Aug. 26, 1924. 1,506,631

R. A. GROVER

EXERCISING DEVICE

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Fig. 1.

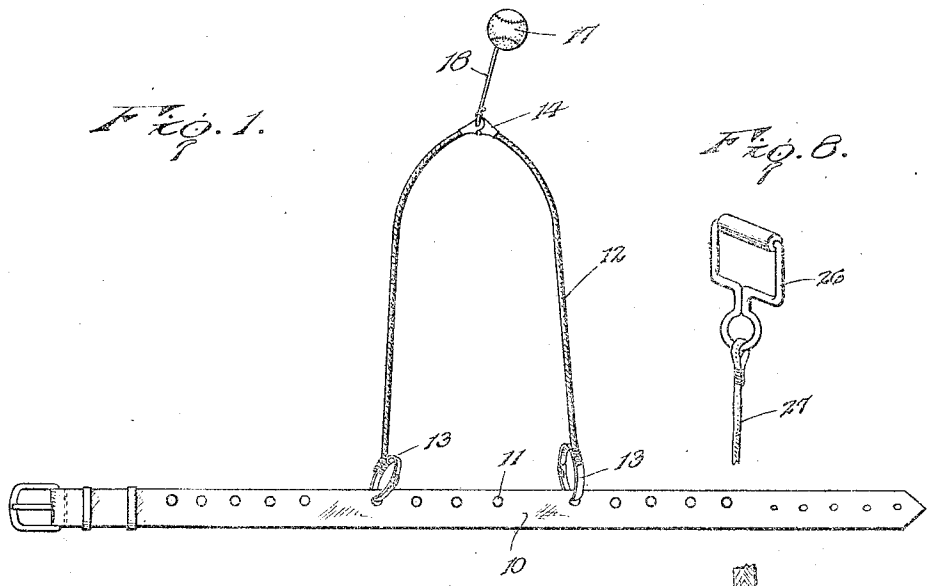


Fig. 6.

Fig. 4.

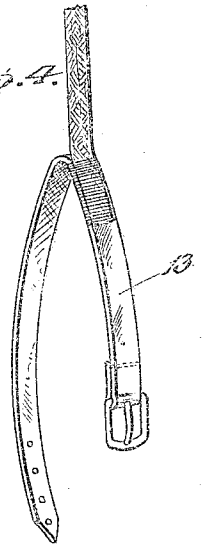


Fig. 5.

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Fig. 1.

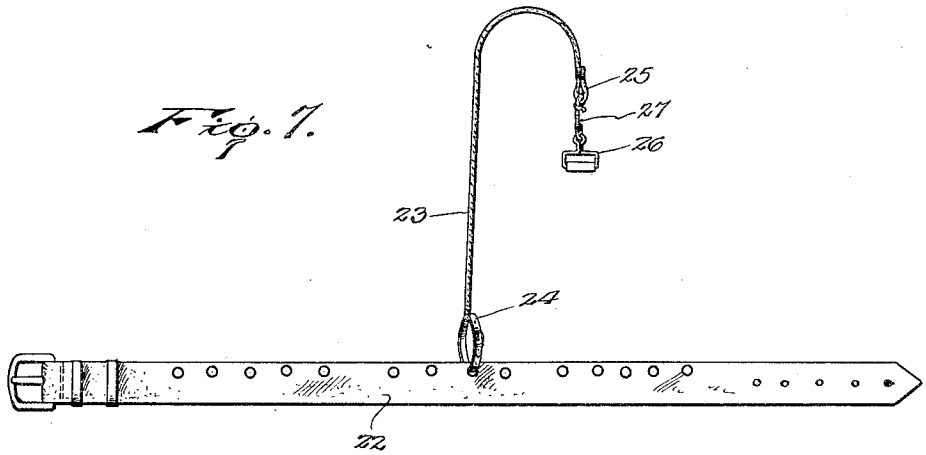


Fig. 2.

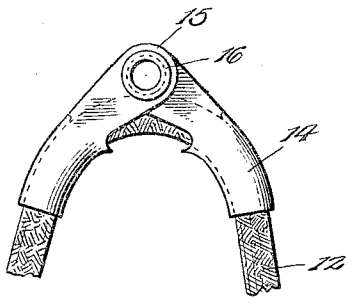


Fig. 6.

