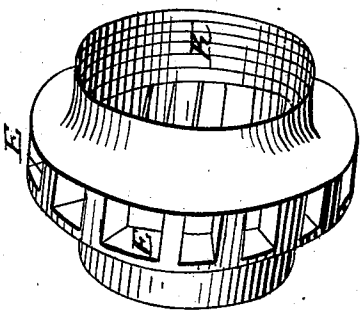
G. KENNY.

Carriage Wheel.

No. 81,175. Patented Aug. 18, 1868.

Fig. 4.



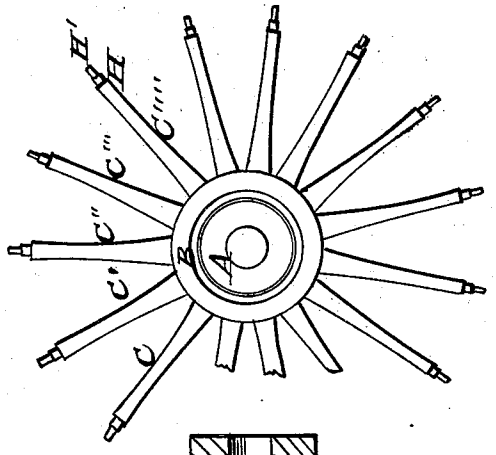


Fig. 1.

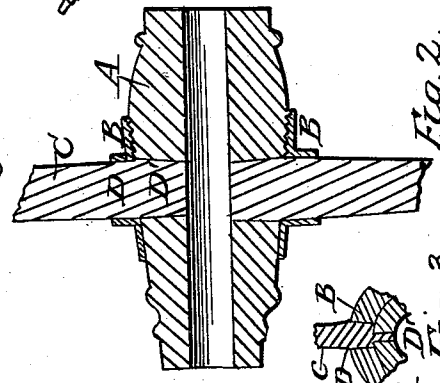


Fig. 2.

Fig. 3.

Witnesses:

A. Lenn Berry

Frank G. Parker

Inventor:

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UNITED STATES PATENT OFFICE.

GEORGE KENNY, OF NASHUA, NEW HAMPSHIRE.

IMPROVEMENT IN CARRIAGE-WHEELS.

Specification forming part of Letters Patent No. **81,175**, dated August 18, 1868.

To all whom it may concern:

Be it known that I, GEORGE KENNY, of Nashua, in the county of Hillsborough and State of New Hampshire, have invented certain new and useful Improvements in Carriage-Wheels; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists, first, in surrounding the hub of a wheel with a strong metallic socket flange or ring, said flange being screwed upon the body of the hub, and serves to assist in holding the spokes, which are tenoned into the hub; second, in forming a double tenon on the outer end of the spokes to fit corresponding mortises in the felly.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and use.

In the drawings, Figure 1 is an elevation representing the hub with the spokes attached. Fig. 2 is a longitudinal section through the hub. Fig. 3 is a cross-section of a part of the hub and ring, showing how the spoke passes through the socket and is tenoned into the hub. Fig. 4 is a perspective view of the metallic socket flange or ring.

I construct my improved carriage-wheel as follows: A, Figs. 1, 2, and 3, is the body of the hub, made of wood, in any desirable form. B (shown in perspective in Fig. 4) is a metallic socket flange or ring, having sockets E E, &c., into which the spokes enter. The interior of this ring, on the end inside of the spokes—that is, nearest to the carriage—is provided with screw-thread K, by means of which it is screwed and thus secured to the hub, which is slightly beveled, tapering off toward the outside, as shown in Fig. 2. The lower ends of the spokes pass through the sockets E E, &c., Fig. 1, as shown in Figs. 2 and 3, and are each provided with a tenon, D′, Figs. 2 and 3, which fits a corresponding mortise made in the wood part of the hub, so that the shoulders of the spoke rest on the outside of the hub, as shown in Fig. 3, and the spokes are held both by the wood parts of the hub and by the metallic part, and we may consider the socket-ring B as an auxiliary, though a very essential and valuable support for the spokes. The bars forming the sides of the sockets E E, as well as the bars between the mortises in the hub, are beveled and tapering off inward, so that the spokes passing through the sockets and tenons fitting into the mortises may be of the same thickness, respectively, throughout, except as far or as much as may be necessary to drive them in, which makes them a great deal stronger than if they themselves were tapered off, as is usually the case.

The second part of my invention relates to the method of forming the tenon H H′ on the outer end of the spoke. (See Fig. 1.) This tenon, instead of being formed in the usual manner, is enlarged, as represented by H. The smaller part H′ penetrates deeply into the fellies, while the large part H enters but little way. The advantage of this arrangement is that I can get sufficient depth to hold the fellies well in place—that is, to keep them from canting—and yet have the tenon so strong when it joins the end of the spoke that it will not break, and thus secure the effect of a strong tenon without weakening the fellies by cutting a large mortise.

I do not claim any of the specific parts above described; but

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

1. The metallic flanged ring or casing B, provided with sockets E E, and screw-threads on the inside of its inner end, when used in combination with the spokes C C, which are provided with a tenon on their ends, fitting into the mortises on the hub A, and its shoulders resting on the outside periphery of the hub, substantially as described, and for the purposes herein set forth.

2. Uniting the spoke and felly by tenon, when said tenon consists of two members, H H′, substantially as and for the purpose set forth.

GEORGE KENNY.

Witnesses:

FRANK G. PARKER,

A. HUN BERRY.