(No Model.)

M. DOUGHERTY.

CAR AXLE BOX.

No. 332,646. Patented Dec. 15, 1885.

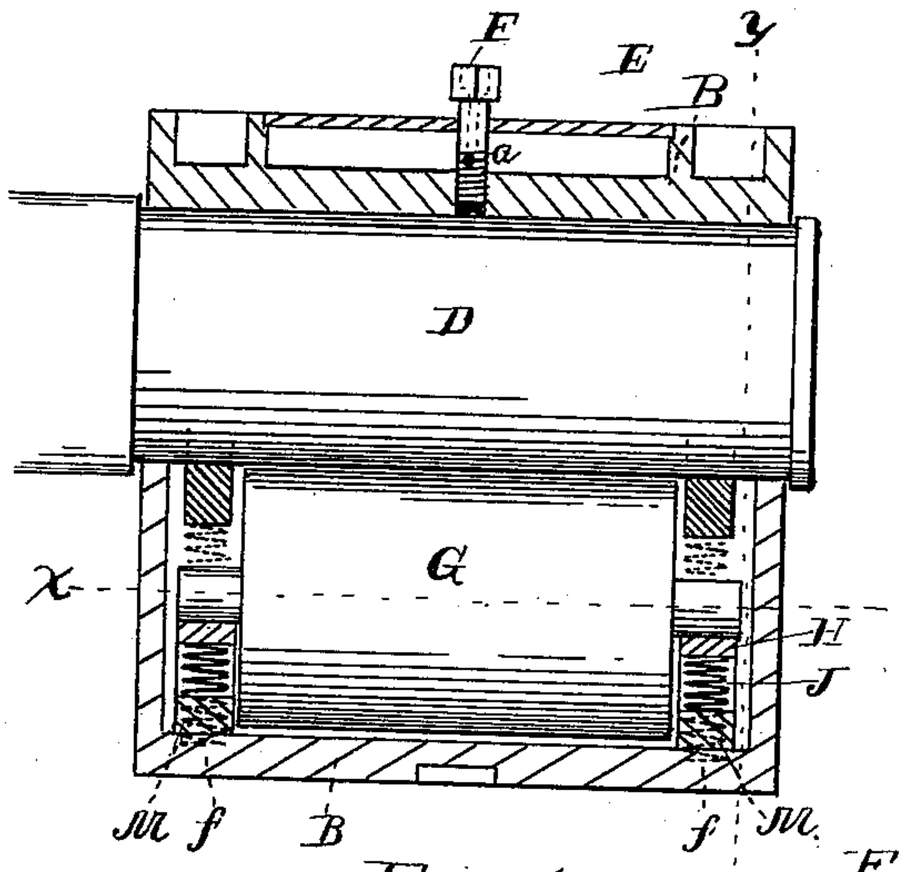

Fig. 1.

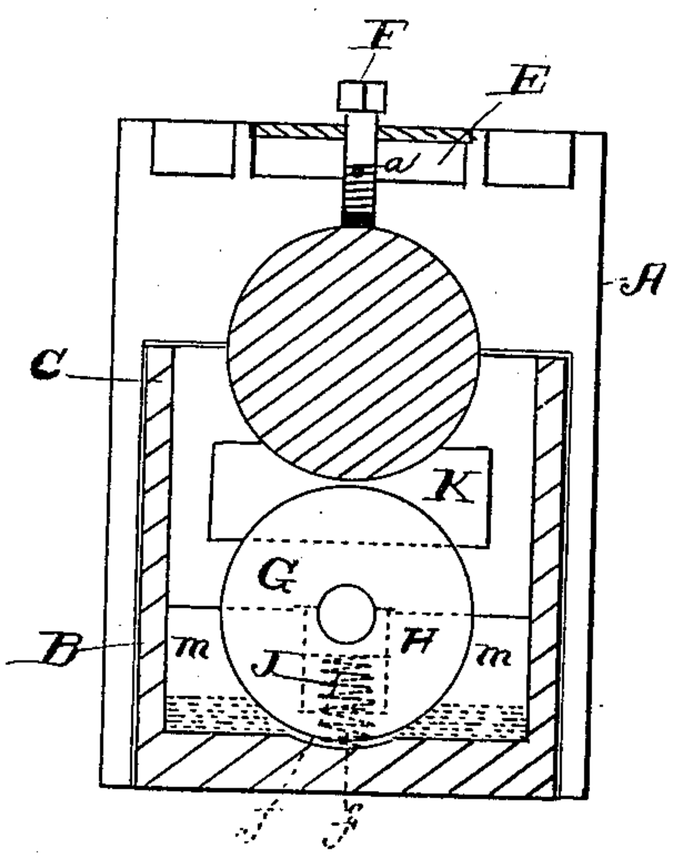

Fig. 2.

