

Feb. 27, 1968

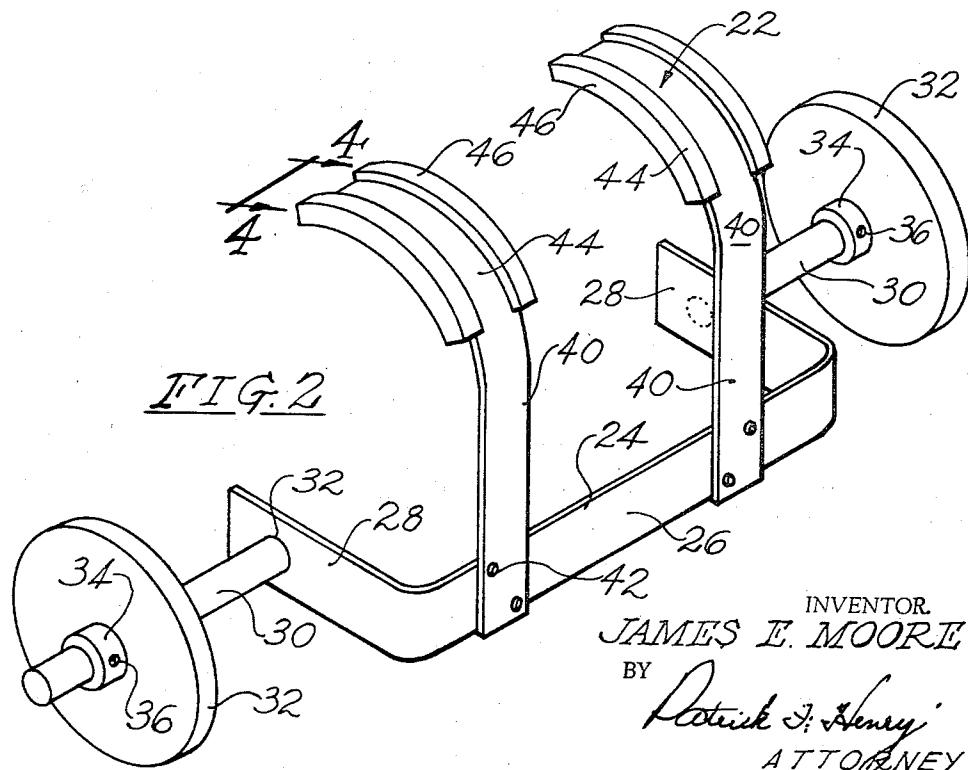
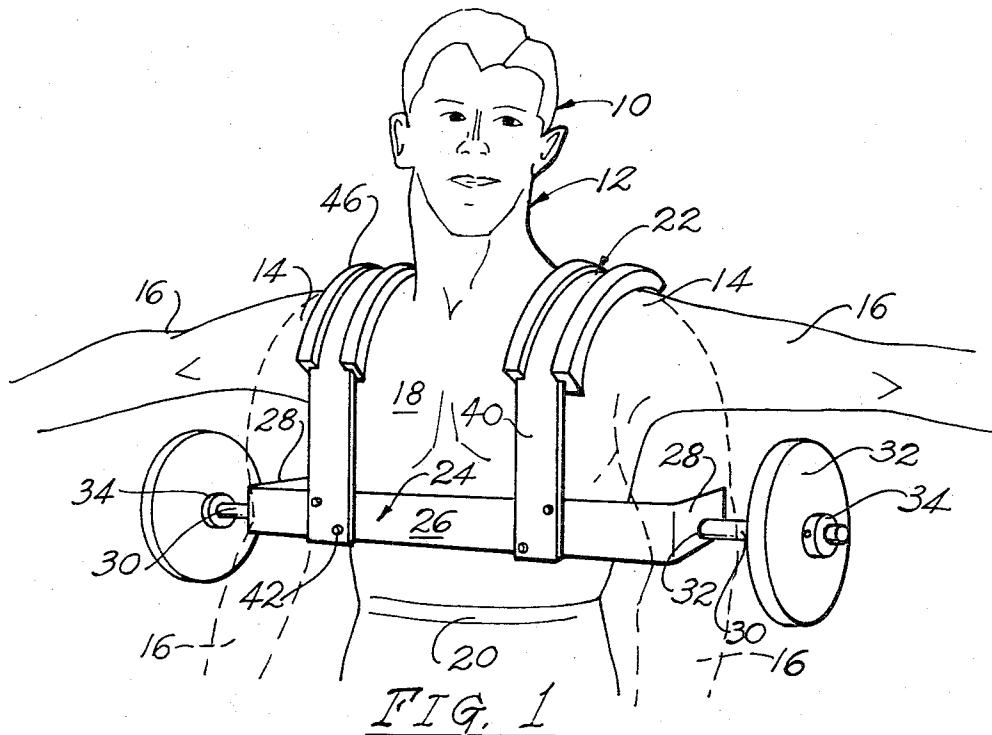
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3,370,850

