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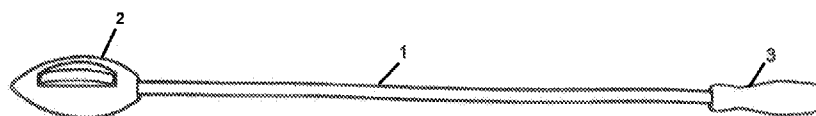
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(54) Title: WORKOUT AND REHABILITATION EQUIPMENT

[Fig. 1]



(57) Abstract: A bodybuilding and rehabilitation equipment is formed by a flexible rope (1) that is at one end provided with a head (2) as a load. There is also a handle (3) as a part of this equipment in advantageous embodiment.



## **Workout and rehabilitation equipment**

### **Technical Field**

[0001] The technical solution relates to a workout and rehabilitation tool designed especially for fitness, shaping of certain body parts and rehabilitation both in the ambiance of your home and out of it.

### **Background Art**

[0002] Various embodiments of bodybuilding and rehabilitation devices, placed in gyms or rehabilitation exercising rooms, are known. These are typically large-space devices that are placed in the forementioned premises. They are, for example, based on a lifting of hammers, overcoming the force of metal springs, etc. Other such devices consist of a spring-loaded seat, where the exerciser has a handle above him and carries out circular movements of his body. Other devices are formed by a flat device body adapted for the exerciser's entrance, while at the same time the device contains a circular rotating entrance platform. These devices often serve for revitalisation of one or more body parts and they are not allowed to be used or possessed by individuals. Therefore there are tools that have been created to enable exercising not only inside gyms – for example, single-handled dumbbells, spring stretchers, or fitness sticks for performing various exercises. Tension expanders are also known; various bodybuilding exercises are performed by pulling these over your legs, hands, or neck, or eventually also by tug-of-war of two exercisers. There are also known the fitness sticks with a handle and a sliding weight. Such tools enable other possible revitalisation or rehabilitation exercises to be practiced, nevertheless, they are generally used to workout certain body parts, while the potential of other exercising is not fully drained.

[0003] The aim of the technical solution is therefore to create another bodybuilding and rehabilitation equipment, which will be for the exerciser easily portable and will enable to workout other body parts and implement other various rehabilitation and workout exercises.

[0004] The essence of the technical solution

[0005] The designated goal is achieved by using a bodybuilding and rehabilitation equipment in accordance with the technical solution, which principle is that it is formed by a flexible rope which is at one of its ends provided with a weighted head. By grasping the flexible rope at the opposite end from the weighted head it is possible to perform torsional and rotational movements of your hull and upper limbs, while by frequent exercising an effective body shaping and upper body muscles strengthening is reached, especially of abdominal and back muscles.

[0006] In a preferred embodiment, the flexible rope is, at the opposite end from the weighted head, provided with a handle. This makes it easy to grasp the rope.

[0007] In another preferred embodiment, the weighted head is provided with weights and may be of a replaceable design in order to enable the flexible rope to be mounted onto. This allows you to change the load during exercising.

[0008] In order to increase safety, the weighted head may be provided with an elastic sheath, for example from soft rubber, and the handle may be provided with a slip-resistant safety strap to prevent the tool from sidling out.

[0009] The handle may be ergonomically shaped in order to enable easy gripping and holding of the equipment.

[0010] For manufacturing reasons, it is advantageous when the weighted head and handle are made of hard rubber.

[0011] The bodybuilding and rehabilitation equipment is very variable, simply by changing the direction of its rotation or the position of the equipment, other muscle parts are involved in the activity and the exercise can stretch the entire upper half of his body by using just ten simple exercises. When using the tool safe and comfortable exercising is guaranteed.

## **Brief Description of Drawings**

[0012] The bodybuilding and rehabilitation equipment in accordance to the technical solution will be described in more detail in the specific embodiment with aid of the enclosed drawings, wherein Fig. 1 shows an exemplary equipment in the top view, Fig 2 shows a sectional view of the handle and Fig. 3 shows the detent for arresting the length of the rope.

