

March 2, 1971

T. G. FOSTER

3,567,219

UNIVERSAL PHYSICAL EXERCISING DEVICE

Filed May 16, 1969

3 Sheets-Sheet 1

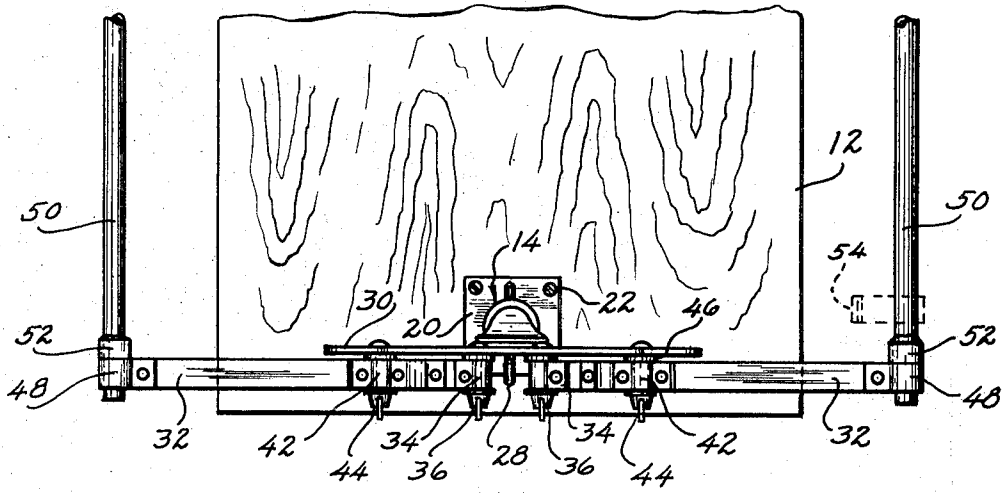


FIG. 2

