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División de Nuevas Creaciones
Superintendencia de Industria y Comercio
E. S. D.

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



No. 07-039535- -00001-0000

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Tra: 3 MODELO Eve: 1 REGDEPOSITO
Act: 538 PETICION Folios: 2

Ref. 07.039535
Asunto Solicitud Modelo de Utilidad
Título IMPLEMENTO PARA FORTALECIMIENTO MUSCULAR
Solicitantes HENRY AUGUSTO ABELLO GARCIA
EDUARDO MUÑOZ VILLAQUIRA

SOLICITUD EXAMEN DE PATENTABILIDAD

JORGE ARTURO ROMERO PRIETO, mayor de edad, domicilio en esta ciudad, identificado como aparece al pie de mi firma, en mi calidad de apoderado judicial de los señores HENRY AUGUSTO ABELLO GARCIA y EDUARDO MUÑOZ VILLAQUIRA solicitantes e inventores del Modelo de Utilidad en referencia, por este medio manifiesto a su Despacho que de conformidad con lo dispuesto por los artículos 44 y 85 de la Decisión 486 de la Comunidad Andina, en tiempo oportuno procedo a CANCELAR EL EXAMEN DE PATENTABILIDAD de la solicitud en referencia publicada en la Gaceta 579 del pasado 31 de agosto de 2007.

Adjunto recibo de pago por valor de DOSCIENTOS SESENTA Y NUEVE MIL PESOS (\$269.000), por concepto de la tasa correspondiente al examen de patentabilidad para que se sirvan continuar con el trámite en referencia.

Recibiré notificaciones en la secretaría de su Despacho o en la Carrera 13 No. 32 – 51 Torre III, Oficina 717 Edificio Baviera de esta ciudad.

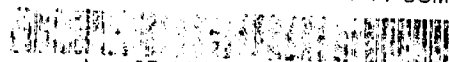
De Usted Señor Jefe,

JORGE ARTURO ROMERO PRIETO
C.C. 79.598.041 de Bogotá
T.P. 128.065 del C.S.J.

ESTA CERTIFICACION DE EXCEDENTE DE PAGO SOLO PODRA SER UTILIZADA
COMO PARTE DE LA CANCELACION DE UNA TARIFA VIGENTE Y NO PODRA SER
SUSTITUIDA POR NINGUN RECIBO.

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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO



No. 07-029535-00001-0000

Act. 538 REG. DEPOSITO
Folios: 2

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

NIT : 800176089-2

CERTIFICACION DE EXCEDENTE : 07 - 89,684
HA : NOVIEMBRE 1 DE 2007

***** CONSIGNACION *****

DEPOSITANTE	TIPO PAGO	BANCO	CUENTA	No. PAGO	FECHA PAGO	Vr. PAGO
HENRY ABELLO GARCIA	CONSIGNACION	BANCO POPULAR	050-00110-6	69421119	01/11/2007	269,000.00

***** CONCEPTO *****

N.	RENTISTICO	CONCEPTO	TOTAL CONCEPTO
1	50005-01-09	OTROS SERVICIOS DE PROPIEDAD I	
		99 OTROS SERVICIOS ADMINISTRATIVOS	269,000.00
		TOTAL :	\$ 269,000.00

SON: DOSCIENTOS SESENTA Y NUEVE MIL PESOS

RESPONSABLE :

RECIBO DE CAJA APLICADO AL EXPEDIENTE No.

DIVISION DE NUEVAS CREACIONES

RADICACIÓN EXPEDIENTE No 07-39535

EXTRACTO DE LA PRESENTE SOLICITUD DE **MODELO DE UTILIDAD**

NUMERO FUE PUBLICADO EN LA GACETA DE PROPIEDAD INDUSTRIAL No

579 DE FECHA 31 DE AGOSTO DE 2007 EL TERMINO HABIL SEÑALADO

POR LA LEY EXPIRA EL 12 DE OCTUBRE DE 2007.

NOTA: Dentro del plazo de los tres (3) meses siguientes a partir de la fecha de publicación en la gaceta de Propiedad Industrial, deberá solicitar y cancelar el examen de patentabilidad so pena de que la solicitud caiga en abandono, de acuerdo con lo establecido en el Artículo 44 y en concordancia con el artículo 85 de la Decisión 486/2000.

SE PRESENTARON OPOSICIONES POR PARTE DE TERCEROS.

