No. 752,639. PATENTED FEB. 23, 1904.

S. ADLAM.

CUSHION TIRE.

APPLICATION FILED MAY 1, 1903.

NO MODEL.

Fig. 1

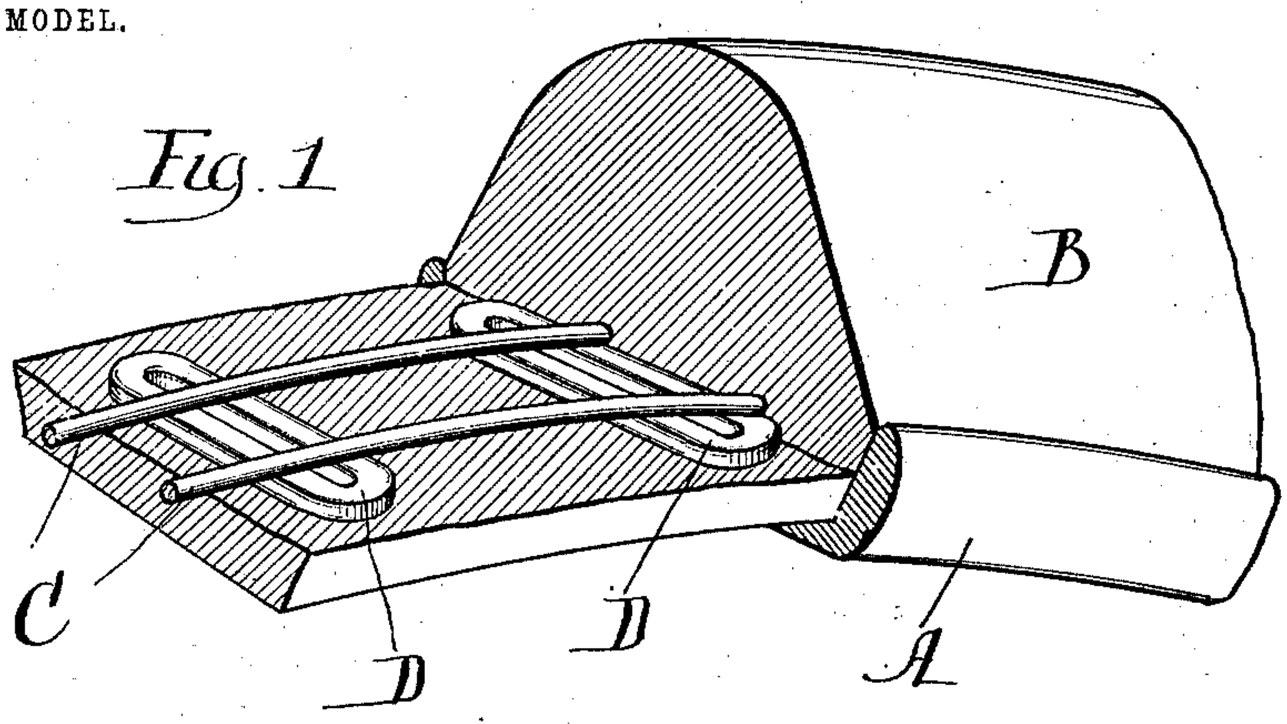


Fig. 2

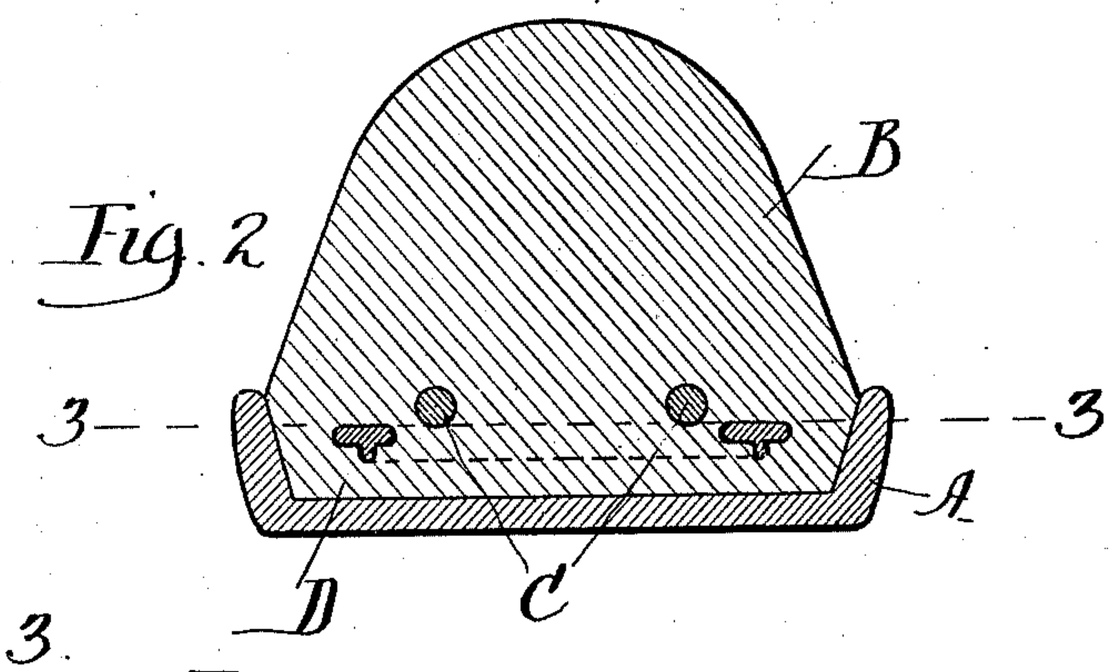


Fig. 3.

