

H. S. ROBINSON.
WHEEL FOR CARS FOR AERIAL CABLEWAYS.
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947,085.

Patented Jan. 18, 1910.

Fig. 1.

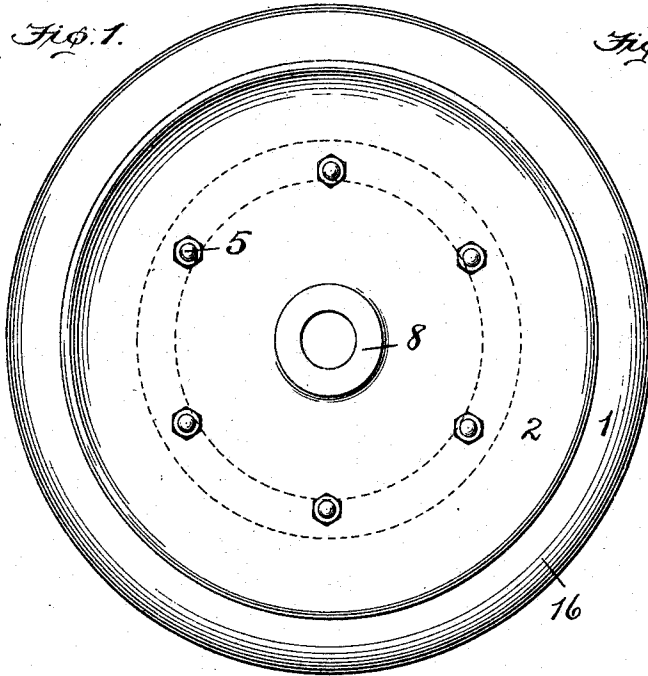


Fig. 2.

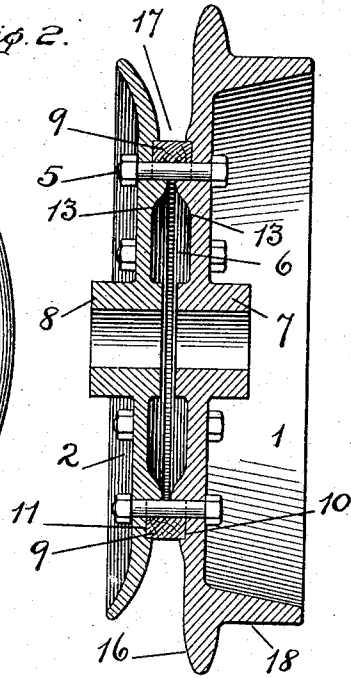


Fig. 3.

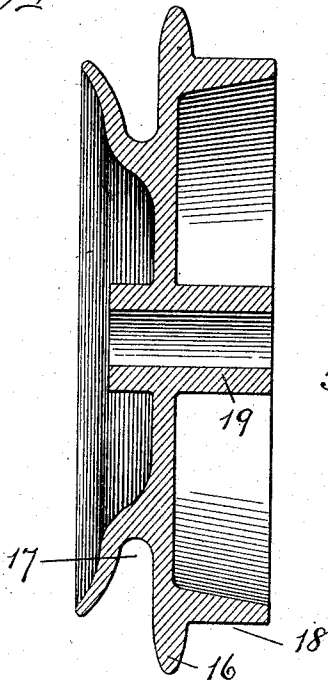


Fig. 4.

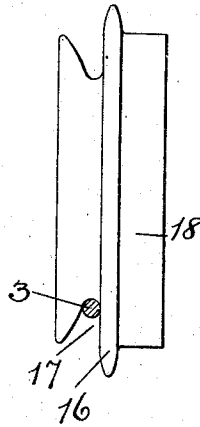


Fig. 5.

