 14^d is cast on the box, in which the spring-catch is secured by the pin 11^a passing through said pocket and against the side of the spring similar to the pin 11 in Fig. 1. In Fig. 9 a catch 13^a is provided with oppositely-inclined faces, which are arranged when the lid is shut to have the spring-catch act on the upper face, thus holding the lid or door closed unless sufficient lifting force is exerted on the handle 15 to force the spring away when lifting the door. Of course the lower inclined face is merely for the purpose of forcing the spring-catch aside when closing the door. In Fig. 10 the fastening consists of a toothed bolt 16, held in operative position by a spring 16^a, a pivoted hand-lever 16^b being provided to withdraw the bolt by means of the teeth on the lever engaging the teeth on the bolt. A stop 16^c is cast on the door, so that when it is desired to open the door it is only necessary to lift the end of the lever 16^b, which in rising withdraws the bolt, and when the lever reaches the stop 16^c it acts thereon, and thus swings the door open.

From the above and the drawings accompanying this application it will be seen that I have produced a box in which a swinging door is provided, and the latter is formed with a groove around its sides and lower edge, which in the act of closing provides a pocket to inclose the flanges of the box and effectually closes the joint between the door and box proper.

In my aforesaid application, Serial No. 701,494, I have described and claimed a door having a groove in which the flanges of the box are inclosed, the walls of which groove tightly embrace both sides of the guides and whose lower edge enters the lubricant-receptacle, and hence do not cover such broadly in this application. In the following claims, however, such a structure is claimed in combination with a swinging door, which combination I believe is novel.

What I claim as new is—

1. A journal-box having its bottom under the journal or axle substantially semicircular in cross-section and the interior of the front and of the box under the feed-opening rounded off; whereby no sharp corners are presented on the interior to catch or interfere with the lubricant; substantially as described.

2. A journal-box having a feed-opening

formed by the metal of its front side; in combination with a door or lid pivoted to the said box and arranged to be swung around and close the said feed-opening; the said door or lid having a flange forming a deep groove around its sides and bottom, the walls of which groove tightly embrace both the sides and bottom of the metal forming the feed-opening; and the inner wall of which groove enters the lubricant-receptacle below the upper edge of the metal forming the lower portion of said feed-opening and thus effectually prevents the escape of the lubricant; substantially as described.

3. A journal-box provided with a rib on its top and having a feed-opening formed by the metal of its front side; in combination with a door or lid pivoted to the said box and arranged to be swung around and close the said feed-opening, the said door or lid having a flange forming a deep groove around its sides and bottom, the walls of which groove tightly embrace both the sides and bottom of the metal forming the feed-opening, the inner wall of which groove enters the lubricant-receptacle and extends below the upper edge of the metal forming the lower portion of said feed-opening; and a hood formed on said swinging door and arranged to overlap the rib on the top of the box; substantially as described.

4. A journal-box provided with a rib on its top and having a feed-opening formed by the metal of its front side; in combination with a door or lid pivoted to the said box and arranged to be swung around and close the said feed-opening, the said door or lid having a flange forming a deep groove around its sides and bottom, the walls of which groove tightly embrace both the sides and bottom of the metal forming the feed-opening, the inner wall of which groove enters the lubricant-receptacle and extends below the upper edge of the metal forming the lower portion of said feed-opening; a hood formed on said swinging door and arranged to overlap the rib on the top of the box; and a catch arranged to lock the door shut; substantially as described.

5. In a journal-box, having a feed-opening, a door closing the same, a spring-catch, and a double-acting catch engaging said spring-catch and arranged to actuate the latter in opening and closing, substantially as described.

6. In a journal-box, having a feed-opening, a door closing the same, a spring-catch, and a catch having oppositely-inclined acting faces arranged to cooperate with said spring-catch, substantially as described.

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

PERRY BROWN.

Witnesses:

J. STEWART RICE,
THOS. E. ROBERTSON.

It is hereby certified that in Letters Patent No. 649,535, granted May 15, 1900, upon the application of Perry Brown, of Wilmington, Delaware, for an improvement in "Journal-Boxes," an error appears in the printed specification requiring correction, as follows: In line 61, page 2, the word "and" should read *end*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 22d day of May, A. D., 1900.

[SEAL.]

F. L. CAMPBELL,
Assistant Secretary of the Interior.

Countersigned:

C. H. DUELL,
Commissioner of Patents.