

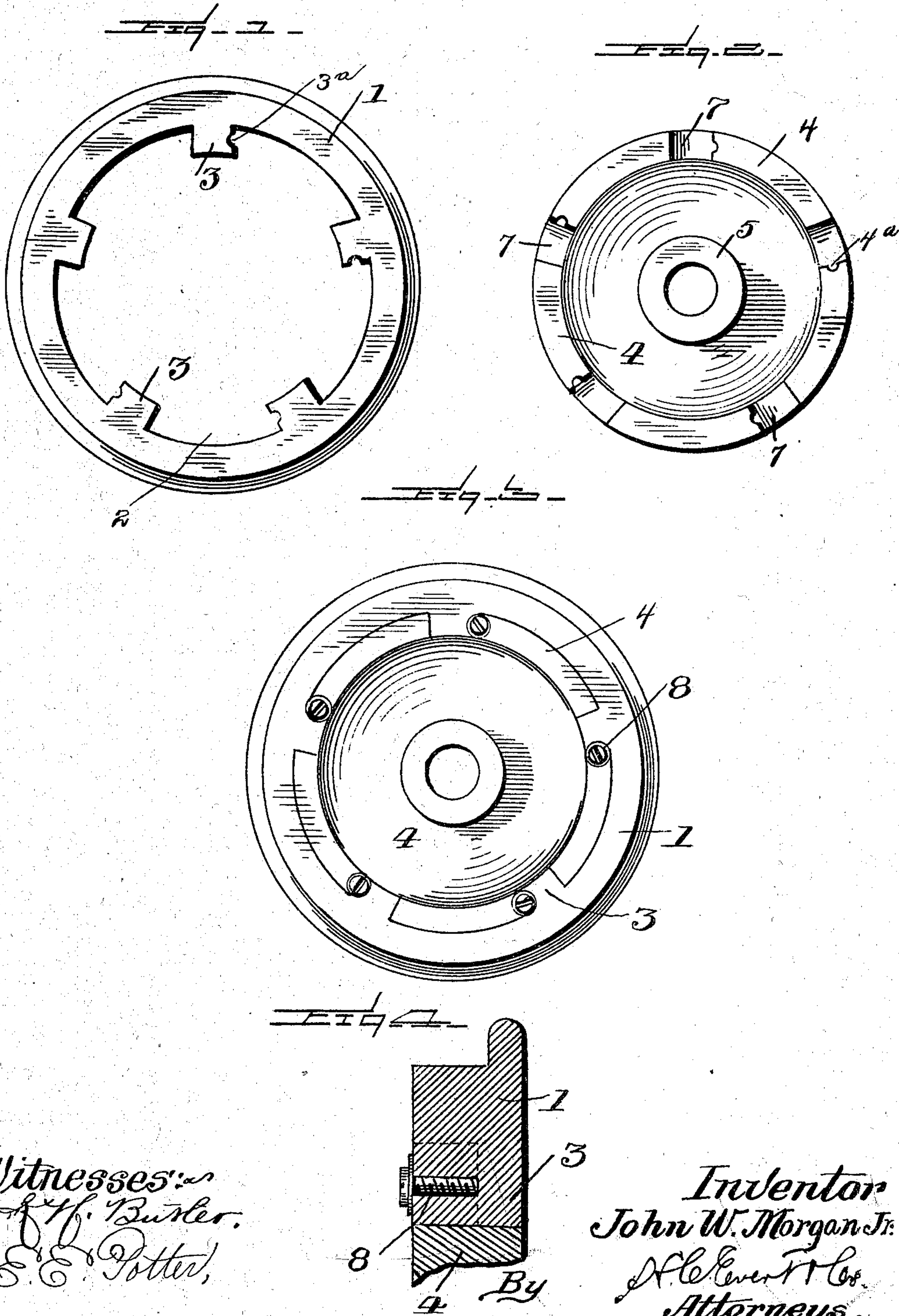
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J. W. MORGAN, JR.
MANUFACTURE OF CAR WHEELS.

Application filed Jan. 2, 1902.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN W. MORGAN, JR., OF McKEESPORT, PENNSYLVANIA.

MANUFACTURE OF CAR-WHEELS.

