

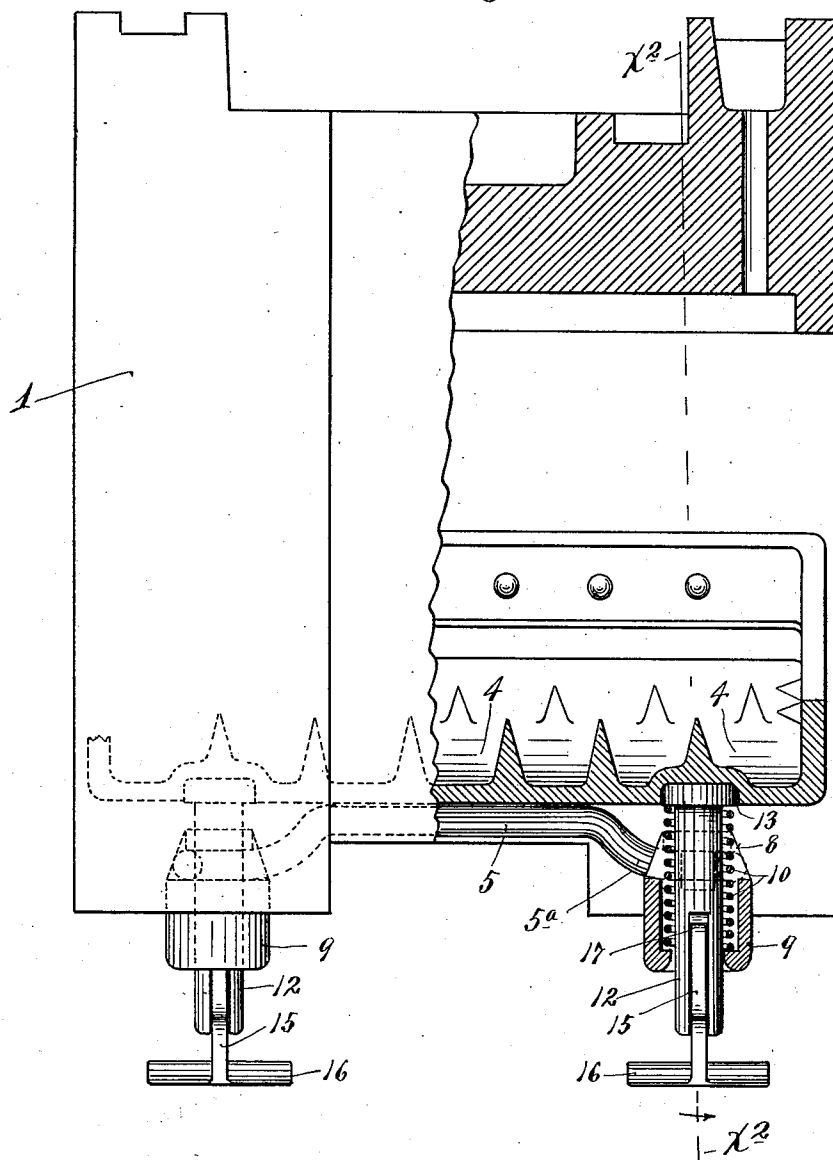
W. McINTOSH.
 AUTOMATIC TRUCK CELLAR FOR LOCOMOTIVES.
 APPLICATION FILED JAN. 28, 1910.

1,011,983.

Patented Dec. 19, 1911.

2 SHEETS—SHEET 1.

Fig. 1



Witnesses.
 A. H. Opsahl.
 W. H. Souba.

