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W. A. SCHOLLMAYER

2,128,332

EXERCISING MACHINE

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FIG 1

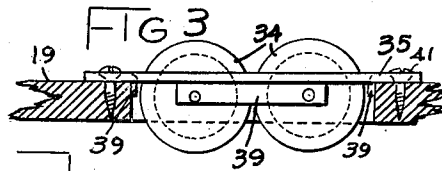
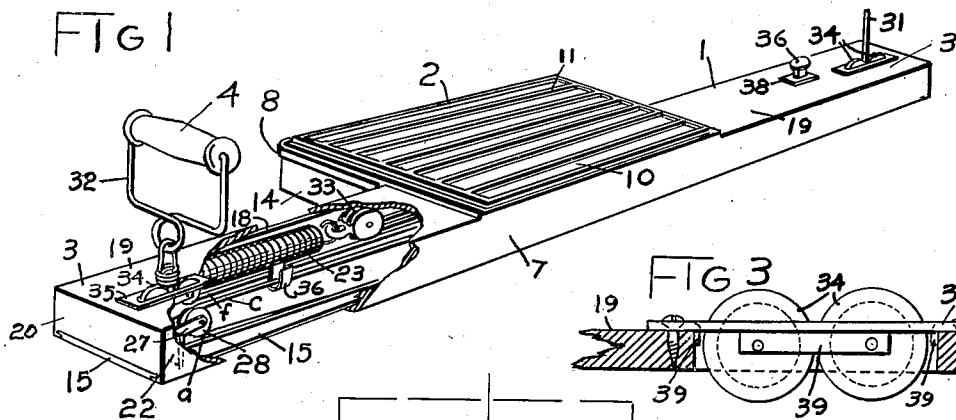


