No. 862,880. PATENTED AUG. 13, 1907.

A. BYRD.

JOURNAL BOX.

APPLICATION FILED MAY 12, 1906.

Fig. 1.

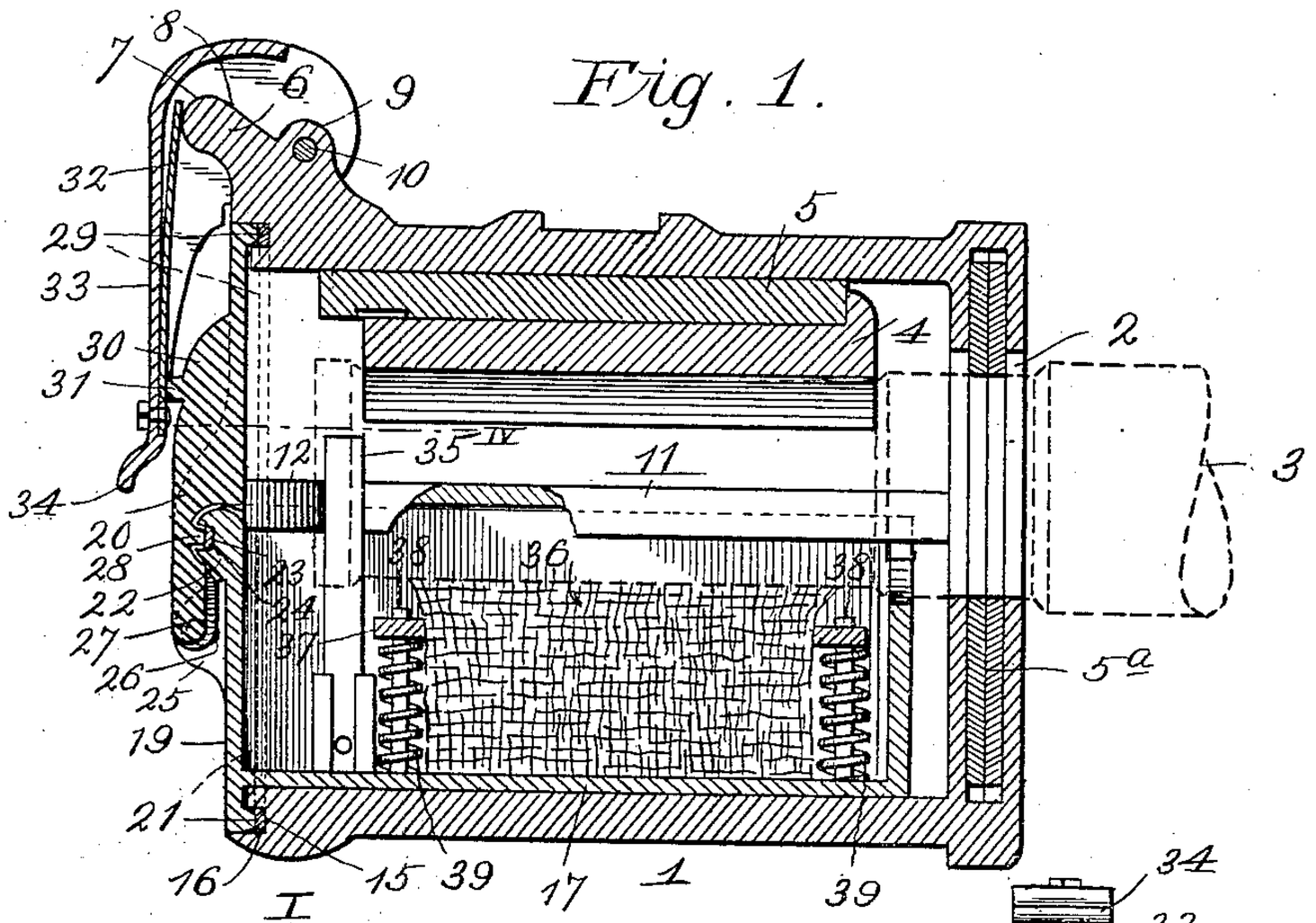


Fig. 2.

