T. NEWMAN & I. M. DAVIDSON.

VEHICLE WHEEL.

APPLICATION FILED NOV. 27, 1907.

908,026. Patented Dec. 29, 1908.

Fig. 1.

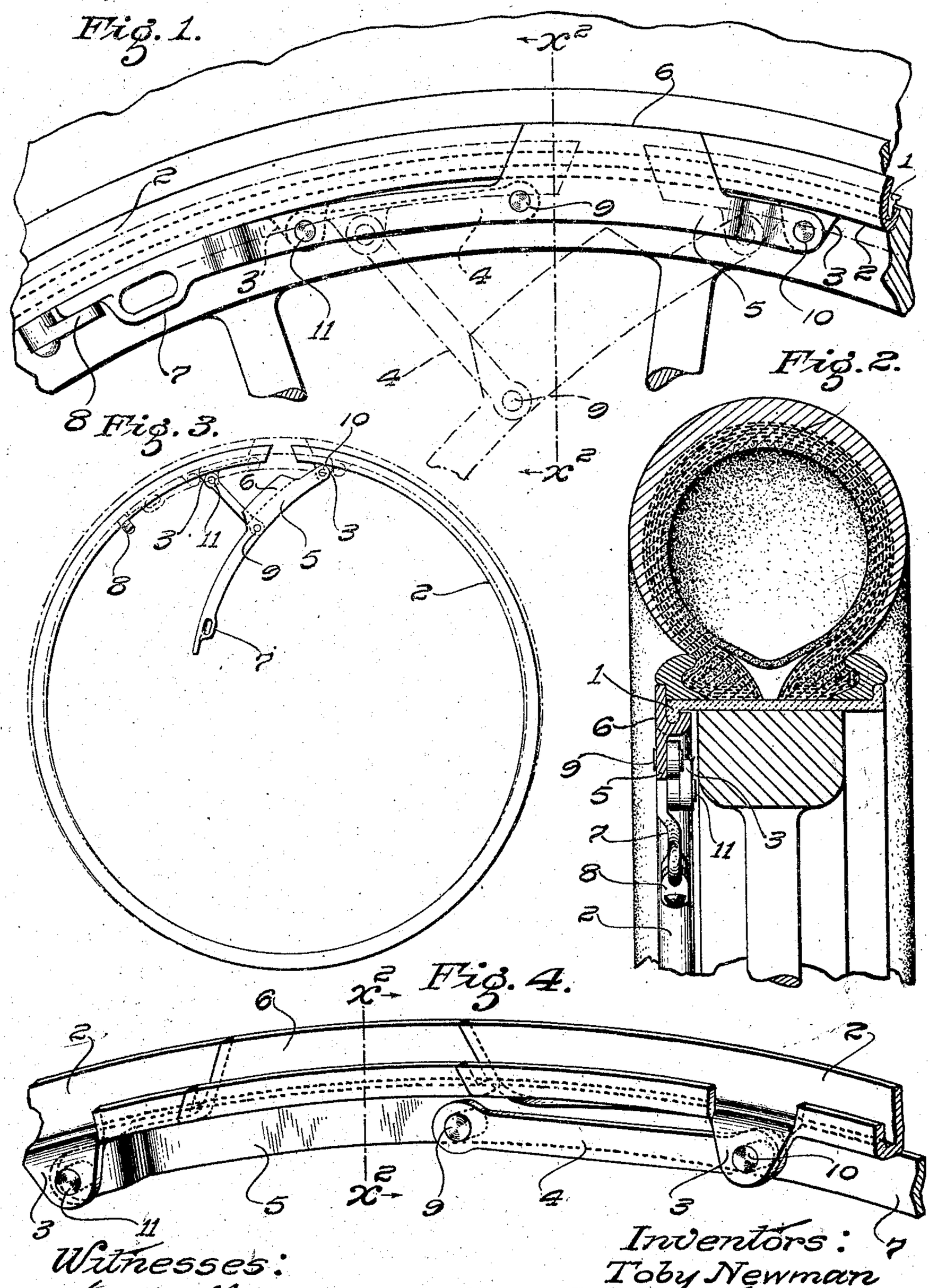


Fig. 2.

