

R. W. McCLELLAND.

Wheel Hub.

No. 99,691.

Patented Feb. 8, 1870.

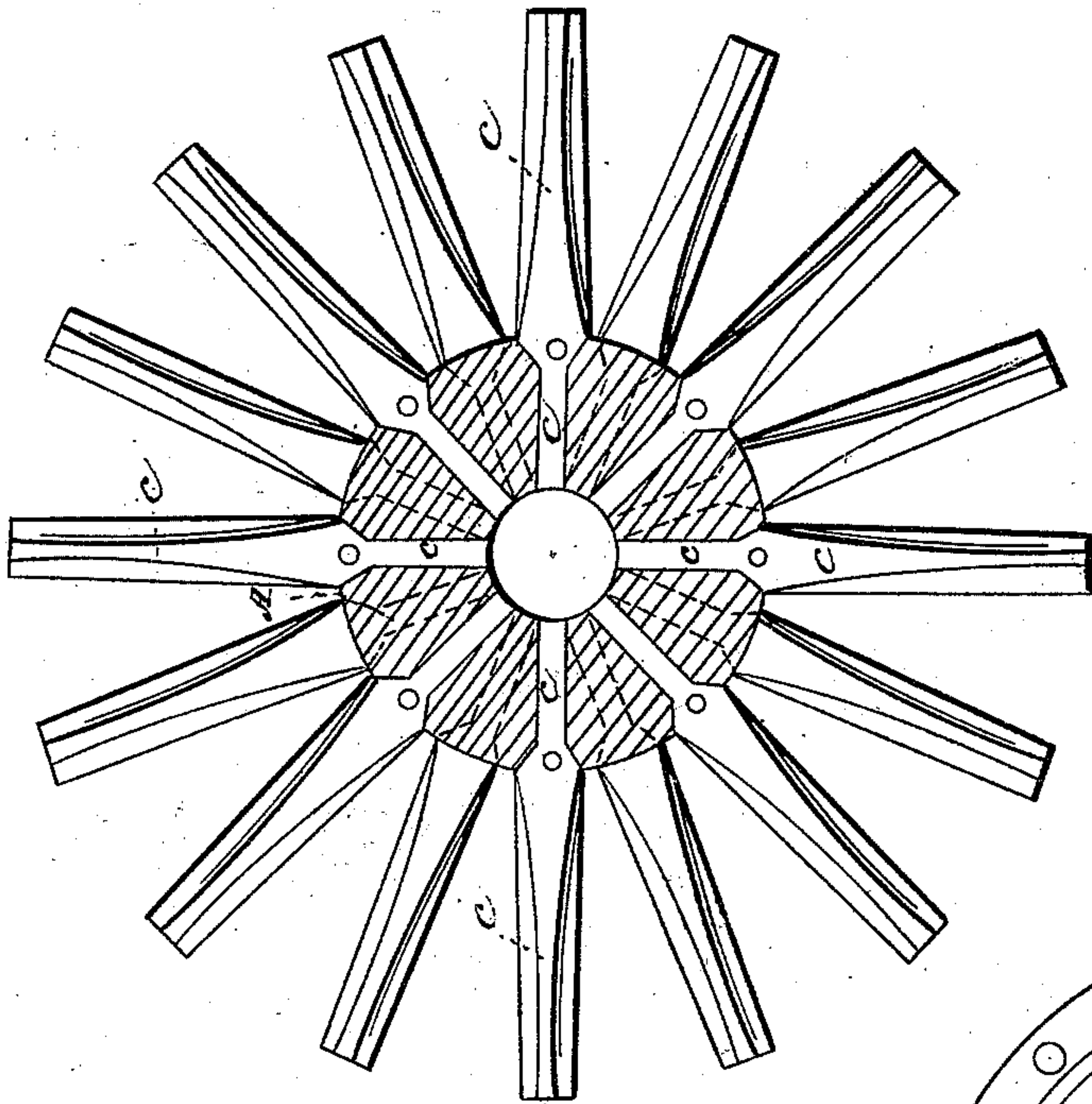


Fig. 2

Fig. 4

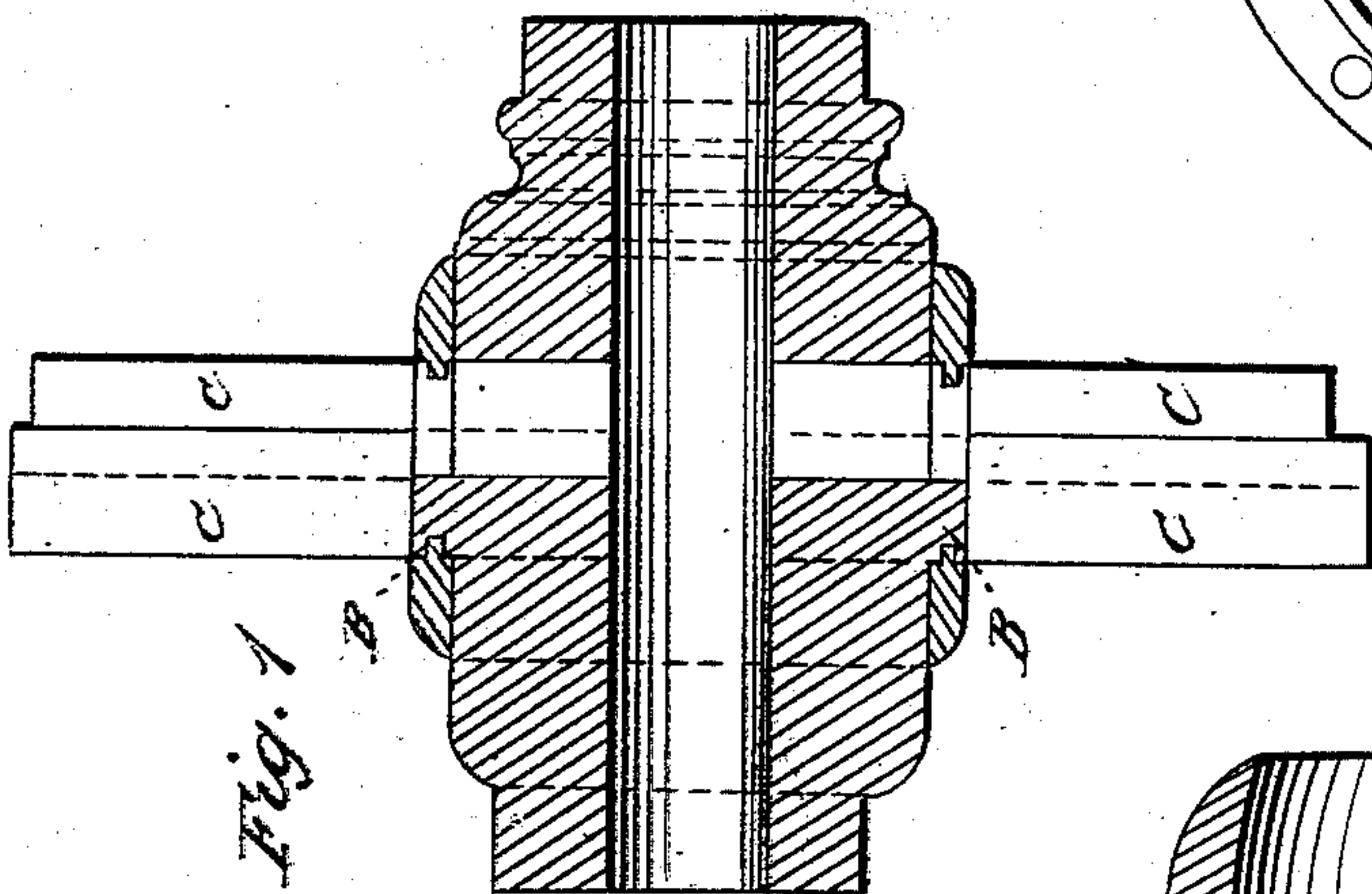
