March 4, 1941. E. E. BAUERMEISTER 2,233,764

EXERCISING DEVICE

Filed May 20, 1939

Fig. 1.

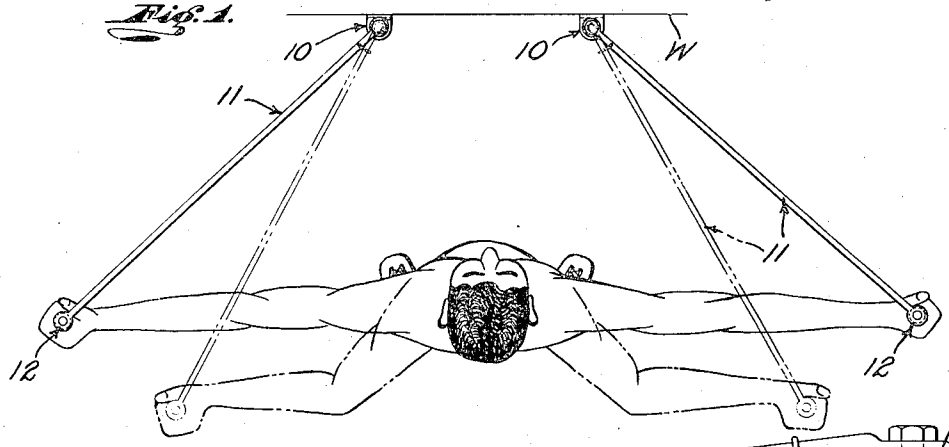


Fig. 2.

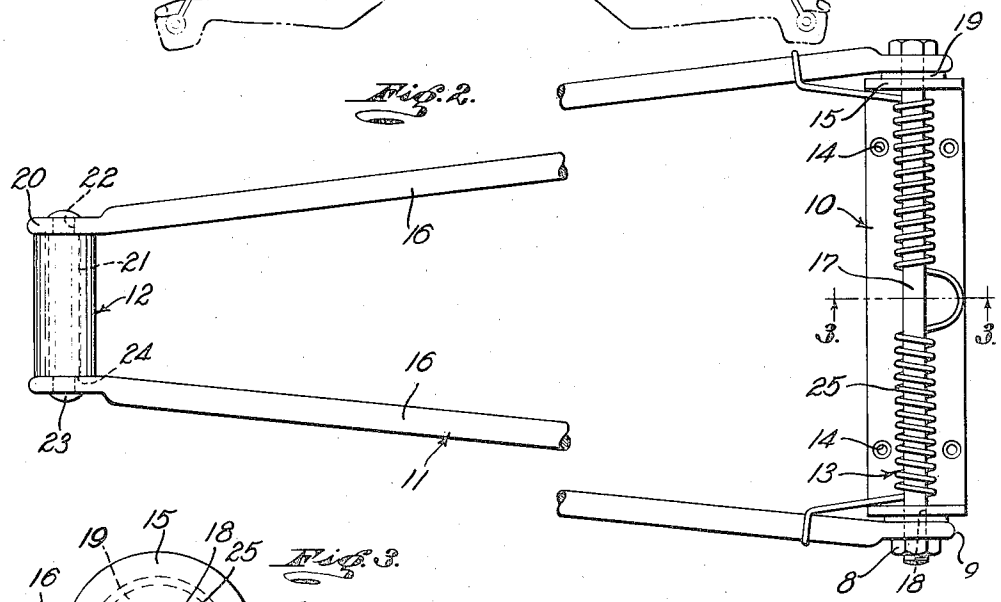


Fig. 3.

