

D. BABSON.

Wheel and Axle of Railway Cars.

No. 52,949.

Patented March 6, 1866.

Fig. 1.

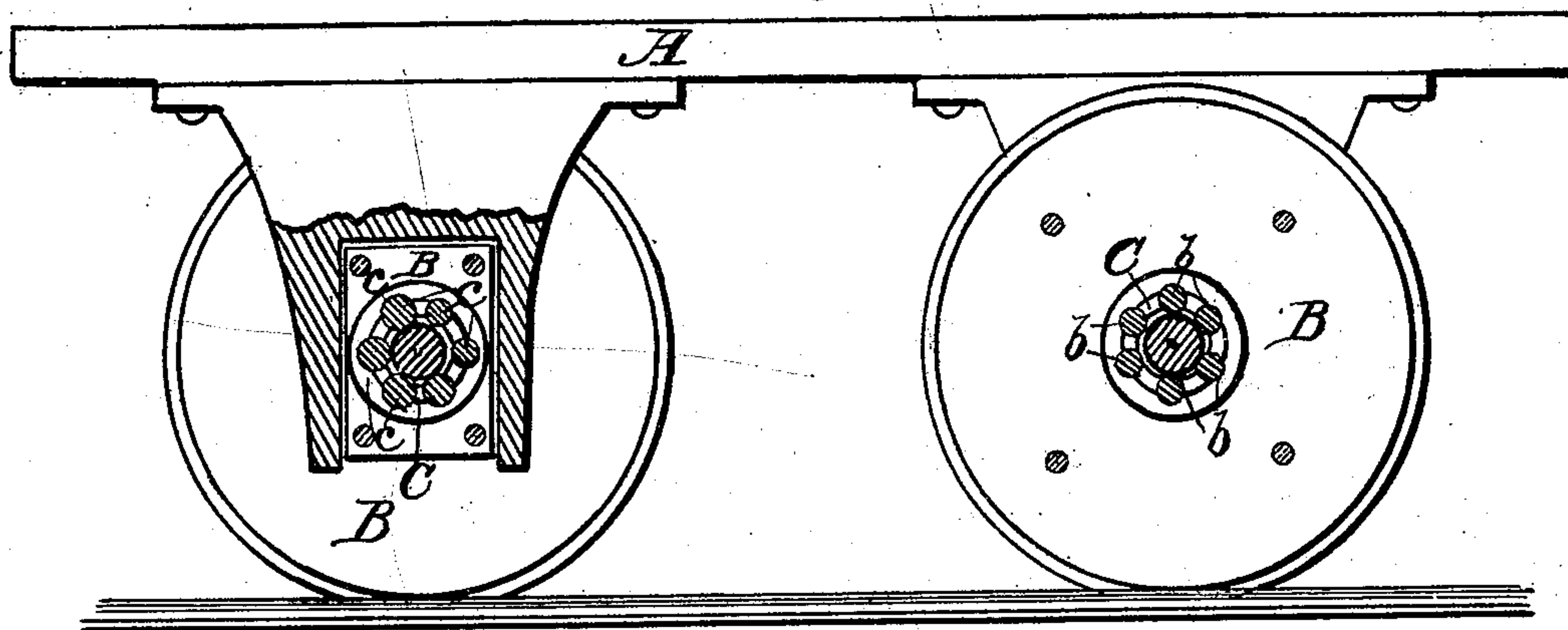
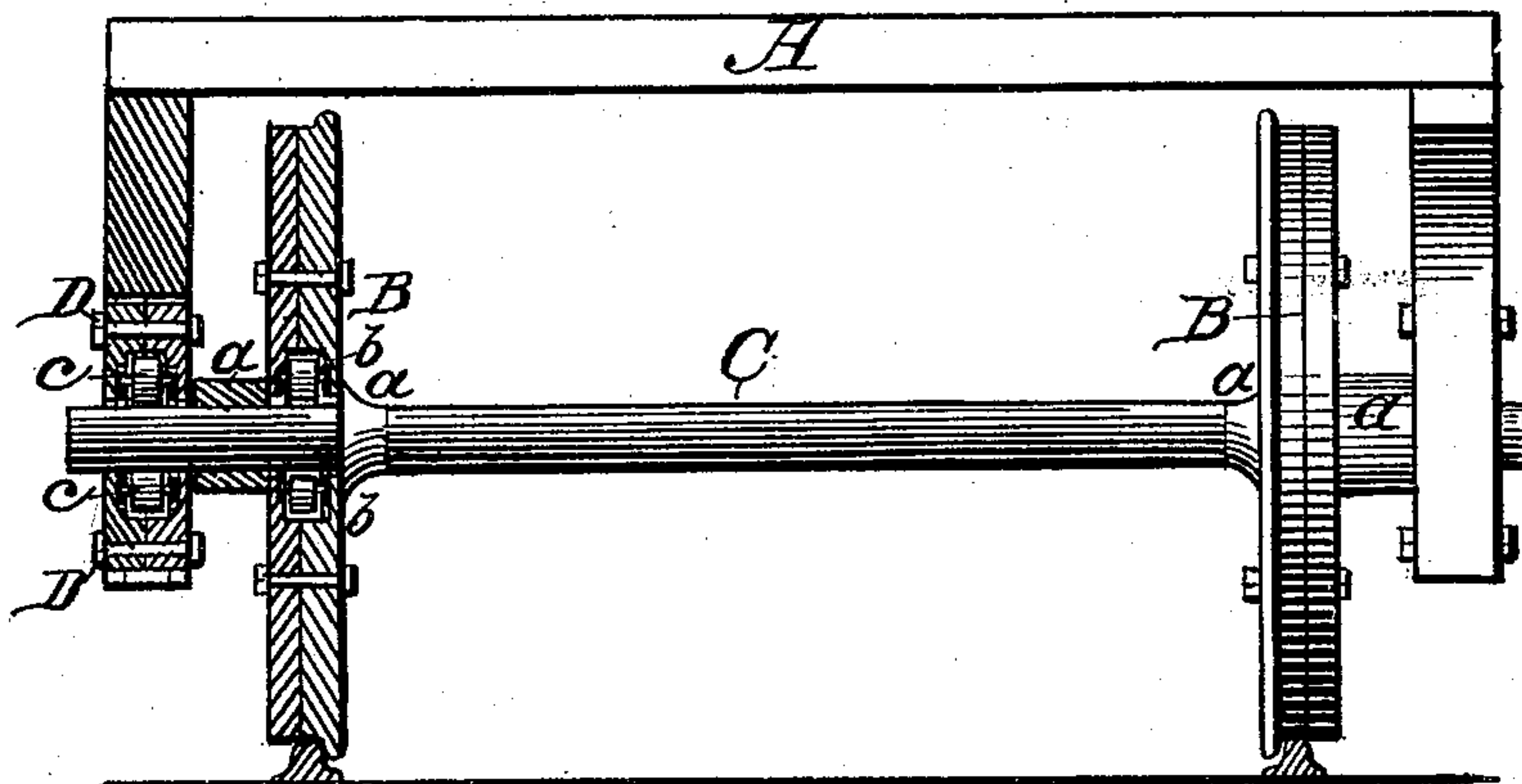


