S. T. GAMWELL.

Axle for Vehicles.

No. 162,375. Patented April 20, 1875.

Fig. 1.

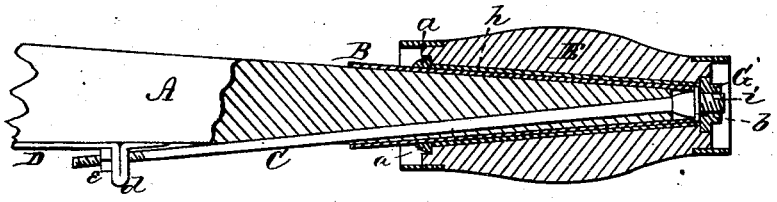


Fig. 2.

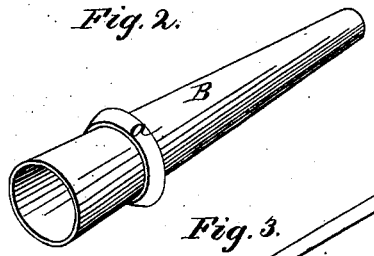
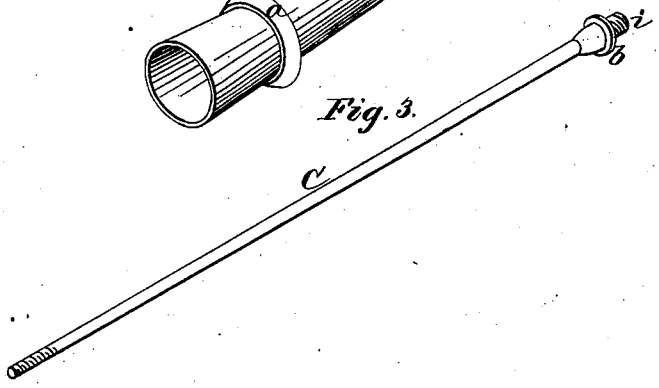


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

SAMUEL T. GAMWELL, OF WAYLAND, MICHIGAN.

IMPROVEMENT IN AXLES FOR VEHICLES.

Specification forming part of Letters Patent No. **162,375**, dated April 20, 1875; application filed January 20, 1875.

To all whom it may concern:

Be it known that I, SAMUEL T. GAMWELL, of Wayland, in the county of Allegan and in the State of Michigan, have invented certain new and useful Improvements in Axle-Skeins; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a thimble-skein, and in the devices for holding the same on the axle, as will be hereinafter more fully set forth.

In the annexed drawing, Figure 1 is a longitudinal section of a wagon axle and hub embodying my invention. Figs. 2 and 3 are detached views of the thimble-skein and devices for fastening it on the axle.

A represents a wooden or iron axle, upon the end of which is placed the thimble-skein B. This thimble-skein is made of true taper turned in cylinder form, and lapped and welded on the lower side of the whole length. Around the skein B, a suitable distance from the inner end, is placed a band, *a*, and after this band is put on, the end of the skein is pressed together on the sides above the shoulder-band, making it oblong at the large end, but of the same thickness from the large end to the shoulder-band, which leaves the axle deeper up and down. C is a wrought-iron rod passed into the end of the axle A, and through an inclined hole therein, so as to come out on the under side thereof at or near the inner end of the skein. Near the outer end of the rod C is formed a circumferential shoulder or flange, *b*, which comes against the outer smaller end of the thimble-skein. The inner end of the rod C is passed through a lug, *d*, on an iron, D, which is fastened on the under side of the axle, and a nut, *e*, is screwed on the end of the rod, whereby the rod, with its collar or flange *b*, will hold the thimble skein on the axle. E is the hub of the wheel provided with an ordinary axle-box, *h*, of any suitable construction, and placed on the skein B. The wheel is held thereon by the nut G, screwed upon the extreme outer end of the rod C, which forms the screw *i* for that purpose.

I am aware that it is not new to use a rod which passes through the outer end of the axle, and is secured at its inner end to a lug projecting below the axle; but I am not aware that a rod, which has a flange and screw tenon on its outer end, upon which screw-thread is placed a nut for adjustment of said rod from the outer end, has ever before been known as used. With my invention the rod can be adjusted from either the outer or the inner ends by the nuts thereon.

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

In combination with the axle A, hub E, and skein B, the rod C, secured at one end to the lug *d*, and having a flange, *h*, and screw *i* at the outer end, and the nut G, all constructed substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of December, 1874.

SAMUEL T. GAMWELL.

Witnesses:

DAVID STOCKDALE,

WM. SEAVER.