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A.D. 1886, 29*th* MARCH. N° 4359.

PROVISIONAL SPECIFICATION.

## Improvements in the Construction of Footballs.

I, SAMUEL EDMOND STATHAM 1 Heald Place Rusholme Manchester India Rubber Manufacturer, do hereby declare the nature of this invention to be as follows :—

My invention consists of placing a hollow India Rubber ball within a hollow India Rubber ball ; the former being fitted with a neck for facilitating inflation. I introduce it in its collapsed form through an opening in the latter. I then inflate the inner ball by blowing through the neck, thus forcing it to inflate also the outer one. The two balls then practically form one. I then prevent the escape of air by twisting the neck and dispose of it by forcing it under the edge of the opening in the outer ball. I claim for the above invention the following advantages :—It is much less expensive than any other form of Football at present in the market. The fact of its being entirely composed of India Rubber makes it exceptionally elastic and absolutely harmless to the player. The fact of its being double leaves it as efficient as before in the case of the outer ball being injured or pierced and the release of the neck makes it collapse and reduces the largest ball to small pocket compass. The resisting power and general strength is considerable on account of the yielding nature of India Rubber. I therefore believe this invention to be of public utility.

S. STATHAM.

[*Price 8d.*]

## COMPLETE SPECIFICATION.

# Improvements in the Construction of Footballs.

I SAMUEL EDMOND STATHAM of 1 Heald Place Rusholme Manchester India Rubber Manufacturer do hereby declare the nature of my invention for IMPROVEMENTS IN THE CONSTRUCTION OF FOOTBALLS and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement :—

My invention consists principally in placing a thin india rubber ball or bladder within another india rubber ball or case of a stronger construction, the former being fitted with a neck passing out through a hole in the latter for facilitating the inflation.

My improved method of constructing footballs is designed chiefly for what are known as "saloon" footballs and used principally by children and the construction and inflation thereof will be readily understood on reference to the two sheets of drawings hereunto annexed and the following explanation thereof.

I provide a hollow india rubber ball or case *a*, *a* Fig. 1 on the drawings of any convenient size and of a sufficient strength to resist any usage to which a saloon football is likely to be subjected. This ball *a*, *a* is made with two holes *b*, *b* opposite to each other, each hole being strengthened or protected by cementing thereto a circular patch or shield *c*, *c*.

I also provide a smaller thin india rubber ball or bladder *d*, *d* (Fig. 2) formed with a neck or tube *e*, *e* for convenience of inflation, and in this collapsed form I introduce this thin ball or bladder *d*, *d* (Fig. 2) into the interior of the outer ball or case *a* *a* in the following manner,

I bring the two sides of the outer ball *a*, *a* together so that the holes *b*, *b* coincide as shown at Fig. 3, and I draw the neck or tube *e*, *e* or the thin ball or bladder through both sides as shown at that Fig.

Then holding the neck or tube *e*, *e* firmly against one side of the outer ball *a*, *a* I draw back the other side thereof so as to pull the collapsed ball or bladder *d*, *d* into the interior of the outer ball or case *a*, *a* as shown at Fig. 4.

I next inflate the inner ball or bladder *d*, *d* by blowing through the neck or tube *e*, *e* with the breath or otherwise, thus forcing it to inflate and distend also the outer india rubber ball or case *a*, *a* to the desired extent as shown by the dotted circle in Fig. 4.

The two balls *a*, *a* and *d*, *d* then practically form one and I then prevent the escape of the air by twisting the neck or tube *e*, *e* and dispose of it by forcing it under the edge of the opening *b*, *b* in the outer ball or case *a*, *a*, where the pressure of the air from the inside and the inward pressure or contractile force of the outer ball *a*, *a* will maintain it and keep it perfectly air tight.

I prefer to form a rim or bead round the mouth of the tube *e*, *e* to prevent the same from being entirely forced into the ball *a*, *a*.

If preferred the tube *e*, *e* may be carried a short way into the inner ball or bladder *d*, *d* and there formed into a valve by closing the end and cutting or forming a longitudinal slit in each side. So long as the ball is inflated these slits will be kept closed by the inward pressure of the air upon the outside of the tube, but by compressing

the opposite sides of the tube the slits will be caused to gape open and allow the air to escape; but I find that the plain tube simply twisted and disposed of as above described is sufficient for all practical purposes.

A football constructed in this manner is exceptionally elastic and resilient, it is incapable of injuring either the players, or the windows, or ornaments if used indoors, and it can be collapsed to a very small compass and carried in the pocket, and re-inflated for use with the greatest facility; and the fact of its being double leaves it as efficient as before in the event of the outer ball being punctured or injured, and if both balls become pierced it is only necessary to renew the inner thin ball or bladder which is very inexpensive. The resisting power and general strength are very considerable on account of the yielding nature of the india rubber which at the same time renders it quite safe for use as a "Saloon" football.

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

The construction of footballs of a thin india rubber ball or bladder inserted within a stouter india rubber ball or case, and then inflated until both are distended, substantially in the manner hereinbefore described and illustrated by the drawings annexed.

GEORGE DAVIES,
4, St. Ann's Square, Manchester,
Agent for the Applicant.

