## PATENT SPECIFICATION



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#### PROVISIONAL SPECIFICATION.

### Improvements in the Construction of Foot-ball and like Goals.

I, JOHN CLAUDE PERKINS, a British subject, of Exchange Walk, in the City of Nottingham, do hereby declare the nature of this invention to be as 5 follows:

This invention relates to improvements in the construction of foot-ball and like goals, and its object is to do away with 10 all plain surfaces facing the playing field, so that there is a greater chance of the ball, should it strike the goal, being deflected through the goal or out of play, instead of rebounding into play again.

According to this invention, the goal posts may be of the regulation breadth and depth, but instead of being rectangular in section, they approximate more nearly to that of an ellipse, and are 20 each disposed so that its major dimension is at right-angles to the goal line. In the preferred section the inner and outer sides of the posts are arcs of circles of the same radius, which arcs meet and 25 form sharp edges at the front and rear.

It will however be understood that this shape is only necessary at the front of the posts, and that the rear may be of

any other convenient shape.

The cross-bar is made of the same 30 section and dimensions as the posts, but its major dimension is horizontal, and its ends are connected to the upper ends of the posts so as to form a mitre joint, a construction with members of the 35 section described, which is the least likely to form an impediment that would prevent a ball going either into the goal or be deflected out of play.

If necessary the cross-bar may be 40 strengthened by means of a longitudinal steel rod disposed in a channel in the underside of the body of the bar, which channel is disposed so that the rod acts as a truss and prevents the cross-bar from 45 sagging down in the middle.

goals of the construction  $\widetilde{\mathrm{With}}$ described the chance of a ball striking any portion of the goal and rebounding into play, is reduced to a minimum, and 50 an element of luck which very often occurs with goals of the usual construction, is to a great extent eliminated.

Dated this 22nd day of June, 1921.

H. C. SHELDON, 63, Long Row, Nottingham, Agent for the Applicant.

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#### COMPLETE SPECIFICATION.

# Improvements in the Construction of Foot-ball and like Goals.

I, JOHN CLAUDE PERKINS, a British subject, of Exchange Walk, in the City of Nottingham, 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 improvements 65 in the construction of foot-ball and like goals, and its object is to do away with all plane surfaces facing the playing field, so that there is a greater chance of

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the ball, should it strike the goal, being deflected through the goal or out of play, than of rebounding into play again.

According to this invention, the goal posts and cross-bar are all made of a sectional shape which presents no plane surfaces at the front, and may for instance be approximately elliptical, the posts being disposed with their major cross 10 sectional dimensions at right-angles to the goal line, whilst the major crosssectional dimension of the cross-bar is horizontal.

Referring the accompanying to

15 drawings.

Fig. 1 is a front elevation, and Fig. 2 a side elevation of a goal constructed according to my invention.

Fig. 3 is a front view, and

Fig. 4 is an inverted plan showing a joint in the cross-bar.

Fig. 5 is a cross section of the posts and

cross-bar.

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Fig. 6 is an elevation, and Fig. 7 a plan showing the junction of the cross-bar with one of the posts.

Fig. 8 is a side elevation, and Fig. 9 a cross section showing one method of supporting the cross-bar.

Fig. 10 is a cross section, and Fig. 11 a front elevation showing an alternative method of supporting cross-bar.

Figs. 3 to 10 inclusive are drawn to a 35 larger scale than the remaining figures. Like letters indicate like parts through-

out the drawings.

The goal posts A, may be of the regulation breadth and depth, but instead of 40 being rectangular in section, approximate more nearly to that of an ellipse as shown in Fig. 5, and each is disposed so that its major cross sectional dimension is at right-angles to the goal 45 line. In the preferred section shown in Fig. 5, the inner and outer surfaces A<sup>1</sup> and A2 of the posts are arcs of circles of the same radius, which arcs meet and form sharp edges A3 at both the front and rear.

It will however be understood that this shape is only necessary at the front of the posts, and that the rear may be of otherconvenient shape. 55 example the rear may be half round, and the complete section would then be kite shaped. The symmetrical shape shown is however preferred.

The cross-bar B is made of the same section and dimensions as the posts A, but its major cross sectional dimension is horizontal, and its ends are connected to the upper ends of the posts so as to

form mitre joints at the corners, as shown in Figs. 6 and 7, which form of joint is the least likely to present an impediment that would prevent a ball from going either into the goal or from being deflected out of play.

If preferred, the corner joints may be combined mitre and dovetailed joints as shown in the drawings, and greater strength can thus be obtained without affecting the external form of the joint.

In order that a bar B of the section described will assume and retain a straight formation when solely supported by its ends, it may be made bent or cambered to such an extent, that it will naturally assume this formation under the conditions mentioned.

The camber may be effected by means of a butt joint in the centre as shown in Fig. 4, in which the abutting ends are cut off the square, and the end faces are drawn together by means of a bolt D, which is disposed in longitudinal holes provided for it in the respective parts of the bar as shown.

In an alternative construction, the cross-bar B is cambered by attaching to it a bent T section metal bar E, as shown in Figs. 8 and 9. The metal bar E is in this case preferably let into a recess provided for it in the upper face of the wooden part B.

Alternatively, the middle of the crossbar B may be supported by means of a longitudinal steel tie-rod F, disposed in a channel G formed in the underside of 10 the body of the bar, which channel is deeper at the ends than in the middle, so that the tie-rod F acts as a truss, and prevents the cross-bar B from sagging down in the middle.

With goals  $\mathbf{of}$ theconstruction described, the chance of a ball striking any portion of the goal and rebounding into play, is reduced to a minimum, and an element of luck which very often 11 occurs with goals of the usual construction is to a great extent eliminated.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is 11 to be performed, I declare that what I claim is:

1. A foot-ball or like goal comprised of members which are in section approximately elliptical or kite shaped the posts 12 being disposed with their respective major cross sectional dimensions at rightangles to the goal line and the cross-bar with its major cross sectional dimension horizontal.

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- 2. A foot-ball or like goal according to Claim 1, in which the joints at the top of the posts and the ends of the cross-bar are mitred.
- 3. A foot-ball or like goal according to Claim 1, in which the cross-bar is shaped or reinforced so that it will not sag down in the middle when supported solely by its two ends.
- 4. The complete foot-ball or like goal 10 substantially as herein described and illustrated in the accompanying drawings.

Dated this 22nd day of March, 1922.

H. C. SHELDON, 63, Long Row, Nottingham, Agent for the Applicant. 15

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