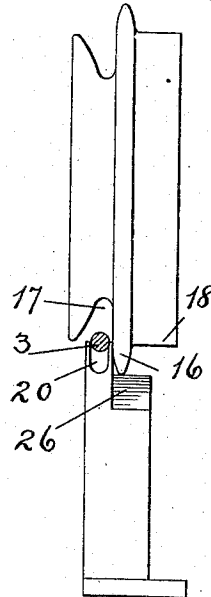
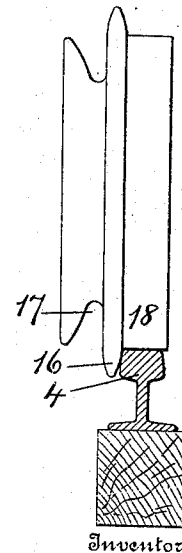


Fig. 6.



Witnesses

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WHEEL FOR CARS FOR AERIAL CABLEWAYS.

947,085.

Specification of Letters Patent.

Patented Jan. 18, 1910.

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To all whom it may concern:

Be it known that I, HARRY S. ROBINSON, a citizen of the United States, residing at Fallston, in the county of Harford and State of Maryland, have invented certain new and useful Improvements in Wheels for Cars for Aerial Cableways, of which the following is a specification.

This invention relates to an improved wheel for cars to be used on aerial cableways.

In that class of cableways where the track consists of parallel cables stretched and supported on posts above the ground, and whereon four-wheeled cars are run, it is desirable to have the car-wheels grooved around their rims—said groove in each wheel constituting the tread which traverses the cable. It is also desirable in this type of cableway to have at the posts or other cable-support means, such as a short bridge, extending in the direction of the cable tracks, and over which bridge the wheels of the car may pass instead of passing on the cable at such supports. It is a feature of my invention, therefore, to provide a car-wheel having several distinct rims, one being a groove serving as a tread for traversing the track-cable, and the other a tread of different diameter from that of the groove tread for traversing the said bridges. It is further desirable in cableways of this type, to have terminals for the cableway that are permanent, or solidly built, whereon ordinary iron or steel track-rails may be laid so that the same car wheels which traverse the cables and the short bridges may run on such track-rails. To this end I have provided the car-wheels with a third tread to traverse the permanent track-rails.

The object of this invention, therefore, is to provide a car-wheel with a plural number of rim-treads adapted to traverse three distinct kinds of tracks employed, namely, a stretched cable, a bridge extending in the same direction as the cable, and a permanent track-rail located at the terminals of the cableway.

The invention is illustrated in the accompanying drawing, in which,—

Figure 1 is a side view of one form of the improved car-wheel. Fig. 2 is a diametrical section of the wheel. Fig. 3 is a diametrical section of another form of the wheel. Fig. 4 is an elevation showing an edge view of the

wheel resting on a stretched cable and in position to traverse the latter. Fig. 5 is an elevation showing an edge view of the same wheel resting on a short "bridge" which extends past the seat or support on which the cable rests, and thereby relieving the cable from the load. Fig. 6 is an elevation showing an edge view of the same wheel, but a different rim-tread resting on a permanent track-rail.

It is not deemed necessary to here show and describe in detail the construction of a cable-way elevated above ground, as the same is no part of my present invention. It will be sufficient for anyone familiar with such structures, to merely point out a stretched cable, 3, and a car-wheel having a grooved rim-tread, 17, resting on the cable, as shown in Fig. 4. Also to point out a cable-support or seat, 20, and a bridge, 26, extending past said support or seat, and serving for the traverse of the car-wheel rim, 16, which thereby relieves the cable from the load while the car is passing the support or seat, as shown in Fig. 5. Also to point out a track-rail, 4, laid on a solidly built part of the structure, and show the car-wheel rim-tread, 18, resting on the track-rail, 4. Thus the car-wheel of the present invention preferably has three rim treads.

A car-wheel provided with several rim-treads according to my invention,—one being grooved to traverse a stretched cable, may be made in several forms, of which Figs. 2 and 3 are illustrations.