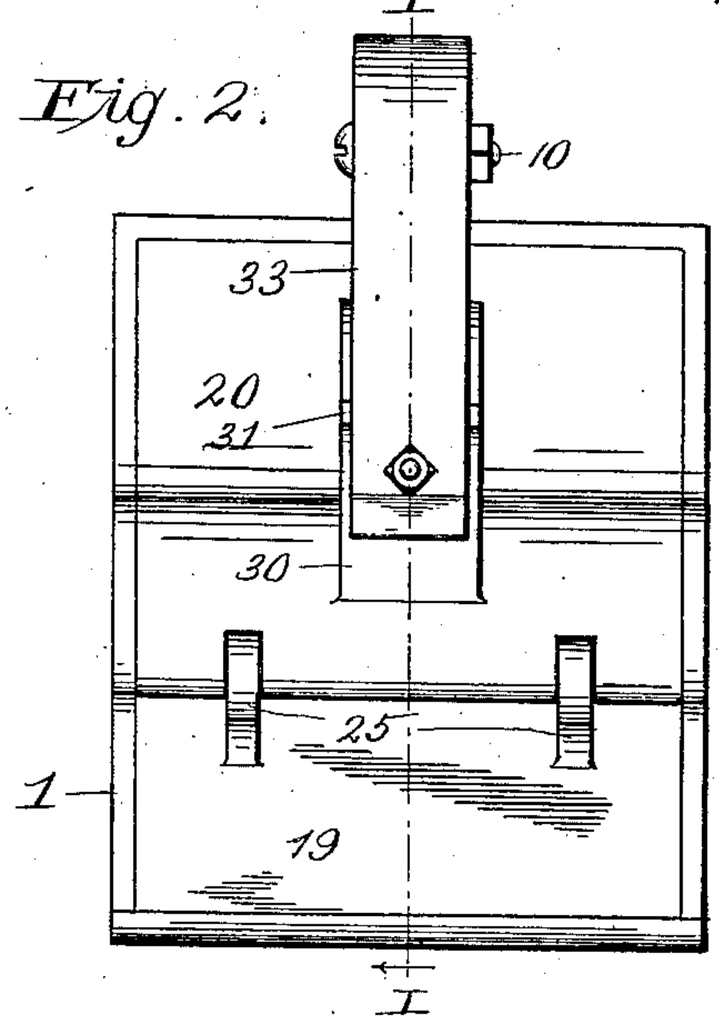


Fig. 3.

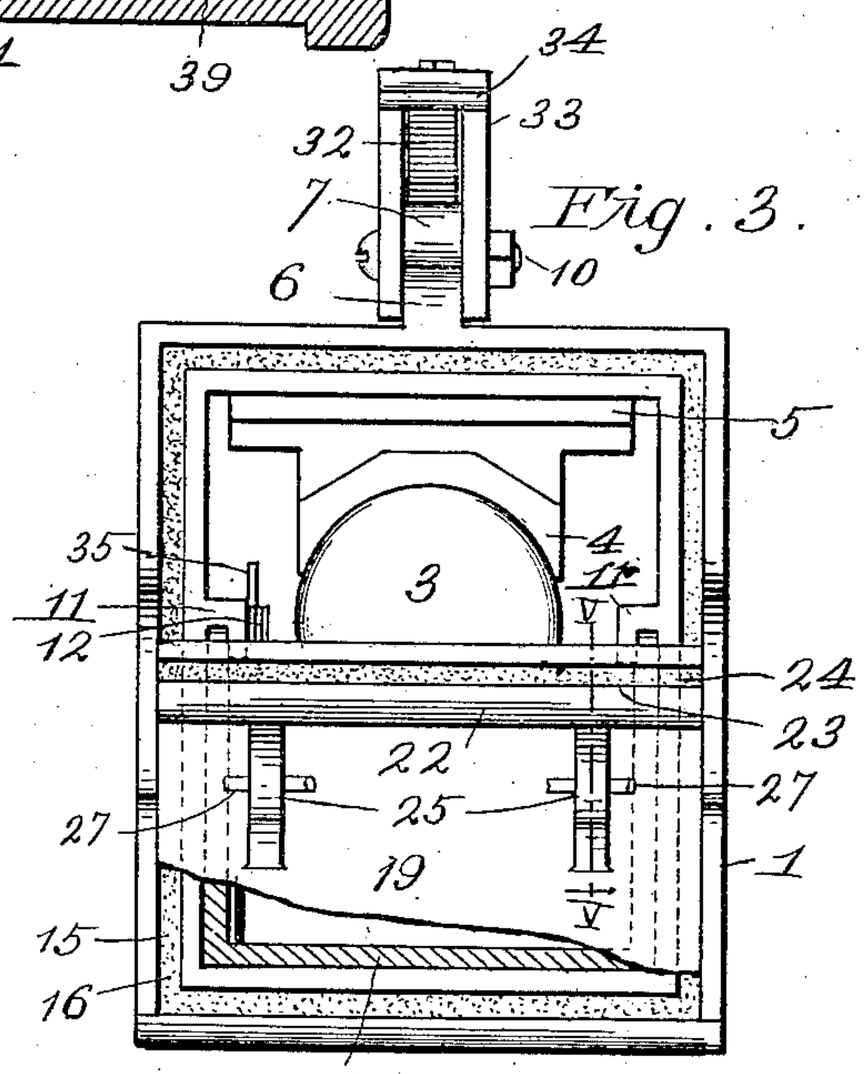


Fig. 4.