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

DAVID BABSON, 2d, OF ROCKPORT, MASSACHUSETTS.

IMPROVEMENT IN WHEELS AND AXLES OF RAILWAY-CARS.

Specification forming part of Letters Patent No. 52,949, dated March 6, 1866.

To all whom it may concern:

Be it known that I, DAVID BABSON, 2d, of Rockport, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Railway-Cars; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

The present invention consists in so hanging the wheels of a railway-car upon their axle-shafts that they can revolve independently of each other without playing laterally upon their axles, the bearing of each wheel upon its axle being formed of a series of frictional rollers, and their axles being hung in axle-boxes of the car, also provided with friction-rollers properly arranged to bear upon the said axles, these friction-rollers serving to relieve the bearing parts of the wheels and axles of a great amount of friction and consequent wear, while by hanging the wheels so they can revolve independent of each other the wear of their flanges and the rails is in a great measure obviated, especially when the car is traveling around a curve of the rails.

In accompanying plate of drawings my improvements are illustrated, Figure 1 being a side elevation of the platform of a car, showing a section through an axle-box, and also through the axle-shaft at the bearing point of one of its wheels; and Fig. 2, an elevation of the car-platform and its wheels, with one wheel and its axle-box in vertical section.

Similar letters of reference indicate like parts.

A in the drawings represents the platform of a railway-car, which is to be supported at each end upon suitable wheels, B B, as in ordinary cars, but which wheels, in the present

invention, I hang upon their respective axle-shafts C so that they can freely turn thereon, each wheel being confined between two collars or shoulders, *a a*, of the axles so as to prevent them from playing laterally thereon. Within each wheel, and so as to bear upon and around the periphery of the axles, are hung a series of friction-rollers, *b b*, as plainly shown in Fig. 1, the object of which is to relieve the friction and wear of the wheels upon their axles, a similar series of friction-rollers, *c c*, being hung in the axle-boxes D D around the axle for the same purpose as that stated for the wheels and axles. By thus hanging the wheels of a railway-car upon their axles it is obvious that the wheels can turn independently of each other, so that in moving around curves of the rails much of the strain and wear of the flanges of the wheels upon the rails is obviated—a result of great importance, and especially in street-railways, in the laying of which it is necessary to have curves with short radii, the difficulty in turning which by the now prevalent mode of hanging the car-wheels and their axles has long been known and sought to be obviated, and which by the present improvements is, if not entirely, at least sufficiently overcome for all practical purposes.

I claim as new and desire to secure by Letters Patent—

Hanging the wheels of a railway-car upon their axles so that they can turn independent of each other, but with no lateral play, in combination with the use of a series of friction-rollers within said wheels and their axle-boxes bearing upon the axles, substantially as herein described, and for the purposes specified.

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Witnesses:

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