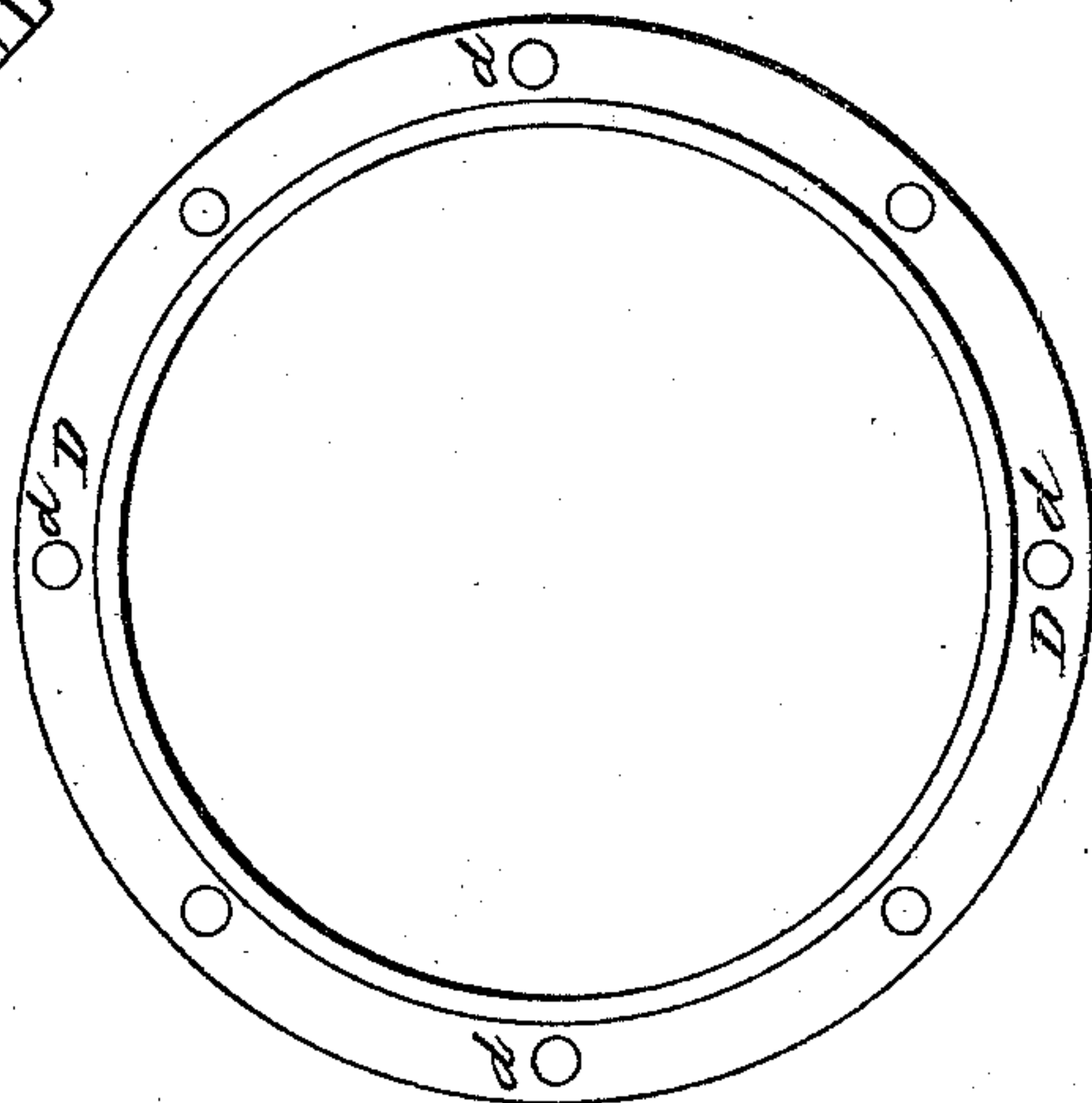
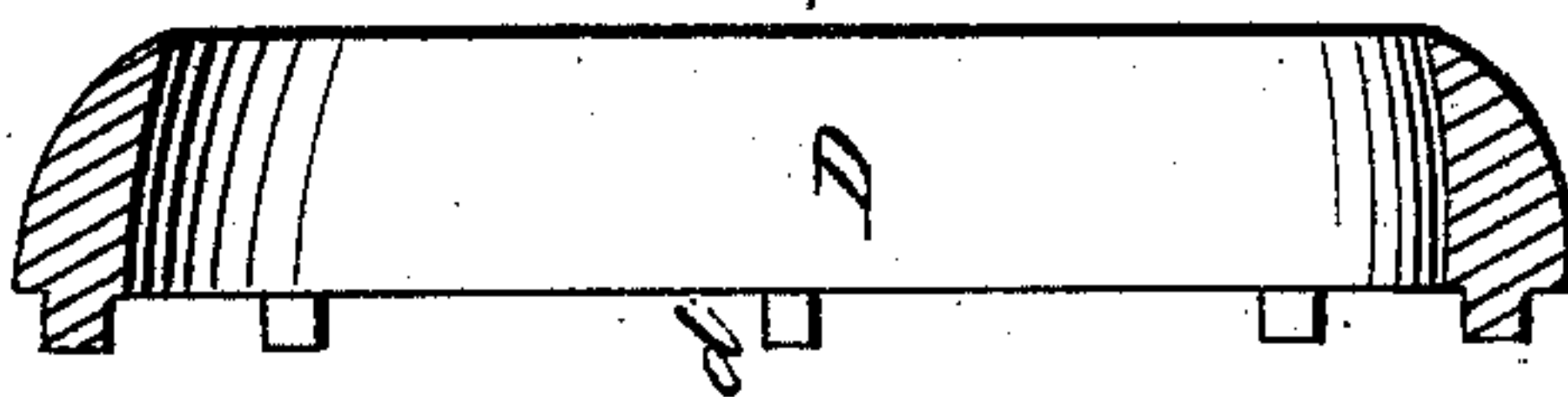


