United States Patent

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[54] EXERCISING DEVICE

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[51] **Int. Cl.** **A63h 1/32**

[58] **Field of Search** ..... 46/61, 62, 63, 67, 70; 272/79 R, 79 A, 79 B, 79 C, 79 D, 81, 57 R; 273/58 C, 67 R, 67 B, 67 C, 97, 98, 99

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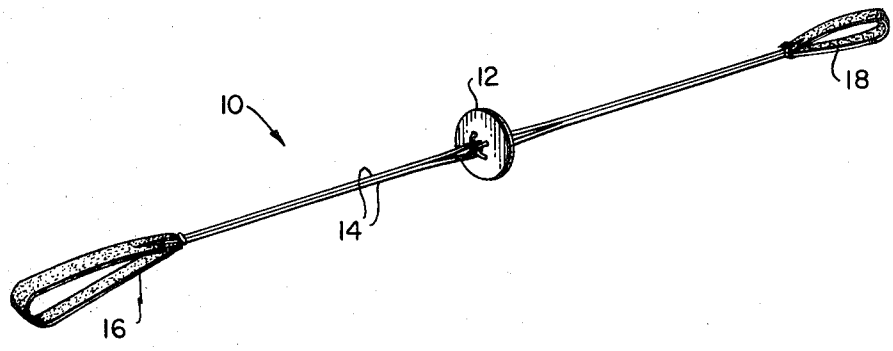
[57] **ABSTRACT**

An exercising device consists of a disc of preselected diameter and width and is provided with a central bore and a plurality of smaller bores uniformly spaced about the central bore. A low twist cord is threaded through the plurality of smaller bores such that a cross of cord passes over the central bore; a further double strand of low twist cord is threaded through the central bore and in contact with opposed sections of the cross cord, and hand gripping loops are provided at the ends of the double strand of low twist cord.

4 Claims, 5 Drawing Figures



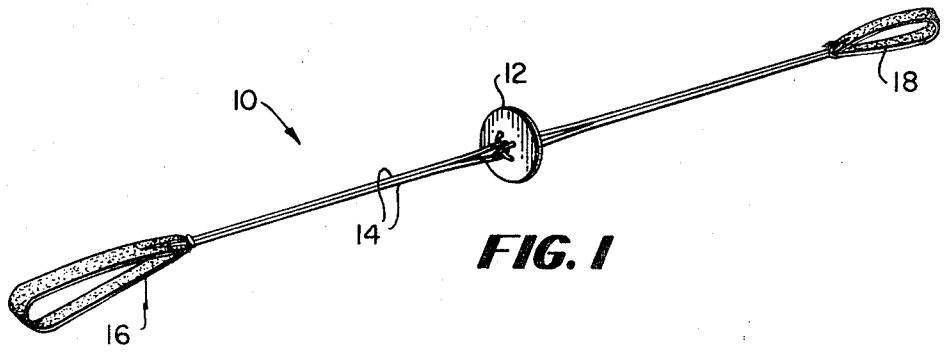


FIG. 1

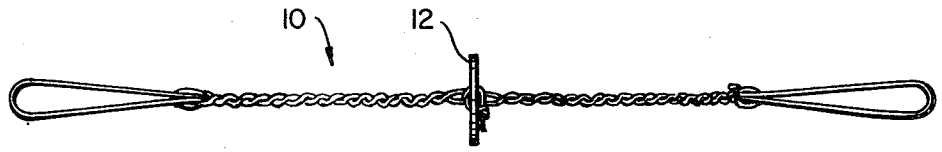


FIG. 2

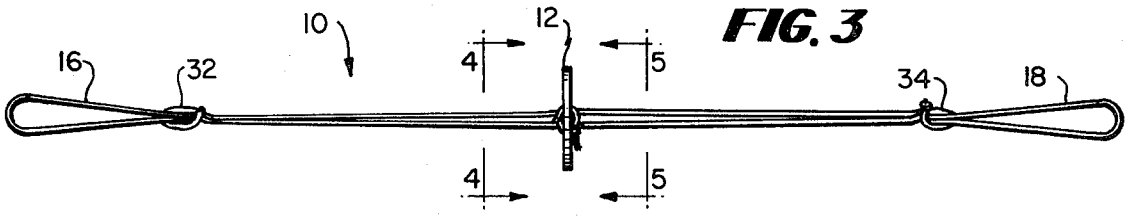


FIG. 3

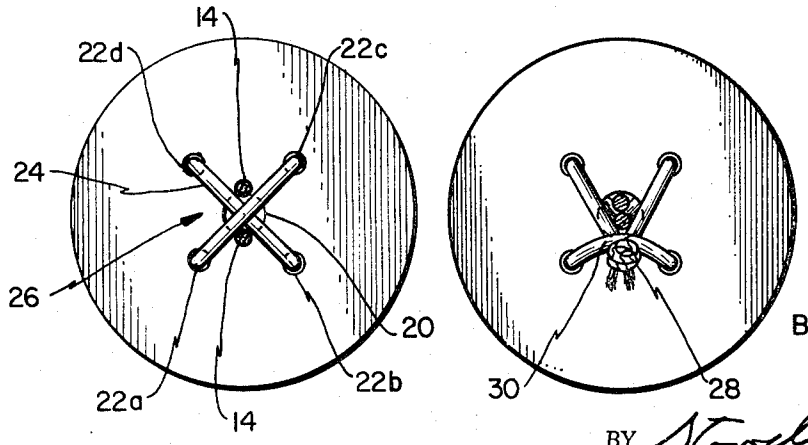


FIG. 4

FIG. 5

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EXERCISING DEVICE

BACKGROUND ON THE INVENTION

It is known in the art to provide exercising devices, commonly known as "button buzzers" wherein a weight is tied to two pairs of cords or strands and by suitable manipulation of the ends of the pair of cords the weight, or button, is caused to rotate in first one direction and then in the other as the cords are first twisted in the one direction and then in the opposite direction.

