

No. 673,850.

Patented May 7, 1901.

E. SENDELBACH.

VEHICLE HUB.

(Application filed Sept. 10, 1900.)

(No Model.)

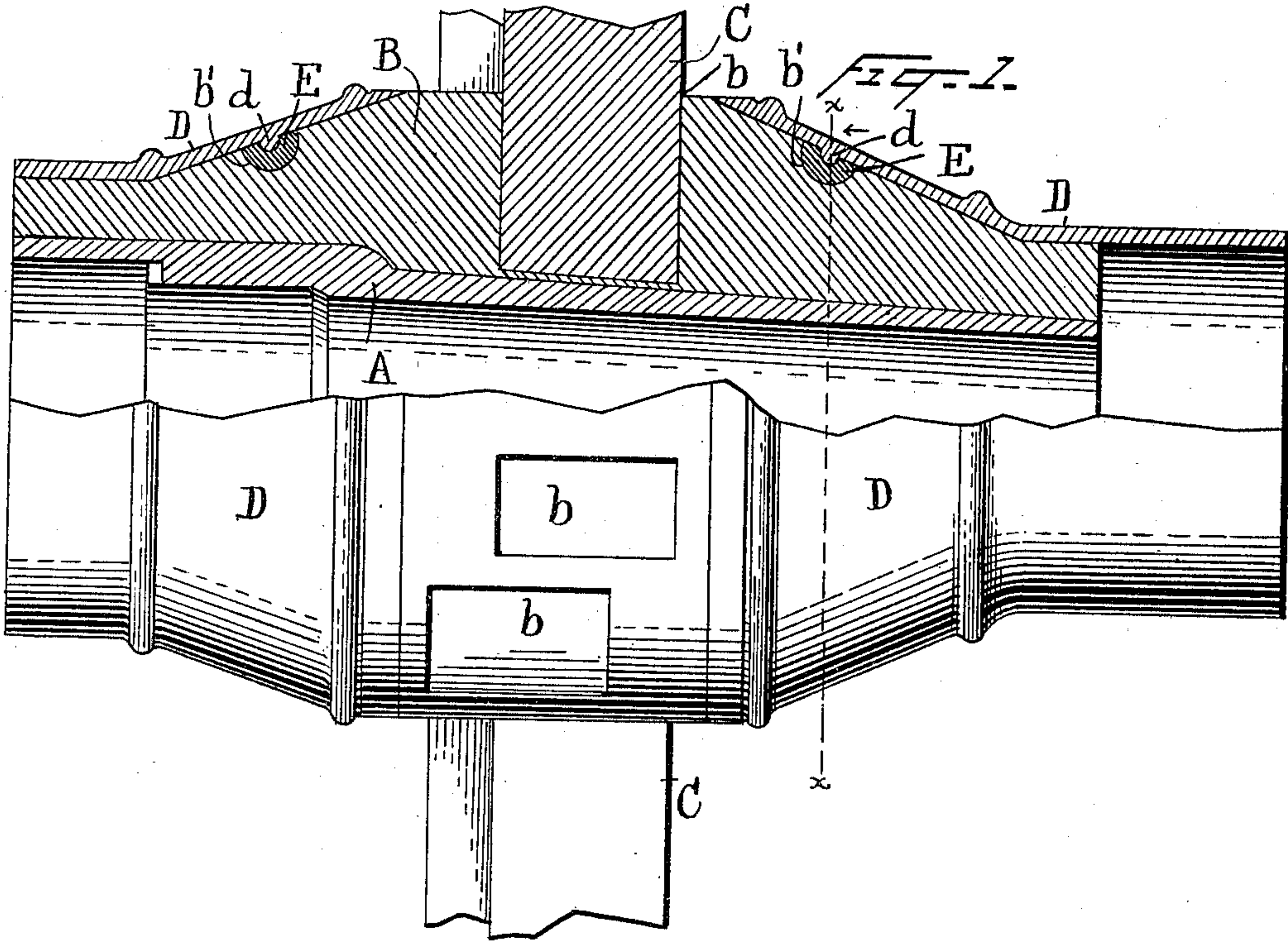


Fig. 2.