## Examples

[0013] In this exemplary embodiment, the bodybuilding and rehabilitation equipment is made up of a flexible polyester rope (1), at the end connected to the weighted head (2), provided with a rubber sheath where weights of a different weight can be inserted. In another of the eventual embodiments, it is possible to project a replaceable design of the whole weighted head (2) in order to be able to place a weighted head (2) of a different weight at the end of the flexible rope (1), depending on the physical fitness of the trainees. For greater safety, the head is covered with hypoallergenic hard rubber, which the ergonomically shaped handle is also made from.

[0014] For bodybuilding and/or rehabilitation, according to the technical solution, it is possible to perform numerous exercises with the tool, some of which could not be realized with the so far known tools. From such performed exercises these include, for example, an ambidexter rotational movement above the head, rotary movement on the left and right body side, rotary movement in the left and right hand, rotary movement in front of the body with the left and right hand, eight-shaped movement on the left and right body part, eight-shaped movement in front of the body with left and right hand, eight-shaped ambidexter movement in front of the body, etc.

## Industrial Applicability

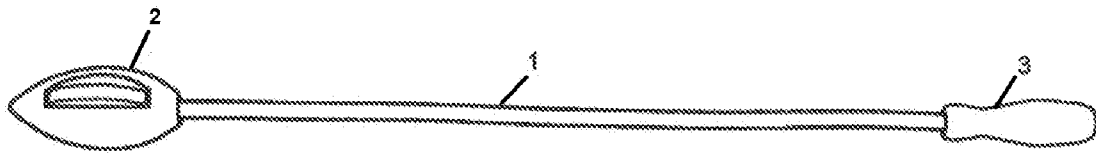
[0015] The bodybuilding and rehabilitation equipment according to this technical solution designed especially for fitness, rehabilitation facilities, gymnasiums, as well as individual instructors..

## Claims

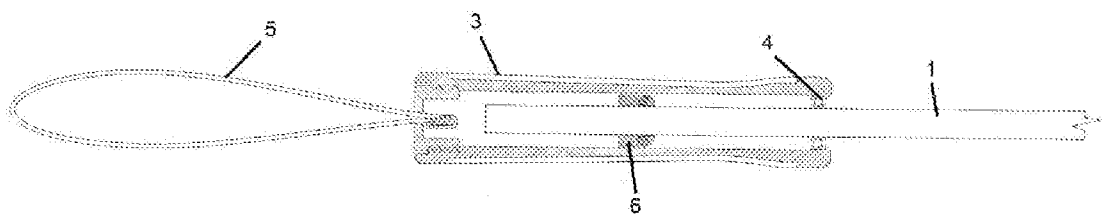
- [Claim 1] A bodybuilding and rehabilitation equipment is characteristic for being formed by a flexible rope (1) that is at one end provided with the loading head (2).
- [Claim 2] The bodybuilding and rehabilitation equipment, in accordance with claim 1, is characterized by the fact that the flexible rope (1) is at the opposite side from the weighted head (2) provided with a handle (3).
- [Claim 3] The bodybuilding and rehabilitation equipment, in accordance with claim 1 or 2, is characterized by the fact that it is provided with a weight (2).
- [Claim 4] The bodybuilding and rehabilitation equipment, in accordance with claim 1 to 3, is characterized by the fact that the weighted head (2) is made in a replaceable design, being able to be placed onto the flexible rope (1).
- [Claim 5] The bodybuilding and rehabilitation equipment, in accordance with claim 1 to 4, is characterized by the fact that the weighted head (2) is provided with an elastic sheath.
- [Claim 6] The bodybuilding and rehabilitation equipment, in accordance with claim 1 to 5, is characterized by the fact that the handle (3) is carried out in an ergonomic shape.
- [Claim 7] The bodybuilding and rehabilitation equipment, in accordance with claim 1 to 6, is characterized by the fact that the weighted head (2) and the handle (3) are made of hard rubber.
- [Claim 8] The bodybuilding and rehabilitation equipment, in accordance with claim 1 to 7, is characterized by the fact that the handle is provided with a bearing.
- [Claim 9] The bodybuilding and rehabilitation equipment, in accordance with claim 1 to 8, is characterized by the fact that the handle is provided with a safety strap.
- [Claim 10] The bodybuilding and rehabilitation equipment, in accordance with claim 1 to 9, is characterized by the fact that the rope inside the handle is provided with a detent for arresting the length of the rope.