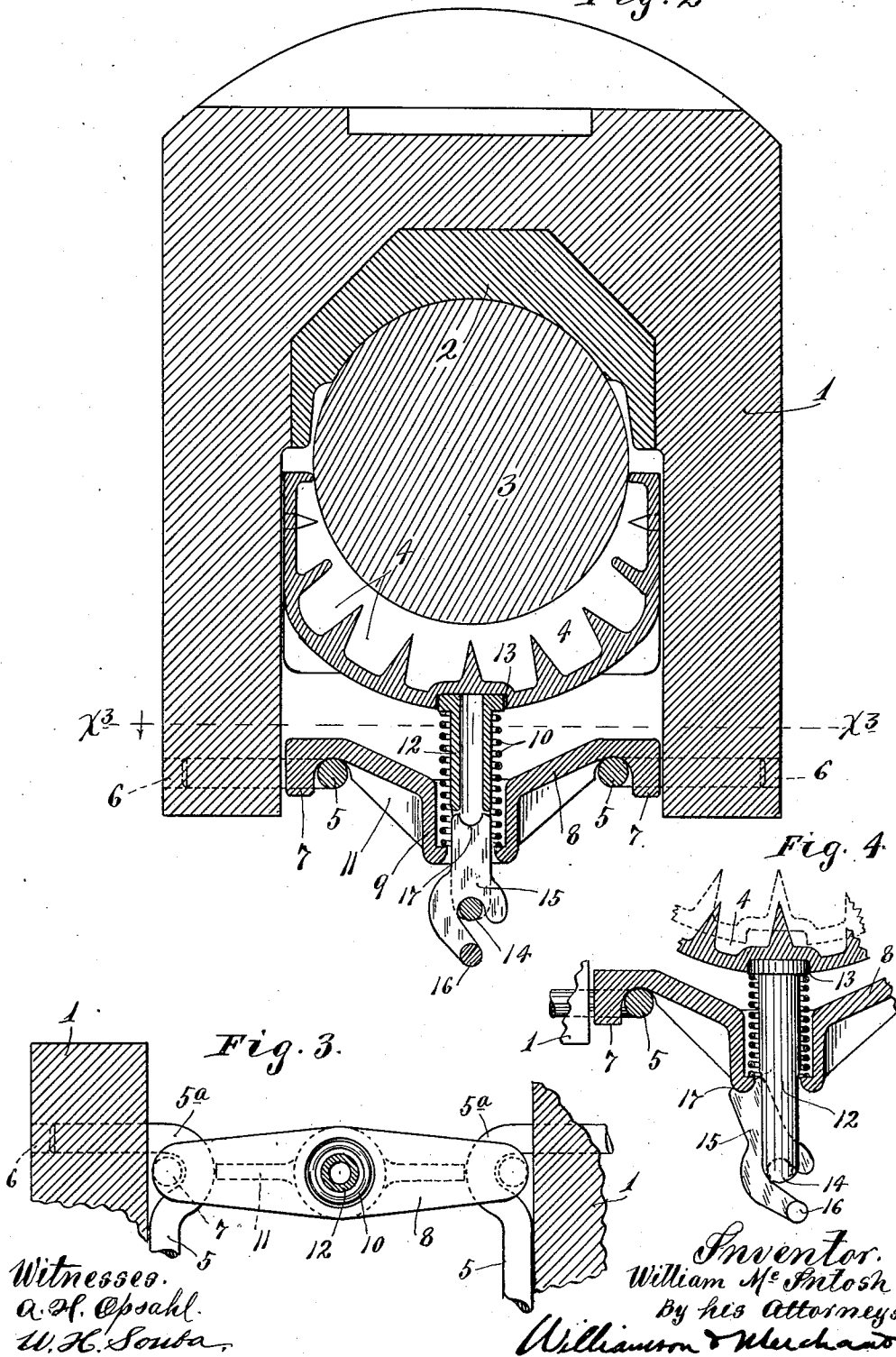
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Fig. 2 ^{2 SHEETS—SHEET 2.}



UNITED STATES PATENT OFFICE.

WILLIAM McINTOSH, OF PLAINFIELD, NEW JERSEY.

AUTOMATIC TRUCK-CELLAR FOR LOCOMOTIVES.

