J. W. GUIDER.

Carriage Wheel.

No. 101,860. Patented April 12, 1870.

Fig. 1.

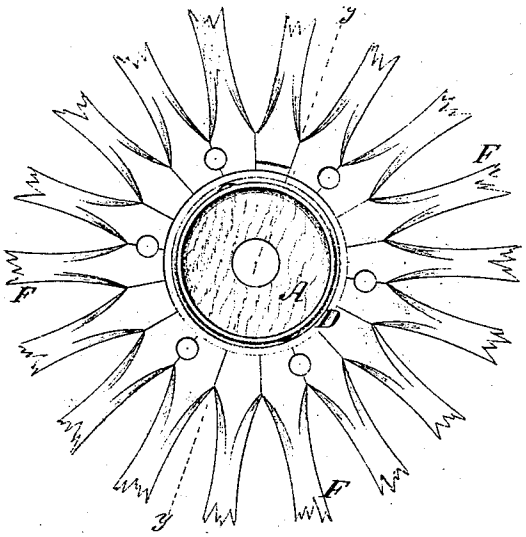


Fig. 2.

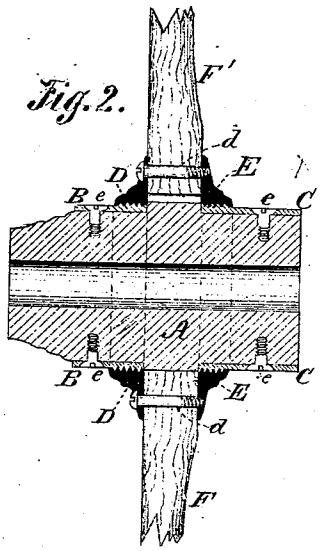
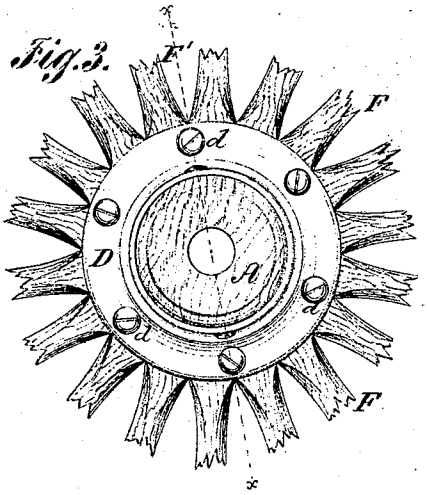


Fig. 3.



Witnesses:

Fred. Artes

W. H. B. Kitson

Inventor:

Jno. Wm. Guider

per Edson Bros

his attys.

N. PETERS. Photo-Lithographer, Washington, D. C.

United States Patent Office.

JOHN WILLIAM GUIDER, OF ST. JOSEPH, MISSOURI.

Letters Patent No. 101,860, *dated April* 12, 1870.

IMPROVEMENT IN CARRIAGE-WHEELS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN WILLIAM GUIDER, of St. Joseph, in the county of Buchanan and State of Missouri, have invented a new and improved Carriage-Wheel; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

Drawings.

Figure 1 is a side elevation, with the flanges removed.

Figure 2 is a central vertical section, taken on the line *x x* of fig. 3.

Figure 3 is a perspective view, showing my improvements attached.

Similar letters of reference denote like parts in each of the figures.

This invention relates to improvements in carriage-wheels; and

It consists of certain peculiarities of construction to be hereinafter specifically designated and set forth in the following specification and claim.

In the annexed drawings, forming a part of this specification,

A is the hub, having around it, on each side of the spokes, two metal rings or bands B C. These bands are permanently secured to the hub by means of the screws *e e*, the inner band C extending the entire width of the hub, inside of the spokes, and the outer band B extending from the spokes to the bevel thereof, as shown in fig. 2.

D E are two annular flanges, having two sides at right angles to each other; the inner side having a screw-thread surface, adapted to a similar surface cut within the inner portions of the bands B C. The other side has a plain surface, and has its bearing against the spokes of the wheel.

F F are the spokes.

The parts B C and D E may be constructed of malleable iron, brass, or any other suitable metal.

To increase the facilities for repairing, I construct a spoke, F′, a little shorter than the rest, so that it can be conveniently removed, after which the other parts may be readily separated, and the repairs needed effected with the saving of time and labor.

The flanges D E are screwed upon the permanent hub-bands B C, until the inner ends of the spokes are firmly embraced between them, after which screw-bolts *d d* are passed through said flanges and spokes, from the inside, as shown in fig. 2.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent of the United States, is—

In combination with the wooden hub A and spokes F F, of a carriage-wheel, the metal bands B C and flanges D E, said bands being secured to the hub by screws *e e*, and arranged one upon each side of the spokes, each of said bands having a threaded surface on its inner portion adapted to similar threads cut within the inner surfaces of the flanges D E, and said flanges, when so adjusted, being secured by bolts *d d*, all being arranged to operate together substantially as shown and described.

Signed at St. Joseph, Mo., this 25th day of January, in the presence of two subscribing witnesses.

JOHN WILLIAM GUIDER.

Witnesses:

A. SALTZMAN,
AUG. SCHMIDT,
A. W. WATERS.