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EXERCISING DEVICE

Filed Oct. 19, 1959

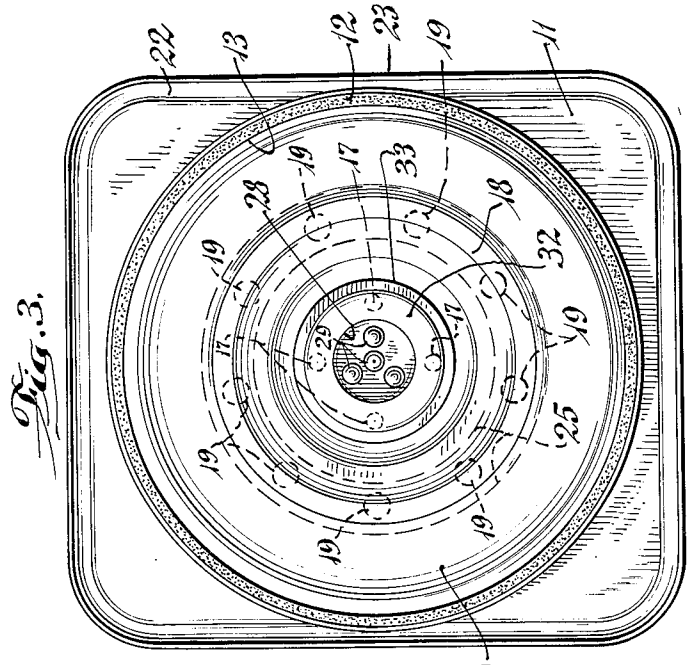

Fig. 3.

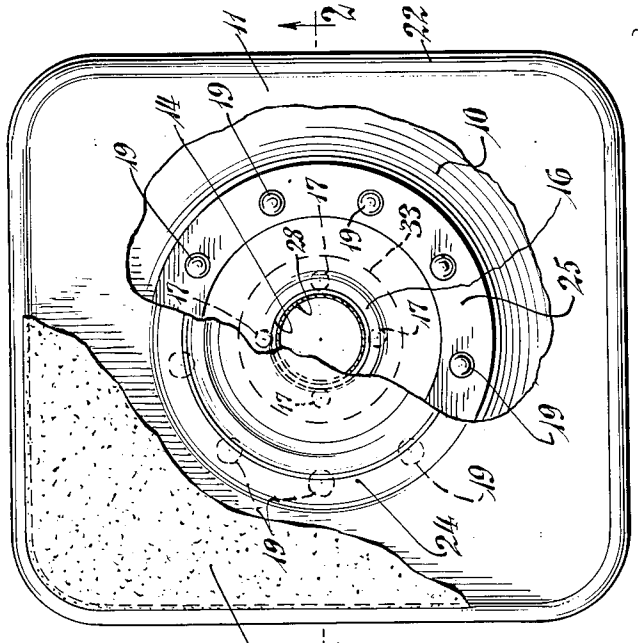

Fig. 1.

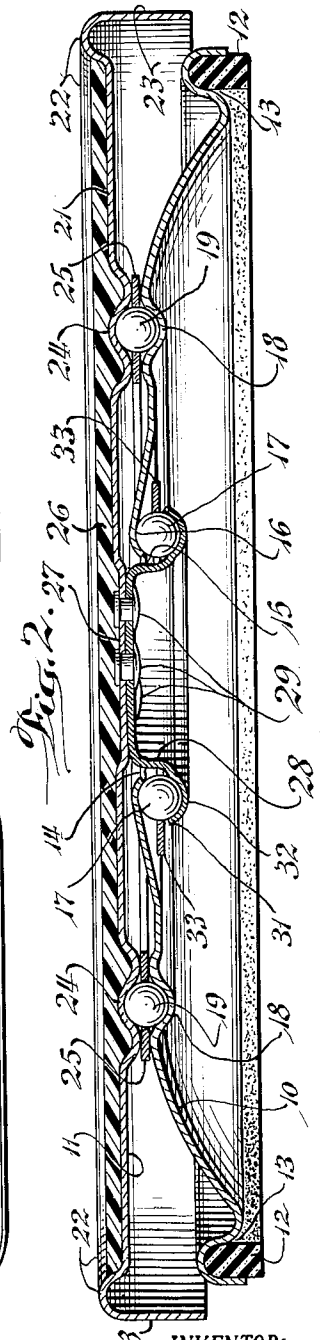

Fig. 2.