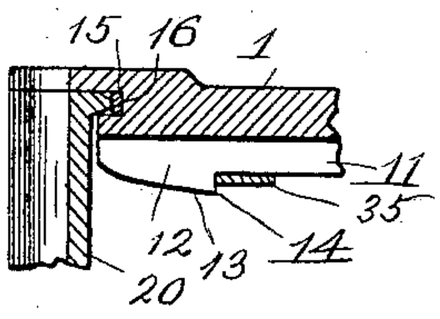


Fig. 6.

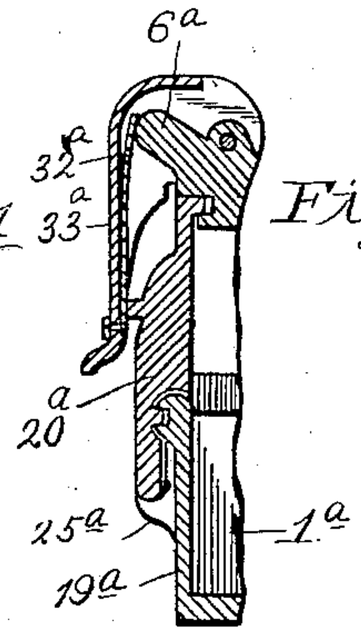
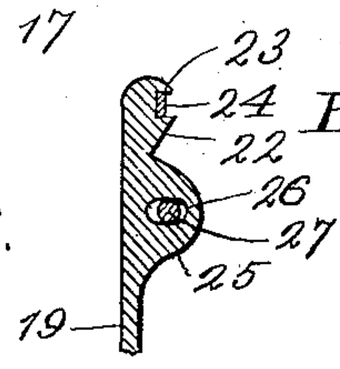


Fig. 5.



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UNITED STATES PATENT OFFICE.

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JOURNAL-BOX.

No. 862,880. Specification of Letters Patent. Patented Aug. 13, 1907.

Application filed May 12, 1906. Serial No. 316,446.

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 Journal-Boxes, of which the following is a specification.

My invention relates to improvements in journal-boxes; my object being to provide a device which will effectually exclude all dust and retain the lubricating oil so that there will be no waste of the latter.

The invention consists in the novel construction, combination and arrangement of parts hereinafter described, and pointed out in the claims, and in order that it may be fully understood, reference will now be made to the accompanying drawing, in which:—

Figure 1 represents a vertical sectional view of the invention taken on line I—I of Fig. 2. Fig. 2 represents a front elevation of the invention. Fig. 3 represents a front elevation of the invention with the hinged upper portion of the oil-cellar removed and the lower portion of said cellar partly broken away. Fig. 4 is a broken section taken on line IV of Fig. 1. Fig. 5 is a broken vertical section taken on line V—V of Fig. 3. Fig. 6 represents a modified form of journal-box.

1 designates a journal-box having an opening 2 in its rear portion for the reception of a journal 3 bearing against a brass 4 held in position in the upper portion of the box by the customary wedge 5. Opening 2 is provided with a dust guard 5^a which surrounds the journal and excludes dust from the box.

6 designates a lug integral with the front upper portion of the box and having a curved front portion 7 and an inclined upper surface 8. Said lug is also provided with an ear 9 for the reception of a pintle 10.

11 designates a pair of grooved guides integral with the inner sides of the box, one of said guides being provided at its front side with a shoulder 12 having a beveled side 13 and an abrupt rear portion 14. Said guides overlap the sides of an oil-cellar hereinafter described and conduct the oil thereto after it has been splashed against the sides of the box by the lurching of the car.

15 designates a rectangular groove extending around the front edge of the box and provided with packing 16.

