Sept. 29, 1925. 1,555,050

W. E. WILLIAMS

STEEL FELLY FOR WHEELS

Filed Aug. 1, 1922

Fig. 1.

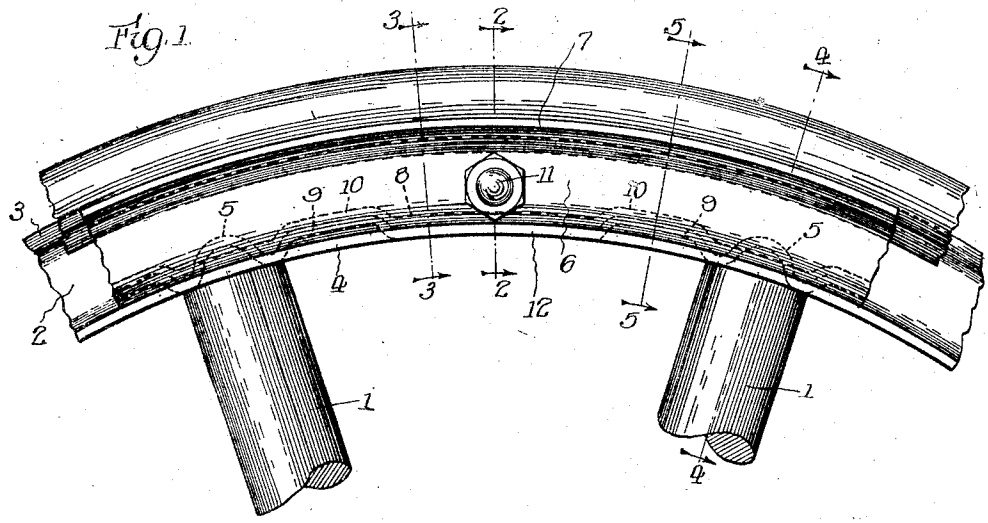


Fig. 2.

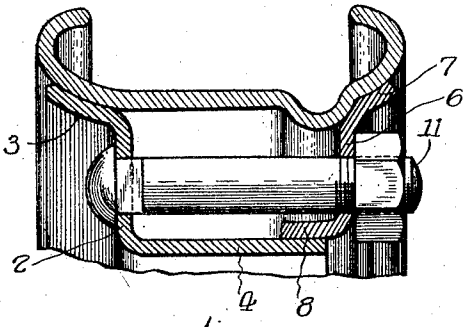


Fig. 3.

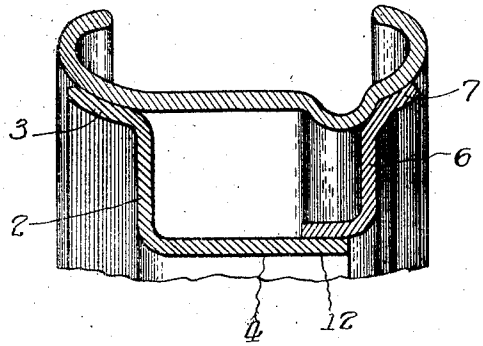


Fig. 4.

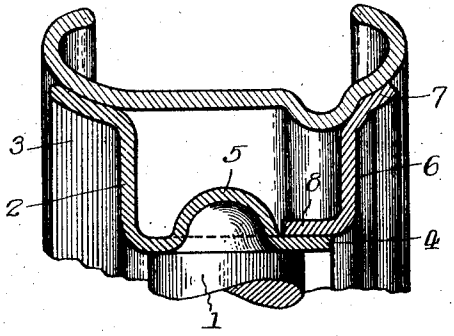
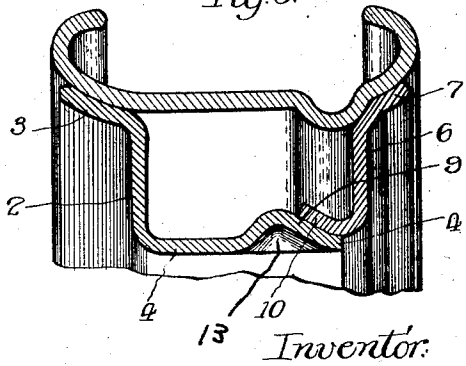


Fig. 5.



