United States Patent

[11] 3,554,539

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[54] **HAND-HELD JUMP-OVER EXERCISE ROD WITH PIVOTAL HANDLE MEMBERS**
3 Claims, 6 Drawing Figs.

[52] **U.S. Cl.** **272/62**
[51] **Int. Cl.** **A63b 1/00,** A63b 5/00
[50] **Field of Search** ..... 272/62, 74, 59, 59(1), 57

[56] **References Cited**

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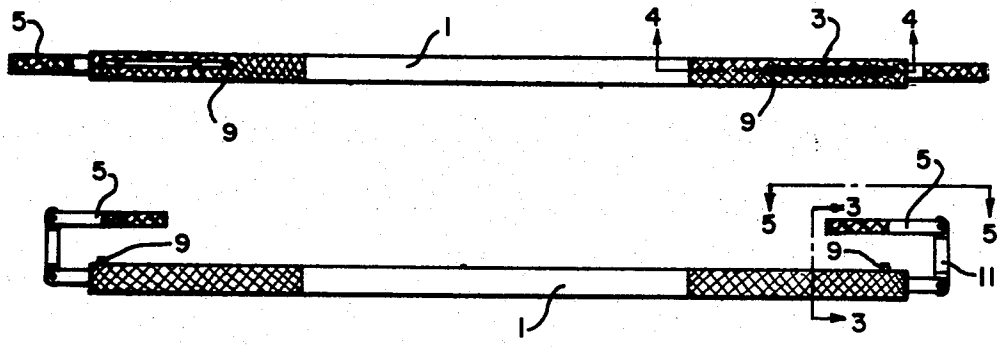
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Assistant Examiner—Richard J. Apley
Attorney—Arthur F. Robert

ABSTRACT: A lightweight metal rod which is intended to be manually held at opposite ends while being jumped over by the holder. The ends, by which it is held, are in the form of handles which may be positioned in the axis of the rod to provide one jumping height or moved to a parallel but offset position to provide a smaller jumping height.



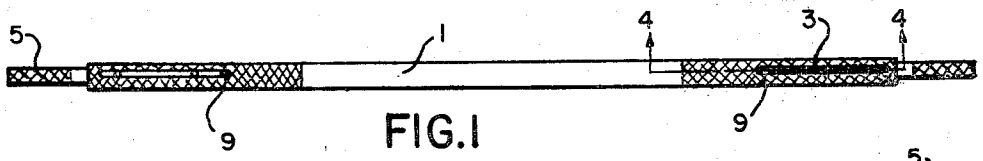


FIG.1

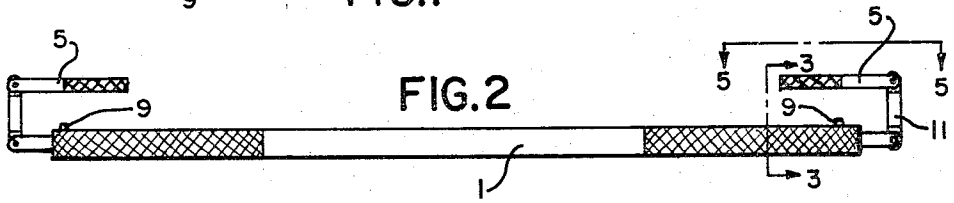


FIG.2

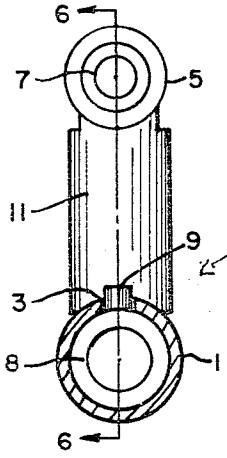


FIG.3

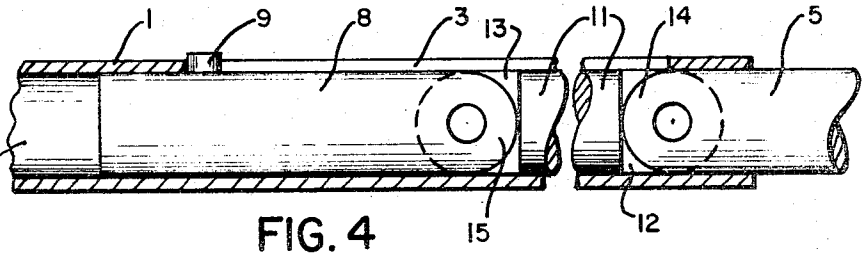
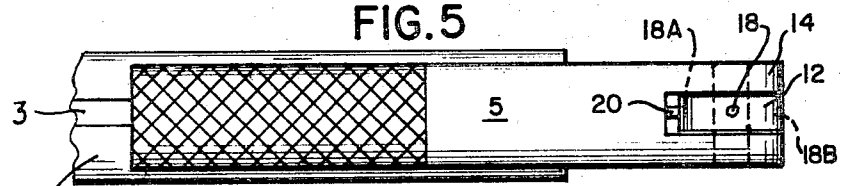


