

HENRY R. FRY.

Improvement in Carriage Hub.

No. 123,472.

Patented Feb. 6, 1872.

Fig. 1.

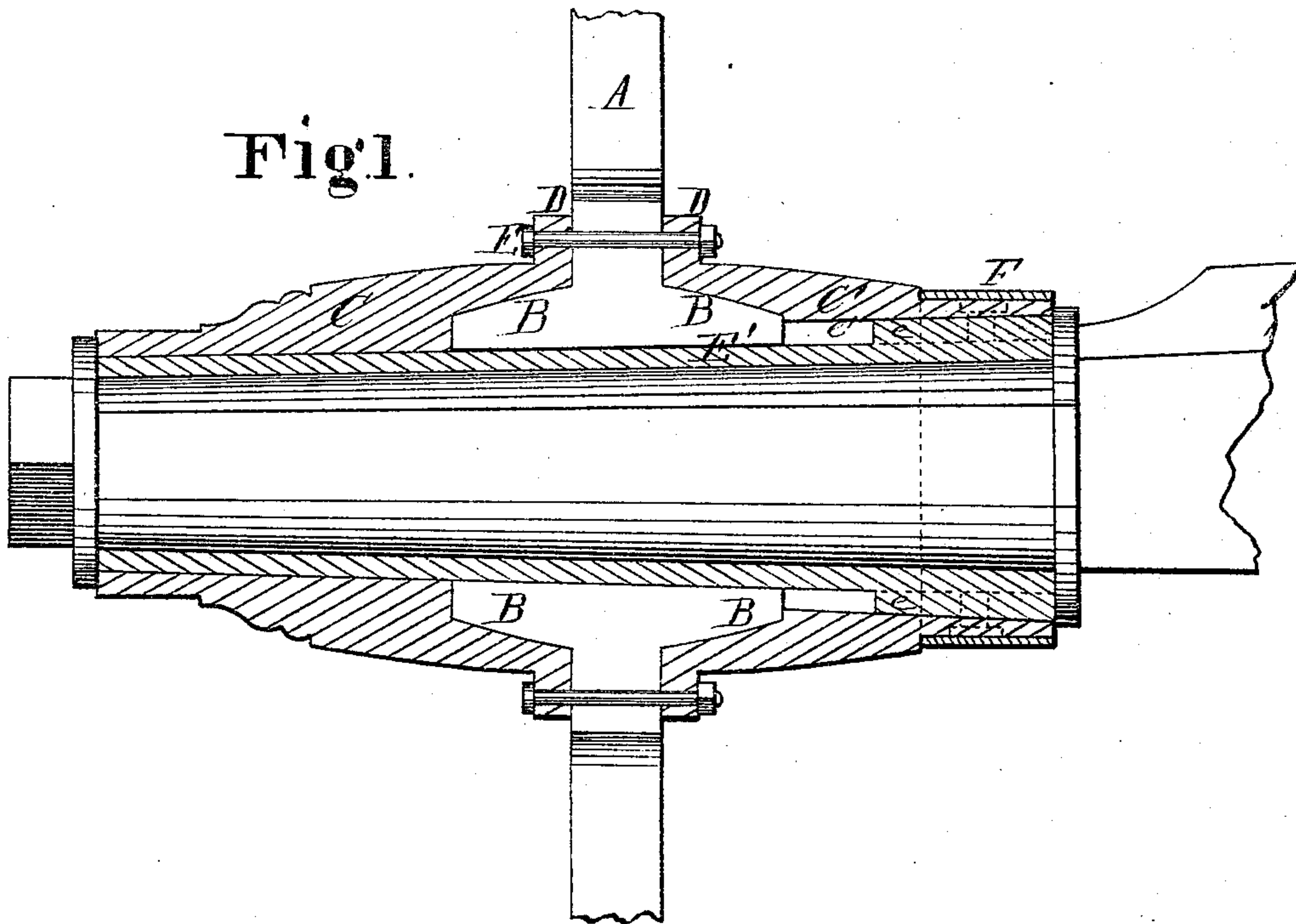
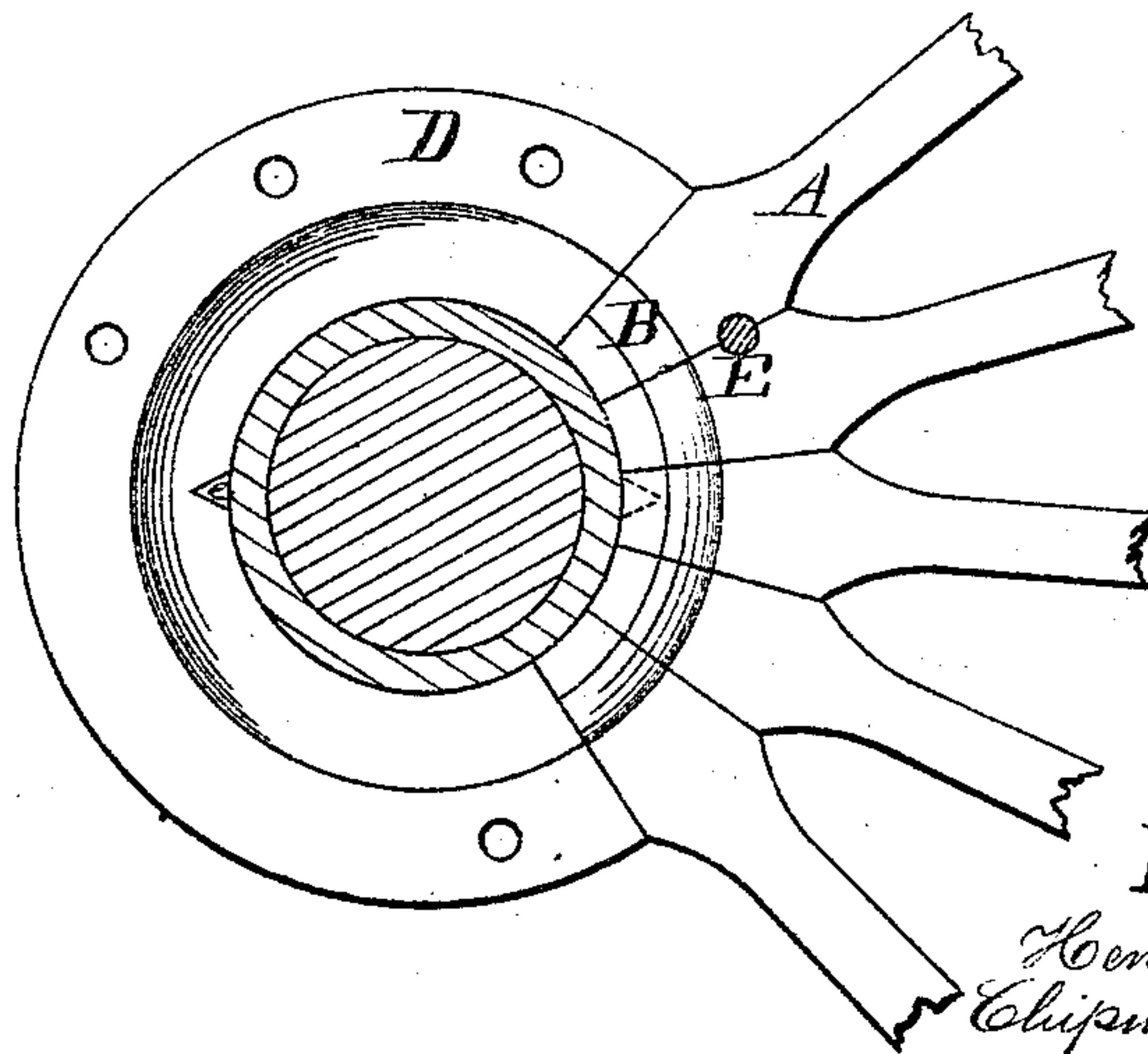