While such devices are known in the art, difficulties have been experienced in connecting of the pair of cords to the weight and in providing cords which would have an adequate service life.

OBJECTS OF THE INVENTION

It is a primary object of the present invention to provide such a device constructed to minimize the wear on the cords and maximize the cord life.

Another object of the present invention is to provide such device wherein a double strand of low twist cord is employed and the disc forming the "button buzzer" is coupled to the actuating cords by further yieldable cord means.

Another object is to provide a device wherein the "button buzzer" may be quickly disconnected from its operating cord and replaced by heavier or lighter buttons.

These and other objects and advantages of the present invention are provided by an improved exercising device comprising a disc of preselected diameter and width, with the material of the disc being perforated to provide a central opening, a dual strand of low twist cord threaded through the central opening, means associated with the opening adapted to contact the dual strands, and hand engaging loop members at each end of the dual strand; and by such a device which may include a plurality of smaller openings uniformly spaced about the central opening through which a further low twist cord is threaded such that a cross of the further low twist cord passes over the central opening and provides the means associated with the central opening which contacts the dual strands.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will be more particularly described in reference to the accompanying drawings wherein:

FIG. 1 is a perspective view of the preferred form of the present invention with the actuating cords in the untwisted state;

FIG. 2 is a plan view of the device illustrated in FIG. 1 with the actuating strands in the twisted configuration;

FIG. 3 is a view like FIG. 2 with the actuating cords in the untwisted relation;

FIG. 4 is an enlarged view substantially on line 4—4 of FIG. 3; and

FIG. 5 is a view substantially on line 5—5 of FIG. 3.

DESCRIPTION OF PREFERRED EMBODIMENT

Referring to the drawings, **10** generally designates the improved exercising device which includes an inertial mass or wheel or button **12**, a pair of low twist strands **14**, and a pair of loop-like hand gripping elements **16** and **18**.

The inertial mass **12** may be constructed of various materials such as metal, wood, plastic, or combinations of such materials, and the device may be of various diameters and widths. To a substantial extent the material of construction and its size would depend on, for example, the age, ability, and skill of the user. A very useful device may be constructed with a disc of Plexiglas having a diameter of about 2 inches and a thickness of about one-eighth inch. Discs as small as 1 inch and as great as, for example, 12 inches in diameter and having width as great as three-fourths inch to 1 inch will provide satisfactory results.

The disc **12** is provided with a central bore **20** and a plurality of smaller bores **22***a*, *b*, *c*, and *d*, uniformly spaced about the central bore **20**. In a useful embodiment of the invention the central bore is one-fourth inch in diameter and the smaller bores are about one-eighth inch in diameter.

Through the small bores **22***a* through **22***d* is threaded a low twist nylon cord **24** such that a cross generally designated **26** is formed across the central bore **20** as shown in FIG. **4** and the cord **24** is knotted as at **28** with the knot being retained under one cross-over **30** of the cord **24** as more clearly shown in FIG. **5** of the drawings.

The cord **24** is preferably of nylon Seine Twine No. 21 or equivalent. The dual strand cord **14** is threaded such that one of the strands is in one cross segment while the other lies in the opposite segment when passing through the bore **20** as more clearly shown in FIG. **4**. With this arrangement the crossed cord **24** flexibly and resiliantly engages the actuating pair of cords **14** to generally maintain the disc **12** centered between the loop ends **16** and **18** of the device while at the same time the crossed cords transmit cord twisting forces to the pair of cords **14** as the disc or button **12** rotates while subjecting the actuating cords **14** to a minimum of wear.

In the preferred form of the present invention the hand engaging loops **16** and **18** are constructed of leather bands which are attached to the free ends of the pair of cords **14** by looping at end **32** for hand gripping element **16** and by tying at end **34** for hand gripping element **18**.

It will be recognized, however, by those skilled in the art, that the hand gripping means may be formed also from the low twist nylon cord.

Experiments have established that the low twist Seine Twine No. 21 formed of nylon has the proper flexibility, ease of twist, and inherent resiliance to withstand the twisting, untwisting and tensile forces applied to the device.

In using the improved exerciser the hand grips are engaged in the hands and, after the disc has been turned to give an initial twist to the cords, by pulling the grips apart the disc is caused to rotate until the cords are untwisted, whereupon the pull on the grips is released, or relaxed, permitting the momentum or inertia of the disc to rewind the cords and, in so doing, draw the grips closer together. As the above-described action is repeated, the disc turns in the opposite direction, and the operation is continued at will, the hands first moving apart under the yielding resistance of the unwinding cords and then being drawn together by inertia of the disc.

I claim:

1. An improved exercising device comprising a disc of preselected diameter and width, the material of said disc being perforated to provide a central opening, a plurality of smaller openings uniformly spaced therefrom, a first low twist cord threaded through said smaller openings such that a cross of said first cord passes over the central bore, a second dual strand low twist cord threaded through the central opening and in contact with opposed quadrants of the first cord-formed cross and hand engaging loop members at each end of said second cord.

2. The invention defined in claim 1 wherein said second cord comprises nylon Seine Twine No. 21.

3. The invention defined in claim 1 wherein said first and second cords comprise nylon Seine Twine No. 21.

4. The invention defined in claim 3 wherein said disc comprises Plexiglas and has a diameter of 2 inches and the central bore is one-fourth inch.

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