

E. D. IVES.

Improvement in Hubs for Wheels of Vehicles.

No. 123,480.

Patented Feb. 6, 1872.

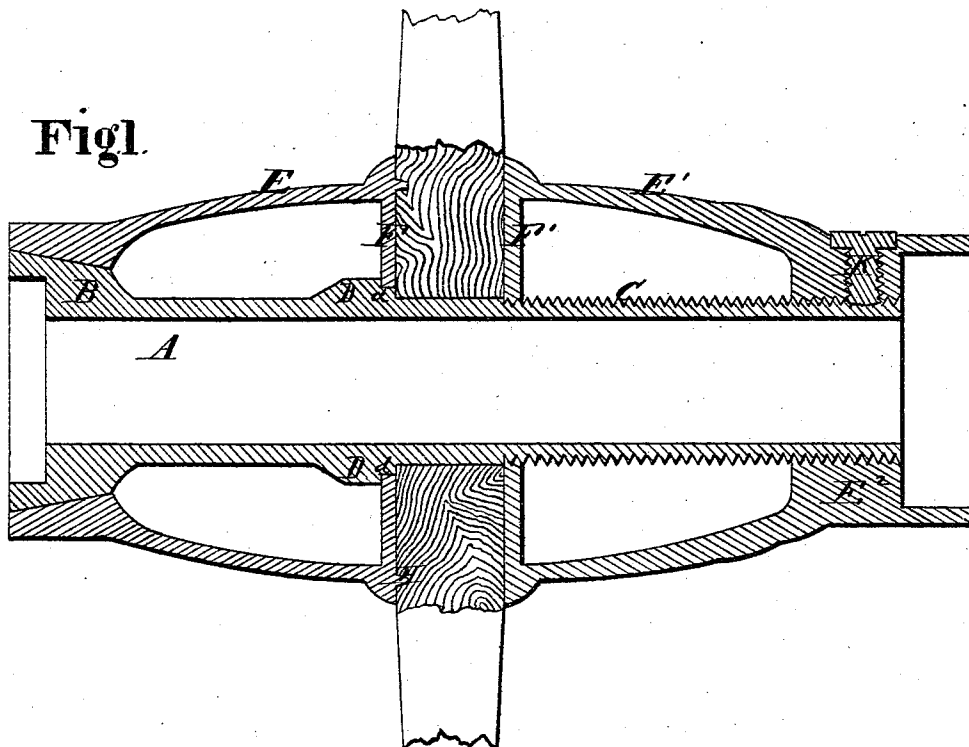
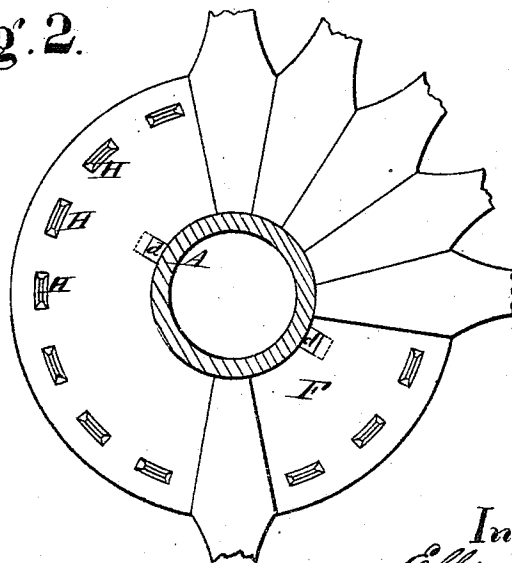


Fig. 2.



Witnesses.

E. H. Bates

J. A. Connolly

Inventor.

Ellsworth D. Ives,
Chipmunk & Sons Co.,
Atty.

UNITED STATES PATENT OFFICE.

ELLSWORTH D. IVES, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN HUBS FOR WHEELS OF VEHICLES.

Specification forming part of Letters Patent No. 123,480, dated February 6, 1872.

To all whom it may concern:

Be it known that I, ELLSWORTH D. IVES, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and valuable Improvement in Hubs for Vehicles; 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 drawing 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 central vertical longitudinal section of my invention. Fig. 2 is a vertical transverse section of the same.

This invention has relation to metallic hubs for the wheels of carriages, wagons, and like vehicles; and consists in the novel construction and arrangement of the parts of a three-section metallic hub, in which the spokes may be readily fitted, and from which they may be separately removed for repair, as hereinafter described.

In the accompanying drawing illustrating this invention, A designates a tubular metallic-hub core, constructed with a flaring or beveled flange, B, at its inner end, a screw-thread, C, extending from its outer end nearly half its length, and a pair of double shoulders, D *d*, on opposite sides, and at a distance from the inner terminus of the screw-thread C about equal the thickness of the spokes. E and E' represent caps, which constitute the bulky portion or body of the hub. Taken with the core A, these caps produce a hub having the external form and appearance of the ordinary block-hub. The caps E E' are cast with the face-plates F F', having central openings for the core A to pass through. The opening in the face-plate F of the cap E is notched on opposite sides so as to fit the small shoulders *d*, while the interior surface of the face-plate F rests against the shoulders D. The opening or mouth at the smaller end of the cap E is beveled to coincide with and fit closely the beveled flange B, said cap being arranged by placing it over the outer end of the core and moving it thence to its proper position. H indicates spikes or lugs projecting from the face-plate F, forming a circular row near the edge of the plate, and

located at regular distances from each other equal to the distance of the centers of the spokes apart when properly arranged. As these spikes or lugs are designed to be pressed into the wood of the spokes, they should be, preferably, beveled or brought to an edge. The cap E¹ is internally threaded in the opening through the face-plate and the opening through the end wall E², and it is turned onto the core the same as a nut. After the spokes are arranged in their proper order they are tightened by means of the cap E¹. The arrangement of the cap E, as before described, prevents it from either lateral or longitudinal play after the spokes are arranged and tightened. K represents a screw, which enters an opening near the outer end of the cap E¹ and fits a notch in the core A. This screw serves as a key to lock the cap E¹ in place. The screw-socket may be used to receive the end of a bar, by which to turn the cap E¹ when tightening or releasing the spokes. The caps E E¹, it will be seen, are hollow, and hence are lighter and less expensive than if cast solid.

The hub, being in three sections, is not destroyed if one part be broken or injured, as such part or section may be readily removed and another used in its stead.

I claim as my invention—

1. The combination of the hub-core A, threaded at C, shouldered at D *d*, and flanged at B, the cap E, having the face-plate F, provided with a notched central opening and lugs H, and the internally-threaded adjustable cap E¹, having the plate F', substantially as described and shown.

2. The combination of the removable cap E, hub-core A, and adjustable cap E¹, as and for the purpose set forth.

3. A metallic hub composed of three distinct and separable sections, viz., a core, A, and two caps, E and E¹, as and for the purpose specified.

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

ELLSWORTH D. IVES.

Witnesses:

F. B. CURTIS,
D. D. KANE.