

No. 794,372.

PATENTED JULY 11, 1905.

D. J. MAY.
PNEUMATIC TIRE.
APPLICATION FILED JAN. 3, 1905.

2 SHEETS—SHEET 1.

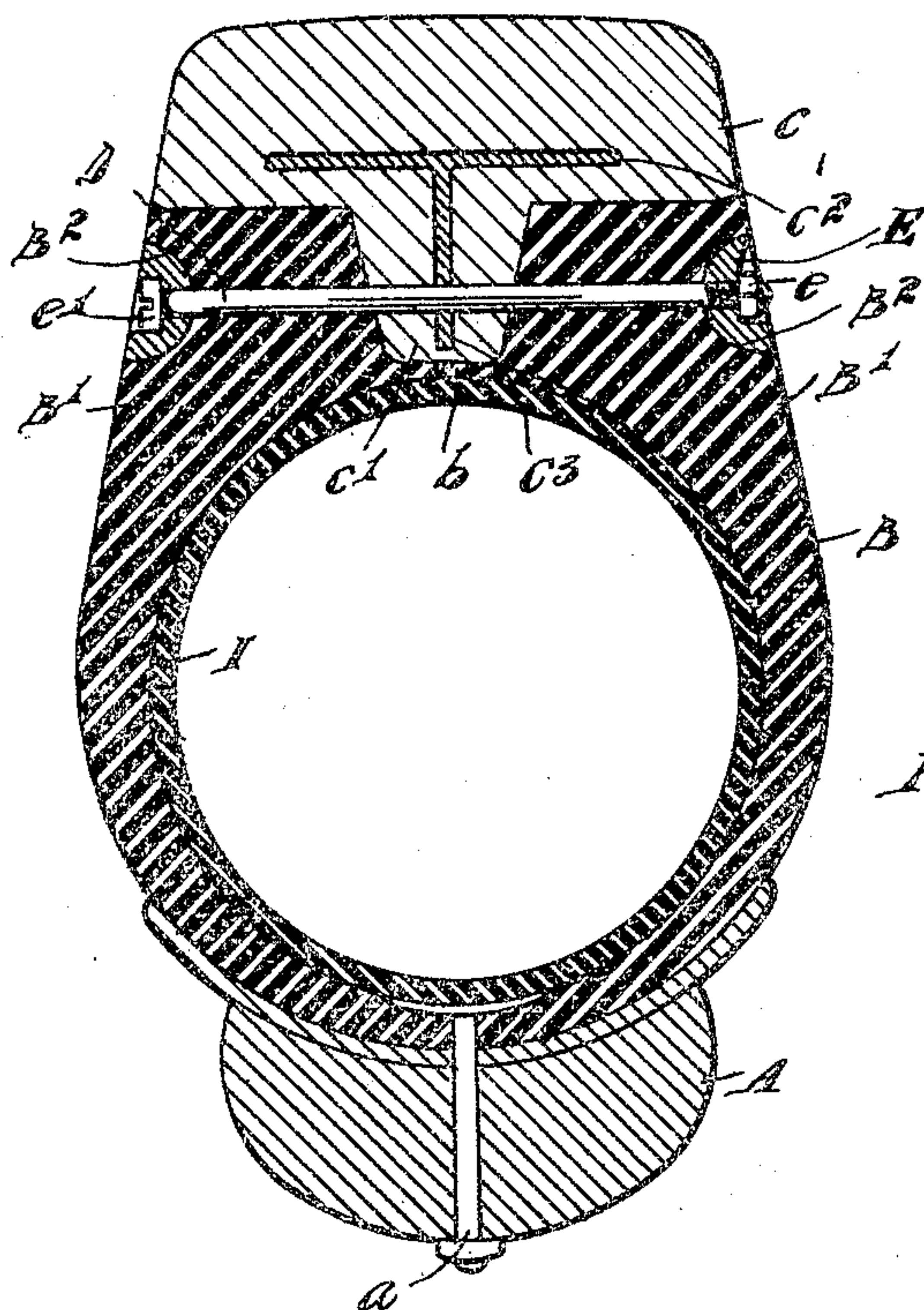


Fig. 1.

