

Dec. 24, 1940.

R. KLOEPPING

2,226,246

STRAP BALL

Filed Dec. 18, 1939.

FIG. 1

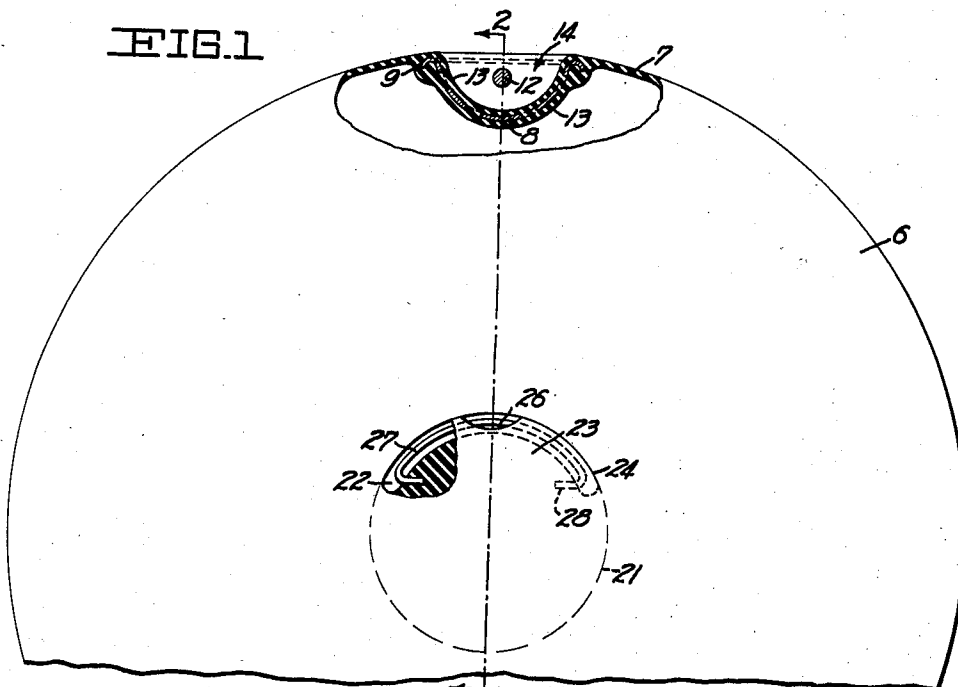


FIG. 2

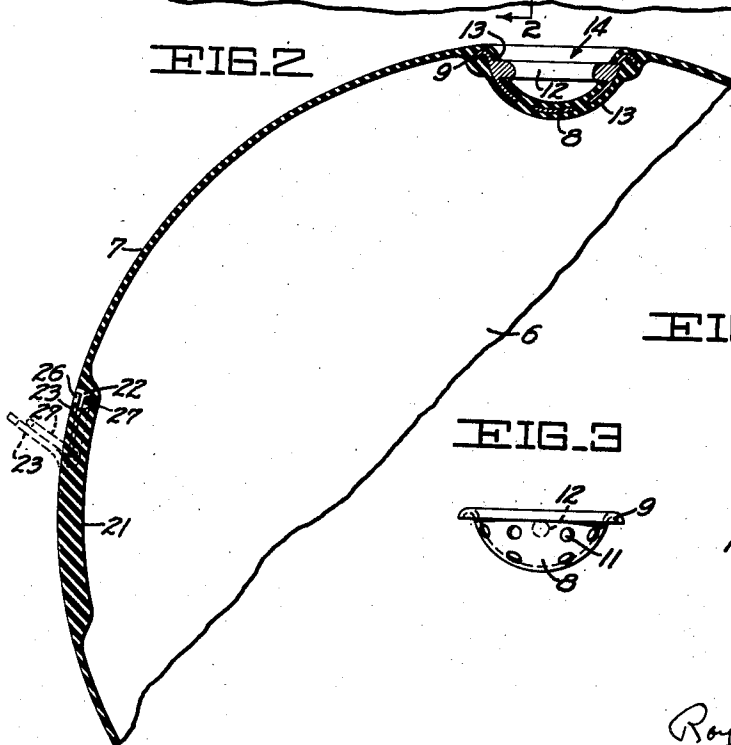


FIG. 3

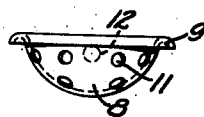
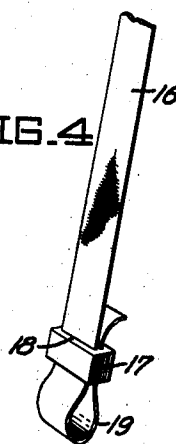


FIG. 4



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2,226,246

STRAP BALL

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Application December 18, 1939, Serial No. 309,809

1 Claim. (Cl. 273—58)

This invention relates to devices for releasably connecting objects together, and particularly to the structure of generally spherical play balls for permitting attachment, to the balls, of leashes or other cord-like members.