Fig. 2.



Witnesses.
E. H. Bates
G. C. Hopham.

Inventor
Henry R. Fry
Chipman & Hosmer & Co
Attys

UNITED STATES PATENT OFFICE

HENRY R. FRY, OF WABASH, INDIANA.

IMPROVEMENT IN CARRIAGE-HUBS.

Specification forming part of Letters Patent No. 123,472, dated February 6, 1872.

To all whom it may concern:

Be it known that I, HENRY R. FRY, of Wabash, in the county of Wabash and State of Indiana, has invented a new and valuable Improvement in Hubs; 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 longitudinal central vertical section of my invention. Fig. 2 is a transverse vertical section of the same.

This invention has relation to wagon-wheels, and consists in so beveling and shouldering each spoke that when all the spokes are fastened together in the proper order a hub will be produced. This invention also consists in the construction and novel adaptation to a hub, produced as above stated, of metallic strengthening and enlarging caps, as hereinafter described. This invention furthermore consists in the hereinafter-described means of holding the hub-box in its proper position within the hub.

Referring to the accompanying drawing, A represents the spokes of my improved wheel. These spokes are so beveled laterally as to fit closely together at their inner ends, and are also constructed with the shoulders B, which, when the spokes are fitted together, constitute a hub. After the spokes are glued together the wheel is to be placed on a form and the hub projection turned off to receive the metal strengthening-caps or shells. The ends of the hub are cut off square or blunt, and the bell-shaped caps C C' brought close up to said ends. The caps extend further to the faces of the spokes, and are flanged at D to adapt them for the insertion of bolts E, which pass be-

tween the spokes and secure said caps in place. The interior of the caps correspond and fit closely to the shoulders of the hub, as shown. From the ends of the hub to the outer ends of the caps the bore runs in a line with the bore of the hub, being of the ordinary tapering form. E' designates the metal-box which lines the hub. At the rear ends thereof said box is provided with longitudinal V-shaped ridges, e, which correspond to and fit V-shaped channels, e', in the bore of the cap C', and thereby aid in holding the box in position. Set-screws or bolts, F, passing through the cap C' to the surface of the box E', have a like object but are more especially designed to prevent longitudinal displacement. The heads of the bolts F lie within recesses formed on the outside of the cap C'. A ring or collar may be made to encircle the hub to prevent the bolts from coming out of place.

This invention may be used with or without the box E'. When the latter is dispensed with the spindle of the axle bears on the interior surfaces of the caps.

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

1. The metal bell-caps C C', in combination with the spokes A, having the laterally-beveled shoulders B, substantially as specified.

2. The shoulders A having feet B, and the hub-lining E having the projecting ridges e, in combination with the hub-cap C, having corresponding channels e', 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.

HENRY R. FRY.

Witnesses:

J. A. BRUNER,
S. W. TERRANCE.