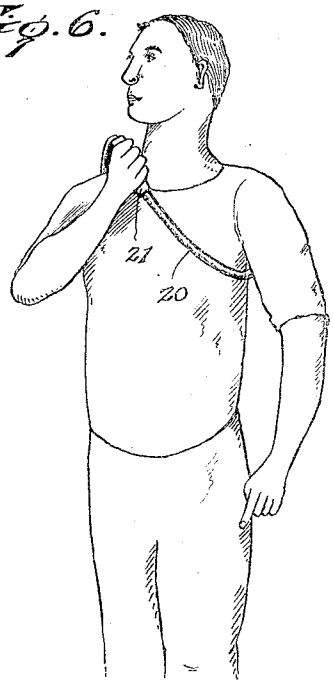
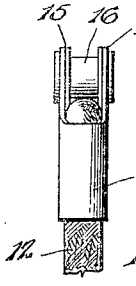


Fig. 3.



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Fig. 9.

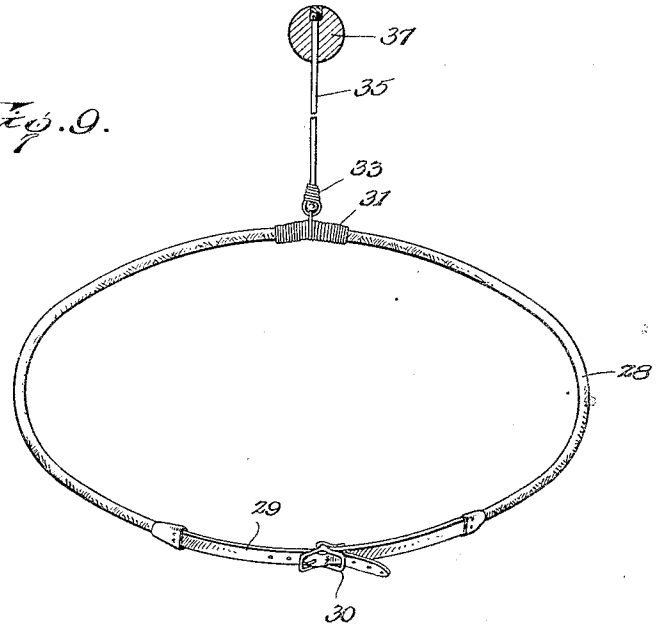


Fig. 11.

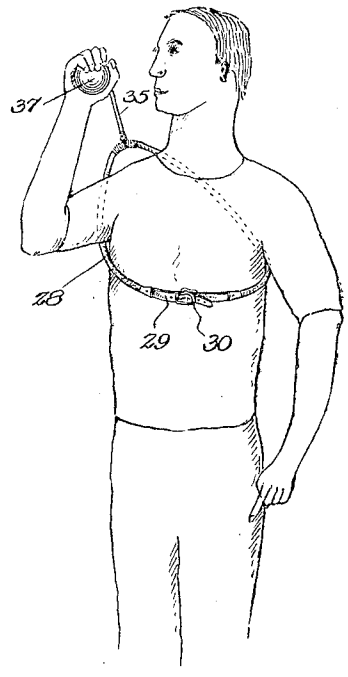


Fig. 13.

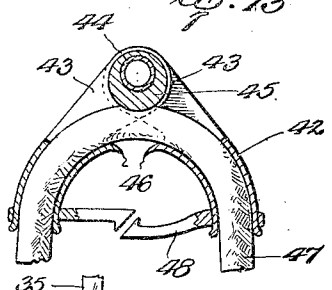


Fig. 10.

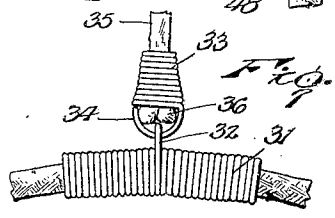
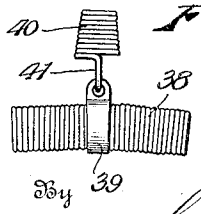


Fig. 12.



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By Lacy & Lacy, Attorneys

Patented Aug. 26, 1924.

1,506,631

UNITED STATES PATENT OFFICE.

ROY A. GROVER, OF SEATTLE, WASHINGTON.

EXERCISING DEVICE.

Application filed July 20, 1922. Serial No. 576,377.

To all whom it may concern:

Be it known that I, ROY A. GROVER, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Exercising Devices, of which the following is a specification.

This invention relates to an exercising device and seeks, as one of its principal objects, to provide a device of this character which may be attached to the body and utilized for exercising the arms or the muscles of the chest.

A further object of the invention is to provide a device employing a resilient or elastic resistance member and wherein said member may be employed in conjunction with an element for attaching the member to the body or may be employed independently of said element, if desired.

And the invention has as a still further object to provide a device employing different handles in connection with the resistance member and wherein said handles may be selectively used to suit the needs of different exercises.

Other and incidental objects will appear hereinafter.

