(No Model.)

P. F. TUCKER.

SPOKE SOCKET FOR VEHICLE WHEELS.

No. 599,271. Patented Feb. 15, 1898.

Fig. 1.

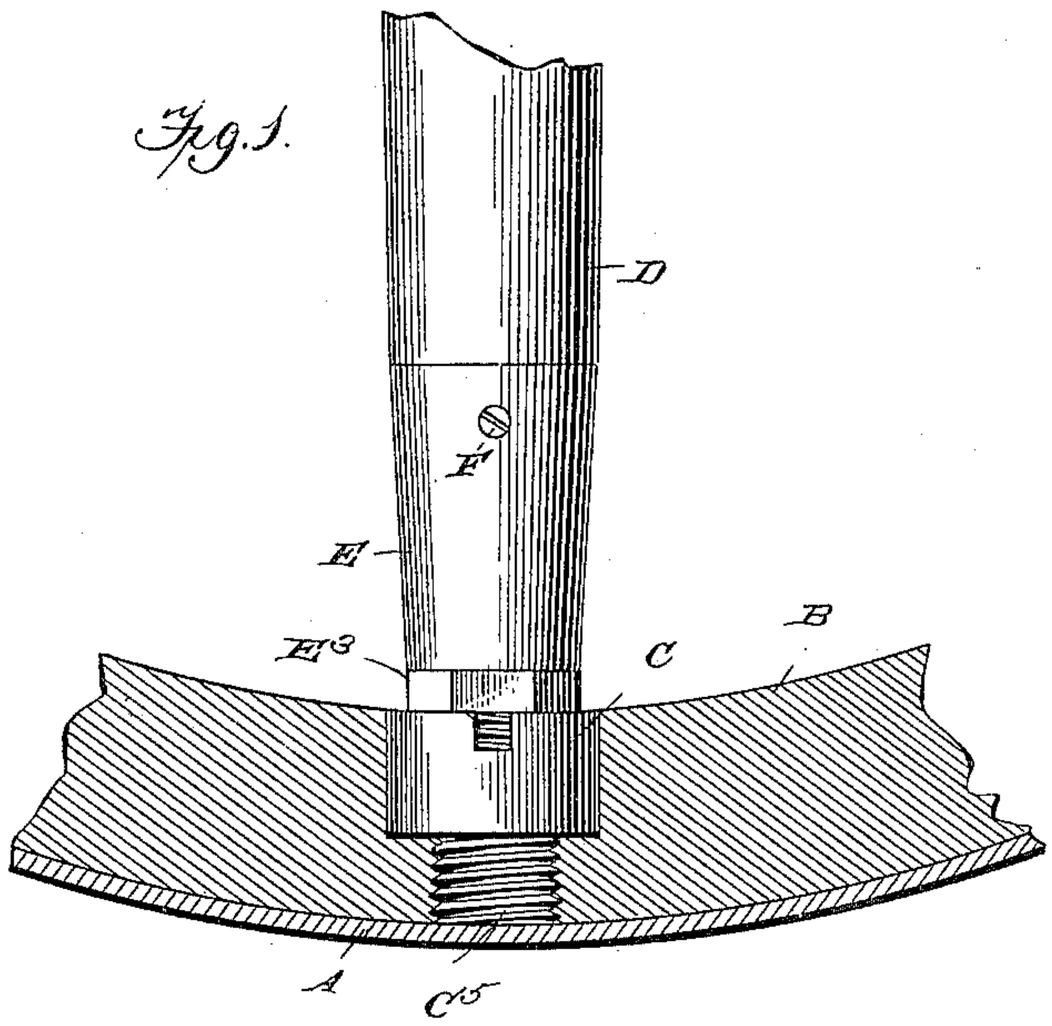


Fig. 2.

