J. L. WALKER.

WHEEL.

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1,023,282.

Patented Apr. 16, 1912.

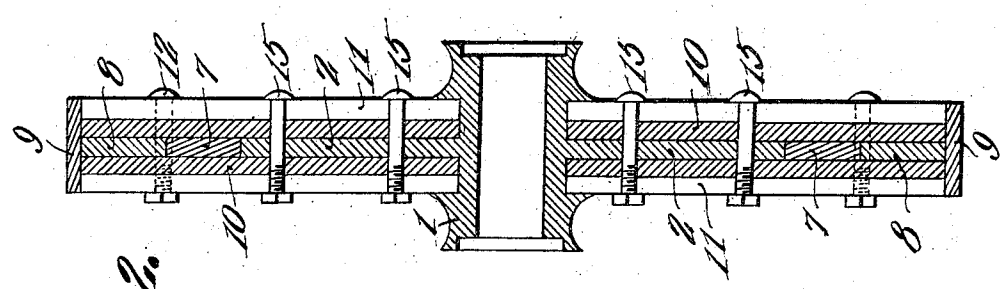

Fig. 2.

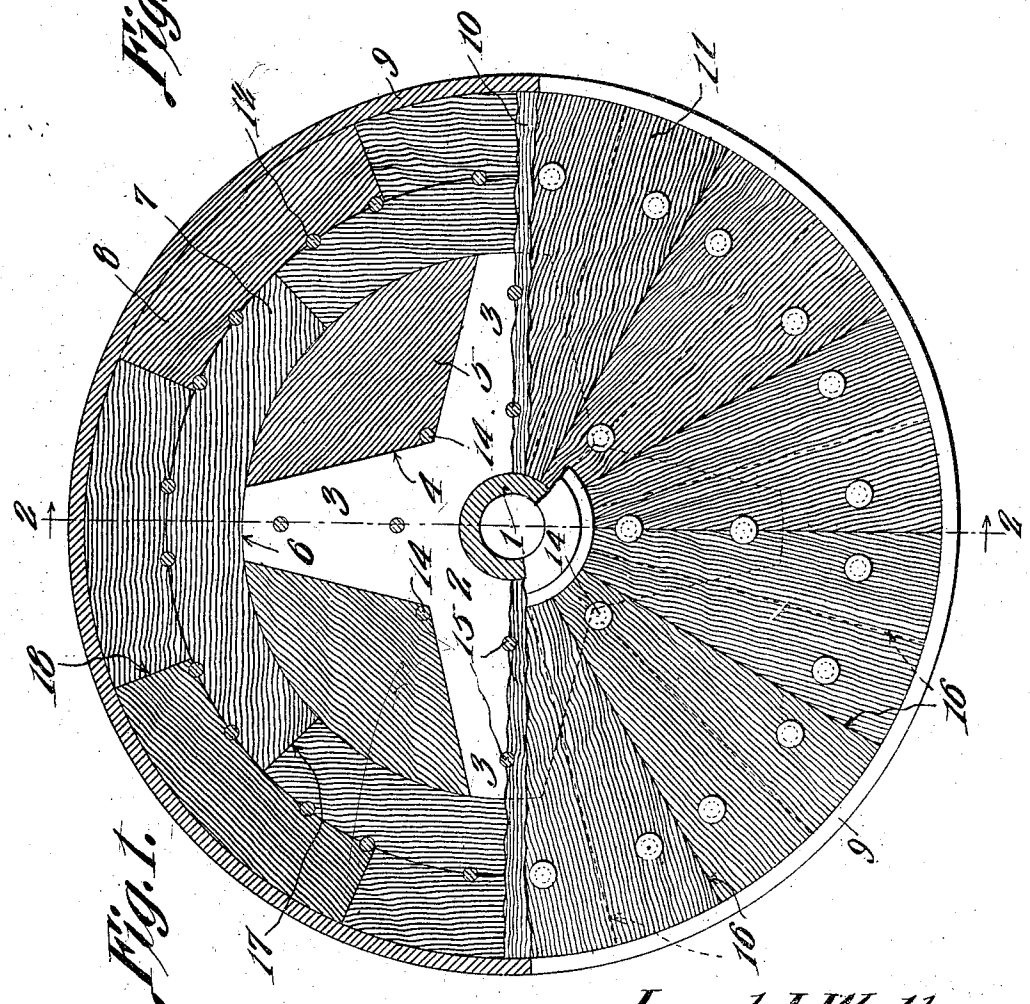

Fig. 1.

Witnesses

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UNITED STATES PATENT OFFICE.

JOSEPH LEE WALKER, OF BATON ROUGE, LOUISIANA.

WHEEL.

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To all whom it may concern:

Be it known that I, JOSEPH L. WALKER, a citizen of the United States, residing at Baton Rouge, in the parish of East Baton Rouge and State of Louisiana, have invented a new and useful Wheel, of which the following is a specification.