In the drawings:

Figure 1 is an elevation of my improved exercising device,

Figure 2 is an enlarged detail elevation of the sleeve carried by the resistance member of the device,

Figure 3 is an edge elevation of said sleeve,

Figure 4 is a detail perspective view showing the manner in which the resistance member is connected at its ends to the straps carried thereby,

Figure 5 is an elevation showing the use of a slightly different handle in connection with the resistance member,

Figure 6 is a perspective view showing the use of the resistance member independently of the belt of the device,

Figure 7 is an elevation showing a slightly different form of resistance member and handle,

Figure 8 is a perspective view of the handle illustrated in Figure 7,

Figure 9 is a perspective view showing a further modified form of resistance member and sleeve,

Figure 10 is a detail elevation of the sleeve shown in Figure 9,

Figure 11 is a perspective view showing one manner of using the resistance element shown in Figure 9,

Figure 12 is a detail elevation showing another modified form of sleeve, and

Figure 13 is a detailed sectional view showing a still further modified form of sleeve.

In carrying the invention into effect, I employ a belt or attaching element 10 which may be either elastic or non-elastic and formed in the belt is a plurality of longitudinally spaced openings 11. Associated with the belt is a resilient resistance member 12 which may be permanently secured to the belt in any appropriate manner or, as shown in the present instance, detachably connected to the belt. This resistance member may be formed either by a coil spring or by an elastic cord of any appropriate number of strands and stitched or otherwise secured to said member at its ends are, as shown in detail in Figure 4, straps 13. The straps are selectively engageable in the openings 11 of the belt for securing the member at its ends to the belt and slidable along said member is a sleeve 14. As shown in detail in Figures 2 and 3 of the drawings, this sleeve is formed of companion sleeve sections provided at their meeting ends with mating ears 15 and extending through said ears is an eyelet 16 pivotally connecting the sections. In conjunction with the resistance member 12, I employ a ball handle 17. This handle is preferably formed to simulate an ordinary baseball and secured to the handle is a thong 18 which, at its free end, is passed through the eyelet 16 of the sleeve 14 and tied for detachably connecting the handle with the resistance member 12.

In use, the belt 10 is secured around the body at the waist, or wherever desired, when the handle 17 is grasped. The arm may then be moved, as in the act of throwing, for stretching the resistance member 12 and accordingly exercising the muscles of the arm and, in this connection, it is to be noted that when pull is exerted upon the eyelet 16 of the sleeve 14, the sections of the sleeve will tend to swing toward each other at their free ends to bend the resistance member and lock the sleeve against slipping therealong.

The handle 17 is particularly designed for use by ball players so that such a player may use the device for exercising his throwing arm in much the same manner as would be experienced in actual play. For some forms of exercising two of the sleeves 14 may be provided upon the resistance member so that a pair of handles may be employed.

In Figure 5 of the drawings, I have shown the use of a slightly different handle in connection with the resistance member and belt of the device. The belt is indicated at 19 and the resistance member at 20, these parts corresponding to the parts 10 and 12 previously described. The sleeve 14 is eliminated and in lieu thereof is employed a grip 21. This grip is slidably mounted upon the member 20 and is particularly designed for use in the practice of shadow boxing. As will be at once understood, the belt may be secured around the body when, by grasping the grip 21, first one and then the other arm may be exercised, or a pair of the hand'es 21 may be employed and both arms exercised simultaneously. If preferred, the member 20 may be detached from the belt and the straps at the ends of the member secured together to form the member into an endless loop, when the member may then be used as suggested in Figure 6. As will be observed, the member may be arranged to extend beneath one arm and over the opposite shoulder around the body or in any other appropriate manner when the grip 21 may be grasped for exercising the arm. Any of the handles shown may, of course, be employed in connection with the resistance member when used in this way.

In Figures 7 and 8 of the drawings, I have illustrated a slightly different member and handle. A belt 22 is employed, as first described, and detachably connected to the belt is a resistance member 23. This resistance member may be formed by an elastic cord or by a coil spring and secured to one end of said member is a strap 24 selectively engageable in the openings in the belt for connecting the member therewith. At its opposite end, the member is formed with a loop 25 and connected with said loop is a handle 26. As shown in detail in Figure 8, the handle carries a thong 27 which is passed through the loop 25 and tied for securing the handle in position. As will be observed, the resistance member, in the present instance, is formed by a single strand whereas, in the arrangement shown in Figure 1, as well as that shown in Figure 5, the resistance member, by being connected at its ends to the belt is, in effect, a double strand. It is believed that the manner in which the device shown in Figure 7 may be used will be readily understood in view of the foregoing and for certain forms of exercise the single strand resistance member will be found preferable. In this connection, attention is directed to the fact that the handles 17 and 26, as disclosed in Figures 1 and 7, may be used interchangeably with either the single strand or double strand resistance member. Furthermore, should it not be desired to use any one of the resistance members in connection with the belt, said members may be detached from the belt and secured to a stationary support to be used in that manner.