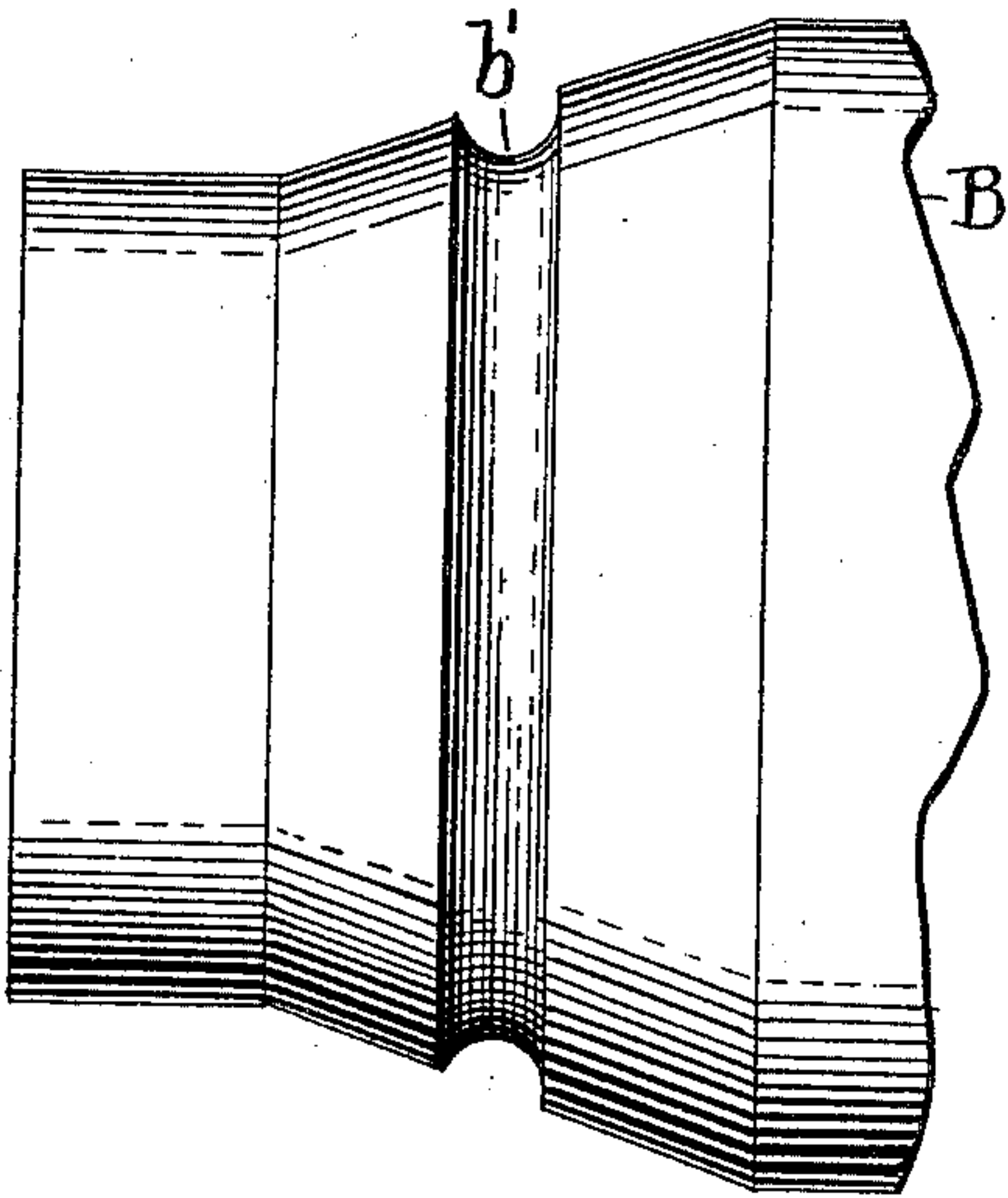
