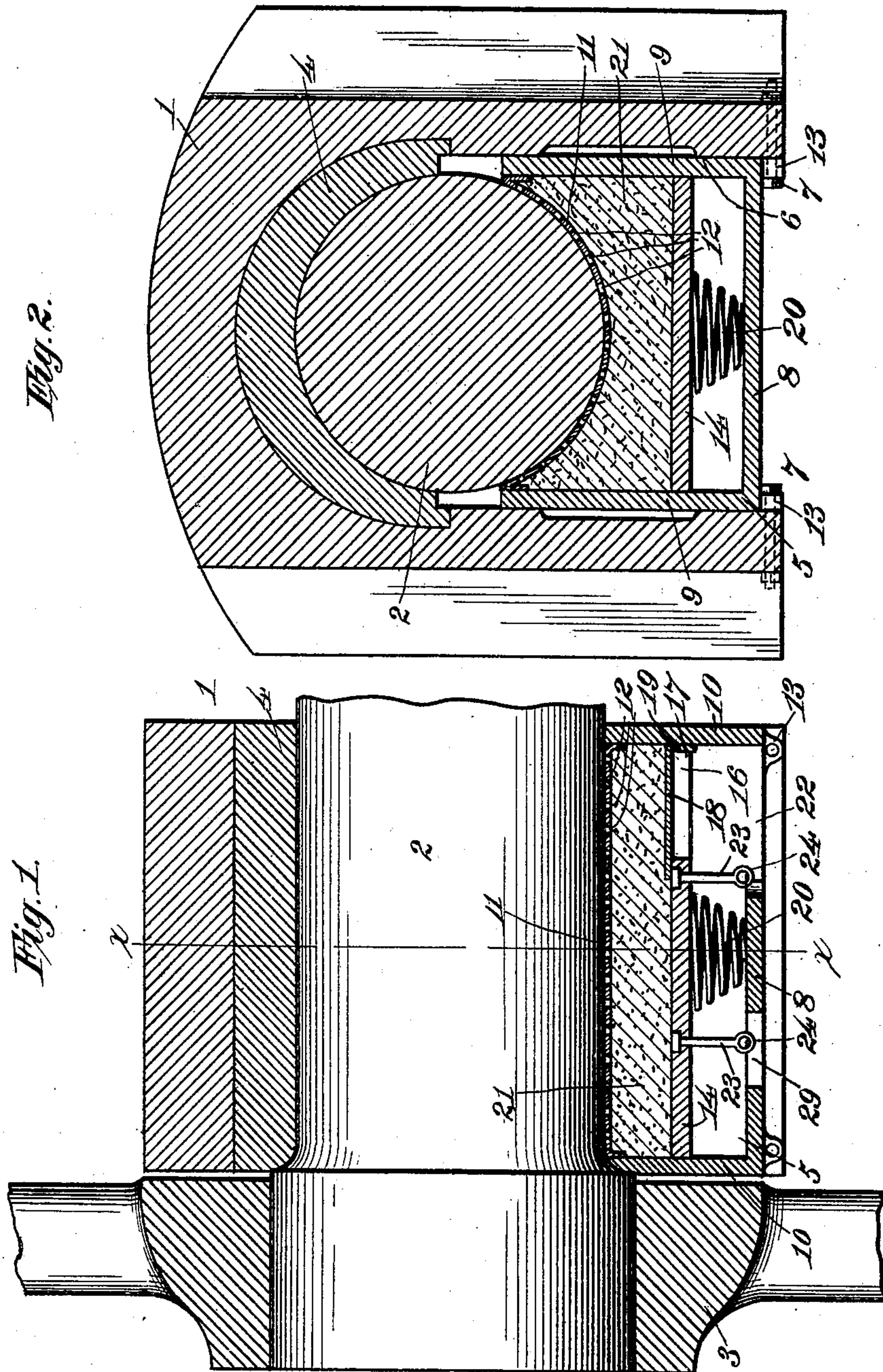


980,876.

P. McKINNEY.
LUBRICATING DEVICE.
APPLICATION FILED JUNE 13, 1910.

Patented Jan. 3, 1911.

2 SHEETS—SHEET 1.



Witnesses

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LUBRICATING DEVICE.

980,876.

Specification of Letters Patent.

Patented Jan. 3, 1911.

Application filed June 13, 1910. Serial No. 566,571.

To all whom it may concern:

Be it known that I, PLIANT McKINNEY, a citizen of the United States, residing at Argenta, county of Pulaski, and State of Arkansas, have invented certain new and useful Improvements in Lubricating Devices, of which the following is a specification.

My invention relates to lubricating devices and particularly to lubricating devices for the journals of the main drivers of a locomotive.

With the lubricators now in general use on locomotives considerable time and expense is required in repacking the same. The main pedestal brace must be removed and it requires a machinist and two helpers working for one hour to an hour and one-half to pack the journal box.

The object of my invention is to provide an improved lubricating device for journals whereby the journals of the main drivers of locomotives may be readily and quickly repacked, and whereby but one man is required to do the work.

A further object of my invention is to provide a device of the class mentioned particularly adapted for the purpose stated but which may also be used in other places.

A further object of my invention is to provide a device of the class mentioned which shall be of simple construction, efficient in operation and which will not readily get out of order.