SI _____ NO X

United States Patent

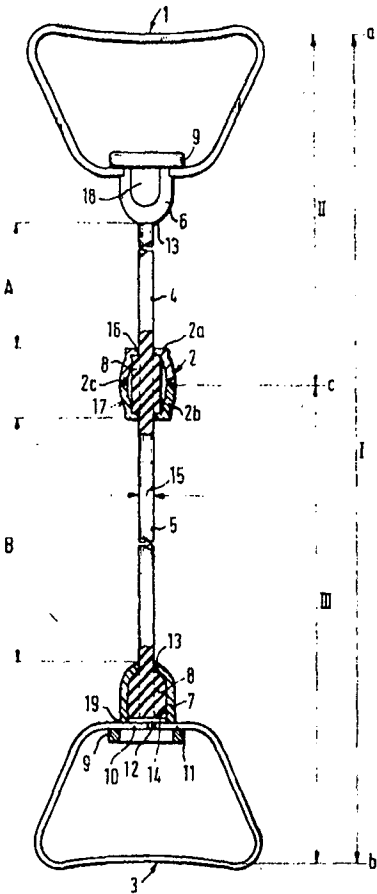
[11] 3,589,721

[72] Inventor **Willi Cronauer**
Bernhard Borststr. 5, 8 Munich 19,
Germany
 [21] Appl. No. **852,163**
 [22] Filed **Sept. 22, 1969**
 [45] Patented **June 29, 1971**
 [32] Priority **May 20, 1969**
 [33] **Germany**
 [31] **G 69 20 263.7**

[56] **References Cited**
UNITED STATES PATENTS
 1,885,473 11/1932 Pat. 272/82
 3,312,466 4/1967 Melchiona..... 272/82
Primary Examiner—Richard C. Pinkham
Assistant Examiner—William R. Browne
Attorney—Kelman & Berman

[54] **ELASTIC-TYPE EXERCISING DEVICE**
8 Claims, 4 Drawing Figs.
 [52] U.S. Cl. 272/82
 [51] Int. Cl. A63b 21/00
 [50] Field of Search..... 272/82, 83,
 79, 80

ABSTRACT: An exercising apparatus has a single rubber cord, stirrup-shaped handles at the ends of the cord, and a barrel-shaped grip on the cord spaced from the handles in such a manner that the sections of the cord separated by the grip have a length ratio of approximately 5:8. It is particularly suitable for exercises performed in and under water.



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ELASTIC-TYPE EXERCISING DEVICE

BACKGROUND OF THE INVENTION

This invention relates to exercising apparatus, and particularly to exercising apparatus which may be used underwater or in water repeatedly over an extended period.

Known exercisers have two handles which are connected by several releasably fastened steel springs. Muscle-strengthening exercises may be performed by gripping the handles and expanding the springs whose number may be selected to match the muscular strength of the user. The known exercisers, even when equipped with but one spring, are too stiff for many types of physiotherapy, particularly for exercises intended to improve breathing impaired by disease or accident. The known exerciser cannot usefully be employed by a person immersed in water. Yet, exercises under such conditions are known to be beneficial under many conditions.

An object of the invention is the provision of exercising apparatus suitable for physiotherapy where spring expanders are too stiff and/or unsuited for use in moist surroundings.

SUMMARY OF THE INVENTION

The exercising apparatus of the invention mainly consists of a single cord of resilient material, such as a rubber cord, two fastening devices which fasten the ends of the cord to the handles, and a gripping element fixedly fastened to an intermediate portion of the cord spaced from the longitudinal ends of the same.

The handles each essentially consist of an elongated strip member which extends in the approximate shape of a closed, trapezoidal loop about an opening, and the cord ends are fastened to the shorter base parts of the two loops respectively.

The gripping element has a barrel-shaped face, having an axis which extends in the direction of cord elongation, two radial, annular, substantially flat end faces extending about the cord, and said barrel-shaped face connects the end faces and is angularly offset from the same. The cross section of the axial face increases axially from the end faces toward the axially central portion of the gripping element.

Other features, additional objects, and many of the attendant advantages of this invention will readily be appreciated as the same becomes better understood by reference to the following description of a preferred embodiment when considered in connection with the appended drawing.

BRIEF DESCRIPTION OF THE DRAWING

In the drawing:

FIG. 1 shows a person exercising with two devices of the invention in front elevation;

FIG. 2 shows a person exercising with a single apparatus of the invention, in front elevation;

FIG. 3 shows exercising apparatus of the invention in plan view and partly in section on its longitudinal axis; and

FIG. 4 shows a portion of the apparatus of FIG. 3 in a perspective view.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring initially to FIG. 3, there is seen an exercising apparatus of the invention consisting of two integrally connected sections 4,5 of a rubber cord of uniform, circular cross section 15, two identical handles 1,3 at the longitudinal ends of the cord, and a generally barrel-shaped grip 2 whose location separates the cord sections 4,5.