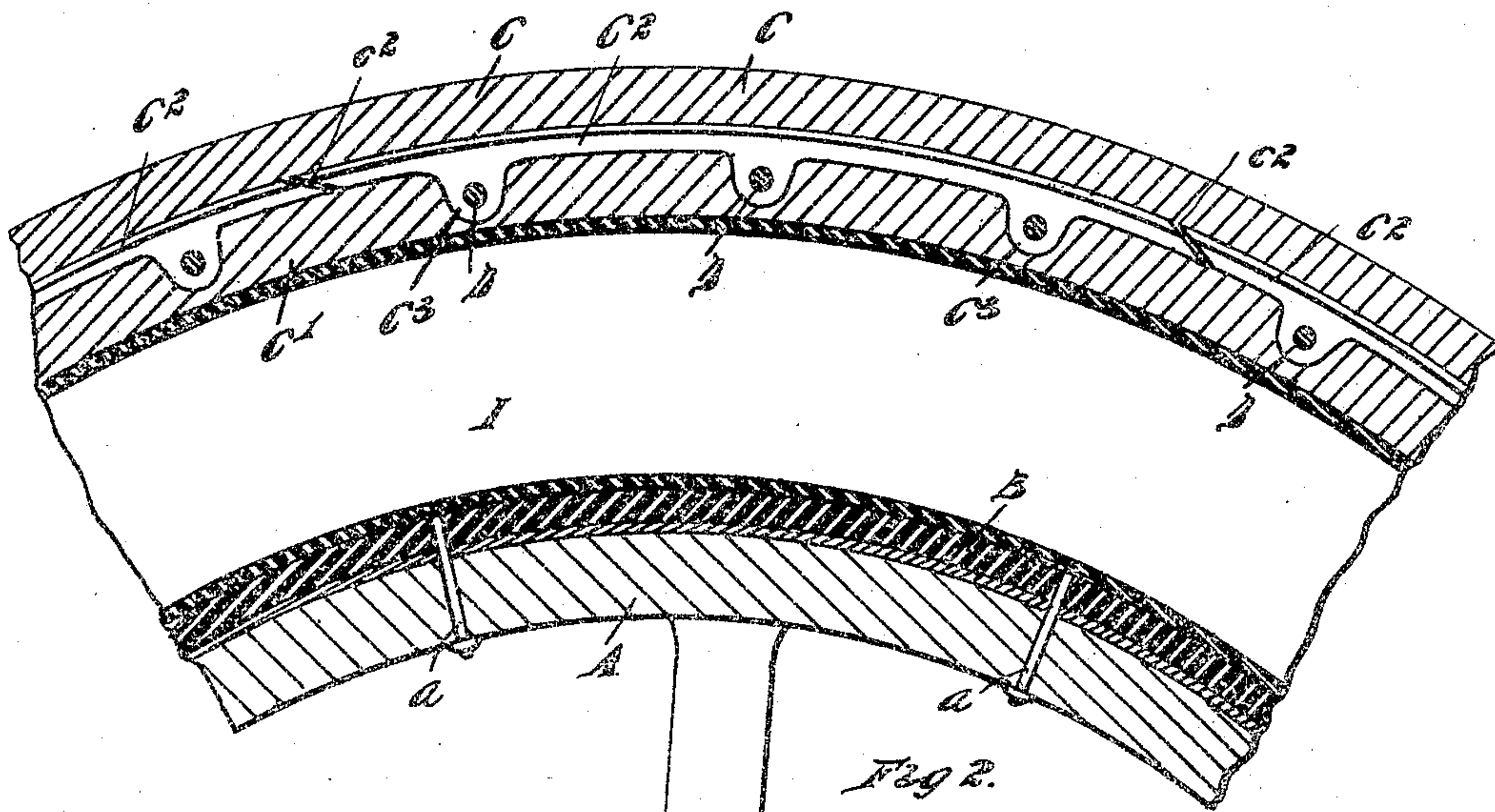


Fig. 2.

