Oct. 31, 1950

W. V. DANTOLAN

BAR BELL

Filed Dec. 31, 1946

2,528,213

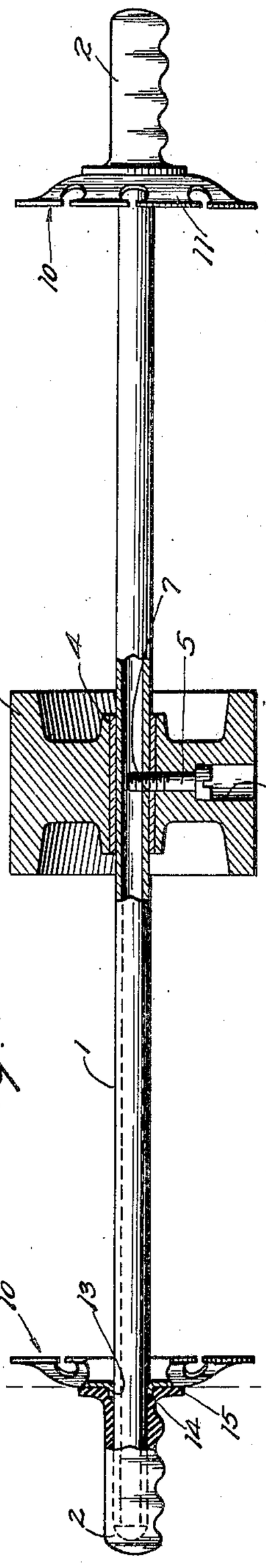

Fig. 1.

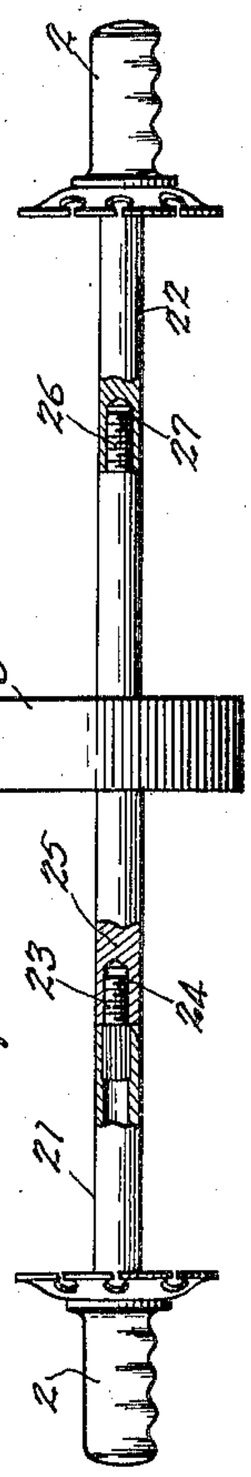

Fig. 3.

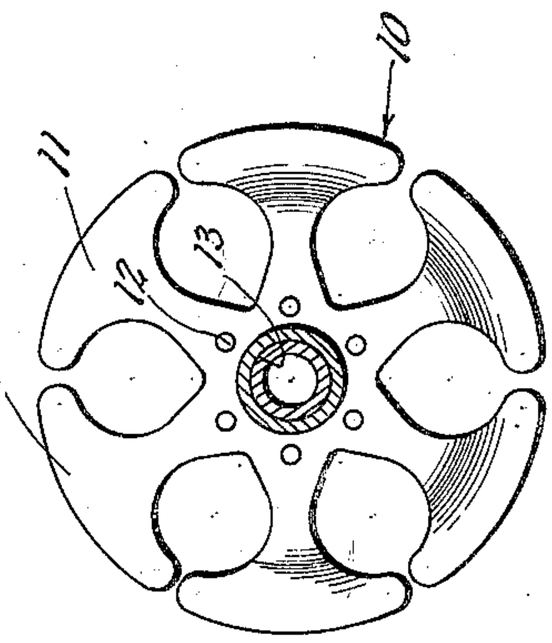

Fig. 2.