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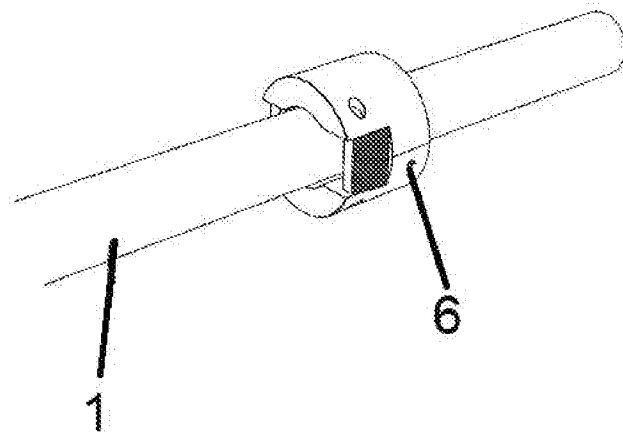
[Fig. 1]



[Fig. 2]



[Fig. 3]



## INTERNATIONAL SEARCH REPORT

International application No.

PCT/CZ2017/050032

## A. CLASSIFICATION OF SUBJECT MATTER

IPC: A63B21/06; A63B21/075; A63B23/02; A63B23/12

CPC: A63B21/06; A63B21/0608; A63B21/072; A63B21/075; A63B21/004; A63B23/02; A63B23/03508; A63B23/03516; A63B23/12

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC/CPC: A63B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Database IPO CZ; Google

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPOQUENET; STN (CAplus, DWPI, BIOSIS, CABA, EMBASE, FSTA, MEDLINE, COMPENDEX, INSPEC)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2014/0194258 A1 (SHORTER GARRY T.) [US]	1, 3
Y	10 July 2014 (2014-07-10) * fig. 1. 2; par. 075. 077. 078. 081. 082*	4, 5, 7
X	Posilování s medicínou; JEBAVÝ RADIM, DOUBRAVSKÝ PETR; ISBN: 978-80-247-3364-7	1
Y	2011 * pg. 8 to 9*	5, 7
Y	US 6887188 B1 (DAVIES PHILLIP HUGH) [US] 03 May 2005 (2005-05-03) *pg. 2, line 21-36; pg. 4, line 42-50; pg. 5, line 19-53, pg. 7, line 24-27; pg. 11, line 53-60, pg. 12, line 4-9; fig. 1b, 8a, 8b*	2, 3, 4, 5, 6, 7, 8

 Further documents are listed in the continuation of Box C. See patent family annex.

## \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

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"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, A	US2016339290 A1 (EISENBLAETTER GERD) [DE] 24 November 2016 (2016-11-24) *whole document*	1-10
A	Differences in Muscle Activity During Cable Resistance Training Are Influenced by Variations in HandleTypes;. RENDOS NICOLE K., ALIPIO TAISLAINE C. HEREDIA VARGAS HÉCTOR M., REGIS REBECA C., ROMERO MATTHEW A.; Journal of strength and conditioning research, Vol. 30, No. 7, E-ISSN: 1533-4287 30 July 2016 (2016-07-30) pg. 2001-2009	1-10
A	US2015297947 A1 (MORTON LEE ROBERT) [GB] 22 October 2015 (2015-10-22) *whole document*	1-10
A	CA2820123 A1 (ABOODY MORRIS) [CA] 04 January 2015 (2015-01-04) *whole document*	1-10
A	CZ141512 U1 (HORVÁTH TIBOR) [CZ] 18 August 2004 (2004-08-18) *whole document*	1-10
A	CN2111783U U (QIAO CHANGLONG) [CN] 05 August 1992 (1992-08-05) *abstract, figures*	1-10

**INTERNATIONAL SEARCH REPORT**  
**Information on patent family members**

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CN 2111783 U	1992-08-05	NONE	