Jan. 16, 1968 R. J. CROVELLO 3,363,898

JUMP ROPE DEVICE

Filed July 13, 1965

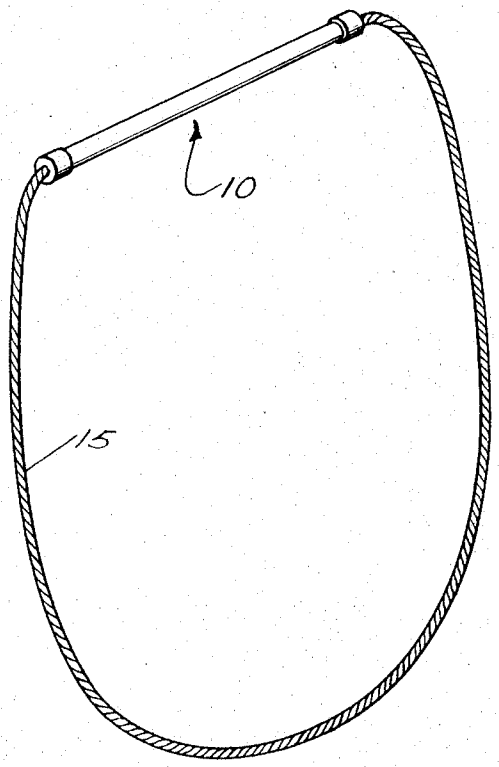


FIG. 1

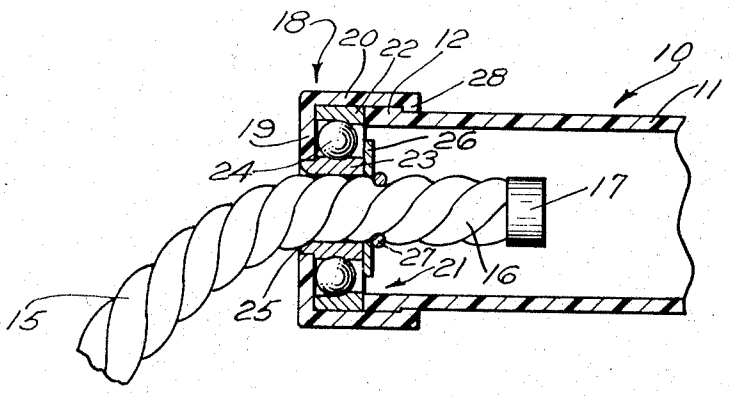


FIG. 2

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JUMP ROPE DEVICE

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ABSTRACT OF THE DISCLOSURE

A jump rope device which has a single tubular member as a handle means with a flexible rope-like member being inserted through bearing ends of said tubular member, the flexible rope-like member being retained within the tubular member whereby the rope-like member will rotate relative to the tubular handle member.

One of the objects of this invention is to provide a device which may be easily manipulated and which will provide the exercise desired in the jumping or skipping of rope in which the rope is swung over the head and beneath the feet.

Another object of the invention is to provide a device which may be handled by both hands upon one bar, thus maintaining a somewhat different position than where handles are separate from each other and held one in each hand.

A further object of the invention is to provide some anti-friction means for mounting a rope so that the rope may be revolved without becoming twisted.

With these and other objects in view, the invention consists of certain novel features of construction as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings:

FIG. 1 is a perspective view of the device; and

FIG. 2 is a sectional view of one end of the rigid tubular member and the end of the flexibile rope-like member secured therein, both on a larger scale than FIG. 1.

In proceeding with this invention, I provide a relatively rigid tubular member having open ends and also a relatively flexibile rope-like member having two ends, each of which is secured in a cap which may be positioned over the ends of the tubular member so as to mount the rope-like member in the ends of the tubular member. Anti-friction means are utilized for such a mounting.

With reference to the drawings, **10** designates generally the relatively rigid tubular member which has a cylindrical wall **11** with the outer surface of its ends **12** slightly enlarged. The member may be of any suitable material such as molded rigid plastic, metal, or wood so as to maintain substantially its shape and is of a width substantially the width of the body of a human being and capable of being held conveniently in both hands of the user.

The other member of the device is designated generally **15** and is flexible, in the form of a rope or cord and of a length so that when its ends are attached to the tubular member, they may be swung over the head and then jumped over as it is swung beneath the feet. The end portions of this flexibile member **15** are designated generally **16** and are provided with some sort of a retainer **17** to prevent the ends from fraying. Each end of the member **15** is mounted in a cap designated generally **18** which comprises a cup having an end wall **19** and a cylindrical side wall **20**, which receives and holds a ball bearing cage designated generally **21**. This cage has an outer raceway **22** and an inner raceway **23** between which there are a series of balls **24** so that these raceways may be relatively easily rotated, one with reference to the other about a center. The outer raceway **22** is of a size and shape to snugly frictionally fit the walls **20** of the cap and be held against rotation therein. The inner raceway **23** is of a size to loosely fit an opening **25** in the end wall of the cap so as to be freely revolvable therein and this raceway also snugly receives end **16** of the rope-like member which is held thereto by reason of a washer **26** and a clip **27** which grips the rope and snugly presses the washer against the inner race **23**. By this arrangement the end of the rope is fixed to the inner raceway and may rotate with reference to the outer raceway and cap which is held fixed to the tube **10**.

A convenient way of holding the cap in place is to turn the edge **28** of the wall **20** of the cap inwardly over the enlarged portion **12** so that it snugly engages the shoulder between the portions **11** and **12** and holds the cap in place. In this manner the ends of the rope may be mounted in the cap prior to assembly with the tube and then put in place, and the entire device becomes assembled by reason of the unit caps being positioned on the tube.

I claim:

1. A jump rope device comprising a relatively rigid elongated tubular member having an enlarged end, a relatively flexible rope-like member having ends extending in opposite directions into the ends of said tubular member, the diameter of said rope-like member being substantially smaller than the interior diameter of the tubular member, and a first anti-friction means at one end and a second anti-friction means at the other end of said tubular member for closing the ends of the tubular member and rotatably mounting the ends of said flexible member in the ends of said tubular member, each said anti-friction means being a unit mounted in a cap which is secured to an end of said tubular member by rolling the edge of the cap over said enlarged end, said cap containing a ball bearing comprising a cage having inner and outer reaceways with balls between, and the outer raceway being fixed to said cap and the inner raceway being fixed to said flexible member by a washer engaging the inner raceway and a clip engaging the rope and washer to urge it against the inner raceway.

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