

H. C. LOCKWOOD.

Improvement in Railway Car Wheels.

No. 120,985.

Patented Nov. 14, 1871.

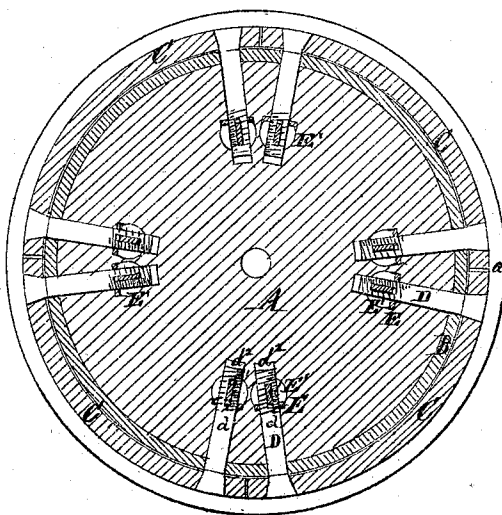
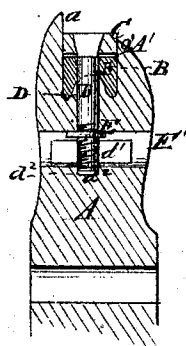


Fig. 1.

Fig. 2



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY C. LOCKWOOD, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN RAILWAY CAR-WHEELS.

Specification forming part of Letters Patent No. 120,985, dated November 14, 1871.

To all whom it may concern:

Be it known that I, HENRY C. LOCKWOOD, of Baltimore, in the county of Baltimore and State of Maryland, have invented a new and valuable Improvement in Car-Wheels; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a central vertical longitudinal section of my invention. Fig. 2 is a vertical cross-section of the same.

This invention has relation to car-wheels; and it consists in the novel construction and arrangement of an elastic rim or periphery, whereby the tendency of the wheel to rattle and jolt on the rail is lessened.

Referring to the accompanying drawing illustrating this invention, A represents a railroad car-wheel, around the periphery of which I sink a groove, A', having the flanges *a a'* on the sides, and place therein an India-rubber collar, B, of equal width, but in thickness less than the depth of the groove. I so form this groove that the outer face of the wheel flange *a* shall be nearly flush with the nearest side of the groove A', due allowance being made for the usual bevel of said flange. For the rim or periphery of the wheel A I provide a number of fellies, C, adapted in size to fit the groove A', outside the collar B, in such a manner that each, when pressed upon, will spring or give slightly with sufficient elasticity to overcome or compensate for the slight irregularities of the rails or other causes, of the rattling or jolting of the car-wheels when the same are in motion. Through the fellies C I cut at each end a hole, and extend the same through the rubber cushion and into the body of the wheel in a radial

direction. In said hole I insert a screw, D, having a tapering head to fit the opening in the felly, and near its inner end a longitudinal key-slot, *d*, adapted to receive a key, *d'*, employed for the purpose of securing the pin in place. The holes *d*² and the slots *d* are elongated sufficiently to allow the pins D all the required space for the change of position resulting from the springing of the elastic fellies. E represents nuts which are placed over the inner ends of the screws D before the insertion of the keys. The nuts and keys are put in place through the apertures E', cut through the body of the wheels at the proper positions. These apertures are shaped so as to have a flat surface to let the washers E rest against, as shown in the drawing. The fellies C constitute the rolling periphery of the car-wheel, and hence are beveled and outwardly-formed, in accordance with the usual method of construction. The bottom of the groove in which the cushion B rests may be flat, but I prefer making it raised to a ridge in the middle, as shown clearly in Fig. 2, and shaping the cushion to fit it. In this way there will be greater elasticity at the sides of the cushion than between them, which will allow the fellies a rocking motion, so as to conform more readily to the irregularities of the rail-surface.

I claim as my invention—

The improved railroad car-wheel, having the elastic packing B and separated fellies C arranged within the groove A', in connection with the movable screws D, keys D', and nuts E', or their equivalents, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HENRY C. LOCKWOOD.

Witnesses:

STEPHEN A. MORSE,
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