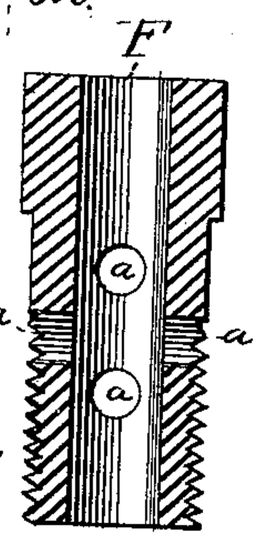

Fig. 5.

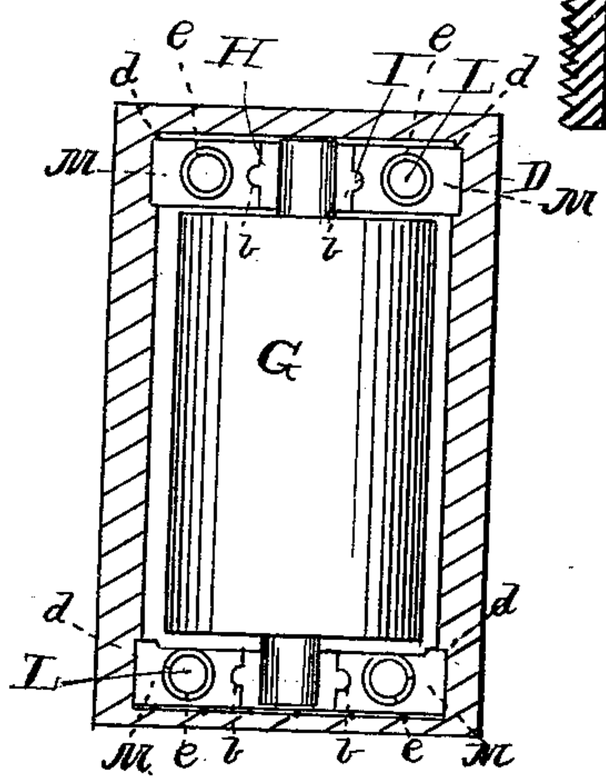

Fig. 3.

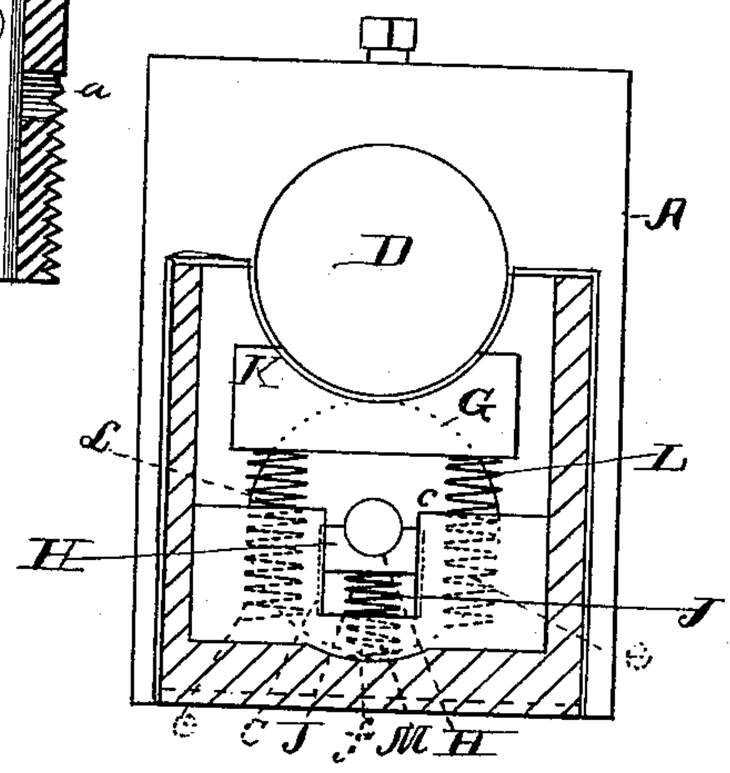

Fig. 4.

WITNESSES:

Robert Kirk

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UNITED STATES PATENT OFFICE.

MICHAEL DOUGHERTY, OF SEDALIA, MISSOURI.

CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 332,646, dated December 15, 1885.