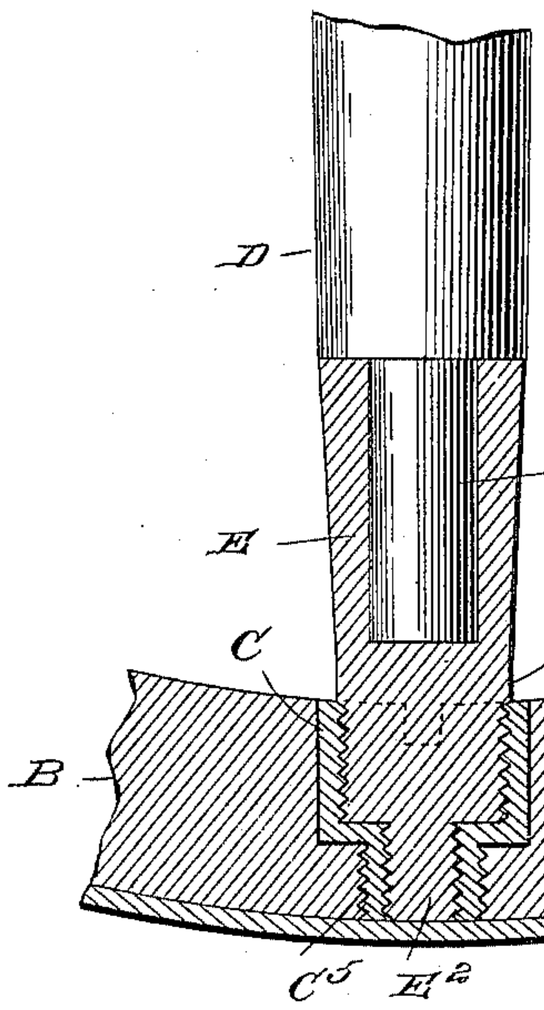


Fig. 3.

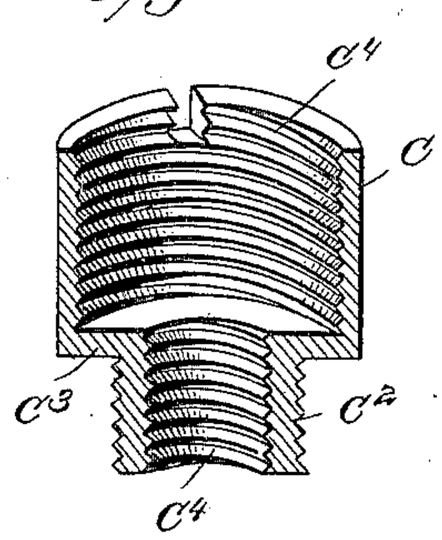


Fig. 4.

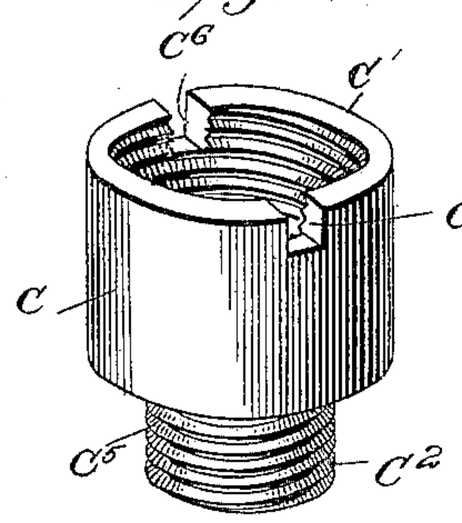
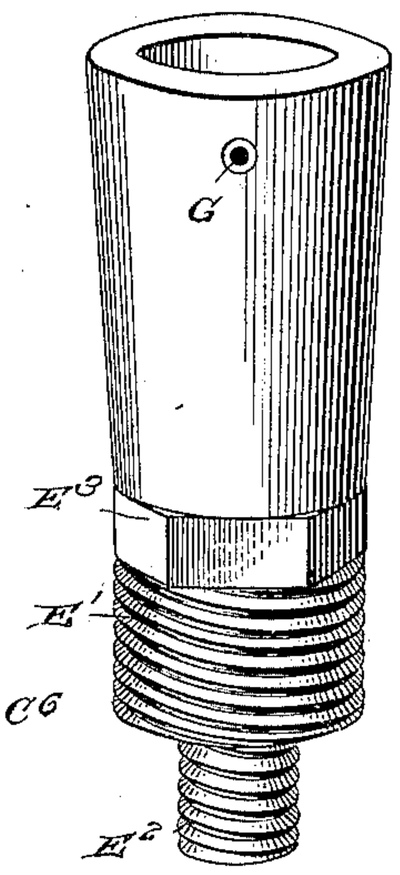


Fig. 5.



Witnesses

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PERRY F. TUCKER, OF GENEVA, NEW YORK.

SPOKE-SOCKET FOR VEHICLE-WHEELS.

SPECIFICATION forming part of Letters Patent No. 599,271, dated February 15, 1898.

Application filed February 23, 1897. Serial No. 624,632. (No model.)

To all whom it may concern:

Be it known that I, PERRY F. TUCKER, a citizen of the United States, residing at Geneva, in the county of Ontario and State of New York, have invented a new and useful Improvement in Vehicle-Wheels, of which the following is a specification.

My invention is in the nature of a new and improved vehicle-wheel, and has for its object to furnish a wheel suitable for use in the same manner as wheels of ordinary construction, which wheel shall be provided with improved means whereby the fellies may be expanded and the tires tightened whenever desired without removing the wheel from the vehicle or taking apart the different members of which the wheel is constructed.

With this object in view my invention consists in the improved construction, arrangement, and combination of parts hereinafter fully described and afterward specifically pointed out in the claims.

