

(No Model.)

M. E. TRUE.

VEHICLE HUB.

No. 381,891.

Patented Apr. 24. 1888.

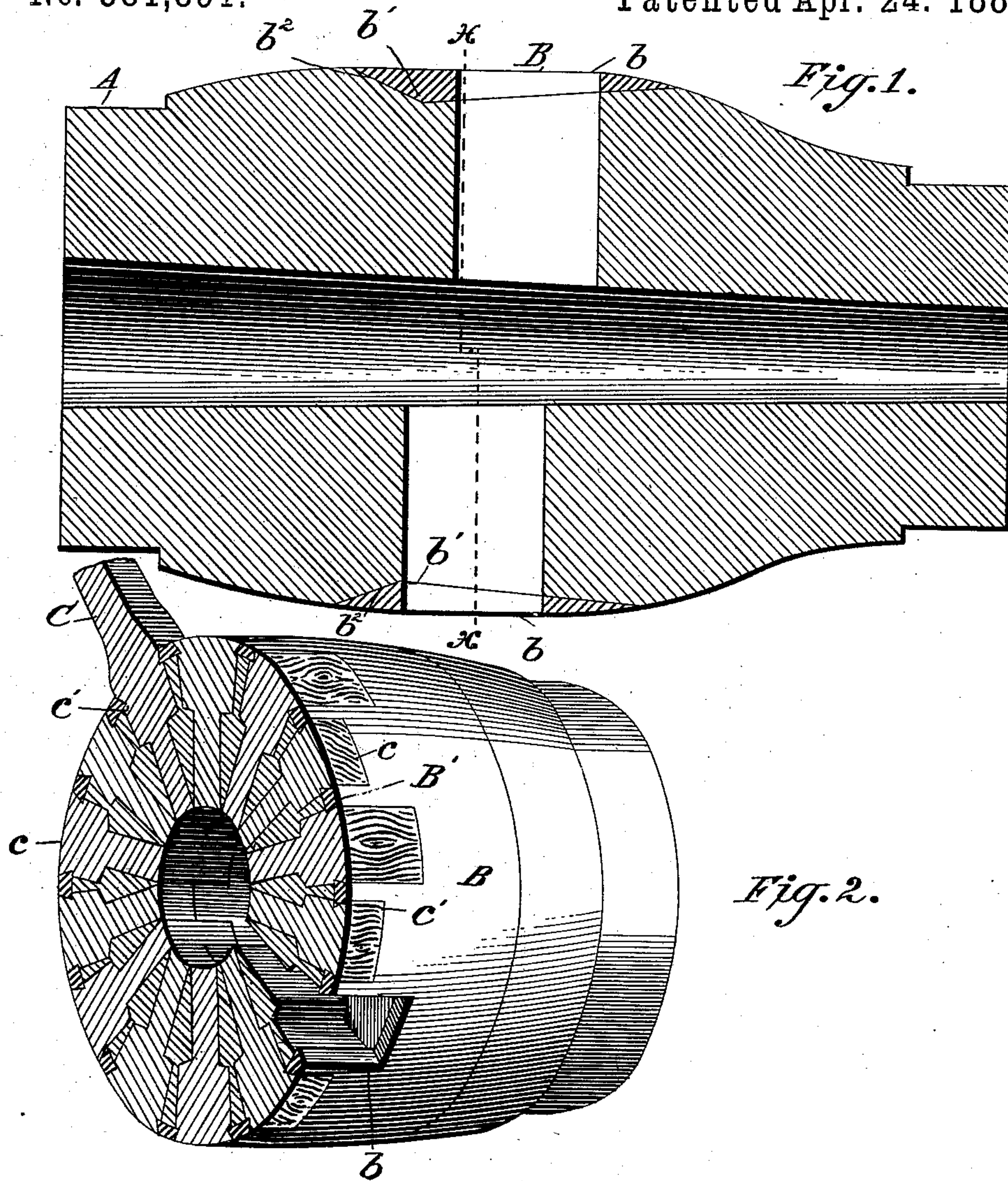


Fig. 2.