FIG.4

FIG.5



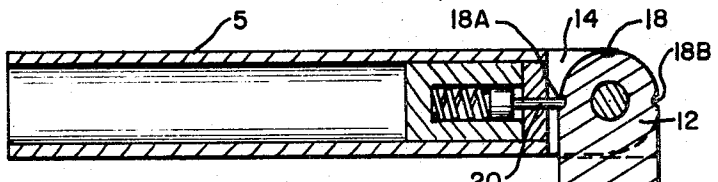
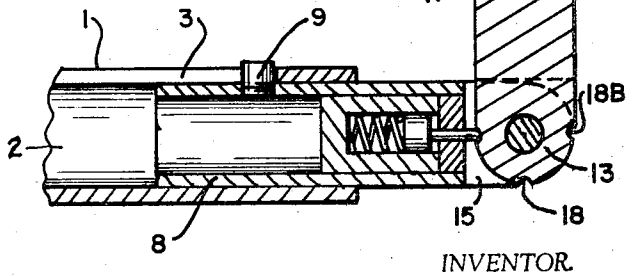


FIG.6



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HAND-HELD JUMP-OVER EXERCISE ROD WITH PIVOTAL HANDLE MEMBERS

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to the exercise device art and, more particularly, to an exercising rod of the type intended to be hand-held while being jumped over by the holder.

2. Description of the Prior Art

It has long been the practice of active youngsters, particularly girls, to skip rope for recreational and exercise purposes and to increase and decrease the skipping height simply by raising and lowering their hands or by increasing or decreasing the length of rope between hands. It has also long been the practice of active youngsters, particularly boys, to perform a related but somewhat more difficult exercise game wherein they manually grasp a stick of wood at opposite ends and hold it as they jump back and forth over it. In this game, the smallest jumping height is high enough to render the successful performance of the game difficult. This reduces its appeal to girls and to men.

SUMMARY OF THE INVENTION

Objects of the Invention

The principal objects of the invention are: to provide an exercise stick or rod of the hand-held jump-over type which is improved in a manner increasing its appeal and scope of use; and to provide an improved stick, which is simple and inexpensive to make and easy to use.

Statement of the Invention

The invention resides in (and the objects of the invention are achieved by) providing a stick in the form of a simple lightweight metal rod having a pair of handles, one at each end, each handle being movable from one position, in which it provides one jumping height, to a parallel but offset position, in which it lowers the rod to provide a smaller jumping height.

BRIEF DESCRIPTION OF THE DRAWINGS

The preferred embodiment is illustrated in the drawing wherein:

FIG. **1** is a top plan view of the exercise rod with its handles retracted to provide the more difficult jumping height;

FIG. **2** is a side elevational view of the rod with its handles extended to provide a smaller or less difficult jumping height;

FIGS. **3**—**4** are sectional views showing one end portion on an enlarged scale with the handle extended in FIG. **3** which is taken along lines **3**–**3** of FIG. **2** and with the handle retracted in FIG. **4**, which is taken along lines **4**–**4** of FIG. **1** except that the retracted links and a fragment of handle are shown in elevation;

FIG. **5** is an enlarged top plan of one handle-extended end portion corresponding to one taken along line **5**–**5** of FIG. **1**; and

FIG. **6** is a fragmentary sectional view taken along line **6**–**6** OF FIG. **3** to show the latching means.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The preferred embodiment illustrated in the drawing comprises: a rod; a pair of handles, one at each end of the rod; handle mounting means; and latch means. While each of the first three elements may be composed of any suitable material fashioned in any suitable shape, each is preferably composed of a lightweight metal generally fashioned in tubular shape.

Accordingly, the rod **1**, as shown, comprises a tubular piece of solid aluminum, each end portion of which is provided with an elongate endwise bore **2** which opens axially outward and an elongate slot **3** which, in length, is somewhat shorter than the bore and, in thickness, extends entirely through the bore wall. If desired, each end portion of the rod **1** may be knurled or otherwise roughened for manual grasping purposes.

Each handle **5** is in the form of an open ended tube dimensioned to fit snugly but slidably within the bore **2**.

The handle mounting means mounts the tubular handle **5** on the rod for movement from one position providing one jumping height to another position providing a smaller jumping height. In the preferred arrangement, the tubular handle **5** is mounted for movement from one position wherein it lies in the axis of the rod **1** and projects outwardly from the bore **2** to another position in which it extends parallel to the axis of the rod **1** but is offset therefrom.

The preferred handle mounting means is in the form of a linkage means which comprises: a base link slidably mounted within and snugly fitted to the bore **2**; and an intermediate link interconnecting the base link with the handle.

The base link **8** moves slidably within the bore **2** between the retracted and extended positions shown in FIGS. **4** and **5** respectively. It carries a stop **9** which projects through the elongate slot **3** of the rod **1** in position to engage the inner end wall of slot **3**, when retracted as in FIG. **4**, and the outer end wall thereof, when extended as in FIG. **6**.

