No. 835,319. PATENTED NOV. 6, 1906.

J. W. PEPPLE.

JOURNAL LUBRICATOR.

APPLICATION FILED JAN. 15, 1906.

Fig. 1.

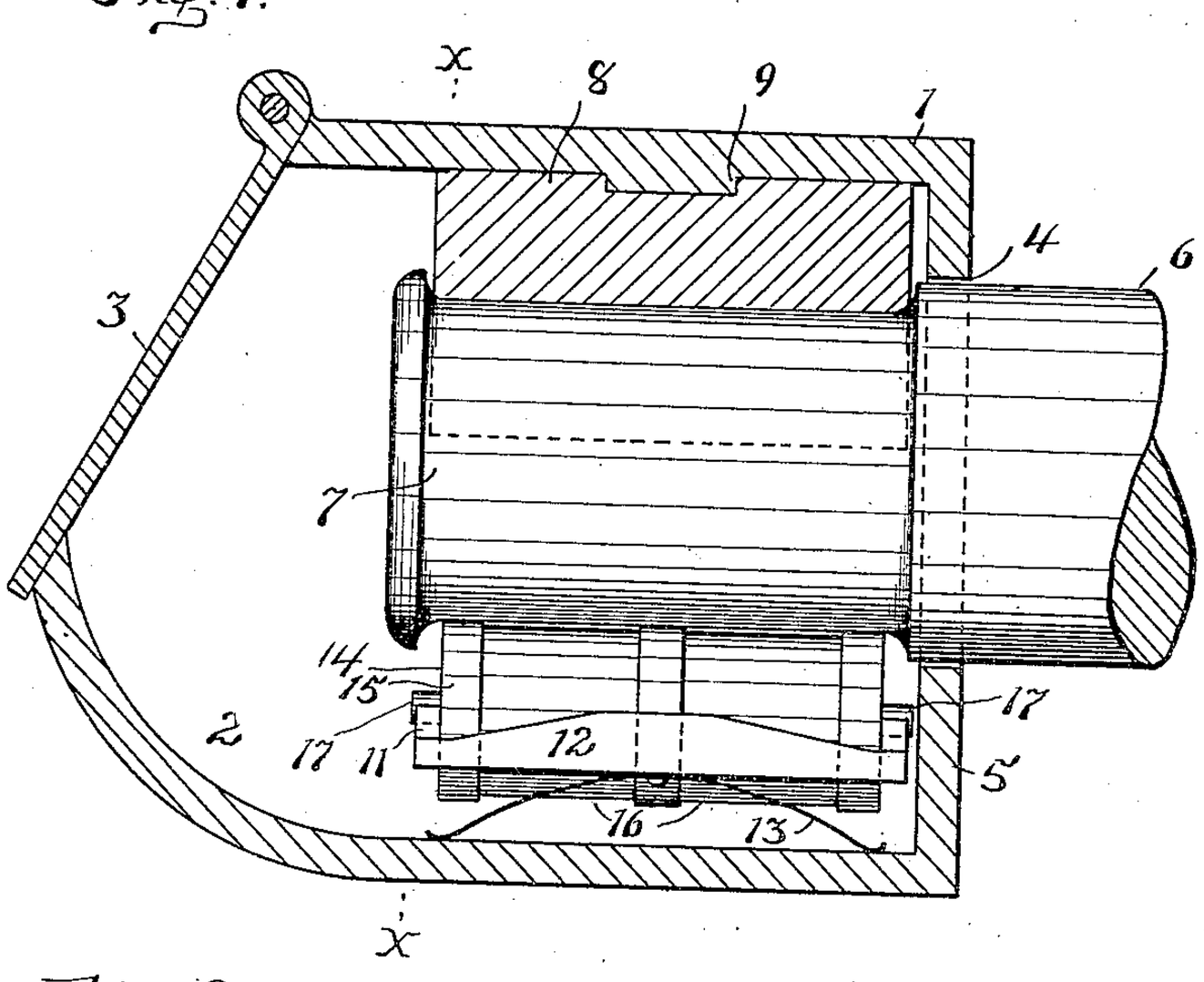
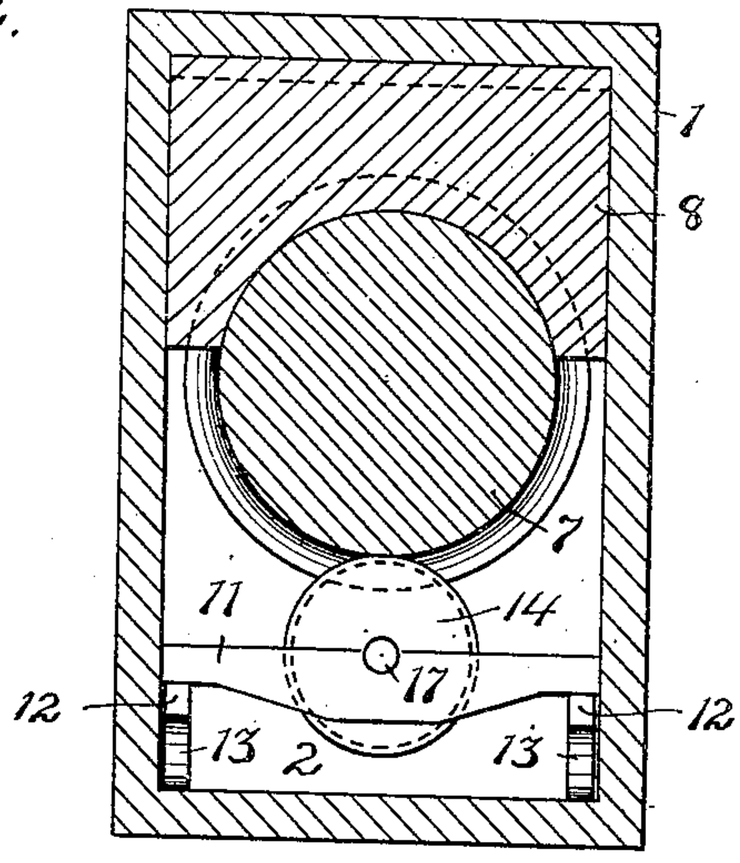