It is an object of the invention to provide, in a play ball, a built-in stirrup or bail, to which a cord or leash may be readily attached, which possesses adequate strength to effectively resist its forcible separation from the ball.

Another object of the invention is to provide an attachment device, for incorporation in the body of a ball, which lies wholly within the periphery of the ball and therefore does not mar the smooth continuity of the ball surface, nor project to interfere with true rolling of the ball.

Other objects and features of advantage residing in the invention will become apparent as the detailed description hereunto annexed proceeds. It is to be understood that the specific showing of structure in which my invention is incorporated is merely exemplary, and that modifications of the said structure may be utilized within the scope of the appended claim.

Referring to the drawing:

Figure 1 is a side elevational view of a ball showing the improvements of my invention incorporated therein. Portions of the view are shown in vertical section so as to more clearly disclose the interior construction and a portion of the view is broken away so as to shorten it and conserve space in the drawing.

Figure 2 is a vertical sectional view of the structure shown in Figure 1; the plane in which the view is taken being indicated by the line 2—2 of the latter figure.

Figure 3 is a side elevational view of the stirrup insert.

Figure 4 is a perspective view of the loop end of a leash adapted to be attached to the improved connectors with which the ball is fitted.

The ordinary large-size, inflatable, play or beach ball is devoid of any means permitting attachment thereto of a restraining leash or cord. These balls, which are extensively used by small children while playing in shallow surf, often, if left unattended, are blown by the wind or carried by surface currents into deeper water beyond the reach of their small owners. As a result the children, if they do not thoughtlessly wade out beyond a safe depth in efforts to reach the balls, annoy nearby swimmers or occupants of boats with their repeated requests to retrieve the balls. Attempts have been made to overcome this by securing rings to the surface

of the balls to which a piece of tape or cord may be attached to serve as a leash in preventing the balls from floating away beyond a prescribed limit. These rings, or other attachment means which project beyond the periphery of the ball, are not satisfactory since, first, if the ball is thrown they are liable to strike and injure an eye of the player and, secondly, the projection on the ball prevents true rolling thereof along a flat surface. I have overcome these objectionable features by providing simple concealed attachment means, for securing leashes or cords to the balls, which lie wholly within the periphery of the ball and are therefore incapable of inflicting injury or interfering with true rolling of the ball.

In detail, I have shown, in Figure 1, a conventional inflatable rubber ball 6 having a wall 7. In the wall 7, during the process of manufacture of the ball, is moulded a stirrup insert, shown in detail in Figure 3, comprising a bowl-shaped sheet metal body 8 having a peripheral rim 9 and provided with a plurality of preferably circular perforations 11. A stirrup or rod 12, extending transversely across and spaced medially of the depth of the body 8, is secured, preferably by welding, at its respective ends to the inner convex surface of the body. This body is molded into the wall of the ball so that a thickened portion of the wall forms a sheath 13 entirely enclosing the body and extending through the perforations 11 so as to unite the layers of rubber lying against the convex and concave surfaces of the body. The stirrup 12 however is left exposed so that when the molding is finished the stirrup will extend diametrically across the shallow well 14. It will be seen that a suitable cord or flexible tape 16 may be passed around the stirrup with the tie member shown in Figure 4. This member comprises a block 17 of soft rubber having therein a pair of spaced parallel slits 18. The tape 16 is passed through one of these slits, around the stirrup to form the loop 19 and returned through the other slit 18. The friction of the rubber against the tape, where the latter passes through the slits will prevent release of the loop 19 from the stirrup even though an abnormal pulling stress is exerted on the tape 16.

In another section of Figure 1 I have shown a modified form of connector. There a thickened, preferably circular, patch insert 21 is molded into the wall 7 of the ball having an arcuate groove 22 formed therein, and a flap 23, which is an integral portion of the wall 7 and is

adapted to be lifted outwardly from the periphery of the ball about a hinge defined by a chordal line intersecting the opposite ends of the arcuate slit 24, overlies and closes the groove 22. A
5 small portion of the arcuate edge of the flap 23 is cut away so as to form a recess 26 which allows insertion of the finger of the user to raise the flap. Positioned in the groove 22 is a wire
10 bail 27 having inturned end portions 28 which are seated in suitable recesses formed adjacent the ends of the groove so that the bail is pivotally
15 attached to the ball. By lifting the flap and grasping the bail 27, both may be swung outwardly to exposed positions beyond the periphery of the ball, as shown by the dotted lines of
Figure 2, to permit attachment of a cord or the
tape 16 to the bail. It will be seen that when the bail is released, the spring in the rubber flap

will force the bail back into the groove 22 as the flap returns to its position flush with the periphery of the ball.

Having thus described my invention in detail, what I claim as novel and desire to secure by Letters Patent is:

In a ball composed of moldable material, a bowl-shaped metal insert having dispersed perforations therein imbedded in said moldable material with quantities of the moldable material
10 filling said perforations, said imbedded metal insert having a concavity facing and exposed at the periphery of said ball, and a metal rod secured at its opposite ends within, extending transversely
15 across, and spaced from the bottom of said concavity.

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