S. T. F. STERICK.

Wheels for Vehicles.

No. 139,830. Patented June 10, 1873.

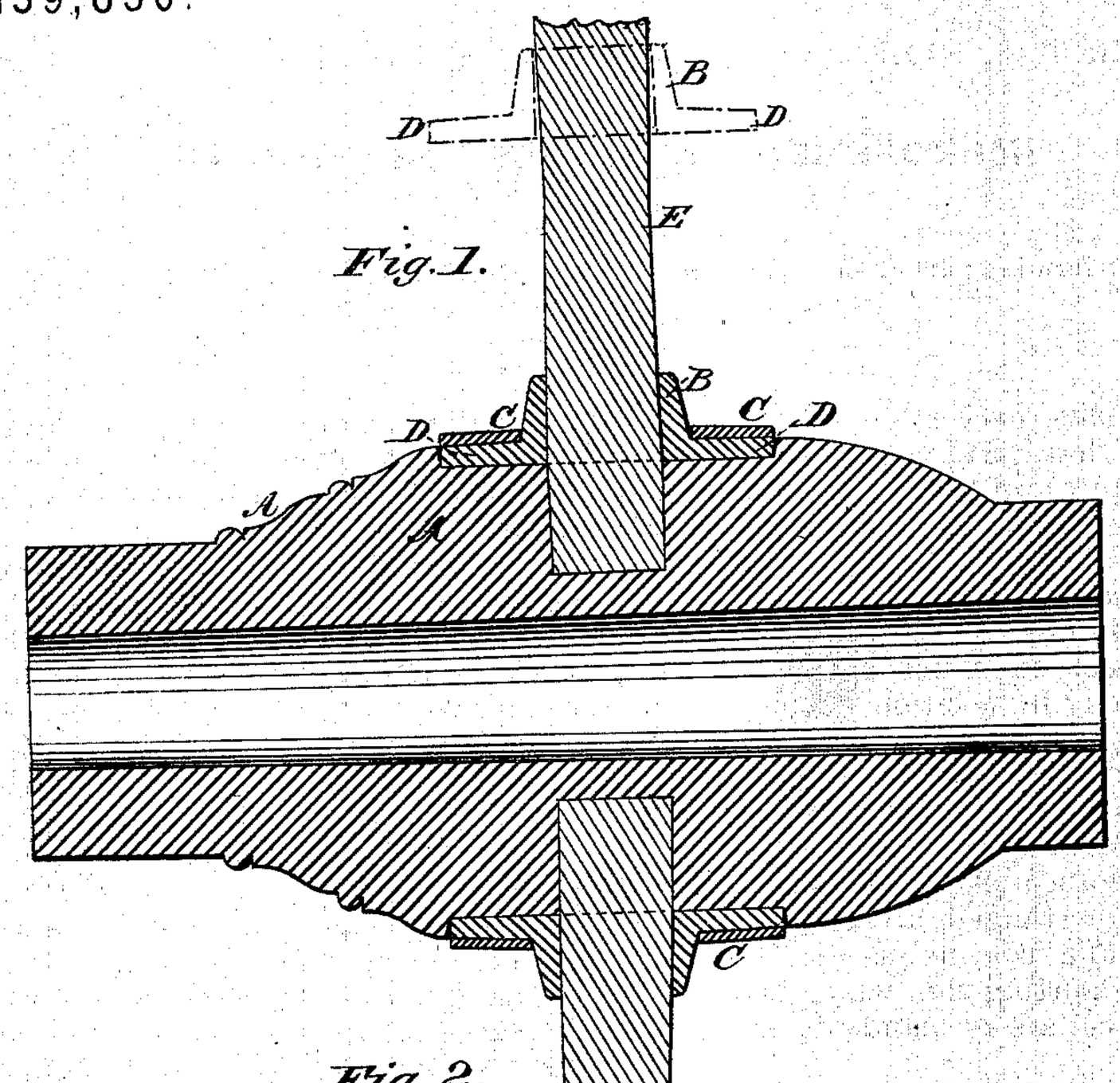


Fig. 1.

Fig. 2.