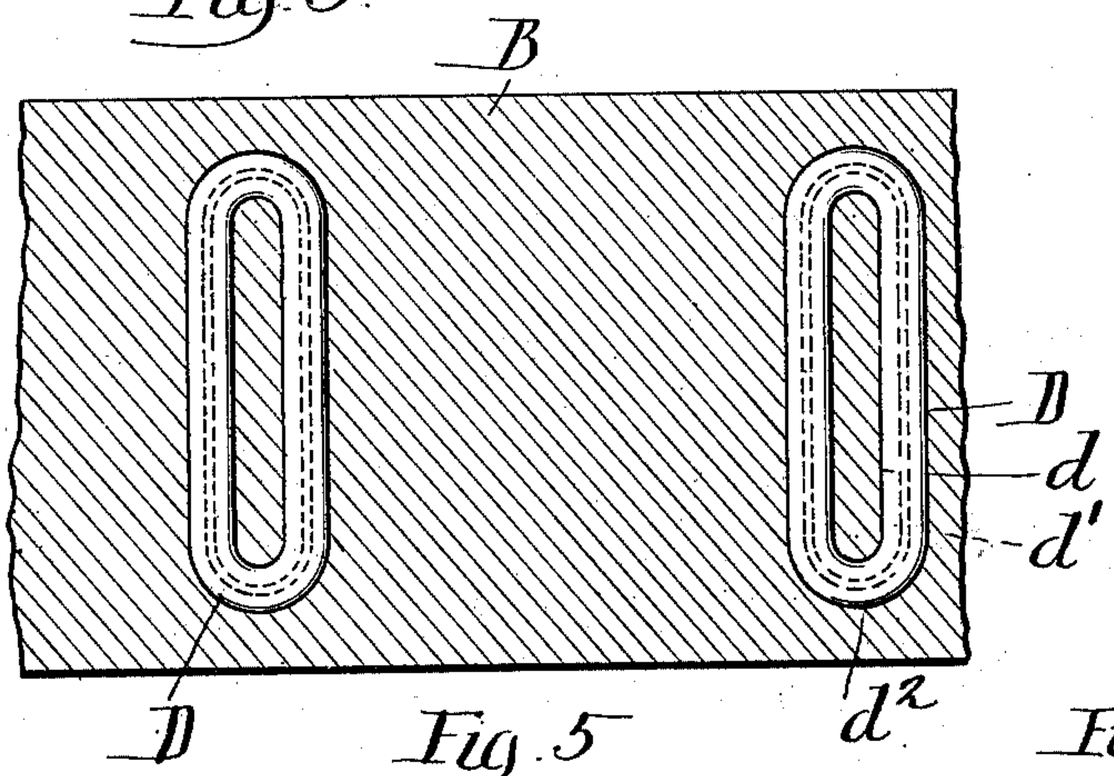


Fig. 5

Fig. 4.

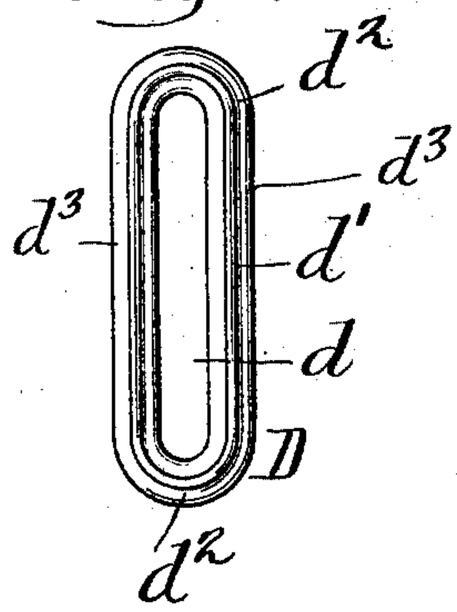
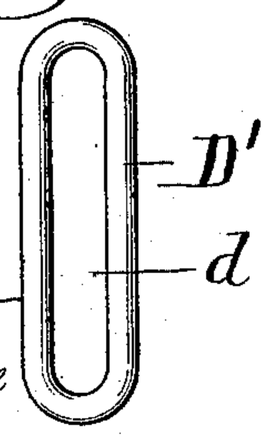
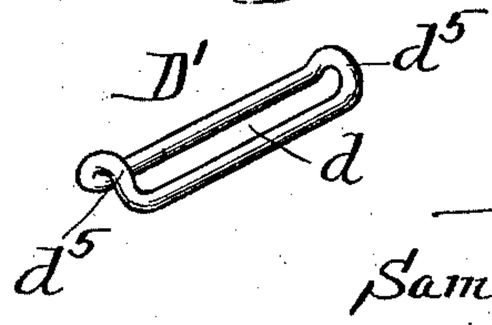


Fig. 6.





