M. J. RACER.

VEHICLE-WHEEL.

No. 192,934. Patented July 10, 1877.

Fig. 2.

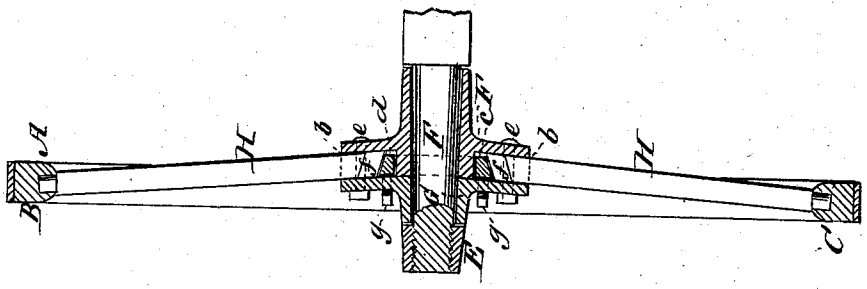


Fig. 1.

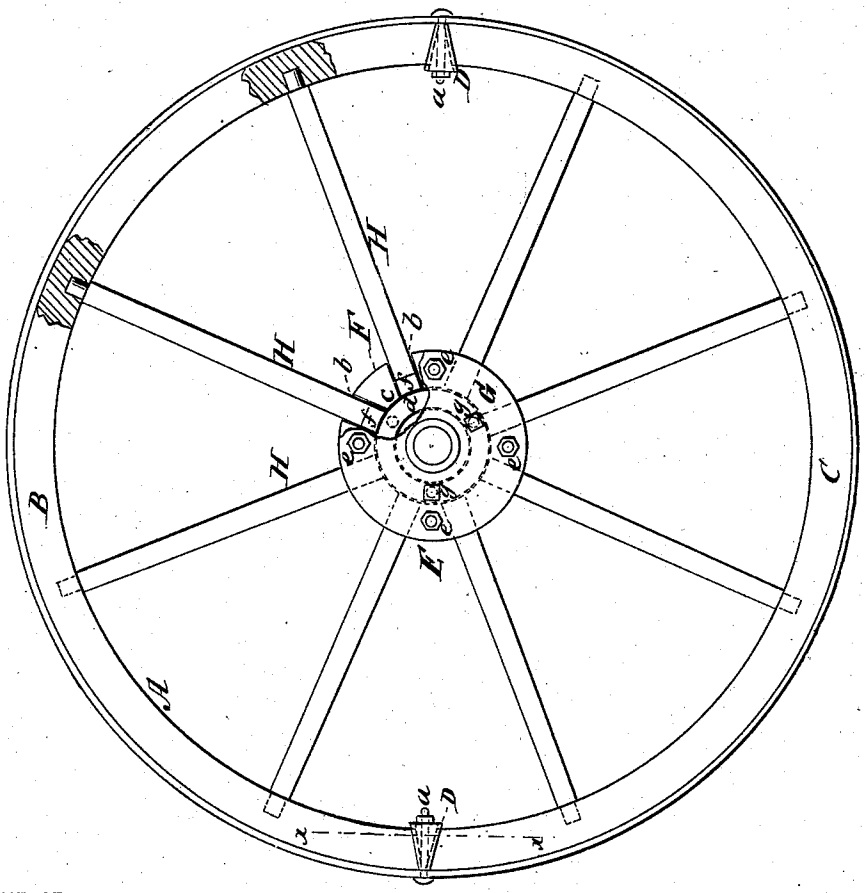


Fig. 3.



WITNESSES:

E. Wolff

J. H. Scarborough

INVENTOR:

M. J. Racer.

BY

ATTORNEYS.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

MARTIN J. RACER, OF LA GRANGE, TEXAS.

IMPROVEMENT IN VEHICLE-WHEELS.

Specification forming part of Letters Patent No. **192,934**, dated July 10, 1877; application filed December 18, 1876.

To all whom it may concern:

Be it known that I, MARTIN JACKSON RACER, of La Grange, in the county of Fayette and State of Texas, have invented a new and Improved Vehicle-Wheel, of which the following is a specification:

Figure 1 is a side elevation, with parts broken away to show the internal construction more clearly. Fig. 2 is a transverse section. Fig. 3 is a detail sectional view taken on line *x x*, Fig. 2.

Similar letters of reference indicate corresponding parts.

The object of my invention is to provide a vehicle-wheel that is capable of being expanded so as to fit the tire, to obviate the necessity of removing, contracting, and replacing the tire.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

Referring to the drawing, A is the felly, made up of the sections B C, which are beveled at each end, leaving a wedge-shaped space between them, the larger portion of which opens toward the hub. The ends of the sections B C are also rounded in a transverse direction, as shown in Fig. 3.

D is a wedge whose sides are concaved to fit the rounded end of the sections B C, and *a* is a tire-bolt that passes through the tire, and longitudinally through the wedge D, and is capable of drawing the wedge toward the tire.

E is an iron hub, provided with mortises *b* for receiving the spokes, and with an annular space, *c*, in which a beveled ring, *d*, is placed.

The hub consists of two parts, F and G. The part F contains the mortises and the ring *d*, and the part G forms a cap for the part F, and is held in place by bolts *e*, which pass through both parts of the hub, and the part G is further secured by a band, that is screwed up against it.

H H are spokes, the inner ends of which are beveled, and provided with metallic caps or tips *f*, which bear against the ring *d*. The outer ends or tenons of the spokes are fitted to holes bored in the felly, which do not pass entirely through. Three or more set-screws, *g*, pass through the part G, for forcing the ring *d* against the inner ends of the spokes and setting them out radially.

When the wheel is to be tightened the part G is slightly loosened, and the ring *d* is forced in by means of the screws *g*, which, by its engagement with the beveled ends of the spokes, forces them out radially and sets the felly firmly against the tire. The part G is then tightened, and the wedges D are removed from their places and dressed sufficiently at their smaller ends to permit of drawing them sufficiently into the spaces between the ends of the sections of felly to tighten the felly.

The concavity of the sides of the wedges prevents lateral movement in the ends of the felly-sections.

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

The wedge D, concaved on the sides, and fitting over convexities in the sections B C to prevent lateral displacement, as described.

MARTIN JACKSON RACER.

Witnesses:

T. B. BURLESON,

T. S. BROWN.