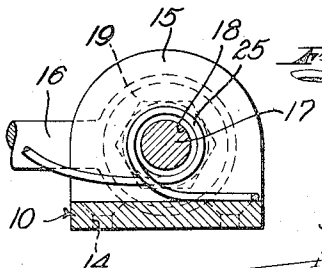
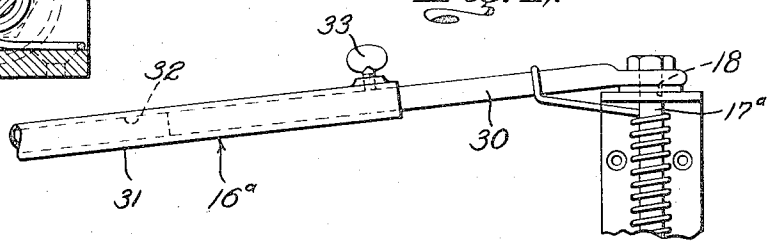


Fig. 4.



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2,233,764

UNITED STATES PATENT OFFICE

2,233,764

EXERCISING DEVICE

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Application May 20, 1939, Serial No. 274,762

6 Claims. (Cl. 272—83)

This invention relates to exercising devices and it is a general object of the invention to provide a simple, practical and particularly effective exercising device for passively stretching the chest muscles and actively shortening the back muscles.

Another object of this invention is to provide an exercising device that is useful and effective in correcting round shoulders.

Another object of this invention is to provide an exercising device of the character mentioned that may be successfully used and operated by any one without practice or skill and that may be mounted or positioned for use by persons of different heights, etc.

Another object of this invention is to provide an exercising device of the character referred to that may be installed and used in any convenient or available wall space in a gymnasium, room, apartment, or the like.

Another object of this invention is to provide an exercising device of the character referred to that normally lies substantially flat against the wall where it does not form a hazardous projection or obstruction.

A further object of this invention is to provide an exercising device of the character referred to that is simple and inexpensive to manufacture and that is easy to install.

The various objects and features of my invention will be fully understood from the following detailed description of typical preferred forms and applications of the invention, throughout which description reference is made to the accompanying drawing, in which:

Fig. 1 is a plan view of the exercising device of the present invention illustrating the manner in which it is used. Fig. 2 is an enlarged front view of one of the units of the device. Fig. 3 is an enlarged horizontal detailed sectional view taken as indicated by line 3—3 on Fig. 2 and Fig. 4 is a fragmentary front view illustrating a slightly modified form of construction.

The novel exercising device of the present invention illustrated in Figs. 1, 2 and 3, may be said to comprise, generally, two units each comprising a mounting plate or bracket 10 for attachment to a wall W or other vertical support, an arm 11 hinged or pivoted to the bracket 10 and having a grip or handle 12 on its outer end, and means 13 yieldingly urging the arm 11 toward a position where it lies substantially flat against the wall W.

The two units of the device are substantially alike and are adapted to be mounted on the wall W in spaced apart side by side relation. One unit constitutes the right unit, that is to be engaged or operated by the right hand, while the other unit forms the left unit of the device to be engaged and operated by the left hand of the user. The brackets 10 of the two similar units may be varied in construction and design without departing from the invention. In the case illustrated the brackets 10 are elongate plate-like parts adapted to lie flat against the wall W. Pairs of spaced openings 14 are provided in the brackets 10 to receive screws or other attaching elements for securing the brackets to the support or wall W. The brackets 10 are arranged with their longitudinal axes substantially vertical and the upper and lower ends of the brackets have forwardly projecting ears or flanges 15. The forward edges of the bracket flanges 15 are suitably curved or rounded.

The brackets 10 just described are adapted to be secured to the support or wall W in spaced relation and at an elevation where they will be substantially opposite the chests or shoulders of the users.

The arms 11 of the two units are elongate members or structures carried by their respective brackets 10 to hinge or pivot about substantially vertical axes. The arms 11 are rigid elements and have substantial strength. The formation and construction of the arms 11 may be varied considerably without departing from the invention. In the case illustrated each arm 11 comprises two members 16 formed of tubular stock or rod stock. The arm members 16 are of equal length and the members of each arm 11 extend outwardly or forwardly in spaced apart converging relation. The inner ends of the arm members 16 are provided with flattened portions 9 having openings receiving substantially vertical bolts or pins 17. The pins 17 may be turnably or pivotally received in openings 18 in the upper and lower flanges 15 of the brackets 10. Nuts 8 may be threaded on the bolts or pins 17 to hold the same against displacement. Washers 19 may be arranged on the pins 17 between the outer faces of the flanges 15 and the flattened portions 9 of the arm members 16.

