(No Model.)

R. BREWER.

CAR AXLE BOX.

No. 327,916. Patented Oct. 6, 1885.

Fig. 1.

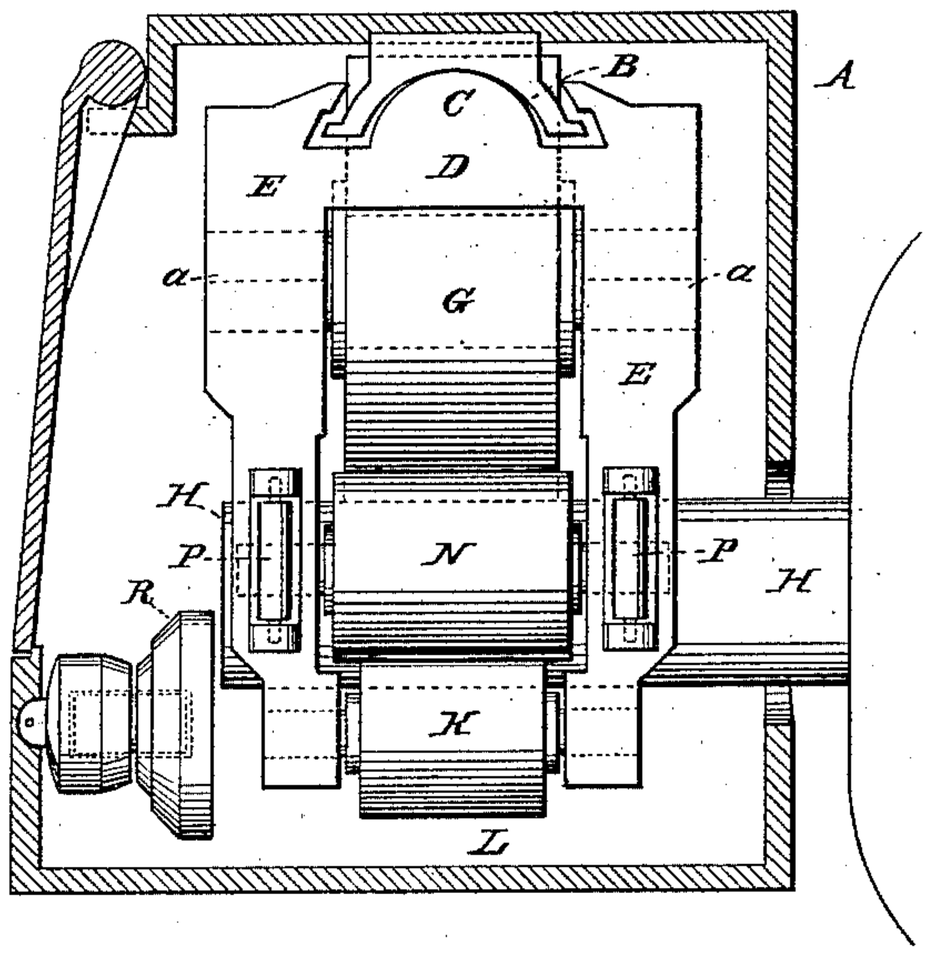
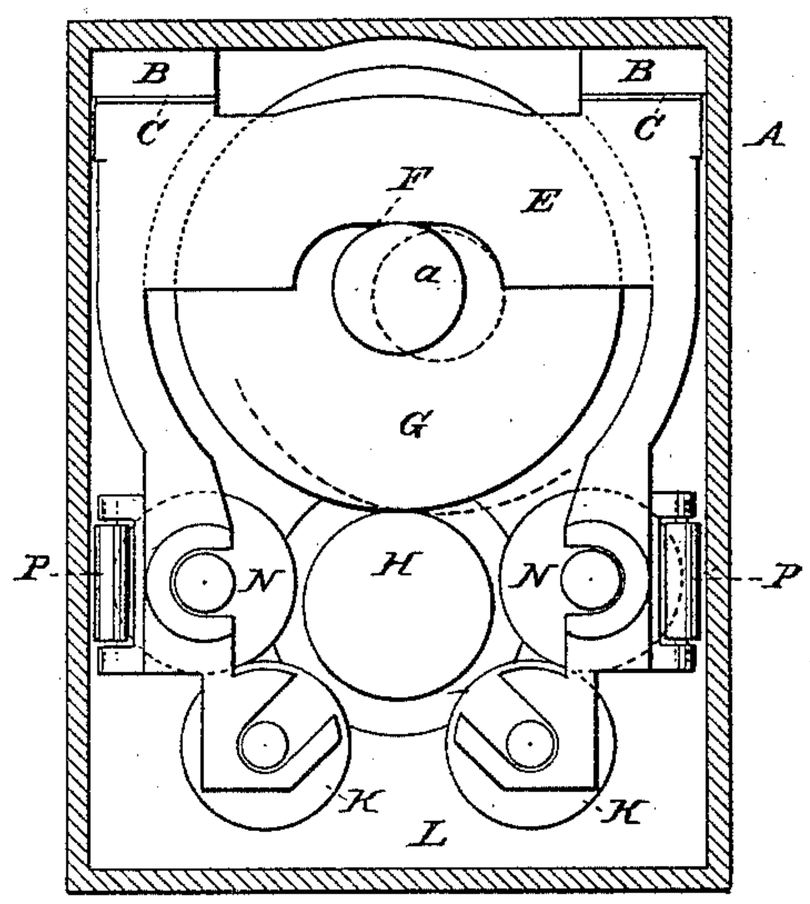


