Dec. 24, 1963 F. J. FORTE 3,115,339

OVERHEAD EXERCISING APPARATUS

Filed Nov. 15, 1961 2 Sheets-Sheet 1

FIG. 1

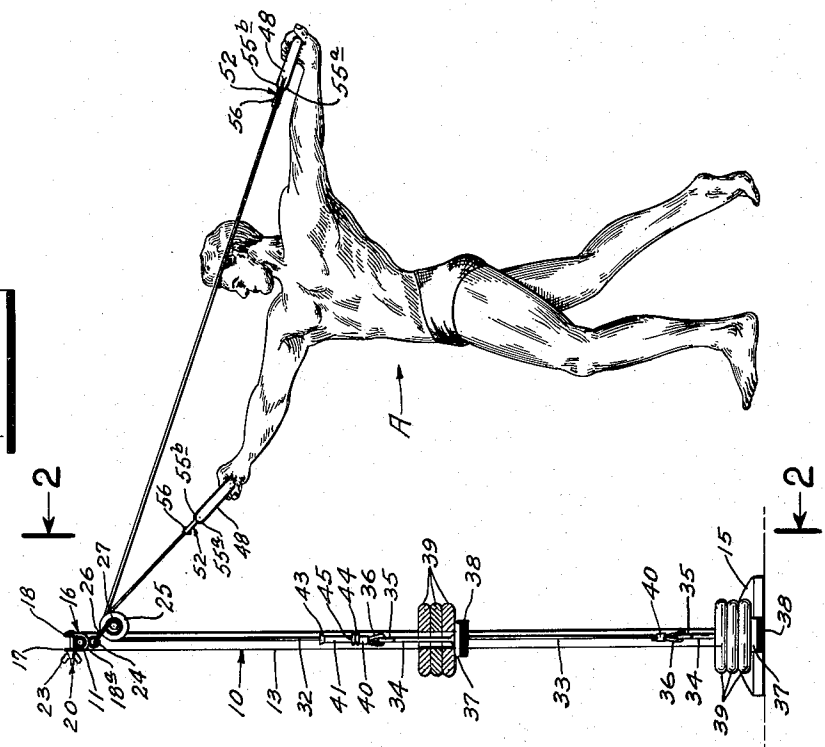
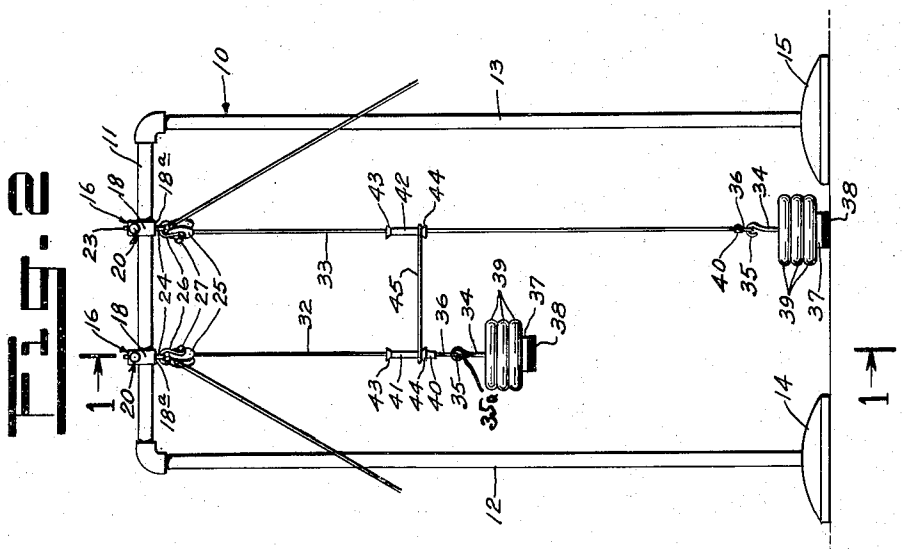


