

[54] **ELASTIC TYPE EXERCISING DEVICE**

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Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 198,728, Nov. 15,
1971, abandoned.

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[51] Int. Cl. **A63b 21/00**

[58] Field of Search 272/82, 79 R, 83 R;
273/159

[56] **References Cited**

UNITED STATES PATENTS

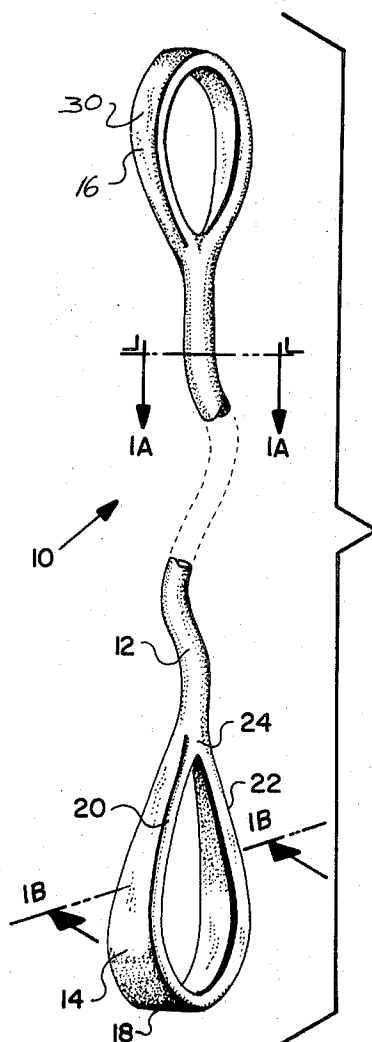
2,744,754	5/1956	Lee	273/159
3,345,067	10/1967	Smith	272/82
3,529,820	9/1970	Templeton	272/82

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Assistant Examiner—William R. Browne
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& Samuel

[57] **ABSTRACT**

An exercising device is provided which is of one piece molded construction and includes only a resilient single strand member which is of circular cross-section. The ends of the strand member terminate in looped straps that are flat in cross-section and which function as a handle and a stirrup, respectively. One looped strap is substantially wider than the other looped strap, and thus is adapted to be positioned and retained about one's foot. Each looped strap is V-shaped and tapers from a narrow width to a wider width. The vertex of each V-shaped looped strap is integral with the strand member.

