F. M. ALEXANDER.
Car-Journal Box.

No. 208,947. Patented Oct. 15, 1878.

Fig: 1.

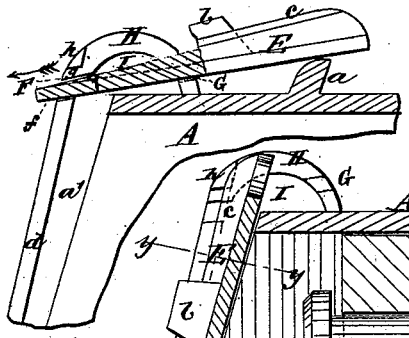


Fig: 2.

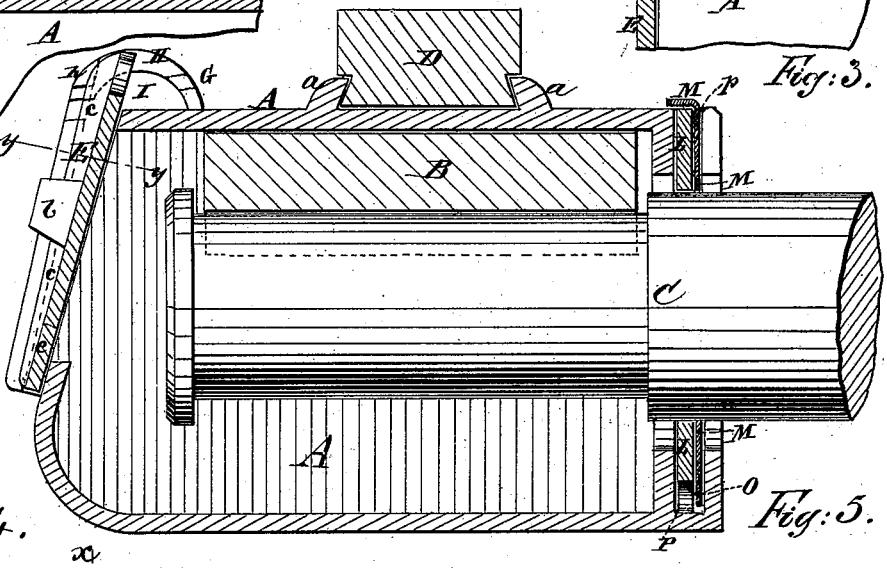


Fig: 3.

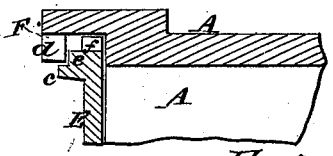


Fig: 4.

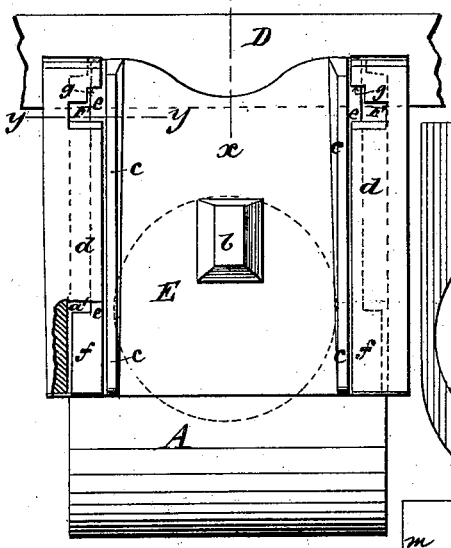


Fig: 5.

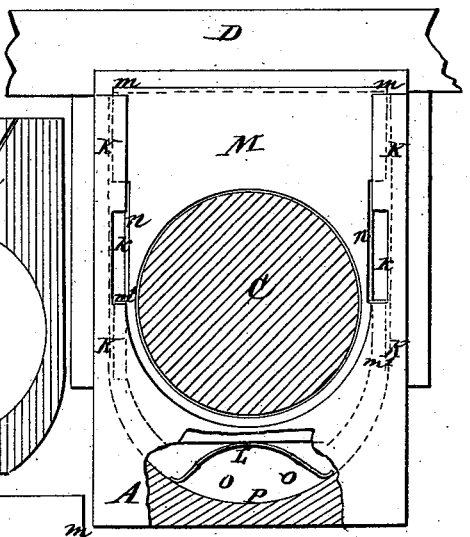


Fig: 6

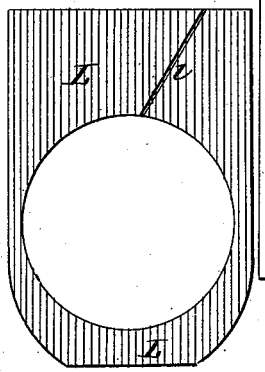
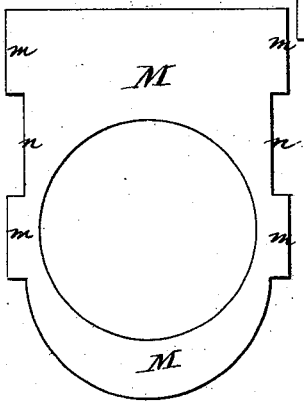


Fig: 7.



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UNITED STATES PATENT OFFICE.

FRANCIS M. ALEXANDER, OF MARSHALL, TEXAS.

IMPROVEMENT IN CAR-JOURNAL BOXES.

Specification forming part of Letters Patent No. **208,947**, dated October 15, 1878; application filed August 6, 1878.

To all whom it may concern:

Be it known that I, FRANCIS M. ALEXANDER, of Marshall, in the county of Harrison and State of Texas, have invented a new and Improved Car-Journal Box, of which the following is a specification:

My invention relates to oil-boxes used upon journals of car-axles, the object being to prevent the lid from shaking off of the oil-box and getting lost, and to enable the oil-stop or oil-packing surrounding the axle to be removed and replaced by a new one without removing the box from the journal.

