

[54] **FOUR PIECE ISOMETRIC EXERCISER**

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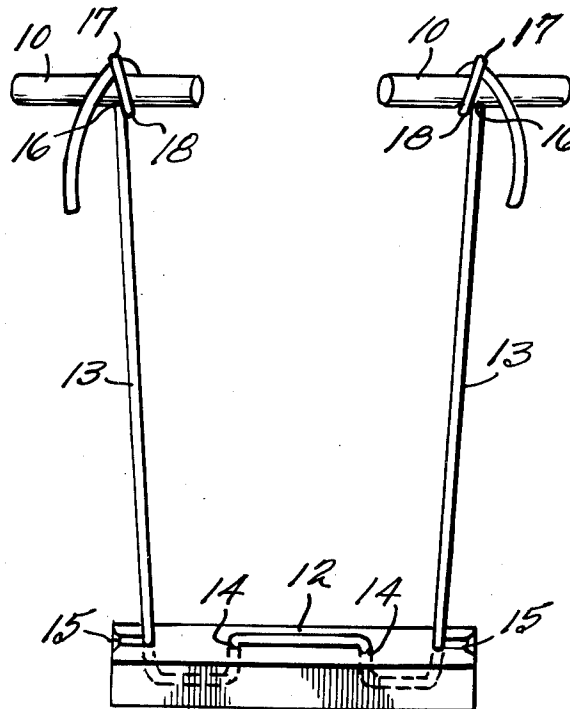
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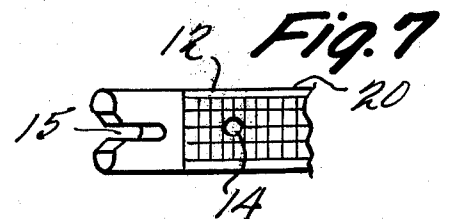
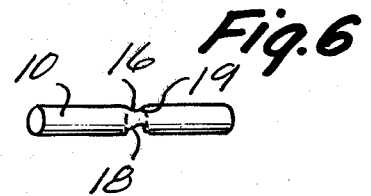
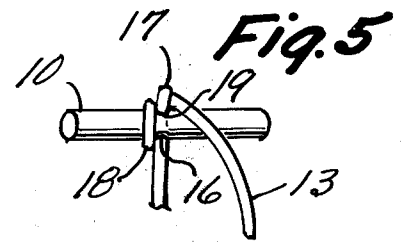
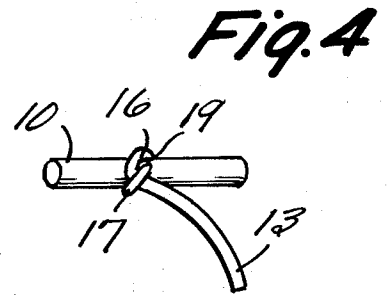
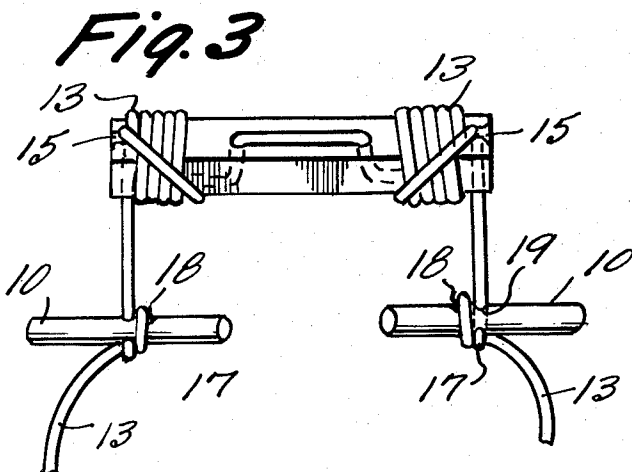
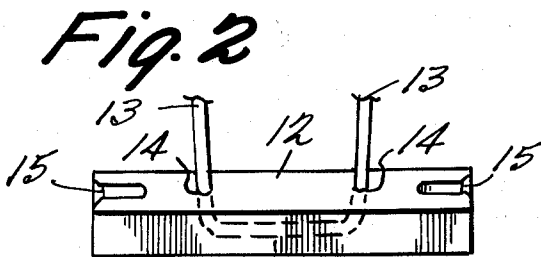
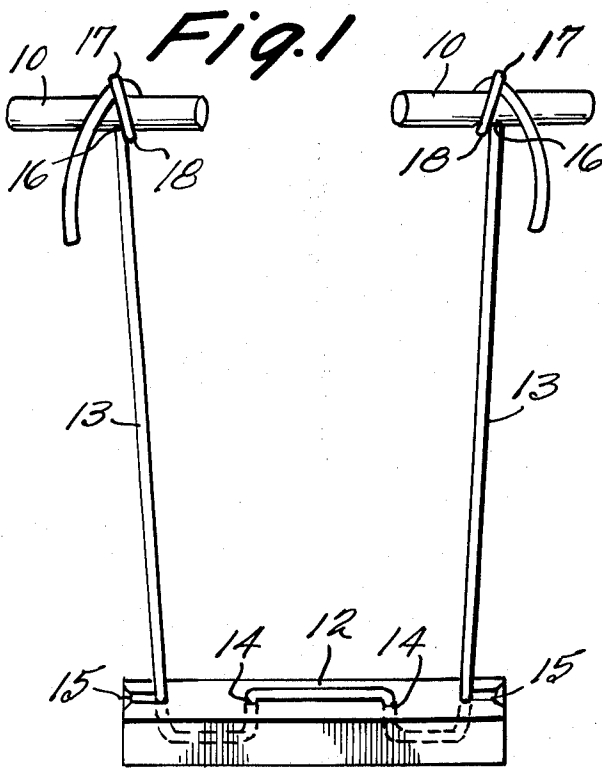
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[57] **ABSTRACT**

