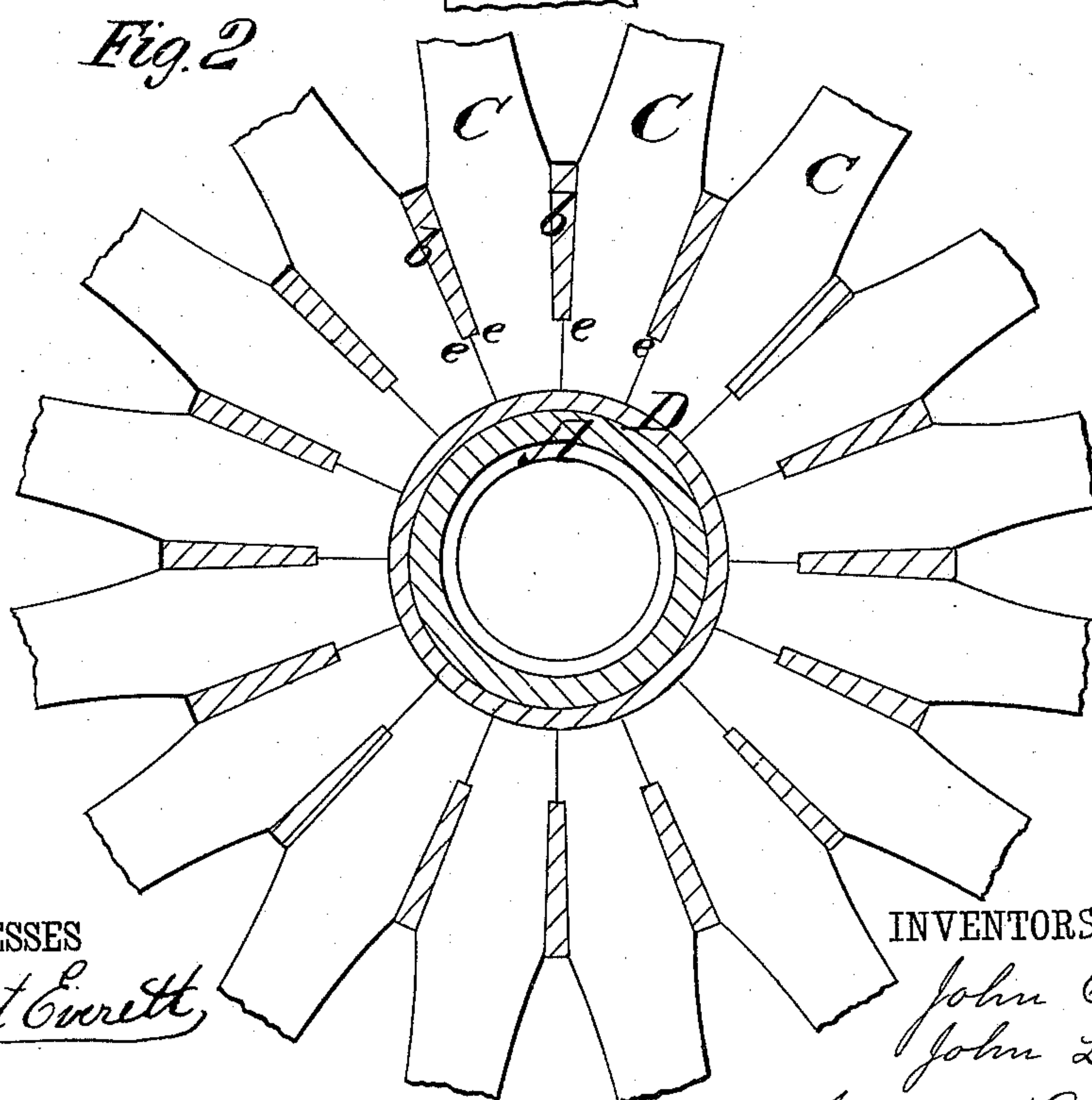
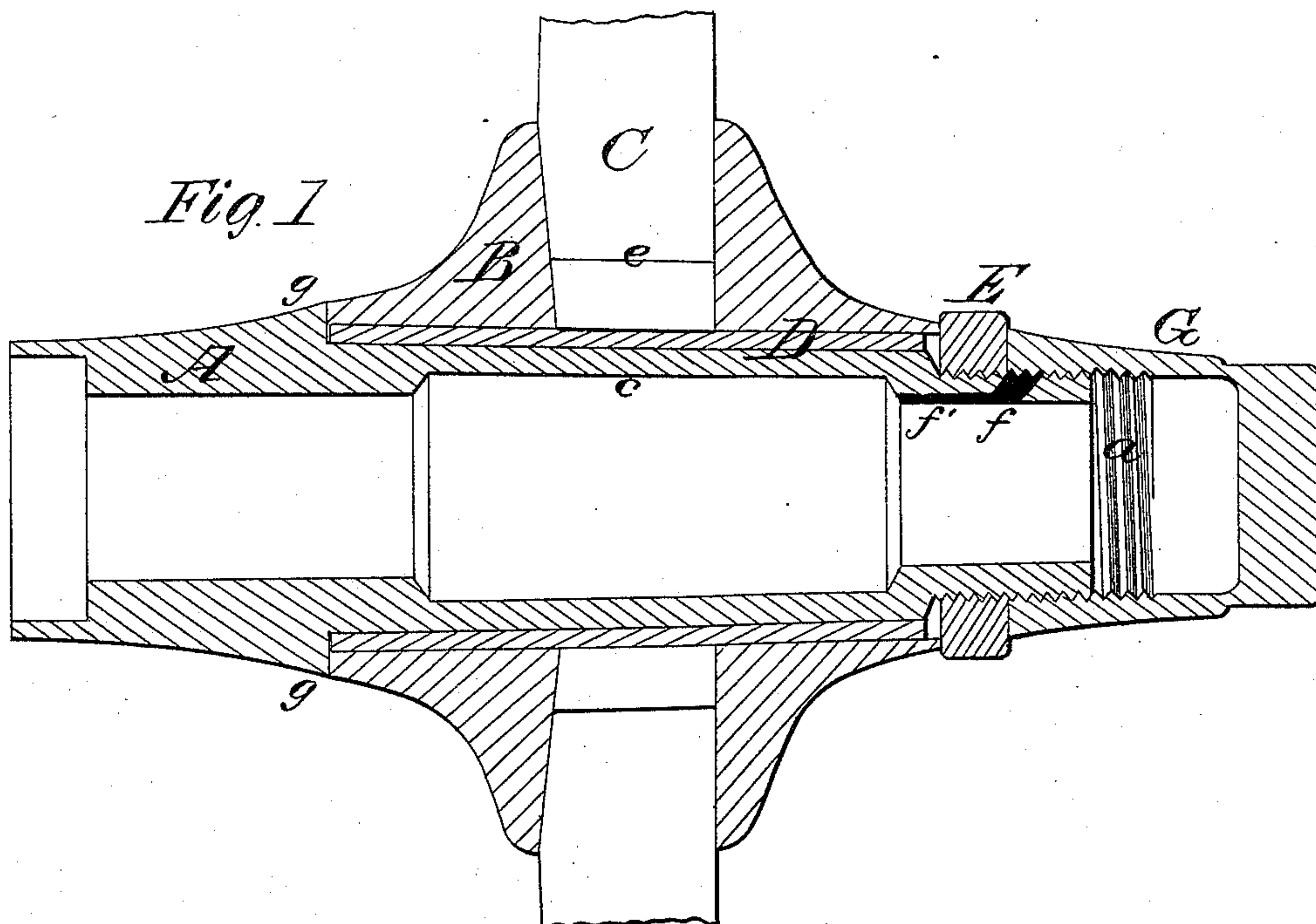


