Dec. 29, 1953 A. T. NORWICH 2,664,289

EXERCISING DEVICE

Filed March 13, 1952

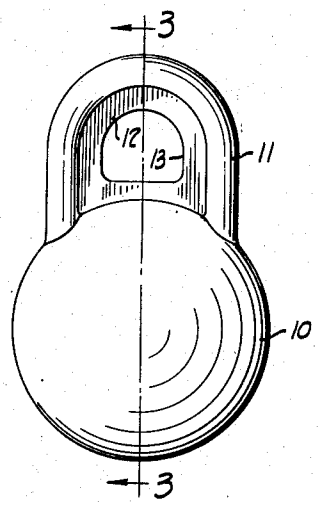


FIG. 1

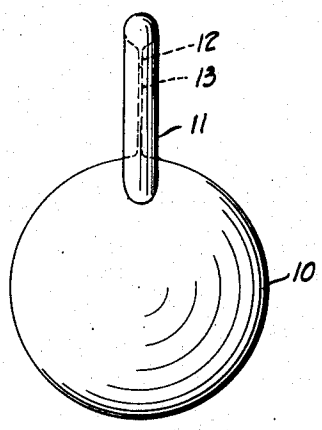


FIG. 2

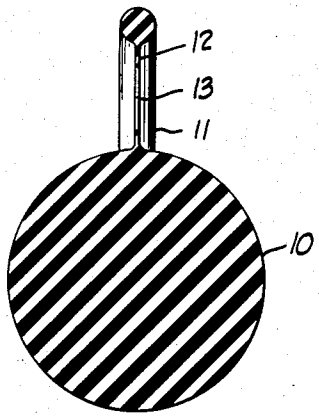


FIG. 3

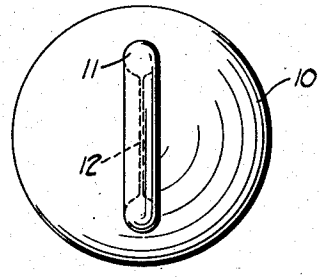


FIG. 4

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EXERCISING DEVICE

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3 Claims. (Cl. 272—68)

1

This invention relates to exercising devices and particularly to a device to be grasped in the palm of the hand.

The primary object of this invention is to provide a compressible device that can be grasped by the hand and at the same time is provided with means for retaining said device on one of the fingers of the hand when the grasping action is relaxed.

Another object is to provide a compressible device of substantially spherical or ball-like configuration that includes a finger engaging handle formed integral therewith.

Still another object is to provide a device of the type stated whose finger engaging handle does not interfere with the normal grasping of the ball when a finger is thrust through said handle.

A further object is to provide a device of the type stated whose handle is adapted to engage fingers of different cross-sectional area with equal facility.

Other objects are to provide such a device that is rugged in structure, low in cost and easily maintained in a sanitary condition.

These and other objects of the invention will become apparent from a reading of the following specification and claims, together with the accompanying drawing, wherein:

Figure 1 is a front view of the exercising device comprising the invention;

Figure 2 is a side view of the same;

Figure 3 is a vertical sectional view taken along the line and in the direction of the arrows 3—3 of the Figure 1; and

Figure 4 is a top plan view of the device.

Conducive to a better understanding of this invention, it may be well to point out that athletes and sufferers from physical disabilities often need to exercise their finger and arm muscles in order to strengthen or restore their fingers, hands, wrists and arms to normal usefulness. A common way of doing this is to repeatedly squeeze and release a compressible object held in the hand. Balls or ovoid-shaped objects made of sponge rubber and of a size to be readily grasped in the palm of the hand are customarily used for this purpose. It is characteristic of muscle tissue that alternated periods of action and rest are required for their proper maintenance and development. Therefore, when a rubber ball or like object is used it is necessary to remove the ball from the hand during the rest period. The ball is usually placed on a convenient table or in the case of a bed-ridden person somewhere upon the bed or on a bed-side table. Unless these

2

surfaces are exactly level, the ball will roll around and in most cases be out of reach or lost in the bed coverings when wanted again. This discourages further use of the exerciser and the beneficial effects of a schedule of persistent exercise is lost or greatly diminished in scope.