1,011,983.

Specification of Letters Patent.

Patented Dec. 19, 1911.

Application filed January 28, 1910. Serial No. 540,594.

To all whom it may concern:

Be it known that I, WILLIAM McINTOSH, a citizen of the United States, residing at Plainfield, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Automatic Truck-Cellars for Locomotives; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My present invention is particularly directed to the improvement of automatic lubricators of the so-called truck cellar type, for use on locomotives and other railway vehicles and, to this end, the invention consists of the novel devices and combinations of devices hereinafter described and defined in the claims.

In automatic truck cellars, the oil cellar is yieldingly pressed upward against the body of the axle journal, so as to compensate for wear and to keep the oil-saturated waste or packing in contact with the journal.

My invention provides an extremely simple and highly efficient device for the above purpose, which, in itself, may be very easily manipulated, thereby permitting easy application of the oil cellar to the journal, and easy removal thereof from the journal, whenever desired.

In the accompanying drawings, which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a view partly in side elevation and partly in vertical section, showing the journal box of the type used in locomotives and illustrating my invention applied thereto; Fig. 2 is a vertical section taken on the line $x^2 x^2$ of Fig. 1; Fig. 3 is a fragmentary view, in horizontal section, taken on the line $x^3 x^3$ of Fig. 2, looking downward; and Fig. 4 is a fragmentary view corresponding in the line of its section to Fig. 2, but showing the operation of one of the cellar retaining plungers contracted.

The numeral 1 indicates an approximately inverted U-shaped journal box of the type used in locomotives, and which journal box is adapted to fit between depending arms of heavy side frames not shown. Seated within the box 1 is the customary bearing brass 2 which rests on top of the journal of the axle 3, which axle is shown only in Fig. 2. The oil cellar 4, which may be of usual or any suitable construction adapted to fit between the depending flanges of the box 1, is adapted to closely engage the under side of the journal of the axle and to hold a suitable oil saturated packing, such as waste, against the journal. Anchor brackets, preferably in the form of steel rods 5, are bent laterally at their ends, so that they are adapted to enter the customary cellar bolt holes 6 in the lower flanges of the box 1. At the junction of the laterally bent ends of the rods 5 with the body portions thereof, the said rods are bent to form loops or seats 5^a, into which the depending ends or terminal pins 7 of yoke bars 8 are adapted to be inserted. There are two of these yoke bars, and at their central portions they are provided with depending sockets 9 having inturned ledges at their lower extremities adapted to support coiled springs 10. From the sockets 9, reinforcing ribs 11 extend outward on the yoke bars 8 and terminate close to the looped portions 5^a of the anchor bars 5 and thereby hold the latter with their bent ends seated in the bolt holes 6, as long as the said yoke bars are in working position.

Working through each yoke socket 9 and through the cooperating coiled springs 10 are cellar supporting plungers or bolts 12 provided at their upper ends with flanged heads that rest upon the said springs and are normally held by the said springs seated within depressions or pockets 13 formed in the bottom of the end portions of the oil cellar 4. The plungers 12 depend through the yoke sockets 9 and are provided at their lower extremities with transverse fulcrum pins or portions 14, and above said fulcrums they are formed with long transverse slots

in which plunger lock levers 15 are located. These lock levers 15 are provided with depending hand pieces 16 and they are formed with notches or seats that rest directly upon the said fulcrum pins 14. The upper portions of the lock levers 15 are adapted normally to work freely within the surrounding coiled springs 10 and they are provided in their extreme upper ends with notches 17 that are adapted to engage the lower edges of the yoke sockets 9, when the plungers are drawn downward as shown in Fig. 4 and the said lock levers are rocked on the fulcrum pins 14, as also shown in said Fig. 4. These manipulations may be easily produced by taking hold of the hand piece 16.