In Figure 9 of the drawings is illustrated a further modified form of resistance member and sleeve. The resistance member comprises, preferably, an elastic cord 28 at the ends of which are attached straps 29 which may be adjustably connected by an appropriate buckle 30. The sleeve is indicated at 31 and is preferably formed from a length of suitable resilient wire coiled to provide a flexible tube freely accommodating the cord therethrough and, as shown in detail in Figure 10, one of the coils of the sleeve is enlarged to form a medially disposed loop 32. Connected at one end to said loop is a longitudinally tapered thimb'e 33 which is also preferably formed from a length of suitable resilient wire coiled to the desired shape, the wire being extended at the larger end of the thimble to form a loop 34 engaged through the loop 32 of the sleeve. Extending at one end through the thimble is a thong provided at its adjacent terminal with a knot 36 connecting the thong to the thimble while at its opposite end the thong carries a ball shaped hand'e 37. As illustrated, the thong may be inserted through a suitable opening in the handle and knotted to prevent displacement of the handle. In Figure 11, I have shown one way in which the resistance member with its handle, as illustrated in Figure 9 may be employed for exercising the muscles of the right arm. As will be noted, the cord 28 is passed around the body beneath the arms when the handle 27 is brought forwardly over the right shoulder and grasped by the right hand. Accordingly, the arm may then be extended against the tension of the resistance member for exercising the muscles of the arm. The device may, of course, be used in a similar manner in connection with the left arm as well as for various other exercises.

In Figure 12, I have shown a slightly modified form of sleeve from that illustrated in Figures 9 and 10. In this modification the sleeve is indicated at 38. The sleeve, like the sleeve 31, is preferably formed from a length of suitable resilient wire coiled to provide a flexible tube. However, instead of providing a loop medially of the tube, I employ a split collar 39

which is arranged to embrace the tube and connected to said collar is a thimble 40. This thimble is identical with the thimble 33 and is provided at its larger end with a loop 41 engaged through the ends of the collar for securing the collar upon the sleeve.

In Figure 13 of the drawings, I have illustrated a further modified form of sleeve similar to the sleeve shown in Figure 2 of the drawings. This modified form of sleeve includes tubular sleeve sections 42 which are curved longitudinally and provided at their inner ends with mating ears 43 through which is engaged an eyelet 44 pivotally connecting the sections. Mounted upon said eyelet is an eccentric collar 45 and formed on the sections at their inner ends are confronting lips 46 extending from the lower sides of the sections. The sections are, of course, designed to freely receive a resistance cord or member 47 therethrough and mounted upon the sections at their free ends are coacting reversely presented hooks 48 projecting toward each other between the sections. The eyelet 44 is designed to accommodate a thong for connecting a handle with the sleeve and normally, the sleeve will slide freely along the cord 47. However, should it be desired to secure the sleeve stationary upon the cord, the free ends of the sleeve sections 43 are swung toward each other, when the hooks 48 will ride over each other to engage at their free ends for holding the free ends of the sections against spreading. When the hooks are thus engaged, the lips 46 will be pressed upwardly for clamping the cord 47 between said lips and the eccentric collar 45 so that the sleeve will thus bind the cord to be locked stationary thereon.

Having thus described the invention, what is claimed as new is:

1. An exercising device including an attaching element, a resistance member connected thereto, a sleeve slidable along said member and formed of pivotally connected sections, and a handle connected with said sleeve.

2. An exercising device including a resistance member, a sleeve slidable thereon, a handle, and a flexible connection between the handle and said sleeve.

3. An exercising device including a resistance member, a flexible sleeve slidable along the member, a thimble pivotally connected with said sleeve, a thong connected with said thimble, and a handle carried by the thong.

4. An exercising device including a resistance member, a sleeve slidable thereon and formed of companion sections, means pivotally connecting the sections, an eccentric collar carried by said means, the sections being adapted to be swung toward each other for binding the resistance member against said collar, and means for securing the sections when swung.

5. An exercising device including a resistance member, a sleeve slidable thereon and formed of companion sections, means pivotally connecting said sections, an eccentric collar carried by said means, the sections being formed with lips and being adapted to be swung toward each other for clamping the resistance member between said lips and said collar, and coacting hooks carried by the free ends of the sections and engageable with each other for securing the sections when swung.

In testimony whereof I affix my signature.

ROY A. GROVER. [L. S.]