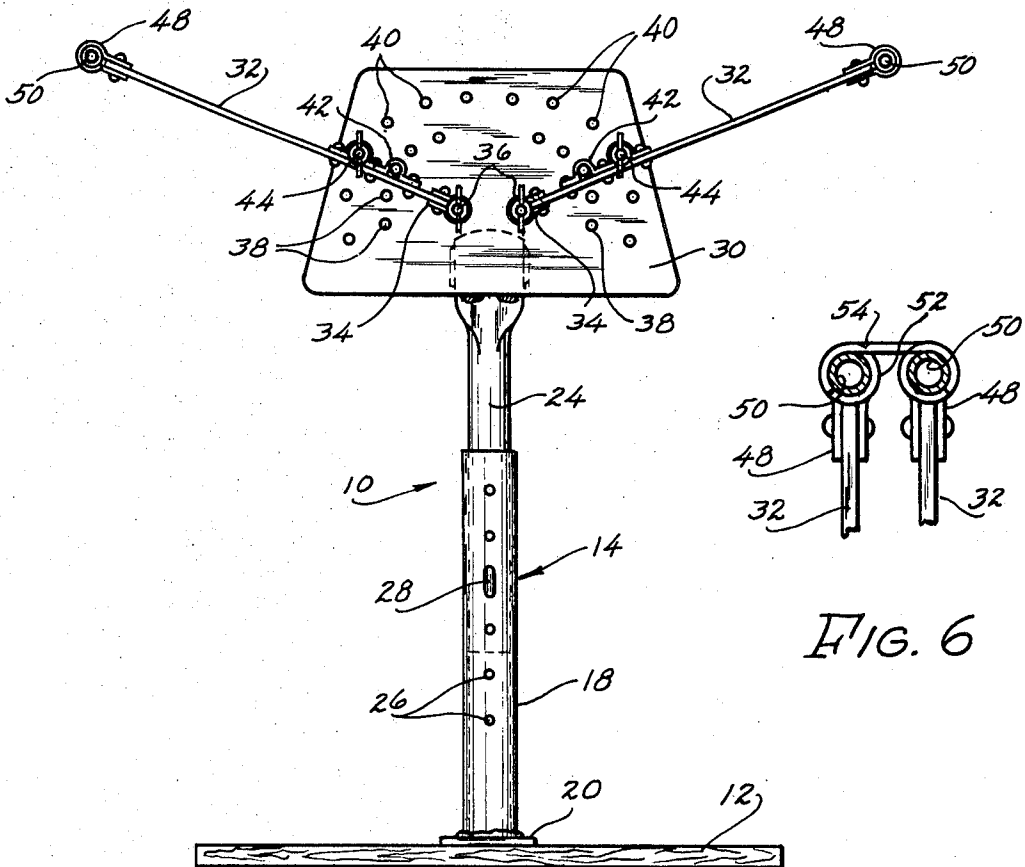


FIG. 6

FIG. 1

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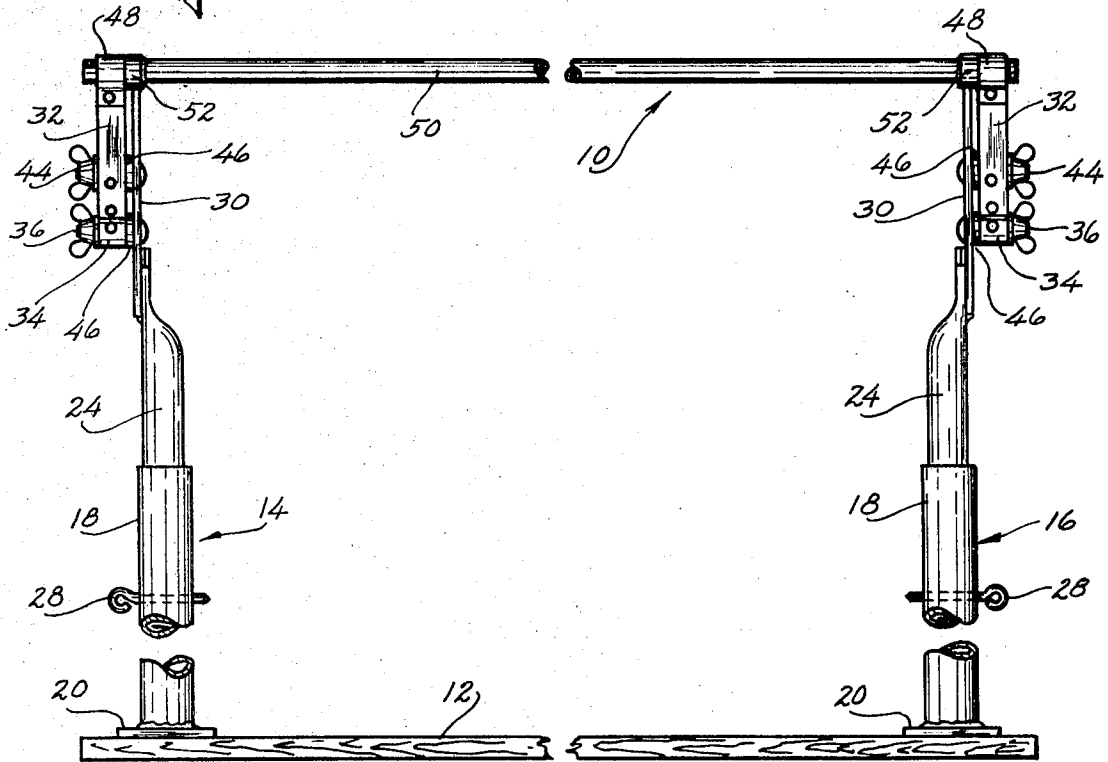
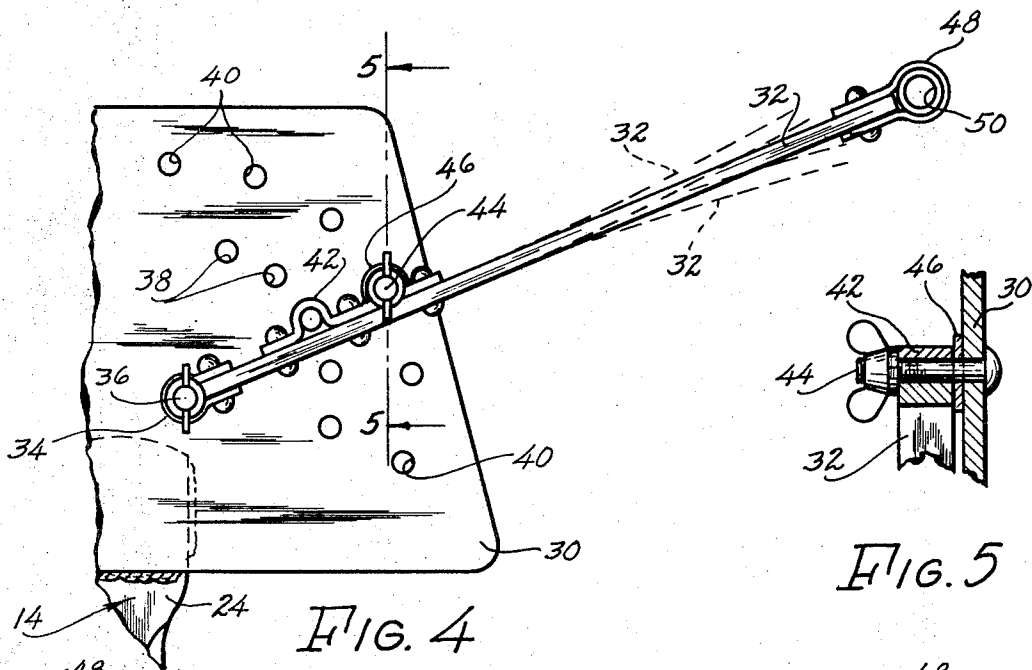


