April 17, 1934. R. C. KENDALL 1,955,550

LUBRICATING DEVICE

Filed April 17, 1933

Fig. 1

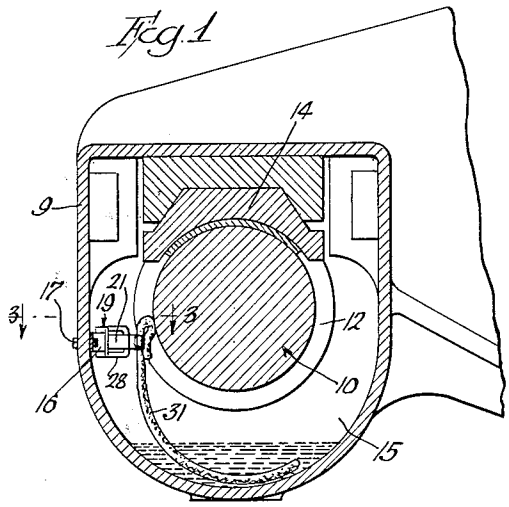


Fig. 2

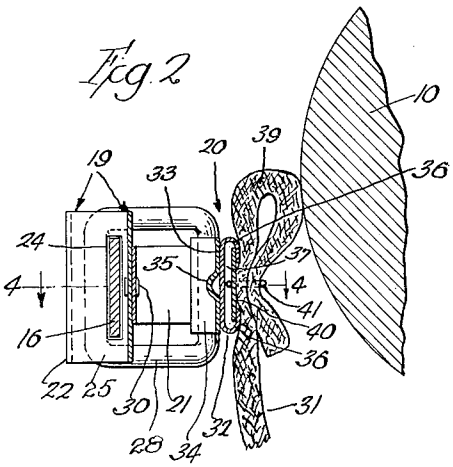


Fig. 3

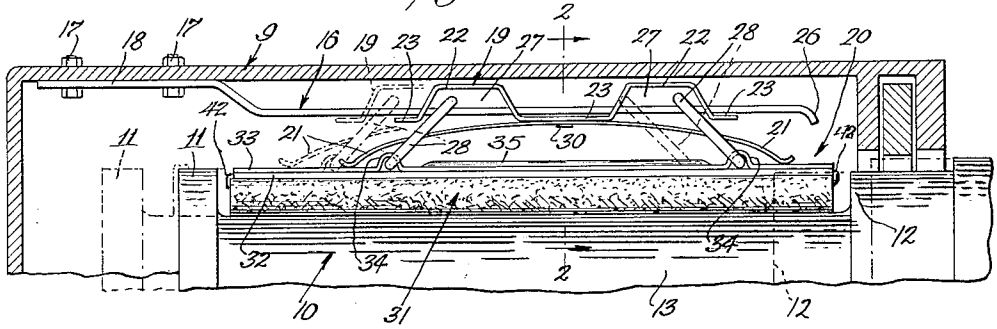


Fig. 4

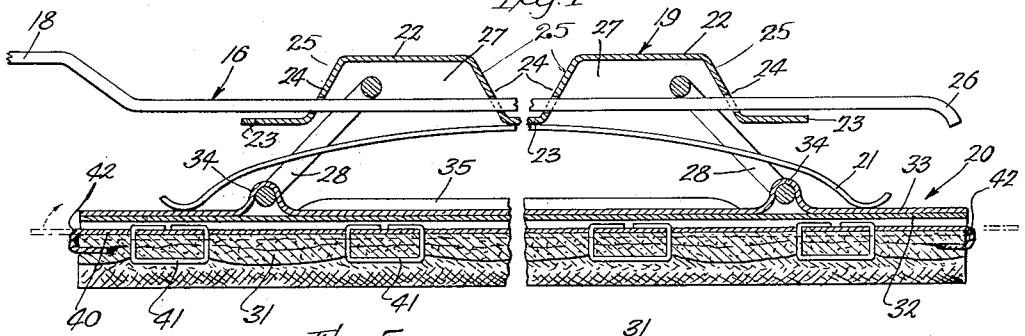
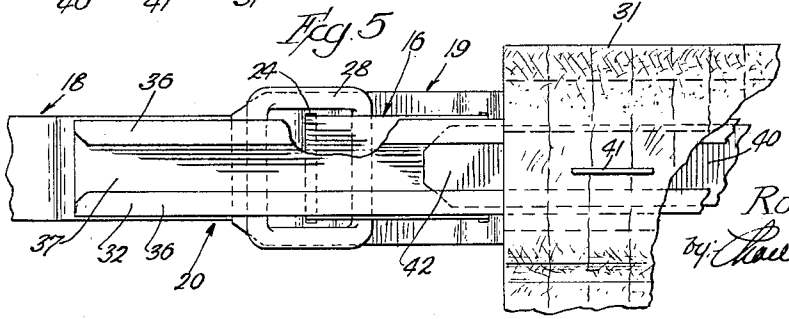