The grips or handles 12 are secured between the forward end portions of the arm members 16. The forward end portions 20 of the members 16 are preferably flattened to present generally parallel upper and lower faces. Shafts or pins 21 pass through aligned vertical openings 22 in the spaced adjacent portions 20 of the pairs of arms 16. The handles or grips 12 are turnably supported on the pins 21 and are held against end-

wise movement by the flattened end portions 20 of the arm members 16. The handles 12 may be suitably shaped members of wood, or the like, having longitudinal openings receiving the pins 21. The opposite ends of the handle supporting pins 21 have nuts or heads 23 engaging against the outer surfaces of the flattened portions 20. Shoulders 24 are provided on the pins 21 to cooperate with the inner surfaces of the flattened portions 20 and serve to limit the inward movement or flexing of the arm members 16 so that the handles 12 remain free to turn at all times. The handles 12 are proportioned so that they may be readily grasped by the users. From the above description of the arms 11 it will be seen that each arm constitutes a rigid unit or element that bodily swings or pivots on its respective bracket 10. As clearly illustrated in Fig. 1 of the drawing the arms 11 are of such length that a person grasping the handles 12 with his arms outspread is spaced a suitable distance from the wall W.

The means 13 are provided to normally hold the arms 11 in retracted positions against the wall W and to aid in the exercising and muscle developing function of the device by imposing outward forces on the arms of the user. The means 13 are optional, that is, they may be dispensed with if desired. The means 13 comprise torsional springs 25 arranged around the pins 17 between the bracket flanges 15. There may be a spring 25 arranged about each pin 17. The springs 25 have their ends bearing on the arm members 16. The opposite end portions of the springs 25 are wound in opposite directions and the intermediate portions of the springs are straight and arranged to bear against the front faces of the brackets 10. The springs 25 are under torsion to impose swinging or turning forces on the arms 11. The springs 25 are formed and arranged to urge their respective arms 11 outwardly or toward the wall W. The strength of the springs 25 may be varied to best suit the conditions of use of the device.

In the construction illustrated in Fig. 4 of the drawing the arms 11 are adjustable so that they may be varied in length at will. In this case the members 16a of the arms each include two telescopically related sections 30 and 31. The sections 30 constitute the inner parts of the arm members and have pins 17a pivotally received in the openings 18 of the brackets 10 to support the arms for swinging movement. The outer sections 31 are tubular, having longitudinal openings 32 slidably or shiftably receiving the inner members 30. Suitable means are provided for releasably locking the sections 30 and 31 against relative shifting in any selected relative positions. This means may comprise set screws 33 threaded in openings in the outer sections 31 and adapted to clamp against the inner sections 30. It will be seen that upon loosening the screws 33 the sections 31 may be moved in or out relative to the sections 30 to extend or shorten the arms of the device, whereupon the screws 33 may be tightened down to maintain the arms at the selected length. The arm sections 30 and 31 and the members 16a are sufficiently flexible to allow for the required adjustment even though the members 16a are connected at their inner and outer ends and are convergent.

In using the exercising device of the present invention the user stands facing the wall W and then grasps the handles 12. He then brings his arms to outspread substantially horizontal positions, as illustrated in Fig. 1 of the drawing. In this position the user moves or sways toward the wall W applying a portion of his weight to the arms 11. This action places considerable tension on his arms and stretches his chest and compresses the back muscles in the region of the shoulder blades. The user then returns to his original position. This operation may be repeated, that is, the user may sway back and forth to passively stretch the chest muscles.