An exerciser consisting of only four small parts. A two position, narrow foot rest, two adjustable hand grips and a strong, small size nylon rope connecting the strips to the footrest. Completely assembled, ready for use, the exerciser weighs only about 4 ounces. When not in use, it makes a small compact package and storage is not a problem. By pulling on the hand grips and pushing on the foot rest it exerts one group of muscles against another group of muscles, involving the whole human body, providing a handy, practical, economical, efficient, effective exercising device. After this simple exerciser is adjusted to the individual, no other attachments or adjustments are required.

3 Claims, 7 Drawing Figures





FOUR PIECE ISOMETRIC EXERCISER

BRIEF DESCRIPTION OF THE PRIOR ART AND SUMMARY OF THE INVENTION

Daily exercise is recognized by the health authorities as essentially beneficial to maintain good physical health. For the lack of exercise by so many people today in all age groups, there is a real need for a simple, handy, economically constructed, efficient, portable, flexible, compact, practical individual exerciser. This invention is a novel and improved exerciser designed to tone up and strengthen the muscles, body joints and improve the blood circulation of the whole human body and at the same time, help to lose excess weight. This can be accomplished by the individual using this exerciser, daily, for only one or two minutes before getting out of bed in the morning, if desired or any other suitable place, and for only one or two minutes just before retiring at night. This novel, efficient exerciser reduces the time limit for exercising the whole body, to a minimum and no other attachments or exercisers are needed. One can use this exerciser on a bed or any suitable level surface, in a lying down or sitting position, which is the most relaxed and most comfortable position to exercise.

The invention comprises four parts — a narrow footrest having a pair of slots each extending into the footrest from one end and a pair of separated openings therethrough between the slots, a pair of handgrips, and a rope attached at either end to a handgrip and passing through the openings and slots.

It can be used daily by anyone, young or old, within reason. One can exert as much or as little pull on their arms or push on their legs, as desired, one has full control of this exerciser at all times. This novel, convenient exerciser is a very practical exerciser invented and designed to replace the old bulky, impractical, obsolete, expensive exercisers that are not very useful after people buy them. If an exerciser is not handy and practical it loses its value and usefulness. Today, the average person is not interested in becoming a champion in competitive sports. The average person should have available a simple, convenient, practical exerciser that will help him to keep physically fit to maintain good health. This device can be manufactured at a price low enough, so that each individual can own one of his own to use. It is always adjusted to the individual user so that it can be made ready to use in a matter of seconds.

When this exerciser is not in use, with the hand grips attached to the rope the rope can be wound on each end of the foot rest and the rope forced into the narrow slots at each end of the foot rest, to keep it from unwinding. This makes a small, light, compact package size $2 \times 2 \times 10$ inches long, that weighs around only four ounces when completely assembled. It can be carried in a pocket or stored under the pillow of the bed or any convenient, small place.

The small size of this exerciser is novel and has a very important advantage for people living in trailers, mobile homes and small houses because where it is used and storage is no problem, for example.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 shows the exerciser of this invention assembled and ready to use with two feet;

FIG. 2 shows the exerciser assembled and ready to use with one foot;

FIG. 3 shows the exerciser ready for storage when not in use;

FIG. 4 shows a top view of the rope tied on the handgrip;

FIG. 5 shows a side view of the rope tied on the handgrip;

FIG. 6 shows a view of the handgrip;

FIG. 7 shows a partial perspective view of a plastic footrest.