J. CLARK & J. LOCKE.
Hubs for Vehicle-Wheels.

No. 157,735.

Patented Dec. 15, 1874.



WITNESSES

Robert Everett,

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UNITED STATES PATENT OFFICE.

JOHN CLARK AND JOHN LOCKE, OF MILROY, PENNSYLVANIA.

IMPROVEMENT IN HUBS FOR VEHICLE-WHEELS.

Specification forming part of Letters Patent No. **157,735**, dated December 15, 1874; application filed July 11, 1874.

To all whom it may concern:

Be it known that we, JOHN CLARK and JOHN LOCKE, of Milroy, in the county of Mifflin and State of Pennsylvania, have invented a new and valuable Improvement in Wheel-Hubs; and we 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 longitudinal sectional view of our wheel-hub. Fig. 2 is a transverse sectional view of the same.

This invention has relation to hubs for wheels; and it consists in the spokes having shouldered tenons, in combination with narrow partitions forming mortises in a hub which is cast of one piece of metal. It finally consists in a screw-cap for confining the hub upon the spindle, which, when screwed home upon the end of the hub, will also close the outer oil passage, effectually confining the lubricating oil within the receptacle therefor, excluding dust and mud, and dispensing with the screw-threaded bolt in common use for this purpose, as will be hereinafter more fully explained.

In the annexed drawings, A designates the axle-box, which is cast in one piece with an interior annular recess, *c*, forming, when the hub is on the axle, an oil-chamber. Externally an annular shoulder, *g*, is formed on the box A, between which shoulder and a reduced screw-threaded portion, *a*, a band, D, of india-rubber or leather is applied, which is intended to form a yielding cushion to the hub. The hub B is cast in one piece, with receptacles

or mortises between partitions *b*, to receive the tenons on spokes C. This hub B is forced over the band D and confined against the shoulder *g* by means of a nut-washer, E, which is applied on the screw-threaded portion *a*, and set up past an oil-feed hole, *f*, as shown in Fig. 1. The feed-hole *f* communicates with the oil-chamber *c* by means of a passage, *f'*, and when a cap, G, is screwed on the portion *a* and set up against the nut-washer E the feed-hole will be closed. The hub and axle are lubricated by simply removing the cap G and pouring oil into the chamber *c* through the feed-hole *f*. The tenoned ends of the spokes C are beveled, and each tenon has two shoulders, *e e*, formed on its sides.

In the act of driving the spokes into the hub B the shouldered portions *e* will be condensed, and when the shoulders pass the inner ends of the partitions *b* they will expand to their normal size and rigidly hold the spokes.

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

1. The spokes C, having tenons with shoulders *e e* upon their lower ends, in combination with the partitions *b* of the hub B, substantially as specified.

2. In combination with the oil-passages *f f'* of the oil-receptacle *c*, the screw-cap G, for the purpose of closing the passage *f*, substantially as specified.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

JOHN CLARK.
JOHN LOCKE.

Witnesses:

JOHN BARGER,
JAMES THOMPSON.