

(No Model.)

E. PECKHAM.

2 Sheets—Sheet 1.

CAR WHEEL.

No. 366,182.

Patented July 5, 1887.

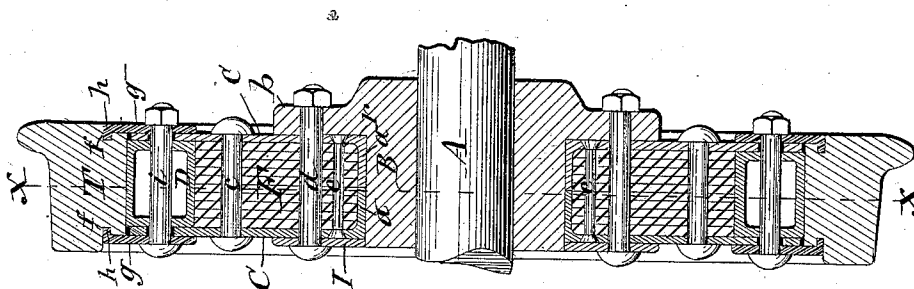


Fig. 1

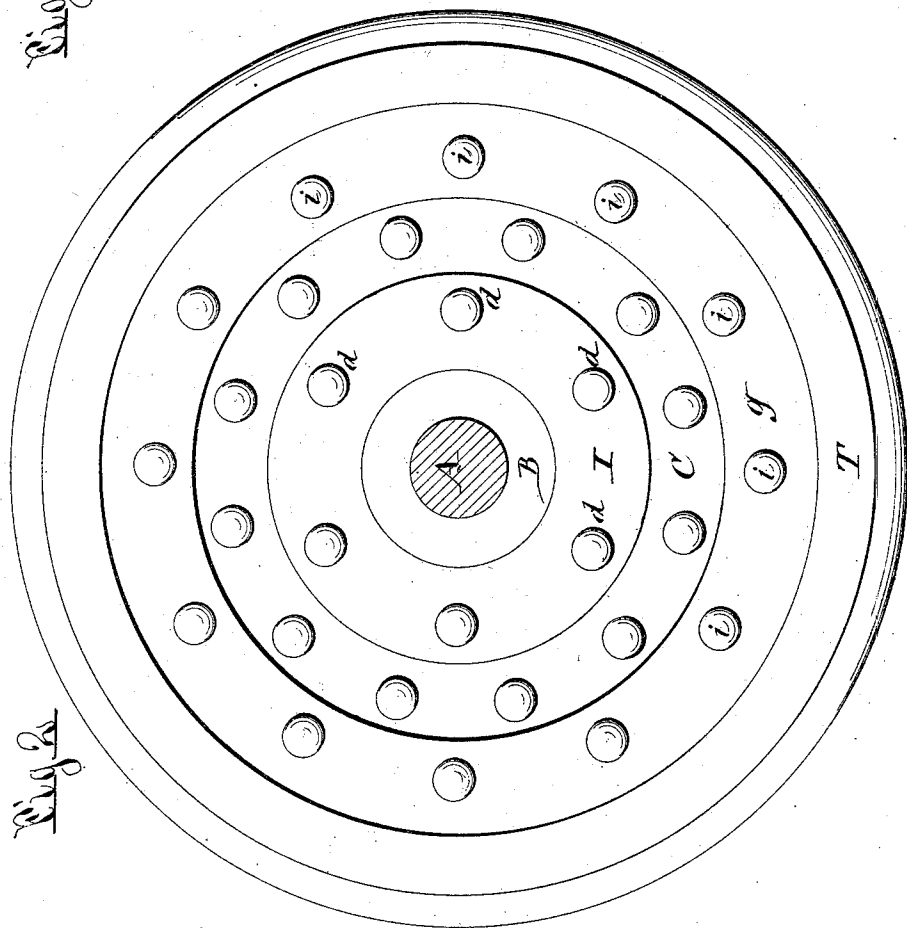


Fig. 2

Witnesses

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A. F. Walz

Inventor

Edgar Peckham
per Hull, Laess & Hull
Atty

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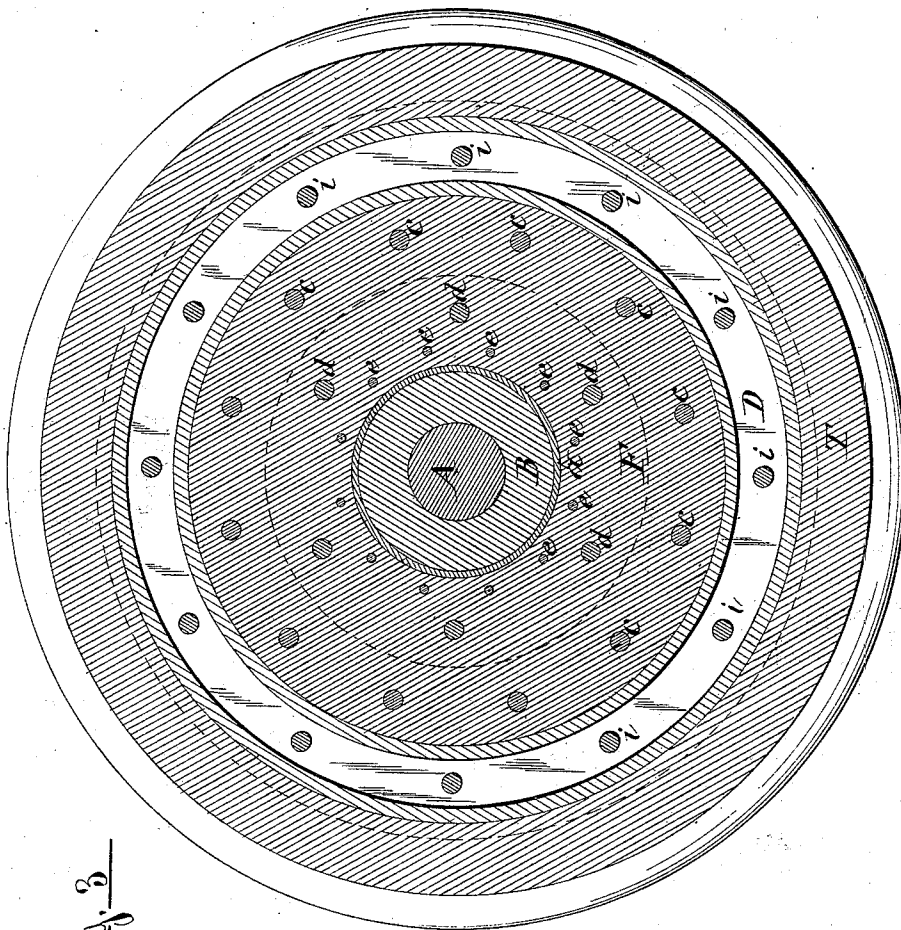


Fig. 3

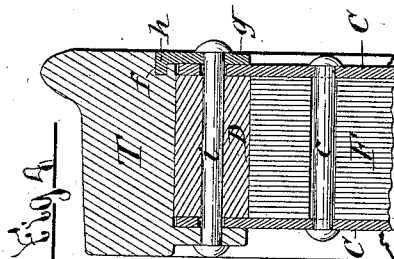


Fig. 4

Witnesses.

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UNITED STATES PATENT OFFICE.

EDGAR PECKHAM, OF SYRACUSE, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE PECKHAM CAR WHEEL COMPANY, OF NEW YORK.

CAR-WHEEL.

SPECIFICATION forming part of Letters Patent No. 366,182, dated July 5, 1887.

Application filed January 15, 1887. Serial No. 224,390. (No model.)

To all whom it may concern:

Be it known that I, EDGAR PECKHAM, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Car-Wheels, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention has reference to the class of car-wheels which have a paper or non-metallic core secured between web-plates.

The invention consists in an improved construction and combination of parts whereby the non-metallic core is securely clamped between the web-plates and the web portion of the wheel is made to constitute a body which is detachable from the hub and tire and allows the wheel to derive the benefit of the elasticity of the core to its fullest extent.

In the annexed drawings, Figure 1 is a transverse section of my improved car-wheel. Fig. 2 is a face view of the same. Fig. 3 is a section taken on line *x x*, Fig. 1; and Fig. 4 is a sectional view of a modification of my invention.

Similar letters of reference indicate corresponding parts.

A represents the car-axle; B, the wheel-hub, which is provided with a rigid circumferential flange, *b*, at or near its inner end, forming a circumferential rabbet, *r*, in front of said flange. In said rabbet is seated the web-section of the wheel, which section is composed of two web-plates, C C, formed at their adjacent sides with circumferential flanges *a a* around the central eyes of said plates. Said flanges meet midway between the web-plates and are seated directly upon the hub, as shown in Fig. 1 of the drawings.