There is sufficient spring in the so-called anchor rods 5 to permit the laterally bent ends thereof to be engaged with the bolt hole 6 regardless of the slight irregularities or variations in the spacing of the said holes. When the yokes 8 are to be applied in working position or to be removed therefrom, the plungers 12 should be drawn downward, the springs 10 compressed and the said parts locked in such relative positions in respect to the yokes as shown in Fig. 4, by the manipulation just above described. When this is done, the oil cellar 4, if in working position, will drop with the plungers and away from the axle journal, but it may then be easily lifted off from the plungers and removed endwise from the journal box. On the other hand, when the yoke bars are applied to the anchor rods with their plungers depressed, the oil cellars may be readily inserted into the journal box and seated upon the plungers and then, when the lock levers are rocked on the fulcrums 14, so that their upper portions are alined with the respective plungers, the springs 10 will be released and will force the plungers upward until they have carried the oil cellar against the axle journal.

The above noted manipulations, as is evident, may be very quickly and easily accomplished, so that the application or removal of the oil cellar is made a very simple matter. At the same time, when the spring pressed plungers are released and allowed to become operative, they very efficiently hold the oil cellar in working position and cause the same to maintain engagement with the journal and to take up all slack incident to wear. In fact, when the spring pressed plungers are operative, they hold all of the parts positively locked together, in which condition they will remain indefinitely until the said spring pressed plungers are intentionally drawn downward in the manner already described.

The fact that the improved device may be readily applied to journal boxes of standard

construction, without remodeling thereof, and without the use of bolts, nuts, cotters or similar devices which are liable to be jarred or rattled loose, is highly important.

The so-called automatic truck cellar above described, while especially designed for locomotives, is, nevertheless, capable of general use wherever a lubricating device of this character may be found desirable.

What I claim is:

1. The combination with a journal box and an oil cellar, of a yoke bar relatively fixed in respect to said journal box and spanning the space below said oil cellar, a spring pressed plunger working through the intermediate portion of said yoke bar and pressing said oil cellar upward, and means for locking said plunger to said yoke bar, in a retracted position.

2. The combination with a journal box and an oil cellar working therein, of anchor brackets applied to the lower portions of said journal box, a rigidly held yoke-bar detachably seated on said anchor brackets and spanning the space below said cellar, and a spring pressed plunger working through said yoke-bar and engageable with the lower portion of said oil cellar.

3. The combination with a journal box and an oil cellar working therein, of anchor rods with looped and laterally bent ends, which latter are detachably seated in holes formed in the lower portions of said journal box, yoke bars having central sockets and depending ends, which latter are detachably seated in the loops of said anchor rods, spring-pressed plungers working through the sockets of said yoke bars and having interlocking engagement with the bottom of said oil cellar, and lock levers fulcrumed on said plungers and engageable with the sockets of said yoke bars to hold said plungers in retracted positions, substantially as described.

4. The combination with a journal box and an oil cellar working therein, of a yoke bar supported below said cellar and provided with an intermediate socket, of coiled springs seated in the socket of said yoke bar, a plunger working through said socket, yieldingly supported by said spring and engageable at its upper end with a pocket in the bottom of said oil cellar, the said plunger at its lower portion being provided with a fulcrum and above said fulcrum with a transverse slot, and a lock lever mounted on said fulcrum, provided with a depending hand piece and having an upper end portion adapted normally to work within said coiled spring but engageable with the lower portion of said yoke socket to hold said plunger in a retracted position against the tension of said spring, substantially as described.

5. A combination with a journal box and

an oil cellar working therein, of a relatively fixed yoke bar in respect to said journal box and spanning the space below said oil cellar, a spring pressed plunger working through
5 the intermediate portion of said yoke bar, engageable with and exerting yielding upward force on said oil cellar, and a lock lever fulcrumed on said plunger and engageable with said yoke bar to hold said plunger in a retracted position, substantially as described.

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

WILLIAM McINTOSH.

Witnesses:

JOSEPH T. VAIL,
E. FRANK VAIL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