FIG. 2



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Dec. 24, 1963 F. J. FORTE 3,115,339

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Filed Nov. 15, 1961 2 Sheets-Sheet 2

Fig. 3

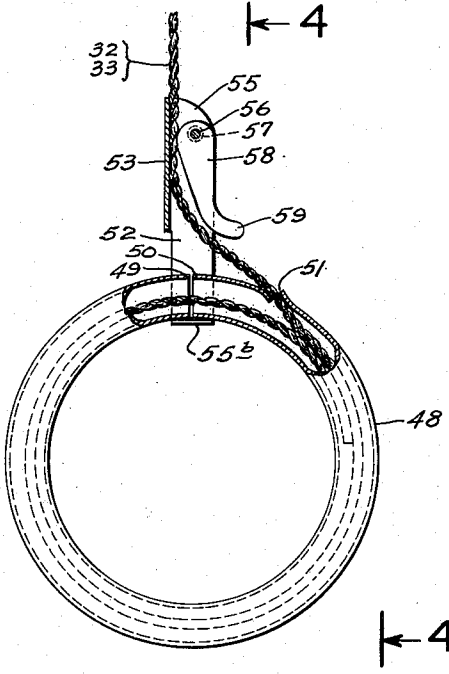


Fig. 4

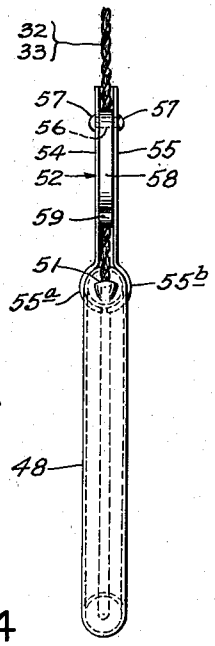


Fig. 5

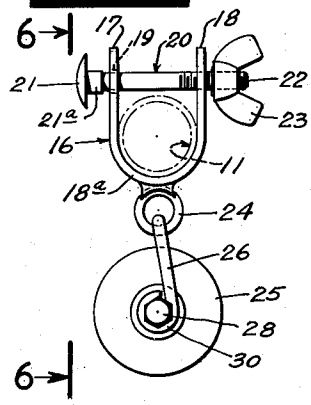


Fig. 6

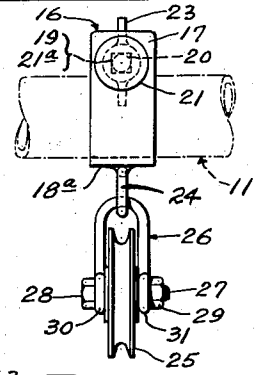
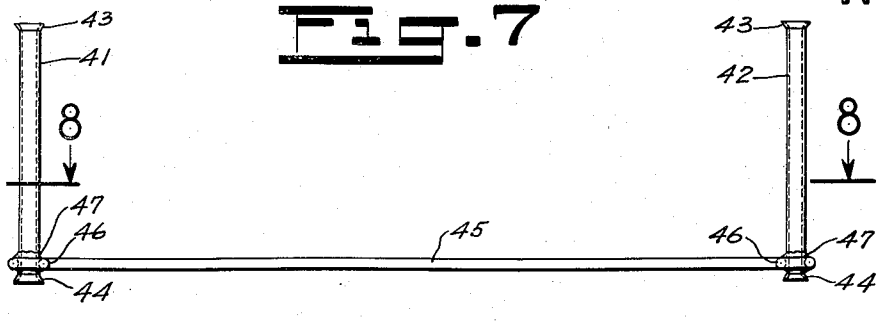


Fig. 7



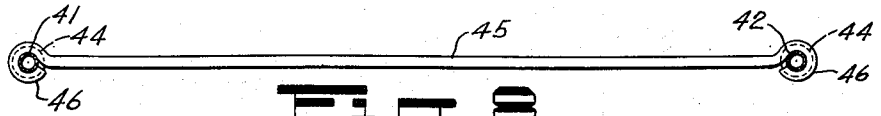


Fig. 8

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OVERHEAD EXERCISING APPARATUS

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2 Claims. (Cl. 272—81)

This invention relates to an exercising apparatus, and more particularly to that class of exercising apparatus in which a pair of handles are grasped by the user in a standing position for alternately raising a pair of chest weights connected to said handles by cords passing over a pair of pulleys secured to an overhead support.