FIG. 3

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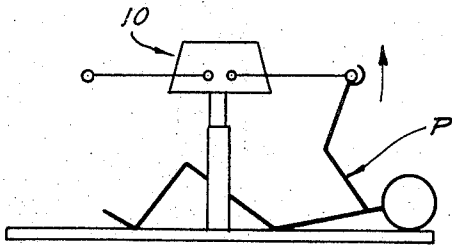


FIG. 7

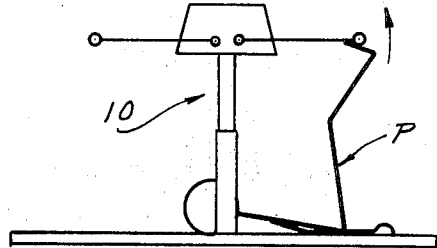


FIG. 8

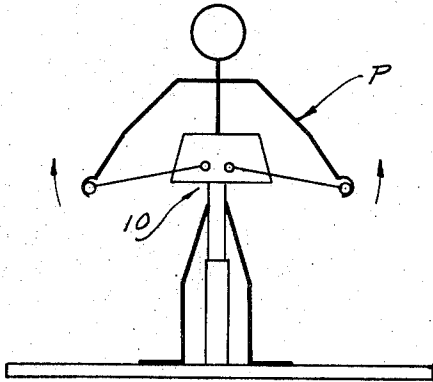


FIG. 9

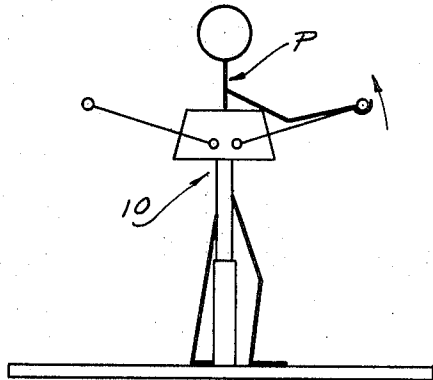


FIG. 10

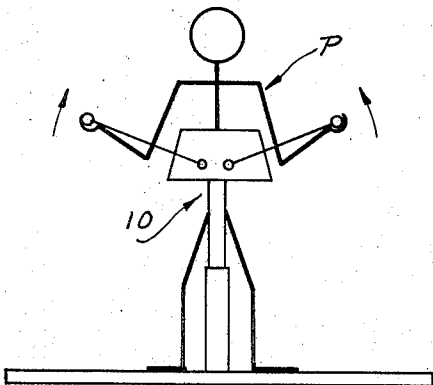


FIG. 11

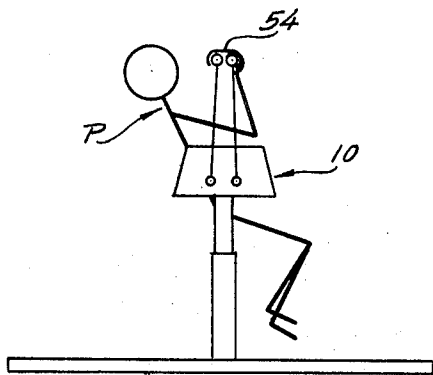


FIG. 12

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3,567,219
UNIVERSAL PHYSICAL EXERCISING DEVICE
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Filed May 16, 1969, Ser. No. 825,312
Int. Cl. A63b 21/02, 21/10, 21/32
U.S. Cl. 272—83 **5 Claims**

