

B. R. BARDER.
VULCANIZER.
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1,044,474.

Patented Nov. 19, 1912.

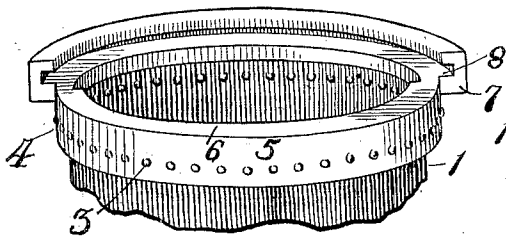


Fig. 1

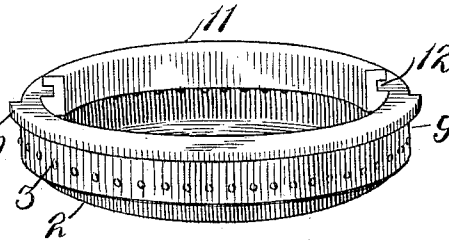


Fig. 2

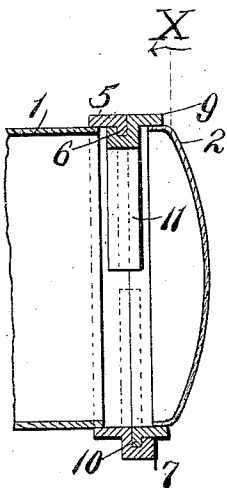


Fig. 3

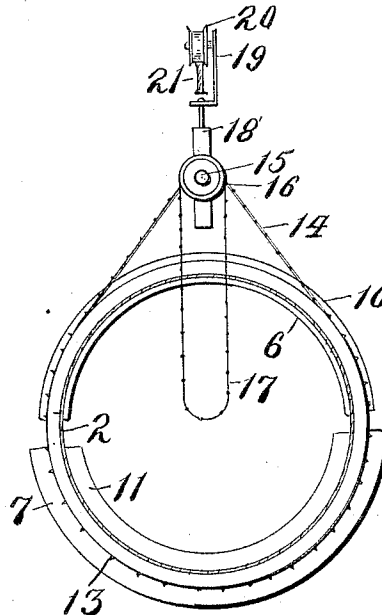


Fig. 4

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VULCANIZER.

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To all whom it may concern:

Be it known that I, BYRON R. BARDER, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented new and useful Improvements in Vulcanizers, of which the following is a specification.

This invention relates to improvements in vulcanizers and especially to the means for holding the removable covers therefor detachably in position.

The object of this invention is to provide both the open end of the vulcanizer and the cover therefor with complementary cooperating interengaging portions to permit the easy and convenient opening and closing of the vulcanizer, to reduce the labor incident to this operation and to reduce the time ordinarily consumed.

With the foregoing and other objects in view, the invention consists in the novel construction, combination and arrangement of parts constituting the invention to be hereinafter specifically described and illustrated in the accompanying drawings which form a part hereof wherein is shown the preferred embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the claims hereunto appended.

In the drawings in which similar reference numerals indicate like parts in the different figures, Figure 1, is a perspective view of the open end of a vulcanizer embodying this invention; Fig. 2, is a similar view of a cover shown in its inverted position to better illustrate the means used to connect it with the vulcanizer; Fig. 3, is a vertical, central, longitudinal, sectional view of a vulcanizer and its cover embodying this invention for temporarily uniting them; and Fig. 4, is a view in front elevation of the end of a vulcanizer approximately in section on line X of Fig. 3, and also showing the mechanism for rotating and supporting the vulcanizer cover.

Referring to the drawings in detail the reference numeral 1 denotes the vulcanizer-body which is provided with one open end and the reference numeral 2 denotes the cover thereof. The open end of the vulcanizer and the cover are each provided with complementary ring-shaped members having parts adapted to interengage to form interlocking means for holding the cover on the

vulcanizer, and these complementary ring-shaped members are each secured respectively to the open end of the vulcanizer and to the cover through the medium of rivets 3 and it may be stated at this point that the ring-shaped members are interchangeable, that is to say, the ring-member shown on the open end of the vulcanizer may be employed on the cover and vice-versa and the cooperating parts will perform their functions approximately equally well.