SPECIFICATION forming part of Letters Patent No. 709,446, dated September 16, 1902.

Application filed January 2, 1902. Serial No. 88,086. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. MORGAN, Jr., a citizen of the United States of America, residing at McKeesport, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in the Manufacture of Car-Wheels, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in car-wheels, and relates more particularly to that class of car-wheels formed with a removable flange and tread.

The present invention has for its object the provision of novel means whereby the web and hub of the car-wheel are formed of a single piece of material, said hub portion carrying the seats for the inwardly-projecting plugs which securely fasten the parts together.

The present invention has for its further object to construct a device of this character that will be extremely simple, strong, durable, and comparatively inexpensive to manufacture; furthermore, to provide novel means that when the tread of the wheel has become worn the same may be easily removed and a new one applied in lieu thereof.

With the above and other objects in view the invention consists in the novel combination and arrangement of parts to be hereinafter more fully described and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a front elevation of my improved flange or tread. Fig. 2 is a similar view of the web and hub portion. Fig. 3 is a front elevation of the complete wheel constructed according to my invention. Fig. 4 is an enlarged vertical sectional view taken on the line 4 4 of Fig. 3.

In the drawings the reference-numeral 1 indicates the tire or tread of the wheel, which carries the inwardly-extending lugs 3, which lugs are provided at one of their edges with

horizontally-disposed semicircular internally-screw-threaded grooves 3^a.

4 represents projections of segmental form, forming spaces 7 between said projections. The said segmental projections have one of their edges provided with a semicircular internally-screw-threaded groove 4^a and are adapted to be secured in the seats 2, and the inwardly-extending lugs 3 snugly fit in the openings 7, so that the internally-screw-threaded grooves of the lugs 3 and the segmental projections 4 of the arm will lie adjacent each other and form internally-screw-threaded sockets.

The reference-numeral 8 represents set-screws which are fitted in the internally-screw-threaded sockets formed by the grooves between the projections 6 and inwardly-extending lugs 3, serving to securely fasten the tie to the web portion. Interposed between the head of the screw and the wheel is a washer, preferably constructed of rubber. The set-screws may pass into the seat 2, if desired. Any number of set-screws may be employed, and in the drawings I have illustrated one for each lug; but a number of them may be dispensed with. The web and hub portion of the wheel may be cast of metal or formed of any suitable material, while the tie or tread portion is formed of cast-steel or roller-steel.

It will be noted that by constructing a car-wheel as herein described a practically indestructible wheel is produced, that when the tire becomes worn a new one may be easily replaced.

The many advantages obtained by the use of my improved device will be readily apparent from the foregoing description and accompanying drawings, and it will be particularly noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

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

1. In a car-wheel, the combination of a web and hub portion, projections of segmental form carried by said web portion and each provided at one of their edges with a semicircular internally-screw-threaded groove, a rim, inwardly-projecting lugs carried by said

rim and each provided with a semicircular groove, said lugs extending across the lower face of the tire and adapted to fit between the projections of the rim, whereby the internally-screw-threaded grooves of each member will lie adjacent each other and form internally-screw-threaded sockets, and set-screws fitted in said sockets.

2. In a car-wheel, the combination of a web and hub portion, horizontally-disposed projections formed integral with and located adjacent the edge of the said web portion, a rim, inwardly-projecting lugs located on the inner surface of the rim, said lugs extending across the inner surface of the rim and adapted to fit between the horizontally-disposed projections of the web, whereby the rim's and web's projections will interlock, and keys fitted therebetween.

3. In a car-wheel, the combination of a web and hub portion, horizontally-arranged pro-

jections of segmental form spaced apart on one side of the web adjacent its periphery, said projections provided on one of their edges with a semicircular internally-screw-threaded groove, a rim, inwardly-projecting lugs spaced apart on its lower face and extending thereacross, said lugs provided on one of their edges with semicircular internally-screw-threaded grooves, said lugs adapted to fit between the web projections and interlock, whereby the internally-screw-threaded grooves of the web and tire will lie adjacent each other and form internally-screw-threaded sockets, and set-screws fitted in said sockets.

In testimony whereof I affix my signature in the presence of two witnesses.

JOHN W. MORGAN, JR.

Witnesses:

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