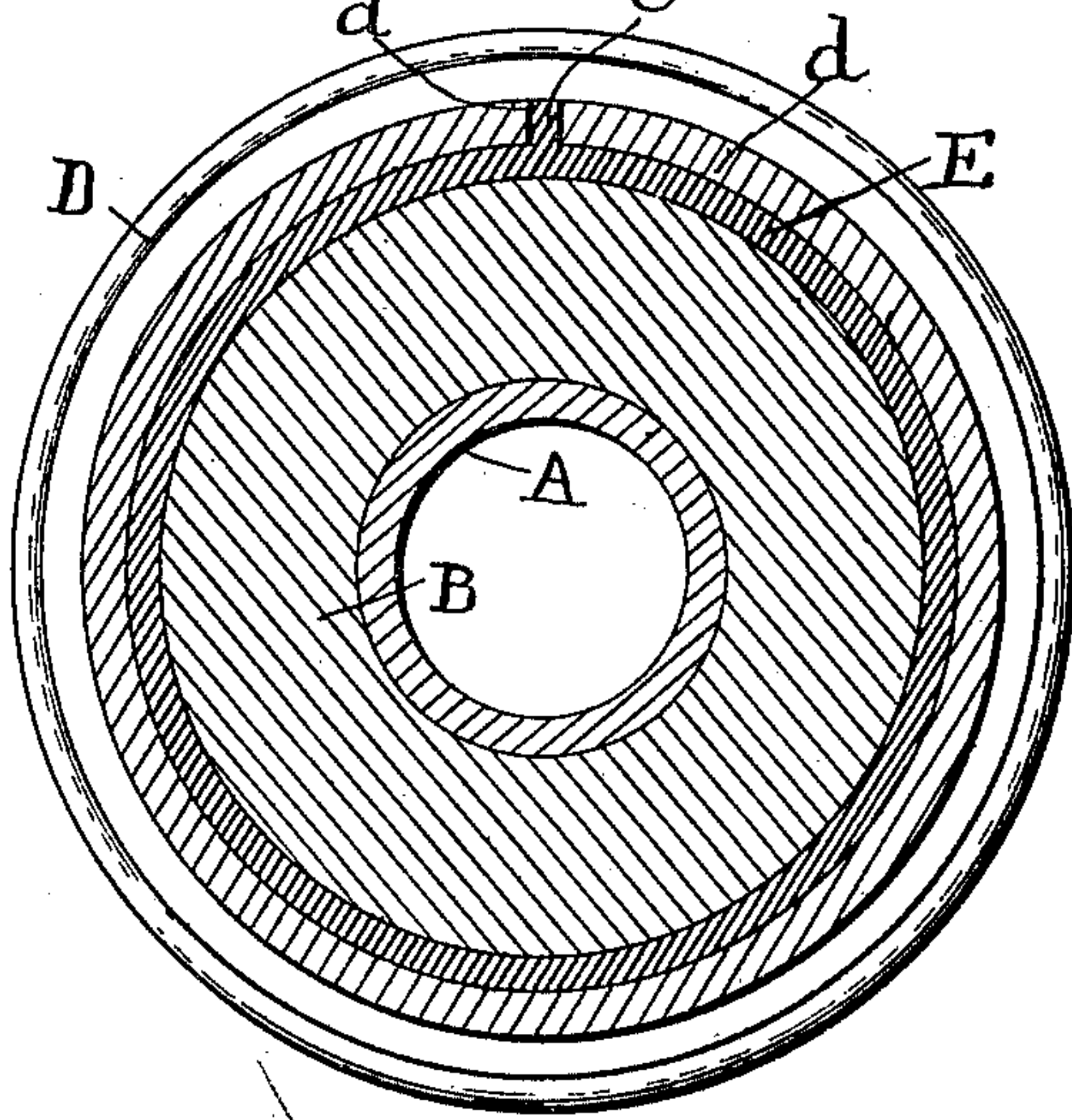