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EXERCISING DEVICE

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The present invention relates to a novel exercising device and more particularly to a device to exercise and strengthen, without great physical effort, the muscles of the lower back, hips, thighs and legs as well as the muscles of the abdomen.

Generally, the concept of exercise, whether for developing the physique or for the purpose of weight reduction, involves expending a substantial amount of time and physical effort to obtain observable results. Furthermore, such exercise or weight reduction frequently requires equipment that is rather expensive and beyond the means of many who desire to exercise or reduce.

The present invention comprehends a simple and inexpensive exercising device adapted for home use and capable of strengthening the muscles of the lower back, hips, thighs, legs and abdomen with but little physical exertion on the part of the user. Further, surprising results are obtained from the use of this device in measurement reductions, especially around the waist.

It is, therefore, an important object of the present invention to provide a simple and compact exercising device adapted for home or office use requiring but a minimum of floor space.

A further object of the invention is to provide a novel exercising and/or reducing device requiring but little effort each day for a person to obtain noticeable beneficial results both in strengthening the muscles of the body and in reducing the waistline.

A further object of the present invention is the provision of an exercising device having a platform freely swivelled on a base supported on the floor. The person in using this device freely swivels the hips and legs without having to act against the restraining force of springs or other restraining means whereby effective exercise may be obtained with a minimum of physical exertion and requiring but relatively short periods of time to obtain beneficial results.

Another object is the provision of an exercising device which not only strengthens the muscles and results in reducing the waistline, but also results in better posture, general physical well-being and in better disposition. Also, unlike prior exercising devices which require substantial physical effort, exercising on this invention is fun for the user and the operation is so simple that even children will master it in a short period of time.

Further objects are to provide a construction of maximum simplicity, efficiency, economy and ease of assembly and operation, and such further objects, advantages and capabilities as will later more fully appear and are inherently possessed thereby.

In the drawing:

FIGURE 1 is a top plan view of the novel exercising device with portions of the swivel plate or platform broken away for disclosure of the swivel mounting.

FIG. 2 is an enlarged cross-sectional view taken on the line 2—2 of FIG. 1 and viewed in the direction of the arrows.

FIG. 3 is a bottom plan view of the device and showing its supporting base.

Referring to the disclosure in the drawing wherein there is shown an illustrative embodiment of the present invention, the novel exercising device comprises a base plate 10 circular in outside contour upon which is swivelled a rotating platform 11. To prevent the device from slipping or marring the floors, an annular depending strip 12, preferably of natural or compounded synthetic rubber, is inserted in a downwardly opening annular channel or groove 13 formed at the periphery of the base plate 10 for contact with the floor. A circular opening 14 is formed centrally in the upwardly bowed portion of the base 10 inwardly of the channel or recess 13. The inner edge of the base plate defining the central opening 14 has a downwardly extending lip 15 which is contoured to form a downwardly opening annular raceway 16 for ball bearings 17. Intermediate the outer channel 13 and the inner raceway 16 is an annular depression or upwardly opening raceway 18 for a second set of ball bearings 19.

The rotating platform 11 has a substantially flat load-bearing surface 21 encompassed or defined by a peripheral bulge or raised portion 22 with its outer edge depending and forming drawn down sides or flange 23 tending to stiffen the platform and to conceal the ball bearings and associated internal structure. The platform has an annular depression provided with an annular raceway 24 complementary to the annular raceway 18 of the base 10 in which are housed spaced ball bearings 19. As seen in FIGS. 1 and 2, the multiple ball bearings are retained separated by a ball bearing retainer ring 25 having spaced openings for the ball bearings.

The platform 11 has a nonslip composition pad 26 within the peripheral bulge 22 with the upper surface of the pad depressed below the top of the peripheral bulge with the latter providing a retaining wall for retaining the feet of the user within the bulge.

The center of the rotating platform 12 is slightly depressed at 27 and to the underside of this depressed portion is attached a center thrust flange 28 by means of rivets 29, although this flange may be securely attached to the platform by other means including spot-welding or the like. The peripheral edge 31 of this flange 28 extends downward through the opening 14 in the base plate 10 and then terminates in an upwardly opening channel or raceway 32 which, with the raceway 16 of the base plate, receives the spaced ball bearings 17. A ball bearing retainer ring 33 having spaced openings for receiving the balls separates and retains the ball bearings 17 in the complementary raceways. By this assembly, the rotating platform 11 is separated from the base plate and supported on the concentrically arranged ball bearings 17 and 19 for free rotation.