1 Claim, 7 Drawing Figures



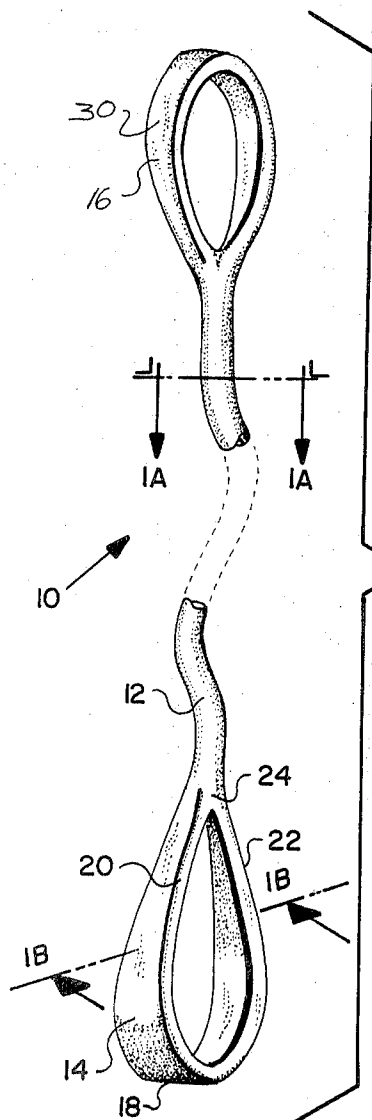


FIG. 1

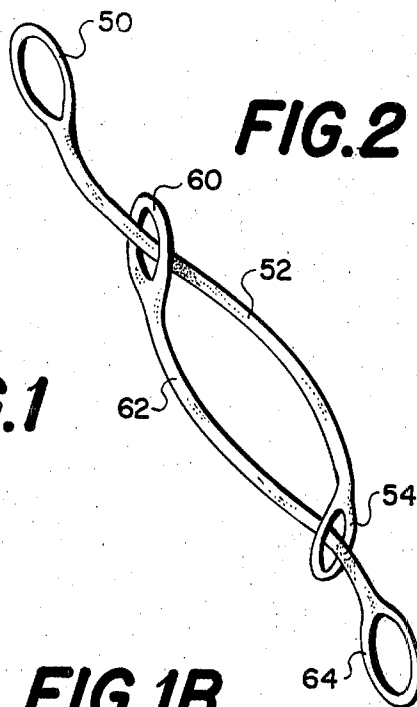


FIG. 2

FIG. 1B

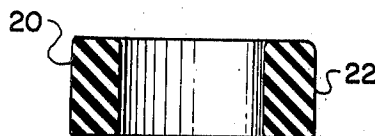


FIG. 1D

FIG. 1E

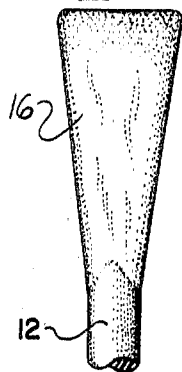


FIG. 1C

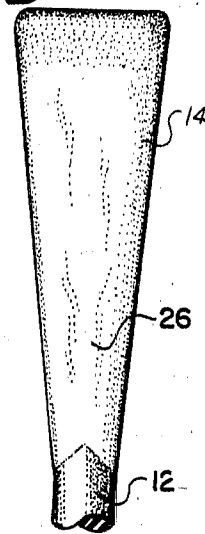
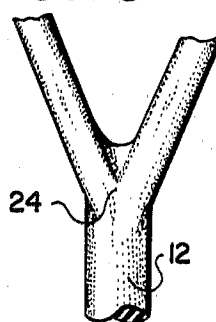


FIG. 1A



ELASTIC TYPE EXERCISING DEVICE

REFERENCE TO OTHER APPLICATIONS

This application is a continuation-in-part of U.S. application Ser. No. 198,728, filed Nov. 15, 1971 now abandoned.

FIELD OF THE INVENTION

The present invention relates to an exercising device of one piece elastic construction, which includes a resilient strand member, each end of which terminates in a looped strap or handle which is integral with each respective end of said strand member.

BACKGROUND OF THE INVENTION

Single strand type exercising devices are known in the art. Such devices may comprise a single coil spring, a combination of a single coil spring with an elastic inner member, or a single elastic member. One form of such exercising device comprises a flat strap-like member formed with integral end enlargements which function as gripping means. Such a device is quite limited in its application in that the gripping means can only be gripped by the fingers and cannot be retained by use of one's foot or even by one's hand.

It has also been suggested to form a single member exerciser which terminates in looped ends. In such a device, the single member is extruded and the free ends of the member are looped with the end of the looped portion being connected to the single member by means of vulcanizing or cementing. Such an exerciser has not been found to be entirely acceptable inasmuch as the vulcanized or cemented connection tends to fail under repeated stretching of the single member.

Canadian Pat. No. 833,418 discloses an exercising device which comprises a single elastic member which is looped at both ends, with the end portions of each of the loops being connected to the single member by at least two ring clamps.

U.S. Pat. No. 3,415,515 to Otto discloses a rubber cord skipping rope and exerciser, said rope being formed of stranded rubber cord having a loop formed at each end. A tubing handle grip is threaded on the looped portion. The end of the looped portion is retained on the body of rope by a ring member or clamp.

U.S. Pat. No. 3,529,820 to Templeton discloses an exercising device consisting of an elastic cord having a sleeve loosely mounted thereon, and having an elbow harness at each end to receive the elbows of the user.

BRIEF STATEMENT OF THE INVENTION

In accordance with the present invention, an exercising device is provided which is of one piece construction and comprises a resilient strand member or body portion of substantially circular cross-section, each end of which is integral with a looped strap or handle having a substantially flat configuration to facilitate gripping or holding of each of said straps. The resilient strand member flows from a member of substantially circular cross-section through a V-shaped or pyramidal-shaped transition member, which is integral therewith, to a looped strap of substantially flat cross-section, the ends of which are integral with said V-shaped or pyramidal-shaped transition member. Accordingly,

the looped straps, the resilient strand member and the integral transition member are of one piece construction and are formed of the same material.

BRIEF DESCRIPTION OF THE FIGURES

FIG. 1 is a view of a preferred embodiment of the exercising device of the invention.

FIG. 1A is a cross-section of the exercising device shown in FIG. 1 along the lines 1A—1A.

FIG. 1B is a cross-section of the exercising device shown in FIG. 1 taken along the lines 1B—1B.

FIG. 2 is a view of a pair of such exercising devices as shown in FIG. 1 in interlocking relationship with each other.

FIGS. 1D and 1E are side views of each of the looped straps shown in FIG. 1.

DETAILED DESCRIPTION OF THE INVENTION

The exercising device as shown in FIG. 1 is generally identified by the numeral 10 and comprises a resilient strand member 12 of substantially circular cross-section as shown in FIG. 1A, and two end handle members or looped straps generally referred to by the numerals 14 and 16. As shown, the exercising device is of one piece construction. The looped strap 14 includes a gripping portion 18 of generally flat cross-section as shown in FIG. 1B and includes end portions 20 and 22 which are integrally connected to the resilient strand member 12 by means of V-shaped or pyramidal-shaped transition member 24. Thus, it can be seen that the resilient strand member 12 flows from a single member of round configuration, shown in FIG. 1A, via transition member 24, to a looped strap having a flat configuration.