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Fig. 1.

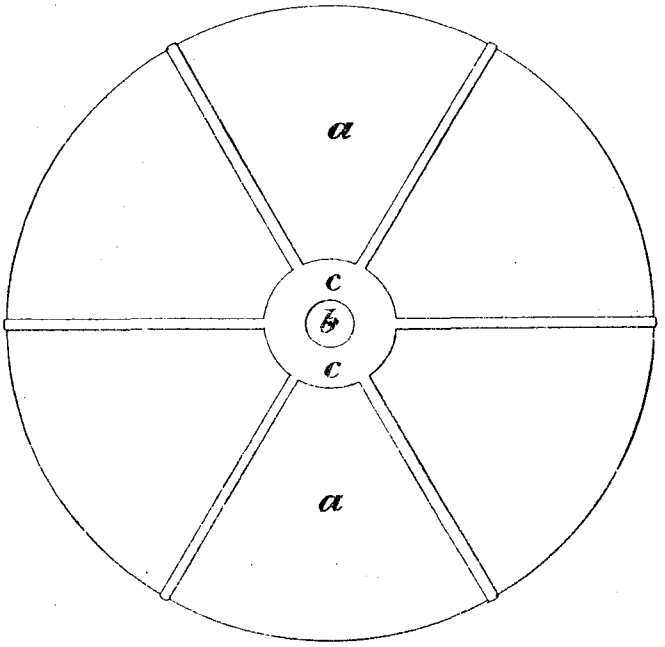


Fig. 2.


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Fig: 3.

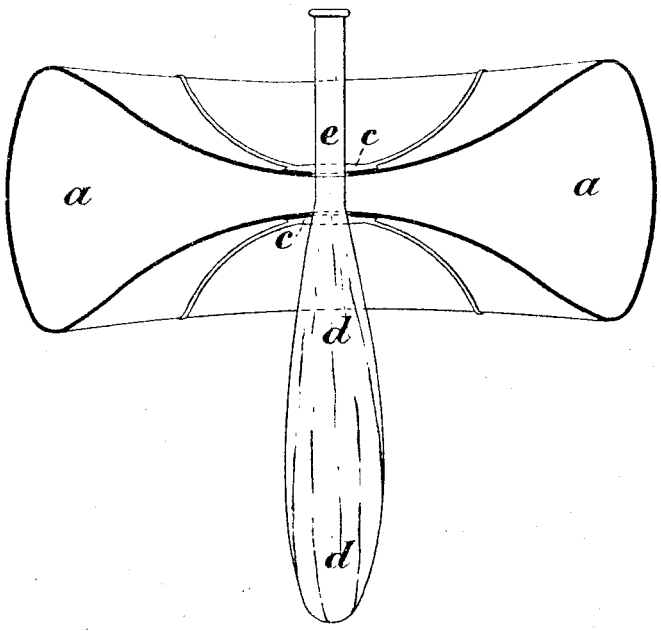
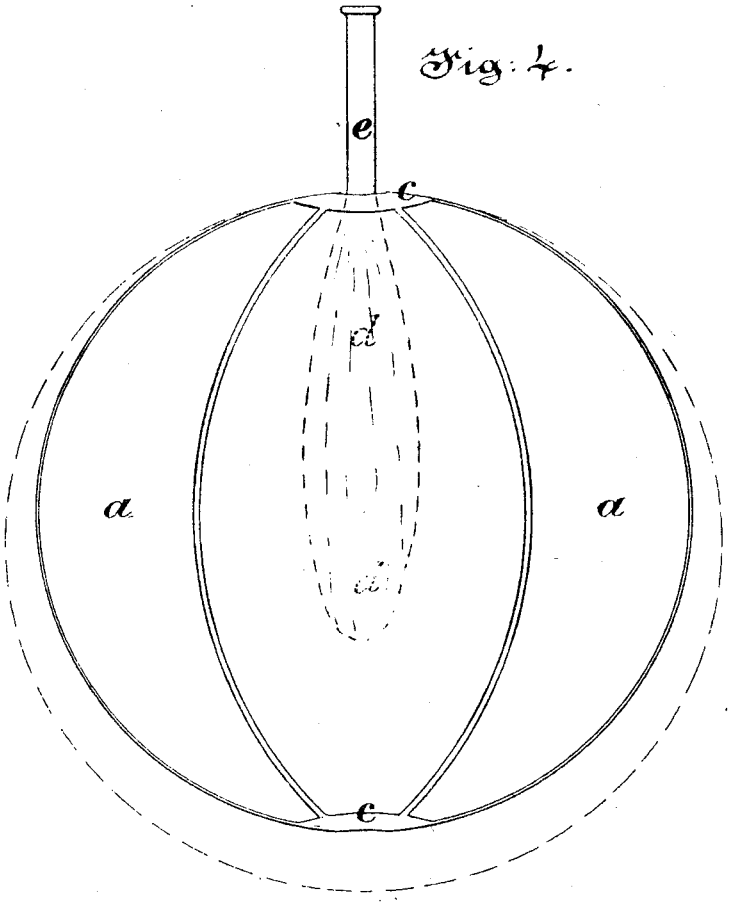



Fig: 4.

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