No. 642,022. Patented Jan. 23, 1900.

F. J. VIEL.

WHEEL HUB.

(No Model.)

(Application filed Oct. 18, 1899.)

Fig. 1,

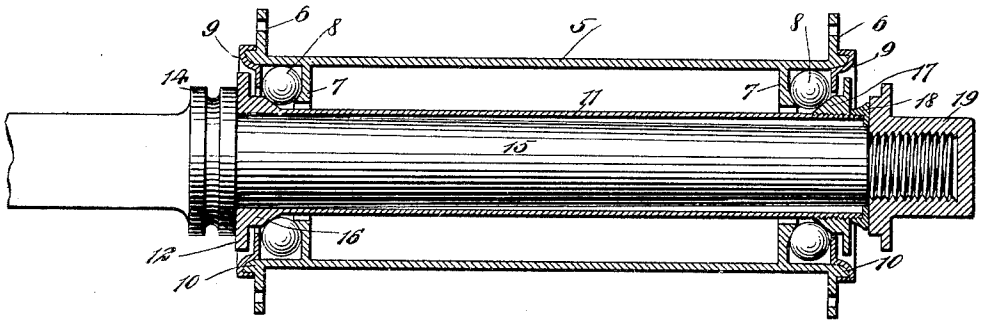


Fig. 2,

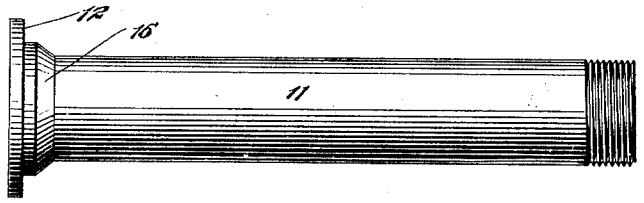


Fig. 3,

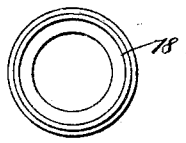
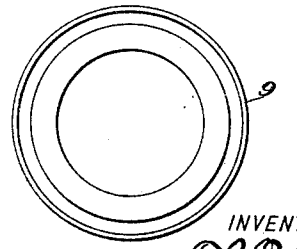


Fig. 4.



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FRANCIS JOHN VIEL, OF BLOSSBURG, PENNSYLVANIA.

WHEEL-HUB.

SPECIFICATION forming part of Letters Patent No. 642,022, dated January 23, 1900.

Application filed October 18, 1899. Serial No. 733,979. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS JOHN VIEL, of Blossburg, in the county of Tioga and State of Pennsylvania, have invented a new and Improved Wheel-Hub, of which the following is a full, clear, and exact description.

The purpose of this invention is to provide a hub for carriage-wheels having pneumatic tires, by means of which hub the wheels may be readily applied to the axle-spindles of ordinary vehicles, thus permitting the owner to interchange the wheels with ease and without having to disturb the axles.

This specification is the disclosure of one form of my invention, while the claims define the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional view of the invention applied. Fig. 2 is an elevational view of the hollow journal. Fig. 3 is an inner face view of the annulus which bears between the outer end of the hollow journal and the spindle, and Fig. 4 is an inner face view of one of the dust-guards.

The hub 5, having the usual flanges 6, to which the wire spokes are fastened, is provided interiorly at each end with a ball-race 7, carrying the balls 8. Each end of the hub has a dust-guard 9 fastened thereto, as shown, the dust-guard being annular in form and being bent over and fastened to annular end extensions 10 of the hub 5.

The hollow journal 11 has its inner end formed with a flange 12 bearing against the shoulders 14 of the usual axle-spindle 15. The inner portion of the hollow journal 11 also has a ball-cone 16 produced thereon and opposing the inner ball-race 7. This hollow journal is extended through the hub, and a cone 17 is screwed on the outer end of the journal to oppose the outer ball-race 7, thus mounting the hub through the medium of the balls 8 revolubly on the hollow journal. An annulus 18 is screwed over the outer end of the hollow journal 11 and bears against the cone 17. This annulus also overhangs the outer end of the hollow journal and snugly engages the outer end of the spindle 15, so as to hold the journal 11 concentrically true with the spindle, it being understood that the spindle tapers and that the journal 11 is constructed without a taper. The annulus 18 therefore serves the double purpose of securing the cone 17 and of holding the hollow journal 11 true on the tapering spindle 15. A nut 19 is screwed on the outer end of the spindle and bears against the annulus 18, serving thus to hold the hollow journal in place. Now, it may readily be seen that this hub may be applied to the old style of carriages and other vehicles without in any way changing the construction of such vehicles; also, should the owner for any purpose desire to interchange the old and new wheels he may readily do so.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of a hub proper having ball-races formed thereon, a hollow journal extended through the hub proper, cones on the hollow journal, the cones opposing the ball-races and the outer of such cones being mounted on the hollow journal near the end of the same, bearing-balls situate between the ball-races and cones, and an annulus secured rigidly to the outer side of the outer end of the hollow journal, to hold such outer cone in place, the annulus projecting inwardly beyond the end of the hollow journal to engage the outer portion of the axle-spindle, whereby to hold the hollow journal concentrically on the spindle.

2. The combination of a hub proper, a hollow journal extended through the same, on which journal the hub proper is mounted to turn, the hollow journal serving to receive an axle-spindle, and an annulus fastened to the outer end of the hollow journal and extended inward of the inner walls of the hollow journal to engage the outer end of the axle-spindle, and to hold the hollow journal concentric with the spindle.

FRANCIS JOHN VIEL.

Witnesses:
JOSEPH HYLAND,
FRANCIS A. VIEL.