One object of the present invention is to provide an apparatus of the above nature, in which the pulleys may be adjustably attached along the overhead support, such as a horizontal bar.

A further object is to provide an exercising apparatus of the above nature, in which the cords from which the chest weights are suspended are slidably guided by a pair of rigid tubes, and which tubes are held apart a fixed distance by means of a horizontal spacer bar having eyes welded to the lower ends of said tubes.

A further object is to provide an exercising apparatus of the above nature, in which the handle which is attached to the upper end of each cord is circular shaped and tubular in order to embrace the end of the cord in coiled condition, and in which said cord is held in adjusted poistion by an eccentric clamp lever pivotally supported on a radial bracket secured to said handle.

A further object is to provide an exercising apparatus of the above nature, which will be simple in construction, inexpensive to manufacture, easy to install and manipulate, compact, ornamental in appearance, and very efficient and durable in use.

With these and other objects in view, there has been illustrated on the accompanying drawing, one form in which the invention may conveniently be embodied in practice.

In the drawing:

FIG. 1 represents a sectional view, taken on the line 1—1 of FIG. 2, of an exercising apparatus embodying the invention, shown partly in section, and with an athlete using the same.

FIG. 2 is a front view of the exercising apparatus, taken on the line 2—2 of FIG. 1, looking in the direction of the arrows, with one set of chest weights in raised position and the other set of chest weights resting upon the floor beneath the U-shaped standard having pedestals supported on said floor.

FIG. 3 is a face view partly in section, of one of the circular handles with a weight supporting cord clamped thereto in adjusted position.

FIG. 4 is an end view of the same, taken along the broken line 4—4 of FIG. 3.

FIG. 5 is a side view of one of the swivel pulleys and U-shaped clamps, which are adjustably attached to the overhead bar of the U-shaped standard.

FIG. 6 is an end view of the same, taken along the line 6—6 of FIG. 5.

FIG. 7 is a front view, on an enlarged scale, of the pair of guiding tubes for the weight supporting cords, and the spacer bar for holding said tubes apart at a fixed distance.

FIG. 8 is a top view of the spacer bar, taken along the line 8—8 of FIG. 7, showing the end eyes which embrace and are welded to the vertical guide tubes.

Referring now to the drawings, in which like reference numerals denote corresponding parts throughout the several views, the numeral 10 indicates a U-shaped standard frame having a horizontal top pipe section 11 and a pair of vertical pipe sections 12, 13, the lower ends of

which are secured to a pair of circular floor pedestals 14, 15. Adjustably mounted upon the top horizontal pipe section 11 are a pair of U-shaped clamps 16 having vertical side flat sections 17, 18 and a curved downwardly convex lower end 18*a*.

The vertical side section 17 of each clamp 16 (FIGS. 5 and 6) has a square aperture 19 for receiving a horizontal bolt 20 having a head 21 and a square shank portion 21*a* to be received by said aperture 19 to prevent said bolt 20 from turning. The opposite end 22 of the bolt 20 is threaded and is located in a circular aperture of the side section 18. The clamp 16 is held tightly around the horizontal top pipe section 11 by means of a wing nut 23 on said threaded end 22, for securing the U-shaped clamp 16 in any desired position on the pipe section 11. The curved lower end 18*a* of each clamp 16 has a vertical eye 24 welded thereto, as clearly shown in FIGS. 5 and 6 of the drawing.

