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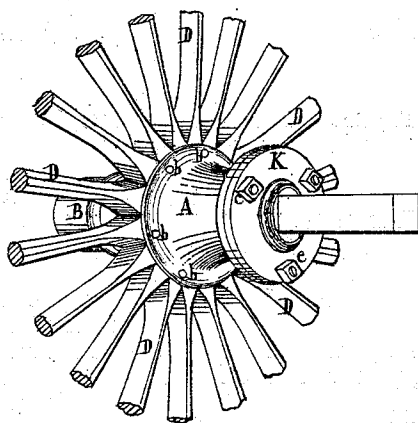
J. KRITCH.

Improvement in Hubs for Carriage Wheels.

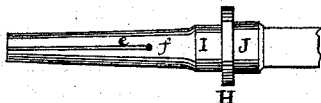
Fig, 1.

No. 122,322.

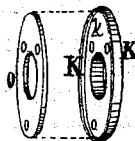
Patented Jan. 2, 1872.



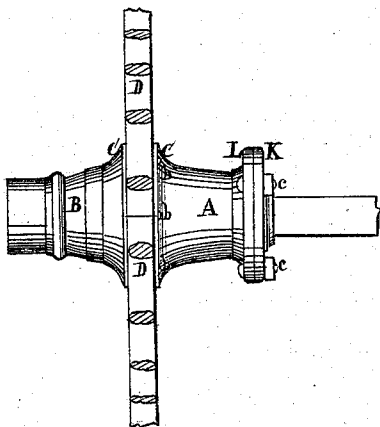
Fig, 4.



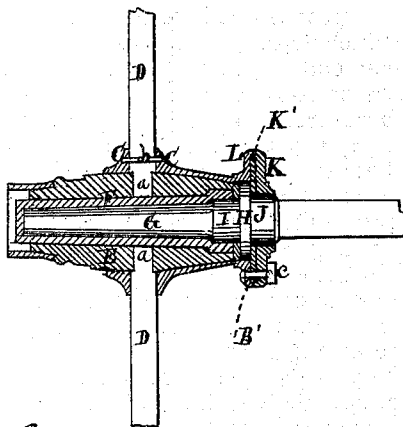
Fig, 5.



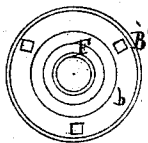
Fig, 2.



Fig, 3.



Fig, 6.



Witnesses.

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Inventor.

J. Kritch
per Burridge & Co.
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UNITED STATES PATENT OFFICE.

JACOB KRITCH, OF CLEVELAND, OHIO.

IMPROVEMENT IN HUBS FOR CARRIAGE-WHEELS.

Specification forming part of Letters Patent No. 122,322, dated January 2, 1872.

To all whom it may concern:

Be it known that I, JACOB KRITCH, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and Improved Carriage-Wheel; and I do hereby declare that the following is a full, clear, and complete description thereof, reference being had to the accompanying drawing making part of the same.

SPECIFICATION.

Figure 1 is a perspective view of the hub. Fig. 2 is a side view of the same. Fig. 3 is a transverse longitudinal section. Fig. 4 is a detached view of the axle or spindle. Fig. 5 is a detached section. Fig. 6 is an end view of the posterior end of the hub.

Like letters of reference denote like parts in the different views.

The nature of this invention relates to a carriage-wheel hub, and the special object of said invention is to provide a neat, simple, and secure way of fastening the wheel to the axle by means of a circular plate fitted to and in contact with the posterior side of the collar of the axle, and which plate is then bolted to a flange on the inner end of the hub, a more full and complete description of which is as follows:

The hub referred to consists, in part, of two sections, A B, Fig. 2, each of which has a wide flange, C, between which the base of the spokes D are fitted in mortises cut in the wooden core E fitted snugly to the inside of the two sections, as shown in Fig. 3, in which *a* shows the tenons fitted in the wooden core. The sections A B are secured to each other and to the sides of the spokes by bolts or rivets *b*, whereby said spokes are strongly braced in a lateral direction. F, Figs. 3 and 6, is the axle-box in which the axle or spindle G is fitted. H is the axle-collar. I is the enlargement before the collar and J the enlargement behind the collar. The enlargement I is fitted in the axle-box, whereas the enlargement J is fitted in the circular plate K. It will be observed that said plate is provided with a rim or narrow flange, K', Fig. 5, on its inner side, whereby is formed a recess, *k*, in which is fitted half the thickness of the leather washer O. It will also be seen that section or thimble B is provided with a flange, L, Fig. 3, and that around the edge of said flange is a rim, B', whereby is formed a recess, *b*, Fig.

6, in which is fitted the other half the thickness of the leather washer O. In the bottom of said recess is fitted the collar H of the axle, so that the posterior side thereof is flushed with the face of the flange L or bottom of the recess *b*, in which the washer O is fitted. The plate K, when adjusted to the flange L, forms therewith a chamber in which is contained a washer, O, referred to, which fits closely but not tightly both the side of the collar and the bottom of the recess *b*, and also the face or bottom of the recess in the plate K, and which is secured to the flange L by bolts *c* or their equivalents. The purpose of the washer O interposed between the side of the collar and the plate K is to prevent the two metal surfaces from contact and thereby protect them from frictional wearing, and also to prevent them from rattling. Between the anterior face of the collar and the end of the axle-box in which it is fitted is interposed a leather ring or washer for a similar purpose. From the above description and illustration it will be seen that the hub or wheel is retained upon the axle by means of the plate K, being bolted or otherwise secured to the flange L, forming a part of the hub, which, being on the anterior side of the collar and the plate on the opposite side, renders it impossible for the wheel to come off from the axle, unless the bolts *c* are first removed, thereby detaching the plate from the hub.

By this means a simple, neat, and secure connection is made of the wheel to the axle, and which can be easily and readily removed therefrom for oiling or for other purposes by simply removing the bolts *c*, which will allow the wheel to slip from the spindle or axle. This manner of securing the wheel to the axle effectually excludes dirt and dust from the axle-box; hence the wheel will run smoothly and with but little frictional wearing. It will be observed that the end of the spindle is hollow, the purpose of which is to hold oil or grease in reserve, from which the spindle is self-supplied, and that in the side of the axle is cut a groove, *e*, Fig. 4, for conducting the oil along the spindle, said groove having a communication with the chamber in the end of the axle by means of a small hole, *f*, Fig. 4. It will be observed that the bolts *c*, whereby the plate is connected to the flange of the hub, also pass through the washer O; hence, said washer is held securely in place.

The collar H is of large diameter, whereby is obtained more strength and endurance to the attachment of the wheel to the axle, as the large size of the collar more effectually prevents twisting or wrenching of the wheel on the axle than a collar of small diameter; hence the wheel will run with more steadiness and with less frictional wear than if the collar were of small diameter, as they usually are in this class of hubs.

Claims.

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

1. The plate K having a rim, K', and recess k within said rim, flange L forming part of the thimble or section A and provided with a rim, B', and recess b', as arranged in relation to the washer O, axle G, as applied to a wooden hub

conjointly, substantially as and for the purpose set forth.

2. The wheel secured to the axle by means of the plate K arranged on the posterior side of the collar H and connected to the flange L of the hub by screw-bolts or their equivalents with the collar H in the chamber of the flange L, as applied to wooden hubs, in the manner and for the purpose substantially as set forth.

3. The circular plate K in combination with the flange L when said flange forms a part of the thimble or section A, all arranged in combination with a wooden hub, substantially in the manner as described, and for the purpose set forth.

Witnesses: JACOB KRITCH.

W. H. BURRIDGE,

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