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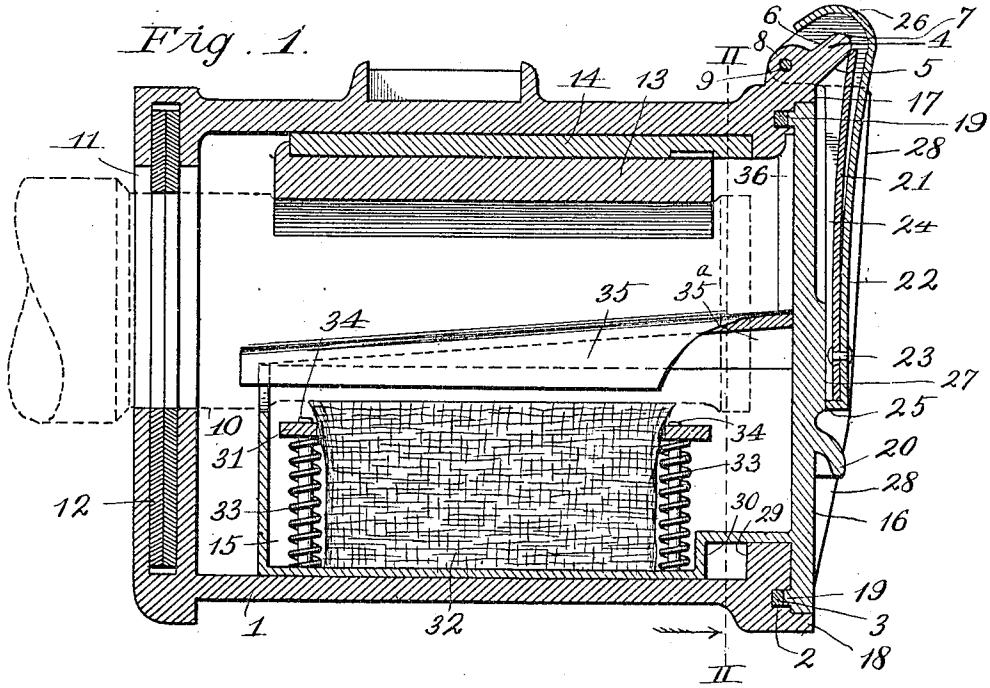
A. BYRD.

COMBINATION JOURNAL BOX AND LUBRICATOR.

APPLICATION FILED JAN. 13, 1906.

Fig. 1.



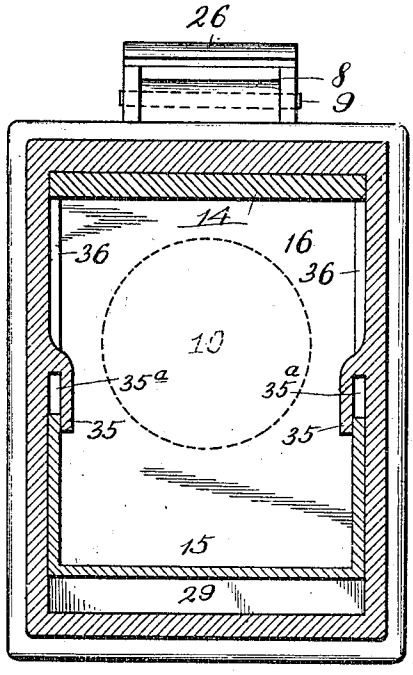


Fig. 2.

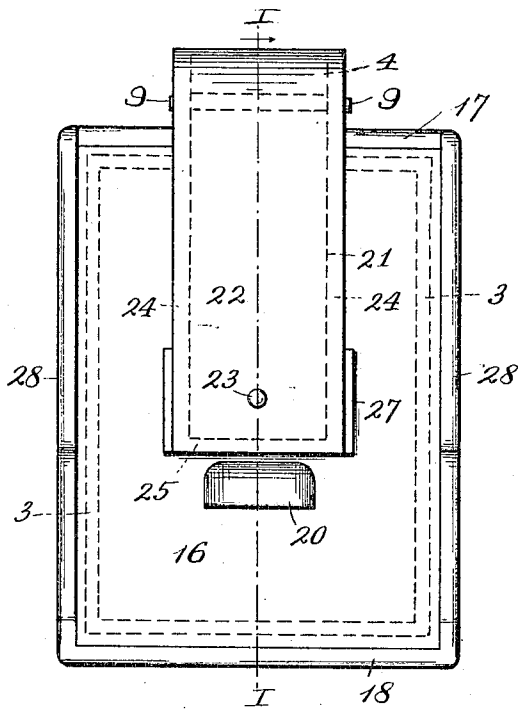


Fig. 3.

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UNITED STATES PATENT OFFICE.

ATVILL BYRD, OF KANSAS CITY, MISSOURI.

COMBINATION JOURNAL-BOX AND LUBRICATOR.