D denotes the outer ring, which may be made hollow to reduce its weight. To opposite sides of this outer ring are secured the peripheral portions of the web-plates C C, in the manner hereinafter explained.

F represents the core of paper or other analogous non-metallic material filling the space between the web-plates, outer ring, and hub, and secured therein by pivots or bolts *e e*, passing through the web-plates and intervening core, F, in proximity to the flanges *a a*, which

rivets or bolts securely tie the two plates together. Additional rivets or bolts, *e e*, may be applied in a similar manner to the described web-section of the wheel between the outer ring, D, and hub B, to securely hold the web-plates against opposite sides of the ring D. Said web-section, with its non-metallic core, is thus made to constitute a complete body, which is detachably seated upon the hub B, and is secured thereon by a collar or annular plate, I, slipped onto the outer end of the rabbet *r* of the hub, and drawn tightly against the outer side of the aforesaid web-section by means of bolts *d d*, passing through the collar I, hub-flange *b*, and intervening web-plates, C C, and core F, as shown in Fig. 1 of the drawings.

T represents the tire, which is seated upon the outer ring, D, and projects with its inner peripheral face over the sides of said ring, so as to bring the side edge of the aforesaid face flush with the external sides of the web-plates C C. The tire is provided at its inner and outer sides with circumferential grooves *f f*, and on the corresponding sides of the web-plates C C are placed annular plates *g g*, which lap onto the sides of the tire and are provided with circumferential flanges *h h*, fitted snugly into the grooves *f f* aforesaid. By means of bolts *i i*, passing through the plates *g g* and intervening web-plates, C C, and ring D, all of said parts are firmly united and locked on the tire. The web-plates are of smaller circumferences than the exterior of the ring D and the side projection of the inner face of the tire, and the holes in the web-plates through which the bolts *i i* pass are larger than the diameters of the bolts, and thus the web-plates are allowed to move radially on the ring D. This movable connection of the said parts allows the tire, with the ring D, to yield toward the center of the wheel when subjected to a load, and thus remain constantly cushioned by the non-metallic core F, and relieve the bolts *i i* from shearing strain.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a car-wheel, the combination, with the hub, outer ring, and the tire seated directly on

said ring, of web-plates clamped movably radially on opposite sides of the ring and of smaller circumference than said ring, and a non-metallic core filling the space between the web-plates, outer ring, and hub, substantially as and for the purpose set forth.

2. A car-wheel composed of a hub, an outer ring, two metallic web-plates secured to opposite sides of said ring, a non-metallic core between said plates, a tire seated on the aforesaid ring, annular plates secured to the exterior of the web-plates and embracing the sides of the tire, and bolts passing through said rings and intervening web-plates and outer ring, and tying said parts together, substantially as set forth and shown.

3. In a car-wheel, the combination of the wheel-body comprising an outer ring, web-plates secured to opposite sides of said ring, and a non-metallic core between the web-plates, the tire seated on said outer ring and provided with circumferential grooves in its sides, annular plates secured to the exterior of the web-plates and provided with circumferential flanges entering the grooves of the tire, and bolts passing through said rings and intervening web-plates and outer ring, and tying said parts together, substantially as described and shown.

4. In a car-wheel, the combination, with the hub and outer ring, of the tire seated directly on said ring and projecting at opposite sides thereof, and provided with circumferential grooves in its sides, web-plates clamped mov-

ably radially on opposite sides of the ring and having their outer peripheries smaller than the inner peripheries of the side projections of the tire, a non-metallic core between said web-plates, and annular plates clamped on the web-plates and having circumferential flanges entering the grooves in the sides of the tire, substantially as described and shown.

5. In a car-wheel, the combination, with the hub, of web-plates having on their adjacent sides inward-projecting flanges around their central eyes, and seated by said flanges upon the hub, and a non-metallic core secured between said web-plates, substantially as set forth and shown.

6. In a car-wheel, the combination, with the hub, of an outer ring, web-plates secured to opposite sides of said ring and having on their adjacent sides inward-projecting flanges around their central eyes and meeting midway between the plates, a non-metallic core between the web-plates, and bolts or rivets passing through the said plates and intervening core in proximity to the aforesaid flanges, substantially as described and shown.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 13th day of January, 1887.

EDGAR PECKHAM. [L. S.]

Witnesses:

C. BENDIXON,
H. P. DENISON.