

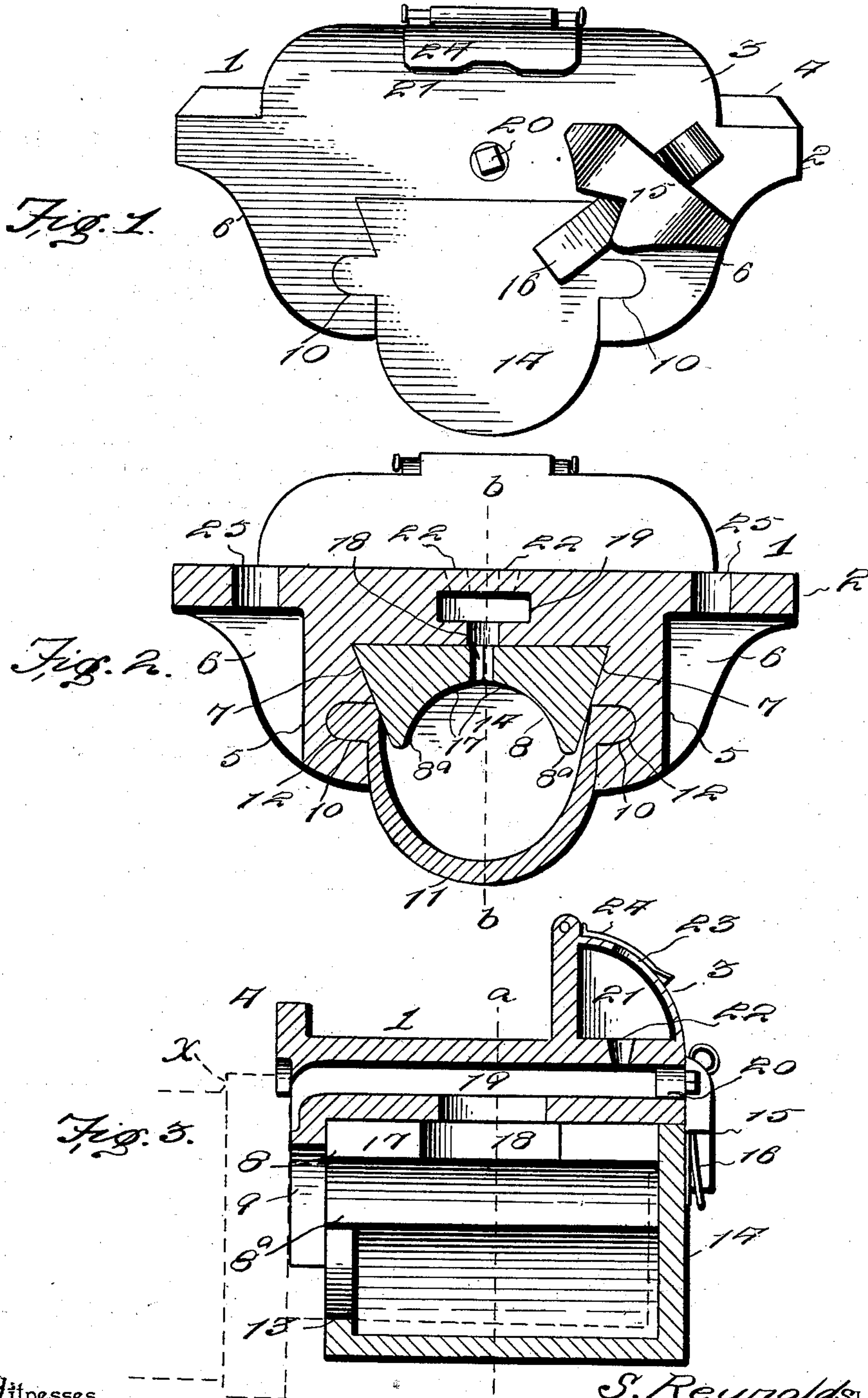
No. 717,452.

Patented Dec. 30, 1902.

S. & S. J. REYNOLDS.  
JOURNAL BOX.

(Application filed Jan. 15, 1902.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

SAMUEL REYNOLDS AND SAMUEL JOHN REYNOLDS, OF PLYMOUTH,  
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## JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 717,452, dated December 30, 1902.

Application filed January 15, 1902. Serial No. 89,900. (No model.)

*To all whom it may concern:*

Be it known that we, SAMUEL REYNOLDS and SAMUEL JOHN REYNOLDS, citizens of the United States, residing at Plymouth, in the county of Luzerne and State of Pennsylvania, have invented a new and useful Journal-Box, of which the following is a specification.

Our invention is an improved journal-box for car-axles, and is an improvement on the journal-box for which Letters Patent of the United States No. 677,374 were granted to us July 2, 1901; and our invention consists in the peculiar construction and combination of devices hereinafter fully set forth and claimed.

One object of our present improvements is to enable the journal-box to be made of less height and weight than formerly and to enable the same to be more easily constructed.

A further object is to effect improvements in the construction of the journal-box whereby lubricant is supplied to the face of the axle flange or shoulder, which bears against the rear side of the journal-box.

A further object of our invention is to effect improvements in the construction of the bearing-brasses whereby the oil-channels therein which conduct the lubricant to the axle-journal are prevented from becoming clogged.

In the accompanying drawings, Figure 1 is a front elevation of a journal-box embodying our improvements. Fig. 2 is a vertical sectional view of the same, taken on a plane indicated by the line *a a* in Fig. 3. Fig. 3 is a similar view taken on a plane indicated by the line *b b* of Fig. 2.