Provision is also made of a pair of pulleys 25, which are mounted on a pair of bolts 27 having heads 28 and nuts 29 and secured by a pair of U-shaped yokes 26 to the eyes 24 of the U-clamps 16.

The weight supporting cords are indicated by the numerals 32, 33 which are attached at their lower ends to weight supporting shafts 34 having top hooks 35 each provided with a spring latch clip 35*a* and adapted to be detachably secured to a loop 36 in the lower end of the cords 32 and 33. The loops 36 of the cords 32 and 33 are formed and secured to said cord main strands above the hooks 35 by means of circular locking bands 40.

Each weight supporting shaft 34 is provided on its bottom end with a circular plate 37, below which is secured a circular sponge rubber cushion 38, as by cement. Mounted upon the weight supporting plate 37 are three round edged circular weights 39, as clearly shown in FIGS. 1 and 2 of the drawing.

Provision is also made of a pair of rigid vertical guide tubes 41, 42 loosely surrounding the parallel cords 32, 33. The guide tubes 41, 42 have upper and lower flared ends 43, 44, and are held in fixed spaced apart relation by means of a horizontal spacer bar 45 having horizontal open end loops 46, which are preferably welded as at 47 (FIG. 7) to the lower ends of the tubes 41, 42.

In order to permit an adjustable attachment of the handles 48 to the upper ends of the cords 32 and 33, each handle 48 is made circular in shape and is tubular with abutting ends 49, 50, as clearly shown in FIG. 3 of the drawing.

Each circular tubular handle 48 is provided with a slotted opening 51 near the abutting end 50, which opening serves to embrace the cords 32 and 33 which pass therethrough. The cords 32, 33 then engage a flat base 53 of a radial bracket 52, having side ears 54, 55. The bottoms of said ears are provided with arcuate clips 55*a*, 55*b*, which are secured, as by welding, to the abutting ends 49, 50, of the tubular handles 48.

Provision is also made of a spring-pressed eccentric clamp arm 58, located between the side ears 54, 55 and mounted on a pivot pin 56, said pin having rivet heads 57 outside of said ears 54, 55 and having a curved handle 59, for convenience in manipulation.

Operation

In operation, the swivel pulleys 25, which are attached to the upper ends of the cords 32, 33, will automatically swing into alignment with the handles 48, depending upon the angle of pull by the athlete A using the apparatus.

By loosening the nuts 23 of the bolts 20, the pulleys may be moved along the horizontal bar 11 to any positions desired, said pulleys being spaced apart the same distance as the guide tubes 41, 42. After passing the

cords 32, 33 through the guide tubes 41, 42 and over the pulleys 25, the end of each cord 32, 33 will be inserted through one of the apertures 51 and coiled within the handle as far as desired. It will then be held in adjusted position by the eccentric spring-actuated clamp arm 53, when the latter is released.

While there has been disclosed in this specification one form in which the invention may be embodied, it is to be understood that this form is shown for the purpose of illustration only, and that the invention is not limited to the specific disclosure, but may be modified and embodied in various other equivalent forms without departing from its spirit. In short, the invention includes all the modifications and embodiments coming within the scope of the following claims.

Having thus fully described the invention, what is claimed as new and for which it is desired to secure Letters Patent is:

1. In an exercising apparatus having a horizontal top bar and a pair of vertical side standards resting upon the floor, a pair of U-clamps adjustably secured on said top bar, a pair of pulleys swiveled to said clamps, a pair of cords passing over said pulleys and having chest weights secured on the lower ends thereof, a pair of tubular handles secured to the top ends of said cords, a pair of vertical guide tubes embracing the lower ends of said cords, and a spacer bar rigidly connected to said tubes to hold them apart at a fixed distance, each tubular handle having a radial side bracket against which the cord is adapted to be held by an eccentric spring clamp arm, the end of said cord being coiled within said handle.

2. The invention as defined in claim 1, in which said tubular handle has abutting ends which are embraced by the ends of said radial bracket to hold it on said handle.

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