No. 836,356. PATENTED NOV. 20, 1906.

T. G. AITKEN.

FOOT BALL.

APPLICATION FILED JULY 15, 1904.

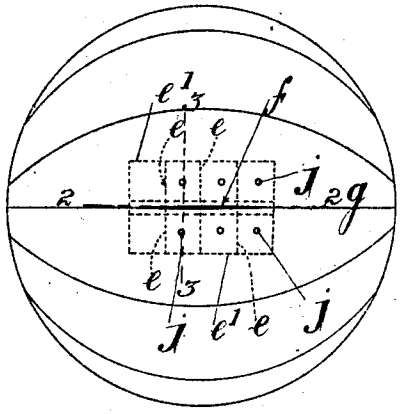
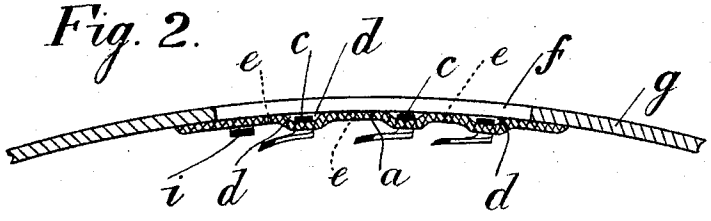



Fig. 1.

Fig. 2.



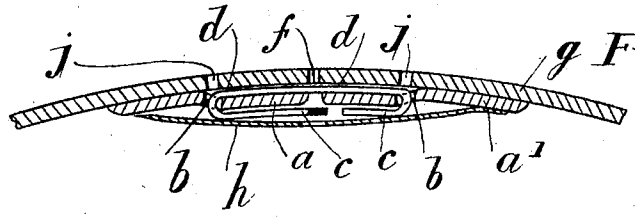




Fig. 3.

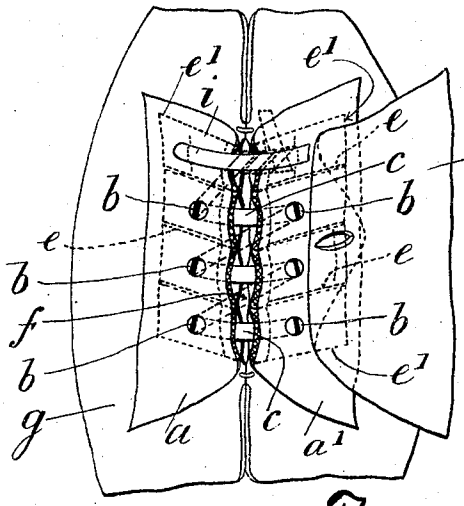



Fig. 4.

Witnesses.

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# UNITED STATES PATENT OFFICE.

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## FOOT-BALL.

No. 836,356. Specification of Letters Patent. Patented Nov. 20, 1906.

Application filed July 15, 1904. Serial No. 216,741.

*To all whom it may concern:*

Be it known that I, THOMAS GENTLES AITKEN, inventor, a subject of the King of Great Britain, residing at Craigholm, 95 Craiglea drive, Edinburgh, Scotland, have invented a certain new and useful Improvement in Foot-Balls, of which the following is a specification.

The invention relates to foot-balls provided with the usual outer covering and the usual bladder, the latter being introduced through a slit formed in the ball-covering and thereafter inflated, the slit being subsequently closed by means of lacing-strings. Heretofore the lacing-string has been passed through apertures formed adjacent the margin of the slit, the strings being passed back and forth through the apertures above and below the covering. In the use and disposition of the lacing-strings in this manner that portion of the string which is on the outer face of the covering forms an abrasive surface on the periphery of the ball, often causing injury to the players when striking unprotected parts of their faces. This form of lacing has been found to be necessary heretofore in order to bring the margins of the slit into abutting relation after the bladder has been inflated, as it is essential that the slit be closed in order to prevent access of dust, dirt, and other gritty matter which might puncture the bladder if lodged between the same and the outer covering. It is the object of the present invention to avoid these defects and provide a ball having a continuously smooth and unbroken periphery, the lacing-strings or other fastening means being concealed and entirely inclosed by the outer covering.

