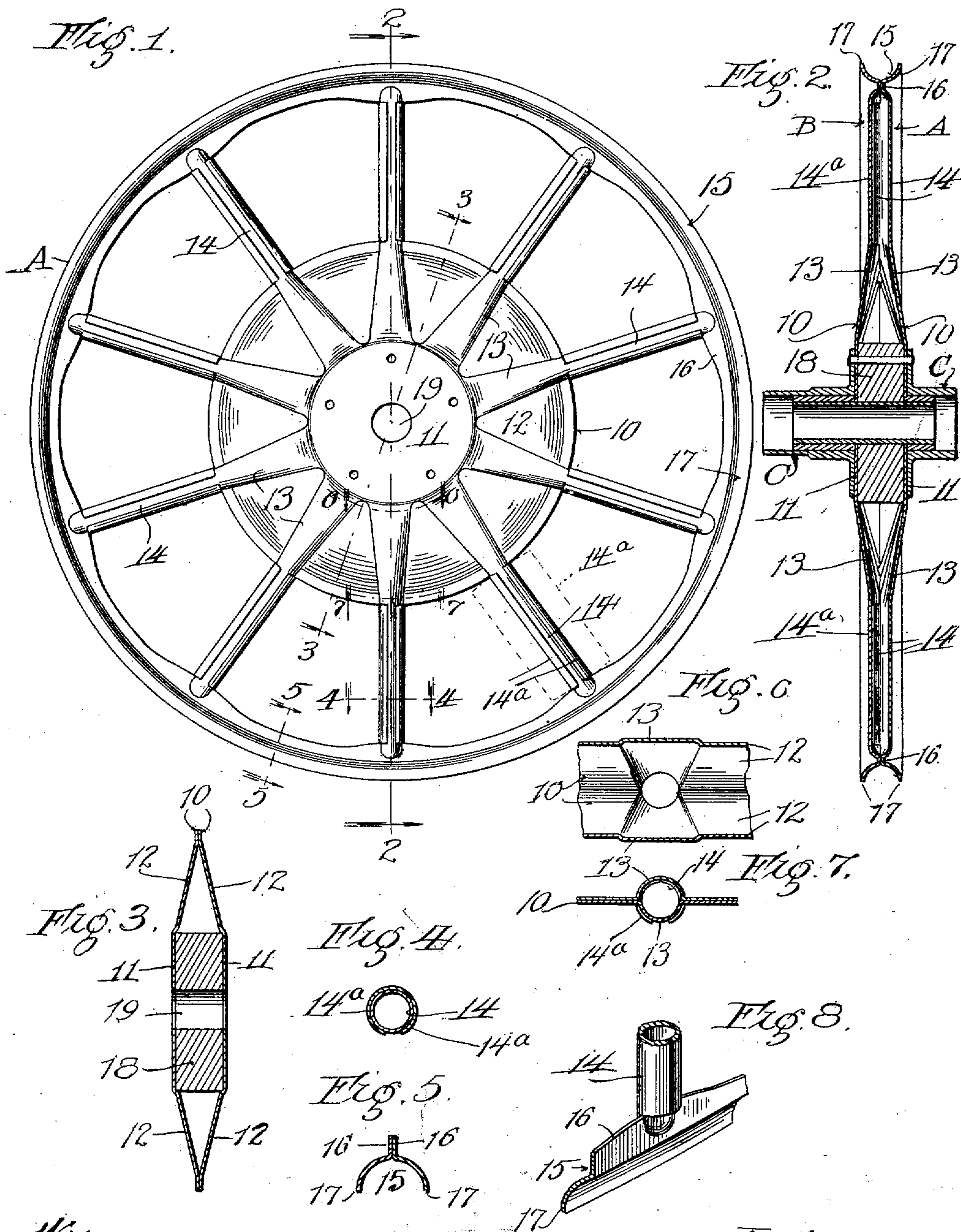


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WHEEL.  
APPLICATION FILED JAN. 8, 1910.

978,516.

Patented Dec. 13, 1910.



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Witness



# UNITED STATES PATENT OFFICE.

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## WHEEL.

978,516.

Specification of Letters Patent.

Patented Dec. 13, 1910.

Application filed January 8, 1910. Serial No. 537,003.

*To all whom it may concern:*

Be it known that I, SAMUEL J. TURNER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Wheels, of which the following is a specification.

This invention relates to wheels, and more particularly to that type of wheels which are made of metal.

The object of this invention is to provide a metal wheel of improved construction, to simplify, cheapen and strengthen wheels of this type.

Another object is to reduce the number of the component parts in wheels of this type, whereby the work of assembling and finishing the same may be reduced to a minimum.

