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SELF-ADJUSTING ROPE EXERCISER

Filed July 22, 1963

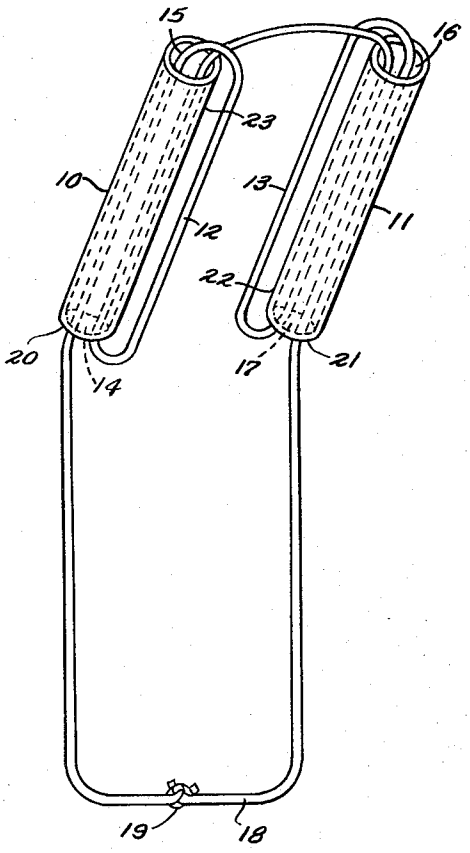


Fig. 1

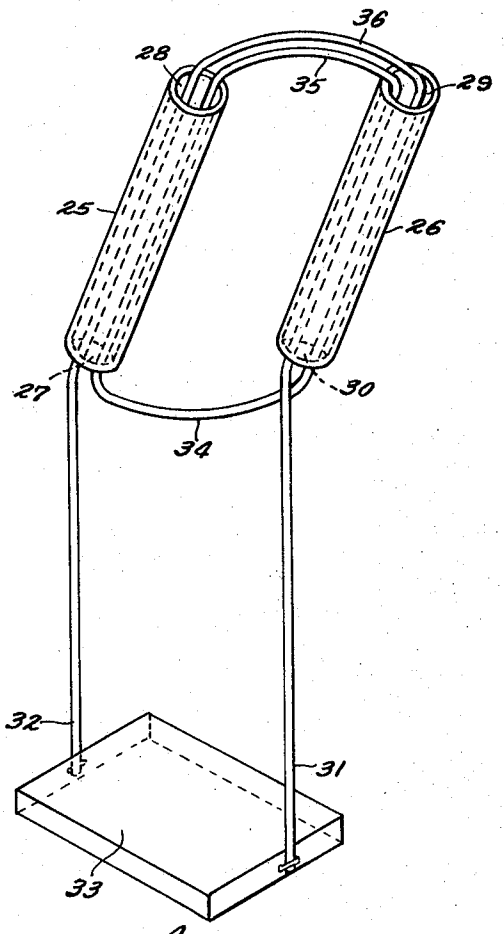


Fig. 2

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SELF-ADJUSTING ROPE EXERCISER

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This invention relates to an improved exerciser whereby the handles can be adjusted to any position to shorten or lengthen the means of resistance between them.

The greatest drawback against the use of isometric exercisers is the inconvenience and amount of time it takes to make adjustments of the handles to change the distance between the two fixed points of resistance.

I will refer to the means of resistance as a rope, which is commonly used for isometric exercises, but it will be recognized that a strap, elastic band, etc. can be used.

I propose to show a novel and unique way of adjusting handles, each formed as a hollow cylinder, along the length of the means of resistance, permitting the person exercising to change the distance of the resistance by allowing the handles to slide freely along the length of the rope and yet lock at any required position without disengaging the handles or releasing his hold on the handles. The advantages of being able to change these positions in a split second is known by any one who exercises.

To explain the function of my exerciser, I will make a comparison. To thread a rope through hollow handles and then tie the ends of the rope would only allow the handles to silde freely opposite each other and the rope would not resist until the handles formed the rope into an elongated loop by pulling on the handles in opposite directions. To stand on the inside of the loop and pull on the handles, would not develop resistance until the two handles would butt together and lock at the opposite end of the loop.

I take a rope and thread it through the inside of one handle, then take the same end, form a loop, and pass it through the handle again alongside the part of the rope already there. I continue the rope through the second handle in the same manner. I then tie together the two ends of the rope, or tie them to a stand or something similar. As I stand on the loop formed by the two tied ends, I pull up on the handles and this tightens the loop formed around each handle, but still allows the handle to move freely along the rope. To lock the rope for resistance, I hold the handles at right angle to the floor in a normal pulling position. I tighten my grip on the handles as is natural when pulling, thereby stopping the handles from moving along the rope. Because the loop is snug around the inside and outside of the handle, normal pressure of the grip locks it in use. Sliding and locking the handles to a new position by releasing and tightening the grip is evident.

