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2,973,203

EXERCISING DEVICE

Filed Jan. 21, 1960

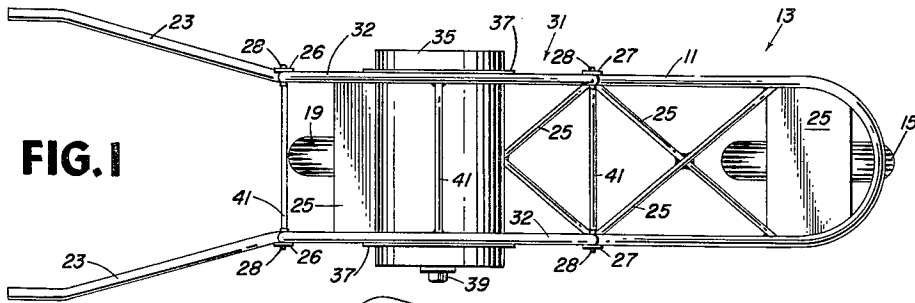


FIG. 1

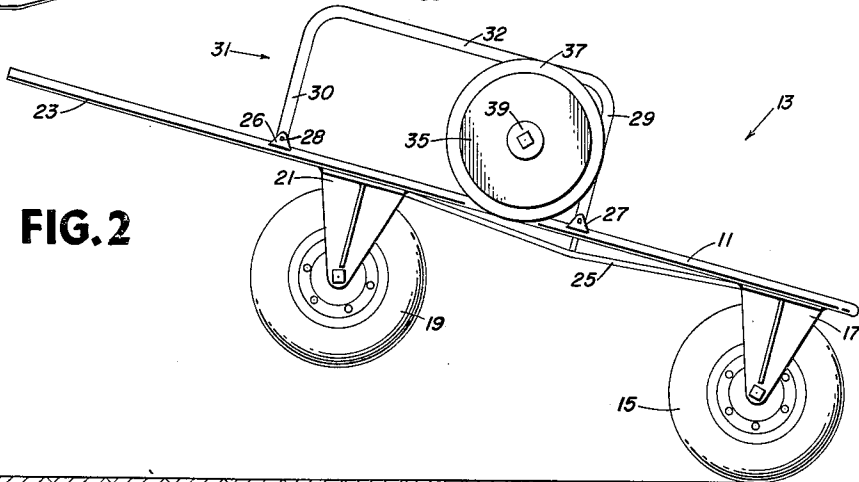


FIG. 2

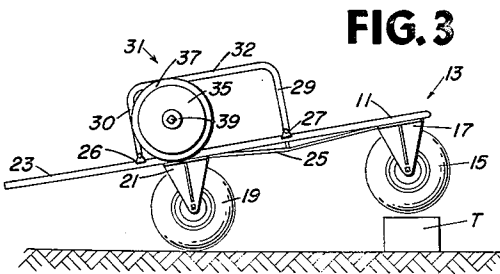


FIG. 3

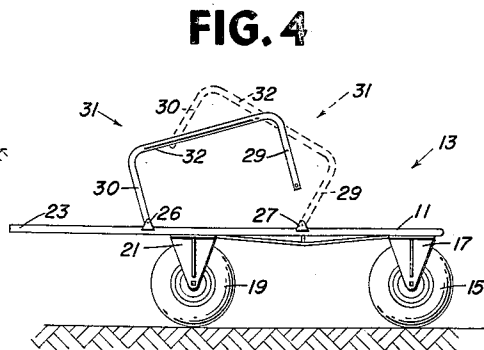


FIG. 4

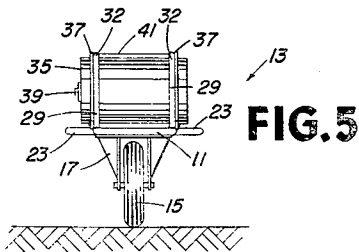


FIG. 5

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EXERCISING DEVICE

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4 Claims. (Cl. 272-81)

This invention relates to certain new and useful improvements in exercising devices, particularly those which are utilized in connection with the muscular development of athletes such as football players and the like.

