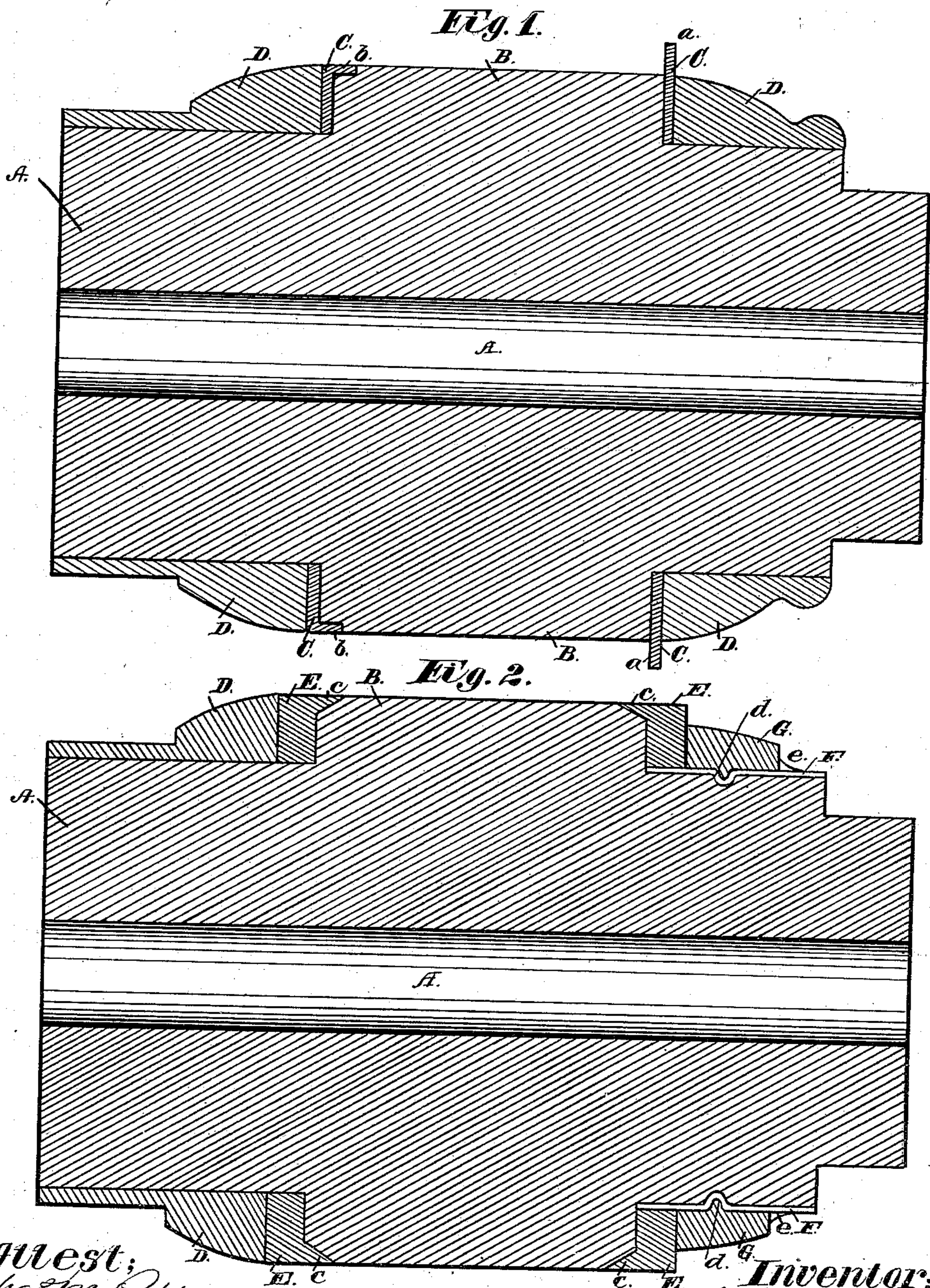


C. H. GUARD.
Hub.

No. 235,630.

Patented Dec. 21, 1880.



Attest;
Chas. M. Beck
P. H. Guisekel

Inventor;
Chauncey H. Guard
by his Allys
Peck & Ritchie

UNITED STATES PATENT OFFICE.

CHAUNCEY H. GUARD, OF DAYTON, OHIO.

HUB.

SPECIFICATION forming part of Letters Patent No. 235,630, dated December 21, 1880.

Application filed April 19, 1879.

To all whom it may concern:

Be it known that I, CHAUNCEY H. GUARD, of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Vehicle-Hubs; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention has for its object an improvement in wooden hubs for vehicles.

This improved hub consists, essentially, of a wooden core or body with an integral raised central portion, to be mortised for the reception of the spoke-tenons. Against the end of the raised portion and upon the core are fitted strengthening-bands, of metal and vulcanized fiber, which not only prevent the splitting of the hub, but also bind upon the edges of the central portion and securely hold its fibers, so that they cannot rise by swelling under the action of moisture, and thus impair the symmetry and strength of the hub.

The novelty of my invention consists in the construction, combination, and arrangement of the parts of which my improved hub is formed, as will be herein set forth and specifically claimed.

In the accompanying drawings, Figure 1 is an axial section of my improved hub. Fig. 2 is a like view of the same with modifications.

A represents a wooden core, forming the body of the hub, and having its ends turned in a lathe so as to form shoulders, as seen, and leave a central portion, B, raised, into which the spoke-tenons are to be mortised in the usual way.

To strengthen this body and render the hub symmetrical, I first slip upon each end of the hub, up against the raised portion B, rings of sheet metal or soft iron, C, which project up above the surface of the portion B, as seen at a, Fig. 1. I next slip over each end of the hub a ring of vulcanized fiber or prepared paper, D, whose inner end is brought to bear against the metal ring C, as shown. These latter rings are glued, cemented, or otherwise securely fastened to the wood which they em-

brace, and are so shaped as to give symmetry and proper form to the hub. By means of dies or other proper tools I now bend down the projecting ends of the rings upon the portion A, as seen at b, Fig. 1, and force them into the wood, so that the top surfaces of the wood and metal are flush.

The advantages of this construction are threefold:

First, the vulcanized fiber or prepared paper band, in addition to its office as a strengthening-band capable of receiving a high external finish, serves as a stay to hold the metal band in place, and prevents its being crowded off when the spokes are driven in.

Second, the metal band aids the paper in binding the hub to prevent splitting.

Third, the metal band, by being turned down, is made to cover the end fibers of the raised portion B, and so prevents its swelling by moisture, thus rendering the whole neat, compact, and strong.

Instead of making the metal band of soft metal to be turned over upon the wood, as represented in Fig. 1, it may be made somewhat thicker, as at E, Fig. 2, and have a beveled tongue, e, which, when the band is placed up against the shoulder of the portion B, fits over a coincident chamfer upon the edge of said portion B. This band is held from displacement by the paper band D, as in the former case, and the beveled tongue performs the office of the turned-over band C.

Having thus described my invention, I claim as follows:

In a vehicle-hub, the combination of an inner strengthening metal band and an outer retaining finishing-paper or vulcanized fiber band, substantially as and for the purpose specified.

Witness my hand this 6th day of March, A. D. 1879.

CHAUNCEY H. GUARD.

Witnesses:

PATRICK H. GUNCKEL,
WM. RITCHIE.