To this end the invention contemplates the provision of a ball-cover wherein the slits are reinforced or stiffened some distance laterally from their marginal edges and wherein the lacing-string or other fastening means employed is secured to and operates in connection with the reinforced portions to close said strip. The invention is realized in the preferred form by the provision of lateral strips located along the marginal edges of the slit and secured to the cover on the under side thereof at a number of points between the ends of the slit, said strips being apertured between the points of anchorage for passage of the lacing-string, said points of anchorage preferably extending laterally to or beyond said apertures.

My invention will be described in connection with the accompanying drawings, and will be more particularly ascertained, and pointed out in and by the appended claims.

In the drawings, Figure 1 is a view of a foot-ball provided with fastening means in accordance with my invention. Fig. 2 is an enlarged sectional view on line 2 2 of Fig. 1. Fig 3 is an enlarged sectional view on line 3 3 of Fig. 1. Fig. 4 is an inside view of the improved lacing and reinforcing strips therefor.

Like characters of reference designate similar parts throughout the different figures of the drawings.

As shown, *g* designates a foot-ball made up of a plurality of strips of suitable material sewed together and provided with a slit or opening *f*, which, as shown, is located at the juncture or along the seam of each of said strips. The margins of said opening *f* are stiffened or reinforced by the provision of longitudinally-disposed stiffening-strips *a a'*, secured to the under face of the ball or cover *g* and provided with a plurality of lacing-holes *b* for passage of the lacing-strings *c*. In order to provide for the stiffening or reinforcing of the margins of the opening *f*, the strips *a a'* are stitched to the cover in lines angularly disposed to the opening *f*, preferably at right angles thereto, said lines of stitching running between the lacing-holes *b* and extending outwardly a suitable distance beyond the same. Preferably the transverse lines of stitching, as clearly shown in Fig 1, are distributed throughout the length of the opening *f* to reinforce the margins thereof throughout their full length. The lines of stitching *e* form passages accommodating the lacing, which is threaded back and forth through the holes *b* beneath the cover *g* and suitably secured in a manner to bring the margins of the opening *f* into abutting relation.

It will be obvious from the foregoing that while the lacing in no way directly engages the outer cover *g* that the margins of the opening *f* of the same will be brought and maintained into abutting relation by reason of the fact that the lines of stitching *e* constitute transverse ribs and force the margins of the opening *f* together when the lacing of the strips *a a'* is tightened. In order to further secure the strips *a a'* to the cover *g*, the former are stitched on lines *e'* parallel to the opening *f*. A strip of leather *i* may be provided to which the end of the lacing may be

fastened after being tightened, and the bladder is protected from the lacing by a tongue *h*, provided with an aperture through which the tube may extend to permit inflation of the bladder. If it is desired not to use the inner strips *a*, lacing-holes *j* may be provided in the outer cover and the ball may be laced in the usual manner.

I claim—

1. A foot-ball or the like comprising a cover provided with an opening for the introduction of a bladder, strips arranged on either side of said opening and secured to the cover from the margins of the opening outwardly, between the ends of the slit, and means for bringing said strips together to close said opening said means extending between points where said strips and cover are fastened.

2. A foot-ball or the like comprising a cover provided with an opening for the introduction of the bladder, strips arranged on either side of the said opening, said strips being sewed to the cover by parallel lines of stitching, extending transversely of a longitudinal line of the opening and from the margins thereof laterally, and a lacing-string passing through apertures in said strips and extending between the parallel lines of stitching.

3. A foot-ball or the like comprising a cover provided with an opening for the introduction of a bladder, the margins of said opening being stiffened or reinforced a suitable distance, and means engaging said reinforced or stiffened portions for bringing the edges of the margins together to close said opening, said means being located inside the cover.

Signed at Glasgow, Scotland, this 23d day of June, 1904.

THOMAS GENTLES AITKEN.

Witnesses:
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