More particularly the invention relates to a barrow type device upon which is shiftably and removably mounted a weight, and which weight is adapted for forward movement in a forwardly tilted position of the device with the provision for rearward shift of the weight in a rearwardly tilted position of the device, each of the shifts to various positions providing for shift of the weight whereby to accentuate the vertical lifting and/or pushing necessary for the purpose of elevating the barrow type device to the respective positions.

It is well and thoroughly recognized in the athletic field that the utilization of means for providing weight to be propelled by an athlete while running, or even while walking, is highly desirable from a muscular build-up point of view. The present exercising device intends to provide such a means, and further intends to provide a means which will accentuate the utilization of a given weight and will provide for the use of the device in connection with an obstacle course or the like in which alternating lifting and pushing movements as well as forward running movements may be utilized.

The principal object of the present invention is to provide a new and novel means for exercising athletes.

A further object of the invention is to provide an exercising device which is of a barrow type, and upon which a weight is shiftably mounted.

A further object of the invention is to provide such a barrow type exercising device which may be propelled forwardly in a forwardly tilted position upon a forward wheel, in which circumstance the weight is shifted forwardly, and which device may be downwardly shifted by pushing to a rearwardly tilted position in which the weight will shift to the rear whereby to accentuate the effect of the weight upon the exercising device.

A further object of the invention is to provide a barrow type exercising device in which the weight utilized thereon comprises a cylinder rollingly shiftable upon the bed of the barrow.

A further object of the invention is to provide in such a device a cylindrical weighted member which comprises annular flanges adjacent its opposite ends which engage with a guide and retaining frame which is detachably secured to the bed of the barrow; and

A further object of the invention is generally to improve the design, construction and efficiency of devices for providing exercise for athletes.

The means by which the foregoing and other objects of the present invention are accomplished and the manner of their accomplishment will be readily understood from the following specification upon reference to the accompanying drawings, in which:

Fig. 1 is a top plan view of the device of the present invention.

Fig. 2 is a side elevational view illustrating the device

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in a forward propelling position with the barrow raised and the weight forward thereon.

Fig. 3 is a view similar to Fig. 2 illustrating the usage of the device in passage over an obstacle, with the barrow rearwardly tilted, and the weighted material rearwardly shifted under gravity.

Fig. 4 is a further side view of the barrow part of the invention illustrating the alternate connections of the guide frame thereto; and

Fig. 5 is a front view of the device of the present invention.

Referring now to the drawings in which the various parts are indicated by numerals, the device of the present invention comprises a substantially flat bed 11 which forms the main body of barrow 13. Adjacent the forward end of bed 11, a front wheel 15 is rotatably supported as by forward supports 17. Adjacent the rear of bed 11, an additional rear wheel 19 is turnably supported as by suitable supports 21.

Rearwardly of rear wheel 19 bed 11 is provided with a pair of rearwardly projecting and diverging handles 23, which are preferably integrally formed with the side members of bed 11 and which rearwardly diverge outwardly from the dimension of bed 11. It is preferred that handles 23 and the perimeter of bed 11 be formed of a tubular member or members which may be interconnected at the front of bed 11, in order to provide an integral peripheral and handle structure for bed 11. Intermediate the peripheral structure, bed 11 may be provided with cross bracings 25 as desired.

Connected with bed 11 at the opposite sides of its peripheral structure, and substantially at the junction of handles 23 with the main part of bed 11, are a pair of upstanding rear ears 26 which are respectively disposed slightly rearwardly of the axial center of rear wheel 19. Forwardly along bed 11, and intermediate front and rear wheels 15, 19, an additional pair of front upstanding ears 27 are provided connected to the opposite sides of the bed. Front ears 27 are disposed rearwardly of the axial center line of front wheel 15 and are positioned forwardly of the axial center line of rear wheel 19 a distance somewhat in excess of half of the spacing between the respective axial center lines of front and rear wheels 15, 19. It will be observed that the opposite side parts of bed 11 upon which ears 26, 27 are fixed are disposed in substantially parallel relationship.

Detachably connected respectively to ears 26, 27, as by pins 28, are the front and rear legs 29, 30 of an upstanding substantially inverted U-shaped guide and retaining frame 31. It will be seen upon reference to the drawings accompanying the application that frame 31 may be detached from one pair of ears, as the forward pair 27, and hinged upwardly about the pin connection to the rear ears 26, or, as shown in dotted lines in Fig. 4, the opposite condition may be true, that is, the frame may be detached from the rear ears 26 and swung upwardly about the pins 28 which connect it with the forward ears 27.