Fig. 2.



WITNESSES

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CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 327,916, dated October 6, 1885.

Application filed April 15, 1885. Serial No. 162,339. (No model.)

To all whom it may concern:

Be it known that I, RUSSELL BREWER, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Car-Axle Boxes; and I do 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of this invention, and shows an end view of the inner frame in a section of the boxing. Fig. 2 is a side view of the inner frame in a section of the boxing.

This invention has relation to car-axle boxes; and it consists in the construction and novel arrangement of devices, all as hereinafter set forth, and pointed out in the appended claims.

In the accompanying drawings, the letter A designates the incasement or external box upon which rests the equalizer-bar. This box is provided on the under side of its top portion, in front and rear, with transversely-concave bearings B, which are engaged by the transversely-convex lugs or rockers C of the interior bearing-frame, D, the lateral branches E E of which are provided with elongated bearings F, for journals *a a* of the main anti-friction roller G, which bears on the axle-journal H. The bearings F are a little elongated horizontally to allow a slight forward or backward motion to the bearing-roller G, sufficient to permit said roller to come in contact with the lubricating-rolls, which are arranged in bearings of the frame D in front and rear and below the level of the main bearing-roller. Usually two sets of lubricating-rolls are employed, the lower set, K K, dipping into the lubricating substance in the receptacle or oil-chamber L in the bottom of the box A, and the upper set, N N, engaging the lower set. The upper rolls, N N, which are engaged by the journal in front or rear, according to the direction of movement, are strengthened in position by the anti-friction rollers P of the box A, which are located, respectively, in front and rear of the frame D, being connected to those portions of said frame where the bearings of said rolls N N are located.

R is a wheel or disk, which is pivoted to a bearing of the main box A, having a slight rocking movement and adapted to come in contact at times with the end of the axle-journal H. It is designed to take up the end of the journal.

The weight of the car is supported through the concave bearings B of the box by the bearing-frame D and its roller upon the axle-journal. When the car is moved forward in either direction, the revolution of the axle-journal causes the main roller G to pass, by motions of the shifting bearings F, over the crown of said journal from front to rear a slight distance and bringing into action the lubricating-rolls in front. The lateral thrust and the vibratory movements of the axle, whereby it deviates from parallelism, are accommodated in this box by means of the convex lugs or rockers C of the bearing-frame D, and by the concave bearings of the main box, which are engaged thereby, so that sufficient lateral vibratory movement is allowed to the bearing-frame D, this being automatically controlled by the axle-journal through the bearing-rollers.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. In a car-axle box, the combination, with the anti-friction roller bearing upon the axle-journal, of an inner bearing-frame supported in place by the axle-journal, and having elongated bearings for the journals of said roller, substantially as specified.

2. In a car-axle box, the inner bearing-frame carrying the anti-friction rollers and having transversely-convex lugs or rockers engaging concave bearings of the box, whereby the bearings are automatically governed by the vibratory movements of the axle-journal, substantially as specified.

3. The combination, with an external box, of the internal roller-frame engaging concave bearings of the box, and having a shifting bearing-roller to engage the axle-journal, which automatically governs the roller-frame, substantially as specified.

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

Witnesses: RUSSELL BREWER.

THEO. MUNGEN,

PHILIP C. MASI.