Fig. 1

Fig. 3



Witnesses.

W. H. Howard
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Inventor:

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United States Patent Office.

ROBERT W. McCLELLAND, OF SPRINGFIELD, ILLINOIS.

Letters Patent No. 99,691, dated February 8, 1870.

IMPROVED CARRIAGE-WHEEL.

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, ROBERT W. McCLELLAND, of Springfield, in the county of Sangamon, and in the State of Illinois, have invented an Improved Wagon and Carriage-Wheel; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a longitudinal central section of the hub;

Figure 2 is a cross-section of the same on the line $x x$;

Figure 3 is a central cross-section of the band used for securing the spokes in place; and

Figure 4 is a front elevation of the same.

Letters of like name and kind refer to like parts in each of the figures.

The nature of my invention consists in the employment of a hub having a raised centre for the reception of the spokes, and also in the form of the mortises contained therein, and of the corresponding tenons of the spokes, by means of which great strength and durability is obtained at that point.

It further consists in the employment of metal bands fitting upon each side of said hub, with their inner faces bearing against the vertical sides of the raised centre, and provided with a number of studs or pins projecting outward therefrom and engaging with corresponding holes in the spokes, as is hereinafter fully described.

In the annexed drawing—

A represents the hub, of ordinary shape, except that the central portion thereof, B, is raised, so as to afford a longer bearing for the spokes C, which are tenoned therein in two rows, and alternate with each other, in the manner known as "dodged" or "staggered."

The inner ends of the spokes C are provided with the usual straight tenon c , but the shoulders thereof, instead of being square or at a right angle to said tenons, are sloped or bevelled outward and upward at an angle of about forty-five degrees.

The mortises in the raised centre correspond in size and shape with the tenons and bevelled shoulders of the spokes, so that when the latter are placed therein

the upper edge of said shoulders become flush with the periphery of said raised centre.

This construction of the spokes and hub greatly increases the strength of the former, and renders its heretofore weakest portion (the point of union with the hub) the strongest, as by the angular form of the shoulders, and the corresponding shape of the mortises, an arch is formed of said hub and spokes, each part of which supports and gives strength to the other.

In order to still further strengthen the hub and more firmly secure the spokes therein, a metal band, D, is fitted over or upon each side of said hub, with its inner face or side bearing against the sides of the raised centre, which are vertical, said inner side corresponding in thickness with the height of the raised centre from whence the band curves downward to its outer edge, as seen in the drawing.

Secured to and projecting horizontally outward from the inner or vertical face of the band, are a series of pins, $d d$, which correspond in number with the spokes upon that side of the hub, and fit into suitable openings $x x$ within the edges of said spokes, by which means the latter are more firmly held in place. The bands are secured upon the hub by shrinking, or by any other means deemed best.

It is believed that this construction of the hub and spokes insures greater strength and durability than can be obtained by other means, and that from its desirableness its general use is certain.

Having thus fully set forth the nature and merits of my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The combination of the hub A, provided with the raised centre B, the spokes C C, and the bands D and D, provided with the pins or studs $d d$, substantially as and for the purpose shown.

In testimony that I claim the foregoing, I have hereunto set my hand, this 27th day of July, 1869.

ROBERT W. McCLELLAND.

Witnesses:

GEO. O. MARCY,
L. H. CONVERSE.