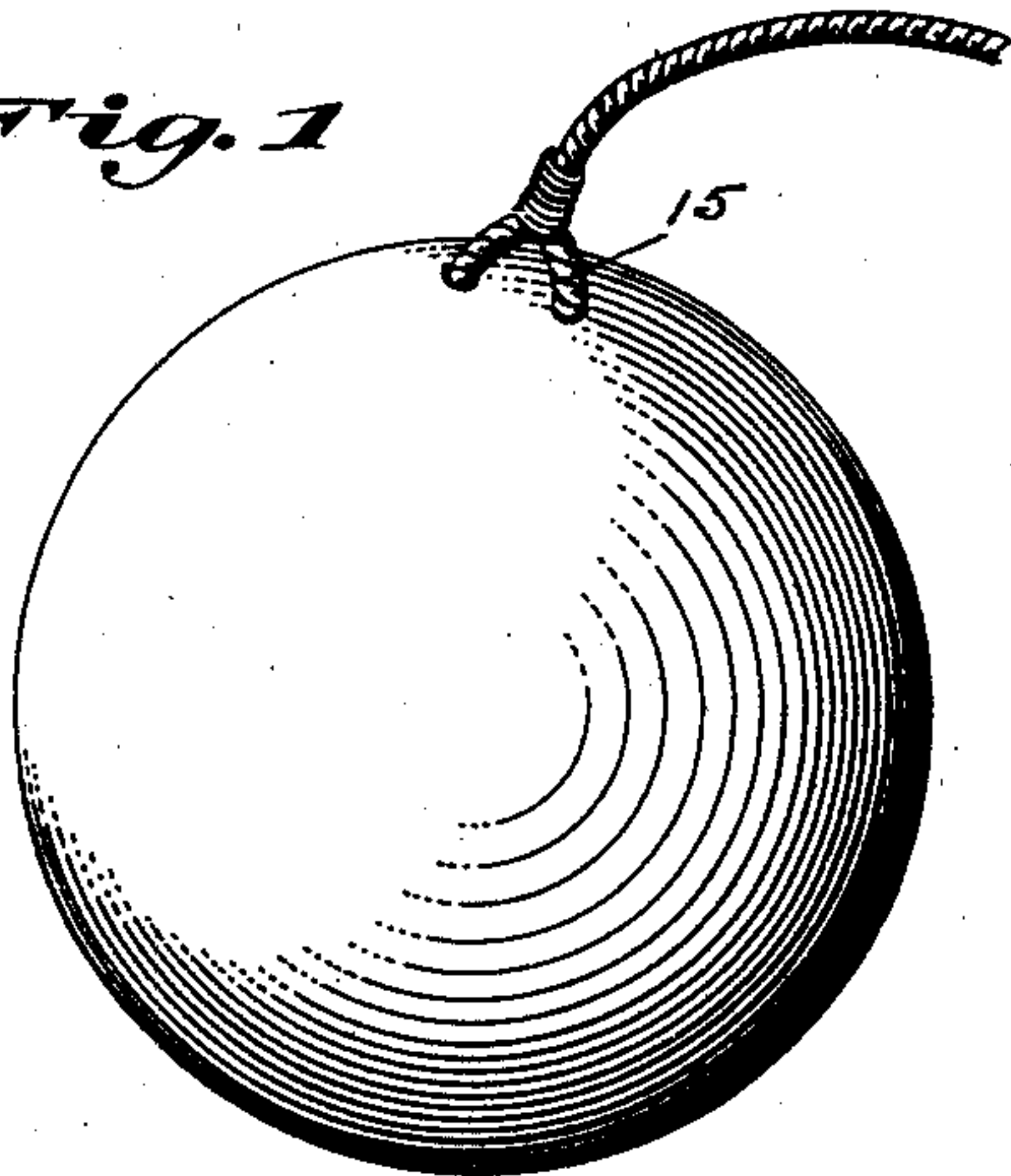


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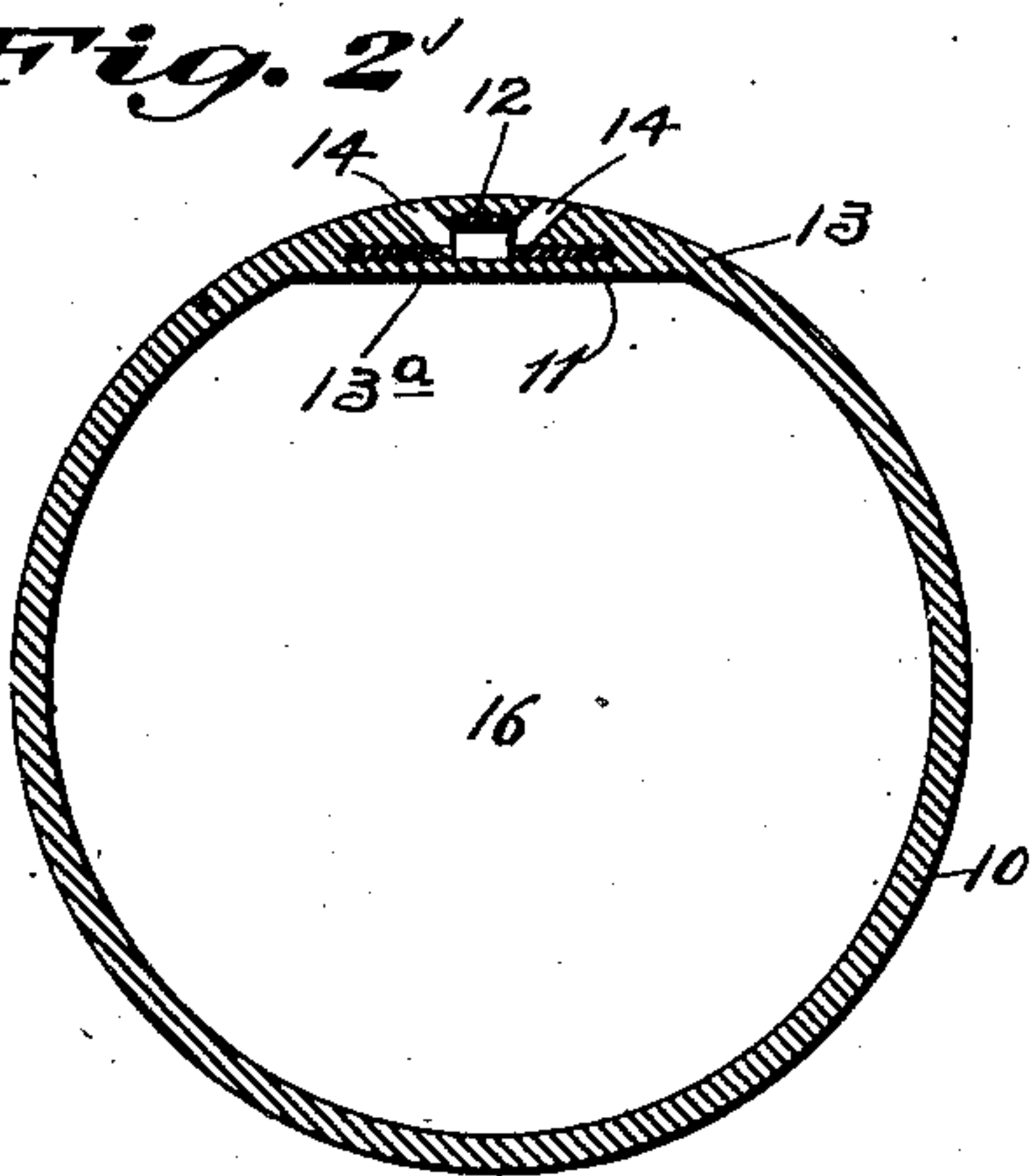
PATENTED SEPT. 11, 1906.

C. R. FLEISCHMAN.  
INFLATED BALL.  