FIG 2

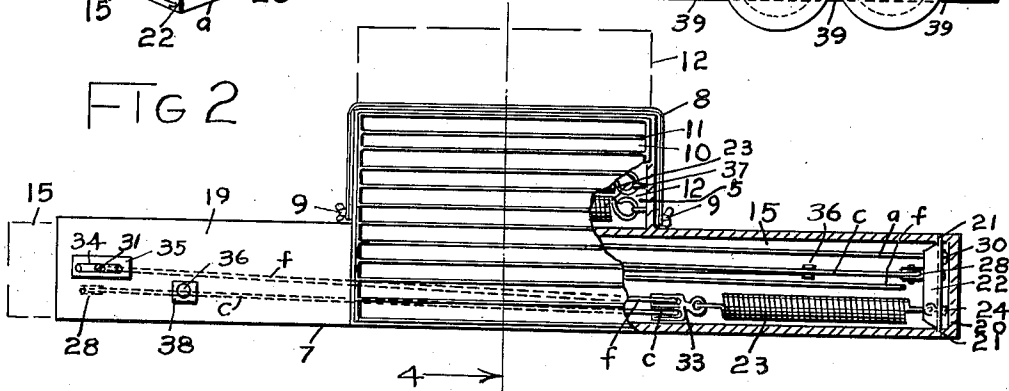


FIG 4

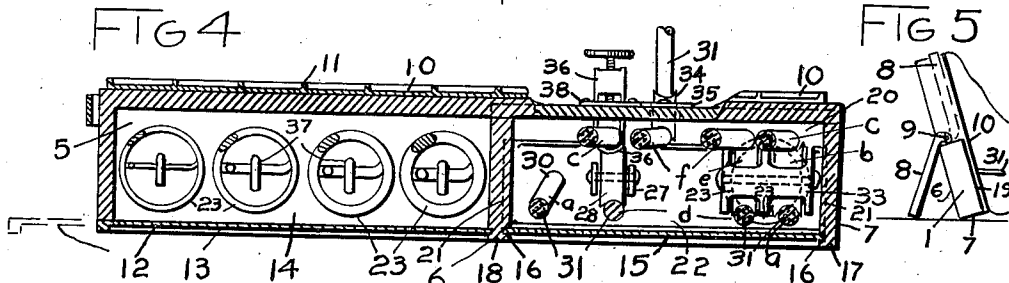


FIG 5

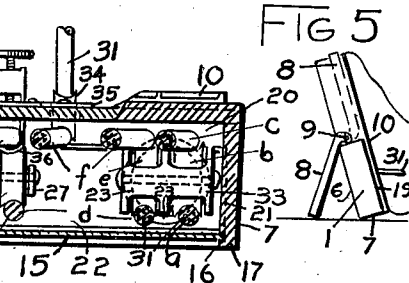


FIG 6

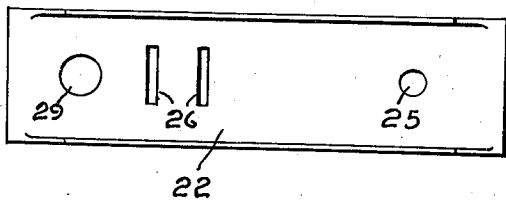
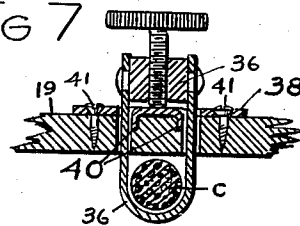


FIG 7



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EXERCISING MACHINE

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5 Claims. (Cl. 272-72)

My invention relates to machines for exercising the muscles of the human body and particularly to a machine suitable to be applied in either a standing or sitting posture or in fact, such other positions as when kneeling or squatting as the operator may desire. This flexibility of the application of my device is in contrast to devices for rowing only or those which may require the operator to stand during exercise.

10 My invention has among its objects;

To provide a compact portable machine which may be arranged for developing the muscles as when rowing or upon which the operator may stand as when lifting weights.

15 To provide a machine which may be adjusted easily to give the desired tensions to suit the strength of the person using it.

20 To provide an exercising machine having the wearing parts easily accessible and replaceable at low cost without tools or the services of a mechanic.

To provide a self contained exercising machine of light weight and attractive appearance.

25 I accomplish these and other objects by the construction herein described and illustrated in the accompanying drawing forming a part hereof in which;

Figure 1 is a perspective view with parts removed to show the interior mechanism.

30 Figure 2 is a plan view with parts removed to reveal the interior. This view may also serve as an elevation of my device when used for rowing and other exercises in which the machine rests on edge.

35 Figure 3 is a detail of one of the Siamese deck rope pulleys.

Figure 4 is a section at 4 Figure 2 with part of the platform removed to show one of the clamps and Siamese pulleys.

40 Figure 5 is an end elevation showing the application of my device in edgewise position.

Figure 6 is a detail of one of the interior bridges.

Figure 7 is a detail in section of one of the clamps.

45 Similar reference characters refer to similar parts throughout the several views of the accompanying drawing and in the following specification in which the parts and their operation are more fully described.

50 My exercising machine comprises a rectangular box shaped housing 1 having a platform 2 between the ends 3 where the hand grips 4 are positioned when retracted to their resting position.

55 As the platform 2 is of substantially greater

width than the housing 1 I have provided thereunder and at the side of said housing a compartment 5 suitable to store spare parts and of a depth equal to and flush with the bottom face 6 of said housing thereby forming a solid base for my device.

The edge 7 of said housing on the opposite side from said compartment 5 is straight throughout the length of the housing 1 and forms a base for my machine when it is used for rowing and other exercises during which the operator sits on the floor pushing the feet against the platform 2 as shown in Figure 5 of the drawing. When in this edgewise position my device may be held in a vertical position or at an inclined angle thereto by the adjustment of the swingingly mounted rest 8 secured to the exterior of the compartment 5 by the thumb screws 9 which also serve to lock said rest in the desired position thereby permitting an adjustment of the inclination of any device.

20 The platform 2 is preferably faced with an antislip mat of rubber or the like 10 having a ribbed or other raised surface 11.

To gain access to the compartment 5 I have provided the slide 12 normally closing the bottom of said compartment and suitable to travel in the grooves 13 in the end walls 14 of said compartment 5. Likewise the interior of the housing 1 is accessible by means of the slide 15 traveling in the grooves 16 in the front wall 17 and rear wall 18 both of which form the girders through which the strains of pulling on the hand grips 4 is transmitted to the platform 2. The deck 19 of the housing 1 at each side of the platform together with the end pieces 20 complete its inclosure.

35 Within the housing 1 and inserted in the vertical grooves 21 near the ends 3 thereof I have provided the bridges 22 to which are secured the springs 23 by means of the eyebolts 24 engaged in the apertures 25. Said bridges are also provided with the slots 26 which receive the stirrups 27 into which the pulleys 28 are rotatably mounted. The apertures 29 are also provided in said bridge to engage the knotted ends 30 of the ropes 31. The opposite ends of said ropes are secured to the stirrups 32 of the hand grips 4. The slide 15 prevents the removal of the bridges 22 until it is removed. The opposite ends of the springs 23 are secured to the two part pulley blocks 33. Thus the bridges, springs and pulley blocks as well as the rope end at each end of my device are duplicated except that the arrangement of the parts are relatively at opposite sides of the housing 1.

