

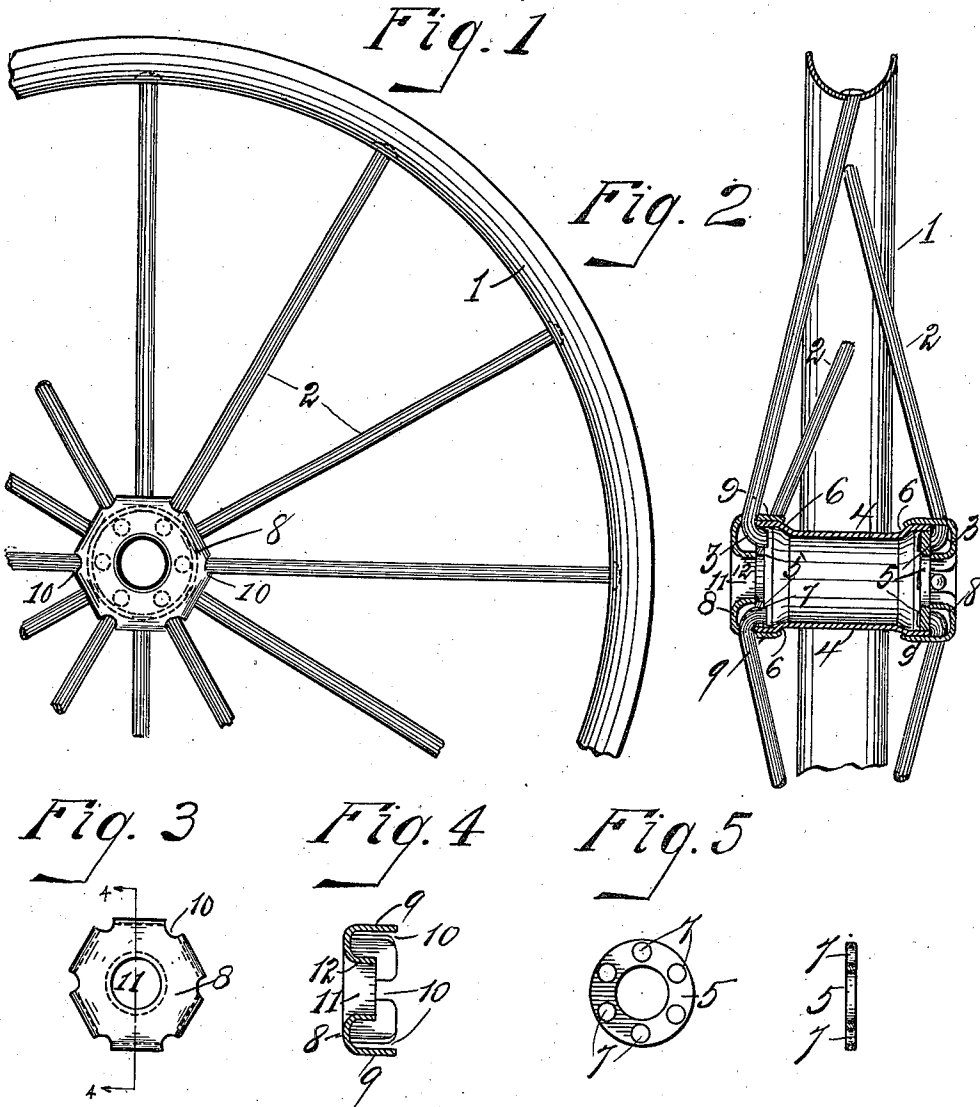
M. J. FOYER.

WHEEL.

APPLICATION FILED AUG. 16, 1911.

1,014,055.

Patented Jan. 9, 1912.



WITNESSES:
C. E. Walker,
Dwight Schultz

INVENTOR:
Melvin J. Foyer,
By Arthur Hall, Att'y

UNITED STATES PATENT OFFICE.

MELVIN J. FOYER, OF TOLEDO, OHIO, ASSIGNOR TO THE FOYER BROTHERS & COMPANY, OF TOLEDO, OHIO, A CORPORATION OF OHIO.

WHEEL.

1,014,055.

Specification of Letters Patent.

Patented Jan. 9, 1912.

Application filed August 16, 1911. Serial No. 644,428.

To all whom it may concern:

Be it known that I, MELVIN J. FOYER, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Wheels; and I do declare the following to be 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The object of the present invention is to provide a metal wheel of the type usually employed in connection with perambulators, go-carts and the like, which wheel shall be light, simple, strong, durable and inexpensive.

