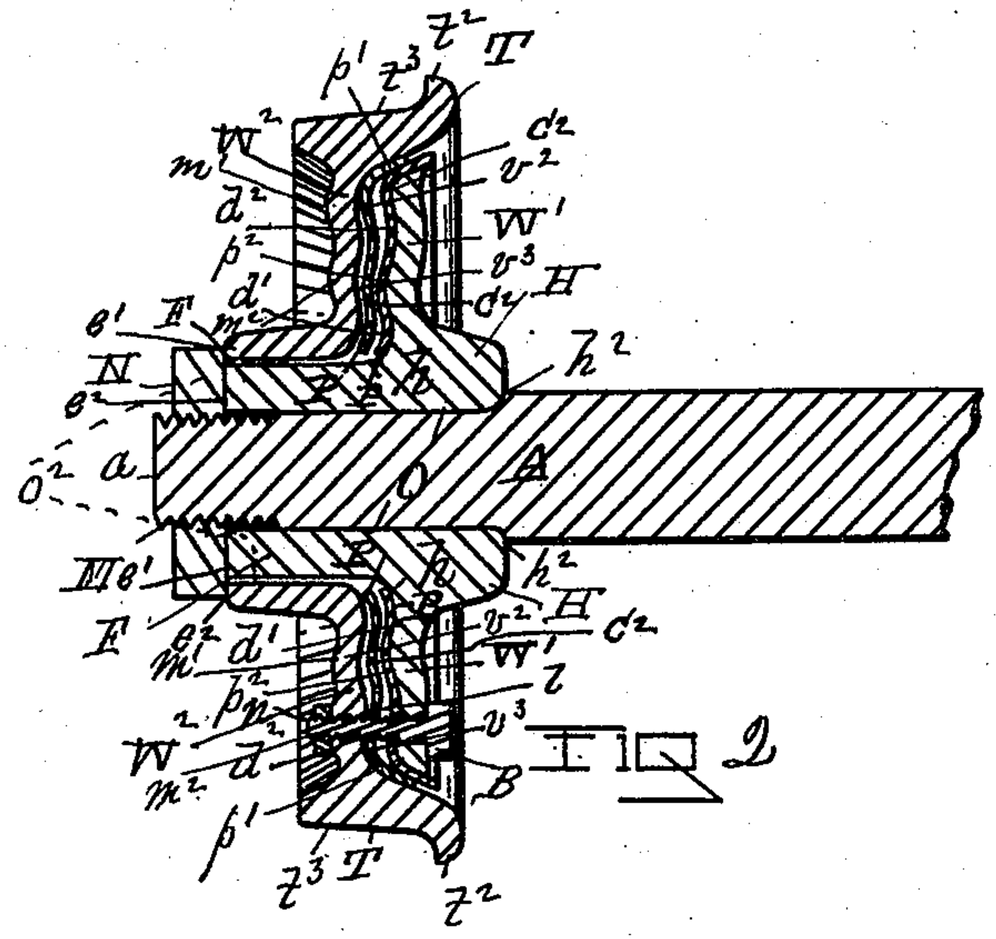
(No Model.)

G. W. EDDY.

CAR WHEEL.

No. 504,416. Patented Sept. 5, 1893.