WEIGHT LIFTING EXERCISE DEVICE

Filed July 31, 1964

2 Sheets-Sheet 1



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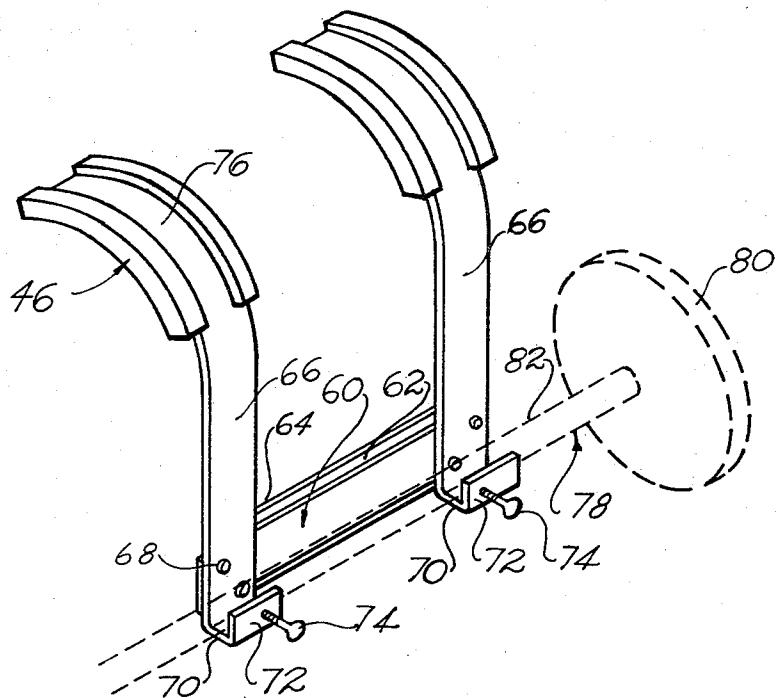


FIG. 3

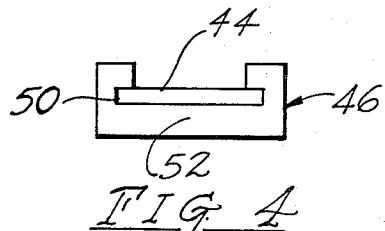


FIG. 4

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# United States Patent Office

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1

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**WEIGHT LIFTING EXERCISE DEVICE**  
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6 Claims. (Cl. 272—84)

This invention relates to a weight lifting exercise device and particularly to a device of that sort which is worn on the shoulders during exercise, especially leg exercises, to allow freedom of the arms for balance and especially during leg exercises such as bar bell squats.

Bar bell weight lifting is a common exercise and physical training procedure for body conditioning. In my co-pending application SN 355,125, also entitled, Weight Lifting Exercising Device, there is described the relationship between exercising and the use of a device similar to the present one. The instant device, in some respects, is a variation of the particular embodiment shown in said aforementioned co-pending application, especially with respect to ease of putting the device on and taking it off and also in the reduction and cost of manufacturing as well as allowing more freedom of the body without being confined as much as in the prior embodiment, and reducing the weight of the device itself.