Fig. 5



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UNITED STATES PATENT OFFICE

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LUBRICATING DEVICE

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Application April 17, 1933, Serial No. 666,399

8 Claims. (Cl. 308—88)

This invention relates to lubricating devices and is in the nature of an improvement upon the lubricating device shown and described in my prior Patent No. 1,898,188, dated February 21, 1933, to which reference is hereinafter made.

One object of the present invention is to provide means whereby the oil applying element of the lubricator may automatically adjust itself and center itself with respect to the axle. Another object is to provide means whereby the oil applying element may be easily attached to and detached from its support. Another object is to simplify the construction of the device and to otherwise improve on the parts thereof, whereby to simplify the work of assembling of the same. Other objects and advantages will appear in the following specification and with said objects and advantages in view, this invention consists in the several novel features of construction, arrangement and combination of parts, hereinafter fully described and claimed.

The invention is clearly illustrated in the drawing accompanying this specification in which:

Fig. 1 is a vertical cross-section through a journal box and illustrating a simple embodiment of the present lubricating device in end elevation;

Fig. 2 is a detail vertical cross-section of the lubricating device taken on the line 2—2 of Fig. 3;

Fig. 3 is a detail view partly in plan and partly in horizontal section taken on line 3—3 of Fig. 1;

Fig. 4 is a detail horizontal section taken on line 4—4 of Fig. 2; and

Fig. 5 is a fragmental side elevation of the device showing the wick partly withdrawn from its holder.

Referring to said drawing, which illustrates a simple embodiment of the invention, the reference character 9 designates a railway journal box of conventional form, in which is journaled a car axle 10. As is customary, shoulders 11, 12 are formed on the axle at the ends of the part 13 upon which the bearing brass 14 rests. A well 15 is contained in the journal box to receive oil or other lubricant which is to be supplied to the bearing. Considerable longitudinal play of the axle, with respect to the bearing brass, is occasioned during the movement of a car and this longitudinal movement is likely to become more extended as the shoulders and adjacent ends of the bearing brass are worn away or machined because of wear. Consequently the position of the axle in the journal box shifts back and forth therein and one of the objects of this invention is to provide means whereby the oil applying wick or pad of the lubricator may remain centered with respect to the shoulders of the axle.

The lubricating device is bolted to or otherwise rigidly secured to an upright side wall of the journal box disposed at one side of the axle. In its present form the lubricating device has a supporting bar 16 which is provided with an offset portion 18 that is bolted to the side wall of the journal box by bolts 17. The main part of the supporting bar is therefore spaced somewhat away from the side wall.

Slidably mounted on the main part of the supporting bar is a slide member 19, desirably formed of a bent up metal strip which furnishes a sliding connection for the wick holder 20 and for a spring 21. The slide member 19 has two offset parts 22 which extend along one side of the supporting bar, whereas the parts 23 extend along the other side of the bar. Slots 24 are formed in the transverse parts 25 of the slide member to receive the supporting bar 16. The extremity of the bar is bent or otherwise deformed, as seen at 26 to prevent accidental disconnection between the bar and slide member. It will be obvious that the slide member may be readily adjusted along the length of the supporting bar.

The supporting bar and offset parts 22 of the slide member provide slots 27 in which two links 28 are pivotally and slidably mounted, the other ends of the links being pivotally connected to the wick holder 20.

The spring 21, preferably in the form of a flat spring, is secured to the slide member by a rivet 30 or the like and its ends bear against the wick holder and serve to yieldably press the latter toward the axle and thereby hold the upper end of the wick 31 against the face of the part 13 of the axle. The slotted connections between the supporting bar and the links permit of a limited amount of end play of the wick holder together with the wick and also permit the latter to tilt and thus adjust itself to the axle despite any misalignment thereof that may occur during the travel of the car over a road bed.