The invention consists in the construction of the devices for inserting, removing, and retaining the oil-box lid and the oil-stop, as will be hereinafter described and claimed.

In the accompanying drawing, Figure 1 represents a longitudinal vertical section of my improved journal-box for cars. Fig. 2 is a similar view of a part of the front end of the same, illustrating the mode of removing the oil-box lid, the section being taken on the line *x x* of Fig. 4. Fig. 3 is a detail horizontal section of the same, taken on the line *y y* of Figs. 1 and 4. Fig. 4 is a front end view of the same. Fig. 5 is a rear end view of the same, the car-axle being shown in section. Fig. 6 is a plan view of the oil-stop. Fig. 7 is a plan view of the oil-stop holder.

Similar letters of reference indicate corresponding parts.

A is the body of the oil-box. B is the brass by which it is supported on the journal of the car-axle C. D is the arch-bar, fitted between cleats *a* on the axle-box A, for supporting the car-frame. E is the lid, having downward tapering edges *e*, forming a wedge, to adapt it to fit tight in similar tapering inclined grooves *a'*, formed opposite to each other in the inner vertical sides of the outer or front end of the box A, in order to close its front opening and prevent dust from entering. The lid E has a central knob, *b*, for raising and lowering it, and vertical edge cleats *c* on its front side, which cleats bear against and guide it between the edges of the cleats *d*, which form the front walls of the grooves *a'*, said grooves being so much deeper than the edges *e* as to give room for the projections *f*, extending laterally beyond the edges *e* at the lower end of the lid E. Nearly in line with the upper surface of the box A the cleats *d* are cut away to the depth of the groove *a'*, to form notches F opposite to each other, for the passage of the projections *f* in removing the lid from the box. These notches F are made wider at their outer end by rabbets *g*, sufficient to pass through them the thickest upper ends of the wedge-shaped edges *e* of the lid in removing the latter, and are only deep enough to correspond with the depth of the edges *e* for the same purpose. Above the notch F each cleat *d* is continued by a circular rib, H, arching above, and ending in the upper surface of the box A, inclosing a recess, I, whose bottom is flush and continuous with the bottom of the groove *a'*. The edge of the rib H is flush with the bottom of the rabbet *g*, except a portion, *h*, which continues in line with the cleat *d* until its inner line intercepts the outer circle of the rib H.

In raising the lid E far enough, its projections *f* will strike against the circular rib H, and thus prevent the removal of the lid until the arch-bar D is separated from the cleats *a* on top of the box, which allows the projections *f* to be brought back far enough in the recess I to enable the lid E to be turned down and rested upon the cleat *a* and the front edge of the top of the box. When in this position the projections *f* will be opposite to the notches F, through which the lid then may be slid out forward in the direction of the arrow and removed from the box A, as shown in Fig. 2.

If desired, the lid may be removed in the opposite direction, or backward, by cutting a notch, G, in the rear of the rib H to the depth of the recess I, for the projections *f* to pass through.

It is evident that by this construction the lid is not liable to get lost, as it cannot be removed until after the box is removed from the arch-bar D.

L is the oil-stop, with hole to fit the axle C, and slit open at *l*, in order that its upper ends may be spread enough apart to pass it over and close it around the axle, while it is held flat against the vertical outside of the rear end of the box A to cover the oval opening around the axle C by the metallic oil-stop

holder M, fitted to rest against the surface of the oil-stop L, when slid down in grooves *p* formed in the vertical cleats K, one at each edge, on and outside of the rear end of the box A. The opposite edges of the two cleats K meet below the axle in a curve coinciding with the oval hole in the rear end of the axle-box, and the grooves *p* run together under the axle in a recess or socket, P, which is just wide enough to receive the thicknesses of the two plates L M, (its forward inner end wall being in the plane of contact between the box A and the oil-stop L,) and deep enough to allow of the insertion of a spring, O, under the oil-stop L, to keep the latter pressed up against the axle C to retain the oil in the box. The oil-stop L is made of leather; but, if made of vulcanized rubber or wood, it should be in two parts, divided on the horizontal line about one-half inch apart, to allow for wear. The cleat K is cut away at *k* to the depth of the groove *p*, and the edge *m m'* of the plate M is cut away at *n* in such a way that it is not necessary to remove the box from the axle to change the oil-stop, as heretofore done; but the box is raised by a lifting-jack enough to remove the brass B, and then let down on the journal, which latter will thereby raise the oil-stop and holder and bring the notch *n* opposite to the solid portion of the cleat K, which is above the notch K, and small enough to pass through the notch *n*, while at the same time, the solid edge *m'* of the holder M below the notch *n* will be opposite and in position to be passed out of the notch *k*, thus enabling the oil-stop holder M to be slid back on the axle an inch or two until it rests against the side of the wheel. This gives room enough between the box A and the holder M to insert a new oil-stop after removing the old one, which is easily slid on the axle out of its position, as its width is only equal to or less than the distance between the cleats K, and its edges do not enter the side grooves *p*.

The upper end of the plate M is bent down at right angles, so as to form a small flange, which rests on the box A when the holder M is inserted in position.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The lid E, having downwardly-tapering edges *c* and projections *f*, in combination with box A, having wedge-shaped grooves *a'* arranged oppositely in the vertical sides of the front end of box, as and for the purpose specified.

2. The oil-stop holder M, fitted in the side grooves *p* and bottom recess P, and provided with the edge notches *n*, in combination with the cleats K, provided with the notches *k*, substantially as and for the purpose set forth.

FRANCIS MARION ALEXANDER.

Witnesses:

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MILTON LOTHROP.