Witnesses:
Harry L. Clapp
Lillian Prentice

Inventor:
Samuel Adlam
By Fred Gerlach
his Attorney.

No. 752,639. Patented February 23, 1904.

UNITED STATES PATENT OFFICE.

SAMUEL ADLAM, OF NEW YORK, N. Y.

CUSHION-TIRE.

SPECIFICATION forming part of Letters Patent No. 752,639, dated February 23, 1904.

Application filed May 1, 1903. Serial No. 155,123. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL ADLAM, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Cushion-Tires, of which the following is a full, clear, and exact description.

The invention relates to vehicle-tires having an elastic strip or body, and more particularly to means for securing the retaining band or bands in the elastic body.

Heretofore various means have been proposed for supporting the retaining-band and securing the same against movement to prevent abrasion and cutting of the elastic strip by the metallic retaining-band.

The invention designs to overcome the defects resulting from the use of the prior forms of cross-supports and to provide a cross-support for the retaining-band which is simple, has sufficient rigidity to avoid all danger of cutting of the elastic body, and does not materially affect the resiliency of the elastic body.

The invention consists in the novel features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings, Figure 1 is a perspective of a portion of a tire embodying one form of the invention, a portion of the elastic body being broken away to more clearly illustrate the cross-supports for the retaining-bands. Fig. 2 is a cross-section. Fig. 3 is a section on line 3 3 of Fig. 2. Fig. 4 is an inverted plan of one of the cross-supports. Figs. 5 and 6 are details of modified forms of cross-supports.

A denotes a channeled rim, wherein an elastic strip or body B of rubber or other suitable material is seated. Retaining-bands C extend longitudinally through bores or openings formed in the elastic body and secure the elastic body in the channel of the rim. One or more retaining-bands may be employed, according to the width of the tire, and the rim and elastic may be of any suitable and well-known form. Cross-supports D are embedded in the elastic body, are separated from and independent of each other, extend transversely across the elastic body substantially parallel to the base of the elastic body, are independent of the retaining-bands, support the retaining-bands, and secure the bands against movement in the elastic body in such manner that abrasion and cutting of the elastic body is avoided. Each cross-support consists of an elongated band of metal having round ends d^2, arranged near the sides of the elastic strip, straight sides d^3, and a central elongated opening d within the band. A bead or rib d', formed on one of the faces of the cross-support, renders the band more rigid and stout. The form of the cross-support is such that it cannot be twisted as a result of the strains, vibration, and compression whereto the elastic body is subjected in use. The cross-support, being formed of a continuous strip or band of metal, is unusually rigid and sufficiently stout to distribute the pressure of the retaining-bands throughout the base of the elastic strip. The mass of elastic material within the central opening of the cross-support materially aids in retaining the support in assigned positions. The rounded ends d^2 prevent cutting of the side portions of the elastic body by the cross-support. In prior constructions when cross-supports with sharp or rough edges were used the elastic body would be cut thereby and the cross-support would become loose and creep out of the elastic body. By employing independent cross-supports compressibility or resiliency of the tire is not lessened. The form of the cross-support shown in Figs. 1 to 4 can be readily stamped or pressed from sheet metal.

In Fig. 5 a modified form of cross-support D′ is shown, which is formed of a strip of round wire bent to form an elongated band and having the ends of the wire welded or brazed together to form a rigid continuous band.

Fig. 6 shows a modified form having its ends d^5 bent upwardly to laterally secure the bands.

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

1. In a vehicle-tire the combination with a rim having a channel therein, an elastic body and a retaining-band, of a plurality of cross-supports, independent of each other and independent of the retaining-band, and each consisting of an elongated endless band of metal

having its sides extending transversely across the elastic body and beneath the retaining-band.

2. In a vehicle-tire the combination with a rim having a channel therein, an elastic body and a retaining-band, of a plurality of cross-supports, independent of each other and independent of the retaining-band and each consisting of an elongated endless band of metal having its sides extending transversely across the elastic body and beneath the retaining-band, and having round end portions.

3. In a vehicle-tire, the combination with a rim having a channel therein, an elastic body and a retaining-band, of a plurality of cross-supports, independent of each other and independent of the retaining-band, and each consisting of an elongated endless band of metal having a rib formed thereon and having its sides extending transversely across the elastic body and beneath the retaining-band.

SAMUEL ADLAM.

Witnesses:
T. C. BOOTH,
T. RODGERS.