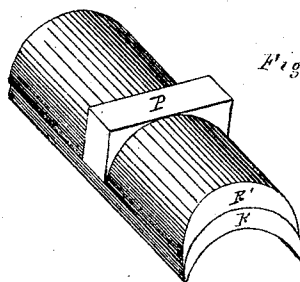
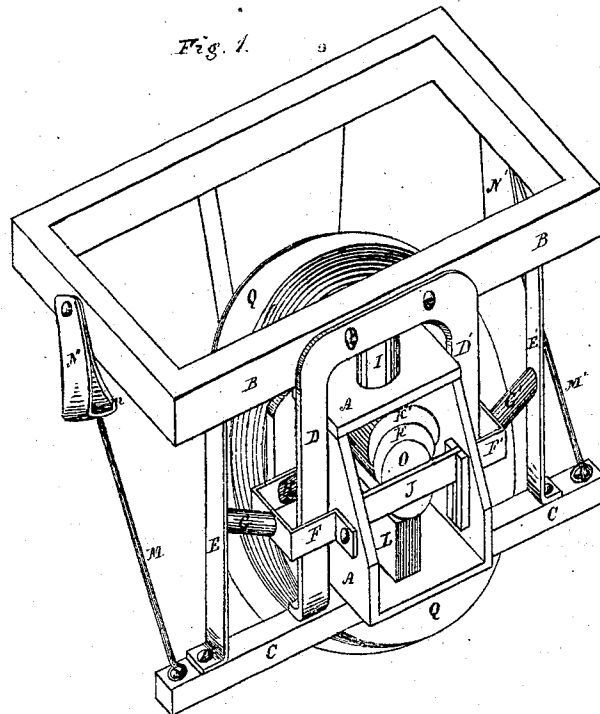


T. B. STEWART.

Improvement in Car Axle Box.

No. 124,227.

Patented March 5, 1872.



Witnesses.

Bundles
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UNITED STATES PATENT OFFICE.

TIMOTHY B. STEWART, OF HARTFORD, CONNECTICUT.

IMPROVEMENT IN CAR-AXLE BOXES.

Specification forming part of Letters Patent No. 124,227, dated March 5, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, TIMOTHY B. STEWART, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Axle-Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

My invention consists in a novel manner of hanging the axle-box of a railway car so that it moves against springs in all directions and has no friction of metallic surfaces or otherwise, being held in place by the springs only. It also consists in certain adjustments of the frame of the axle-box, whereby it is accurately set to its proper position and firmly held in place. It also consists in certain arrangements of the journal-box, by which it is held in place and prevented from turning.

In the accompanying drawing, Figure 1 is a perspective view of my invention. Fig. 2 is an enlarged perspective view of the journal-box, taken out from the axle-box to show its construction.

A is the oil-box, with the whole of the front plate removed to show the interior parts. B is the part of the frame of the car or truck to which the frame or guides of the axle-box are attached. C is a bar across the under side of the axle-box, to which the parts of the frame are attached. D D' and E E' are parts of the frame, made of plate iron, and which are firmly attached at the top and bottom to B and C. F F' are angular or bent pieces attached to the box A and reaching around the frame pieces D D'. G G' are springs of rubber or steel between the parts E and F and E' and F' to receive any lateral jar or motion of the box A; H and a, corresponding spring on the other side of the frame, concealed by the box A, and springs to take the end motion

of the box. I is the top spring, between the box and the frame B, to receive the weight of the car. J is a stop-plate, resting in guides within the box A, to prevent end motion of the journal O of the axle. K K' are the two crescent-shaped parts of the journal-box as commonly constructed. L is a post reaching from the bottom of the box A nearly up to the under side of the journal O. This is for the purpose of preventing the journal from being jarred out of the box K, as might occur by running off the track in city railways, so as to allow the waste with which the oil-box A is filled to get between the journal O and box K and cause friction. M M' are adjustable braces, connected with the loops N N' by nuts *m* and screw-threads so that their length can be adjusted to move the bar C into the proper position to bring the stop-plate J against the end of O, and to hold the parts of the frame firmly against end thrusts of the axle. P is a rectangular top attachment to the upper crescent-shaped piece of the journal-box, so that when it is placed in the box A the flat part will rest against the top and prevent K' from becoming displaced. The two crescent-shaped pieces K and K' are united together by rivets in the usual manner. Q represents the wheel of the car.

The operation of my invention is as follows: The journal-boxes are inserted over the journal O so that the flat part P rests in the top of A and transfers the weight from the spring I to the axle. The stop J is then inserted and the braces M M' regulated by means of the nuts *m*, so that the stop-plate first touches the end of the journal O. The box A is then filled with cotton-waste and oil in the usual manner, and closed up so that no dust can enter.

The pivot L, inside of A, does not touch the journal, but serves to prevent any extraordinary jar from throwing the journal out or away from the box K.

My improved axle-box, as herein described, is free to move in all directions against the springs attached to it without any rubbing

surfaces or any contact of the metallic parts between the box and frame.

Claims.

What I claim as my invention is—

1. The arrangement of the parts of the frame D E F with the springs G H so that the box A shall remain laterally suspended, substantially as herein described.

2. The adjustable braces M M' and the bar C for adjusting the position of the frame of the axle-box, substantially as herein described.
3. The post L under the journal, for the purpose herein specified.

TIMOTHY B. STEWART.

Witnesses:

BEN. A. COOKE,
CHAS. L. BURDETT.