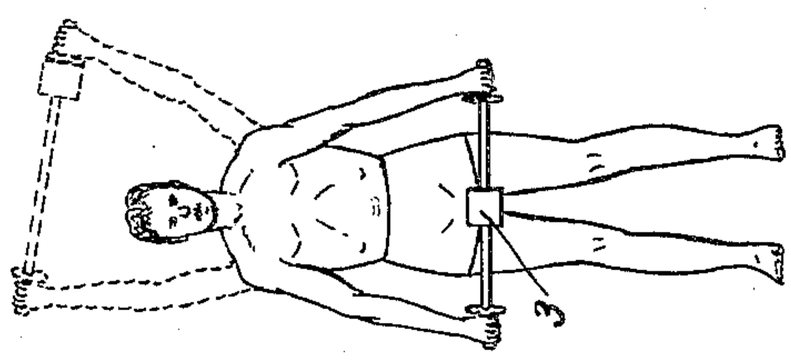

Fig. 4.

INVENTOR.

Wilfred V. Dantolan.

BY

Thies, Olson & Mecklenburger.

Atty

Patented Oct. 31, 1950 2,528,213

UNITED STATES PATENT OFFICE

2,528,213

BAR BELL

Wilfred V. Dantolan, Chicago, Ill.

Application December 31, 1946, Serial No. 719,487

2 Claims. (Cl. 272—84)

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My invention relates to an exercising device for manual use, and in its broadest sense is of the bar-bell class.

Present bar-bell exercising devices are adapted principally to the development of the muscles controlling flexion and extension. My device has for its principal object the provision of an exercising device for developing not only the muscles active in flexion and extension, but those used in rotation.

Another object of my invention is the provision of a device of the class described which is particularly effective in improving the tone of the abdominal muscles.

Still another object is to provide a device as aforesaid which is instantaneously convertible from a device for exercising the muscles of flexion and extension to one more adapted to the improvement of the muscles of rotation.

Other objects will appear in the following description.

In its principal embodiment the invention comprises an elongated supporting member carrying a weight adapted to be locked to, or made slidable upon, the member. At each end the support is provided with buffers for absorbing to a substantial extent the shock imparted to the device as the weight is oscillated upon the bar. Handles are provided for gripping the supporting member.

In the drawings:

Fig. 1 is a side-elevational view in partial section of the principal form of my invention;

Fig. 2 is a cross-sectional view on the line 2—2 of Fig. 1;

Fig. 3 is a view similar to that of Fig. 1, but of an alternative form of the device; and

Fig. 4 illustrates the device is use.

Referring first to Figs. 1 and 2, the device comprises an elongated tubular member 1 of sufficient strength for the intended purpose, but hollow for lightness, and provided at each end with handles 2 of rubber or other resilient material.

Adapted to slide longitudinally of the member 1 is the weight 3, preferably of cast iron and of a mass determined by the strength of the user and the type of exercises to be performed. For general use a weight of five pounds has been found satisfactory. As shown, the weight 3 is cylindrical, but may be of any other desired contour. To minimize friction between the weight 3 and the member 1, there may be provided a bushing 4 of graphited bronze. Inasmuch as the device is usable with the weight 3 fixed or slidable, there is provided a locking screw 5 inserted through a counterbored hole 6 and threadedly engageable with an aperture 7 in the wall of the member 1 whereby, when desired, the weight 3 may be locked against sliding. It will be obvious that the screw 5 may be provided with a shoulder or washer for insuring against loss of the screw when the same is withdrawn from the aperture 7, and as is well known.

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When the weight 3 is in sliding oscillating relation with the member 1, it exhibits considerable momentum. To reduce undesirable blows against the user's hands from this source there is provided a pair of buffer springs 10 dished in form and including a plurality of T-shaped lobes 11 constituting independent resilient fingers. Thus when the weight 6 reaches a spring 10 at either end of its path, the lobes 11 yield to absorb the momentum to a substantial degree. To increase the resiliency of the lobes 11, there may be provided apertures 12 which reduce the cross section of the metal at the base of the lobes. To affix the springs 10 to the member 1, they may be provided with a flanged aperture 13 snugly fitting the member 1 and welded or otherwise joined thereto as at 14. Further to protect the user's hands, the handles 2 may be flanged as at 15 to overlie a portion of the springs 10.

