

(No Model.)

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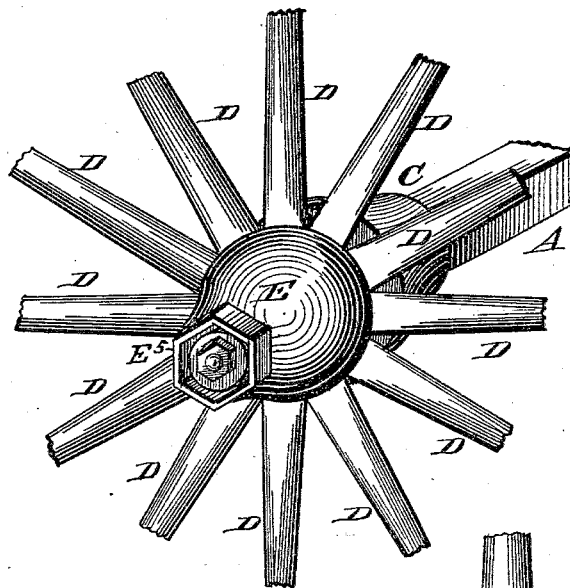
S. DAVIS.

WHEEL HUB.

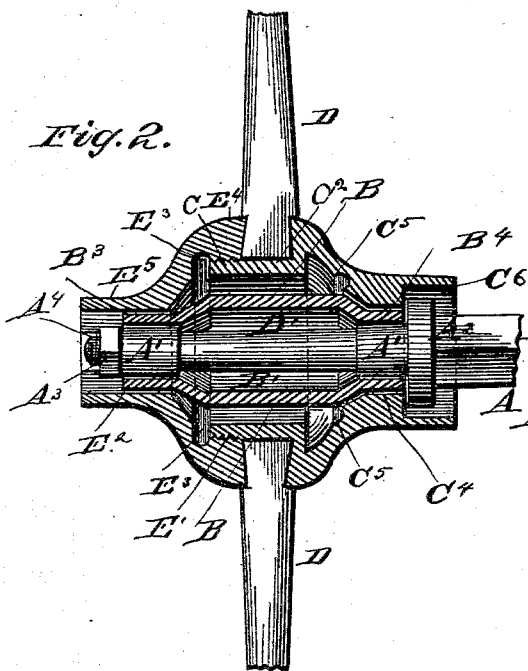
No. 303,268.

Patented Aug. 12, 1884.

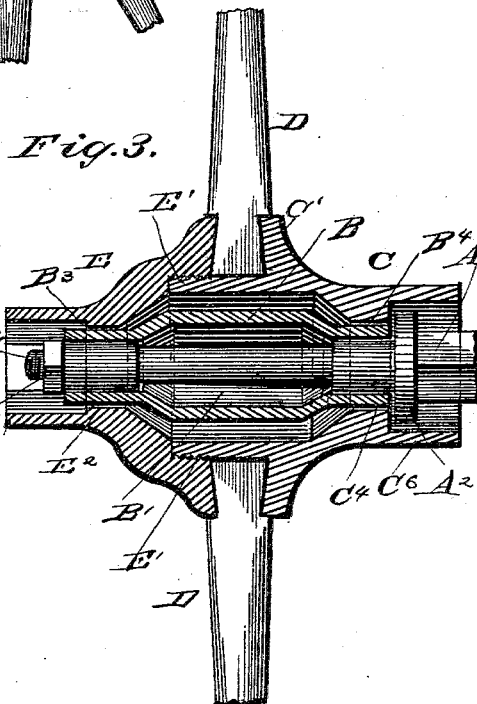
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:

*Phil. C. Dietrich*  
*A. C. Powell*

Inventor:

*Samuel Davis*  
by  
*Lloyd Wiegand*  
att'y.

(No Model.)

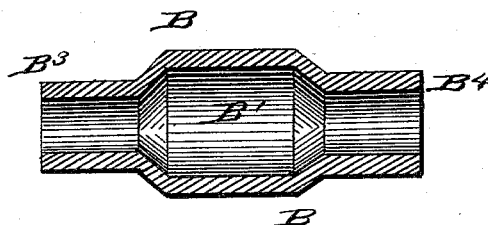
2 Sheets—Sheet 2.

S. DAVIS.  
WHEEL HUB.

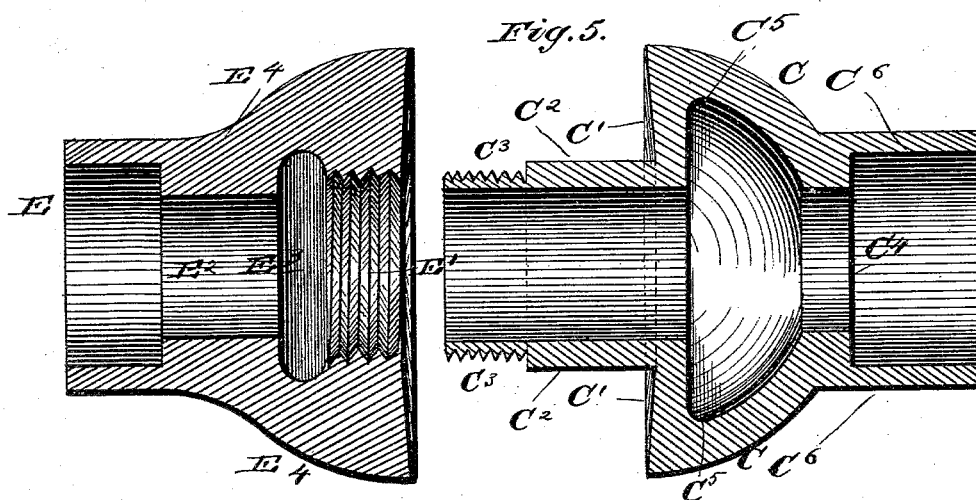
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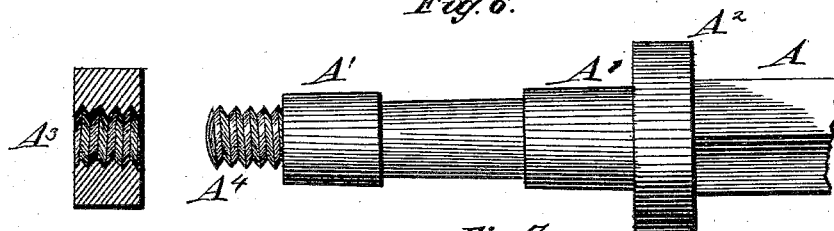
*Fig. 4.*