Application filed July 8, 1885. Serial No. 170,950. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL DOUGHERTY, of Sedalia, in the county of Pettis and State of Missouri, have invented a new and useful Improvement in Oil-Distributers, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a longitudinal central section of my improved oil-distributer; Fig. 2, a transverse vertical section; Fig. 3, a plan view in section at X, and Fig. 4 a transverse vertical section at Y. Fig. 5 is a detail view of the set-screw F.

The present invention relates to an improvement in oil-distributers for railway-journals, where, in place of the lower part of the journal-boxing, usually filled with oil and cotton waste, I provide a small roller beneath the journal within the box, adjustable vertically within ways provided with a bearing against the under surface of the journal by means of spiral springs at the ends of this small roller, and independent bearing-springs carry rubber pieces at each end of the journal, to prevent the oil from working out at the ends of the said journal, all of which will now be fully set forth in detail.

In the accompanying drawings, A represents an ordinary journal-box formed in two sections, B, which slip into the part A, the lower or reservoir part, and C, the upper and outer part, which has a bearing on the axle-journal D. This latter section C is provided with the usual oil-reservoir, E, in its upper part, provided with the adjustable feeding set-screw F. This set-screw is hollow and provided with perforations *a a*, through which oil is fed to this reservoir E.

On the inner side of the section B, immediately beneath and parallel with the axle-journal D, I provide an oil-distributing roller, G. I also provide the lower section, B, with grooves *d d*, into which fit the bearings M M, which are provided with perforations *e e* at each end, and a perforation, *f*, in the center of the bottom and within the ways I I. The journal-boxings H H of the roller G are provided with tongues *c c*, and these boxings are placed within the ways I I, which are also provided with corresponding grooves, *b b*, within the ends of the section B, and beneath these boxings, within the ways in the perforations *f f*, are spiral springs J, of sufficient tension to press the periphery of the roller G against the axle-journal D. The section B, forming the reservoir for the oil, being partly filled with oil, the axle-journal D, revolving within the boxing, and the roller G, pressing against its under side by the tension of the springs J, carry up the oil within the said reservoir and distribute it along the periphery of the axle-journal.

In order that the oil may not work outwardly along the journal D, I provide sections of rubber K beneath the axle journal, and outwardly from the ends of the roller G, the upper side of these sections being concaved somewhat, so as to fit the periphery of the said axle-journal D. These sections are designed to rub against the axle-journal, and are held in position by means of spiral springs L at each end, as shown in Figs. 3 and 4.

In operation the movement of the axle-journal D causes the roller G in the reservoir to run, thus carrying up the oil within the said reservoir and distributing it evenly along the periphery of the journal D, coming in contact with the boxing C. This it will do evenly and as continuously and as long as oil remains within the reservoir. The rubbers K at each end of the journal effectually prevent the oil from working out laterally from the boxing, and thus becoming wasted. As will be noticed, all cotton waste is effectually dispensed with, while at the same time there is a great saving in oil.

What I claim as new is—

1. The combination of the hollow perforated set-screw F and the reservoir E with the journal-box, substantially as set forth.

2. The combination of the journal-box, provided with the recesses or grooves *d d*, with the bearings M M, having the grooves *b b*, and the bearings H, provided with the tongues *c c*, and working in the grooves *b b* and supporting the wheel G, substantially as described.

3. The combination of the oil-distributing roller journaled beneath the axle-journal, the journals of the distributing-roller adjustable within ways and provided with spiral springs, so as to produce a tension of the oil-distribut-

ing roller against the periphery of the axle-journal, with the rubber sections K K at the ends of the journal for preventing the escape of the oil, substantially as herein set forth.

4. The combination of the oil-distributing roller G, journaled within ways and provided with spiral springs J, so as to produce a tension against the periphery of the axle-journal D, the rubber sections K at the ends of the journal, the spiral springs L, two under each of the rubber sections, and the reservoir B, substantially as herein set forth.

5. The combination of the journaled boxing-sections A and B, the feeding set-screw F, the axle-journal D, the distributing-roller G, the concaved rubber sections K, and the spiral springs J and L, the whole arranged as and for the purposes substantially as herein set forth and described.

6. In an axle-lubricator, the axle-journal box provided with the bearings M M, in combination with the spring-supported journals H and the double spring-supported rubbers K K, all of said springs mounted in a common bearing and in direct line with each other, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, this 12th day of June, 1885, in the presence of witnesses.

MICHAEL DOUGHERTY.

Witnesses:
T. F. MITCHUM,
E. R. MARVIN.