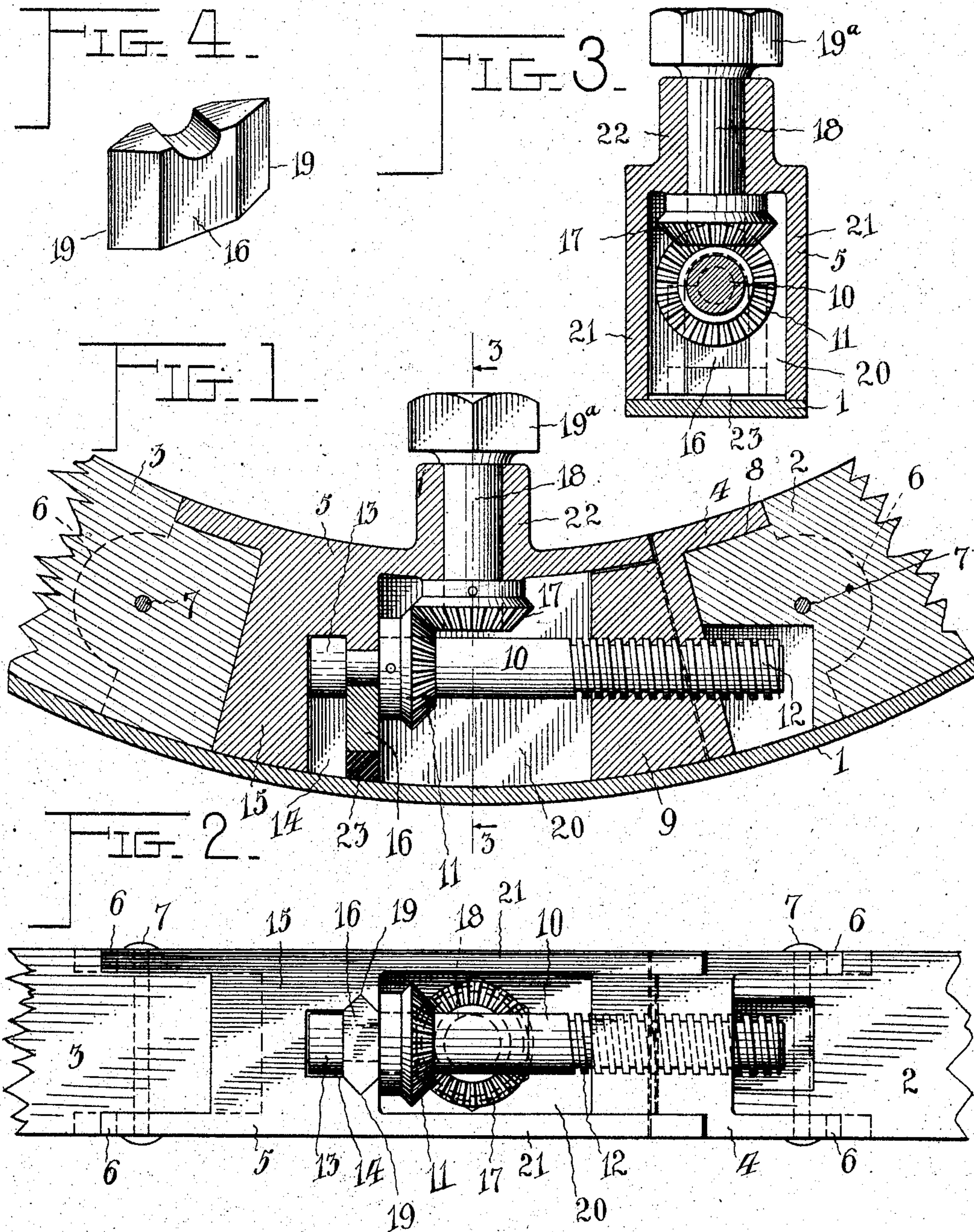


No. 786,829.

PATENTED APR. 11, 1905.

E. N. McCOMB.
FELLY TIRE SET.

APPLICATION FILED JULY 2, 1904.



Witnesses:

aswmaek
J. H. Gibbs

Edward N. McComb Inventor,

By *Marion Marion*

Attorneys

UNITED STATES PATENT OFFICE.

EDWARD N. McCOMB, OF HAMILTON, CANADA.

FELLY TIRE-SET.

SPECIFICATION forming part of Letters Patent No. 786,829, dated April 11, 1905.

Application filed July 2, 1904. Serial No. 215,060.

To all whom it may concern:

Be it known that I, EDWARD N. McCOMB, a subject of the King of England, residing at Hamilton, in the county of Wentworth, Province of Ontario, Dominion of Canada, have invented certain new and useful Improvements in Felly Tire-Sets; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in felly tire-sets; and it consists in certain features of novelty in the construction and operation thereof, all as hereinafter more fully described, and specifically set forth in the claims.

The object of the invention is to produce in a simple economical manner a device which may be placed between the contiguous ends of companion felly-segments of a wheel and be permanently connected therewith, so as to be at all times available for the purpose of adjusting the fellies of a wheel to compensate for shrinkage or swelling thereof under the influence of the weather.

In the drawings, Figure 1 is an approximately longitudinal section taken centrally of my improved device. Fig. 2 is a plan view thereof looking from the tire side of the wheel. Fig. 3 is a sectional view taken substantially on line 3 3 of Fig. 1, and Fig. 4 is a removable bearing-plate adapted to be used in connection with the apparatus hereinafter more fully described.

In the drawings, 1 indicates the usual metal tire; 2 and 3, fragments of felly-segments.