In the operation of the novel exercising device, it is placed on the floor or other firm supporting surface. The person who is exercising stands on the platform 11 with the feet firmly planted thereon within the peripheral bulge 22 and, holding the shoulders and chest relatively stationary, rotates the hips, legs and feet in an oscillatory movement with the platform. At first, one may have to hold onto a stationary object to keep one's balance, but as one becomes more proficient, the support will not be required. The arc of rotation of the platform is gradually increased from approximately 120° to 180° and with but little practice one may exercise in various other positions such as upright or with the knees or hips bent until one is in a substantially sitting or squatting position. It is found that exercising in this manner for periods of but 15 to 30 seconds several times each day results in a highly beneficial effect.

While the rotating platform is shown as substantially rectangular, it is obvious that it may be circular or of some other configuration. Further, the upper surface of the platform may be formed with impressions for more firmly anchoring the feet. Although but one illustrative embodiment has been disclosed, it is to be understood the invention is not limited to this specific form, but in-

cludes all the equivalents inherent in the disclosure and the claims.

Having thus disclosed the invention, I claim:

1. An exercising device comprising a stationary base having a domed portion supported at its outer peripheral edge upon the floor and having a central opening, a horizontal platform mounted upon said base for free oscillation, said platform having a recessed portion, a resilient pad in said recessed portion for supporting and retaining the feet of the user as the platform is oscillated back and forth, a central thrust flange secured to and depending from said platform through said central opening in said base and terminating in an annular upwardly opening channel of a larger diameter than said central opening forming a raceway, a complemetary downward opening raceway provided at the inner peripheral edge of said central opening of said base, complementary ball bearing raceways provided between said base and said platform with said raceways arranged in concentric relation, a plurality of ball bearings in each of said raceways, and ball bearing retainer rings in each raceway to separate and position said ball bearings.

2. An exercising device comprising a stationary domed base having a downwardly opening, annular channel at its outer periphery and a resilient strip in said channel for engaging and supporting said device on the floor, a platform mounted upon said base for free oscillation by the user when standing on the platform and having a recessed portion provided with a horizontal pad for receiving the feet of the user, said base having a central opening therethrough, a center thrust flange affixed to and depending from said platform, said flange extending through and below said central opening and terminating in an upwardly opening annular raceway of a diameter larger than said central opening, said base terminating adjacent said opening in a downwardly opening and complementary annular raceway, complementary ball bearing raceways provided between said platform and said base and concentric with said first mentioned raceways, a plurality of ball bearings in each of said raceways, a ball bearing retainer ring in each raceway, and a depending flange on the periphery of said platform encompassing said base and concealing the ball bearing raceways.

3. An exercising device comprising a circular upwardly bowed stationary base plate having a depending peripheral edge supporting the plate in elevated position upon the floor, said base plate having a central opening with said plate terminating at said opening in a downwardly opening channel providing an annular raceway, said base plate having an upwardly opening channel providing an annular raceway intermediate the central opening and the peripheral edge, a platform mounted on said base plate for free oscillation and having a recessed portion for receiving the feet of the user and a raised edge along the periphery of the platform to confine the feet of the user, a resilient pad in said recessed portion upon which the feet of the user are placed when operating said device, a downwardly opening channel formed in said platform and providing a raceway complementary to the upwardly opening channel in said base plate, an inverted cup-shaped center thrust flange secured to and depending from said platform, said flange having an elevated portion extending through said central opening in said base plate and terminating at its lower end and outer periphery in an upwardly opening channel disposed below and complementary to the downwardly open channel of said base plate providing ball bearing raceways formed by said complementary channels in said flange and said base plate, the channel on said platform and the complementary channel intermediate said central opening and said peripheral edge of said base plate forming complementary raceways concentric with and spaced from said first mentioned complementary raceways, a plurality of ball bearings in said raceways, a ball bearing retainer ring in each of said raceways to separate and position said ball bearings, and a depending flange on the periphery of said platform concealing the ball bearing raceways and encompassing said stationary base plate.

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