Fig. 2.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JOHN W. PEPPLE, OF HILLSBORO, TEXAS, ASSIGNOR TO THE INTERNATIONAL LUBRICATOR COMPANY, A CORPORATION OF TEXAS.

JOURNAL-LUBRICATOR.

No. 835,319. Specification of Letters Patent. Patented Nov. 6, 1906.

Application filed January 15, 1906. Serial No. 296,013.

To all whom it may concern:

Be it known that I, JOHN W. PEPPLE, a citizen of the United States, residing at Hillsboro, in the county of Hill, in the State of Texas, have invented certain new and useful Improvements in Journal-Lubricators; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in journal-lubricators specially designed and adapted for the lubrication of car-axle journals.

It is well known that under present methods of lubrication there is a very large percentage of waste, particularly in the lubrication of car-axle journals and analogous uses, especially where such absorbent fibrous material as ordinary "waste" is employed, since loss of the lubricant occurs both by leakage at the ends of the journal and by its absorption by the waste packing employed.

The object, therefore, of my present invention is to provide a cheap, simple, efficient, and reliable lubricating means for journals of all kinds, and particularly for car-axle journals adapted to distribute the lubricant with absolute uniformity and without any appreciable waste.

My invention consists of a lubricant-distributing roller of special construction, yieldingly mounted in a journal-box having an oil-compartment in the bottom thereof, the said distributing-roller having peripheral oil-conveying recesses or compartments and being so arranged in coöperative relation to the journal to be lubricated as to feed and distribute the oil in a reliable, economical, and uniform manner without appreciable waste.

The novel feature of my invention resides in the form and coöperative arrangement of the lubricant-distributing roller, by means of which economy and uniform distribution is secured and its derangement in use is avoided, and also in the means for yieldingly supporting the same.

The object of my invention is accomplished and secured by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical longitudinal central section of a car-axle journal-box of common form, showing the coöperative relation between my invention and the journal-surface to be lubricated and also showing the manner of yieldingly mounting my distributing-roller, the bearing-block being also shown in vertical section. Fig. 2 is a cross-section of the same taken on the line $x\ x$ of Fig. 1 and looking toward the right.

Similar reference-numerals indicate like parts throughout both views.