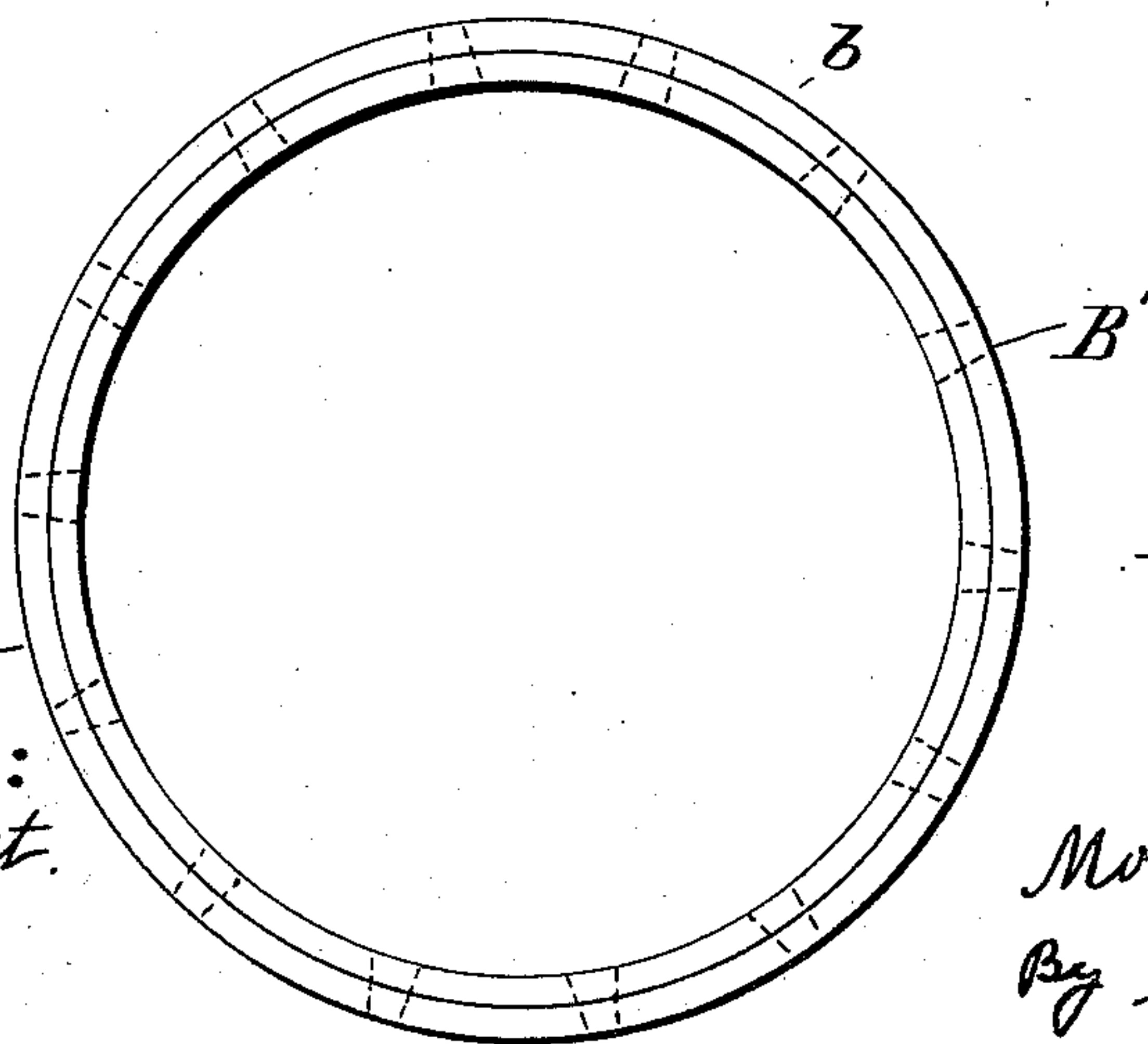


Fig. 3.

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# UNITED STATES PATENT OFFICE.

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## VEHICLE-HUB.

SPECIFICATION forming part of Letters Patent No. 381,891, dated April 24, 1888.

Application filed January 3, 1888. Serial No. 259,700. (No model.)

*To all whom it may concern:*

Be it known that I, MOSES E. TRUE, a citizen of the United States, residing at Batavia, in the county of Genesee and State of New York, have invented a new and useful Improvement in Vehicle-Hubs, of which the following is a specification.

