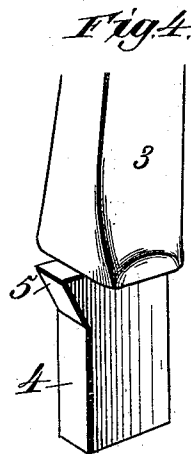
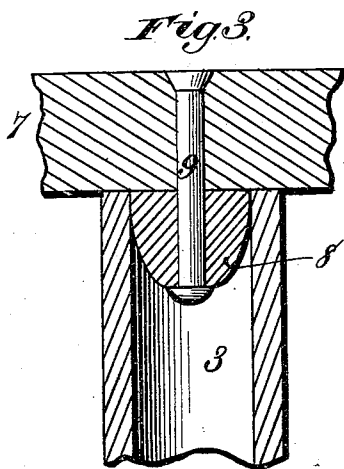
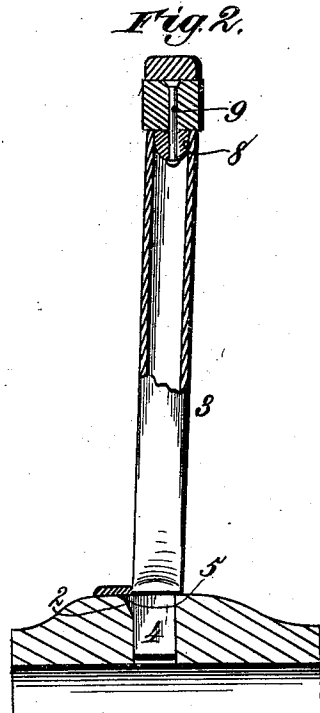
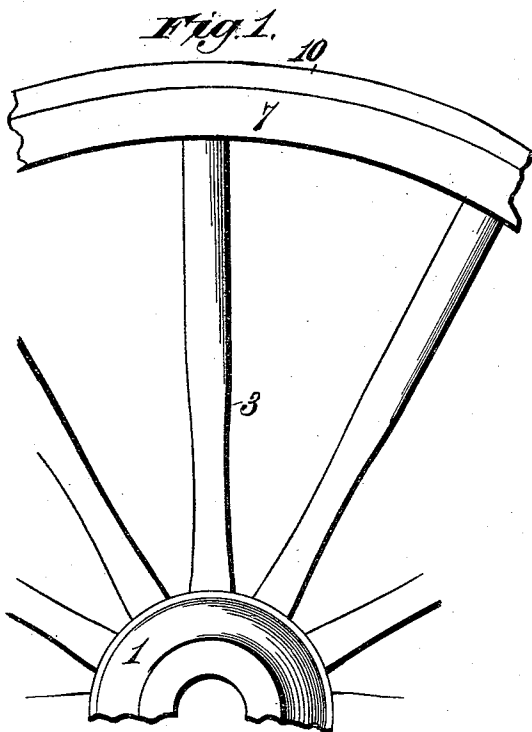


(No Model.)

G. W. PRICKETT.
VEHICLE WHEEL.

No. 475,152.

Patented May 17, 1892.



Witnesses.
Robert G. Pratt,
James A. Rutherford,

Inventor.
George W. Prickett.
By Amos L. Norris.
Atty.

UNITED STATES PATENT OFFICE.

GEORGE W. PRICKETT, OF WAVERLY, ILLINOIS.

VEHICLE-WHEEL.

SPECIFICATION forming part of Letters Patent No. 475,152, dated May 17, 1892.

Application filed January 14, 1892. Serial No. 418,065. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. PRICKETT, a citizen of the United States, residing at Waverly, in the county of Morgan and State of Illinois, have invented new and useful Improvements in Vehicle-Wheels, of which the following is a specification.

My invention relates to certain improvements in the construction of wheels for vehicles, my purpose being to provide at a low cost a wheel having a simple construction, of light weight, and of superior strength and durability.

It is my purpose, also, to provide a wheel having simple means whereby the spokes shall be positively connected with the hub in such manner as to prevent their withdrawal from the spoke-sockets.

It is also my purpose to provide and combine with a wheel a felly of novel construction and to unite the spokes with said felly in a simple and improved manner, whereby a better, stronger, more permanent, and much more economical construction is provided than heretofore known.

My invention consists to these ends in the several novel features of construction and new combinations of parts fully explained hereinafter, and then particularly pointed out in the claims following this specification.

