J. HARRIS.

Car Wheel.

No. 50,579. Patented Oct. 24, 1865.

Fig. 1.

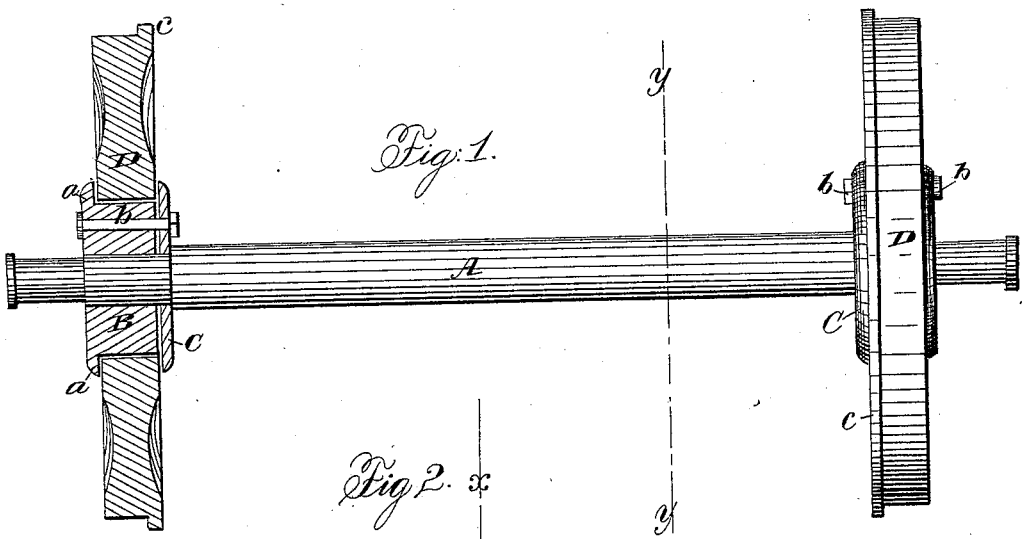
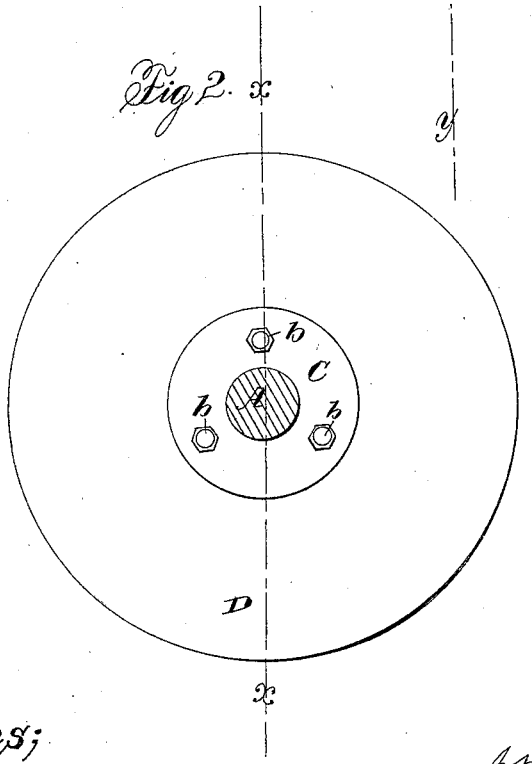


Fig 2.



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UNITED STATES PATENT OFFICE.

JOHN HARRIS, OF MARQUETTE, WISCONSIN.

IMPROVED CAR-WHEEL.

Specification forming part of Letters Patent No. **50,579**, dated October 24, 1865.

To all whom it may concern:

Be it known that I, J. HARRIS, of Marquette, in the county of Green Lake and State of Wisconsin, have invented a new and useful Improvement in Car-Wheels; 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 part of this specification, in which—

Figure 1 is a view of a car-axle with two wheels upon it, one of which is in section, as indicated by the line *x x*, Fig. 2; Fig. 2 a transverse section of the axle, taken in the line *y y*, Fig. 1.

Similar letters of reference indicate like parts.

This invention consists in constructing a car-wheel of two concentric parts, one part being fitted on the other, and arranged in such a manner that a car-truck may pass over curvatures in the road without subjecting either the axles or the wheels to any undue strain, as a revolving movement is allowed the outer part of each wheel independent of its axle.

A represents a car-axle, which may be constructed in the usual manner, and having two circular hubs, B B, firmly secured upon it, one near each end, in the same manner as ordinary car-wheels are now applied, said hubs always turning with the axle. These hubs are formed or cast with a flange, *a*, at the outer edges of their peripheries, and circular plates C, which are fitted loosely on the axle, are bolted to the inner sides of the hubs, the plates C projecting out beyond the peripheries of the hubs a distance equal to the flanges *a*, as shown clearly in Fig. 1. These plates C are secured to the hubs B by screw-bolts *b*, and on these hubs circular rims D are fitted, which form the outer parts of the wheels, and are provided with the usual flange, *c*. The inner parts of the rims D are fitted between the flanges *a* and the plates C of the hubs B, and said parts may be pressed against the rims D in a greater or less degree by adjusting the bolts *b*, packing being interspersed between the plates C and the hubs B and rims D. When the car or truck is moving over a straight road the rims D will turn with the hubs B, sufficient friction being between them to effect that end; but in passing over curves the axles and hubs have a movement independent of the rims D, the rims turning on the hubs, thereby avoiding the drag and slip attending the ordinary wheels, which are permanently secured on the axle. Besides this advantage the invention possesses the one of rendering the brakes far more efficient than usual, as the shoes, when the brakes are applied in pressing against the rims D, cause the latter to press against the hubs B, thereby creating more friction than is produced by the application of the brakes to the ordinary wheels.

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

1. A car-wheel constructed of two parts, B D, fitted one upon the other, and the inner parts keyed or otherwise secured firmly on the axle, substantially as and for the purposes set forth.

2. Constructing the inner part or hub, B, of the wheel with a flange, *a*, and using, in connection therewith, a plate, *c*, bolted to the hub, with or without the packing interspersed between, substantially as and for the purpose specified.

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