Generally described, the present embodiment is adapted to be placed upon the opposite shoulders of the wearer either at the back or the front and to support adjustable weights on either side below the armpits and outside of the body. The present frame for the device is entirely open and the body is not confined in any part of the frame. A main frame member supports protruding weight support and retaining members on each of the opposite ends thereof and is adapted to extend generally across, transversely of the trunk of the body. A pair of spaced, upwardly extending shoulder support members are mounted at spaced positions on the main frame and each of the tops of each of these shoulder support members are curved generally to a contour of a normal upper chest and shoulder. In the present embodiment, the main frame is formed as a U-shaped member with opposed sides supporting the weight support members and the shoulder support members are made from flat metal strap. The upper ends of the shoulder support members where they rest on the shoulders of the body are covered by plastic or rubber foam pads formed in a shape of a channel so that the pads are easily inserted over the strap shoulder support members to cover one side completely. These foam pads provide adequate cushioning to prevent damage to the skin or any significant discomfort. The device is positioned on the shoulders either on the front of the body or the back of the body. It may be lifted from the ground and placed on the shoulders or it may rest on a stand in which case the person fits himself into it prior to lifting it from the stand.

A primary object of this invention is to provide an open weight lifting exercise device which is supported on the shoulders and positions weights on opposite sides of the body beneath the arms and armpits.

Another object of this invention resides in the particular construction of this device utilizing a pair of shoulder support members which may be fashioned from metal and a metal frame supporting weights on opposite sides.

Still another object of this invention is to provide a frame for weights which is positioned on opposite sides of the neck, is covered by a comfortable material and supports the weights beneath the shoulders.

An optional form of this invention includes a means for supporting a conventional bar bell shaft and bar bells across the front of the body in lieu of the weights which extend from the sides of the frame in the other embodiment.

2

Other and further objects and advantages of my invention will become apparent upon reading the following specifications taken in conjunction with the accompanying drawings, in which:

5 FIG. 1 is a perspective view of the weight lifting apparatus of the present invention positioned on the front of the body with the back entirely open.

FIG. 2 is a perspective view of the device shown in FIG. 1 removed from the body.

10 FIG. 3 is a perspective view of a modified form of the invention shown in FIG. 1 which provides for the use of a common bar bell in lieu of the permanent weights shown on the FIG. 1 embodiment.

FIG. 4 is an end view looking at one of the foam pads or cushions on one of the supports.

15 Referring to the embodiment shown in FIG. 1, a typical person 10, who desires to perform knee bends or weight lifting squats, has a neck 12, opposed shoulders 14, arms 16, chest 18, and waist 20.

20 The weight lifting device of the present invention is designated as a complete assembly by the reference numeral 22 and comprises, as shown in FIGS. 1 and 2, a main frame designated as a complete assembly by reference numeral 24 consisting of a straight, flat metal strap member 26 bent at opposite ends in 90 degree angles into opposed members 28 of substantially flat, rectangular construction. Members 28 each has welded thereto a horizontally protruding weight support member 30 which may be constructed from a tubular metal shaft welded at 25 one end at 32 to respective member 28. Shafts 30 are adapted to hold selectively a plurality of ordinary weight-lifting weights 32 which have open centers provided with a hub or collar 34 having a removable set screw 36 therein. With this arrangement, it is possible to put any 30 number of weights 32 of any amount on the shaft 30.

35 Extending above and substantially perpendicular to the front portion 26 of assembly 24 are spaced shoulder support members 40 which constitute the sole support for the entire apparatus 22 from the shoulders 14 of the person 10. Each member 40 is constructed from flat, metal strap material fastened at its bottom by screws 42 to the frame member 26 and each member 40 is curved at the top portion 14 to a gentle arcuate formation of any desired length and curvature to fit over the shoulders. It is possible to 40 make the apparatus in different sizes and slightly different shapes contemplating that young people of small size would be using the device as well as older experienced or professional weightlifters having tremendous bodies and large shoulders.

45 Fitted to each of the upper portions 44 of members 40 is a soft pad or cushion 46, in the present embodiment molded from foam plastic material or foam rubber to have a center channel as shown in FIG. 4 provided with side grooves 50 in which the portions 44 of members 40 are fitted. This places one side 52 of members 46 covering the entire area of the upper part 44 of member 40 to protect the body from irritation or damage and to reduce considerably any discomfort. Pads 46 are readily removable by sliding off of the upper portion 44 and may be replaced if damaged or worn and also are readily assembled when the device is constructed new.

