Nov. 12, 1963 C. R. BROMAN ETAL 3,110,497

COMBINATION EXERCISE AND AMUSEMENT DEVICE

Filed June 11, 1962

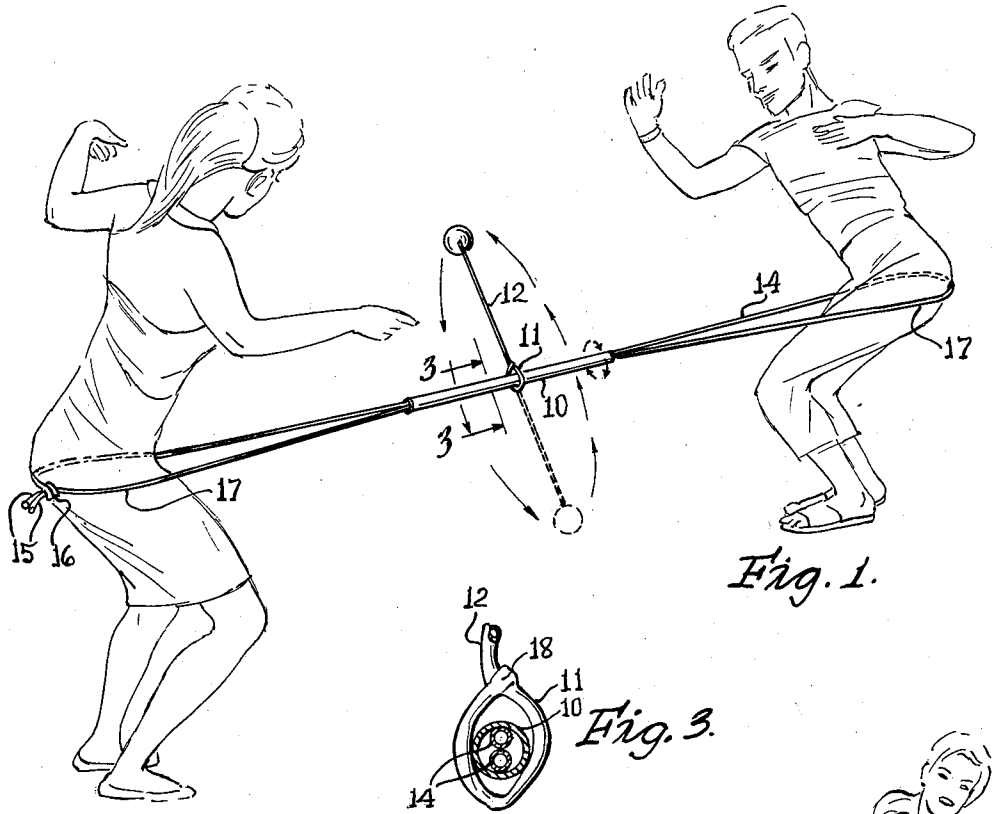



Fig. 1.




Fig. 3.

