

Date of Application, 1st Dec., 1886.
Complete Left, 25th Aug., 1887.
Complete Accepted, 27th Sept., 1887.

A.D. 1886, 1st DECEMBER. N° 15,726.

PROVISIONAL SPECIFICATION.

Improvements in Football Bladders.

I, FRANK BRYAN of No. 38 Charterhouse Street in the City of London Manufacturer of Athletic Goods do hereby declare the nature of this invention to be as follows:—

This Invention has for its object improvements in football bladders.

- 5 These bladders, so called but made of vulcanized india rubber are usually provided with a tubular neck which after the bladder has been inflated is turned over and tied down so as to make an air tight closing. This however is an operation which requires some skill occupies time and the arrangement is otherwise objectionable.
- 10 According to my invention I dispense with the tubular neck and insert into the bladder in its place a fixing in which is a valve opening inwards and in this fixing also is a socket to receive the nozzle of an inflating pump or appliance. To inflate the bladder it is necessary only to insert the nozzle of the pump or inflating apparatus into the socket and then to inject air until the bladder is sufficiently distended. The nozzle
- 15 of the pump or inflating apparatus is then withdrawn and the valve serves to retain the air in the bladder.

The arrangement above described admits of a very simple inflating apparatus being employed, a syringe will serve the purpose as the valve provided in the bladder serves to retain the air between the strokes.

20 Dated this 1st day of December 1886.

CARPMAEL & Co.,
Agents for the Applicant.

COMPLETE SPECIFICATION.

Improvements in Football Bladders.

I, FRANK BRYAN of No. 38 Charterhouse Street in the City of London Manufacturer of Athletic Goods 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 has for its object improvements in football bladders. 5

These bladders so called but made of vulcanized india rubber are usually provided with a tubular neck which after the bladder has been inflated is turned over and tied down so as to make an air tight closing. This however is an operation which requires some skill occupies time and the arrangement is otherwise objectionable. 10

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The arrangement above described admits of a very simple inflating apparatus being employed, a syringe will serve the purpose as the valve provided in the bladder serves to retain the air between the strokes. 20

In order that my invention may be fully understood and readily carried into effect I will proceed to describe the drawings hereunto annexed.

DESCRIPTION OF THE DRAWINGS.

Figure 1 is a section taken through the mouth of the bladder and the fixing inserted into the mouth and through the valve which the fixing contains. 25

Figure 2 is a transverse section on the line 1—1 in Figure 1.

Figure 3 is a side view of the fixing and Figure 4 is a plan.

Figures 5 to 10 shew a modification Figure 5 is a side view of the fixing.

Figure 6 is a plan, Figure 7 a longitudinal section and Figure 8 a transverse section on the line 7—7 in Figure 7. 30

Figure 9 is a side view and Figure 10 is an end view of the valve.

In Figures 1 and 2 *aa* are parts of the india rubber bladder; it is not made as heretofore with an externally projecting neck capable of being tied but there is a neck within the bladder. *b* is a fixing inserted into the mouth or internal neck and secured in it by cement. The fixing *b* has a valve seating at *b*¹ and it carries a cone valve *c*. At *b*² a screw thread is cut within the fixing and this is adapted to screw on to the 35

Bryan's Improvements in Football Bladders.

nozzle of the syringe with which the bladder is inflated. The syringe may be used as often as necessary to inflate the bladder; the valve *c* will allow air to enter but will prevent its escape.

- In the modification shown by Figures 5 to 10 the fixing *b* has a valve seating at *b*³ preferably of leather or other yielding material and there is a thread cut within the fixing and the valve *d* is screwed into it. In the valve *d* there is a square recess *d*¹ made accurately to fit a corresponding nozzle on the inflating syringe. The air from the syringe passes into the bladder by the lateral passages *d*^x *d*^x in the valve and the passage *b*^x in the fixing. By turning the valve by means of the square nozzle of the syringe the valve can be screwed down and closed. The syringe can then be removed without allowing the air to escape. The syringe can thus be used as often as may be necessary in inflating the bladder.

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:—

- 15 1.—An india rubber football bladder with an internal neck and air valve and fixing substantially as described.
- 2.—An india rubber football bladder with fixing adapted to receive the nozzle of an inflating syringe and valve preventing the escape of air when the syringe is removed substantially as described.

20 Dated this 23rd day of August 1887.

FRANK BRYAN.

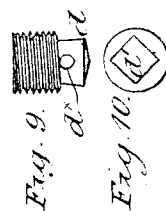
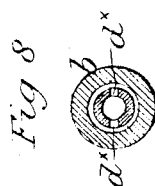
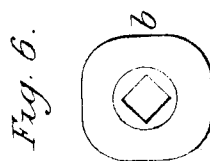
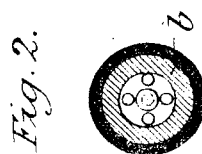
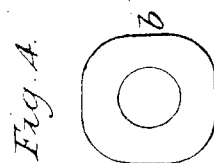
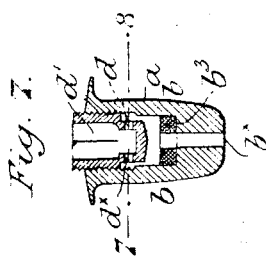
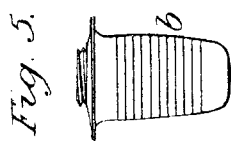
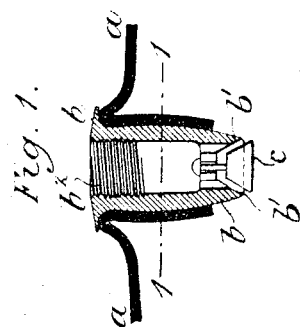
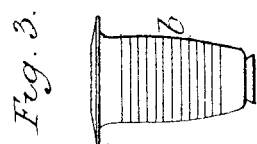
LONDON: Printed by DARLING AND SON.
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1887.

[This Drawing is a reproduction of the Original on a reduced scale.]

(1 SHEET)

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BRYAN'S COMPLETE SPECIFICATION.



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For Her Majesty's Stationery Office, 1887.
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