In order to enable others skilled in the art to which my invention most nearly appertains to make and use the same, I will now proceed to describe its construction and operation, reference being had to the accompanying drawings, in which—

Figure 1 is a view illustrating sufficient of a wheel to show the application of my invention, part being shown in section and part in side elevation. Fig. 2 is a similar view, all the parts except the spokes being shown in section. Fig. 3 is a detail sectional perspective view of the thimble to be inserted in the felly. Fig. 4 is a detail perspective view of the thimble. Fig. 5 is a detail perspective view of the end socket of the spoke.

Like letters of reference mark the same parts wherever they occur in the various figures of the drawings.

Referring to the drawings by letter, A is a vehicle-wheel tire of any ordinary or well-known form and construction, a section of the same being shown as attached to an ordinary wooden felly B.

In carrying out my invention I form in the felly a number of recesses to conform in shape to the exterior of a thimble C and in number equal to the number of spokes D in the wheel.

The thimble C is formed of two sections C' and C^2 of different diameters, joined by an annular ring or flange C^3, each section being provided with an interior right-hand thread C^4, which are of the same pitch, notwithstanding their difference in diameter, and the section C^2 is provided with an exterior left-hand thread C^5. The thimble is fitted into the recess in the felly, the left-hand thread C^5 engaging a corresponding thread in the recess, the thimble being turned to enter it into the recess by means of a suitable wrench or spanner adapted to engage with notches C^6, provided in the outer edge of the thimble.

The outer end of the spoke D is turned down to form a reduced end D' to enter the socket E, which is formed of metal and furnished with exterior right-hand screw-threads on its main body at E' and on its reduced end at E^2 to engage the threads C^4 of the thimble C.

The reduced end D' of the spoke is cylindrical, as is also the recess in which it is entered, and these parts fit loosely to permit the socket-iron to be turned on the spoke, a small portion of the exterior of the socket at E^3 being formed angular, preferably hexagonal, to permit of the engagement of a wrench for effecting such turning.

In order that the socket may not accidentally turn on the spoke and thus disturb the proper relation of spokes and fellies, a screw F is provided, the head of which is countersunk to engage a countersunk hole G in the socket E, so that when the screw is in position, as in Fig. 1, the surface of its head will be flush with the outer surface of the socket.

The difference in diameter between the spoke and its reduced end is arranged so that the outer surfaces of the spoke and the socket will be flush, presenting a smooth joint.

The parts of my wheel being assembled and it being desired to tighten the tire, the screw F is removed, a wrench put on the hexagonal portion E^3 of the socket, and the socket turned on the spoke to the left. This will have the effect of withdrawing the socket from the thimble and lengthening the spoke, and consequently expanding the tire, and the provision of the oppositely-pitched threads on its interior and exterior will prevent the thimble from turning when the socket is turned.

The provision of the two-part recess and thimble of different diameters furnishes a shoulder in the recess on which the thimble

will engage to prevent it extending through the felly and a shoulder in the thimble against which the socket-iron will impinge when driven entirely in the thimble for the same purpose.

In spokes of a diameter of more than an inch the socket-iron will be lightened by making it hollow throughout its length.

The spokes being all properly adjusted, the screws F are replaced to keep the sockets in their adjusted positions and keep the wheel tight.

While I have illustrated and described what I believe to be the best means now known to me for carrying out my invention, I do not wish to be understood as limiting myself to the exact construction and arrangement shown and described, but hold that such slight changes and variations as might suggest themselves to the ordinary mechanic would properly fall within the limit and scope of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a wheel, of a felly having a recess in the radial line of a spoke, a thimble provided with an exterior screw-thread to engage in said recess, and a socket-iron swiveled on the end of the spoke and provided with an exterior thread to engage an interior thread in the thimble, the pitch of which is opposite to that of the exterior thread of the thimble, substantially as described.

2. The combination, in a wheel, of a felly having a recess of two diameters connected by a shoulder, a correspondingly-shaped thimble to engage in said recess having interior and exterior threads of opposite pitch, a spoke, and a socket-iron swiveled on the spoke, shaped and threaded to correspond with the thimble and adapted to engage therein, substantially as described.

3. The combination, in a wheel, of a felly B, provided with a recess in its inner side of two diameters connected by a shoulder, a thimble C, composed of sections C' and C^2, connected by a flange C^3, the two sections having interior threads C^4, and the section C^2 with exterior thread C^5, of opposite pitch, the spoke D having reduced end, the socket-iron E swiveled on the reduced end of the spoke and having its outer end formed and threaded to correspond with the interior of thimble C in which it is adapted to engage, and the screw F for holding the socket-iron from turning on the spoke when desired, all substantially as set forth.

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