WITNESSES

T. F. Massey
C. F. Day

INVENTOR

David J. May

By

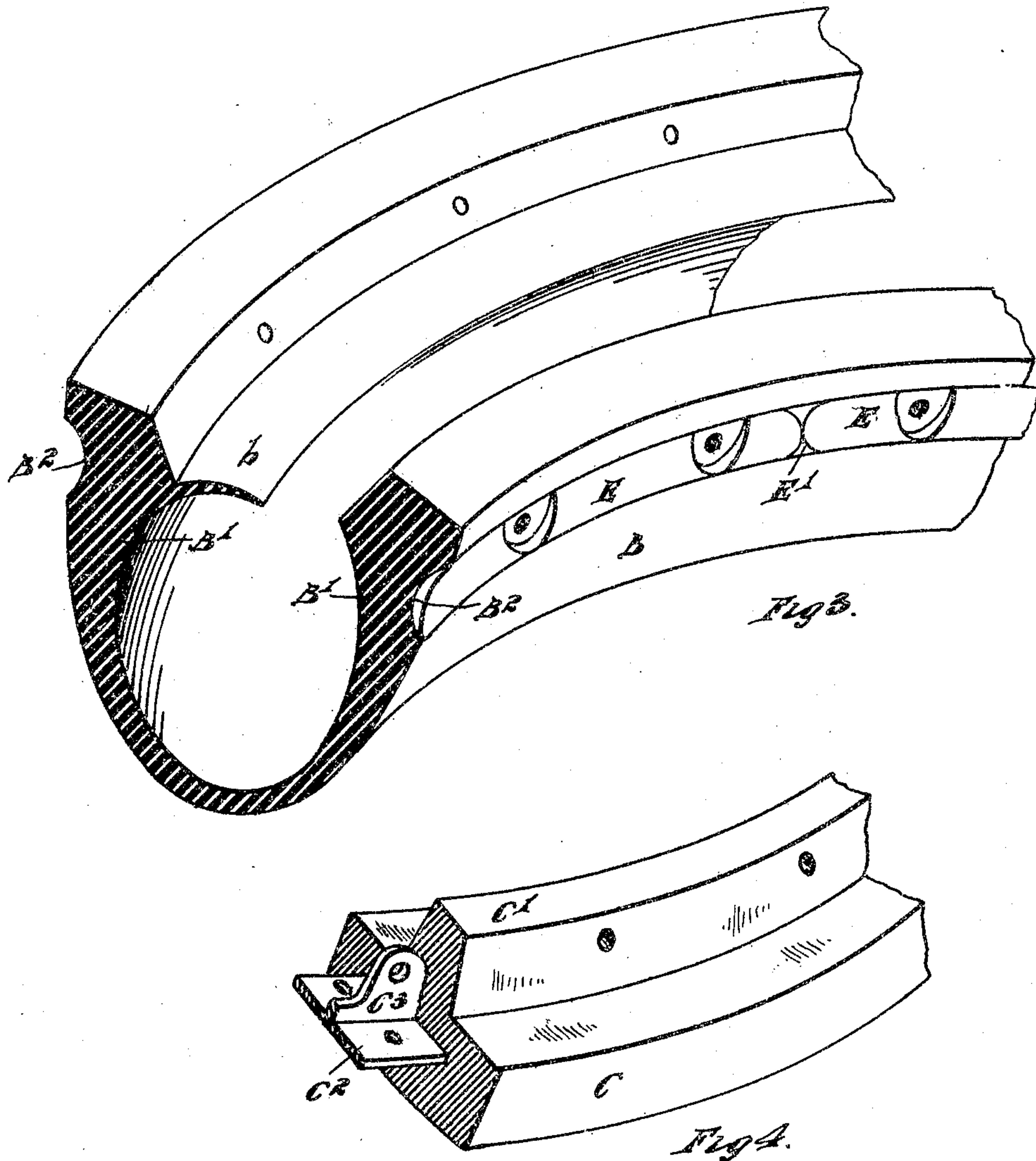
Parker & Buntan Attorneys.

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WITNESSES

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UNITED STATES PATENT OFFICE.

DAVID J. MAY, OF DETROIT, MICHIGAN.

PNEUMATIC TIRE.

SPECIFICATION forming part of Letters Patent No. 794,372, dated July 11, 1905.

Application filed January 3, 1905. Serial No. 239,289.

To all whom it may concern:

Be it known that I, DAVID J. MAY, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Pneumatic Tires; and I 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to pneumatic tires for vehicles; and it consists in the improvements hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a cross-section of the tire embodying my invention secured upon the rim of a wheel. Fig. 2 is a longitudinal section of the same. Fig. 3 is a perspective view of the outer casing, showing the edges separated. Fig. 4 is a perspective view of a part of the detachable band which passes around the periphery of the tire.