To enable others skilled in the art to which my invention pertains to make, construct, and use the same, I will now describe said invention in detail, reference being made to the accompanying drawings, in which—

Figure 1 is a side elevation of a fractional portion of a wheel constructed in accordance with my invention. Fig. 2 is a detail section upon the line *xx* in Fig. 1, the plane of section being substantially in the axial line. Fig. 3 is a detail section, upon an enlarged scale, showing the construction of the felly and the manner of uniting the same with the spokes. Fig. 4 is a detail view showing upon an enlarged scale the construction of the spokes, by which they are united with the hub.

In the said drawings the reference-numeral 1 indicates the hub of the wheel, which I form, usually of wood and in any preferred pattern. Spoke-sockets are formed in the usual manner, the principal modification due to my invention being the formation in the hub of

comparatively shallow notches 2, extending from one end of the socket toward the end of the hub and substantially parallel with the axis of the hub.

The reference-numeral 3 indicates the spokes, which are made of iron, tubular in form, and of any size and shape in cross-section, enough metal being used to give ample strength without undue increase in weight. At their inner ends the spokes are provided with tenons 4 of a size to enter the sockets in the hub. Upon each tenon is formed a lug 5, projecting from the vertical edge at or near the upper end of said tenon. These lugs are adapted to enter the notches 2 in the hub, where they will lie directly beneath the hub-band 6, which prevents the withdrawal of the spoke-tenons from their sockets in the hub.

I construct the felly of the wheel 7 of metal and of substantially the weight and dimensions of a wagon-tire. It is drawn closely up until it is tight upon the spokes and is then welded. Upon the inner face of the felly at equal intervals are buttons 8 of approximately conical form and having such diameter at their bases that they will fit the ends of the tubular spokes with substantial accuracy. The buttons are connected to the felly by heavy rivets 9, a single rivet being inserted through the felly and through the base of the cone. When the parts are united in the manner described, the buttons will prevent all shifting or displacement of the spokes relatively to the felly and prevent rattling.

The tire 10 has the form and construction of the common well-known wagon-tire, its width being, preferably, slightly less than that of the felly. It is left unwelded until it is mounted, when it is heated and set and then cooled until it is tight upon the felly. The latter is then welded and the tire and felly are riveted together, six, eight, or even more rivets being introduced at suitable intervals.

By this invention I have a tire and felly of substantially equal width and thickness and of the same material as the felly, and am able to so unite the said parts that they form, practically, an integral body of metal. In point of strength, long wear or durability, and lightness of construction the wheel is superior to a metal wheel having the tire and felly in one single integral piece of metal, since the union

of the parts in the manner set forth gives the full sum of the strength of both parts, but affords a degree of strength superior to that of a single piece of metal of the same dimensions in cross-section, as it is well known that the sum of the individual strength of a series of parts properly united is greater than that of a single part having the mass of the series.

By my invention, also, I attach the buttons positively to the felly and give them an approximately conical or semi-ovoid form, to enable them to enter and tightly fit the ends of the tubular spokes, forming a secure fastening, preventing displacement and the annoying rattle which so frequently results from a slight shrinking of the wooden tenons commonly used.

Heretofore a spoke has been connected to a metallic rim by means of a thimble fitting the end of the spoke and having a button entering a recess in the inner face of the rim. A wheel has also been used in which the tenons on the ends of the spokes were extended upon one side to pass under the hub-band. These constructions I make no claim to.

In respect to the feature last named it should be noted that in the prior construction referred to the tenon was widened throughout its whole length, thereby requiring that a socket of corresponding width be cut in the hub for each tenon. The removal of this ad-

ditional material from the hub seriously impairs its strength. By my invention I avoid this objection, as I am able to make the bodies of the tenons of the same width as heretofore.

What I claim is—

1. The combination, in a wheel, of a hub 1, a metallic felly 7, a metallic button 8 at the inner side of the felly, a rivet 9, extending through the felly and centrally through the button, a tubular spoke 3, resting against the felly and into which the button projects, and a metal tire applied to the felly over the rivet, substantially as described.

2. The combination, in a wheel, of a mortised hub 1, a metallic felly 7, a button 8 at the inner side of the felly, a rivet 9, extending through the felly and centrally through the button, a tubular spoke 3, resting at one end against the felly and receiving the button and provided at the opposite end with an angular tenon 4 entering the hub and formed with a lateral lug 5, and a hub-band 6, secured to the hub and extending over the lateral lug, substantially as described.

In testimony whereof I have hereunto set my hand and affixed my seal in presence of two subscribing witnesses.

GEORGE W. PRICKETT. [L. S.]

Witnesses:

J. E. HUTCHISON,
O. R. ROHRER.