

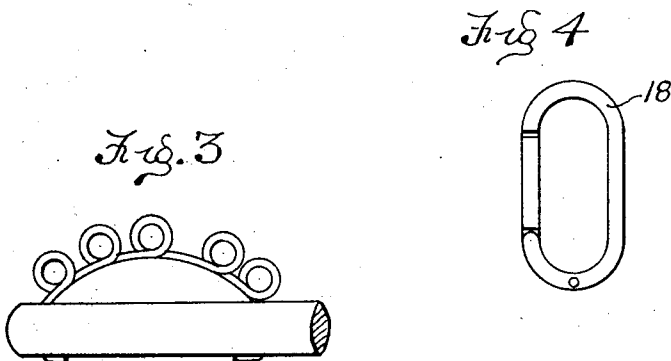
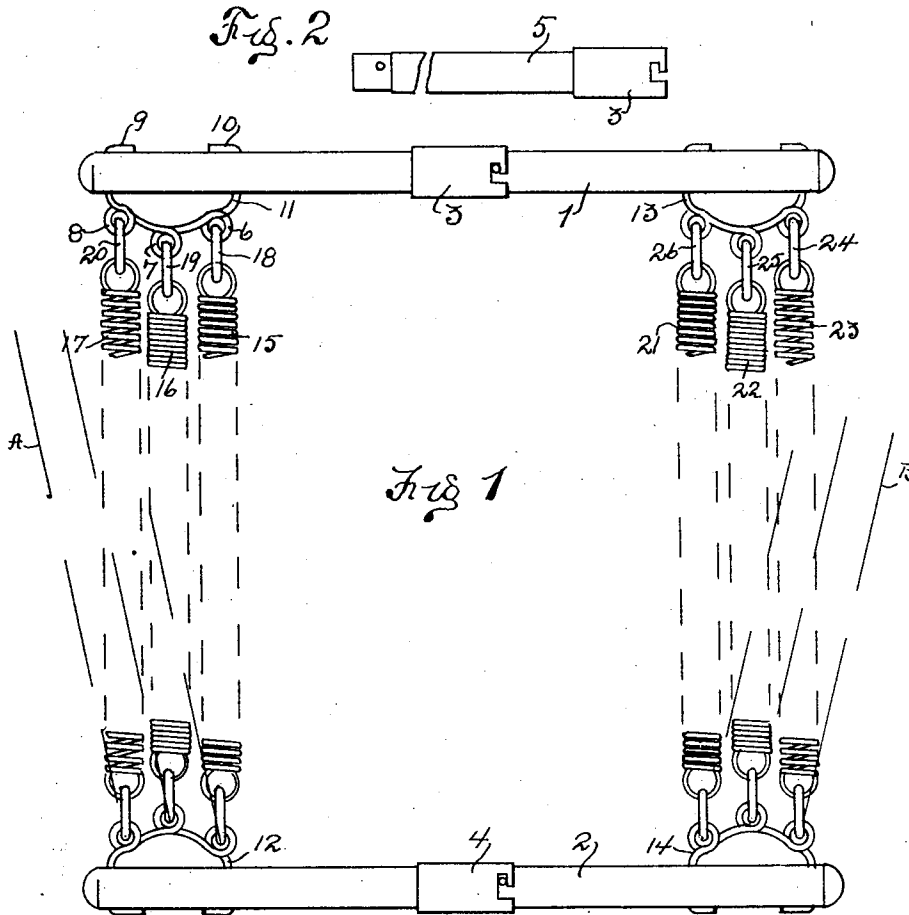
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UNIVERSAL EXERCISING DEVICE

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UNIVERSAL EXERCISING DEVICE.

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The device the subject of this invention, I have termed the universal exercising device for the reason that it is intended to exercise all parts of the body, the arms, the legs, the trunk and even the neck and head.

A particular object of the invention is to provide a device of this character that will be progressive to the last degree, and by progressive I mean that the resistance offered by the device may be increased at will, and will automatically increase within certain limits.

Another object of the invention is to provide a safe and positive means for connecting the parts of the device together, and another object to make certain portions adjustable for particular exercises.

The following is what I consider the best means for carrying out this invention, and the accompanying drawings should be referred to for a complete understanding of the specification which follows.