Frame 31 preferably comprises a pair of parallel inverted substantially U-shaped members each having an upper bight 32 interconnecting downwardly extending upright front legs 29 and rear legs 30. Mounted shiftably upon bed 11 and within the confines of frame 31 is a weighted drum 35.

Drum 35 is preferably cylindrical for rolling shift along bed 11 and is of a diameter substantially less than the fore and aft spacing between the substantially upright legs 29, 30 of frame 31, with the diameter of cylinder 35 being substantially equal to the spacing of bights 32 of frame 31 above bed 11.

Cylinder 35 adjacent its opposite outward ends is provided with peripheral flanges 37 which are laterally

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spaced apart a distance slightly in excess of the lateral spacing between the side parts of bed 11 and between the members of U-shaped frame 31. Thus it will be seen that drum 35 is rested upon bed 11 and is shiftably mounted thereupon within the confines of U-shaped frame 31, and that peripheral flanges 41 on drum 35 engage bed 11 and frames 31 so as to inhibit lateral shifting of the weighted drum cylinder 35. Drum 35 is preferably further provided with a detachable plug 39 which may be removed from the drum so as to provide access to the interior thereof to provide for an alteration in the weight contained within the drum as suitable for the athlete or other person using the present exercising device. Also bights 32, and legs 29, 30 are preferably fixedly interconnected by cross members 41.

In the use of the device the weight guide and retaining frame 31 may be detached at one or the other of its ends from bed 11, and swung upwardly so as to receive upon the bed 11 and beneath the frame 31 the weighed drum 35. The drum 35 before being positioned upon bed 11 is furnished with a desired weight in its interior through the removable plug 39, the plug being replaced thereon. With the drum seated upon bed 11 flanges 41 are respectively positioned outwardly and engaging the side members of bed 11 and when frame 31 is secured in position upon bed 11 the upper extremities of the flanges are outwardly of bights 32 of frame 31. It will be observed that frame 31 is of a fore and aft length in excess of the diameter of drum 35 in order to provide for the fore and aft shift, preferably a rolling shift, of the drum beneath frame 31 and along bed 11.

With drum 35 thus mounted upon the barrow device it is ready for utilization by the athlete who is to take exercise. Preliminarily the rear end of the barrow is elevated by lifting upon handles 23 elevating the rear wheel above the ground, and the device may then be propelled forwardly by the user. When the rear of the barrow is thus elevated, drum 35 shifts forwardly along bed 11 and within the confines of frame 31 until it reaches contact with front legs 29, which prevent further forward movement of the weighted drum. It will be seen, as best shown in Fig. 2, that the weight is thus shifted substantially forwardly and away from the user of the device at the rear end handles.

In training athletes for football and other competition it is frequently desirable for an obstacle course to be utilized and the present barrow device may be utilized with an obstacle course. Thus obstacles such as the cross tie T may be placed in the prescribed path and in order to continue the propelling of the barrow device beyond cross tie T it is necessary that the front wheel 15 be elevated to clear the height of the cross tie. In order to do this the athlete under training then pushes substantially vertically downwardly upon handles 23 so as to effect an elevation of the forward end of barrow 13, raising front wheel 15 above the height of cross tie T. In initiating this downward pushing movement it will be observed that with the weighted drum 35 positioned at its forward position, as shown in Fig. 2, the maximum exertion is placed upon the user of the device, requiring the utilization of additional force in order to effect the elevation of the forward end of the device overcoming the forward positioning of the weighted drum. As the elevation is accomplished the drum 35 shifts rearwardly until it comes into contact with rear legs 30 of frame 31, this being the position as shown in Fig. 3.

When the cross tie T has been passed by the front wheel 15 of barrow 13 it is then necessary for the user to return the front wheel to downward position and to elevate rear wheel 19. Again it will be seen that with the device in the position shown in Fig. 3 the exertion necessary for the upward pull to elevate the rear end of the device from its previously rearwardly tilted position requires the additional exertion of force to lift

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the weight of the drum 35 imposed in adjacency to handles 23.

In addition, since wheels 15, 19 are substantially in fore and aft alinement, it is necessary for the user of the device to exert his efforts to maintain the device on an even balance to prevent sideways tipping of the same.