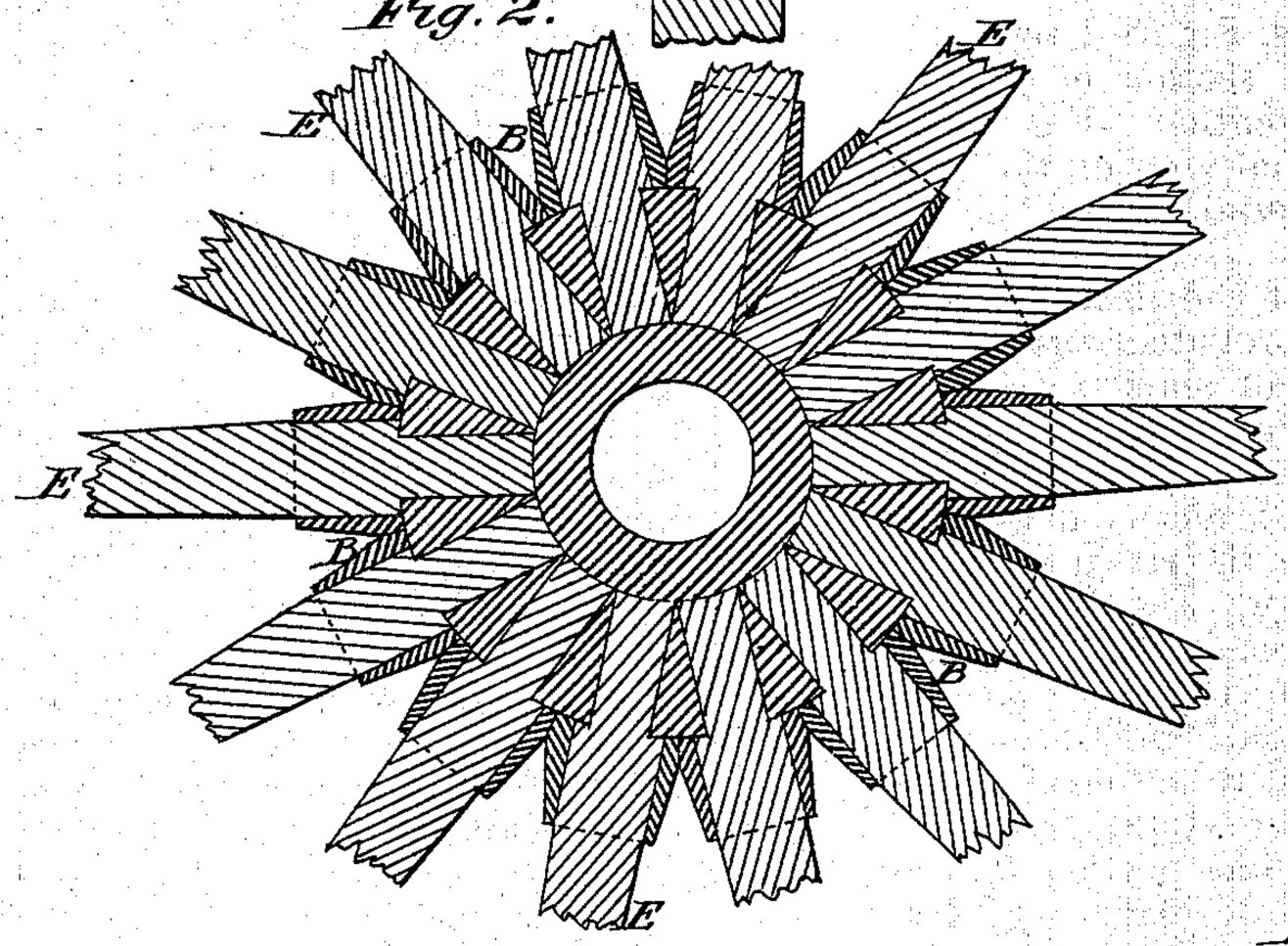
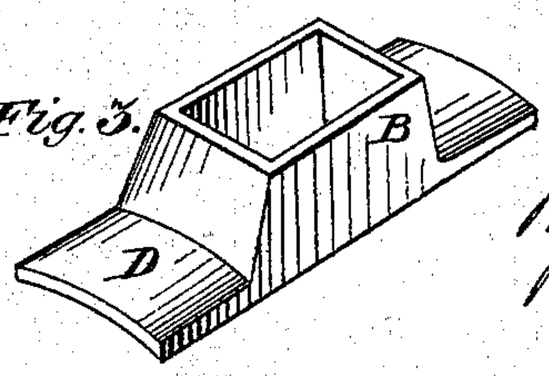


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

SYLVESTER T. F. STERICK, OF GEORGETOWN, DISTRICT OF COLUMBIA.