50 In the modified form shown in FIG. 3, the frame 24 has been replaced by a single cross-member 60 having an inside channel 62 therein formed by a spaced member 64 and having connected thereto and extending perpendicularly therefrom upstanding shoulder support members 66 fastened by screws 68. Each member 66 is bent at the bottom to form a channel 70 with a front portion 72 in which is mounted a set screw 74 that may be tightened by hand. The upper portions 76 of members 66 are curved in the manner defined in connection with the embodiment in FIG. 1 and receive the same type of

foam pads 46 of the same construction defined previously herein.

In the embodiment shown in FIG. 3, the weights 32 and the weight support shaft 30 have been eliminated as a permanent part of the device and in place of this a common bar bell 78 with weights 80 that may be removed and replaced and a shaft 82 that is positioned inside of the channels 70 and fastened therein by set screws 74. This particular arrangement is especially useful to certain types of athletes, such as wrestlers who wish to perform wrestler's arches and similar exercises that concentrate on certain portions of the trunk rather than just knee bends or weight lifting squats alone that concentrate on the legs.

In the operation of all of the embodiments shown herein it is to be noted that the frame is completely open and that the body is not confined at any time. This is particularly useful from a safety and convenient standpoint as it is easy to get into and out of the device and also the device is not as bulky and is not as costly to manufacture.

While I have shown and described a particular form of my invention together with suggested operation and use, this is for illustration only and does not constitute any sort of limitation on the scope of my invention as various alterations, changes, deviations, eliminations, modifications and departures may be made from the described embodiment without departing from the scope of my invention defined in the appended claims.

I claim:

1. In an exercising device to be positioned on the shoulders of the body either on the back or front thereof to hang and be supported on the body for exercising same,
  - (a) a pair of rigidly connected shoulder support members having ends spaced from each other and having respective shoulder support portions positionable on opposite sides of the neck on a respective shoulder, said respective members extending from a respective shoulder down the body,
  - (b) said members being open at the ends and terminating a short distance down the body providing an open support between the shoulder support portions of the shoulder support members which may be placed on the body,
  - (c) adjustable weight means on said support members below each of the shoulders and armpits,
  - (d) said ends of said shoulder support members having a soft cover thereon,
  - (e) a frame member connecting said shoulder members, said frame member extending around the body on both sides and terminating in a side member a short distance around the body and being open between opposed side members to fit over the body when taking it off or putting it on, and said weight means being attached to each side member.
2. The device in claim 1 wherein the soft cover is a pad on each shoulder member made of a material such as foam plastic.
3. In an exercising device to be positioned on the shoulders of the body either on the back or front thereof to hang and be supported on the body for exercising same,

- (a) a pair of shoulder support members having arcuate ends spaced from each other and being positioned on opposite sides of the neck on a respective shoulder,
- (b) said members being open between the arcuate ends and terminating a short distance down the body providing an open support between shoulder support members which may be placed on the body,
- (c) adjustable weight means on said support members below each of the shoulders and armpits,
- (d) means connecting said shoulder support members into a rigid, unitary device,
- (e) said means connecting said shoulder support members being a frame member connecting said shoulder support members at ends opposite from said arcuate ends, said frame member extending around the body on both sides and terminating in short side members a short distance around the body and being open between opposed side members to fit over the body when taking it off or putting it on.

4. The device of claim 3 wherein said weight means is a weight attached to each side member.
5. The device of claim 4 wherein the weights are mounted on shafts attached to the side members.
6. In an exercising device to be positioned on the shoulders of the body either on the back or front thereof to hang and be supported on the body for exercising same,
  - (a) a pair of flat shoulder support members having terminal arcuate ends spaced from each other and being positionable on opposite sides of the neck on a respective shoulder,
  - (b) said members in (a) being open at the arcuate ends and terminating a short distance down the body providing an open support between shoulder support members which may be placed on the body,
  - (c) a flat frame member connecting said shoulder members, said frame member being bent on each end and extending around the body on both sides and terminating beneath the armpits a short distance around the body and being open between opposed side members to fit over the body when taking it off or putting it on and allowing the arms to move freely above the weights,
  - (d) a weight support member attached to each side member,
  - (e) weights on each weight support member,
  - (f) and a removable pad on each arcuate end of the shoulder support members.

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