March 7, 1950 J. P. HAYES 2,500,073

PLAY AND EXERCISING BALL

Filed Jan. 2, 1947

FIG. 1.

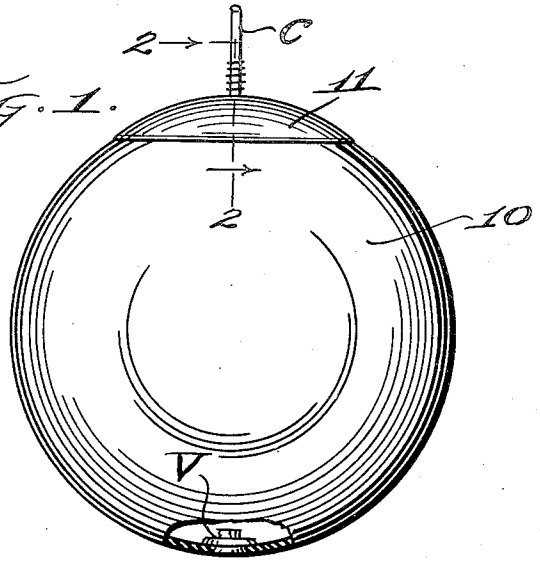


FIG. 2.

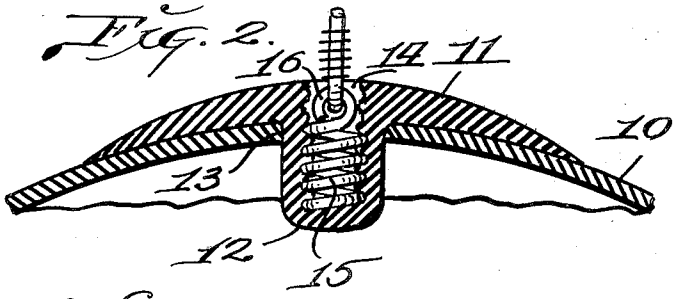


FIG. 3.

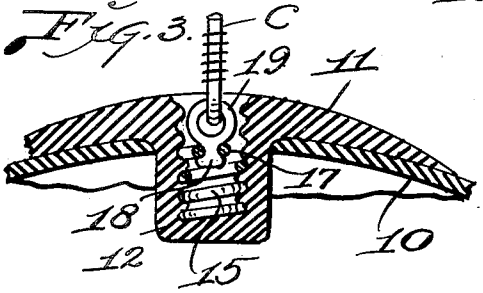


FIG. 4.

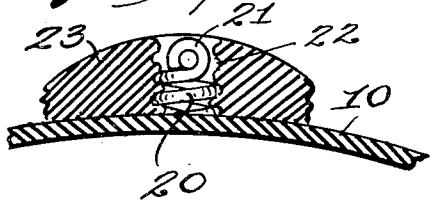


FIG. 5.

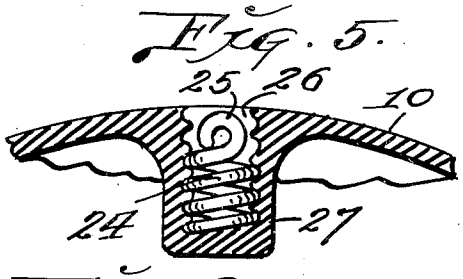
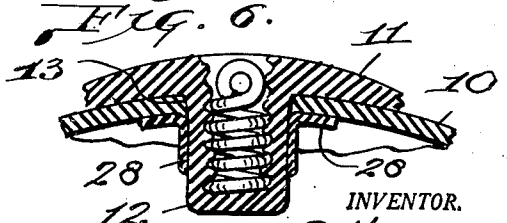


FIG. 6.



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PLAY AND EXERCISING BALL

John P. Hayes, Los Angeles, Calif.

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2 Claims. (Cl. 273—58)

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My invention relates to a ball, particularly designed for use as a tether ball or as a suspended punching ball, and the construction herein set forth is an improvement upon the bag or ball covered by U. S. Letters Patent #2,184,453 issued to me Dec. 26, 1939.

Among the objects of my present invention are to generally improve upon and simplify the construction of the ball disclosed in my aforesaid patent, as well as other existing forms of air filled balls or bags used in play and exercise, and further, to provide a ball of the character referred to having simple and convenient means for attaching a flexible suspension member or tether and which attaching means is located wholly beneath the surface of the ball so as to eliminate all possibility of contact between the hands of the players and said attaching means while the ball is in play, or being used as an exercising medium.

