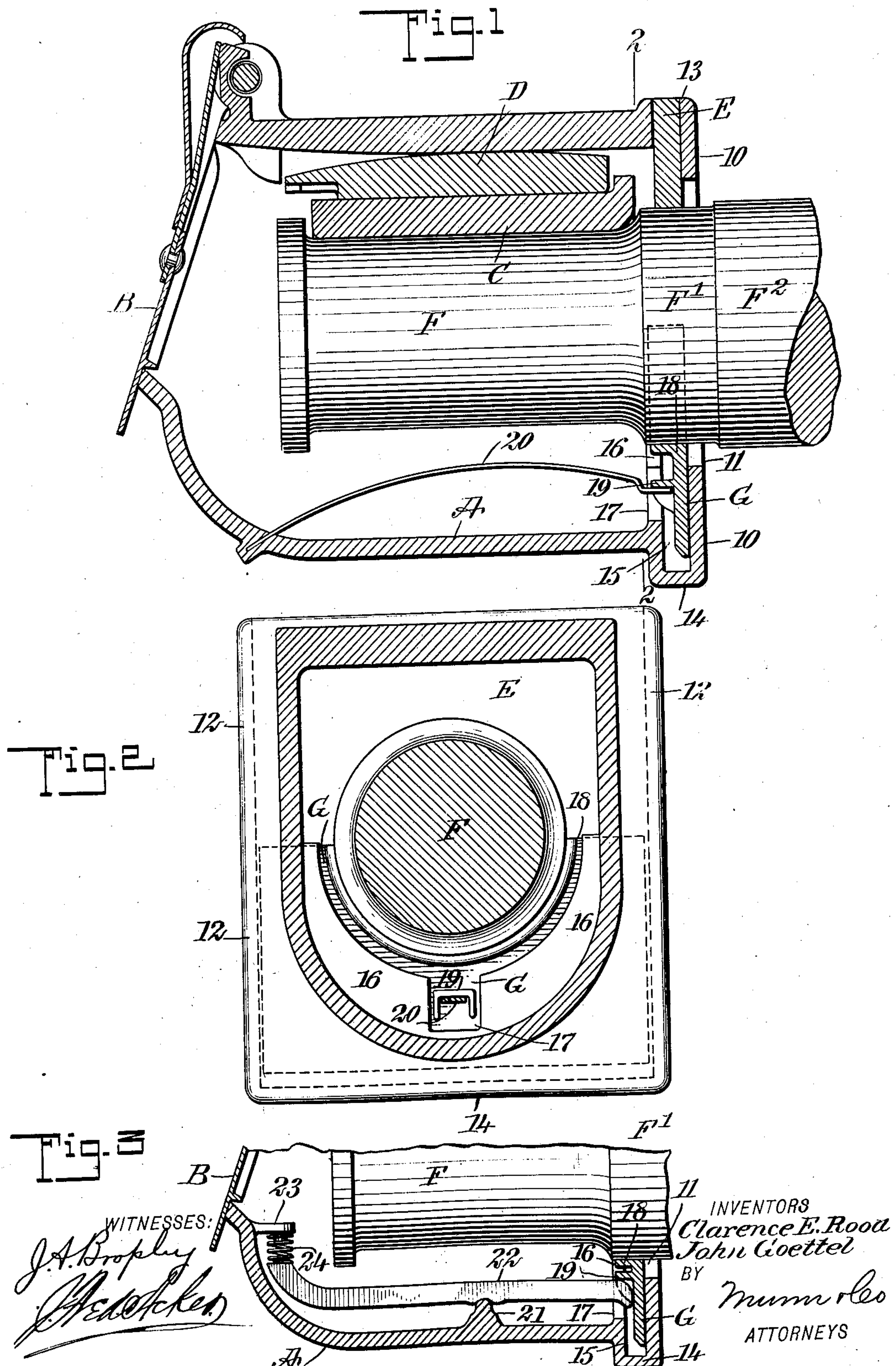


No. 841,051.

PATENTED JAN. 8, 1907.

C. E. ROOD & J. GOETTEL.  
OIL SAVING DEVICE FOR JOURNAL BOXES.

APPLICATION FILED FEB. 2, 1906.