Witness:
A. J. Sauser.

Inventor:
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Patented Sept. 29, 1925. 1,555,050

UNITED STATES PATENT OFFICE.

WILLIAM ERASTUS WILLIAMS, OF WILMETTE, ILLINOIS, ASSIGNOR TO AMERICAN STEEL FOUNDRIES, OF CHICAGO, ILLINOIS, A CORPORATION OF NEW JERSEY.

STEEL FELLY FOR WHEELS.

Application filed August 1, 1922. Serial No. 579,019.

To all whom it may concern:

Be it known that I, WILLIAM ERASTUS WILLIAMS, a citizen of the United States, a resident of Wilmette, county of Cook, State of Illinois, have invented a new and useful Improvement in Steel Fellies for Wheels, of which the following is a specification.

My invention relates to that type of steel fellies upon which are mounted demountable pneumatic tire rims, and the object of the invention is to improve the detail constructions of this class of steel fellies, as will be understood from the description herein.

Reference will be had to the accompanying drawing in which—

Figure 1 is a front elevation of a portion of a wheel showing my steel felly.

Figure 2 is a section on the line 2—2 of Figure 1.

Figure 3 is a section on the line 3—3 of Figure 1.

Figure 4 is a similar section on the line 4—4 of Figure 1.

Figure 5 is a section on the line 5—5 of Figure 1.

1 indicates the spokes of a wheel fastened into the hub in any suitable manner, but here shown as that class of spokes suitable for use with a steel felly.

2 indicates the main portion of my steel felly which is substantially Z-bar cross section having the rim bearing portion 3, and a primarily cylindrical flange 4 in which there are embossed spoke-end pockets 5. The other side of my felly is a wedge ring 6 of Z-like cross-section, forming with the main portion, a channel section steel felly. The wedge ring 6 has the portion 7 bearing on the rim, and a flange 8 telescoped over the outer periphery of the flange 4 of the main portion of the felly.

In order to have a wedging action for the wedge ring 6, portions 9 of the flange 4 are pressed toward the rim, at intervals around the felly, and the flange 8 of the ring 6 is correspondingly bent at 10 so that when the ring 6 is drawn, by bolts 11, toward the flange 2 of the main felly member the desired wedging action is secured.

By the arrangement of the inclined or embossed portions 9 and 10 of the main felly portion and the wedge ring, the exposed inner face of the felly is a generally smooth cylinder broken by relatively short shallow obtuse angled pockets shown at 13, Fig. 5, the corners of these pockets being rounded as shown. No rim clamping clips are needed or used with my felly, but other radical external novelty in appearance is avoided.

What I claim is:—

1. A metal felly having its inner wall primarily cylindrical and provided on one side with an integral tire-rim retaining flange and on the opposite side with a distinct one-piece tire rim retaining flange, and bolts for drawing the distinct flange toward its companion; said wall being pressed outward at intervals to form a series of marginal inclines and said distinct flange being indented at corresponding intervals to form inclines in position to wedge against the inclines first mentioned, under the force exerted by the bolts.

2. A metal felly having the middle portion of its primarily cylindrical wall pressed outward at short intervals to form internal spoke-receiving pockets and external projections, said wall having on one side a tire-rim retaining flange extending farther from the center than the projections, and on the other side having an analogous, distinct, tire-rim retaining flange with an inbent marginal portion for which said projections serve as stops, and bolts passing through both flanges and serving to draw the inner margin of the distinct flange toward said projections and its outer margin toward a tire rim.

3. The combination with a metal felly having a primarily cylindrical inner wall with an integral rim retaining flange on one side and on the other side overlapped by a closely fitting, in-bent marginal portion of a distinct one-piece tire rim retaining flange of Z-bar-like cross-section, of a tire rim having on one side of its cylindrical inner wall an annular, embossed, inwardly projecting rib against which said distinct tire-rim retaining flange rests laterally, and bolts arranged to draw said distinct flange toward its companion.

Signed at Chicago, in the county of Cook and State of Illinois, this 13th day of July, 1922.

WILLIAM ERASTUS WILLIAMS.