J. O'CONNOR.

Carriage-Hub Shell.

No, 96,028. Patented Oct. 19, 1869

Fig. 1.

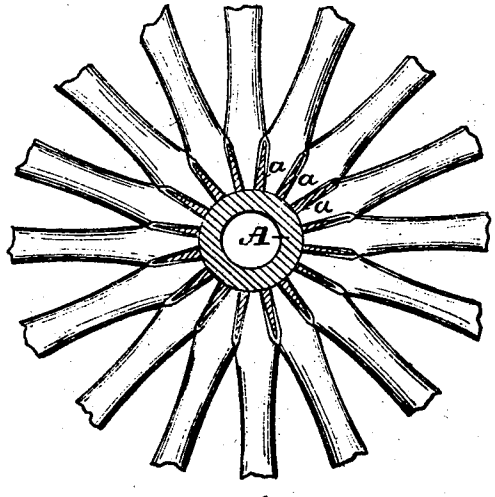
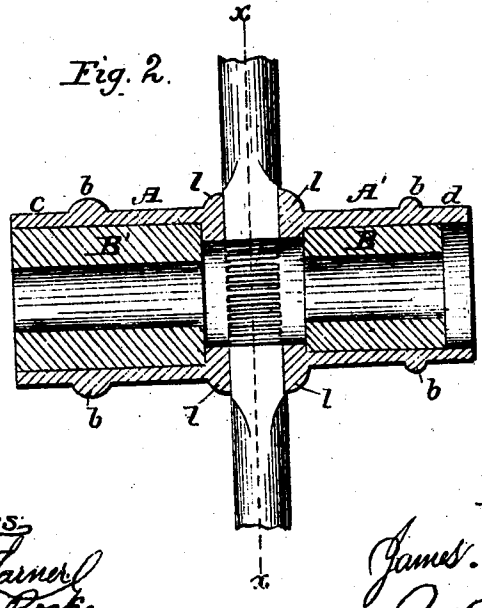


Fig. 2.



Witnesses.

Phil. F. Larner

Adolphe Rocke

Inventor:

James O'Connor

by Geo. W. Rockwell

Atty.

United States Patent Office.

JAMES O'CONNOR, OF JACKSON, MISSOURI.

Letters Patent No. 96,028, *dated October* 19, 1869.

IMPROVED CARRIAGE-HUB SHELL.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JAMES O'CONNOR, of Jackson, in the county of Cape Girardeau, and State of Missouri, have invented a new and useful Improvement in Carriage-Hubs; and I do hereby declare the following to be a full, clear, and exact description of the same, sufficient to enable others skilled in the art to which my invention appertains, to make and use the same, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a transverse section, on the line *z z*, fig. 2, and

Figure 2 is a longitudinal central section.

My invention is an improved carriage-hub, consisting of a metallic shell.

This hub is designed to obviate the very proper objections raised to metallic hubs as hitherto constructed, owing to the difficulty of "truing" the wheel when the axle-box is made solid therewith, or held to place by set-screws.

The invention consists in the construction of parts, as hereinafter described and claimed.

My improvements will be fully understood by reference to the accompanying drawings, considered in connection with the following detailed description.

In the drawings—

A A′ is a shell, made of malleable iron, and cast with a central annular series of partitions or projections, *a*, forming recesses to receive the spokes.

The shell A A′ is strengthened by inwardly-projecting flanges, *e e*, at the sides of the spoke-recesses. These flanges also prevent the blocks B B′ from being forced in too far.

The part A is made of larger diameter than the part A′.

b b are raised rounded ridges or beads formed on the shell A A′, near the extremities thereof, and extending entirely around. The object of these beads is to give the shell the appearance of the ordinary hub.

The surfaces *c d*, outside the beads *b b*, can be plated to represent the bands usually applied to hubs, while the remainder of the exterior of the shell can be painted as desired.

B B′ are wooden blocks, pressed tightly into the shell A A′, from the opposite ends, by lever-power. These blocks have central openings, forming a socket, in which the axle-box is set and wedged tightly, and true to the rim or tread of the wheel.

The partitions *a*, which separate the spoke-recesses, are not made tapering or wedge-shaped throughout their length, but are of one thickness for about half their length, and are then made tapering. The ends of the spokes to fit the recesses between these partitions, are, therefore, made of a double-wedge shape. By this construction, the inner ends of the spoke-recesses being open, better facilities are afforded for tightening the spokes, and a more finished appearance is given to the wheel, by the contact of the spokes at the hub.

By making the inner ends of the spokes of the form described, they are not so liable to become loose as when made with a regular and single taper.

The construction of the shell with beads saves the expense of separate bands. The blocks pressed into the shell allow the employment of the common axle-box, which can be wedged tightly therein, and truly to the rim or tread of the wheel, so that the latter does not wabble, or run zigzag, as it certainly will when the axle-box is solid to the metallic hub, or held in place by set-screws.

By enclosing the blocks in the metallic shell, the axle-box can be wedged more tightly than usual, without splitting the wood.

I am aware that a metallic band or collar, cast with spoke-recesses, has been fitted on to a wooden hub, to prevent the splitting of the same, as in the patent of L. Dorman, dated May 21, 1867; but this I do not claim, as it forms no part of my invention.

The patent of Harvey D. Haraden, dated May 19, 1868, shows a hub somewhat similar to Dorman's, with this difference, that in the former the wooden portion of the hub is made of two parts, connected by a central metallic supporter, while in the latter the wooden part of the hub is in one piece. Haraden's construction will not stand, the strain on the wooden blocks being so great as to loosen and break them away. For this reason, and from the fact that his invention forms no part of mine, I disclaim it. Indeed, one of the objects of my invention is to do away with the objections incident to hubs constructed like Haraden's.

Neither do I claim making the inner ends of the spokes of the form described, as this is shown in F. Nichols's patent, dated September 29, 1868; but having thus described my invention,

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

As a new article of manufacture, a shell, A A′, of metal, formed with flanges *e e*, spoke-recesses, and the beads *b b*, when made substantially as herein shown and described.

To the above I have signed my name, this 31st day of May, 1869.

JAMES O'CONNOR.

Witnesses:

NATHAN C. HARRISON,
JAMES F. EDWARDS.