With the foregoing and other objects in view, my invention consists in certain novel features of construction and arrangement of parts which will be hereinafter more fully described and claimed and illustrated in the accompanying drawings, in which:

Fig. 1 is an elevational view of a play and exercising ball constructed in accordance with my invention.

Fig. 2 is an enlarged section taken on the line 2—2 of Fig. 1.

Fig. 3 is a sectional view similar to Fig. 2 and showing a modified form of the suspension member or tether.

Figs. 4, 5 and 6 are sectional views similar to Figs. 2 and 3 and showing further modified constructions.

Referring by numerals to the accompanying drawings, particularly Figs. 1 and 2, which illustrate a preferred embodiment of my invention, 10 designates an inflatable ball composed of rubber or a combination of rubber and rubberized fabric and which ball is adapted to be inflated through a conventional valve V, preferably located in the bottom of said ball.

Secured to the top of ball 10 by vulcanization or by cement, is a concave-convex disc 11 of rubber, which gradually decreases in thickness toward its edge and formed integral with the center of the concave face thereof, is a short cylindrical body 12 of rubber which is projected into the ball 10 through an aperture 13 therein.

The convex outer face of disc 11 is raised only a slight distance above the surface of ball 10 and generally conforms to the curvature thereof.

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Formed through the center of disc 11 and extending downward into body 12, is a recess 14 which is threaded for reception of a coil 15, preferably of wire, the upper end thereof being formed into a ring or eye 16.

When coil 15 is screwed to its seat in recess 14, ring 16, to which a suspension cord or tether C is secured, is disposed wholly below the outer face of member 11 and thus the hands of the user of the ball or bag cannot be injured by contact with said ring.

In order to provide a swivel connection between the ball and the tether or suspension member C, the upper end of coil 15 terminates in a small horizontally disposed ring 17, in which is arranged for rotation, a button 18, carried by a ring 19, to which the tether or suspension member is secured. (See Fig. 3.)

In certain forms of play and exercise balls, the tether attaching member comprising a coil 20 and ring 21 are inserted in a threaded aperture 22 formed in a disc 23 of rubber or the like that is vulcanized or cemented to the outer surface of the ball as shown in Fig. 4.

In Fig. 5, the coil 24 and eye 25 are shown screw seated in a recess 26, formed in a cup shaped member 27 which may be formed integral with the wall of ball 10 and which extends a short distance inwardly from the inner surface thereof.

To insure an air tight joint between body 12 and ball 10, one or more layers of rubber or rubberized fabric such as 28, are vulcanized or cemented to the inner face of said ball 10 and the outer face of body 12 adjacent aperture 13. (See Fig. 6.)

When my improved ball is used as a punching bag, it is suspended by means of flexible member C from an elevated platform or other support and when used as a tether ball, the outer end of member C, functioning as a tether, is secured at proper height, to a suitable upright or post.

By detaching member C from the attaching member, the ball may be used in exercise and play as a football, volley ball, a basketball or wherever a lively bouncing ball is desired.

Thus it will be seen that I have provided a play and exercising ball that is simple in structure, inexpensive of manufacture and very effective in performing the functions for which it is intended.

It will be understood that minor changes in the size, form and construction of the various parts of my improved play and exercising ball

may be made and substituted for those herein shown and described without departing from the spirit of the invention, the scope of which is set forth in the appended claims.

I claim as my invention:

1. The combination with an inflatable ball provided in its wall with an opening, of a separately formed member secured to the external face of said ball over said opening and having an integral portion extending through the opening, said member having a centrally disposed recess which projects into said inwardly projecting portion and a member screw seated in said recess wholly below the surface of said separately formed member, to form a point of attachment for a flexible suspension member.

2. The combination with an inflatable ball provided in its wall with an aperture, of a separately formed disc of thin flexible material secured to the outer surface of said ball over said aperture,

an integral lug projecting from said disc through the opening in said ball, there being a threaded recess formed in said disc and lug, a coiled member seated in said recess and a loop on the upper end of said coiled member to form a point of attachment for a flexible suspension member.

JOHN P. HAYES.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,184,453	Hayes	Dec. 26, 1939
2,186,016	Evans	Jan. 9, 1940

FOREIGN PATENTS

Number	Country	Date
597,176	Germany	May 27, 1933