*Fig. 5.*



*Fig. 6.*



*Fig. 7.*



Witnesses:

*Phil. C. Dietrich.*  
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Inventor:

*Simon Davis*  
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# UNITED STATES PATENT OFFICE.

SIMEON DAVIS, OF PHILADELPHIA, PENNSYLVANIA.

## WHEEL-HUB.

SPECIFICATION forming part of Letters Patent No. 303,268, dated August 12, 1884.

Application filed February 1, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, SIMEON DAVIS, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Wheel-Hubs; and I do hereby declare the following to be a sufficiently full, clear, and exact description thereof as to enable others skilled in the art to make and use the said invention.

This invention relates to that class of wheel-hubs wherein the spokes are clamped between rims or shoulders upon separate parts of the hub, and has for its object the firm support of the spokes and facilitating the tightening of the same, and of introducing new spokes without removing the rim of the wheel, and at the same time with a small number of parts clamping the separate parts of the hub together without causing the box to participate in the strain of clamping, the hub presenting the appearance and finish and facility of cleaning of the usual wooden hubs.

The nature of this invention consists in a chambered axle-box having a central enlargement adapted to receive a lubricant, and at the ends to fit on the journals of the axle, and having fitted over the same, so as to bear firmly on the ends of the box, a shell formed of two parts united by screw-threads and provided with a shoulder on each part, between which shoulders the spokes are firmly held and clamped without subjecting the box to any tensile strain.

I will now proceed to particularly describe the mode of making and using this invention, referring in so doing to the drawings annexed and the letters of reference marked thereon.

Figure 1 is a perspective view of the hub as applied; Fig. 2, a longitudinal section thereof; Fig. 3, a similar section of a modified form; and the remaining figures are representations of the several parts as detached from each other.

The same letters of reference are applied to like parts in the several figures.

A represents the axle, having a tapering journal, A', upon which fits tightly the box B, having a central chamber, B', for receiving a lubricant.

C is a shell having a shoulder or rim, C', a bearing, C<sup>2</sup>, adapted to rest on the inner ends

of the spokes D, and a male screw-thread, C<sup>3</sup>, upon which a corresponding female screw-thread, E', in the nut E fits. A bearing, E<sup>2</sup>, is formed in the nut E, which fits tightly in the part B<sup>3</sup> of the box B, and a shoulder or rim, E', is formed on the nut, adapted to fit against the outer sides of the spokes D. A bearing, C', formed in the shell C, fits tightly upon a corresponding bearing, B', on the box B.

Upon the shell C is formed a rim, C<sup>6</sup>, which, projecting over the collar A<sup>2</sup> on the axle A, serves to obstruct the entrance of dirt or grit to the wearing-surfaces of the axle and box; and a similar projecting rim, E<sup>3</sup>, serves to obstruct foreign matter from entering by the outer end of the journal, and also protects the nut A<sup>3</sup> and screw A<sup>4</sup> on the end of the axle A from injury.

In the form shown in Figs. 1 and 2 the outer form of the assembled parts resembles the shape of the usual wooden coach-wheel hubs; and, to avoid waste of metal, chambers or annular grooves C<sup>5</sup> and E<sup>3</sup> are formed, respectively, in the shell C and nut E; but in the form shown in Fig. 3 these grooves or chambers do not occur, and the external form is such as to present the appearance of smaller hubs with flanges supporting the spokes laterally. The advantage of this latter form (that shown in Fig. 3) is that it is more readily cast in green sand than the other, which requires a separate core to be made, or other special equivalent molding appliances to be used.

In using this invention, the spokes, being cut to proper lengths and of uniform thickness, are inserted into the wheel rim or felloes, and the shell C placed in position, as shown in Figs. 1, 2, and 3, and the nut E screwed upon the shell C, the hexagonal form of the rim E' affording a facility for turning the nut. The spokes are thus clamped firmly and securely held in place. When a spoke is defective, by removing the nut E another spoke is readily substituted; and in case of a spoke becoming loose and being otherwise in good condition, upon slackening the nut E and a liner or packing being introduced between the nut E and the loose spoke the tightening of the nut secures the otherwise loose spoke.

Having described my invention and the mode of operating the same, what I claim is—

A vehicle-wheel hub consisting, essentially,  
of a box, B, having a chamber or cavity, B',  
adapted to contain a lubricant, in combina-  
tion with a shell, C, fitting thereon, provided  
5 with a rim or shoulder, C', and a nut, E, fitting  
thereon, and also provided with a shoulder or  
rim, and adapted to clamp the spoke D without

applying tensile strain to the box B, the whole  
constructed and arranged substantially as and  
for the purpose set forth.

SIMEON DAVIS.

Witnesses:

J. DANIEL EBY,  
LINN WHEELER.