

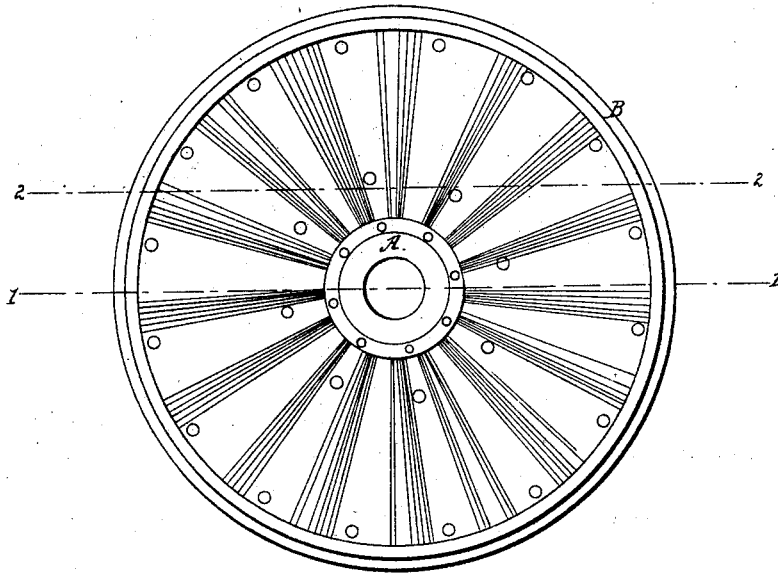
S. J. SEELY.

Car Wheel.

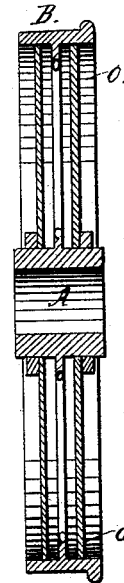
No. 46,145.

Patented Jan. 31, 1865.

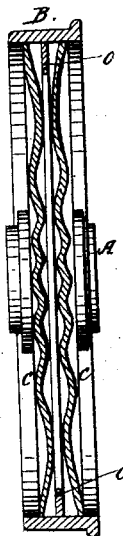
*Fig. 1.*



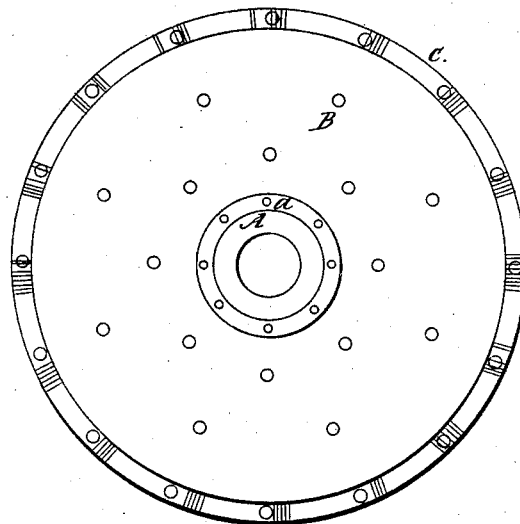
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



**Witnesses:**

*Wm. D. Baldwin*  
*John Meigs.*

**Inventor:**

*Saml. J. Seely*

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Fig. 5.

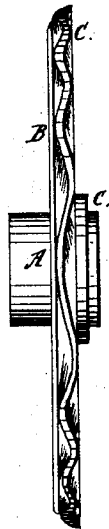


Fig. 7.

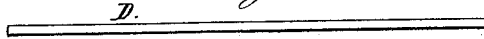


Fig. 8.

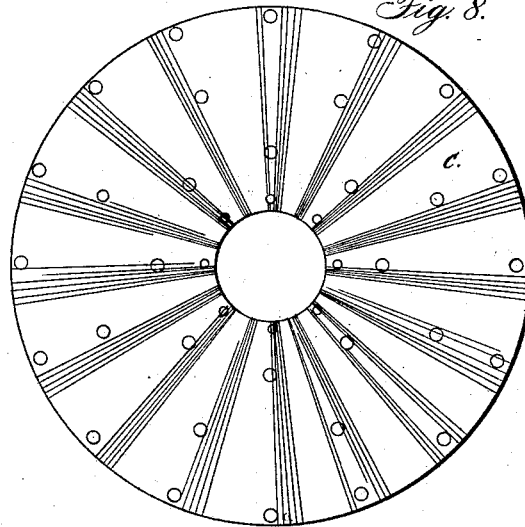


Fig. 6.