Each handle 1,3 is a flat, elongated strip of reinforced plastic bent into the approximate shape of an isosceles trapezoid. The loop so formed is open in the shorter base part of the trapezoid, but the opening is normally invisible, being covered by a fastening member 6 on the handle 1, and a fastening member 7 on the handle 3. The two fastening members are

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identical, cup-shaped plastic moldings whose hemispherical bottom walls have respective central, outwardly flaring apertures 13, and whose rim portions 14 carry each a radial flange 9. Two diametrically opposite slots 19 in the rim portion adjacent the flange of each fastening member 6,7 are connected by a groove 12 in the inner wall of the rim portion 14, and the free ends 10,11 of each handle 1,3 pass through respective slots 19 into the grooves 12 and abut against the flange 9.

The free end of each cord section 4,5 passes through the aperture 13 into the interior of the associated fastening member 6,7 and coaxially carries a generally cylindrical rubber sleeve 8 within the fastening member. The sleeve is vulcanized to the free end of the cord, and forms a transverse enlargement on the cord which prevents the cord from being pulled out of the fastening member through the aperture 13. For greater rigidity, each fastening member 6,7 has two axial outer ribs 18 which connect the flange 9 to the sidewall of the cup, as is better seen in FIG. 4. The ribs 18 are diametrically opposite each other and offset 90° from the slots 19. The lengths of the sleeve 8 and of the end of the cord section vulcanized thereto are such that the rim portion 14 partly projects beyond the sleeve and the cord end, the slots 19 being formed in the projecting rim portion.

The longer base part of the trapezoid formed by each of the handles 1,3 extends in a flat, longitudinal arc whose radius of curvature is greater than the length of the greater base part, and the major longitudinal face of the strip-shaped handle material which bounds the opening in the handle is convexly curved.

The grip 2 is substantially tubular and conformingly envelops another rubber sleeve 8 or radial enlargement 8 of cylindrical shape, when in the relaxed condition, which is vulcanized on the rubber cord to separate the sections 4,5. The grip 2 consists of two cup-shaped elements 2a,2b having centrally apertured bottoms or radial end walls 16 dimensioned for passage of the cord sections 4,5, and axial wall portions 17 which flare from the walls 17 toward respective circular rims connected in abutting engagement by pins 2c and nonillustrated cement.

As is also seen in FIGS. 1 and 2, the exerciser of the invention provides holds for a user at three points a, b, c, the holds a and b being provided by the longer base portions of the handles 1,3, and the third hold being formed by the barrel-shaped grip 2. The overall length I of the exerciser in the relaxed condition of the cord 4,5 may be selected according to the height of the user, and may be about 2 feet for a child of less than 10 years, to about 5 feet for a normally tall adult. The location of the grip 2 is such that the distances II,III between the center of the grip and the holds a,b satisfy the relationship $I/III=III/II$, and the ratio of II to III is approximately 5:8, all lengths being measured along the relaxed cord 4,5.

The shallow arc of the longer base portion of each handle 1,3 provides a convenient foothold and a firm grip for the hands when the full length of the exerciser is used in the upright position of a user, as shown in FIG. 1 which illustrates two identical exercisers of the invention used simultaneously between respective feet and hands of the user. The longer section III between the grip 2 and the handle 3 is properly dimensioned for exercises in which one outstretched arm and one bent arm hold the apparatus, as shown in FIG. 2, and exercises with two bent arms are best performed on the shorter section II, as not explicitly shown in the drawing.

The exerciser is useful for use in water or underwater because of its materials of construction which are preferably nonmetallic, although the handles 1,3 may be made of metal if provided with an abrasion and shock-resistant plastic coating. The rubber or plastic surfaces of the grip 2 and of the handles 1,3 become somewhat slippery when wet, but a firm hold is possible because of their configuration. The convex arch of the longer base portion of each handle fits the user's palm, and the grip 2 fits into the closed hand with a cord section 4 or 5 passing between two fingers. The angular, circular edge between the radial end wall 16 and the axial wall 17 of the grip 2 is essential for a firm hold on the wet grip 2.

