

C. KUNDEGRABER.  
 VEHICLE-WHEEL HUB.

No. 188,380.

Patented March 13, 1877.

Fig. 2.

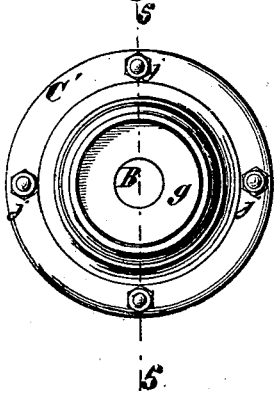


Fig. 1.

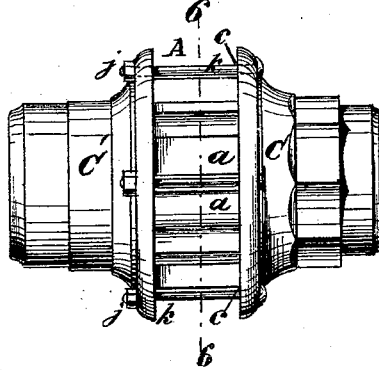


Fig. 3.

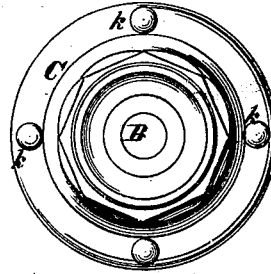


Fig. 4.

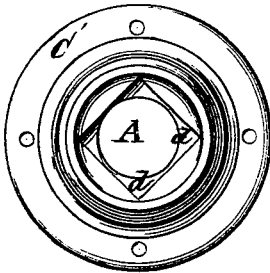


Fig. 5.

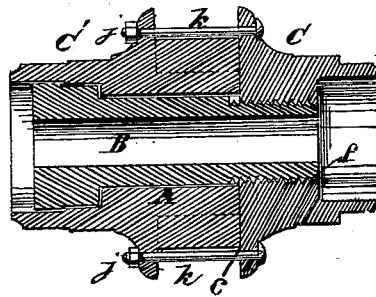


Fig. 6.

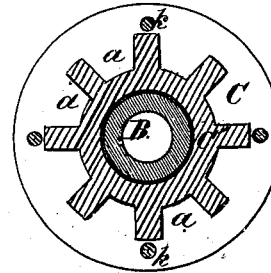


Fig. 7.

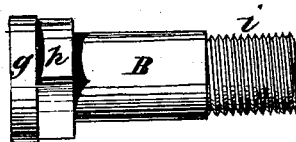
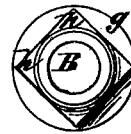


Fig. 8.



WITNESSES

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INVENTOR

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# UNITED STATES PATENT OFFICE.

CHARLES KUNDEGRABER, OF WYANDOTTE, ASSIGNOR OF TWO-THIRDS HIS RIGHT TO FRANK SETTLES, OF SAME PLACE, AND LOUIS WEINBERG, OF LEAVENWORTH, KANSAS.

## IMPROVEMENT IN VEHICLE-WHEEL HUBS.

Specification forming part of Letters Patent No. **188,380**, dated March 13, 1877; application filed August 30, 1876.

*To all whom it may concern:*

Be it known that I, CHARLES KUNDEGRABER, of Wyandotte, in the county of Wyandotte and State of Kansas, have invented a certain new and Improved Hub for Wheels of Vehicles, of which the following is a specification:

My improvement relates to a sectional hub, and consists in transversely dividing the shell so as to form two sections, one section having a female screw adapted to engage with a screw-thread on one end of the box, and the other section having an excavation adapted to receive the angular neck of the box.

In the accompanying drawing, Figure 1 is a side view of my improved hub. Fig. 2 is an end view thereof from the inside. Fig. 3 is an end view thereof from the outside. Fig. 4 is an end view thereof from the inside, the box being removed to show the angular socket for the neck of the box. Fig. 5 is a longitudinal section thereof on the line 5 5, Fig. 2. Fig. 6 is a transverse section thereof on the line 6 6, Fig. 1. Fig. 7 is a side view of the box. Fig. 8 is an end view thereof.

In carrying out my invention, A may represent the shell of a hub, provided with mortises *a*, for the reception of the ends of the spokes, and is transversely divided at *c* to form a removable section, C, to open the ends of the mortises *a* (as it forms one side thereof) to permit the ready introduction and removal of the spokes without cutting the tire or removing the rim of the wheel. The larger

section C' of the shell A has an angular excavation, *d*, for the neck of an improved box, B, and the section C has a female screw, *f*. B is the box, which is adapted to fit the spindle end of an axle, and is provided at one end with a circular head, *g*, and angular neck *h*, and at the other end with a male screw-thread, *i*. The neck of the box B fits the excavation *d* of the shell-section C', and the box is thus adapted to turn with the shell A. The section C' is also circularly recessed for the head of the box, and the section C recessed for the nut securing the hub to the spindle of the axle. The shell-sections are secured to each other by means of bolts *k* and nuts *j*, passing through their flanges.

The readiness with which each part can be removed and replaced will be apparent, the wheel being constructed in much less time than with ordinary hubs, and is much lighter and stronger.

Having thus described my invention, the following is what I claim as new, and desire to secure by Letters Patent:

The hub, consisting of sections C C' and box B, the section C having a screw, *f*, and the box B having an angular neck, *h*, and a screw-thread, *i*, as and for the purpose set forth.

CHAS. KUNDEGRABER.

Witnesses:

R. E. CABLE,  
W. P. BRUSH.