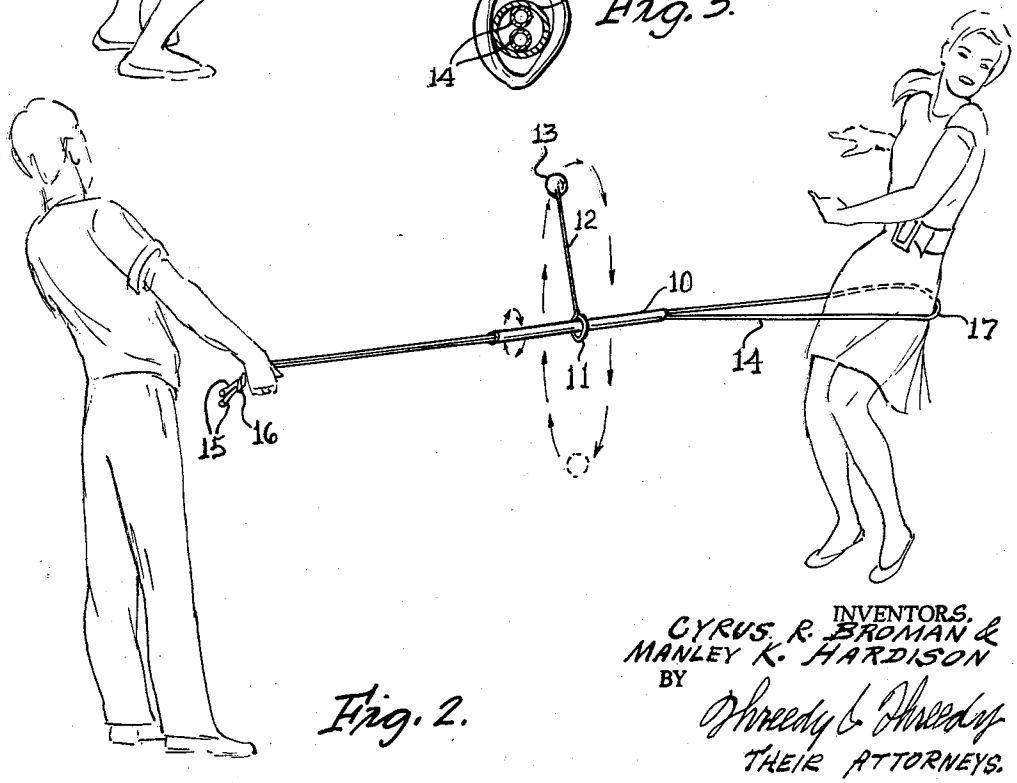



Fig. 2.

INVENTORS.
CYRUS R. BROMAN &
MANLEY K. HARDISON
BY
Shreedy & Shreedy
THEIR ATTORNEYS.

United States Patent Office 3,110,497 Patented Nov. 12, 1963



# 3,110,497
# COMBINATION EXERCISE AND AMUSEMENT DEVICE

Cyrus R. Broman, Evanston, and Manley K. Hardison, Glenview, Ill., assignors to Sidney A. Tarrson Co., Chicago, Ill., a corporation of Illinois

Filed June 11, 1962, Ser. No. 201,567
3 Claims. (Cl. 273—95)

Our invention relates to certain new and useful improvements in a combination exercise and amusement device.

One of the principal objects of this invention is to provide a device of this character which has therapeutic value while at the same time affording considerable amusement and entertainment.

A further object of the invention is to provide a combination exercise and amusement device which may be adapted for manipulation by one person and which will serve to improve the muscle tone and suppleness of the body while affording the maximum degree of amusement.

A further object of the invention is the provision of such a device constructed in a manner such as affords economical manufacture, resulting in the sale of the article at a relatively low sales price.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings showing the preferred form of construction, and in which:

FIG. 1 is a perspective view of the invention showing the same being manipulated by two persons;

FIG. 2 is a perspective view of the invention showing the same being manipulated by one person;

FIG. 3 is a sectional detail view taken substantially on line 3—3 of FIG. 1, to enlarged scale.

The several objects of our invention are preferably accomplished by the form of construction now to be described.

In this connection we provide an elongated tube **10** preferably formed of substantially rigid plastic material. To this tube **10** is connected by means of a loop **11** a substantially flexible tubular cord **12** also formed of plastic material. The outer end of the cord **12** in any suitable manner such as by heat welding or the like is connected to a ball **13**. The ball **13** is adapted to orbit around the tube **10** in a manner presently to be explained, the ball serving to keep the cord **12** in a longitudinally extended position and by virtue of the centrifugal action of the ball increases the speed of rotation of its movement through its orbit around the tube **10**. While we have specified the element **13** as a ball, it may take any desirable shape as will best serve the purpose.

An elongated flexible cord **14** of a length substantially greater than the length of the tube **10** and formed preferably of a plastic material is folded upon itself and threaded through the tube **10**, the end portions **15** of the cord **14** being tied together as at **16**.

With the tube **10** embracing the folded cord **14**, the opposite ends of the folded cord provide body encircling loops **17** each of which are adapted to embrace the body of a person at a point preferably over the hips, as shown in FIG. 1.

