April 19, 1938. J. G. VENABLES 2,114,790

EXERCISING DEVICE

Filed May 17, 1937

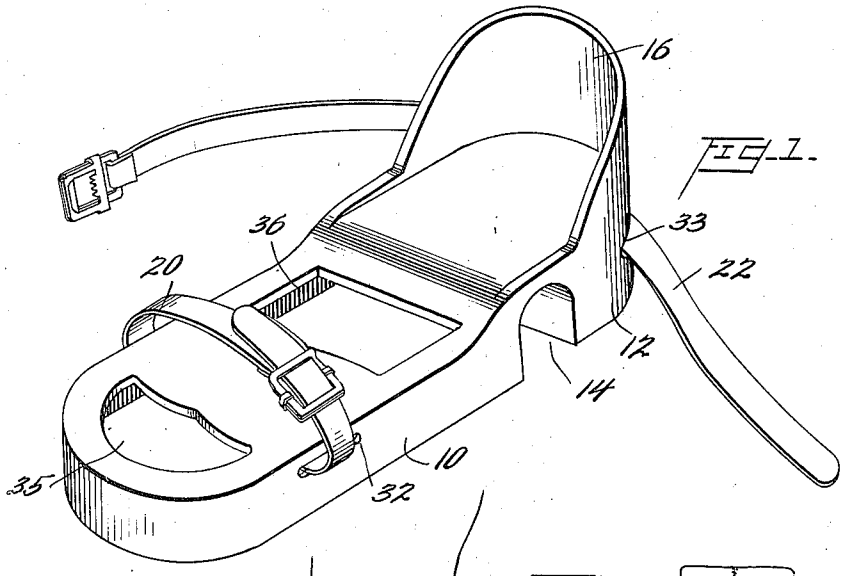


FIG. 1.

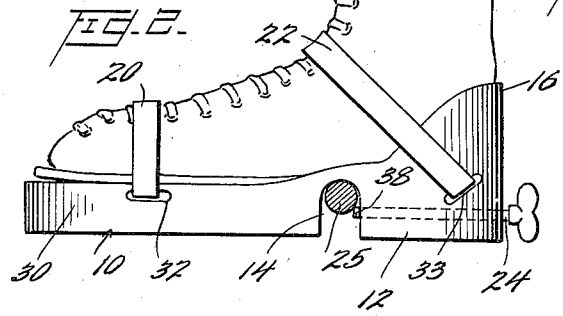


FIG. 2.

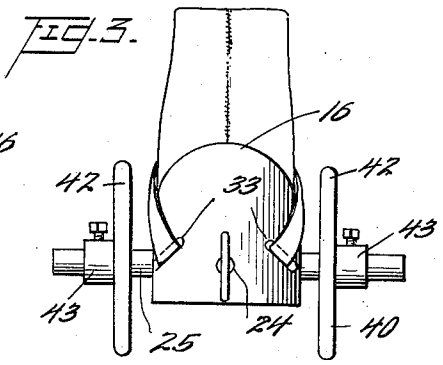


FIG. 3.

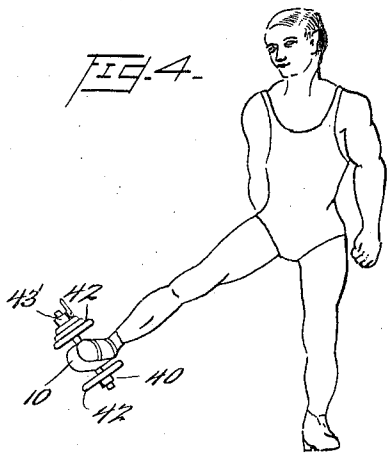


FIG. 4.

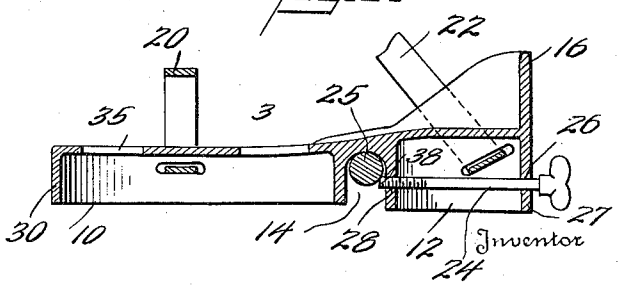


FIG. 5.

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Patented Apr. 19, 1938 2,114,790

UNITED STATES PATENT OFFICE

2,114,790

EXERCISING DEVICE

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Application May 17, 1937, Serial No. 143,205

6 Claims. (Cl. 272—57)

This invention relates to leg exercising devices and in particular to variable weight means adapted to be strapped to the feet. A specific object of the invention is the provision of a boot-shaped device the weight of which may be quickly and easily changed and may be shifted in location with respect to the axis of the foot on which it is used.