No. 831,704. Specification of Letters Patent. Patented Sept. 25, 1906.

Application filed January 13, 1906. Serial No. 295,841.

To all whom it may concern:

Be it known that I, ATVILL BYRD, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in a Combination Journal-Box and Lubricator, of which the following is a specification.

My invention relates to improvements in combination journal-boxes and lubricators; and my object is to provide simple and efficient means for excluding dust from the interior of the box and preventing the oil or other lubricant within said box from escaping therefrom.

The invention consists in the combination of the journal-box, an oil-cellar having an enlarged front for closing the open front portion of said box, packing interposed between the front edge of the box and the oil-cellar for excluding dust, and resilient means for normally holding the oil-cellar in a closed position.

Reference will now be had to the accompanying drawings, in which—

Figure 1 is a vertical central section taken on line I I of Fig. 3. Fig. 2 is a transverse section taken on line II II of Fig. 1. Fig. 3 is a front elevation of the invention.

In said drawings, 1 designates the journal-box, having an open vertical front portion provided with a rectangular groove 2, extending entirely around the edge thereof and filled with suitable packing 3.

4 designates a lug cast integral with the central front upper portion of the box, said lug having two inclined surfaces 5 6, united at their upper ends with a semicircular portion 7. Said lug is also provided at its rear portion with an ear 8, carrying a pintle 9.

10 designates the journal, which extends through an opening 11 in the rear portion of the box, which latter is provided with a dust-guard 12 to prevent dust from entering said opening or the oil from escaping therethrough.

13 designates the customary brass, and 14 the wedge interposed between the upper portion of the journal and the box.

15 designates the oil-cellar, which is provided with an enlarged front 16, adapted to completely close the front end of the box, (see Figs. 1 and 2,) the latter being provided with overlapping top and bottom flanges 17 18, respectively, the front sides of which are flush with the outer surface of front 16 to protect the horizontal edges of the same. Front 16 is provided with an inwardly-projecting rectangular flange 19, which snugly fits within groove 2 and abuts against the packing therein, so as to exclude dust from the box and prevent the oil therein from escaping. The front portion of the cellar is also provided with a handle 20, whereby it may be inserted or withdrawn from the box. Cellar 15 is reliably held in the box, with its flange 19 firmly pressed against the packing, by means of a flat spring 21 bearing at its upper terminal against inclined portion 5 and reliably secured at its lower end to a hinged sheath 22 by means of a rivet 23. Sheath 22 is provided with marginal flanges 24 and 25, inclosing the sides and bottom of the spring in order to protect the latter and also to reinforce rivet 23. The upper portion of flanges 24 extend upwardly above lug 4 and rearwardly to the opposite sides of ear 8 in order to engage pintle 9, upon which they are hinged. The forward portion of the sheath curves upwardly over lug 4, forming a hood 26 to protect said lug and prevent sleet and snow or other foreign substances from getting between the sheath and the spring, and thus interfering with the operation of the latter. Flange 25 and the lower portions of flanges 24 normally bear against a rectangular abutment 27 integral with front 16 to protect the latter from the impact of said flanges when the frame is thrown downwardly into its normal position by spring 21.

When it is desired to remove the oil-cellar, sheath 22 is swung upwardly against the action of spring 21, causing the upper end of the latter to move around semicircular portion 7 and engage the inclined surface 6 of lug 4, so that said spring and lug will retain the sheath in a raised position until lowered, thus leaving both hands of the operator free to insert or withdraw the oil-cellar. Sheath 22 is protected from contacting with objects along the road-bed by means of guards 28, which are integral with the vertical front edges of the box and project therefrom a slight distance beyond the front surface of frame 22, as shown in Fig. 1. Should the spring or sheath become broken or out of order, so that they would fail to hold the cellar in the box, said cellar will be held therein by means of a transverse stop 29, integral with the front lower portion of the box, and a shoulder 30, integral with the forward lower

portion of the cellar. Shoulder 30 is located a sufficient distance to the rear of front 16 to permit the latter and its flange 19 to clear flange 17 before said shoulder contacts with stop 29. Consequently the front portion of the cellar may be raised until shoulder 30 clears stop 29 preparatory to removing or inserting the cellar.

In case of accident to spring 21 or its sheath the cellar will be held from rising high enough to leave the box by means of a wick-holder 31, wicks 32, and expansion-springs 33, which hold the wicks in contact with the under side of the journal and bear downwardly against the bottom of the cellar, thus holding the latter from accidentally rising high enough to permit shoulder 30 to pass over stop 29.

Springs 33 embrace guide-pins 34, projecting upwardly from the bottom of the cellar and extending through openings in holder 31, so that the latter may be moved upwardly by the springs, and thus retain the wicks in contact with the journal until they are too badly worn for further use. By thus adjustably securing holder 31 upon the guide-pins it may be depressed, so that it will not contact with the journal while the cellar is being removed or replaced.

