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PATENT SPECIFICATION

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COMPLETE SPECIFICATION

Improvements in or relating to Foot- and like Game- Balls

We, WILLIAM SYKES LIMITED, a British Company, and WILLIAM JAMES WYCHERLEY, a British Subject, both of the Company's address, The Yorkshire Athletic Manufactory, Horbury, in the County of York, do hereby declare the nature of this invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to foot- and like game- balls, such for example as basket balls, all of which are hereinafter included in the term "football".

The present invention has particular reference to Patent No. 248,171 which describes a football having a casing formed of thirteen sections of which the majority are of tee-shape formation with a "vent" section of elongated formation having curved longitudinal edges. Such a casing is very durable and generally is of good appearance. On the other hand, it has been considered that on very close inspection, due to the position of the seams joining the ends of the "vent" section with the adjacent sections, there appears to be a break or dip in the spherical shape of the ball which tends to create the illusion that the ball is defective in shape.

The object of the present invention is to provide an improved type of casing.

According to the present invention a football casing is formed of thirteen or more sections of which the majority are of tee-shape arranged to form zig-zag seams when sewn together, the remaining section (or sections) being relatively small in comparison to the tee-shaped sections and substantially rectangular in shape (the longitudinal edges being curved slightly), said small section (or one of said sections) having a vent and lace holes provided therein and being joined at its ends to the two adjacent tee-shaped sections by seams in such close proximity to the ends of the vent as to form transverse reinforcements against any undue strain or tearing action on said vent or its section.

The football casing may comprise thirteen, fourteen, sixteen or eighteen sections of which twelve are tee-shaped in all cases.

Moreover the vent for the insertion of the bladder may be of a plain slit formation or incorporate a hole for the location of a part of the bladder valve.

Referring now to the accompanying drawing in which several embodiments of the invention are illustrated:—

Figs. 1 and 2 show respectively a perspective and a front view of a thirteen section ball constructed according to the invention;

Fig. 3 shows a fourteen section ball;

Fig. 4 shows a sixteen section ball;

Fig. 5 shows an eighteen section ball;

Fig. 6 is an enlarged view of a vent section adapted to receive part of a bladder valve.

In Figs. 1 and 2 the football casing comprises thirteen sections, twelve sections 2 being cut to a tee-shape and the remaining section 3 cut so as to be almost rectangular in shape when the sections are stitched together. The section 3 has slightly curved longitudinal edges to ensure the correct spherical shape of the ball.

The section 3 is made relatively small in comparison to the size of the tee-shaped sections 2. Also it is of such a size in comparison to the length of the vent 4, that the ends of the latter terminate just short of the seams 5 joining the vent section 3 to the leg portions 6 of the adjacent tee-shaped sections 2a. The said leg portions 6 are shorter in length than those of the sections 2, but the rest of each section 2a is identical in shape with the sections 2. It will be seen that each seam 5 lies approximately half-way between the centre of the section 2a and the point where the leg portion 6 joins the head of its section.

The above construction ensures that adequate strength is provided at the ends of the vent 4 due to the seams 5 forming transverse reinforcements in close proximity to the vent 4. Furthermore, by the seams 5 being located close to the centre of the vent section 3, and the provision of the leg portion 6 on the sections 2a, a smooth line is provided which

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retains the spherical appearance of a ball. Also, a vent section as described ensures great strength about the vent where the greatest strain is imposed, due to the seams surrounding the section being close to the vent on all sides. The vent is retained closed by a lace 7 threaded through holes 8 in the usual manner.

To form a fourteen section football casing according to Fig. 3, it is built up exactly similar to the thirteen section ball except that a second section 3 is inserted diametrically opposite the vent section.

In Fig. 4 a sixteen section football casing is shown constructed similar to Fig. 3, except that two further small sections 3 (making four in all) are placed opposite sides of the ball. For an eighteen section football casing as shown in Fig. 5, the construction according to Fig. 4 is modified by the addition of two further small sections 3 (making six in all) on each side of the ball at right angles to the previously named side sections 3. In this construction all the leg portions of the tee-shaped sections are equal in length.

When a bladder with a self-sealing valve is employed, and it is desired to have the valve opening onto the outer face of the ball, an opening 9 is provided in the vent 4 as shown in Fig. 6. The opening 9 receives part of the head of the valve which may be anchored by a flap stitched at 10 to the inside of the vent section 3 in known manner.

Having now particularly described and ascertained the nature of our said invention, and in what manner the same is to be performed, we declare that what we claim is:—

1. A football casing, formed of thirteen or more sections of which the majority are of tee-shape arranged to form zig-zag seams when sewn together, the remaining section (or sections) being relatively small in comparison to the tee-shaped sections and substantially rectangular in shape (the longitudinal edges being curved slightly), said small section (or one of said sections) having a vent and lace holes provided therein and being joined at its ends to the two adjacent tee-shaped sections by seams in such close proximity to the ends of the vent as to form transverse reinforcements against any undue strain or tearing action on said vent or its section.

2. A football casing of fourteen sections according to claim 1, comprising twelve tee-shaped sections and two small sections arranged diametrically opposite each other.

3. A football casing of sixteen sections according to claim 1, comprising twelve tee-shaped sections and four small sections arranged diametrically opposite each other in pairs.

4. A football casing of eighteen sections according to claim 1, comprising twelve tee-shaped sections and six small sections arranged diametrically opposite each other in pairs.

5. A football casing according to any of the preceding claims, wherein each transverse seam joining the end of a small section to the leg portion of a tee-shaped section is located half-way between the centre of the small section and the point where the said leg portion joins its head.

6. A football casing according to any of the preceding claims, characterised by the vent for the insertion of the bladder incorporating a hole for the location of a part of the bladder valve.

7. A football having a casing constructed according to the preceding claims.

8. A football casing arranged and constructed substantially as described with reference to, and as illustrated in, the accompanying drawing.

Dated this 11th day of July, 1940.

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