Other objects and advantages will appear in the course of this specification and to such ends this invention consists in the several novel features of construction and arrangement set forth in this specification and particularly pointed out in the claims.

The invention is clearly illustrated in the drawings furnished herewith, in which—

Figure 1 is a side view of a wheel body containing my improvements with the hub omitted, Fig. 2 is a central vertical section taken on the line 2—2 of Fig. 1, but showing the hub applied to the wheel body, Fig. 3 is a detail section taken on the line 3—3 of Fig. 1, Fig. 4 is a detail cross section taken on the line 4—4 of Fig. 1, Fig. 5 is a detail cross section taken on the line 5—5 of Fig. 1, Fig. 6 is a detail cross section taken on the line 6—6 of Fig. 1, Fig. 7 is a detail cross section taken on the line 7—7 of Fig. 1 and Fig. 8 is a perspective view of a fragment of one member of the wheel body.

In these views, which show the device in its preferred form, the wheel is seen to comprise, in general, two substantially similar members A, B, which form the main body of the wheel and a hub C, which is secured thereto.

Inasmuch as each of the side members are substantially alike, I shall proceed to describe one in detail, it being understood that such description applies to both. Each side member has a central disk 10, which is dished outward away from a median line passing longitudinally through the plane of the wheel, said disk having a flat central portion 11, and a sloping portion 12. The sloping portion 12, is stamped up with a num-

ber of radially extending ribs or beads 13, from the outer ends of which project the spoke members 14, that run to the rim or felly 15. All of the parts thus far described are stamped up as a unit from a single piece of sheet metal and when two of said members are properly secured together, they form a complete wheel body.

The rim portion 15, is stamped up with an inwardly projecting web or flange 16, and with a laterally extending flange 17, which is adapted to form one half of the seat for the tire. The spoke members 14, of the side members A, are preferably folded around in the form of tubes which extend from the outer ends of the ribs or beads 13 to the flange 16, of the rim, and in assembling the two members of the body the spoke members 14<sup>a</sup>, of the other side member are folded around said tubular spokes, thereby securely fastening one side member upon the other without the use of rivets or the like except as the same are used in securing hub parts and incidentally connect the halves of the body near the middle of the wheel. The spoke members of said side member engage with the adjacent edges of the disk and rim respectively of the opposite side member, and thereby effectually prevent any radial movement of one member upon the other. It is preferable to place a block or strut 18, between the flat portions of the disks 10, especially when the hub C, is made of parts as shown in Fig. 2, and secured to the wheel body by means of rivets. A central opening 19, is provided in each disk to receive the axle or spindle upon which the wheel is journaled.

From the above it is evident that an extremely cheap, simple and strong wheel may be produced which is especially adapted for baby carriages, go-carts, wheeled toys and the like, although it is obvious that it may be applied to heavier vehicles, such as automobiles, wagons, etc. Furthermore, by constructing the central disk, the spokes and rim member in one piece, it is possible to save a great deal of time, labor and material. Furthermore, by lapping one spoke member about the other to unite the two halves of the wheel body, it dispenses with rivets or other like fastening for securing the main portions of the two halves together, and at the same time, strengthens and reinforces the wheel at these points.

I am aware that various alterations and



modifications of this device are possible without departing from the spirit of my invention, and I do not therefore desire to limit myself to the exact form of construction shown and described.

I claim as new and desire to secure by Letters Patent:

1. A two part wheel body composed of similar halves each having a central portion and a rim portion connected thereto by spoke portions which are bent laterally to tubular form.

2. A two part wheel body composed of similar halves each having a central portion and a rim portion connected thereto by spoke portions bent to tubular form, the tubular spoke portions of one half being closely enveloped by the corresponding portions of the other half.

3. A two-piece wheel body having laterally unconnected tubular spokes and comprising two similar halves of sheet metal each consisting of a centrally perforated, dished disk with radial ribs, tubular spoke

members extending out from the disk as continuations of the ribs, respectively, and a half-rim member connecting the outer ends of the spokes, the tubular spoke members of one half closely fitting within the corresponding members of the other half, thereby doubling the spoke walls and uniting said halves into a rigid whole.

4. A wheel body comprising two similar sheet metal halves each having a dished central disk with outwardly pressed radial beads, a rim portion, and spoke portions connecting the beads to the rim and bent to tubular form, the spoke portions of one half closely enveloping the corresponding portions of the other half and abutting both the rim and the disk, substantially as set forth.

In witness whereof, I have hereunto subscribed my name, at Chicago, Cook county, Illinois, this 5th day of January 1910.

SAMUEL J. TURNER.

Witnesses:

CHARLES O. SHERVEY,  
FANNIE F. RICHARDS.