

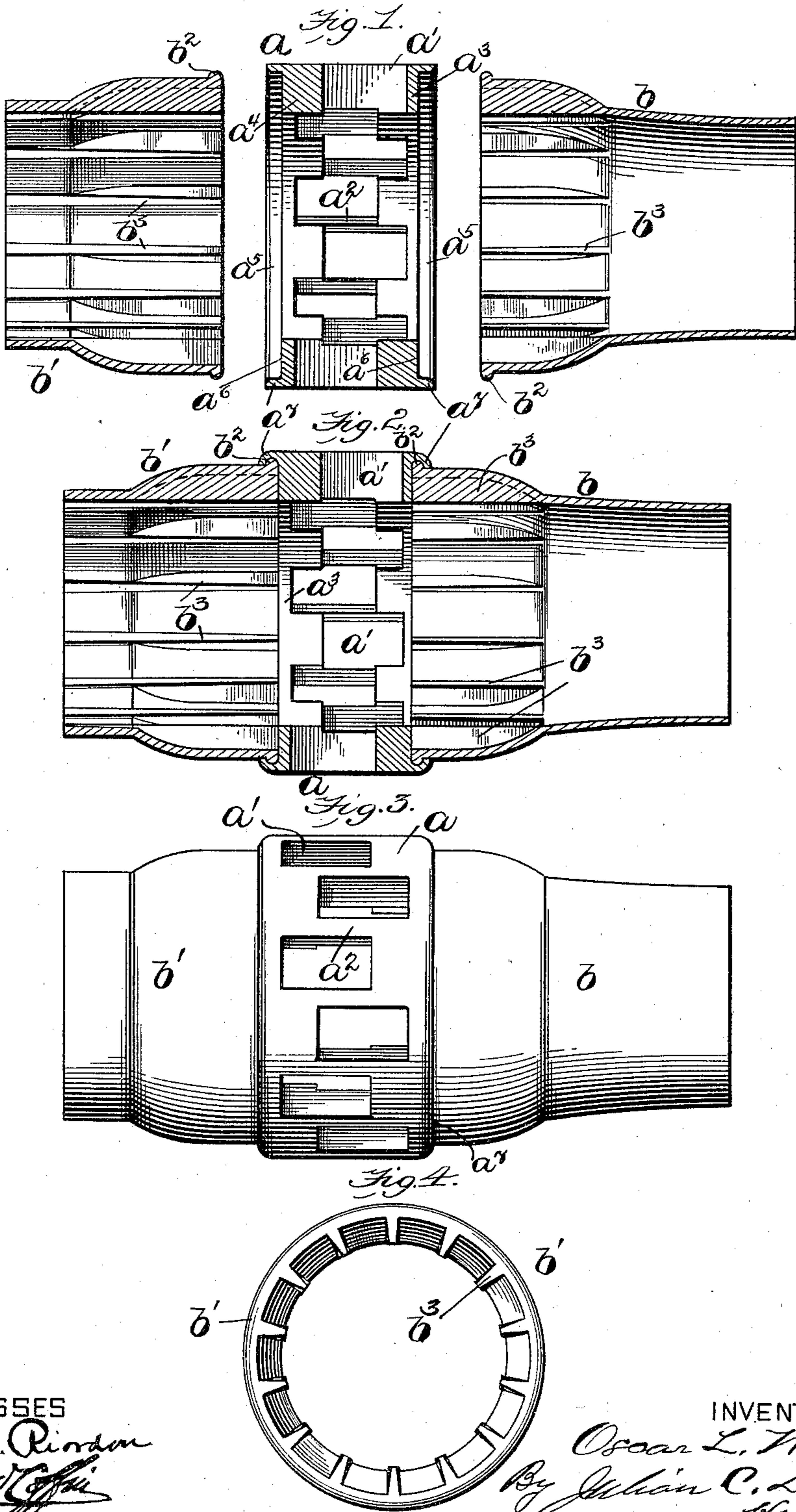
No. 610,112.

Patented Aug. 30, 1898.

O. L. WARNER.  
METALLIC HUB CASING.

(Application filed May 4, 1898.)

(No Model.)



WITNESSES  
Chas. E. Rindon  
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# UNITED STATES PATENT OFFICE.

OSCAR L. WARNER, OF NAUGATUCK, CONNECTICUT.

## METALLIC HUB-CASING.

SPECIFICATION forming part of Letters Patent No. 610,112, dated August 30, 1898.