APPLICATION FILED JAN. 9, 1905.

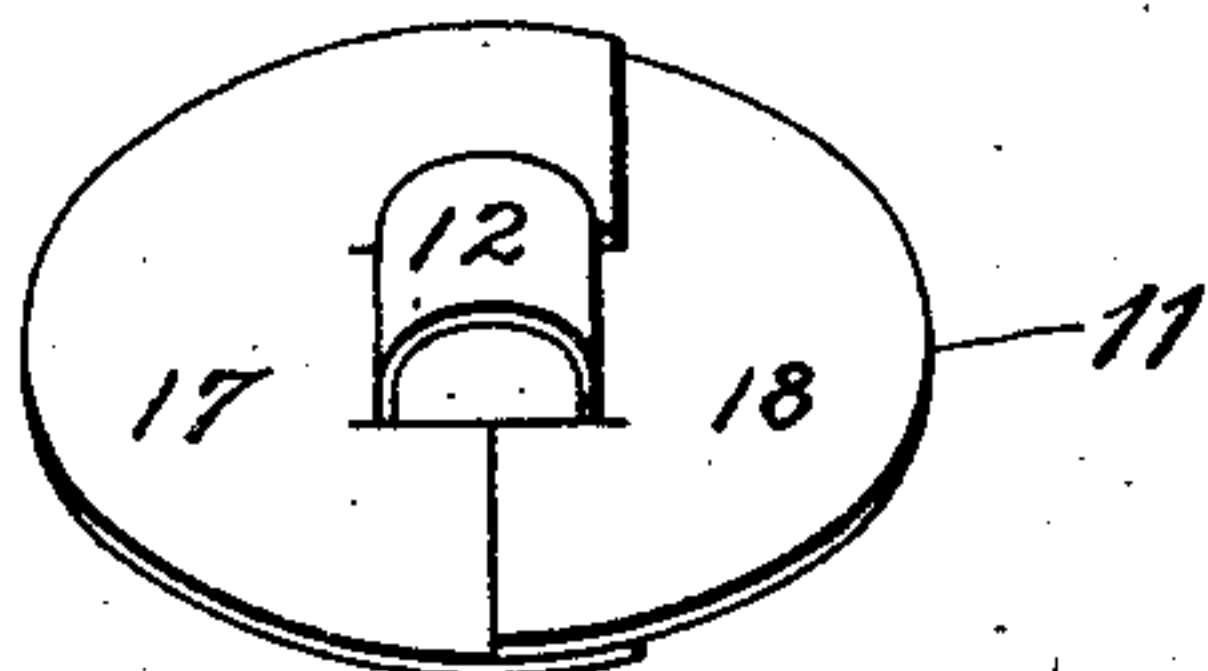
**Fig. 1**



**Fig. 2**



**Fig. 3**



Witnesses

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# UNITED STATES PATENT OFFICE.