The intermediate link **11** is pivotally connected with the base link **8** for movement from FIG. **4** retracted position, in which the link **11** is wholly confined within the bore **2**, to its FIG. **6** extended position, in which it is located entirely outside of the bore **2** and turned to extend at right angles to the axis of the bore.

The outer and inner ends of the intermediate link **11**, are pivotally connected to the handle **5** and base link **8**, respectively. Each pivotal connection preferably is of the tongue-and-groove type. Accordingly, the intermediate link **11** is provided, at its outer and inner ends, respectively with tongues **12** and **13**, each in the form of a flat axial or endwise extension of the link while the ends of the base link **8** and handle **5** adjacent to link **11** are respectively provided with tongue-receiving forks **14** and **15**.

It will be appreciated: that each handle is in the form of a link providing a hand grip; that, when a handle is retracted, the link components of the handle and the linkage means supporting it, extend in the endwise relationship of FIG. **1**; and that, when said handle is extended, said link components extend in the angular relationship of FIG. **6** wherein said base link **8** is in the axis of rod **1**, said intermediate link **11** is at an angle to said base link and said handle link **5** is at an angle to said intermediate link.

Latching means are provided to latch and thereby releasably secure the adjacent parts or link components (of the handle and the handle-mounting linkage means) in said angular relationship of FIG. **6** and, preferably, in said endwise relationship of FIG. **1** when the handle is retracted. While this may be accomplished in any suitable manner, it is accomplished in the preferred embodiment by providing each of the tongues **12** and **13** of each of the intermediate links **11** with **3** dimples, one dimple **18** being formed on the end face of its tongue and located in the long axis of the link and the other two dimples **18A** and **18B** being spaced 90° therefrom in opposite directions; and by providing the adjacent forked end of each handle **5** and each base link **8** with a latching member **20** located in the long axis of its part and spring pressing it outwardly through the bight of the forked end thereof so that it projects resiliently into one or another of the **3** dimples on the adjacent end of the intermediate link **11**, depending on the position of that link.

In the retracted position of the handle, the base link **8**, the intermediate link **11** and the handle **5** are in end to end relationship with the base and intermediate links wholly confined within the bore **2** along with the inner half of the handle **5**, the other half projecting outwardly therefrom. In extending the handle, the parts are first moved endwise outwardly until the stop **9** engages the outer end of slot **3**. Next, the intermediate link and handle **5** (as a unit), are turned at right angles to the axis of the rod **1** while the handle is additionally turned another 90° to its extended position wherein it extends parallel to the rod **1** but is offset therefrom a distance approximating the length of the intermediate link.

From the foregoing it will be evident that, when the parts are retracted, the rod **1** is spaced, from the body of the user, a distance which may be described as equal to the length of the arms of the user and which provides a jumping height of one order of magnitude. When the parts are extended, the rod **1** is spaced, from the body of the user, a greater distance which equals said "arms length" plus the length of the intermediate links **11** and which provides a correspondingly smaller jumping height.

I have obtained good results with an exercise device of this type wherein: the rod **1**, which is hollow, has a length of 30 inches, exclusive of its handles, and O.D. (outside diameter) of 0.80 inches, an I.D. (inside diameter) of 0.6 inches, and a slot **3** of 5.0 inches in length; the handle has a length of 4.5 inches; the base link **8** has a length of 3 inches; and the intermediate link **11**, a length of 2.7 inches; these latter parts **5, 8** & **11** having an O.D. approximating the I.D. of the bore **2** minus the tolerance required to provide a snug slidable fit. This assembly projects approximately 2.8 inches when fully retracted and approximately 7.6 inches when fully extended axially from the rod **1**.

I claim:

1. A hand-held jump-over exercise device, comprising:

A. an elongate rod with hollow end portions;

B. a pair of handles, one for and adjacent to each end of the rod; and

C. pivotally connected linkage means supporting each handle on the adjacent hollow end portion of said rod for manually-actuated movement between a retracted position in which the handle is substantially centered on the axis of said rod and an extended position in which said handle is spaced from said axis:

1. said linkage means including a base link telescopically mounted within said adjacent hollow end portion for slidable movement between inner and outer limits respectively corresponding to the said retracted and extended positions of said handle.

2. The device of claim **1** wherein:

A. each handle is in the form of a link providing a hand grip; and

B. each linkage means includes an intermediate link arranged between its base link and said handle link and pivoted to both.

3. The device of claim **2** wherein:

A. the link components, of each handle and the linkage means supporting it, extend:

1. in endwise relationship, when said handle is retracted; and

2. when said handle is extended, in angular relationship wherein:

a. said base link is in the axis of said rod;

b. said intermediate link extends at an angle to said base link; and

c. said handle link extends at an angle to said intermediate link; and

B. said device includes latching means for releasably securing said link components in said angular relationship when said handle is extended.