Application filed May 4, 1898. Serial No. 679,722. (No model.)

*To all whom it may concern:*

Be it known that I, OSCAR L. WARNER, a citizen of the United States, residing at Naugatuck, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Metallic Hub-Casings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to vehicle-hubs; and the main object is to provide an improved sectional construction of metallic hub-casing whereby greater convenience in manufacture and more effective assemblage of parts may be attained and interchangeability of parts made possible, while at the same time increased strength results in the completed structure and the conventional external appearance is retained.

With this end in view the invention consists in certain novel features of construction and combinations of parts recited in the appended claims and a specific form of embodiment of which is described hereinafter with reference to the accompanying drawings, wherein—

Figure 1 represents the three sections of which the hub-casing is composed in longitudinal section as they appear before being united. Fig. 2 represents the completed hub-casing in longitudinal section. Fig. 3 represents the completed hub-casing in side elevation, and Fig. 4 represents one of the end sections or shells in end elevation.

The middle section of the hub-casing is in the form of a comparatively thick band  $a$ , through the sides of which mortises  $a'$  are made in an encircling staggered series, said mortises being of the usual rectangular shape and their side and end walls being parallel, so that bars  $a^2$ , tapered in cross-section, are formed between the mortises. By reason of the staggered arrangement of the mortises one end wall of each is comparatively thin, as shown at  $a^3$ , whereas at the opposite end there is a considerable thickness of metal, as shown at  $a^4$ . The band is circularly recessed in opposite sides, as shown at  $a^5$ , so as to provide inner flat surfaces or shoulders  $a^6$ , with overhanging flanges  $a^7$ . The other two sec-

tions of the hub-casing are in the form of sleeve-like shells  $b$  and  $b'$ , each having a substantially cylindrical outer portion and a bell-like inner portion, with an outstanding bead or flange  $b^2$  around the base and a series of longitudinal ribs  $b^3$  inside, with edges practically flush with the inner surfaces of the substantially cylindrical outer portions of the shells.

In assembling the sections of the hub-casing the bases of the shells  $b$  and  $b'$  are placed against the shoulders  $a^6$ , respectively, in the opposite sides of the band, and the beads or flanges  $b^2$  fit snugly in the recesses. The sides of the latter are then turned over said beads and against the outer surfaces of the shell, thus securely interlocking the three sections, as shown in Fig. 2, while at the same time the conventional external appearance is retained, as seen in Fig. 3.

The hub-casing thus formed has an interior tapering from end to end, the edges of the ribs  $b^3$  being not only practically flush with the inside surfaces of the cylindrical portions of the shells, as heretofore stated, but also flush with the inside surface of the band. The end edges of said ribs fit against the shoulders  $a^6$  and reinforce the thin end walls  $a^3$  of the mortises.

The material preferably employed for the hub-casing is malleable metal, and it will be understood that the hub is completed in the usual way, a wooden core being forced into the tapering bore of the casing and having mortises corresponding with those in the center band of the latter for the reception of the tenons of the spokes.

It will now be seen that the construction above specified, and illustrated in the drawings, is well adapted to fulfil the objects primarily stated.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A metallic hub-casing comprising end shells having well-defined outstanding flanges or beads at their inner ends or bases, and a central band having recessed opposite sides receiving the flanged ends of said shells, the sides of the recesses being bent over the said flanges or beads and against the body portions of the shells, and the exterior surface

of the band practically merging into the exterior surfaces of the shells.

2. A vehicle-hub comprising a central band comparatively thick and formed with an encircling staggered series of mortises, one end  
5 wall of each mortise being comparatively thin and the opposite sides of the band being recessed, and shells having flanged ends or bases fitting in the recesses and interlocked with  
10 the sides thereof, said shells having longitudinally-extending reinforcing-ribs whose inner ends abut the bottoms of the recesses in the central band.

3. A vehicle-hub comprising a central band comparatively thick and formed with an encircling staggered series of mortises, one end

wall of each mortise being comparatively thin and the opposite sides of the band being recessed, and shells having flanged ends or bases fitting in the recesses and interlocked with  
20 the sides thereof, said shells having longitudinally-extending reinforcing-ribs whose inner ends abut the bottoms of the recesses in the central band, and whose longitudinal edges are flush with the interior surface of  
25 the band.

In testimony whereof I affix my signature in presence of two witnesses.

OSCAR L. WARNER.

Witnesses:

EMIL MANNWEILER,  
L. D. WARNER.