Fig. 3.



Witnesses
Norris A. Clark.
Giles P. Moore.

Inventor
Edward Sendelbach
By Geo. W. Whitham
Attorney

UNITED STATES PATENT OFFICE.

EDWARD SENDELBACH, OF TERRE HAUTE, INDIANA, ASSIGNOR OF ONE-HALF TO CHARLES MINSHALL, OF SAME PLACE.

VEHICLE-HUB.

SPECIFICATION forming part of Letters Patent No. 673,850, dated May 7, 1901.

Application filed September 10, 1900. Serial No. 29,617. (No model.)

To all whom it may concern:

Be it known that I, EDWARD SENDELBACH, a citizen of the United States, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Vehicle-Hubs; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to hubs; and it consists in a wooden hub provided with metallic shells covering its ends and secured to the hub by an improved fastening.

In certain kinds of vehicles the trade insists on having a hub which retains the shape of the old wooden hub, but has its ends covered with metallic shells to prevent checking of the wood, leaving the central portion of the wooden hub exposed where the spokes are driven in, so as to afford a wood cushion at the joint. Heretofore this style of hub has given poor satisfaction, especially in hot climates, for the reason that there was no way of permanently holding the shells on the hub. Screws and nails would work loose and come out. Moreover, their heads could not be concealed satisfactorily with paint, but made obvious and objectionable breaks in the smooth surface. Compressing the shell into the hub also proved a failure. My invention overcomes these difficulties by affording a secure fastening for the shell which will not work loose, requires only a single small opening in the shell, and when completed is entirely concealed. Briefly stated, I fasten on each of the shells in the following manner: An annular groove is turned in the external surface of the tapering end of the hub. The tapering shell has an internal annular rib, smaller than the groove and arranged at such a point on the shell that when the latter is slipped upon the hub the rib passes over the outer edge of the groove and comes to rest concentric with the groove, when the shell is pressed on tightly. The groove is then filled with molten metal poured through a small

hole in the shell. When the metal cools, the rib lies embedded in it, and the shell is firmly locked to the hub. Furthermore, the metal adheres to the inside of the shell and practically forms a large rib engaging with the groove, so that the shell cannot come off even under the severest climatic conditions.

In the drawings, Figure 1 is a side elevation, partly in longitudinal section, of a hub embodying my invention. Fig. 2 is a view of one end of the hub with the shell removed. Fig. 3 is a cross-section of Fig. 1 on the line *xx*.

The hub may have the usual box A, surrounded by the wooden body or hub proper, B, containing mortises *b* for the spokes C. The wooden portion B has tapering ends, which are covered by the frusto-conical metallic shells D. In the tapering surface of each end of the hub is an external annular groove *b'*, the outer edge of which is naturally of smaller diameter than the inner edge, owing to the fact that it is made in a tapering or conical object. Each shell D has an internal annular rib *d*, the inside diameter of which is greater than the diameter of the outer edge of the groove. When the shell is pressed tightly on the hub, the rib passes freely over the groove and stands concentric with it, as clearly shown in Fig. 1. A small hole is bored through the shell into the groove, and molten metal E is then poured in through this hole until the groove is full and the rib is completely surrounded. This locks the shell firmly to the hub by a concealed fastening, the only visible indication of which is the small sprue *e*, filling the hole *d'*. This is easily covered with paint when the hub is finished.

I am aware that it has been proposed to secure bands to hubs by pouring molten metal into a groove adjacent to one edge of the band or through a hole in the band into a cavity in the hub; but in both cases there is no internal projection or rib on the band with which the metal in the groove or cavity interlocks, as set forth in the foregoing description of my invention and expressly mentioned in the following claims.

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

1. The combination with a grooved hub, of

a shell thereon provided with a rib concentric with said groove, and metal filling said groove and surrounding the rib.

- 5 2. The combination with a hub having one or more tapering ends provided with an external annular groove, of a tapering shell having an internal annular rib adapted to pass freely over said groove, and metal filling said groove and surrounding said rib.
- 10 3. The combination with a hub having an

external groove, of a shell having an internal projection, and metal filling said groove and surrounding said projection.

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

EDWARD SENDELBACH.

Witnesses:

WILLIAM H. CROOK,
FRANK CRONAN.