With the loops in the position shown in FIG. 1, the two persons stand a distance apart sufficient to render the folded cord **14** substantially taut. With the cord in this condition, the two persons then rotate the portion of the body encircled by the loops **17**, so as to impart an elliptical movement to the tube **10**, thereby to effect rotation of the ball about the tube **10** with the tube as an axis. The speed of rotation of the ball about the tube **10** may be controlled by the speed of rotation of the bodies of the two persons encircled by the loops **17**.



The loop **11** is preferably formed by heat-welding the end portion **18** of the cord **12** to the cord in the manner depicted in FIG. 3. The tube **10** serves as a hub for the cord **12** and defines the axis of rotation of the ball **13**.

In FIG. 2, the invention is utilized by employing only one of the loops **17** while the opposite end of the folded cord **14** is held firmly by the hand of one of the persons. When thus used, the folded cord **14** is maintained in a substantially taut position. The person about whose body the loop **17** is encircled performs the same movement as the person shown in FIG. 1, to effect rotation of the ball **13** about the hub **10**. If desired, the end portions of the folded cord **14** instead of being knotted to provide a loop, may be attached to a stationary object. In this manner the device may be used by one person.

In use, the device results in substantial therapeutic improvement to the muscle tone of the body while at the same time affording a type of exercise which results in maintaining the body lithe and supple. In addition, the use of the device affords a maximum degree of amusement both for adults as well as children.

The simplicity of the device affords economical manufacture. As indicated herein, it is preferably intended that the various parts of the device be formed of such plastic material as will best serve the purpose.

While we have illustrated and described the preferred form of construction for carrying our invention into effect, this is capable of variation and modification without departing from the spirit of the invention. We therefore do not wish to be limited to the precise details of construction set forth, but desire to avail ourselves of such variations and modifications as come within the scope of the appended claims.

Having thus described our invention, what we claim as new and desire to protect by Letters Patent is:

1. A combination exercise and amusement device comprising
   (*a*) an elongated member having
   (*b*) body encircling loops at opposite ends thereof adapted to encircle the body of two persons standing apart with respect to each other,
   (*c*) a tubular member through which said elongated member is threaded and which is of a length substantially shorter than the length of said elongated member,
   (*d*) a spherical member spaced laterally from the long axis of the tubular member,
   (*e*) and means for connecting said spherical member to said tubular member for rotation circumferentially about and in spaced relation to the long axis of the tubular member, the rotation of said spherical member being the result of elliptical movement imparted to said tubular member relative to its long axis by movement of that portion of the body of said persons encircled by said loops while said persons maintain said elongated member in a substantially taut condition.

2. A combination exercise and amusement device comprising
   (*a*) a flexible tubular cord folded lengthwise upon itself to provide at opposite ends thereof
   (*b*) body encircling loops adapted to encircle the body of two persons standing apart with respect to each other,
   (*c*) a tubular hub through which said cord is threaded and which is of a length substantially shorter than the length of said cord,

(*d*) a spherical rotatable member having as its axis of rotation said hub,

(*e*) an elongated flexible member having one end connected to said spherical member and an opposite end formed to provide a loop encircling said hub for rotation thereabout, the rotation of said spherical member being the result of elliptical movement imparted to said tubular member relative to its long axis by movement of that portion of the body of said persons encircled by said loops while said persons maintain said cord in a substantially taut condition.

3. A combination exercise and amusement device comprising

(*a*) a flexible plastic tubular cord folded lengthwise upon itself to provide at opposite ends thereof

(*b*) body encircling loops adapted to encircle the body of two persons standing apart with respect to each other,



(*c*) a tubular hub through which said cord is threaded and which is of a length substantially shorter than the length of said cord,

(*d*) a ball having as its axis of rotation said hub,

(*e*) an elongated flexible plastic member having one end connected to said ball and an opposite end formed to provide a loop loosely encircling said hub for free rotation thereabout, the rotation of said ball being the result of elliptical movement imparted to said tubular member relative to its long axis by movement of that portion of the body of said persons encircled by said loops while said persons maintain said cord in a substantially taut condition.

**References Cited** in the file of this patent

UNITED STATES PATENTS

| | | |
|---|---|---|
| 1,782,254 | Briedenbach | Nov. 18, 1930 |
| 2,937,023 | Seymour et al. | May 17, 1960 |
| 2,999,333 | Clark | Sept. 12, 1961 |