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The exposed lengths A,B of the cord sections 4,5 between the grip 2 and the handles 1,3 permit the handles to be twisted freely about the longitudinal axis of the exerciser, and thus, in combination with the aforescribed features of the apparatus, permit a wide range of movements to be performed against the gentle restraint of the single rubber cord. The apparatus of the invention is not intended for assisting in the development of powerful muscles, but has been found effective in restoring and improving normal muscle activity, particularly as it affects breathing.

In assembling the illustrated apparatus, the cup-shaped fastening members 6,7 and the cup-shaped halves 2a,2b are loosely slipped in proper sequence over the rubber cord. Three sleeves of heavy rubber tubing are slotted axially and placed over the ends of the cord and an intermediate cord portion and are vulcanized to the cord. The two halves of the grip 2 are then assembled about the intermediate radial enlargement on the cord to envelop the associated sleeve 8. The radial walls 17, which are axially offset from the sleeve in opposite directions, hug the cord sections 4,5 and the fastening members 6,7 are slipped over the enlarged cord ends, and are fastened in position by expanding the resilient loops of the handles 1,3 and relaxing them when aligned with the slots 19 to assume the illustrated position. Since the free ends 11,12 are accessible through the open ends of the fastening members 6,7, the loops of the handles 1,3 may be closed in the assembled condition by clamps or cemented straps, but this is not normally necessary.

What I claim is:

1. An exercising apparatus comprising:

- a. a single elongated cord of resilient material, said cord having a longitudinal axis, two longitudinal ends, and an intermediate portion spaced from said ends;
- b. two handles, each handle essentially consisting of an elongated member extending in a loop about an opening;
- c. fastening means fastening said ends to said handles respectively;
- d. a sleeve extending about said intermediate portion and projecting radially from the same, said sleeve being fixedly fastened to said cord; and
- e. a gripping element conformingly enveloping said sleeve, said gripping element having

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1. two annular end faces axially offset from said sleeve in opposite directions and hugging said cord, and

2. a barrel-shaped face connecting said end faces and angularly offset from the same.

2. An apparatus as set forth in claim 1, wherein each of said loops is of approximately trapezoidal shape having a shorter base part and a longer base part, said fastening means fastening said ends to said shorter base parts of said loops respectively.

3. An apparatus as set forth in claim 2, wherein said fastening means include a transverse enlargement on one of said cord ends, a cup-shaped member having an apertured bottom portion and receiving said enlargement therein, said cord passing through the aperture in said bottom portion, said member having an annular rim portion projecting beyond said enlargement and formed with a slot, said shorter base part of the associated handle being secured in said slot.

4. An apparatus as set forth in claim 3, wherein said cord essentially consists of vulcanizable, elastomeric material, and is of uniform cross section, and said enlargement is vulcanized to said cord.

5. An apparatus as set forth in claim 2, wherein the elongated members of each handle essentially consist of flat strip material having two major longitudinal faces, one of said major faces bounding said opening, the longer base part of said loop extending in a longitudinal arc having a radius of curvature greater than the length of said longer base part, the portion of said one face on said longer base part being convex.

6. An apparatus as set forth in claim 1, wherein said cord and said sleeve essentially consist of vulcanizable elastomeric material, said sleeve being vulcanized to said intermediate portion.

7. An apparatus as set forth in claim 1, wherein the spacing of said gripping element from one of said handles is greater than the spacing of said gripping element from the other handle when said spacings are measured along said cord, in the relaxed condition of the same.

8. An apparatus as set forth in claim 7, wherein the ratio of the shorter one of said spacings to the longer spacing is substantially equal to the ratio of said longer spacing to the combined shorter and longer spacings.

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(19) **United States**

(12) **Patent Application Publication**
Nesci

(10) **Pub. No.: US 2002/0022555 A1**

(43) **Pub. Date: Feb. 21, 2002**

(54) **PORTABLE DOORWAY APPARATUS FOR
UPPER AND LOWER BODY
STRENGTHENING AND CONDITIONING**

(57)

ABSTRACT

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(21) **Appl. No.: 09/737,224**

(22) **Filed: Dec. 14, 2000**

Related U.S. Application Data

(63) **Non-provisional of provisional application No.
60/172,593, filed on Dec. 20, 1999.**

Publication Classification

(51) **Int. Cl.⁷ A63B 21/002; A63B 71/00**

(52) **U.S. Cl. 482/91; 482/139**

The present invention is a unique stretching and strengthening apparatus comprised of several interchangeable parts allowing for the stretching and strengthening of both the upper and lower torso with one simple device with a few interchangeable parts. The invention also utilizes a common door and frame in its preferred embodiment again allowing for simplicity and generality of use. The device has an adjustable velcro strap for ease of attachment to either the ankle, wrist or foot of the user and a configurable handles to accommodate double or single handed use. The device is anchored to a common door and frame combination by use of a rod and cloth strap. The rod being fixedly and removably placed behind the closed door. A variety of upper and lower torso stretching exercises can be engaged in simply wrapping the strap around the users ankle, wrist or foot and guiding/stretching the body portion with a free hand or hands which is attached to the strap via a rope. Similarly, strengthening exercises can be engaged in by using elastic tubing to provide resistance for the appropriate body portion.