When it is desired to increase the load to be imposed upon the athlete under training, or, as for example, when a different athlete is to use the device in question, the weighting of drum 35 may be adjusted by removing the plug 39 and adding to the weight contained in the interior, or if it is desired to adjust it conversely, weight may be removed from the interior of the drum.

The flanges 37 on drum 35 successfully engage with frame 31 and bed 11 to guide the drum in its fore and aft shifting movement under the usage described just above, and are further effective to prevent any lateral side slip of the drum relative to the bed of the device, eliminating the possibility of undesired accidents from the use of the device.

It will be seen that here is presented a simple, yet most facile, device for effecting exercise by an athlete or other person, and one which is efficient in its accomplishment of purpose, as well as being of simple construction.

I claim:

1. In exercising means, a barrow having a substantially flat bed including substantially parallel lateral sides, handles connected to the rear end of said bed, a front wheel adjacent the front end of said bed, a rear wheel rearward of said front wheel and forward of said handles, said wheels being turnably supported from said bed and alined substantially along the fore and aft axis of said barrow intermediate said sides, a weighted drum mounted on said bed and shiftable therealong, a guide frame comprising a pair of inverted substantially U-shaped members respectively overlying and parallel with the lateral sides of said bed detachably connected with said bed and extending upwardly therefrom, said frame positioned over said drum with said drum in the confines of the frame, said frame including front and rear legs spaced apart in excess of the diameter of said drum to permit and limit shift of said drum along said bed and bights interconnecting said front and rear legs spaced above said bed a distance substantially equal to the diameter of said drum, said drum including peripheral flanges extending below the upper surface of said bed and above the lower surface of said frame, said flanges being disposed outwardly of the opposite sides of said bed and frame and engaging said bed and frame during drum shift to limit lateral drum movement.

2. In exercising means, a barrow having a substantially flat bed including substantially parallel lateral sides, handles connected to the rear end of said bed, a front wheel adjacent the front end of said bed, a rear wheel rearward of said front wheel and forward of said handles, said wheels being turnably supported from said bed and alined substantially along the fore and aft axis of said barrow intermediate said sides, a weighted drum mounted on said bed and shiftable therealong, a guide frame comprising a pair of inverted substantially U-shaped members respectively overlying and parallel with the lateral sides of said bed detachably connected with said bed and extending upwardly therefrom said frame positioned over said drum with said drum in the confines of the frame, said frame including front and rear legs spaced apart in excess of the diameter of said drum to permit and limit shift of said drum along said bed and bights interconnecting said front and rear legs spaced above said bed a distance substantially equal to the diameter of said drum, said drum including peripheral flanges extending below the upper surface of said bed and above the lower surface of said frame, said flanges engaging said bed and frame during drum shift to limit lateral drum movement.

3. In exercising means, a barrow having a substan-

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tially flat bed including substantially parallel lateral sides, handles connected to the rear end of said bed, a front wheel adjacent the front end of said bed, a rear wheel rearward of said front wheel and forward of said handles, said wheels being turnably supported from said bed and alined substantially along the fore and aft axis of said barrow intermediate said sides, a weighted drum mounted on said bed and shiftable therealong, a guide frame comprising a pair of inverted substantially U-shaped members respectively overlying and parallel with the lateral sides of said bed detachably connected with said bed and extending upwardly therefrom said frame positioned over said drum with said drum in the confines of the frame, said frame including front and rear legs spaced apart in excess of the diameter of said drum to permit and limit shift of said drum along said bed and bights interconnecting said front and rear legs spaced above said bed a distance substantially equal to the diameter of said drum, said drum including means engaging said bed and frame during drum shift to limit lateral drum movement.

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4. In exercising means, a barrow having a substantially flat bed including substantially parallel lateral sides, handles connected to the rear end of said bed, a front wheel adjacent the front end of said bed, a rear wheel rearward of said front wheel and forward of said handles, said wheels being turnably supported from said bed and alined substantially along the fore and aft axis of said barrow intermediate said sides, a weighted drum mounted on said bed and shiftable therealong, guide means connected with said bed to guide and limit shift of said drum along said bed, said drum including means engaging said bed and said guide means during drum shift to limit lateral drum movement.

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