In the drawings the open end of the vulcanizer is provided with a ring-shaped member 4 preferably inclosing the outer face of the open end of the vulcanizer and it comprises a body-portion 5 having an inwardly-extending lateral flange 6 formed in the arc of a circle concentric with the body 5 and extending circumferentially less than one-half of the inner face of the member 5. The member 5 is also provided on the side opposite to the portion provided with a flange 6 with an outwardly-extending circumferential segmental lug 7 provided with a groove 8 in its inner periphery. This lug 7 extends circumferentially a distance less than one-half of the outer circumference of the member 5 so as to provide slight intervals or spaces between the ends of the lug and the termini of the flange 6.

The cover 2 is provided with a ring-shaped member 9 provided with a laterally-extending flange 10 extending in a circumferential direction a distance less than one-half of the circumference of the outer face of the ring 9 and is approximately of the same formation as the flange 6. The ring-shaped member 9 is also provided with an inwardly-projecting circumferential segmental lug 11 extending circumferentially a distance less than one-half of the circumference of the inner face of the ring 9 and is provided in its outer face with a groove 12 shaped to receive the flange 6 as will later be described. The rings are so fashioned that one of the lateral faces of the flange 6 is in the same transverse plane as one of the side faces of the groove 8 and this is also true of one of the side faces of the flange 10 and one of the side faces of the groove 12.

It will be noted that the flanges 6 and 10 and the segmental lugs 7 and 11 are all fashioned to extend circumferentially distances less than one-half the circumferences of the parts by which they are carried and in order to cause an interlocking engagement

between the ring-shaped members 5 and 9 the cover 2 is inverted and so positioned that the segmental lug 11 thereof is received within the member 5 by passing through the latter's unflanged portion so that the lugs 7 and 11 will be positioned on the same side of the vulcanizer, and with the flange 6 projecting inwardly on the opposite side of the vulcanizer and the flange 10 opposite to the flange 6 and projecting outwardly as shown in Fig. 4. The cover 2 is then given a partial rotation which causes interengagement between the cooperating parts in the rings on the cover and vulcanizer by causing the flange 10 to enter the groove 8 and the flange 6 to enter the groove 12, and after an approximate semi-rotation of the cover the two parts of the vulcanizer are securely interlocked together.

Of course, in practice some form of packing must be employed, but as the nature of the packing for this device forms no portion of the invention, it has not been deemed necessary to show any packing for forming a fluid-tight joint between two members.

In practice, the vulcanizer body 1 will usually be supported in a horizontal position and the cover will be carried to and away from the open end thereof by any suitable mechanism, one form of which is shown in Fig. 4 in which the outer face of the ring-shaped member 9 is provided with a plurality of pins or sprockets 13 to receive a chain 14 which passes over a sprocket-wheel carried by a shaft 15 which bears a hand wheel 16 on which is a hand-chain or cable 17. The shaft 15 is usually mounted in a block 18 supported by a hanger 19 on which is a trolley 20 adapted to run on a track 21.

When being used the cover of the vulcanizer is positioned in front of the vulcanizer in the position shown in Fig. 4 with the complementary interlocking portions of the cover and vulcanizer in the position shown and by operating the chain 17 the cover will be given a partial rotation causing thereby the interlocking engagement hereinbefore described. When the vulcanizer is to be opened the cover is rotated and after the parts have become disengaged the cover is

removed to a point remote from the vulcanizer to afford access to the interior thereof, in doing which the cover is supported by the track 21.

I claim:

1. In a vulcanizer, a body member and a cover member therefor, one rotatable with respect to the other, each of said members being provided with a segmental grooved lug and a segmental flange, the lug of each member being in the same plane throughout, the lug on one member extending outwardly and the flange on the same member extending inwardly, the flange of one member adapted to be received in the grooved lug of the other member when one of the members is rotated.

2. In a vulcanizer, a body member and a rotatable cover member therefor, each of said members being provided with a segmental grooved lug and a segmental flange, the lug of each member being in the same plane throughout, the lugs and flanges on the respective members being reversely arranged whereby the flange of one member adapted to be received in the grooved lug of the other member when the cover member is rotated.

3. In a vulcanizer, a body member and a cover member therefor, one rotatable with respect to the other, each of said members being provided with a segmental grooved lug and a segmental flange, the lug of each member being in the same plane throughout, the lug on one member extending outwardly with the flange on the same member extending inwardly, and the lug on the other member extending inwardly with the flange extending outwardly whereby the flange of one member will be received in the lug of the other member when one of the members is rotated.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

BYRON R. BARDER.

Witnesses:

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A. L. McCLINTOCK.