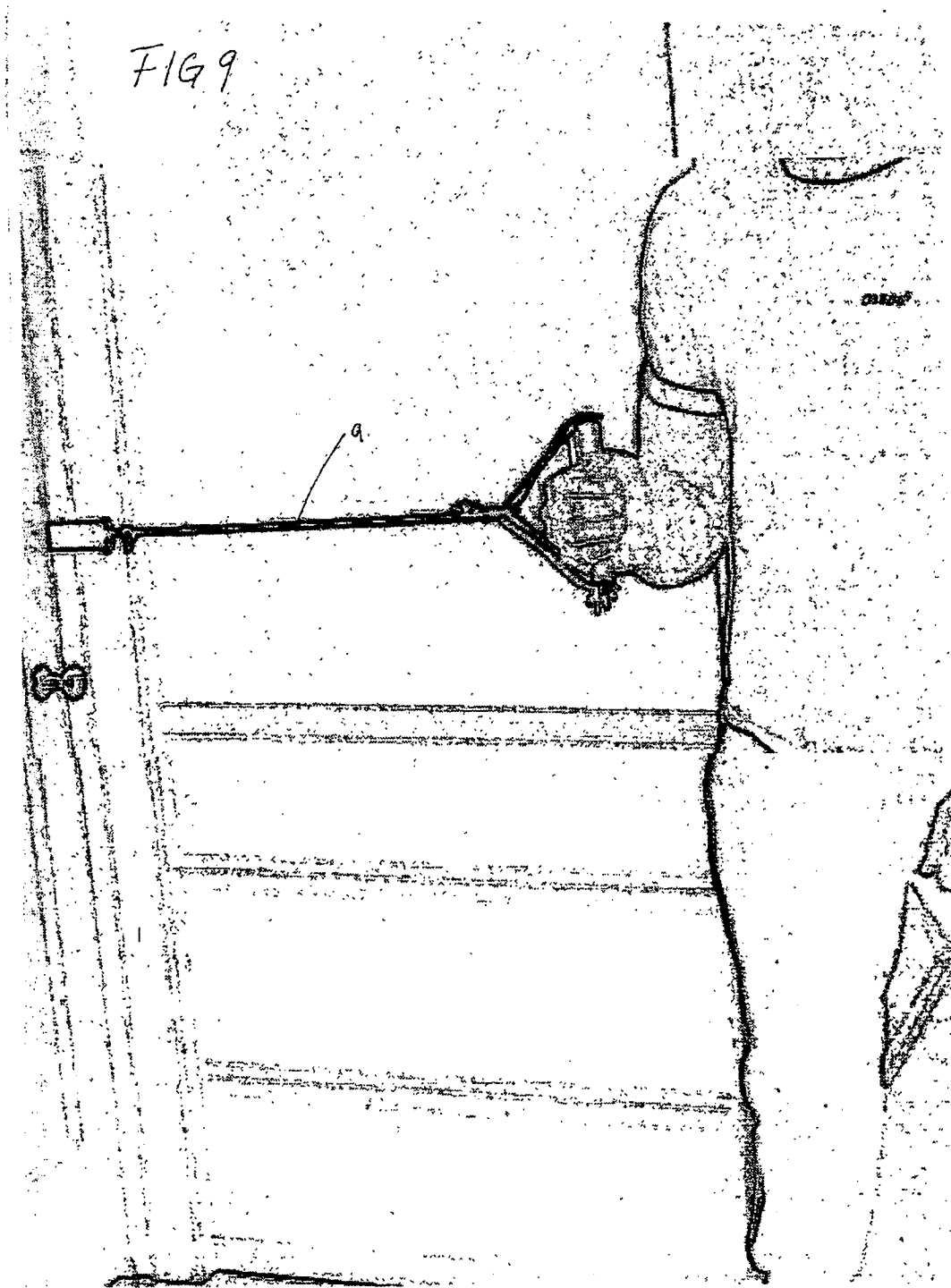


FIG 10