4 is a casting connected with the segment 2, and 5 is a casting connected with the segment 3, each of said castings 4 and 5 being provided with ears 6, (shown in dotted lines in Fig. 1 and in full lines in Fig. 2,) which ears are adapted to embrace the sides of the fellies 2 and 3, while pins 7 are projected through such ears and the felly-segments for the purpose of locking the castings 4 and 5 in operative position between such felly-segments and the tire 1. The casting 4 is preferably provided with the recess 8 and with

the forwardly-extending portion 9, which portion is provided with a screw-threaded opening therein adapted to receive the screw-threaded shaft 10. The shaft 10 is provided with a bevel-gear 11, which is pinned to said shaft, and is also provided with a screw-threaded portion 12, which engages with a corresponding screw-thread formed in the section 9 of the casting 4. The opposite end of the shaft 10—that is, the end near which is located the pinion 11—is provided with an enlargement 13, which is adapted to rest in the recess 14, provided between the portion 15 and the member forming the wall 16 of the section 5, so that as the shaft 10 is rotated in either direction a longitudinal movement will be imparted to change the relation of the sections 4 and 5 to each other. Meshing with the pinion 11 is a corresponding bevel-pinion 17 upon the stud 18, which stud is provided with the non-circular portion 19^a, adapted to receive a wrench, whereby the stud 18 may be rotated to give a corresponding rotation to the pinion 11 and shaft 10, so as to cause the screw-thread 12 to project the said members 4 and 5 in the desired direction with relation to each other. As noted in Fig. 4, the member 16 is provided with beveled ends 19, which, as shown in Fig. 2, rest in corresponding seats in said member 5, so as to form an abutment for the enlargement 13 of shaft 10 when required in drawing the sections 4 and 5 together or when projecting the said sections farther apart. The section 5 being provided with the enlarged recess 20, it will be evident that some means of support for the tire 1 shall be provided thereat, and for that reason the wings or extensions 21, connected with the member 5, extend across such opening and support the bearing 22, in which the stud 18 is held.

Between the tire 1 and the member 16 is provided a cushion 23, which cushion is preferably of some material which is capable of slight compression, so as to compensate for the angularity of adjustment of the shaft 10 in its differential projection through the portion 9 of the member 4, and by reason of this cushion it will be evident that the block 16

is formed to slide to a greater or less extent within the V-shaped ways provided therefor in the casting 5, so as to accommodate itself to the changed positions of the end 13 of the shaft 10. The cushion 23 is provided at that end of the shaft, as it will be evident that the enlarged bearing in the member 9 for the screw-thread 12 will necessarily hold the said shaft 10 in alinement and prevent torsional movement therein.

In practice the castings 4 and 5 are connected to the felly-segments 2 and 3 in any desired manner and may be so adjusted as to abut against such segments or may be connected therewith by means of the pin 7, passing through the castings 4 and 5 and the felly-segments, as may be desired, after which the castings 4 and 5 may be adjusted longitudinally of each other at will by simple rotation of the enlargement 19^a on the stud 18, thereby causing said bevel-gears to rotate the shaft 10, and by reason of the screw-threaded engagement of said shaft and member 9 projecting the castings 4 and 5 in opposite directions or bringing such castings nearer together, as may be required at the particular time, it will be evident that the apparatus may be used for the purpose of loosening the felly-segments within the tire for any desired purpose, as in the event of wet weather, or the felly-segments may be expanded at other times.

While I have shown in the accompanying drawings the preferred form of my invention, it will be understood that I do not limit myself to the precise form shown, for many of the details may be changed in form or position without affecting the operativeness or utility of my invention, and I therefore reserve the right to make all such modifications as are included within the scope of the following claims or of mechanical equivalents to the structures set forth.

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

1. In a device of the character described, a plurality of members slidable with relation to each other and adapted to be supported between contiguous felly-segments, a screw-threaded shaft in one of said members engaging with the other thereof, means for rotating such shaft to cause adjustment of said members, an enlargement on said shaft, and a slidable block interlocking with one of said members forming an abutment for said enlargement.

2. In a device of the character described, a plurality of slidable and interlocking members adapted to be supported upon adjacent felly-segments, a screw-threaded shaft engaging with a correspondingly screw-threaded seat in one of said members, an enlargement on said shaft, a slidable abutment for said enlargement, and a cushion adapted to rest between said abutment and the wheel-tire.

3. In a device of the character described, a plurality of members slidable with relation to each other and adapted to be supported between contiguous felly-segments, a screw-threaded shaft on one of said members engaging with the other thereof, a bevel-gear on said shaft, a second shaft supported by one of said members, a bevel-gear on said second shaft meshing with said gear, an enlargement on said first shaft and a slidable block interlocking with one of said members and forming an abutment for said enlargement.

4. In a device of the character described, a plurality of members slidable with relation to each other and adapted to be supported between contiguous felly-segments, one of said members being provided with an opening therein, a screw-threaded shaft supported by one of said members and engaging the other member, a shaft disposed in said opening and adapted to rotate said first shaft, an enlargement on said first shaft, and a slidable block interlocking with one of said members and forming an abutment for said enlargement.

5. In a device of the character described, a plurality of members slidable with relation to each other and adapted to be supported between contiguous felly-segments, one of said members being provided with an angular, vertical recess, a screw-threaded shaft supported by one of said members and engaging the other thereof, a bevel-gear on said shaft, a second shaft supported by said member, a bevel-gear thereon meshing with the bevel-gear on said screw-threaded shaft, an enlargement on said first shaft, and an angular block, slidably disposed in said angular opening and adapted to form an abutment for said enlargement.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

EDWARD N. McCOMB.

Witnesses:

LEWIS MITCHELL,
C. D. JARVIS.