# UNITED STATES PATENT OFFICE.

CLARENCE E. ROOD, OF NEW YORK, N. Y., AND JOHN GOETTEL, OF BOSTON, MASSACHUSETTS.

## OIL-SAVING DEVICE FOR JOURNAL-BOXES.

No. 841,051.

Specification of Letters Patent.

Patented Jan. 8, 1907.

Application filed February 2, 1906. Serial No. 299,152.

*To all whom it may concern:*

Be it known that we, CLARENCE E. ROOD, a resident of the city of New York, borough of Manhattan, in the county and State of New York, and JOHN GOETTEL, a resident of the city of Boston, in the county of Suffolk and State of Massachusetts, citizens of the United States, have invented a new and useful Oil-Saving Device for Journal-Boxes, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a construction of journal-boxes for the axles of railway or other vehicles which will effectively prevent the oil from spilling or leaking therefrom and to accomplish such construction without in the slightest degree interfering with the standard construction of such boxes.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal vertical section through the improved journal-box. Fig. 2 is a transverse section taken practically on the line 2 2 of Fig. 1; and Fig. 3 is a longitudinal vertical section through the lower portion of a journal-box, drawn upon a smaller scale and illustrating a slightly different means employed for holding the oil-gate of the box in position.

A represents the casing of a standard journal-box, and B the front cover or door therefor hinged to the casing in the usual manner.

C represents the segmental bearing located in such boxes; D, the wedge which is introduced between the upper wall of the casing and the said bearing C.

E represents the dust-guard, F represents the journal, and F' the spindle-sleeve of an axle F<sup>2</sup>.

The rear wall 10 of the casing A is provided with the customary opening 11, through which the spindle of the axle extends into the journal-box; but its rear wall 10 is made to extend out at its sides beyond the sides of the

body-casing and likewise is made to extend below the lower outer face of the body-casing A, as is best shown in Figs. 1 and 2. A space is provided between the upper portion of the said rear wall 10 and the rear end portion of the top of the body-casing, forming thereby an opening 13, through which the dust-guard E is introduced and carried to an engagement with the said spindle, as is shown in Fig. 1, and where the back plate 10 extends beyond the sides of the body-casing A such connection is made between these two parts as to form vertical side pockets 12, extending down from the aforesaid opening 13, so that the side edges of the dust-guard E enter said pockets, as is shown by dotted lines in Fig. 2. These side pockets 12 extend to the bottom portion of the back plate 10, and said back plate 10 is connected at its lower edge with the corresponding portion of the bottom of the body-casing A by means of a stirrup 14, forming thereby a bottom pocket 15, which is in communication with the aforesaid side pockets 12. A segmental partition 16 extends up from the lower wall of the body-casing A, where the pocket 15 is located, the upper concaved edge whereof, as is customary, being opposite the side and lower portions of the axle-spindle, and this partition 16 at its central portion is provided with a vertical opening 17, extending down through the upper edge of the said partition, as is best shown in Fig. 2. An oil-gate G is provided for the said journal-box, the lower portion of which oil-gate enters the lower pocket 15 at the rear of the box, and its side portions enter the side pockets 12. This oil-gate G is independent of the body-casing A of the box and its back plate 10 and is likewise independent of the partition 16, being located between the back plate 10 and the said partition 16, as shown in Fig. 1.

The upper edge of the oil-gate G is concave and is provided with a forwardly-extending flange 18 at such portion, so as to have somewhat of a wide bearing on the lower portion and the lower side portions of the axle-spindle sleeve F', as is shown in Figs. 1 and 2. When this oil-gate G is in position in the pockets 12 and 15, the lower edge of the gate is removed from the bottom of the lower



pocket 15 and the upper portion of the said gate G effectually closes the lower and lower side portions of the opening 11, through which the axle-spindle is passed into the said body-casing, and thus effectually prevents any oil from being lost through this opening 11, which loss is usual under the ordinary type of such journal-boxes, and these portions of the opening 11 will be as effectually guarded from a waste of oil while the oil-gate is in position as are the upper portions of said opening guarded while the dust-guard E is in position.