All of the oil splashed against the sides of the box by lurching of the car will be conducted back to the cellar by grooved guides 35, integral with the sides of the box and overlapping the sides of the cellar. (See Figs. 1 and 2.) The grooves 35[a] of said guides are inclined upwardly and forwardly to permit the forward portion of the cellar to be raised until shoulder 30 clears stop 29.

Oil splashed against the upper surface of front 16 is prevented from working outwardly between the front edge of the box and front 16 by means of inturned flanges 36, integral with the upper side portions of said front.

The wicks feed the oil from the cellar to the journal by capillary attraction.

From the above description it is apparent that I have produced a device of the character described which is simple and inexpensive and well adapted for the purposes intended.

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

1. In a device of the character described, a journal-box having an open front portion, and an oil-cellar removably arranged in said box, there being an enlarged front integral with said cellar adapted to close the open end of the box.

2. In a device of the character described, a journal-box having an open front portion with a groove extending around the edge thereof, packing in said groove, an oil-cellar removably arranged in said box, there being an enlarged front integral with said cellar adapted to close the open end of said box, and a rectangular flange projecting inwardly from said front and adapted to abut against the packing.

3. In a device of the character described, a journal-box having an open front portion, an oil-cellar removably arranged in said box, there being an enlarged front integral with said cellar adapted to close the open end of the box, and resilient means abutting against said front and the box for holding the cellar in place.

4. In a device of the character described, a journal-box having an open front portion, horizontal flanges integral with the upper and lower front portion of said box, and an oil-cellar removably arranged in said box, there being an enlarged front integral with said cellar adapted to close the open end of the box, the forward surface of said front being substantially flush with the front surfaces of the flanges.

5. In a device of the character described, a journal-box having an open front portion, a lug integral with the upper front portion of said box and provided with an ear, an oil-cellar removably arranged in the box having an enlarged front adapted to close the open end of said box, a sheath hinged to the ear, and a spring abutting against the lug and carried by the sheath for normally holding the latter in contact with the front of the cellar.

6. In a device of the character described, a journal-box having an open front portion the edges of which are provided with forwardly-projecting guards, a lug integral with the upper front portion of said box, provided with an ear and inclined sides united by a curved portion, an oil-cellar removably arranged in the box, there being an enlarged front integral with said cellar adapted to close the open end of the box, a sheath hinged to the ear, and a spring abutting against the lug and carried by the sheath for normally holding the latter in contact with the front of the cellar.

7. In a device of the character described, a journal-box having an open front portion, a lug integral with the upper front portion of said box and provided with an ear, an oil-cellar removably arranged in the box, there being an enlarged front integral with said cellar adapted to close the open end of the box, a sheath hinged to the ear, and a spring abutting against the lug and carried by the sheath for normally holding the latter in contact with the front of the cellar, there being a hood integral with the upper portion of the sheath.

8. In a device of the character described, a journal-box having an open front portion, a lug at the upper front portion of said box, an oil-cellar removably arranged in said box and adapted to close the front opening thereof,

an abutment on the front portion of said cellar, a sheath hinged to the lug, and a spring bearing against the lug for normally holding the sheath in contact with the abutment.

9. In a device of the character described, a journal-box having an open front portion, an oil-cellar removably arranged in said box, there being an enlarged front integral with said cellar adapted to close the open end of the box, and inturned flanges integral with said front and adapted to snugly fit the upper inner side portions of the box.

10. In a device of the character described, a journal-box having an open front portion, an oil-cellar removably arranged in said box, there being an enlarged front integral with said cellar adapted to close the open end of the box, and a handle integral with said front.

11. In a device of the character described, a journal-box having an open front portion and a stop at its lower front portion, and an oil-cellar removably arranged in said box and adapted to close the front opening thereof, there being a shoulder at the lower front portion of said cellar adapted to contact with the stop.

12. In a device of the character described, a journal-box having an open front portion and a stop at its lower front portion, an oil-cellar removably arranged in said box and adapted to close the front opening thereof, there being a shoulder at the lower front portion of said cellar adapted to contact with the stop, and guides at the inner sides of the box having inclined grooves for the reception of the upper edges of the sides of the cellar.

13. In a device of the character described, the combination with a journal and wicks, of a journal-box in which said journal and wicks are arranged, said box having a front open end and a stop at its lower front portion, a cellar removably arranged in the box and adapted to close the opening therein, there being a shoulder integral with the lower front portion of said cellar adapted to contact with the stop, guide-pins projecting upwardly from the bottom of the cellar, a wick-holder slidably arranged upon said pins and adapted to hold the wicks in contact with the under side of the journal, and springs for normally pressing said holder upwardly.

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

ATVILL BYRD.

Witnesses:
F. G. FISCHER,
J. MOORE.