

J. H. Gaines.
Carriage Wheel Hub.

117878

PATENTED AUG. 8 1871

Fig. 1.

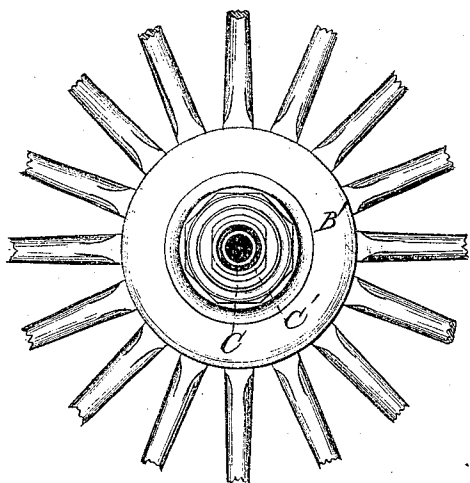


Fig. 2.

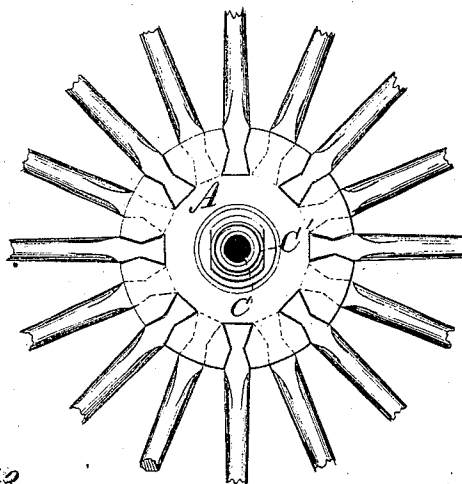


Fig. 3.

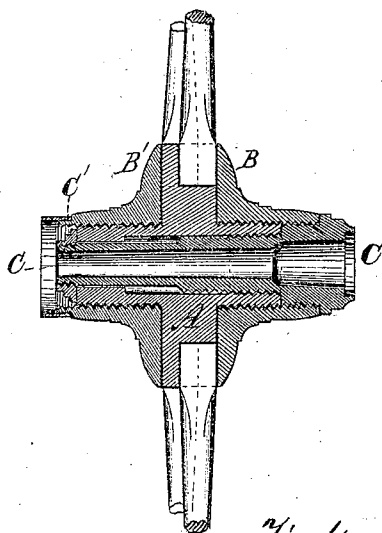
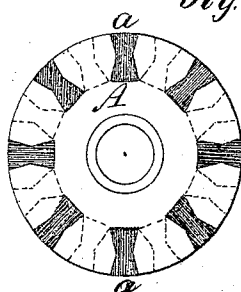


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN HENRY GAINES, OF DURHAMVILLE, TENNESSEE.

IMPROVEMENT IN WAGON-HUBS.

Specification forming part of Letters Patent No. 117,878, dated August 8, 1871.

To all whom it may concern:

Be it known that I, JOHN HENRY GAINES, of Durhamville, in the county of Lauderdale and State of Tennessee, have invented a certain Improvement in Wagon-Hubs; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawing making a part of this specification, in which—

Figure 1 is an elevation of my improved hub, with sections of spokes inserted therein. Fig. 2 is an elevation with the front flange removed so as to show the manner of attaching the spokes to the central ring of the hub, and the nut which holds the pipe-box in its place. Fig. 3 is a transverse section, showing the central ring with its threaded projections, the pipe-box, and the nut which holds it in position. Fig. 4 is an elevation of the central ring, showing the form of the receptacles for the inner ends of the spokes.

Corresponding letters refer to corresponding parts in the several figures.

This invention relates to hubs for wagons and carriages; and it consists in the construction, combination, and arrangement of the parts of which it is composed, as will be more fully set forth hereinafter.

In constructing hubs of this character I use a central ring or portion, A, having in one of its faces recesses for the reception of the inner ends of the spokes of the double dovetailed form shown in Figs. 2 and 4. The depth of these recesses is nearly equal to the width of the spokes at the point where they are inserted in the ring, but yet sufficiently less to allow such spokes to be pressed upon by the collars which are secured against their sides. These recesses do not extend entirely across the ring, but leave upon the side of the ring which is opposite to the one upon which the spokes enter it a web of metal, as shown in Fig. 3, against which the spoke is pressed by the collar or flange as it is screwed against its opposite side. Upon the opposite face of this ring or central piece there is formed another series of recesses for the reception of spokes, as indicated in dotted lines in Fig. 4. These recesses, like those above described, do not extend across the ring, but leave a web of metal thereon, on the side thereof opposite to that on the side first described. The effect of this construction of the ring is to cause the spokes, when inserted, to stand in the positions indicated in Fig. 3, and thus brace the wheel in both directions.

In addition to the features above described, the ring or center piece A is provided with a projection upon each of its sides, which projections have screw-threads formed upon them for the reception of the flanges or collars B B'. The collar B extends outward beyond the central portion of the hub far enough to receive the screw-threaded portion of the pipe-box C, while the one B' extends far enough beyond to receive a nut on the opposite end of such box. The pipe-box above alluded to extends entirely through the hub and forms the pipe through which the axle passes and in which it bears. The construction and arrangement of the parts above described are clearly shown in Fig. 3 of the drawing.

In putting the hub together and in forming the wheel the following order may be observed: The parts having previously been prepared as described, the spokes are to be inserted in the hub, one upon one side of its central portion and the next upon the opposite side. When this has been done the collar or flange B is screwed upon the projecting portion and made to press firmly against the spokes upon that side. Then the pipe-box C is screwed in and made to press firmly against the outer end of the collar B, which will preclude the possibility of its unscrewing. When the pipe is in position the nut C' is screwed upon its outer end, and the collar B' is screwed upon the projection of the center piece or ring, and the wheel is then complete.

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

1. The construction of the center piece or ring, having in its opposite faces double dovetailed recesses and screw-threaded projections, substantially as and for the purpose set forth.

2. The combination of the double dovetailed center piece or ring, and the spokes when made to fit the recesses in said center piece or ring, substantially as and for the purpose set forth.

3. The combination and arrangement of the center piece or ring A, having the dovetailed recesses in its opposite sides, the collars or flanges B B', the pipe-box C, and nut C', substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN HENRY GAINES.

Witnesses:

HIRAM MANN,
G. T. GULLETT.