In the form shown in Figs. 1 and 2, the metal part of the wheel comprises two separate castings, 1, and, 2; both of these are circular and are properly secured together by bolts, 5. I prefer to form an oil-chamber, 6, between these two circular parts. Each of the circular parts, 1, 2, has its own hub, designated respectively, 7, and, 8, and of course the center bore of these two hubs must be in exact alinement in order to properly fit on the axle or spindle of the car. Any preferred construction may be employed to cause these two circular parts to be fitted together tightly in order to prevent leakage of oil from said chamber, 6, and at the same time to form the grooved rim-tread, 17, where the track-cable, 3, must contact. In the present instance the hubs, 7, and, 8, are at the center and around the hubs the faces or sides of the two circular parts

are concaved as at, 13, and a ring, 9, of indurated fiber is interposed concentrically between the two circular parts, 1 and, 2, so as to inclose the concaved part, 13. This ring, 9, preferably fits in an annular groove, 10, on the wheel part, 1, and in like manner in another annular groove, 11, on the other wheel part, 2; the two circular parts are held together, and also clamp the ring by means of bolts, 5. This construction of wheel has several advantages; first, it forms a chamber, 6, that may contain oil to automatically lubricate the bore, or the axle or spindle on which the wheel turns; and second, the ring, 9, being of indurated fiber forms a tread or face in the groove, 17, that does not wear the steel track-cable, 3.

The wheel has a grooved rim-tread, 17, for the cable as shown in Fig. 4; a circular rim, 16, of different diameter from that of the groove-tread, which rim is adapted to traverse the bridge, 26, with which each cable-support is provided as shown in Fig. 5, and the wheel also has a third tread, 18, adapted to traverse an ordinary rail-track, 4, as shown in Fig. 6; this tread adjoins the tread, 16, which serves as a flange.

Another construction of wheel is shown in Fig. 3. Here the wheel is illustrated as being made of one casing, instead of two, and there is no oil-chamber. There is but one hub, 19, but the wheel has the same features, of a plural number of rim-treads, as shown in Fig. 2.

The diameter of the rim-tread, 16, in the wheel shown, is greater than the diameter of the groove-tread, 17, and this difference in diameter results in the load of the car being entirely lifted from the cable, 3, when the said rim-tread is traversing the bridge, 26, as will be seen in Fig. 5. It is obvious that the reverse of these proportions might be employed,—that is, the grooved rim for the track-cable might be of greater diameter than the circular rim-tread, 16, for traversing the bridge. Of course in this latter case the bridge, 26, must have a height greater than the grooved seat, 20, for the cable.

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

1. A car-wheel comprising two separate circular parts, each part having its own hub and the center bore of the two hubs being in alinement with each other, and said two circular parts secured together, and said wheel provided with three rim-treads of different diameters one of which treads consists of a groove to traverse a track-cable.

2. A car-wheel comprising two separate circular parts—one of said circular parts being provided with a rim-tread, 18, and also a radial flange rim-tread, 16, which latter has a greater diameter than the first-named rim-tread; and the other circular part having a perimeter that flares away from said radial flange rim-tread and forms a rim-groove between the said two parts.

3. A car-wheel comprising two circular parts secured together and having a plural number of rim-treads one of which is grooved to traverse a track-cable and provided with an oil-chamber.

4. A car-wheel comprising two separate circular parts—one of said circular parts being provided with two rim-treads, 16, 18, of different diameters and at its side with an annular groove, 10; the other circular part having a perimeter that flares away from said first-named circular part and is provided at its side with an annular groove, 11; and a ring of non-metallic material fitted in the annular grooves of said two parts.

5. A car-wheel comprising two circular parts secured together with a non-metallic ring interposed between them, and having a plural number of rim-treads one of which is grooved to traverse a track-cable and provided with an oil-chamber.

6. A car-wheel comprising two circular parts secured together and each part having its own hub, and oil-chamber between the two parts, and provided with a plural number of rim-treads one of which is grooved to traverse a track-cable.

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

HARRY S. ROBINSON.

Witnesses:

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