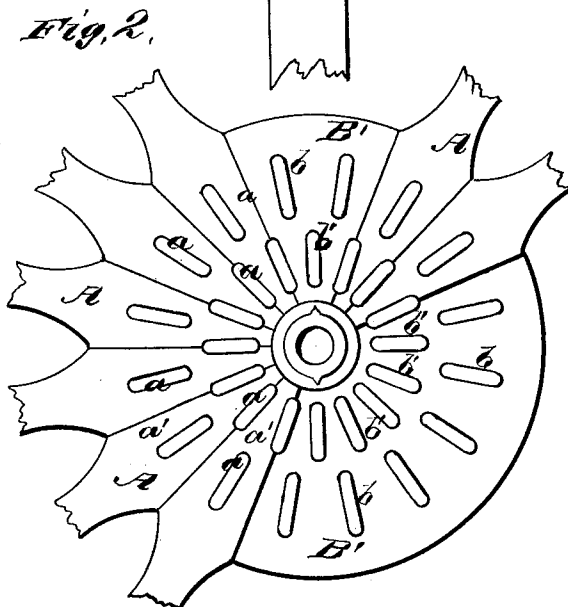
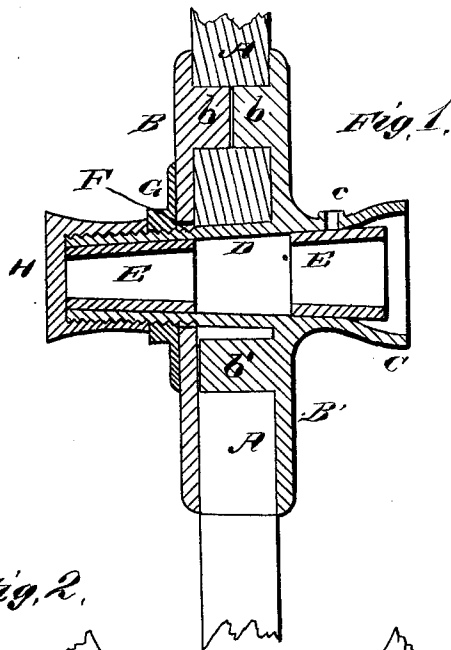


VEHICLE HUB.

Patented Dec. 26, 1876.



WITNESSES
E. H. Bates
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UNITED STATES PATENT OFFICE.

STEPHEN H. THOMAS, OF BROWNSBURG, INDIANA.

IMPROVEMENT IN VEHICLE-HUBS.

Specification forming part of Letters Patent No. **185,800**, dated December 26, 1876; application filed June 10, 1876.

To all whom it may concern:

Be it known that I, **STEPHEN H. THOMAS**, of Brownsburg, in the county of Hendricks and State of Indiana, have invented a new and valuable Improvement in Wagon-Hub; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a vertical central section of my wagon-hub, and Fig. 2 is a side view with the plate removed.

This invention relates to wagon-wheels; and it consists in a series of perforated spokes provided with peculiarly-shaped tenons; also, in two facing hub-plates, each of which is provided with bosses which set into the perforations in said spokes; also, in an additional series of bosses cast on one of said plates, and constituting sockets, or the equivalents thereof, for the tenons on said spokes; and, finally, in subsidiary devices, hereinafter particularly described.

In the annexed drawings, **A A** designate spokes, each of which is perforated at *a*, and provided with a tenon, *a'*, hollowed out on both sides, so that when in position in the sockets the space between each pair of said tenons will be oblong in shape. **B B'** are two facing plates, which together constitute the hub, **B** being the outer plate, and **B'** the inner one. On the outside of plate **B'** I cast or otherwise rigidly attach a flaring extension, **C**, which is perforated at *c* for the admission of oil. On the inner side of said plate is attached a box, **D**, which is screw-threaded on the outer side to receive the nuts which clamp plates **B B'** together. On the inside of box **D** are feathered two smaller boxes, **E E**, which may be slipped toward or from one another, making the space between them greater or smaller, and increasing or diminishing the length of the axle-box. Plate **B** is perforated at *F*, so as to slip easily over box **D**. **G** is a screw-threaded washer or nut, which is slipped over said box and screwed home, to clamp

the plates **B** and **B'** in position and hold the spokes **A** firmly. **H** is a flaring screw-tapped sleeve, resembling in contour extension **C** of plate **B**. It follows and re-enforces washer and nut **G**. The opposing faces of plates **B** and **B'** are each provided with lugs or bosses *b*, circularly arranged upon said plates. Each of lugs or bosses *b* sets into perforations *a*, extending half through the same, so that each two opposite bosses *b b* exactly fill the perforation which they enter, and lock the socket securely in place. In addition, one of said plates—preferably plate **B**—has a smaller circle of lugs or bosses, *b'*, which set into the spaces between the tenons *a'*, and constitute sockets therefor. All these lugs are cast upon or otherwise rigidly attached to their respective plates. The arrangement of them may obviously be inverted, placing two sets on **B'** and only one on **B**; and various other slight modifications may be made without departing from the spirit of my invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. A wagon-wheel spoke having a central perforation or oblong slot, substantially as shown, and for the purpose set forth.

2. In a wagon-wheel, a hub provided with two circular series of lugs or bosses, one series being adapted to set into perforations or recesses of spokes, and the other series being adapted to constitute sockets for the tenons of said spokes, substantially as set forth.

3. A perforated wagon-wheel spoke, provided with tenons which are hollowed out on each side, substantially as set forth.

4. The combination of plate **B'**, provided with extension **C** and rigidly-attached box **D**, with perforated plate **B**, washer **G**, and screw-tapped sleeve **H**, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

STEPHEN H. THOMAS.

Witnesses:

ISAAC S. GOLDMAN,
JACOB STEM.