A physical exercising ball is constructed to include an inflatable inner tube, an outer leather cover, and multiple covering layers sandwiched in between the inflatable inner tube and the outer leather cover. Each covering layer is formed of strips of rubber, the strips of rubber of one covering layer being overlapped on the strips of rubber of another covering layer.
PHYSICAL EXERCISING BALL AND ITS FABRICATION METHOD

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a physical exercising ball and, more particularly, to such a physical exercising ball, which has a good power of bouncing and, is suitable for physical exercises as well as physical therapy.

[0003] 2. Description of the Related Art

[0004] Conventional sports balls, for example, basketballs, volleyballs, etc., are designed for a respective particular purpose. A conventional basketball (or volleyball) 10, as shown in FIG. 1, is generally comprised of an inner tube 11 defining an air chamber 11a, an outer leather cover 12 bonded to the periphery of the inner tube 11, and an air valve 20 extended from the inner tube 11 to the outside of the outer leather cover 12. Through the air valve 20, forced air is driven into the air chamber 11a to inflate the ball 10. The ball 10 is provided for playing a particular ball game and exercising particular ball-playing techniques. It is not practical for physical exercises. For physical exercises, people usually use mechanical exercising machines. However, mechanical exercising machines are not suitable for people of old age, young children, or disabled persons.

SUMMARY OF THE INVENTION

[0005] The present invention has been accomplished under the circumstances in view. It is the main object of the present invention to provide a physical exercising ball, which is practical for physical exercises as well as physical therapy. It is another object of the present invention to provide a physical exercising ball, which is suitable for people of all ages. According to one aspect of the present invention, the physical exercising ball is inflatable and, has a certain weight. According to another aspect of the present invention, the physical exercising ball is comprised of an inflatable inner tube, an outer leather cover, and multiple covering layers sandwiched in between the inflatable inner tube and the outer leather cover. Each covering layer is formed of strips of rubber. The strips of rubber of one covering layer are overlapped on the strips of rubber of another covering layer.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] FIG. 1 is a sectional view of a conventional ball.

[0007] FIG. 2 is a sectional view of a part of the present invention, showing the arrangement of the thin primary base covering layer on the periphery of the inner tube.

[0008] FIG. 3 is a sectional view of a part of the present invention, showing the arrangement of the thin primary base covering layer on the periphery of the inner tube and the secondary base covering layer on the primary base covering layer.

[0009] FIG. 4 is a sectional view of the physical exercising ball according to the present invention before molding of the outer leather cover.

[0010] FIG. 5 is an enlarged view of a part of FIG. 4.

[0011] FIG. 6 is a sectional view of the physical exercising ball according to the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0012] Referring to FIGS. 2 through 6, a physical exercising ball 30 comprises an inner tube 31 defining an air chamber 31a, an outer leather cover 30a, a thin primary base covering layer 32 covered on the periphery of the inner tube 31 within the outer leather cover 30a, a secondary base covering layer 33 covered on the primary base covering layer 32, and at least one, for example, two layers of intermediate coverings 331,332 sandwiched in between the secondary base covering layer 33 and the leather outer cover 30a, and an air valve 20 radially extended from the inner tube 31 to the outside of the outer leather cover 30a in a flush manner (see FIGS. 5 and 6). Through the air valve 20, forced air is driven into the air chamber 31a to inflate the inner tube 31. Preferably, the weight of the inner tube 31 is about 100–150 gms. The combined thickness of the layers of intermediate coverings 331,332 is at least 3 mm.

[0013] The aforesaid thin primary base covering layer 32, secondary base covering layer 33, and layers of intermediate coverings 331,332 are respectively formed of strips of raw rubber. The strips of raw rubber of the secondary base covering layer 33 are overlapped on and adhered to the strips of raw rubber of the primary base covering layer 32, and then the strips of raw rubber of the layers of intermediate coverings 331,332 are overlapped on and adhered to the secondary base covering layer 33. Therefore, gaps 35 exist in the thin primary base covering layer 32, the secondary base covering layer 33, and the layers of intermediate coverings 331,332 (see FIG. 5) before molding of the outer leather cover 30a on the layers of intermediate coverings 331,332. During the molding process of molding the outer leather cover 30a on the layers of intermediate coverings 331,332 in a mold, the strips of raw rubber of the thin primary base covering layer 32, the secondary base covering layer 33, and the layers of intermediate coverings 331,332 are heated and vulcanized.

[0014] The physical exercising ball 30 can be made having one of a series of weights, for example, 5 kg or 10 kg. The number of the layers of intermediate coverings 331,332 and the diameter of the inner tube 31 determine the weight of the physical exercising ball 30. Because the physical exercising ball 30 is inflatable, it has a good power of bouncing, suitable for playing and exercising by people of all ages.

[0015] A prototype of physical exercising ball has been constructed with the features of FIGS. 2–6. The physical exercising ball functions smoothly to provide all of the features discussed earlier.

[0016] Although a particular embodiment of the invention has been described in detail for purposes of illustration, various modifications and enhancements may be made without departing from the spirit and scope of the invention. Accordingly, the invention is not to be limited except as by the appended claims.

What the invention claimed is:

1. A physical exercising ball comprising an inner tube defining an air chamber, an outer leather cover, a thin primary base covering layer covered on the periphery of said
inner tube within said outer leather cover, said primary base covering layer comprised of a plurality of strips of rubber, a secondary base covering layer covered on said primary base covering layer, said secondary base covering layer comprised of a plurality of strips of rubber overlapped on the strips of rubber of said primary base covering layer, at least one layer of intermediate covering sandwiched in between said secondary base covering layer and said leather outer cover, said layer of intermediate covering comprised of a plurality of strips of rubber overlapped on the strips of rubber of said secondary base covering layer, and an air valve radially extended from said inner tube to the outside of said outer leather cover.