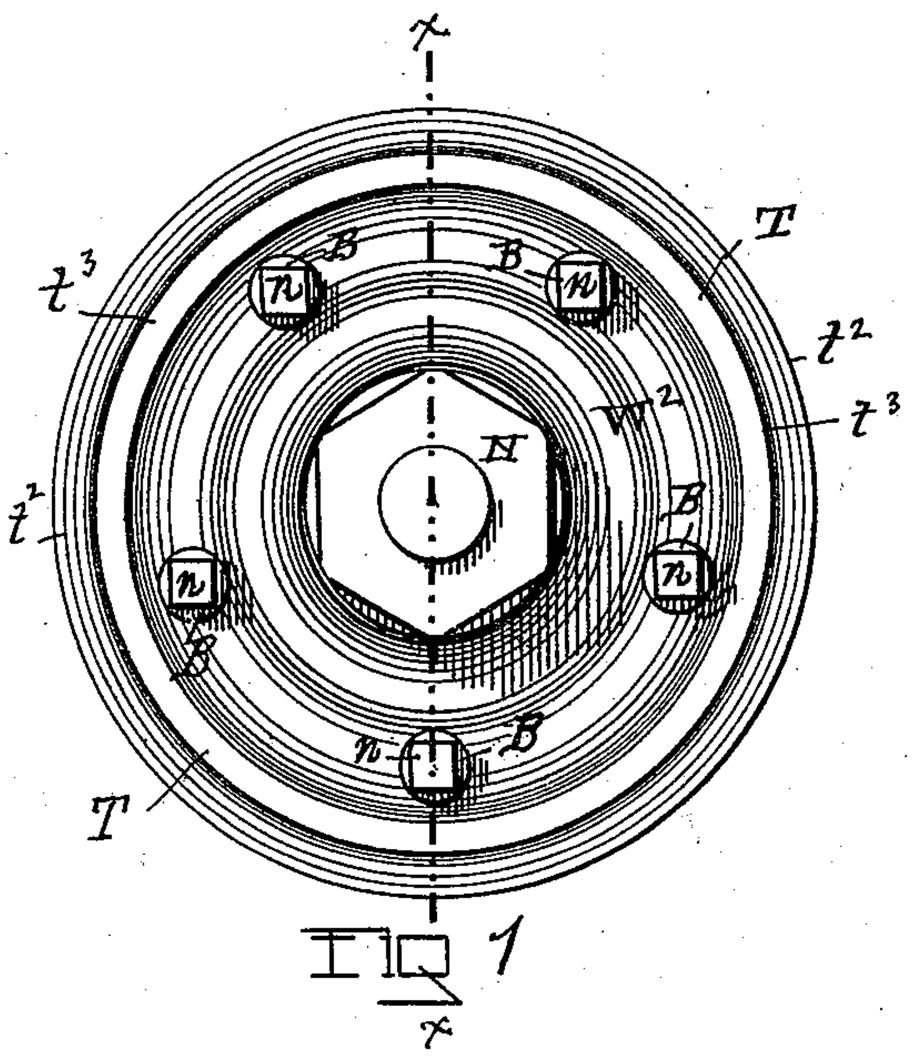


Fig. 1

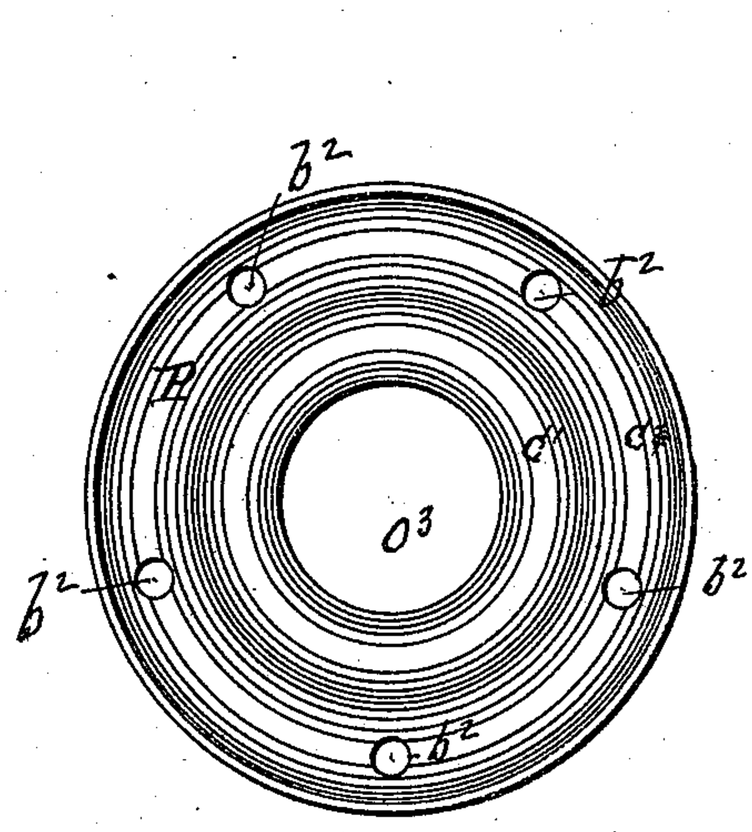


Fig. 3

WITNESSES

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CAR-WHEEL.

SPECIFICATION forming part of Letters Patent No. 504,416, dated September 5, 1893.

Application filed July 21, 1892. Serial No. 440,753. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. EDDY, of the village of Waterford, county of Saratoga, State of New York, have invented new and useful Improvements in Car-Wheels, of which the following is a specification.

My invention relates to improvements in car-wheels, and more particularly to that class of them which are made with a hub-part having an exteriorly placed encircling web and a tread-part having an interiorly arranged flange or web-part with the hub-part connected to the tread-part to produce the car-wheel; and my improvements have for their object to better adapt this class of car-wheels to the uses for which they are designed, as well as to afford by construction and arrangement of the parts a better means for positioning or truing the wheel upon its axle.

Accompanying this specification to form a part of it there is a sheet of drawings containing three figures illustrating my invention, with the same designation of its parts by letter reference used in all of them.

Of these illustrations Figure 1, is a side elevation of my improved car-wheel with what is its outer face when in position on the axle facing the view. Fig. 2, is a section taken on the line x, x, of Fig. 1, through the axle and wheel. Fig. 3, is a view of one of the packing plates arranged between the web of the hub-part and the web of the tread-part when connected.

The several parts of the car-wheel thus illustrated are designated by letter reference and the function of the parts is described as follows.