DETAILED DESCRIPTIONS OF THE DRAWINGS

In the drawings, like numbers refer to like parts throughout the illustrations. Referring to FIG. 1 in this position as illustrated, the narrow two position foot rest No. 12 is wide enough for both feet when exercising the whole body. It also illustrates the small size, single length of nylon or suitable rope No. 13 after it is cut to a length, long enough for tall people. The rope is threaded thru the two small holes in the foot rest No. 12 at No. 14 and pulled thru until both ends of the rope No. 13 are the same length from the foot rest No. 12. Then each loose end of rope No. 13 is forced up thru the small slots at No. 15 made at each end of the foot rest No. 12 at 15. From here each end of the rope No. 13 is threaded thru the small holes in the center of the hand grips No. 10 at No. 16. Then the rope No. 13 is encircled once around the hand grips No. 10 and tied by the rope tie No. 17 as illustrated by FIGS. 4 and 5. The distance from the hand grips No. 10 to the foot rest No. 12 can be adjusted to any desired length, by the individual, by simply adjusting the rope tie No. 17 at the hand grips No. 10. The slots No. 15 on the foot rest 12 are made narrow to offer resistance to the rope No. 13 so that the rope No. 13 does not come out of the foot rest No. 12 too easily when inserted into the slots No. 15.

FIG. 2. Illustrates how the narrow two position foot rest is made. Two small holes No. 14 are bored thru a piece of wood or suitable material such as plastic or aluminum or other material. The holes No. 14 are large enough for the rope No. 13 to go thru the holes easily. The size of the foot rest is approximately 1 inch by $1\frac{1}{2}$ inches by 10 inches long. The two small holes No. 14 are spaced wide enough apart to allow one foot to be centered and rest comfortably between the ropes No. 13 that go thru the foot rest No. 12 at No. 14. Two narrow slots are cut the same length, one at each end of the foot rest No. 12 about 1 inch long at 15.

This is done to make it unnecessary to untie the hand grips when changing the exerciser from one foot to a two position foot rest. To change the foot rest all one has to do, is to turn the foot rest over into the desired position, and by forcing the rope in or out of the narrow slots at each end of the foot rest, this sets the foot rest in a narrower or wider position. When the two position foot rest is in this position as illustrated, only one foot and one leg can be exercised, with both arms and hands holding onto the hand grips 10.

FIG. 3. Illustrates the exerciser ready for storage when not in use with the hand grips No. 10 left attached to the rope No. 13. The rope No. 13 can be wound up on each end of the foot rest No. 12 and kept from unwinding by forcing the rope No. 13 into the narrow slots at No. 15 at each end of the foot rest No. 12, as illustrated in FIG. 3. This makes a small, light, compact package, small enough to be carried in a purse or pocket. It weighs about 4 ounces, completely assembled.

bled. The rope No. 13 unwinds quickly by simply pulling the hand grips No. 10 out away from the ends of the two position foot rest No. 12. It is then ready for use again in a matter of seconds.

FIG. 4. Illustrates a top view of the rope tie No. 17. Rope No. 13 is once encircled around the hand grip No. 10, showing how the rope No. 13 crosses under the rope No. 13, as it comes out of the hole No. 16 in hand grip No. 10. It also illustrates how the hole No. 16 in hand grip No. 10 is counter sunk a little at No. 19 to make a cavity for the tie No. 17 to settle down into when pressure is applied to the hand grip No. 10, as the rope tie No. 17 tightens up.

FIG. 5. Illustrates the side view of the rope tie No. 17. The rope No. 13 is once encircled around the hand grip No. 10, the same way as in FIG. 4. When pressure or pull is applied to the hand grip No. 10, the encircled rope tie No. 17 around No. 10, is automatically forced to follow the bevel No. 18, that slants toward the center of the hole No. 16 on the under side or opposite of the counter sunk hole, on the hand grips No. 10. This pressure wedges the rope tie against the straight rope No. 13, that comes out of the center hole No. 16 of the hand grip No. 10 that leads to the foot rest No. 12. This holds the rope No. 13 tightly in place to the hand grips No. 10, forming or completing the rope tie No. 17. At the same time that pressure is applied to the hand grips No. 10, the rope tie No. 17 is pulled down into the counter sunk cavity No. 19 on the hand grip No. 10. This pressure tightens up the rope tie No. 17 and makes a secure, non slip hold on the hand grips No. 10. The harder one pulls on the hand grips No. 10 the tighter the rope tie No. 17 holds. Since the rope tie No. 17 is not a knot, it can be easily loosened by simply pulling slightly on the ends of the rope No. 13, when ever it is necessary to adjust the hand grips No. 10 to a different position. This rope tie 17 and hand grip No. 10 are very important, novel features of this exerciser.