In use the device is grasped in the palm of the hands as in Fig. 4, and assuming that exercises utilizing the sliding of the weight 3 are desired, the device may be lifted overhead, meanwhile permitting the left arm to flex to cause the weight 3 to slide to the left. By reason of its momentum, the weight will tend to throw the user off equilibrium, and to counteract such effect the trunk and arms are brought into play, thereby exercising those sets of muscles taking part in such effort. The device may now be brought down and the weight 3 caused to move to the right with like physical effort and results.

One preferred manner of use would be to begin the exercise with the device as shown in full lines in Fig. 4 and then, while raising the arms to the dotted line position, continuously cause the weight to oscillate. Whether the device is maintained with the arms at one level or is moved from one level to the other as just outlined, the muscles of the arms, during continued oscillation of the weight 3 are given what may be termed a massaging treatment. That is to say, the periodic absorption by the muscles, particularly those of the upper arms, of the momentum of the weight as it reaches each end of its path is similar to the kneading imparted

by a masseur and with like beneficial effects. Simultaneously with the muscular reactions just outlined, the abdominal and hip muscles are also exercised since the rotation of the body caused by the momentum of the weight is consciously counteracted by the user.

Another mode of use designed to strengthen the abdominal muscles, for example, is to hold the device at arm's length and to rotate the body from side to side, keeping the feet planted on the floor. Thus the weight 3 may be shifted from the left-hand end of the member 1 to the right-hand end, and alternately and repeatedly, the change in momentum each time together with the effort of moving the weight from side to side yielding the desired calisthenic effect. The foregoing examples are intended to illustrate only some of the uses, since it will be apparent that the device is capable of many other uses, e. g., with the user prone or sitting. By locking the weight 3 by the screw 5, the device becomes a simple bar bell.

To render the device adjustable so that persons of various degrees of physical strength, e. g., adult and child, may benefit from one piece of apparatus, the member 1 may be alternatively constructed as shown in Fig. 3. In such case the support comprises stub portions 21 and 22, the former being hollow and having inserted therein the knurled stud 23 threadedly engageable with the aperture 24 in the center support portion 25 of the same external diameter as the portion 21. At its right-hand end the portion 25 is reduced in diameter and threaded at 26 to connect with a correspondingly threaded aperture 27 in the portion 22. Weight 3 is as described, but it is within the scope of my invention to substitute lighter or heavier weights where the physical capabilities of the user dictate such substitution.

For use by an adult, the center portion 25 would be inserted between the portions 21 and 22, thus to present a device of longer length in consonance with the normal arm position of the user. For a child the center portion 25 would be removed and the stud 23 engaged with the aperture 27 to yield a lesser overall length of device.

While I have shown particular embodiments of my invention, it will be understood, of course, that I do not wish to be limited thereto since many modifications may be made, and I therefore contemplate by the appended claims to cover any such modifications as fall within the true spirit and scope of my invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. An exercising device comprising an elongated supporting member having two manual gripping portions at opposite ends thereof, a jolt-providing element weighing a number of pounds mounted on said member for sliding movement longitudinally thereof, and abutment means on said supporting member on opposite sides of the jolt-providing element engageable thereby and spaced apart far enough to enable at least a shoulderbreadth movement of said element, said abutment means being provided with shielding means to prevent said jolt-providing element from striking the hands of the user.

2. An exercising device comprising an elongated supporting member having two manual gripping portions at opposite ends thereof, a jolt-providing element weighing a number of pounds mounted on said member for sliding movement longitudinally thereof, and abutment means on said supporting member on opposite sides of the jolt-providing element engageable thereby and spaced apart far enough to enable at least a shoulderbreadth movement of said element, said abutment means being provided with shielding means to prevent said jolt-providing element from striking the hands of the user, each gripping portion comprising an elongated handle, a handbreadth in length, in alignment with said elongated supporting member.

WILFRED V. DANTOLAN.

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