Secured to the center of the deck 19 near each end I have provided the Siamese pulleys 34 through which the ropes 31 may freely pass and due to the depth of the grooves and the close centers on which these pulleys are mounted in the plates 35 the ropes may be pulled at a great angle to the perpendicular to said deck without binding or jamming the ropes.

The ropes and the relationship of the pulleys over which they run may be understood by the following:

From the knotted end 30 of each of the two ropes, part *a*, they pass under and over the pulleys *b* of the pulley blocks 33 there as part *c* they pass over and under the pulleys 28, then as part *d* under and over the pulleys *e* of the pulley blocks 33, then as part *f* under and through the Siamese pulleys 34 to the hand grips 4. Thus the grips 4 have a four part "purchase" in stretching the springs 23; four lines and double pulley blocks being used.

I have however, provided screw clamps 36 adapted to engage part *c* of the ropes causing the use of only two parts or one half of the double pulley blocks 33 thereby increasing the pull on said hand grips 4 to twice the amount normally available with the use of the same springs 23. By the use of the clamps 36 of course the length of travel of the hand grips 4 normally is considerably reduced.

Springs 23 of various size and tension may be easily interchanged and in the compartment 5 I have shown a suitable manner of storing spare springs not in use by engaging the ends with the hooks 37 secured to the interior of the end walls 14 of said compartment 5.

The plates 38 for the clamps 36 as well as the plates 35 for the Siamese pulleys and the bridges 22 are preferably made of stamped sheet metal and flanged for strength. The flanges 39 of the plates 35 and 40 of the plates 38 also serve to prevent the shear strain from loosening the screws 41 when soft material such as wood is used for the deck 19, the flanges 39 and 40 engaging the ends of the opening cut in the wood or other soft material.

My device may be operated and applied in many ways both when lying with the bottom on the floor as shown in Figure 1 or as on edge as shown in Figure 5.

The extreme length of travel due to the use of a 4-part line enables the operator to pull the hand grips 4 to a position where the arms are straight upward over the head when standing on the platform 2; a traverse of more than seven feet. The numerous exercises need not be enumerated here as it is apparent that the various degrees of tension available is merely a matter of the use of changing the springs 23 or by stopping two of the four parts of the rope by means of the clamps 36.

I do not wish to be limited to the exact con-

struction herein described in detail as many modifications may be employed to suit various applications of my device as covered by the appended claims which succinctly set forth my invention.

I claim:—

1. In an exercising machine having a housing and a platform midway the ends thereof, said housing projecting substantially beyond said platform at each end, said housing having springs, ropes and pulley blocks secured to said springs, said ropes having hand grips on the exterior of said housing and secured to the ends of said ropes which pass through the deck of said housing and are retracted by said springs, and bridges securing said springs to the interior of said housing and front and rear walls to said housing having vertical grooves to receive said bridges whereby said bridges may be easily removed.

2. In an exercising machine, having a housing forming a rectangular beam, and a platform between the ends thereof, said housing having springs, ropes and pulley blocks secured to said springs therein and hand grips secured to the ends of said ropes and retracted by said springs, bridges securing said springs to the interior of said housing, the front and rear walls to said housing having longitudinal grooves therein and a slide covering the bottom of said housing removably sliding in said longitudinal grooves in said front and rear walls whereby access may be quickly gained to the interior of said housing, said bridges engaging vertical grooves in said front and rear walls of said housing and held in place by said slide and removable only after removing said slide.

3. In an exercising machine, a housing, a platform between the ends thereof, and a compartment under said platform and a swingingly mounted rest secured to the end walls of said compartment whereby said machine may be held in an inclined position.

4. In an exercising machine, a housing, a platform between the ends thereof, and a compartment under said platform and a swingingly mounted rest secured to the end walls of said compartment whereby said machine may be held in an inclined position and means for locking said rest in any desired position.

5. In an exercising machine, a housing forming a beam having springs, ropes and pulleys within it and having a platform between the ends of the beam, said ropes passing over the pulleys within the housing and each rope having one end secured within the housing and the other end passing through the housing to hand grips and means holding one of the parts of each of said ropes whereby both the relative tension of the springs to said hand grips and the relative traverse of said hand grips are changed.

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