The body 1 of the journal-box comprises the top 2, which is rectangular in form, a pair of transverse flanges 3 4, which rise from the upper side of the said top, at the outer and inner sides thereof, respectively, and a pair of longitudinally-disposed flanges or walls 5, which depend from the top and are formed on their outer sides with webs 6, which are preferably of the form shown and which serve to strengthen the body of the journal-box. The bottom of the journal-box between the flanges or walls 5 is open. The inner sides of the flanges or walls 5, at the upper portions thereof, are beveled or inclined, as at 7, and converge downwardly to form a dovetailed groove, which is adapted to receive

the correspondingly-shaped bearing brass or block 8, which is adapted to be inserted in the said dovetailed groove, at the open front or outer end thereof, and is made in two separable sections 8<sup>a</sup>. At the inner end of the dovetailed groove 7 the journal-box body is formed with a depending semi-annular flange or shoulder 9, against which the inner end of the sectional bearing brass or block abuts. The depending flanges 5 are formed in their opposing inner sides with grooves 10. A hollow slide 11, which is of semicylindrical form, is adapted to be placed between the said flanges or walls 5 to close the space between their lower sides and is provided with side flanges 12 to engage the grooves 10, and thereby support said hollow slide. The latter is formed at its inner end with a semi-annular upstanding flange 13, the upper portions of which abut against the flange 9 of the journal-box body, as shown in Fig. 3. The front of the slide 11 is a wall 14, which when the slide is in place under the journal-box body is flush with the front side or face of the latter, as is shown in Figs. 1 and 3.

The journal-box body is formed on its outer side or face with an inclined outstanding lug 15, which is at one of the upper corners of the front wall 14 of the slide and is provided with an opening in which a split spring-key 16 may be inserted, as shown in Figs. 1 and 3, to bear against the front wall of the slide and secure the latter in place, as will be understood. By thus disposing the lug 15 near one of the upper corners of the front side of the slide a single lug and key suffice to secure the slide in place, and the key being inclined, as shown in Fig. 1, tends by gravity to remain seated in the opening in said lug and to bear constantly on the front end or side of the slide.

The sections 8<sup>a</sup> of the bearing brass or block are separable and are of like size and shape, their meeting sides 17 being midway between the sides of the bearing block or brass and are provided with a lubricating-channel 18, which is partly formed in each of the said meeting sides of the sections. In operation the revolutions of the car-axle spindle on which the brass or block 8 bears cause the sections thereof to move laterally and longi-



5 tudinally to some extent and independently of each other, and these movements of the said sections are effective to keep the lubricating-channel 18 in their opposingsides from becoming clogged.

10 The body of the journal-box is provided at its center with a longitudinal lubricant-channel 19, which extends from the outer to the inner side of the body, is open at its ends, and communicates with the channel 18. The inner end of the channel 19, which is open, conveys lubricant to the face of the axle flange or shoulder  $x$ , which is indicated in dotted lines in Fig. 3, and lubricates the same  
15 to reduce friction between said shoulder or flange and the inner side of the journal-box, while the said shoulder or flange is in contact therewith, owing to the end thrusts of the axle when the car is in motion. The outer end of the channel 19 is provided with a plug 20, which normally closes the same, and which may be removed to facilitate the cleaning of the said channel 19.

20 The front flange 3 on the upper side of the journal-box body is hollow or chambered to form a reservoir 21 for the lubricant. Said reservoir communicates with the channel 19 through the channels 22, which are indicated in dotted lines in Figs. 2 and 3. The opening 23 of the lubricant-reservoir, through which lubricant is placed therein, may be closed by any suitable closure. We here show a hinged lid 24 for this purpose.

30 In practice our improved journal-box is bolted under a side beam of a car-truck, the flanges 3 and 4 bearing respectively against the outer and inner sides of the beam. The top of the journal-box body is provided with suitable openings 25 for the bolts, which thus  
40 secure the journal-box body to the under side of the beam.

Having thus described our invention, we claim—

45 1. A car journal-box having a longitudinal seat in its under side for a bearing brass or block, transverse flanges on its upper side,

to bear against opposite sides of a truck-beam, one of said flanges being chambered to form a lubricant-reservoir, said journal-box being further provided with a lubricant-con- 50 ducting channel leading from said reservoir to the seat for the bearing brass or block and also leading to and open at the rear side of the box, substantially as described.

2. A car journal-box, open on its lower side, 55 having a longitudinal seat, open at one side, a removable bearing brass or block in said seat, a slide, to close the space under the journal, and bear against the front end of the brass or block, a lug on the front side of 60 the box above the slide, and a gravitating key connected to the lug and engaging the front side of the slide, to lock the latter in place, substantially as described.

3. A car journal-box having a lubricant- 65 chamber, a channel communicating therewith and extending from the front to and open at the rear side of the box, a removable closure for the front end of said channel and a brass or block seated in said box, under 70 said channel and having a lubricant-channel communicating with the first-mentioned channel, substantially as described.

4. A car journal-box having a longitudinal 75 seat, a lubricant-chamber and a lubricant-channel leading therefrom, in combination with a bearing brass or block in said seat, composed of a plurality of sections movable independently of each other and having a lub- 80 ricant-channel formed in their opposing sides, communicating with that of the journal-box and leading to the journal, whereby the motion of said sections prevents clogging of said channel, substantially as described.

In testimony that we claim the foregoing 85 as our own we have hereto affixed our signatures in the presence of two witnesses.

SAMUEL REYNOLDS.

SAMUEL JOHN REYNOLDS.

Witnesses:

JOHN N. JONES,

SAMUEL HARRISON.