The instant device was designed to keep the exerciser immediately available at all times during the rest period, while at the same time not interfering with its normal and natural use during the exercising period.

While the exerciser may take various shapes, its preferred form as illustrated in the drawing is substantially that of a ball. The device is made of sponge rubber or other suitable material that is compressible with appreciable resistance. The idea being to provide something for the muscles to work against during their period of contraction.

The device comprises a spherically shaped body member 10 made of solid sponge rubber. The size of the body can be varied to fit the size of the hand. A suggested size for the average hand would be approximately two inches in diameter. A handle element or finger loop 11 of U-shaped configuration is formed integral with the body member 10 as indicated in the sectional view thereof in Figure 3. The handle 11 extends laterally from the bounding surface of the body 10 and is substantially perpendicular or normal thereto. The handle is made sufficiently rigid to maintain its upright position at all times.

An inwardly directed fin 12 is positioned on the inner face of the U-shaped handle and also extends across the surface of the body 10 between the termini of the straight portion of the U-shaped handle. The marginal edge of the fin 12 defines an opening 13 through the handle 11 which is adapted to receive a finger therethrough when the body member 10 is grasped in the palm of the hand.

The fin 12 is made relatively thin so that it may be easily flexed when pushed by a finger entering the opening 13. A finger of small cross-sectional area as well as one of large cross-sectional area can thus be comfortably accommodated by the handle 11 since a large finger will merely press the fin 12 back against the handle surface 11. The body, handle and fin are molded in one piece out of a single mass of sponge rubber and therefore may be easily washed or sterilized, if desired, before being used by different persons.

In use, the body or ball portion 10 is placed in the palm of the hand and one of the fingers is

passed through the handle opening 13, until the handle 11 is snugly positioned against the base of the finger. The ball 10 is then alternately compressed and released by the hand in the usual manner. When the user becomes tired, the fingers may be relaxed but the device will remain suspended from the finger passed through the handle 11. This is due to the fact that the edge of the fin 12 will flex against the first knuckle of the finger and frictionally engage the flesh of the finger so that the device will not fall off the finger even if the finger is held in a vertical position. Thus the device is always available, even during the period when the hand is fully relaxed and not grasping the body 10 at all.

The U-shaped handle also may be used to provide localized exercise for the individual finger passed therethrough, since the body 10 is held in contact with the underside of the particular finger by the handle 11 when the finger is closed over the body member. Particularly weak fingers such as the third finger of each hand may thus be strengthened by concentrating on the contraction of that finger when passed through the handle. Since the finger muscles expand, when shortened by flexion, if the handle 11 were rigid the continued use of the ball would irritate the engaged finger as well as those on either side of the handle. However, due to the fact that the handle is formed integral with the body 10 and is made of the same compressible material, its cross-sectional dimension may be easily reduced by the swelling action of the expansion of the finger muscles, thereby preventing any abrasion of the skin of the associated fingers.

It will now be clear that there has been provided a device which accomplishes the objectives heretofore set forth. While the invention has been disclosed in its preferred form, it is to be understood that the specific embodiment thereof as described and illustrated here is not to be considered in a limited sense as there may be other forms or modifications of the invention

which should also be construed to come within the scope of the appended claims.

I claim:

1. An exercising ball comprising a compressible spherical body member of a size adapted to be grasped in the palm of the hand and having a substantially U-shaped finger loop formed integral therewith, the spherical surface of the body member being continuous between the termini of the loop.

2. An exercising ball comprising a compressible spherical body member adapted to be grasped in the palm of the hand having a substantially U-shaped finger loop formed integral therewith, the termini of said loop being spaced apart a distance equal to the diameter of the closed end thereof, the curvature of the body member being continuous between the said termini.

3. An exercising ball comprising a compressible spherical body member of a size adapted to be grasped in the palm of the hand, having a compressible substantially U-shaped finger loop formed integral therewith, the termini of said loop being spaced apart a distance equal to the diameter of the closed end thereof and the curvature of the body member being continuous between the said termini.

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