FIG. 6. Illustrates how the hand grips are made. A small hole No. 16 is bored thru the center of a piece of wood doweling, or any suitable material such as plastic tubing or aluminum tubing or other material, size three quarters of an inch outside diameter by about 5 inches long. One side of the hole No. 16 in the hand grip No. 10 is counter sunk slightly at No. 19, to make a cavity or room for the rope tie No. 17, to sink into, when the rope tie No. 17 is drawn tight. The other side of the hole No. 16 in the hand grip No. 10 is beveled No. 18 on only one side of the hole No. 16. and slants toward the center of the hole No. 16 in the hand grip No. 10. This is done to automatically force the rope tie No. 17 toward the center of the hole No. 16 and to wedge the rope tie No. 17 against the rope No. 13 when the rope tie No. 17 is drawn up tight, forming a non slip rope tie No. 17, securely fastened to the hand grips No. 10, this is another important, novel feature of this exerciser.

FIG. 7. Illustrates only one half of a plastic two positioned foot rest No. 12. This plastic foot rest No. 12 is oval in shape, but can be made in any shape that is comfortable. The size is about five eighths of an inch thick by 1½ inches wide by ten inches long. It can also be made in all sizes to fit the whole family. The plastic foot rest No. 12 has the same placement of holes No. 14 and end slots No. 15 as the one in FIG. 2. This plastic foot rest No. 12 has a slip resistant tread No. 20 on both sides of the foot rest No. 12 that comes in contact with the bottom of the feet, making it comfortable and

more sure footed when it is used. And can be used in the same way as foot rest No. 12 in FIGS. 1 2 and 3.

When in a sitting position and both feet are placed on the foot rest No. 12, the hand grips No. 10 should be adjusted on the rope No. 13 by the rope tie No. 17, to about 6 inches above the knees, when the rope No. 13 is held taut between the foot rest No. 12 and the hand grips No. 10. Once the exerciser is adjusted to fit the user no other adjustment is required to exercise the whole human body. The hand grips No. 10 are easily adjustable by pulling lightly on the ends of the rope No. 13 at the hand grips No. 10, this loosens the tie so the length can be adjusted. It is unnecessary to untie the rope at the hand grips No. 10. to make adjustments. The longer the distance between the hand grips No. 10 and the foot rest No. 12, the milder the exercise. The shorter the distance between the hand grips No. 10 and the foot rest No. 12 the more vigorous can be the exercise. One can start exercising in a lying down position, with both feet on the foot rest No. 12 and both hands on the hand grips No. 10, one starts by pushing down on foot rest No. 12, this raises the back up as far as one desires, then by pulling on hand grips No. 10, bending knees toward chest as far as one desires, raising both feet upward, and rocking the body up and down, repeating as desired.

With both feet on the foot rest No. 12 and both hands on the hand grips No. 10 one pulls on the hand grips No. 10, bending the knees slightly, raising the feet up as the back goes backward, using a rocking motion, then pushing the feet and legs forward on the foot rest No. 12, raising the back up to a half sitting position. Continue repeating this exercise while at the same time rocking up and down and turning the body from left to right and back again in a turning and rolling motion. At the same time one is flexing the arches of the feet and ankles on the narrow foot rest No. 12. This is also a good exercise to flex and limber up the muscles and the body joints the first thing in the morning before getting out of bed. It takes only about a half a minute each morning and each night to keep physically fit, this is a time saving, novel feature of this exerciser.

The exerciser can be used to exercise only one foot and one leg, when in a lying down position, by pushing and pulling and bending the one knee and pulling it toward the chest as far as desired and repeating as often as one wishes. This exercise is done with the foot rest No. 12 in position for using only one foot and leg to be exercised. This maybe necessary when the other leg is in a plaster cast or for some other reason cannot be exercised.

The exerciser can be used to strengthen the back and leg muscles to develop good posture, and also exercise muscles that are seldom used. This is done by arching the back and middle of the body up and down with the legs held rigid. All of the above exercises illustrated can all be performed without changing the adjustments of the hand grips No. 10 after the the hand grips have been adjusted to the individual. These exercises can be performed in moderate or in vigorous motions, depending entirely on the individual. One has full control of this exerciser at all times.

I claim:

1. An exercising device comprising:
an elongated footrest having a central and two end portions,

5

said footrest having a pair of openings in its central portion, said openings being spaced apart a distance sufficient to accommodate one foot of a user therebetween,

said footrest having a pair of slots, one in each of its end portions, said slots extending inwardly from the outermost portion of said end portions towards said openings, the innermost extreme of said slots being spaced apart a distance sufficient to accommodate both feet of a user therebetween,

a rope having two end portions and a bight portion positioned between said openings, and
a hand grip secured to each end portion of said rope.

6

2. An exercising device in accordance with claim 1 further comprising means for adjustably positioning each hand grip on said rope end portions.

3. An exercising device in accordance with claim 2 wherein said means for adjustably positioning each hand grip comprises a hole extending through the hand grip, the end portion of said rope extending through said hole and being wrapped once around said hand grip with the free end of said end portion extending between said hand grip and said wrapped portion of said rope end portion.

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