I also show a modification of this principle by threading the end of a rope through one handle and continuous through the other handle, bring the end back around and thread it through both handles again, thus forming a loop between the handles with two strands on top and one on the bottom, and two loose ends of the same rope below. The two loose ends are then tied together or each end is tied to the side of a platform.

Standing on the tied ends or platform and pulling upwards on the handles, one in each hand, causes the handles to slide upward. To lock the handles in a desired position, they are forced apart to tighten all the loops as the whole length of the rope becomes taut for resistance in that position.

As the handles are pulled upward, after the rope is allowed to slacken, the loops formed between the handles become smaller and the distance between the tied ends

and the handles lengthens. Moving the handles in the opposite direction will reverse the adjustment.

Each attained position for resistance works different sets of muscles. The rope and handles can also be locked together after adjusting by gripping part of the double strand loop in each hand to hold it against the outside of the handles and pulling up with the handles at right angles to the platform.

The invention is not limited to the detail of construction and arrangement of parts shown in the drawings which are merely illustrations of the preferred embodiment.

Referring to the drawings:

FIG. 1 is a perspective view of one form of my exercising device, showing the loop that functions as described.

FIG. 2 is a perspective view of a modification of my exercising device showing another method of forming the loops in conjunction with the handles.

Now with reference to FIG. 1 of the drawings the numerals **10** and **11** indicate two handle members, tubular in form and open at both ends. A continuous rope **18** is threaded through the open ends **14–15** and **16–17** of the handles **10** and **11**, respectively, to form the loops **12** and **13**, respectively. The opposite ends of the rope **18** are then tied together at **19** or the two ends can be tied to a platform.

The two handles **10** and **11** are grasped by an exerciser, the tied ends are stood on. As he pulls upward on the handles, holding them in a normal position with the sides of the handles at right angles to the floor, the loops **12** and **13** are squeezed by the fingers causing the loops to tighten and lock on the exterior sides **22** and **23** of the handles. The resistance is formed between the ends **20** and **21** of the handles and the immovable portions of the rope as the slack is taken out of the rope as the exerciser pulls. To adjust the handles so the distance between the part that is stood on and the handles is longer, the finger pressure on the loops **12** and **13** is released and the handles slide upward with little effort and without the need of releasing the grasp on them. To shorten the distance of resistance, the handles are slid in the opposite direction.

In FIG. 2, the end of the rope **31** is inserted and fed through the open ends **27–28** and **29–30** of the tubular handles **25** and **26**, respectively, as shown to form loops **34–35** and **36**. The two rope ends **31** and **32** are secured to a platform **33** or the like.

The exerciser stands on the platform **33**, grasps the handles **25** and **26** and holds them in a right angle position to the platform. He pulls on the handles so the loops **34**, **35** and **36** are all tightened against the handles as he forces the handles upward and away from each other so the continuous rope is taut along its entire length, in which position the rope is locked between the handles and feet for resistance.

To lengthen the distance of resistance, he releases the outward locking pressure, and slides the handles upward to adjust them to a new resistance position. The advantages of being able to adjust the handles of an exerciser along a means of resistance quickly and without the necessity of releasing his hold on the handles is appreciated by anyone who uses exercisers.

What is claimed is:

1. An exercising device consisting of two hollow handles, the end of a rope passed through both handles continuously to form a double strand loop between the corresponding two ends of the handles and a single strand loop between the other two ends, the two loose ends secured to the sides of a platform, the handles capable of being slid along the rope to any desired position, the handles locking in position by the tightening of the loops as the loose ends of the rope are held fast by

the feet, the handles grasped by the hands and forced upward and outwards causing the full length of the rope to become taut for resistance in isometric exercising.

2. An exercising device comprising a length of rope, a pair of tubular handles, said rope being twice passed through the handles in the same direction longitudinally of the handles to form a loop, said loop having a double rope strand disposed within the handles and a single rope strand located exteriorally alongside the handles whereby the handles are adapted to be freely moved in either longitudinal direction along the length of the rope and are locked in adjusted positions by manual pressure of the single rope strand against the handle when the latter is gripped.

3. An exercising device comprising a length of rope, a pair of tubular handles, said rope being twice passed through each of the handles in the same direction longitudinally of the handles to form a loop, each of said loops having a double rope strand disposed within the handle and each having a single rope strand located exteriorally alongside the handle whereby each handle is adapted to be freely moved in either longitudinal direction along the length of the rope and each handle is locked in adjusted position by manual pressure of the single rope strand against the handle when the latter is gripped.

4. In combination, a flexible rope exercising device, a hand grip to be manually held in selected positions along the length of said rope comprising a tubular, form retaining handle member open at both ends, a loop formed in the rope by twice passing the rope through the handle member from the same end and longitudinally of the handle member, said loop having two rope strands disposed within the handle member and extending through both ends thereof and a single rope strand disposed exteriorally and alongside the handle member whereby the handle member is adapted to be freely moved in either longitudinal direction along the length of the rope and is locked in adjusted positions by manual pressure of the single rope strand against the handle member when the latter is gripped.

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