In the drawing:—

Fig. 1 is a side elevation of my device.

Fig. 2, a side elevation of an insert member.

Fig. 3, an enlarged view of a portion of my device.

Fig. 4, an enlarged view of a connector.

Similar reference numerals indicate like parts in all the figures where they appear.

At 1 and 2 I show a plurality of bars that may be round rods of wood or other suitable material. Each bar is made in two parts, the parts being connected by a banded slotted thimble 3 or 4.

The bars 1 and 2 may be similar in all respects and I provide extension members 5 as shown in Fig. 2 for increasing the length of the bars.

Arranged near each end of each said bar, is a wire member formed with a plurality of eyes, and as each of these wire members are similar, in describing them I will refer to the wire member of the left of the bar 1. This wire member is provided with three eyes as shown at 6, 7 and 8, and the eyes are formed integral with the member.

After the eyes are formed, the ends of the wire members are passed through the bar and are bent over or clinched as shown at 9 and 10. As previously stated, each bar is provided with two such said members. These wire members are normally arranged opposite each other in pairs, the pair 11 and 12 operating together, and the members 13 and 14 comprising the other pair arranged for joint operation.

Between the wire members 11 and 12, I arrange a plurality of resistance members which may be coiled springs as shown at 15, 16 and 17, and one end of each of these coiled springs is connected to the loops 6—8 in the wire member 11 by means of suitable connectors such as the sister links shown at 18, 19 and 20, and on an enlarged scale in Fig. 4.

Similar links connecting opposite ends of the spring members into the loops or eyes in the oppositely arranged wire member 12.

At the opposite ends of the bars 1 and 2 similar sets of springs 21, 22 and 23 are connected between the loops or eyes in the wire members 13 or 14 by means of suitable connectors 24, 25 and 26.

The connectors such as shown at 18 should be so designed as to allow the springs to be quickly connected and disconnected, and yet should retain the springs reliably secured.

As it is sometimes desirable to vary the number of springs employed, means must be provided for allowing the springs to be quickly connected or disconnected.

I call particular attention to the fact that the wire members 11, 12, 13 and 14 are bowed away from the respective supports and as a result from this bowing, the eye 7 and its directly opposite co-acting eye, are nearer together than are the eyes 6 or 8, and other co-acting eyes. I also call attention to the fact that while the springs 16 and 17 are of the same length, the spring 16 may be a little longer than the spring 17. The object of this arrangement is to produce a progressively increasing resistance on the part of the spring members and also to make possible what I term a "running start".

When the bar 1, is moved away from the bar 2, the springs 17 and 23 will start to descend to be followed progressively by the springs 15 and 21, and later by the springs 16 and 22. As the springs 15, 21, 16 and 22 lag the resistance offered to, movement will be increased by the increasing distance through which the bars are separated, and as the springs 16 and 22 are the same length as the springs 17 and 23, the resistance offered by the springs 16 and 22 will never equal that of the other springs. As shown in Fig. 3, the wire members may be provided with a greater number of loops and I may provide a greater number of springs arranging them as indicated for progressive operation.

Without describing the very many uses of my device, any one familiar with devices

of this nature will understand that this device is universal in its application as an exerciser.

5 The dotted lines A and B, indicate the general position of the spring members when the bar 1 is elongated. This elongation is desirable if the device is to be used across the shoulders or back.

10 Modifications may be made within the scope of the appended claims without departing from the principle or sacrificing the advantages of the invention.

The length of the bars and of the springs, and as previously stated, the number of
15 springs employed may be varied at will, the exerciser may be used with a single spring, or with two springs as desired.

Having carefully and fully described my

invention what I claim and desire to obtain by Letters Patent is:—

20 1. An exerciser comprising a plurality of bars, bowed and looped wire members secured in each said bar and away from the end thereof, said loops being arranged in opposed pairs, and elastic members arranged
25 between said pairs of loops.

2. An exerciser having a plurality of adjustable bars, bowed and looped members secured in said bars, a plurality of elastic members arranged between said bars and adapted
30 for progressive operation and means for securing said elastic members to said looped members.

Signed at the city, county and State of New York, this 20th day of October, 1926.

W. HARRY TITUS.