Another object of the invention is the provision of a boot having means for quick connection to the bar handle of a dumbbell.

In the drawing:

Figure 1 is a perspective view of the preferred form of my invention.

Figure 2 is a side view of the device shown in Figure 1.

Figure 3 is a rear view of the device shown in Figure 1, but having attached thereto a dumbbell.

Figure 4 is a view showing how my improved device may be used for exercising.

Figure 5 is a longitudinal sectional view of the boot.

As best shown in Figure 1 the preferred embodiment of my invention consists of a boot-shaped device having a sole portion 10 and a heel portion 12 between which is a relatively deep groove 14 located transversely of the boot. At the rear of the device is a heel engaging member 16. I provide a front strap 20 and a rear strap 22 for holding the boot securely to the foot.

Projecting from the back of the heel is a thumb screw 24 which extends into the lower portion of the groove 14 and is for the purpose of locking a bar 25 in the groove, as best shown in Figure 5. The thumb screw is slidably engaged in the opening 26 at the rear end of the flange 27, forming the heel 12, but has threaded engagement as shown at 28 with the transverse portion of the flange. The sole portion of the boot is also provided with a downwardly projecting flange 30 similar to the flange 27.

The strap 20 is held in apertures 32 in the flange 30, while the strap 21 is held in the sloping apertures 33 of the flange 27. In order to reduce the slipping of the foot in the boot on the sole 10 I provide two large openings 35 and 36 on each side of the strap 20.

Although the boot is preferably made of a metal of substantial weight and therefore may be used by beginners without any additional weight, I provide the groove 14 with the locking screw 24 so that if desired the user of the boot may quickly attach additional weights. This may be done by retracting the screw 24 until the free end 38 clears the groove 14, after which the boot may be placed over the bar 25 of a variable weight dumbbell 40 in the manner shown in Figure 3, after which the thumb screw 24 may be tightened until the bar 25 is locked securely in the groove.

It is my intention to provide dumbbells having removable weights 42 held in place by quickly detachable collars 43 described in my co-pending application, Serial No. 143,206, filed May 17, 1937. If desired, the weights 42 may be quickly removed from one end of the dumbbell, thus permitting the bar to be shifted until the remaining weight is spaced a desired distance from the foot, thus providing means for developing certain muscles that might otherwise not be exercised.

It will be seen that by my invention I have provided a sturdy, simple boot which may be quickly and easily secured to the foot, the weight of which may be easily changed by simple manipulations.

What I claim is:

1. A leg exercising device comprising a heavy rigid member shaped to fit the sole of a foot, a downwardly projecting flange at the rear forming a heel, a downwardly projecting flange at the front spaced from the rear flange and forming a sole portion, an upwardly projecting flange above the rear flange for receiving the heel of a foot, means for securing the member to a foot and means for locking the handle of a dumbbell in the space between said downwardly projecting flanges.

2. A leg exerciser comprising in combination, a rigid member shaped to engage the sole of a foot and having a relatively great thickness, said member having a deep transverse groove in its under surface separating the heel portion from the sole portion, a dumbbell having its handle in said groove whereby its weights are located on each side of the member and means for locking said handle in the groove.

3. A leg exercising device comprising a rigid member shaped to engage the sole of a foot and having relatively great thickness, said member having a deep transverse groove in its undersurface separating the heel portion from the sole portion and releasable means for locking the handle of a dumbbell in said groove.

4. A leg exercising device comprising a rigid member shaped to engage the sole of a foot and having relatively great thickness, means for attaching said member to a foot, said member having a deep groove in its undersurface and re-

leasable means for locking the handle of a dumbbell in said groove.

5. A leg exercising device of adjustably chosen total weight comprising a top plate approximately conforming in plan to the outline of the sole of a human foot and having a depending peripheral flange to elevate the plate a sufficient distance from a supporting surface such as a floor as to provide for the reception of a removable transverse weight element such as the bar of a dumbbell between the user's foot and the floor, said peripheral flange having a transverse opening therethrough to receive said added weight, means for securing the device to the user's foot and means for detachably holding said added weight element in desired position in said opening.

6. A leg exercising device adapted to be used in combination with variable weight dumbbells comprising a metal member approximately conforming in plan to the sole of a human foot and being of substantially greater thickness than the diameter of the handle of a dumbbell, said member having a transverse opening therein for receiving such a handle whereby a dumbbell may be releasably connected to the device and means for securing the device to the foot of a user.

JAMES GORDON VENABLES.