17 designates an oil-cellar adapted to be slid in and out of the box. Said cellar has a closed front end 19 and a lid 20, both of which close the front open end of the box. End 19 is provided with inturned marginal flanges 21 which contact with the lower and side portions of packing 16 when the cellar is in position in the box. The upper margin of end 19 has an outturned bead 22 provided with a longitudinal groove 23 for the reception of packing 24. Said end also has a pair of ears 25 provided with horizontal slots 26 loosely engaging pintles 27 pivotally securing lid 20 to the end.

28 designates a transverse flange integral with the lower portion of the lid and adapted to contact with packing 24. Said lid is also provided at its top and side portions with inwardly turned marginal flanges 29 which bear against the packing 16. With this arrangement of packing and flanges at the front of the box it is obvious that dust cannot enter the latter nor can oil escape therefrom.

Lid 20 is reinforced at its central portion with an abutment 30 provided with a rib 31 against which a flat spring 32 normally bears and thus reliably holds the cellar in the box and the flanges against the packing. Spring 32 abuts at its upper end against curved portion 7 and is secured at its lower end to a sheath 33 pivoted at its upper portion to pintle 10 and having an outturned lower terminal 34 which provides a convenient finger-hold when it is desired to raise the sheath and spring preparatory to lowering the lid. When the sheath is raised the upper end of spring 32 slides around curved portion 7 into engagement with the inclined portion 8, and thus reliably holds the sheath in a raised position as shown in Fig. 3.

By slotting ears 25 and placing rib 31 midway between flange 28 and the upper portion of flange 29 it is obvious that the upper and lower ends of the lid will have independent backward and forward movement to accommodate the packing, hence the spring will exert an equal pressure upon said flanges and thus reliably hold them in contact with the packing.

35 designates a flat spring secured to the cellar, which engages the abrupt portion 14 of shoulder 12 and reliably hold the cellar in the box. The upper portion of said spring extends above the shoulder so that it may be grasped and pushed out of engagement with the latter when it is desired to remove the cellar from the box. When replacing the cellar in the box, spring 35 will engage bevel portion 13 and be guided thereby to abrupt portion 14.

Oil is conducted to the journal by capillary attraction through wicks 36 arranged in a holder 37 slidably arranged upon pins 38 embraced by expansion-springs 39 which exert an upward pressure upon the holder and thus retain the wicks in contact with the journal. The cellar is removed from the box when it is desired to gain access to the holder for the purpose of substituting new wicks for those which have become too badly worn for further use, but said cellar may be supplied with oil when in the box by lowering lid 20.

In the modified form, Fig. 6, the cellar is dispensed with and box 1^a is provided with an integral end 19^a closing the lower front portion thereof so that it will hold oil. The upper front portion of the box is closed by a lid 20^a similar to lid 20 and pivoted at its lower end to ears 25^a integral with end 19^a. Said lid is normally held in a closed position by a spring 32^a and a sheath 33^a

which latter is pivotally secured to an ear 9^a on the rear portion of a lug 6^a against which the upper terminal of the spring bears.

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

1. The combination of a journal-box open at its front end and provided with packing at its front edge, of a cellar removably arranged in the lower portion of said box and partly closing the lower front end thereof, said cellar being provided at its front portion with inturned flanges for engaging the packing, a lid for closing the upper front end of the box, and resilient means for normally holding said lid closed.

2. The combination of a journal-box open at its front end and provided with packing at its front edge, of a cellar removably arranged in the lower portion of said box and partly closing the lower front end thereof, said cellar beprovided at its front portion with slotted ears, transverse packing in the upper front portion of the cellar, a lid for closing the upper front end of the box provided with inturned flanges for engaging the packing in the front of the box and the cellar, said lid pivotally and loosely engaging the slotted ears so that its lower end may move backwardly and forwardly, and yielding means for normally holding said lid closed.

3. The combination of a journal-box open at its front end and provided with packing at its front edge, of a cellar removably arranged in the lower portion of said box and partly closing the lower front end thereof, said cellar being provided at its front portion with slotted ears, transverse packing in the upper front portion of the cellar, a lid for closing the upper front end of the box provided with inturned flanges for engaging the packing in the front of the box and the cellar, said lid pivotally and loosely engaging the slotted ears so that its lower end may move backwardly and forwardly, a spring bearing, approximately, against the central portion of the lid at one end and bearing at its opposite end against the box, and a sheath pivoted to the box and carrying said spring.

4. The combination of a journal-box, having a shoulder therein with a beveled side and an abrupt rear portion, and a cellar removably arranged in said box and provided with a flat spring adapted to engage the shoulder, said spring extending a suitable distance above the shoulder for the purpose set forth and described.

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

ATVILL BYRD.

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