No. 731,165. PATENTED JUNE 16, 1903.

A. CROSSLEY.

FOOT BALL.

APPLICATION FILED JAN. 24, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

FIG. 1.

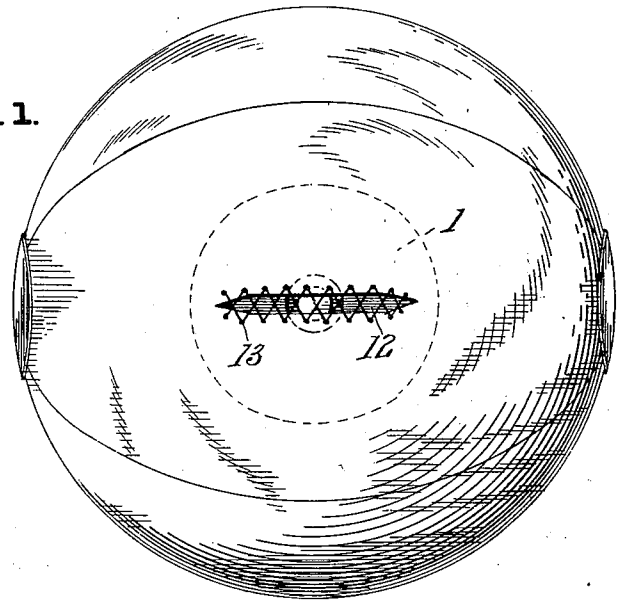
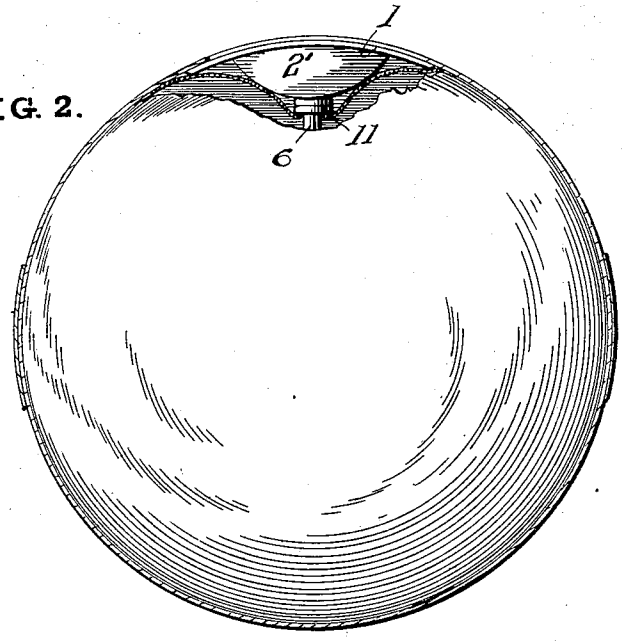


FIG. 2.



Witnesses

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NO MODEL. 2 SHEETS—SHEET 2.

FIG. 3.

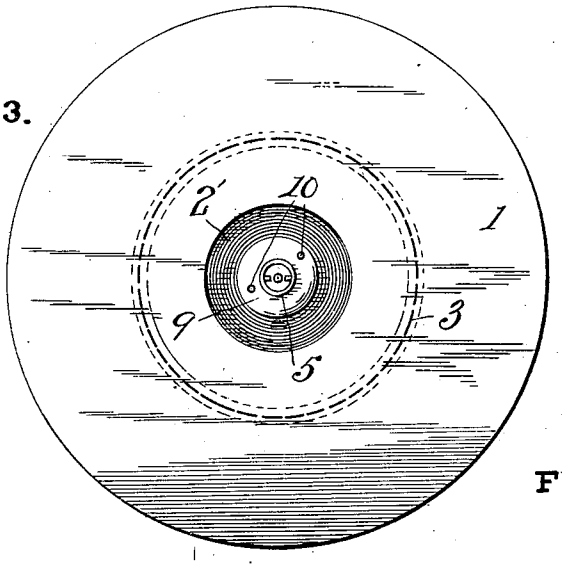


FIG. 5.