Other objects will appear hereinafter.

With these objects in view my invention consists generally in a journal box recessed at the bottom to receive a cellar, a hollow block or cellar therein having a perforated or foraminated upper wall curved to fit the journal, a spring pressed follower in the cellar having a filling opening therein and a closure for said opening, the bottom of the cellar also being provided with an opening in its bottom corresponding to the opening in said follower whereby access may be had to the cellar above the follower for filling the same with lubricant without the necessity of removing any of the parts of the journal box or adjacent portions of the machine.

My invention further consists in certain means and construction whereby the follower plate may be retracted and held in retracted position while repacking the box.

My invention further consists in various

details of construction and arrangements of parts all as will be fully described hereinafter and particularly pointed out in the claim.

My invention will be more readily understood by reference to the accompanying drawings forming a part of this specification and in which—

Figure 1 is a vertical longitudinal section through a journal box equipped with a lubricating device embodying my invention in its preferred form, Fig. 2 is a transverse section taken on the line $x-x$ of Fig. 1, Fig. 3 is a view similar to Fig. 1, illustrating the follower plate drawn down and the device opened for filling or repacking, Fig. 4 is a bottom plan view of the cellar, and Fig. 5 is a perspective view of the follower plate.

Referring now to the drawings 1 indicates the journal box, 2 the journal and 3 the hub of one of the main drivers of a locomotive. The box 1 is provided with the usual brass 4 and its lower portion is recessed as at 5 to receive the cellar 6 which is held in position by the usual bolts 7. The cellar comprises a hollow box-like member, rectangular in horizontal section and comprising a bottom 8, side walls 9—9 and end walls 10—10, the latter being curved at the upper edges to conform to the journal 2. The box 5 is open at the top and provided with a top plate 11 which is also shaped to fit snugly against the lower portion of the journal and is perforated or foraminated, 12 indicating the perforations. The bottom of the box or cellar is provided with perforated ears or lugs 13 to receive the bolts 7.

Arranged within the cellar is a horizontally disposed follower 14. This comprises a rectangular plate coextensive in length and breadth with the inner dimensions of the cellar. The follower plate 14 is cut away at one end as at 15 forming an aperture or filling opening 16 through which the lubricant is inserted. The opening 16 extends but part of the way across the plate leaving the projecting sides or edges 17, the ends of which abut the end wall of the box 5 to maintain the plate in proper position and for a purpose hereinafter described.

Slidably mounted upon the upper face of the follower plate 14 is a thin plate 18 which forms a closure for the opening 16. By referring to Figs. 1 and 5 it will be noted that the portions 17 of the follower form supports or ways for the closure plate 18. The

plate 18 is provided with a depending flange 19 which extends downwardly between the portions 17 and constitutes a stop to limit the movement of the plate 18 when being
 5 opened and also serves as means for opening and closing the same. An inverted conical spring 20 is interposed between the bottom 8 of the cellar and the follower plate 14 and constantly tends to force the latter upwardly
 10 together with the lubricant 21 resting thereon to maintain a constant supply of lubricant to the journal through the perforations 12.

The bottom 8 of the cellar 5 is provided
 15 with an opening 22, preferably somewhat larger in dimensions than the opening 16 in the plate 14, and directly beneath the same. By this construction it is evident that access may be had to the interior of the cellar and
 20 to the space above the follower plate for filling the same without the necessity of removing any of the parts of the journal box or adjacent portions of the engine or machine.

Novel means are provided for retracting
 25 or depressing the follower 14 against the tension of the spring 20 to facilitate repacking the box. To this end the plate 14 is provided with a pair of depending bolts or rods 23 having eyes 24 at their lower ends.

30 25 indicates a weight of sufficient heft to draw the plate 14 downwardly against the tension of the spring 20. This is provided with a chain or chains 26 having hooks 27 at its ends to engage the eyes 24. The weight
 35 and chain are only used when the box is being repacked.

One of the bolts or rods 23 may extend through the opening 22 in the bottom of the cellar and said opening may be somewhat

enlarged adjacent thereto as at 28, whereas
 40 a smaller opening 29 is provided in the bottom of the box to give access to the eye of the other bolt or rod.

When it is desired to repack the box the
 45 hooks 27 are inserted in the eyes 24 and the weight draws the follower plate 14 downwardly as shown in Fig. 3. The plate 18 is then moved back as also shown in the same figure to open the aperture 16. The grease
 50 or packing is then inserted above the plate 14 and the plate 18 moved to close the aperture 16. The weight 25 is then removed and the engine or machine is ready for further use.

Having described my invention what I
 55 claim as new and desire to secure by Letters Patent is:—

A journal box recessed at the bottom, a cellar arranged in the recess in said box, a
 60 foraminated top for said cellar, a follower plate in said cellar cut away centrally at one end for a portion of its width forming a filling opening and a pair of projecting ends, a movable closure for said opening slidably
 65 mounted upon the upper face of said plate and said projecting ends, a spring interposed between said plate and the bottom of said cellar and the bottom of said cellar being provided with an enlarged unobstructed
 70 opening directly beneath said filling opening, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PLIANT McKINNEY.

Witnesses:

S. O. JORDAN,
 ALLEN PARKER.