It is the object of this invention to provide a wheel built up of a series of wooden parts, the grain of the wood extending in different directions, thereby to increase the strength of the wheel, the wheel being provided with a hub-carried web, inter-engaged with the wooden elements of the wheel.

A further object of the invention is to provide a wheel consisting of a series of annular members reinforced by a series of sectors, means being provided for securing the annular parts and the sectors to the hub of the wheel.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings, Figure 1 is a side elevation of a wheel constructed in accordance with the present invention, successive layers of the wheel being broken away, to disclose the internal construction of the wheel; and Fig. 2 is a section upon the line 2—2 of Fig. 1.

In carrying out the invention there is provided a hub 1, having a web 2, the web 2 being of stelliform outline, and comprising a series of radial arms 3, the adjacent edges of the arms 3 defining obtuse angles, as shown at 4. The hub 1 and the web 2 are preferably formed integrally, and ordinarily are fashioned from metal.

Between the arms 3 of the web 2 are inserted minor sectors 5, these sectors 5 being of wood, the grain of which preferably runs tangentially of the wheel. The outer edges of the minor sectors 5 and the ends of the arms 3 of the web 2 are located in a common circumference, indicated at 6.

Surrounding the minor sectors 5 and the ends of the arms 3, are a series of primary annular parts 7. These primary annular parts 7 are fashioned from wood, the grain of the primary parts 7 preferably running tangentially of the wheel, and at an angle to the grain of the minor sectors 5. The primary annular parts 7 are surrounded by secondary annular parts 8. The secondary annular parts 8 are fashioned from wood, the grain of the secondary annular parts 8 ordinarily running tangentially of the wheel, at an angle to the grain of the primary annular parts 7. The secondary annular parts 8 are surrounded by a rim 9, preferably fashioned from metal. Located upon both sides of the minor sectors 3 and the annular parts 7 and 8, are inner major sectors 10, fashioned from wood, these sectors 10 extending from the hub 1 to the rim 9. The grain of the inner major sectors 10 preferably extends radially of the wheel. Located upon both sides of the inner major sectors 10, are outer major sectors 11, fashioned from wood, and extending from the hub 1 to the rim 9. The grain of the outer major sectors 11 preferably extends radially of the wheel.

In order to hold the parts assembled, bolts 12 or other securing elements are extended through the major sectors 10 and 11, and through the annular parts 7 and 8, the bolts 12 preferably being located in the circumference which is common to the parts 7 and 8. Other securing elements 14 are passed through the major sectors 10 and 11 and through the minor sectors 5, the bolts 14 being located ordinarily in the apices of the angles 4. Other securing elements 15 are extended through the major sectors 10 and 11, and through the web 2, adjacent the hub 1.

Referring to Fig. 1, and noting the point at which the reference character 16 is applied, it will be seen that the major sectors 10 and 11 are disposed in break-joint relation. The joints between the ends of the primary annular parts 7, denoted by the reference character 17, are located opposite the intermediate portions of the outer edges of the minor sectors 5. The joints 18 between the ends of the secondary annular parts 8 are located in break-joint relation with respect to the joints 17, as Fig. 1 will clearly show.

It will be readily understood that there may be any number of layers of major sectors 10—11, and that the number of annular parts 7—8 may be increased and diminished at will. The invention, broadly considered,

aims to provide a wheel consisting preferably of an unequal number of wooden layers, the grains in successive layers running in different directions.

A wheel constructed in accordance with the present invention, may be manufactured at small cost, and will possess great strength. The wheel may be made of light or heavy construction, depending upon the duty which it must perform.

Having thus described the invention, what is claimed is:—

1. A wheel comprising a hub having a stelliform web; minor sectors fitted in the web; primary annular parts inclosing the web and the minor sectors circumferentially; secondary annular parts inclosing the primary parts circumferentially, and breaking joints therewith; a tire inclosing the secondary annular parts circumferentially; inner major sectors located on both sides of the minor sectors and the web; outer major sectors located on both sides of the inner major sectors, the inner and outer major sectors being disposed in break-joint relation, and all of the major sectors extending from the hub to the rim.

2. A wheel comprising a hub having a stelliform web; minor sectors fitted into the web; primary annular parts inclosing the web and the minor sectors circumferentially; secondary annular parts inclosing the primary annular parts circumferentially, and breaking-joints therewith; a tire inclosing the secondary annular parts circumferentially; and major sectors located on both sides of the minor sectors and the web, the major sectors extending from the hub to the rim.

3. A wheel comprising a hub having a stelliform web; minor sectors fitted into the web; annular parts inclosing the web and the minor sectors circumferentially; and major sectors located on both sides of the minor sectors and the web, the major sectors extending from the hub to the periphery of the annular parts.

4. A wheel comprising a hub; concentric annular parts located one beyond the other and disposed in break-joint relation; and sectors located upon both sides of the annular parts, and extended from the hub to the periphery of the outer of the annular parts.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOSEPH LEE WALKER.

Witnesses:
JAMES C. DOZIER,
CHARLES V. PORTER, Jr.