The V-shaped or pyramidal-shaped transition member 24 is shown in FIGS. 1C and 1D. As can be seen in FIG. 1D, the sides 26 of the member 24 define the end portions 20 and 22 of the looped strap 14.

The other looped strap 16, as shown in FIG. 1, is substantially of the same basic configuration as the looped strap 14. However, in a preferred embodiment of the exercising device of the invention, as seen in FIG. 1E, the gripping portion 30 of the looped strap 16 is of a narrower width than the looped strap 14. In fact, the width of the looped strap 14 is at least 20 percent greater and preferably from about 40 percent to about 70 percent greater than the width of the looped strap 16. Furthermore, in this embodiment, the looped strap 14 will be substantially larger than the looped strap 16, such as at least 5 percent larger and preferably from about 10 percent to about 50 percent larger, as shown by a comparison of FIGS. 1D and 1E, so that the exerciser may position one foot through the looped strap 14 and retain such strap on his foot during exercising. The other looped strap, namely 16, will be employed for gripping or holding such strap in the exerciser's hand.

FIG. 2 shows a pair of exercising devices 52 and 62, as shown in FIG. 1, in interlocking relationship with each other, the looped straps thereof being of the same size and width or of different sizes and widths as shown in FIG. 1. As shown, a first end or looped strap 50 of exercising device 52 is inserted through the looped strap 60 of exercising device 62, and the second end or looped strap 64 of exercising device 62 is inserted through the looped strap 54 of exercising device 52. The ends 50 and 64 are then pulled in opposite directions.

tions from each other so that the looped straps 60 and 54 are pulled toward each other.

The combination shown in FIG. 2 is especially useful for various exercises wherein a long resilient strand member is required. For example, such a combination can be employed as follows:

A. The exerciser is seated on a chair and inserts both feet through the looped straps 50 and 64 and positions the resilient strand member 12 about his neck and then exercises by lifting and lowering his upper torso. The same exercise can be done standing, or lying on the floor.

B. The exerciser inserts one foot through one of the looped straps, such as looped strap 64 which will be larger and wider than the looped strap 50, pulls the resilient strand member 12 over his back and shoulder, inserts his hand through the other looped strap 50 and exercises by pulling upward or forward with or without bending.

The combination shown in FIG. 2 can be employed for carrying out many other exercises as will be apparent to one skilled in the art.

The exercising device as shown in the Figures can be formed of any resilient material, such as rubber, for example India rubber, and the like, and is formed by a simple molding procedure employing conventional techniques. It will be apparent that one of the ends or looped straps of the exercising device as shown in FIG. 1 can be used as a slip knot so that the exercising device can be secured at one end to any stationary or heavy object, furniture, door knob, fence, car, or can be held by one or both hands, or one or both feet, so that many exercises can be performed without the necessity of securing the exerciser.

The exercising device is formed completely of the resilient material as described above so that upon stretching of the exerciser, and releasing tension thereon, the exerciser will return to its original configuration.

In preferred embodiments of the exercising device of the invention, as indicated above, one looped strap will be larger than the other looped strap. The larger looped

strap will have an aperture ranging from about 3 inches to about 5 inches, whereas the smaller looped strap will have an aperture ranging from about 1 to about 3 inches. The resilient strand member 12 will have a diameter ranging from about ¼ inch to about 1 inch and more if desired. Depending upon the diameter of the strand member 12 and the type of rubber employed, the exercising device can have a range of stress between 10 and 20 or more pounds.

Although this invention has been described with respect to its preferred embodiments, it should be understood that many variations and modifications will now be obvious to those skilled in the art, and it is preferred, therefore, that the scope of the invention be limited, not by the specific disclosure herein, only by the appended claims.

What is claimed is:

1. An exercising device comprising one member which is of a molded one piece construction, said member being elastic and having a circular cross-section, said member having a first means at one end adapted to receive a hand of a user and a second means at the opposite end of said member adapted to receive a foot of a user so that as a user pushes on the last mentioned means with his foot the elongation of the elastic member will be resisted by a user grasping the first means while performing an exercise, said first means having only a single loop of substantially flat cross-section and a predetermined width, and said second means having only a single loop of substantially flat cross-section, both the first and second means being resilient and being molded integrally with said member, each said means being V-shaped with its apex being formed integrally with said member, and each of said first and second means tapering from a narrow width to a larger width, the loop adapted to receive a foot of a user being substantially larger than the loop that is adapted to receive a hand of a user, the increased width of one loop being necessary so as to better support the bottom portion of a foot of a user during an exercise program.

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