My invention relates to improvements in vehicle-hubs in which a metallic shell band having spoke-sockets is made to register with corresponding sockets formed in a wood hub and about which the metal portion is centrally placed; and the objects of the improvements are, first, to provide a band made from a single piece of metal capable of being driven over this wood portion of the hub, so as to compress the same in such manner that the two parts will be interlocked one with the other, and, second, to afford means of interlocking the spoke with the metallic band to prevent lateral displacement. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view taken through the longitudinal center of the hub with the band in position. Fig. 2 is a perspective cross-sectional view of the hub with band and spokes in working position, and Fig. 3 is a cross-sectional view of the band detached.

Similar letters refer to similar parts throughout the several views.

The hub A is made from a single piece of wood, as herein shown; but the same may be made in parts, if desired.

B is the metal band, having spoke-sockets *b*, of suitable dimensions, for receiving the full size of the spoke C, which spoke also enters the hub in its full dimension for a portion of its depth, (as at *c*), while the usual tenon is used upon the inner end of the spoke.

The band B is made tapering upon its inner circumference, being of less diameter at one end (as at *b'*) than it is at the other, while the outer circumference is the same for the greater portion of its length, the front end being rounded to an edge and upon the outside, while the rear end is inwardly beveled, (as at *b''*), for a purpose now explained. It will be seen that the hub A is made diametrically smaller at *b'* than it is at the front end of the band and of

shape corresponding with the inner surface of the band. Now, as this band is driven upon the hub from the front or enlarged end this enlarged portion must be compressed, which is done while in the act of driving the band by means of the inwardly-beveled end, which first comes in contact with the enlarged portion of the hub, thereby compressing the same, the hub assuming its normal position after the band is seated in its place, thus interlocking the wood and metal and preventing lateral displacement.

Referring now to the spoke and the manner of locking the same with the hub, it will be seen that the spoke enters the wood hub at its full size for a portion of its depth, and is provided with notches *c'* upon either side, the notches being in the shape of a half dovetail having a square shoulder, which shoulder, after being driven, is flush with the circumferential part of the wood hub and immediately beneath the inner circumference of the band, and as the part of the spoke below these notches is laterally compressed in the act of being driven it will again expand to the normal position after passing the metal, so that these square shoulders reach underneath the metal bars upon either side, forming a square lock therewith. The metal band is provided with cross-bars *B'*, which form the parting-wall between each spoke; also, the side wall of the spoke-mortise. These walls are made dovetailing in cross-section, being wider upon the inside of the band than upon the outer side thereof, so that the hub-mortise at its peripheral part is of a size corresponding with the base of the spoke.

Now it will be observed that when the mortises have been made in the hub and the band driven thereupon the inner edge of the beveled parting will project over the edge of the mortise, so that the spoke, after being driven, will by the notches in the same become interlocked underneath the bar, thus preventing the spoke from being withdrawn without breaking either the bar or spoke. In driving the spoke the part below the notch is gradually compressed in its passage through the metal until the notch passes the bar, when the compression is released, thereby permitting the spoke to as-



sume its normal position, so as to fill the mortise in the hub, all of which will be understood without further description.

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

1. The wooden hub having a band-seat diametrically smaller at its rear part, in combination with the metallic band, made thicker at one end so as to form an inward taper corresponding with the seat upon the hub, and provided with a mouth flaring outwardly from the contracted part, so that in driving the band the mouth will first encircle the enlarged part of the hub, compressing the same while in the act of being placed thereupon, and afterward allow of the expansion of the same to its normal position, thereby firmly interlocking the parts, substantially as described and herein set forth.

2. The combination of the wooden hub having the peripherally-enlarged mortise for the reception of the full-sized spoke a portion of the depth, the smaller mortise for the recep-

tion of the spoke tenon, the metallic shell band surrounding the hub, having the inwardly-beveled spoke-parting walls, the bevel of which extends in a straight line the entire thickness of the band, and the spoke having beveled notches terminating with a square shoulder upon either side at the base of the notch and adapted to expand after being driven so as to form a square lock underneath the band, substantially as described, and for the purpose set forth.

3. The combination of the metallic band having the inside taper and the inwardly-beveled spoke-parting walls, the wooden hub made conformable with the band, and the notched spoke having the square shoulder for engagement with the inner part of the metal band, all arranged and operating substantially as herein described.

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Witnesses:

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