Fig. 3.







Fig. 4.




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# UNITED STATES PATENT OFFICE

TOBY NEWMAN AND IRA M. DAVIDSON, OF LOS ANGELES, CALIFORNIA; SAID DAVIDSON ASSIGNOR TO SAID NEWMAN.

## VEHICLE-WHEEL.

No. 908,026. Specification of Letters Patent. Patented Dec. 29, 1908.

Application filed November 27, 1907. Serial No. 404,175.

*To all whom it may concern:*

Be it known that we, TOBY NEWMAN and IRA MARTIN DAVIDSON, both citizens of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Vehicle-Wheels, of which the following is a specification.

This invention relates to vehicle-wheels provided with resilient tires and with a locking ring to maintain said tire on the rim of the wheel.

The object of this invention is to provide an improvement whereby the locking ring may be readily contracted and expanded and positively locked in its expanded position.

Another object is to provide for tightly closing the joint without the use of nuts, washers, or packing of any kind

The accompanying drawings illustrate the invention.

Figure 1 is a fragmental elevation of a vehicle-wheel embodying this invention. Dotted lines indicate the contracted position of the open locking-ring. Fig. 2 is a fragmental cross sectional view illustrating the invention. Fig. 3 is a view showing the locking ring detached and somewhat contracted. Dotted lines indicate the expanded position. Fig. 4 is an enlarged fragmental detail from the inside of the open ring showing the parts in locked position.

1 designates the interiorly-beaded rim of a wheel, and 2 an exteriorly-grooved open locking ring adapted to engage the beaded rim of the wheel.

3 designates inwardly-projecting ears at a distance from the ends of the open ring.

4, 5 designate two members of a toggle device pivoted respectively to the ring at a distance from the ends thereof for contracting, expanding and locking the ring, said members consisting in a link 4, pivoted at one end to the other one of the ears 3, and pivoted also intermediate its ends to the end of the link 4. Said member 5 is preferably curved to conform to the inside of the open ring, and is provided with a wedge-piece or block member 6, adapted to tightly wedge between the ends of the ring to fit in and close the open space between said rings, and to make a tight joint and take off the strain from the pivots of the toggle joint.

7 designates the handle portion of the member 5, and 8 a locking device in the form of a button appropriately mounted by being fastened to the ring 2 and adapted to engage the handle, thus to hold the member 5 and its wedge-piece 6 in locked position. The link 4 and toggle member 5 are bent or broken jointed, as indicated in Fig. 4, so that when the toggle is in locked position its mid-pivot 9 will have passed a line drawn between the end pivots 10, 11 of the toggle, and the wedge-block operates positively to expand the ring and hold is so as long as the handle is locked by the locking device.

In practical use the labor of applying and removing the open locking ring to and from the rim of the wheel is reduced to a minimum and is performed by simply releasing the button 8 and swinging the member 5 toward the center of the locking ring, thus contracting said locking ring, whereby it may be inserted into or withdrawn from its engagement with the beaded rim of the wheel. When the locking ring has been thus contracted and then inserted into the vehicle rim, the toggle handle 7 may then be pressed outward toward the ring 2, thereby spreading the ends of the open ring apart until the pivot 9 of the toggle has passed the line drawn between the pivots 10 and 11, and the block 6 has entered and wedged in between the ends of the open ring 2. Thereupon the curved handle 7 will come to rest against the inside of the open ring, and thereupon the locking device 8 may be turned thus to engage the handle 7 and positively lock the toggle device in its ring locking position.

We claim:—

The combination with an interiorly-beaded wheel rim, of an exteriorly-grooved open locking ring to engage said beaded rim, a link pivoted to the locking ring near one of its ends, and a member provided with a handle portion and with a wedge portion

pivoted to the link and to the ring near the other end thereof, said wedge portion being between the last-mentioned pivot and the pivot of the link to wedge the ends of the ring apart when the handle is brought into position against the ring, and locking means to hold the handle in such position.

In testimony whereof, we have hereunto set our hands at Los Angeles, California, this 15th day of November, 1907.

TOBY NEWMAN.
IRA M. DAVIDSON.

In presence of—
JAMES R. TOWNSEND,
M. BEULAH TOWNSEND.