The letter H, designates the hub-part of the car-wheel and this hub-part is made with an exteriorly encircling web W′, the latter being made to have a reversing ogee form in cross-section by means of circular depressions d', d^2, on its outer side, and circular projections or ribs p', and p^2, on its inner side where next adjacent to the tread-part web. This hub on its outer end is made with an encircling shoulder h, whereat it has less diameter than on its other end, wherefrom the web W′, is projected, and this hub is made with an axle-passage O.

The letter A, designates the axle which is made to have a shoulder h^2, and to have less diameter between this shoulder and the outer end a, of the axle for the reception of the hub-part, and the outer end of the axle A, is threaded at M, to receive a securing nut N.

The letter T, designates the tread-part of the car-wheel made with the tread-flange t^2, on its rim, and the tread-proper t^3, on its rim-face.

The letter W^2, designates a web made integrally with the tread-part to encircle its interior.

The letter F, designates a hub-flange made on the inner edge of the web W^2, to project laterally therefrom and having the centrally arranged hub-passage O^2. This web W^2, has a reversing ogee-form in cross-section produced by the circular depressions v^2, and v^3, on its inner face and the circular projections m', m^2, on its outer face.

The letters B, designate bolts made to pass through passages l, coincidently arranged in the web W^2, and the web W′, and the letters n, designate nuts arranged upon the threaded ends of said bolts where passing through the said webs.

The letter P, designates one of two disk-form packing plates each of which like that shown at Fig. 3, is made with projections upon one of its sides as indicated at C′, of Fig. 3, and circular depressions C^2, upon its other side as shown at Fig. 2. These plates are also made with an axle-passage O^3, and bolt-passages b^2. These plates are preferably made of steel, and they are placed between the webs W′, and W^2, when the latter are connected by the bolts B. The function of these plates is to furnish a packing that will yield to a certain extent when the two cast-iron webs W′, and W^2, are drawn together by the bolts B, and thus prevent the possibility of breaking the webs by tightening the bolts. While I have shown two of these packing plates as applied to pack the web connections if desired but one may be used.

In this class of car-wheels where the hub-part is rigidly secured to the axle; when connecting the web-part great care is requisite to so position the tread-part relatively to the hub-part and axle that the tread-proper of the wheel will be true for track engagement;

and this attachment I am able to attain by the use of the intermediate packing plate or plates which yield in sufficient measure for truing the wheels and add strength and durability to the latter. In forming the hub-part with the shoulder *h*, and the tread-part with the flange F, where encircling the hub-part adjacently to the axle end; with the latter thereat threaded to receive the nut N, which latter when screwed on to the axle engages with the outer end *e'*, of the flange F, and the end e^2, of the hub-part, the parts by this connection are firmly held and secured as adjusted relatively to each other. As thus made when the tread-part of a car-wheel becomes worn or injured by use it can be taken off and a new tread-part applied without removing the hub-part.

While I have described the packing plate or plates P, as preferably made of steel they may be made of any other sheet metal having a moderate measure of elasticity.

I am aware that it is not new broadly considered to form a car wheel with a hub-part and a tread-part bolted together, and that my invention is not for such a connection, but for the manner in which the hub and tread-part are constructed to connect.

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

1. The combination with the hub-part H, made with the web W', having a reversing ogee form in diametrical section, and an axle-passage O, of the tread-part T, made with the tread-flange t^2, and tread-proper t^3, and the interiorly placed web W^2, having a reversing ogee form in diametrical section with a central hub-passage O^2; the packing plate P, having ring-form projections upon one of its sides and ring-form depressions upon its other side, and an axle passage O^3; and the bolts B, adapted to connect and secure said parts substantially in the manner as and for the purposes set forth.

2. The combination with the hub-part H, made with the web W', having a reversing ogee-form in diametrical section, the axle-passage O, and made with the encircling shoulder *h;* of the tread-part T, having the interiorly arranged web-part W^2, made with a reversing ogee-form in diametrical section and provided with the hub-passage O^2, and the encircling flange F; the axle A, made with the shoulder h^2, and threaded end *a*, provided with the nut N, said parts being constructed and arranged to connect substantially in the manner as and for the purposes set forth.

3. In a car-wheel the combination with a hub-part having an encircling web that has a reversing ogee-form in diametrical section, an axle passage, and made with an encircling shoulder substantially as described; of a tread-part constructed with a tread-flange, and a tread-proper, said tread-part having an interiorly placed web that is of a reversing ogee-form in diametrical section, and is made with a centrally located hub-passage, and an outwardly projected and encircling flange; and the metallic packing plate P, arranged between said webs and bolts constructed to pass through said webs and packing plate to connect the same substantially in the manner as and for the purposes set forth.

Signed at Troy, New York, this 28th day of January, 1892, in the presence of the two witnesses whose names are hereto written.

GEORGE W. EDDY.

Witnesses:
CHARLES S. BRINTNALL,
W. E. HAGAN.