Another and probably preferred manner of using the device is to start the exercise with the body in the position shown in full lines in Fig. 1 with the arms outspread and the hands grasping the handles 12. The muscles of the arms, back and shoulders are flexed or worked so that the handles 12 are drawn in toward the shoulders while the hands are maintained in a horizontal plane by the handles 12 on the pivoted arms 11. The elbows are bent and lowered as the handles 12 are drawn in. This position is illustrated by the broken lines in Fig. 1. With the movement just described the muscles of the back and shoulders are forced to work against the load of the body which is bearing forward and/or against the load of the springs 25. The back muscles are effectively compressed and shortened and the chest muscles are passively stretched by this action. The arms of the exerciser are returned to their outspread positions and the above action is repeated. The exercise is preferably performed several times at each use of the device. Repeated use of the device effectively restores the back muscles, bones, etc. to their correct positions and develops the chest and arm muscles. The springs 25 when embodied in the device act to urge the arms 11 to their normal positions against the wall W and, therefore, aid in the exercising action.

Persons of various arm lengths may use the device by merely standing at different distances from the wall W. Where the rigid arms 11 are employed as illustrated in Figs. 1, 2 and 3, the arms automatically adjust themselves to the proper positions when users of different arm lengths spread their arms while grasping the handles 12. The device is thus suited for use by persons whose arms vary considerably in length. Where children of different ages, and adults, are to use the device, extensible or adjustable arms of the character illustrated in Fig. 4 may be used. When not in use the arms 11 are retained in retracted positions against the wall W by the torsional springs 25 so that the device occupies a minimum of space, and does not constitute a hazard.

Having described only typical preferred forms and applications of my invention, I do not wish to be limited or restricted to the specific details herein set forth, but wish to reserve to myself any variations or modifications that may appear to those skilled in the art or fall within the scope of the following claims:

I claim:

1. An exercising device comprising two arms, handles on the arms to be gripped by the user, mounting means for attachment to a support and carrying the arms for independent swinging movement about substantially vertical axes and so that the arms project forward from the support toward the operator and outward away from each other so the handles can be grasped by the operator while standing in front of the device with his arms extending laterally, and individual

means yieldingly urging the arms to swing apart in opposite directions about said axes.

2. An exercising device comprising two separate units, each unit comprising a mounting bracket to be secured to a support, vertically spaced flanges on the bracket having aligned vertical openings, an arm comprising spaced elongate members, pins carrying the inner ends of the members and received in the said openings whereby the arm is swingable about a substantially vertical axis, and a grip secured between the outer portions of the members and adapted to be grasped by the user.

3. An exercising device comprising two separate units, each unit comprising a mounting bracket to be secured to a support, vertically spaced flanges on the bracket having aligned vertical openings, an arm comprising spaced elongate members, pivot pins at the inner ends of the members received in the said openings whereby the arm is swingable about a substantially vertical axis, springs acting on the arms and individually urging the arms to swing rearwardly toward said support, and a grip secured between the outer portions of the members and adapted to be grasped by the user.

4. An exercising device including two arms, a handle at the outer end of each arm, mounting means for applying the inner end of each arm to a support so the arms independently swing horizontally and project forward from the support toward the operator, and separate means for each arm yieldingly urging the arms in opposite directions so outward tension is applied to the operator's arm when the handles are grasped.

5. An exercising device including mounting means to be carried by a support, two rigid arms of substantially the same length as the arms of the operator and pivotally carried by the mounting means to project forward and oppositely sidewise from the mounting means and be free to independently swing horizontally, and spring means in connection with each arm whereby the arms are independently yieldingly urged to swing apart.

6. An exercising device including two arms of substantially the same length as the arms of the operator, and individual pivotal supports for the inner ends of the arms whereby the arms are mounted on a vertical support to project forward from the supports and freely swing horizontally, hand grips at the outer ends of the arms disposed transversely of the arms, and individual means at the inner ends of the arms for yieldingly urging the arms horizontally away from each other.

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