Different ways may be employed for holding the oil-gate G in its place. Under the construction shown in Figs. 1 and 2 a lip 19 is formed upon the inner or front face of the oil-gate G opposite the opening 17 in the said partition 16, and one end of a spring 20 has bearing against the under face of said lip, while the other end of the spring is secured in any approved manner to the front lower portion of the body-casing. Thus when it is desired to remove the wedge D the journal-box can be jacked up in the usual way, and the oil-gate will then be forced down to the lower portions of the pockets 12 and 15, placing the spring 20 under tension and enabling the wedge to be removed as readily as under the ordinary type of box.

In Fig. 3 the oil-gate G is shown held in position by means of the rear end of a lever 22 engaging with the under face of the lip 19 of said gate, which lever is fulcrumed on an offset 21 from the bottom portion of the body-casing A, and the forward end of this lever is given an upward inclination and is provided with an engaging spring 24, which likewise engages with a lug 23, extending upward from the forward lower portion of the said body-casing, the spring 24 serving to force the lever 22 to hold the oil-gate G in proper position for service. By the above-described spring-support for the gate the gate is not only held in engagement with the spindle-sleeve F', but it is forced rearwardly into engagement with the back plate 10, so that the oil is effectually prevented from escaping from the box.

We desire it to be understood that the back of the gate G and the opposing face of the back plate 10 can be corrugated to insure accuracy of movement of the gate and prevent oil working up even in small quantities and that a packing may be introduced between the two said parts.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A journal-box having communicating pockets formed at the bottom and at the sides of its rear portion adjacent to the rear opening in the box through which the axle passes, the bottom pocket extending below

the bottom of the box, a gate held to slide in said pockets, the upper face of said gate being concaved, and a resilient support extending approximately the length of the box and having one end engaging the plate and exerting normally upward and backward pressure on said plate.

2. A journal-box having side pockets and a bottom pocket adjacent to the rear wall of the box and to the axle-receiving opening in said wall, the bottom pocket extending below the bottom portion of said box and having an opening in its inner end, a plate mounted to slide in said pockets, having an enlarged and concaved upper face for engagement with an axle introduced into said box, said plate normally closing the lower portion of said opening while in engagement with the axle, and a spring-controlled means extending approximately the length of the box and engaging said plate and exerting upward and rearward pressure thereon, a space intervening the bottom of the plate and the bottom of the bottom pocket when said plate is in its upper position, for the purpose described.

3. A journal-box having side and bottom pockets at the sides of its rear portion adjacent to the rear opening therein through which the axle passes, the bottom pocket extending below the bottom portion of the box and having an opening in its inner wall, a plate mounted to slide in the said pockets and having its upper end enlarged and concaved, the plate being provided on its inner face with a lip, and a spring-controlled means mounted in the box and extending through the opening of the bottom pocket into engagement with the lip of the said plate.

4. In a journal-box, the combination with a box having pockets in the sides and bottom of its rear portion, a plate mounted to slide in the said pockets, and a spring-pressed lever mounted in the box and having one end engaging the said plate.

5. In a journal-box, the combination with a box having pockets in the sides and bottom of its rear portion adjacent to the opening therein through which the axle passes, of a plate mounted to slide in the pockets and provided with an inwardly-projecting lip, a lever fulcrumed in the box and having one end engaging the lip of the plate, and a spring between the end of the lever and a lug of the box.

6. In a journal-box, the combination with a box having pockets in the sides and bottom of its rear portion adjacent to the opening therein through which the axle passes, the box being provided with a lug at its forward end and with an offset in its bottom, the bottom pocket extending below the bottom of the box and having an opening in its inner wall, a plate mounted to slide in the pockets and provided with a lip on its inner



face, a lever fulcrumed on the offset of the box and having one end extending through the opening of the pocket into engagement with the lip of the plate, and a spring between the other end of the lever and the lug of the box.

In testimony whereof we have signed our

names to this specification in the presence of two subscribing witnesses.

CLARENCE E. ROOD.  
JOHN GOETTEL.

Witnesses:

J. FRED. ACKER,  
JNO. M. RITTER.