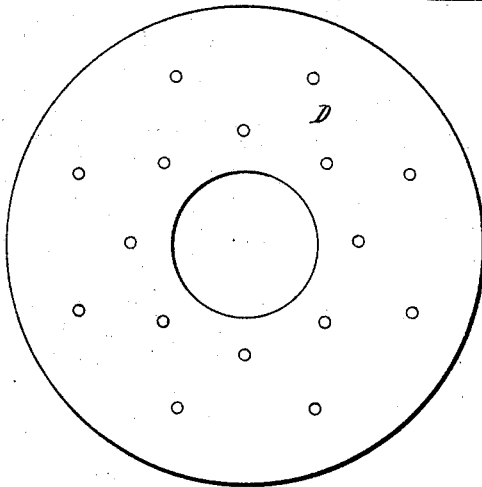


Fig. 9.

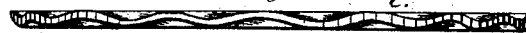


Fig. 10.

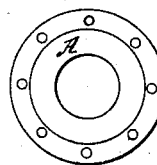


Fig. 11.

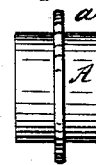


Fig. 12.

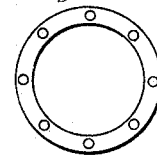
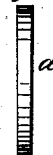


Fig. 13.



Witnesses:

Wm. D. Baldwin  
John Meigs.

Inventor:

Saml J Seely

# UNITED STATES PATENT OFFICE.

SAMUEL J. SEELY, OF NEW YORK, N. Y.

## IMPROVEMENT IN CAR-WHEELS.

Specification forming part of Letters Patent No. 46,145, dated January 31, 1865.

*To all whom it may concern:*

Be it known that I, SAMUEL J. SEELY, of New York city, in the State of New York, have invented a new and useful Improvement in Railroad-Car Wheels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which make part of this specification, and in which—

Figure 1 represents a side view of my improved car-wheel; Fig. 2, a section through the same at the line 1 1 of Fig. 1; Fig. 3, a section at the line 2 2 of the same figure; Fig. 4, a side view of the hub, one of the corrugated side plates, and the central wooden disk detached; Fig. 5, an edge view of the same; Fig. 6, a face view of the central disk; Fig. 7, an edge view of the same; Fig. 8, a face view of one of the corrugated side plates; Fig. 9, an edge view of the same; Fig. 10, an edge view of the hub; Fig. 11, a face view of the same; Fig. 12, a similar view of the ring, and Fig. 13 an edge view of the same.

It is the object of my invention to produce a strong, light, cheap, and durable car-wheel, and one that will run with comparative silence; and to these ends my improvement consists in combining a cast metal hub with a metallic rim by corrugated metal disks, substantially in the manner hereinafter described.

I cast a hub, A, of iron, wide enough for a proper and secure attachment to the axle, and with a central flange, *a*, upon which a wooden disk fits, and to which the corrugated face-plates C are bolted. This disk and the face-plates connect the hub with the rim B of the wheel. This rim may be cast in the usual form on its face, which may be chilled, if desired, and has an internal projecting rib, *b*, in the center of its width, or nearly so. The exterior surface of the rim may, if desired, be turned smooth to receive a shrunk tire of wrought-iron or steel, with any form of flange desired, so as to match any specified rail. The rim may also be formed of rolled wrought-iron, having an internal rib, and be bent to the form desired and welded, but of whatever material, and however made, must be strong enough to support the corrugated disks, the edges of which are bolted or riveted to it. The face-plates C may be made in

one piece or in sections of wrought metal corrugated radially from the hub in any well-known way. I prefer, however, to strike them up by means of dies and punches, because when thus made their projections and depressions will always register truly, whether the disks be formed hot or cold; and when thus accurately formed their projections and depressions occupy such a relation to each other as to adapt them to any desired thickness of flange, either upon the hub or rim. When desired, the face-plates may even be made of cast or malleable iron.

A disk, D, of wood, is interposed between the face-plates, and extends from the flange of the hub to the inner flange of the rim. The face plates and disks are firmly united by through-bolts or rivets, and the projecting edges of the face-plates are similarly united to the flanges of the hub and rim, as shown in the drawings. In order to deaden the sound and to prevent jarring the wheel, a ring or cushion, *e*, of rubber, may be interposed both between the hub and disk and the disk and rim, as shown in the drawings. Spokes may be used, if preferred, in place of a disk, in which case cushions of rubber may be interposed between their ends and the hub and flange respectively. The wooden disk or bars serve to keep the disks the proper distance apart, render them rigid, equalize the strain upon them, and prevent the sound incident to metal wheels. Moreover, by relieving the jar of the wheel, they thus prevent an injurious molecular change in the metal.

Having thus described my improved car-wheel, what I claim therein as new, and desire to secure by Letters Patent, is—

1. The combination of the flanged hub with the flanged rim, by means of the corrugated face-plates, substantially in the manner described, for the purposes set forth.

2. The wooden disk arranged between the rim, the hub, and the face-plates, substantially as and for the purposes described.

In testimony whereof I have hereunto subscribed my name.

SAML. J. SEELY.

Witnesses:

EDM. F. BROWN,  
WM. D. BALDWIN.