A further object of my invention is to furnish for the axle-spindles a seamless bearing, and to furnish a convenient means of lubrication.

To this end my invention consists of the devices, construction and arrangement of parts hereinafter described, and shown and illustrated in the accompanying drawings, in which,—

Figure 1 is a side-elevation of part of my wheel; Fig. 2, a central transverse sectional elevation of the same; Fig. 3, a front-elevation of one of the slotted retaining plates or caps, hereinafter referred to; Fig. 4, a sectional elevation of the same taken on line 4—4 Fig. 3, and Fig. 5, side and edge elevations of the perforated ring hereinafter referred to.

Like parts are represented by like numerals of reference throughout the drawings.

In the drawings, 1 is a wheel-rim to which the outer ends of the spokes 2 are secured in the usual or any preferred manner. The spokes, close to their inner ends, are bent inwardly, as at 3, at substantially a right angle, the alternating spokes being bent in opposite directions.

4 is a cylindrical thimble, slightly enlarged at each end to such diameter as to form circular recesses which receive with a close fit the flat rings 5. These enlargements also provide external circumferential shoulders 6. Each of the rings 5 has perforations 7 corresponding in number to half the number of spokes and of such dimensions as to

receive with a close fit the inwardly turned hook-like ends of the spokes.

8—8 are caps adapted to fit closely over the opposite enlarged ends of the thimble 4, the inwardly turned flanges 9 being slotted, as at 10, the slots being of such width as to receive snugly the spokes. Each cap 8 has centrally therethrough an opening 11, the margin of which has an inwardly turned flange 12.

The rings 5 being seated in their recesses, the alternate inwardly turned hook-like ends of the spokes are engaged with the perforations 7 in one ring while the like ends of the other spokes are, in like manner, engaged with the opposite ring 5. The flanges 9 of the caps 8 are now driven onto the enlarged ends of the thimbles 4 with the slots 10 bestriding the spokes close to their bent portions and with the ends of the slots set close against the spokes. The margins of the flanges 9, which slightly overlap the shoulders 6, are now bent or peened inwardly upon the shoulders so that the caps cannot be withdrawn without the application of considerable force, thus rigidly securing the several parts in operative relation. The openings 11 and the flanges 12 are now in axial alinement and are adapted to receive a suitable axle-spindle. The flanges being smooth and seamless on their interior furnish for the spindles excellent bearing surfaces. It will be seen that as the ends of the thimbles 4 are well closed, the space within the thimble and surrounding the spindle provides an ample receptacle for a heavy lubricant.

It will be seen that although the parts are rigidly operatively connected, either of the spokes may, in case of breakage, be removed and renewed by merely removing from the thimble 4 the appropriate cap 8.

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

1. In a device of the described character, a cylindrical thimble having at each end a circumferentially enlarged portion, a ring seated in each of said enlarged portions and having perforations therethrough, and a pair of caps fitted over the opposite enlarged ends of the thimble, said caps having therethrough a central opening and having inwardly turned concentric inner and outer flanges, said outer flanges being slotted to

correspond with the perforations in said rings, substantially as described.

2. A wheel of the described character, comprising a rim, spokes secured at their 5 outer ends to the rim and being alternately bent inwardly close to their converging ends, a pair of rings engaged respectively with the alternate inwardly turned ends of the spokes, a thimble enlarged at each end to 10 form external shoulders and to form recesses in which said rings are seated, and a pair of caps which cover the opposite ends of the thimble, said caps having therethrough a central opening and having inwardly turned 15 concentric inner and outer flanges, the outer flanges being slotted to receive the spokes and being engaged with said shoulders.

3. In a device of the described character, a thimble, a perforated ring disposed in each 20 end of the thimble, a cap fitted over each end of the thimble, said caps having therethrough a central opening and having con-

centric outer and inner flanges, the latter flanges being adapted to serve as bearings for an axle.

4. In a device of the described character, a 25 thimble having at each end a circumferentially enlarged portion, a ring seated in each of said enlarged portions and having perforations therethrough, and a pair of caps 30 fitted over the opposite enlarged ends of the thimble, said caps having therethrough a central opening and having inwardly turned concentric inner and outer flanges, said 35 outer flanges being slotted to correspond with the perforations in said rings, the inner flanges being adapted to serve as bearing surfaces for an axle.

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

MELVIN J. FOYER.

Witnesses:

HARRY WHITTAKER,
B. J. GREENOUGH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."