Desirably the wick holder is composed of a wick holding bar 32 and a reinforcement bar 33 riveted or spotwelded thereto. The reinforcement bar is struck up with two U bends 34, which together with the wick holding bar provide eyes or loops in which the links are held. The eyes are spaced farther apart than the outer ends of the slots 27 so that the links always incline toward each other, thereby permitting the wick holder to tilt with respect to the supporting bar. De-

sirably the reinforcement bar is struck up with a rib 35 to give it strength and rigidity.

The wick holding bar 32 is preferably formed of a strip of sheet metal with its side edges 36 folded over to provide a groove or slideway 37 having the overhanging edges 36. The wick 31 as in my prior patent, comprises a relatively thick pad-like structure formed of sewed together cotton rovings, with one end doubled upon itself as at 39. A pliable strip of metal 40 slightly longer than the width of the wick, is secured to one side of the doubled edge portion by wire staples 41 or the like. The metal strip is capable of being slid into the groove or slideway 37, whereby to attach the wick to the wick holder, and to fasten the wick in place on the wick holder, the ends 42 of the strip 40 are bent around the ends of the flanges 36 and around the side edges of the wick.

From the above it is readily apparent that the several parts may be readily assembled, and installed in place in a journal box. By reason of the sliding connection between the slide member 19 and the supporting bar, the slide member and therewith the wick holder and wick have a wide latitude of adjustment along the supporting bar. As a result it is not necessary to locate the supporting bar at any precise place on the upright wall of the journal box, because the slide member can be readily adjusted along the supporting bar to bring the wick between the shoulders on the axle so that it will always be pressed against the part of the axle between the shoulders and apply the lubricant thereto. Any ordinary endwise shifting of the axle in the journal box will be taken care of by the links sliding in the slots between the offset portions of the slide member and supporting bar, and when any extraordinary endwise movement of the axle in the journal box occurs, the shoulder on the axle will shift the wick and therewith the wick holder and slide member along the supporting bar so that at all times the wick remains in contact with the axle at the place between the shoulders thereof.

I claim as new and desire to secure by Letters Patent:

1. A lubricating device comprising a supporting bar, a slide member slidably mounted thereon, a wick holder having sliding and tiltable connections with said supporting bar and slide member, the latter being arranged to retain said connections upon the supporting bar, resilient means interposed between said slide member and the wick holder, and a wick carried by the wick holder.

2. A lubricating device comprising a supporting bar, a slide member slidably mounted thereon, said slide member having offset portions co-operating with the supporting bar to provide slots, a wick holder, links pivotally connected to the wick holder and pivotally and slidably mounted in said slots, resilient means carried by said slide member and pressing against said wick holder, and a wick carried by said wick holder.

3. A lubricating device comprising a supporting bar, a slide member formed with offset portions slidably mounted thereon, a wick holder spring pressed away from said supporting bar, swingable links sliding in slots between said supporting bar and the offset portions of the slide member and pivotally connected to the wick holder, and a wick carried by said wick holder.

4. A lubricating device comprising a supporting bar, a slide member having offset portions slidably mounted on said supporting bar, means to retain said slide member upon the supporting bar, a wick holder, slidable and tiltable connections between said wick holder and supporting bar movably mounted between the supporting bar and offset portions of the slide member, a spring between the wick holder and supporting bar and a wick carried by said wick holder.

5. A lubricating device comprising a supporting bar, a slotted slide member having two offset portions, the supporting bar extending through the slots of the slide member, a wick holder, two links pivotally connected to the wick holder and slidably and pivotally mounted between the supporting bar and offset portions of the slide member, a bowed spring secured to the slide member with its ends pressing against the wick holder, and a wick carried by the wick holder.

6. In a lubricating device, a spring pressed wick holder having a groove therein provided with overhanging edges, a wick, and an attachment strip, secured to one face of the wick and slidably mounted in said groove.

7. In a lubricating device, a spring pressed wick holder having a groove therein provided with overhanging edges, a wick, and an attachment strip secured to the wick and insertable into the groove in the wick holder, the attachment strip having bendable extremities bent around the ends of the wick.

8. In a lubricating device, a spring pressed wick holder having a groove therein provided with overhanging edges, a wick, and a pliable metal attachment strip stapled to one side of the wick and insertable into the groove in the wick holder, said strip having bendable extremities adapted to engage the extremities of the wick holder to secure the wick thereon.

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