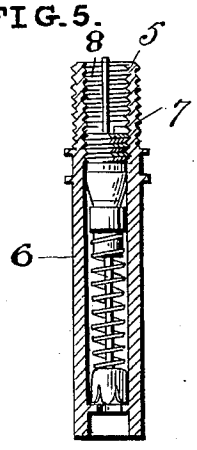
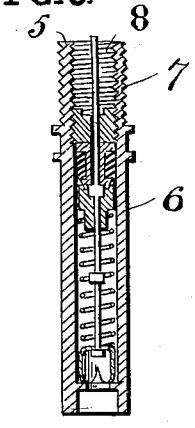


FIG. 6.



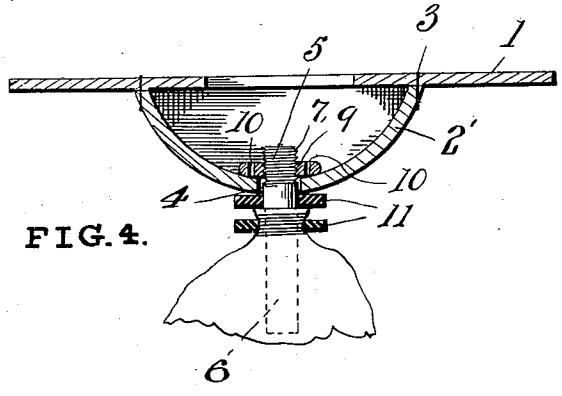


FIG. 4.

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No. 731,165. Patented June 16, 1903.

UNITED STATES PATENT OFFICE.

ALBERT CROSSLEY, OF NEW BEDFORD, MASSACHUSETTS.

FOOT-BALL.

SPECIFICATION forming part of Letters Patent No. 731,165, dated June 16, 1903.

Application filed January 24, 1903. Serial No. 140,412. (No model.)

To all whom it may concern:

Be it known that I, ALBERT CROSSLEY, a citizen of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Foot-Balls; and I do hereby 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.

My invention relates to certain new and useful improvements in foot-balls, and has special reference to the means for protecting the valve when the ball is in play.

It is a well-known fact that foot-balls are subjected to blows of great force when the ball is in play, and should for any reasons the force of the blow be received upon such portion of the ball at or in proximity to the valve mechanism damage to the latter very often results, requiring repairs and very often hopeless and serious injury to the bladder, which renders the latter entirely useless. My invention therefore aims to obviate these difficulties to as great an extent as possible and to decrease the liability of a ball becoming useless by reason of injury to the valve mechanism from the cause assigned above.

Briefly described, the invention may be said, broadly, to consist of a protecting-cap suitably apertured to permit of the reception of a pump connection whereby the bladder may be inflated, this protecting-cap on its under side having suitably connected thereto a cup-shaped member whose bottom is perforated to receive the head of the valve-stem, which latter is suitably secured to this cup-shaped member.

With the above and other objects in view my invention further consists in the novel details of construction and combination of parts to be clearly described in the following specification and then set forth in the claims.

Referring to the accompanying, drawings forming a part of this application, and wherein like characters of reference indicate similar parts throughout the several views, Figure 1 is an elevation of a foot-ball, showing in dotted lines the approximate position of the protecting-cap. Fig. 2 is an elevation, partly in vertical section, illustrating the improvements attached. Fig. 3 is a top plan view of the protecting-cap. Fig. 4 is a central vertical sectional view thereof, showing the valve in its applied position. Fig. 5 is a sectional view of the valve-casing, showing the interior thereof and the valve in elevation; and Fig. 6 is a central vertical sectional view through the valve-casing and valve mechanism.

It might be stated at the outset that the valve mechanism employed may be of any approved or preferred form, this not entering into the invention, and in Figs. 5 and 6 of the drawings a form of valve mechanism is illustrated which for all purposes and intents will suffice.