IMPROVEMENT IN WHEELS FOR VEHICLES.

Specification forming part of Letters Patent No. **139,830**, dated June 10, 1873; application filed January 28, 1873.

To all whom it may concern:

Be it known that I, SYLVESTER T. F. STERICK, of Georgetown, in the District of Columbia, have invented certain new and useful Improvements in Wooden Hubs, of which the following is a specification:

This invention has for its object to furnish a carriage-wheel, in which the spokes are maintained firmly in position without incurring the liability of casual displacement from prolonged wear. The invention consists in inserting the spokes into metallic retaining or supporting sockets, which are provided with lateral flanges embedded or resting directly on the hub, and so arranged in relation to each other as to form a continuous or circumferential spoke-supporting rim, which is secured in position by collars or bands fitted on the same.

In the drawings, Figure 1 represents a vertical longitudinal section of a carriage-hub embracing my invention. Fig. 2 represents a transverse sectional view of the same. Fig. 3 illustrates, in detail, one of the spoke-supporting sockets.

The hub A is of the usual form, generally of wood, and is provided with a central circumferential row of spoke-receiving sockets, arranged either in a straight or staggered line, as may be desired. A continuous annular groove or channel is formed in the central portion of the hub for the reception of a series of metallic sockets or caps, B, which are each adapted for the reception of a single spoke, and so arranged in relation to each other that a continuous annular rim is formed for firmly supporting the entire series of spokes. The spoke supporting or retaining sockets consist of a raised or cellular portion and lower lateral flanges or plates D provided with concave lower surfaces, and, by preference, embedded or countersunk in the hub, as shown in the drawing.

The manner of constructing a wheel according to my invention is as follows, viz: After the spokes have been inserted into the mortises in the hub in the usual manner the metallic retaining-sockets are, in a heated state, slipped over the ends of the spokes, as shown in dotted lines in Fig. 1, and forced into their seat in or on the hub, where they are retained in position by the shrinkage of the metal and by means of bands or collars C, which are driven over the metallic sockets on both sides of the spokes.

The separate or independent spoke-sockets, applied as above described, afford means for readily strengthening the spokes and hub, and when arranged so as to abut against each other a continuous supporting-rim is formed with no interstices or joints for the lodgment of dirt, &c. The sockets being separate can be readily attached and detached independently of each other while not impairing their supporting qualities, for, by reason of the abutment of the contiguous ends of the sockets, a continuous self-supporting rim is formed. The vertical displacement of the sockets is prevented by enlarging the spokes at their lower ends above their tenons and by means of the encircling bands or collars above mentioned.

From the above description it will be perceived that a hub is produced in which the sides and edges of the spokes are firmly braced or supported, so as to render the wheel more durable than others in use.

In certain instances I propose to apply my invention to that class of wheels possessing staggered spokes—*i. e.*, spokes arranged alternately to the right or left or in a zigzag line. To adapt the spoke-supporting sockets for this purpose it is only necessary to alternately enlarge their opposite sides and to correspondingly form the mortises in the hub.

The annular groove in the hub for the reception of the supporting-sockets may be dispensed with and the latter caused to rest directly upon the surface of the hub, the shrinkage, encircling-bands, and enlarged spokes affording a sufficient medium for securing the same in place.

The latter method is generally adopted when applying my improvements to hubs originally constructed for the reception of spokes without supporting devices.

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

1. A metallic spoke-confining and supporting-socket B, applied to the spoke and hub of a carriage-wheel, in the manner herein shown and set forth, for the purpose specified.

2. The spoke-confining and supporting-socket B, formed with the flange D, and with internal walls corresponding to the external surface of the shoulder of the spoke, and applied to the spoke and hub in the manner herein described, for the object set forth.

3. A metallic rim for encircling a wooden hub, the rim being made of a series of separate metallic sockets and rigidly connected with the hub and spokes, in the manner and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of January, 1873.

SYLVESTER T. F. STERICK.

Witnesses:

CHAS. M. LUKENS,

WM. F. LACER.