My invention, as shown in Fig. 1, is removably mounted in a Master Car-Builders' standard journal-box 1 of common and well-known construction, preferably of metal and provided with a proper oil-compartment 2 and a hinged lid 3, though the mere form or construction of the journal-box is obviously immaterial. In a suitable lateral opening 4 in the inner side 5 of the journal-box 1 is rotatably mounted the car-axle 6 of common form, provided with the usual or other proper journal 7, and having the common or other proper bearing-block 8 in the usual relation, and preferably recessed on its upper face to form a holding engagement with the corresponding lug 9 on the adjacent inner face of the journal-box to prevent any longitudinal displacement of this block in use. On the bottom of the journal-box adjacent to its inner end in proper relation to the journal 7 is arranged in any proper manner a rectangular supporting-frame, whose ends 11 and sides 12 are of any proper contour, dimensions, and material and are preferably integral, or made in one supporting-casting. This frame is fixed upon any suitable supporting-springs of proper strength and of any desired form, preferably consisting of a pair of flat springs 13, rigidly fixed to the lower face of the sides 12. These springs are of proper strength and tension to keep the surmounted lubricant-feeding roller firmly pressed into contact with the lower face of the journal 7, as shown in Fig. 1.

The lubricating-roller 14, of proper dimensions and material, preferably of metal, has a plurality, preferably three, peripheral bearing-surfaces 15, adapted to be firmly pressed

at all times in contact with the surface of the axle-journal by means of the springs 13, as shown in Fig. 1. This roller 14 is also provided with a series of recessed peripheral faces 16, which are at all times out of contact with the adjacent journal-surface, but in operative proximity thereto, as shown, and adapted to continuously feed the lubricant to the journal in use. The lubricating-roller 14 has at its opposite ends concentric trunnions 17, which are rotatably mounted in suitable bearings in the upper face of the ends 11 of the supporting-frame and preferably midway of their ends, Fig. 2.

The operation and manner of employing my invention is obvious, and briefly stated is as follows: A proper quantity of lubricating-oil is placed within the journal-box 1, preferably enough to partially submerge the lubricating-roller, but not enough to leak out through the opening 4 in use. The rotation of the axle-journal 6 will of course oppositely rotate the lubricating-roller, which will continuously carry upward the lubricant on the recessed portions 16 thereof and constantly deposit it upon the adjacent lower surface of the journal 7, from which it will be equally and uniformly distributed by the revolution of the axle-journal in a well-understood manner.

By yieldingly mounting the lubricating-roller upon the supporting-springs 13 the danger of the weight of the car being accidentally thrown upon the roller-bearing, and thereby deranging the same, is obviated, and at the same time the roller is firmly pressed at all times in use against the lower face of the journal 7.

It is obvious that by the use of my invention there is no appreciable waste of the lubricating-oil. It is also evident that my invention can readily be adapted for use upon many other forms of journals and in numerous other situations.

Having thus described my invention and the manner of employing the same, what I desire to secure by Letters Patent is—

A journal-lubricating means comprising the combination of a supporting-frame formed of a pair of side and a pair of end bars, each of said end bars having its top edge cut away approximately centrally thereof in a semicylindrical manner, a bow-shaped spring bearing against the lower face of each of the side bars at the center thereof, means extending through the springs at their centers and engaging in the bottom edge of the side bars for securing the springs to said side bars, said springs adapted to have their free ends rest upon the bottom of a journal-box for yieldingly supporting the frame, a roller provided at each end with a journal, said roller arranged in said frame and having the journal thereof engaging in the semicylindrical cut-away portions of the end bars of the frame, thereby rotatably supporting said roller, said roller adapted to be mounted in coöperative relation with respect to the lower face of the journal to be lubricated, and said roller at each end thereof provided with a peripheral bearing-surface and approximately centrally thereof with a peripheral bearing-surface forming thereby a recess between each pair of bearing-surfaces, said peripheral bearing-surfaces in normal contact with the journal to be lubricated.

Signed by me at Hillsboro, county of Hill, and State of Texas, this 10th day of January, A. D. 1906.

JOHN W. PEPPLE.

Witnesses:
C. M. Brooks,
Wiley M. Fain.