In forming my improvements I do not limit myself to any material, such being optional. However, I have found that leather, of which the coverings of foot-balls are usually constructed, gives great satisfaction by reason of its durability and its imperviousness to a great extent to water.

The protecting-cap is preferably circular in form, being designated by the numeral 1, and is formed with a concentric opening 2 of sufficient size to readily permit the connection between the pump of the valve to be positioned. Upon the under side of this protecting-cap 1 is suitably secured a cup-shaped member, (designated by 2′,) the upper end of this cup-shaped member being suitably secured to the cap 1, preferably by a line of stitching 3, which forms a perfect union between the parts. The bottom of this cup-shaped member 2′ is perforated, as at 4, whereby the valve 5 may be readily received and suitably secured. The valve-stem (designated at 6) at its upper end is exteriorly threaded, as at 7, and also interiorly threaded, as at 8, whereby suitable connection with the pump may be formed, this exteriorly-threaded end of the casing extending through the aforesaid opening 4 in the cup-shaped member 2′ sufficiently above the bottom of the cup-shaped member 1 to permit of the reception of an interiorly-threaded nut 9, screwed about the valve-casing, so as to firmly seat on the bottom of the cup-shaped member 2′. This nut has diametrically-opposed apertures extending therethrough, whereby any suitable spanner-wrench may engage therein to exert the necessary pressure upon the nut 9.

Beneath the cup-shaped member and sur-

rounding the valve-stem are arranged rubber washers 11, the uppermost of which engages the under side of the cup-shaped member 2′, thereby preventing undue downward movement of the same.

It will be perceived from Figs. 1 and 2 of the drawings that the protecting-cap may be inserted through the usual opening 12, provided with the usual lacing 13, well known in articles of this nature. Its position is illustrated in dotted lines, Fig. 1 of the drawings, and it will be noted that this protecting-cap extends for a distance over and beyond the valve mechanism, which latter is suitably spaced from the protecting-cap through the medium of the cup-shaped member 2′, which is depressed, as shown in Fig. 4 of the drawings, and suitably positions the valve mechanism at such a distance from the surface of the ball which is subjected to the blows as to efficiently protect the valve mechanism. I also desire to call attention to the fact that any foot-ball may be easily and at a comparative inexpense equipped with my improvements, since by merely providing the valve-stem with washers whereon the bottom of the cup-shaped member may rest the latter may be placed over the valve-stem to engage on said washers, and the nut 9 may then be screwed over the valve-stem to occupy such position as will form a firm engagement between the cup-shaped member and the valve-stem.

As heretofore stated, since the valve mechanism does not enter into the subject-matter of my invention I have illustrated in Figs. 5 and 6 of the drawings one form commonly used in connection with bicycle-tires and the like, and I will not enter into detail description of the same, since any form may be employed.

Various modifications may be entered into without departing from the general spirit and scope of the invention, and I therefore do not limit myself to the precise details thereof.

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

1. An improvement in foot-balls consisting of a protecting-cap having a centrally-arranged opening, a cup-shaped member secured to said protecting-cap and depending therefrom, said cup-shaped member being perforated to receive the valve-stem carried by the bladder, washers arranged on said valve-stem and engaging the under side of the cup-shaped member, and a nut screwed about the valve-stem to engage the said cup-shaped member whereby union between the latter and the valve-stem is effected.

2. An improvement in foot-balls, consisting of a protecting-cap having a centrally-arranged opening, a cup-shaped member secured to the said cap and depending therefrom, the said cup-shaped member being perforated, a valve-stem arranged in the said perforation and provided with interior and exterior threads for a portion of its length, washers arranged on the said valve-stem and engaging the under side of the said cup-shaped member, and a nut screwed about the valve-stem to engage the said cup-shaped member, whereby union between the latter and the valve-stem is effected, the said nut provided with apertures extending therethrough, substantially as described.

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

ALBERT CROSSLEY.

Witnesses:
ALEANAH WHYATT,
ELI T. WHYATT.