A is the wheel-rim.

B is the outer casing, formed to be secured intermediate its edges to the wheel-rim A by the usual bolts *a*. The outer casing B is thickened at its edges, as indicated at B' B', and is provided upon the lower inner corner of one of the thickened edges with an apron *b*. The outer casing B is so formed at its edges that it shall present two flat surfaces at its outer peripheries with a groove intermediate the two flattened surfaces, as shown distinctly in Fig. 1.

I is the inner casing. When adjusted in position, the apron *b* passes under the opposite and adjacent edge of the casing B, and the inner casing I when dilated presses up against this apron.

C is a circular band having an annular projection C' at its center adapted to fit into the groove between the thickened ends of the outer casing B and having two flattened surfaces adapted to lie against the flattened outer peripheries of said outer casing.

C² is an anchor-plate embedded in the band C and having a projection C³ extending down into the projection C' from said band. There

are a series of anchor-plates C² C² extending around the entire band C and preferably having overlapping joints *c*² between them.

B² B² are annular grooves extending around the sides of the outer casing B near the periphery of said casing.

E is a plate fitting into a groove B². There is a series of short plates E extending completely around each of the grooves B² and filling the same and forming joints, as indicated at E' in Fig. 3.

D is a bolt extending through holes in opposite plates E, and through the thickened edges of the outer casing B, and through the projection C' from the band C, and through an aperture in the projection C³ from the anchor-plate C².

e is a nut upon the bolt D, and *e'* is a head upon said bolt.

There are two or more bolts D on each of the plates E, and these bolts serve to bind the outer edges of the casing B together and hold the band C firmly in place.

The method of adjusting the above tire in position is obvious from its construction. The outer casing is secured to the rim of the wheel in the usual way, the inner casing placed within it, the outer edges of the outer casing brought together, the apron *b* extending under the opposite edges to that from which it projects and including between said edges the projection C' from the band C, the band coming upon the outer periphery of the outer casing B, the flat surfaces resting upon the flat periphery of the outer edges of the casing B. The edges of the casing B are then secured together by the bolt D, securing all the parts of the tire together.

To repair the tire, a number of bolts D may be taken out and the edges of the outer casing forced apart to withdraw the inner casing or to get at the same for repairing it. The bolts may then be replaced. Should the band C become worn it may be replaced without renewing the rest of the tire.

What I claim is—

1. In a pneumatic tire, an outer casing adapted to open and close at its outer periphery, an apron projecting from one face of the open portion and adapted to overlap and engage un-

der the edge of the opposite facing, a band extending around the outer periphery of the tire and across the open face thereof, and having depending from the central portion of its inner side a longitudinally-extending part adapted to engage in a recessed portion of the outer casing between the adjacent edges, and means extending transversely through said casing and said depending portion of the band and parallel to the wearing-surface of the band for holding the edges closed against said depending portion, and for causing a close engagement of said band against the casing, substantially as described.

2. In a pneumatic tire, an outer casing split longitudinally along its outer periphery, the adjacent edges thereof being thickened and cut away to form a trough, a band passing around the outer periphery and adapted to fill the space formed by said trough, and means extending transversely through said casing and said band for holding said edges in a closed position, substantially as described.

3. In a pneumatic tire, an outer casing adapted to open and close at its outer periphery and provided with thickened adjacent edges, there

being, when said edges are brought into proximity, a trough formed thereby and running longitudinally of said casing, a band passing outside of said tire and longitudinally thereof resting in said trough and against said thickened edges, and means extending transversely through said casing and said band for holding the same in position and for bringing said edges together, substantially as described.

4. In a pneumatic tire, an outer casing adapted to open and close at its outer periphery, the casing being so formed as to leave a groove between its edges in the closed position, and one of said edges having projecting from its face an apron adapted to engage under the opposite edge thereto, a band passing around said casing and provided with a lug extending into said groove and a compressing-bolt extending transversely through said edges and said lug, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

DAVID J. MAY.

Witnesses:

R. A. PARKER,
ELLIOTT J. STODDARD.