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## INFLATED BALL.

No. 830,581.

Specification of Letters Patent.

Patented Sept. 11, 1906.

Application filed January 9, 1905. Serial No. 240,356.

*To all whom it may concern:*

Be it known that I, CHARLES R. FLEISCHMAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Inflated Balls, of which the following is a specification.

This invention relates to improvements in inflated balls, such as are made of soft rubber or other flexible air-tight material, and which are intended to be used for playing games or for other purposes; and it consists in certain peculiarities of the construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The principal object of my invention is to afford means by which a cord may be conveniently attached to an inflated ball in such a manner that the air-chamber of said ball will remain air-tight, an improvement long desired by lawn-tennis players, who heretofore would confine individual practice-playing to a room or space near the wall of a building, simply because the inflated balls that they use are provided with no means for attaching a cord without the air-chamber sustaining a puncture.

Another object of the invention is to so construct the ball that the rubber or wall thereof will be prevented from tearing or yielding under the strain of a speed-ball carried to the end of the cord to which it may be attached.

A further object is to provide means for facilitating the attachment of the cord to the ball and in such a manner that the air-chamber thereof will not be pierced in the operation of attaching the cord.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a view in elevation of an inflated ball embodying my invention and showing a portion of a cord attached thereto. Fig. 2 is a central sectional view of the ball, showing the cord removed, but illustrating the openings therefor and also the retaining-disk used for engagement with the attached end of the cord and also for reinforcing the wall of the ball at and around the point of its wall to which the cord is attached; and Fig. 3 is a detached perspective view of said retaining-disk.

Like numerals of reference refer to corresponding parts throughout the different views of the drawings.

The reference-numeral 10 designates the ball, which may be made of any suitable size and material, but preferably of rubber. At a suitable point a flat disk or plate 11, having on its outer surface at its central portion a tubulated part or loop 12, is embedded in the wall 13, as is clearly shown in Fig. 2 of the drawings. On each side of the tubulated portion or loop 12 the wall 13 is provided with an opening 14, which communicates with the open space or cavity of the tube or loop 12, so that the cord 15 may be passed through said openings and loop or tubular portion and fastened on the exterior of the ball, as shown in Fig. 1 of the drawings. By employing the disk or plate 11, having the tubular projection 12 on its outer surface, it is evident that said plate will contact with a considerable area of the wall of the ball and that when the cord 15 is attached thereto the strain will be removed directly from the rubber or wall and will be distributed around its point of connection and be sustained directly by the loop or tubular portion 12 of the disk. It is further apparent that by employing a disk having an outwardly-projecting apertured extension, as shown, the openings 14 in the wall of the ball for the reception of the cord may be pierced or formed therein without danger of puncturing the air-chamber 16, which is rendered absolutely air-tight by the use of the disk or plate 11 and the portion 13<sup>a</sup> of the wall of the ball which lies on the inner surface of said disk.

In Fig. 3 of the drawings I have shown a disk made of a single piece of material, preferably metal, which consists of two partly circular portions 17 and 18, (the former being slightly in excess of a half-circle and the latter about a half-circle,) placed together so that their meeting edges or portions will overlap each other and having integral therewith at their middle portions a tubulated part or loop 12, through which the cord may pass. In order to indicate where the openings 14 should be formed in order to communicate with the cavity of the projection or tubulated portion of the disk, the outer surface of the ball is provided with dots at the proper points, which dots in the present instance have been removed by the said openings.

Having thus fully described my invention,



what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with an inflated ball having a pair of openings in its wall, of a disk  
5 secured to the wall inwardly from the openings thereof and having an apertured projection on its outer surface, the aperture of said projection communicating with said openings, substantially as described.

10 2. The combination with an inflated ball having a portion of its wall reinforced, a disk embedded in said reinforced portion of the wall and provided on its outer surface with a tubulated portion, substantially as described.

15 3. The combination with an inflated ball

having a portion of its wall reinforced and provided with a pair of externally-open openings, of a metallic disk embedded in said reinforced portion of the wall and provided on its outer surface with a tubulated part, the  
20 said openings adapted to communicate with the cavity of said tubulated part, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of  
25 two subscribing witnesses.

CHARLES R. FLEISCHMAN.

Witnesses:

C. H. EICH,

FRANK HOLMES.