ABSTRACT OF THE DISCLOSURE

A physical exercising device that enables a person to perform a variety of body exercises. Laterally-spaced parallel bars, supported upon flexible cantilever arms, are engaged by the person while performing the exercises. Means are provided to adjust the space between the bars by pivoting the arms and securing them in position, and means are also provided to regulate the degree of flexibility of the arms so as to adjust the resistance offered to the person employing the device.

BACKGROUND OF THE INVENTION

(1) Field of the invention

This invention relates to devices commonly known as "parallel bars," and is intended to be used when performing body exercises. However, this device is universal, in that it permits a person to perform various exercises not possible with the parallel bars of the prior art.

(2) Description of the prior art

The prior art patents known to the applicant concern parallel-bar devices having adjustments for height, and for the distance between the bars. They are fairly representative of the art and are set forth below: Medart 412,772; Medart 1,111,268; Reach 1,032,425; Albach 1,734,664.

The above patents do not embrace the yieldable means incorporated in the device of the applicant, and which means permits the person to perform a variety of exercises.

SUMMARY OF THE INVENTION

This invention comprises a pair of longitudinal, horizontal bars, parallel to each other and normally spaced apart. They are supported by flexible cantilever arms which extend normal to the bars. The arms are supported on posts longitudinally spaced, and are pivoted so that the bars can be positioned at various distances apart and secured thereat.

The gist of this invention resides in providing flexible arms that will flex in response to the efforts expended by the person doing the exercises, and embraces the means to adjust the amount of flexibility of the arms to oppose the effort expended by the person. An object, therefore, of this invention is to provide an exercising device that has adjustments to permit performing of a variety of exercises.

Another object is to provide an exerciser having provision to regulate the amount of resistance presented to the person when exercising.

Other objects and advantages of this invention will become apparent from a consideration of the following detailed description taken in connection with the accompanying drawings wherein an embodiment of the invention is shown. It is, however, to be understood that the invention is not limited to the details disclosed, but includes all such variations as fall within the spirit of the invention.

Referring to the drawings:

FIG. 1 is an elevational end view of the exerciser.

FIG. 2 is a fragmentary plan view of one end of the exerciser.

FIG. 3 is a side view of the device.

FIG. 4 is an enlarged fragmentary view of a portion of FIG. 1.

FIG. 5 is a section taken at 5—5 of FIG. 4.

FIG. 6 is a view of one of the clips employed to secure the bars together in their upper position for one form of exercise.

FIGS. 7 through 12 are diagrammatic and illustrate the various exercises possible with the device by a person designated as P.

Referring more particularly to the drawings, the exerciser 10 comprises a base or platform 12 of wood or other suitable material. Support posts 14 and 16 are spaced longitudinally apart, and comprises tubular members 18 secured to base 12 by flanges 20 which are welded to the members 18. Bolts such as 22 secure the flanges 20 to the base 12. Tubular members 24 are slidable within the bores of members 18. Members 18 are provided with holes 26 spaced as shown in FIG. 1. A similar hole is provided in members 24. Vertical adjustment of members 24 relative to members 18 is provided by aligning a hole 26 with the corresponding hole in member 24, and inserting a pin 28. The upper ends of members 24 are flattened as shown, and transversely-extending plate portions 30 are welded thereto in this instance. It is also within the purview of this invention to so form the upper ends of members 24 so that the portions 30 are an integral part of the member.

A pair of allochirally-related flexible arms 32, preferably of steel, and having inner and outer ends, are mounted on each plate 30, and extend substantially parallel to the surfaces of the plates. Arms 32 have secured thereto and at the inner ends thereof, inner eyelets 34 as shown in FIG. 4. Wing bolts 36, similar to that shown in FIG. 5, provides the means of securing arms 32 to plates 30. Bolts 36 pass through suitable holes in plates 30, and which holes are spaced transversely of the plates. Bolts 36 then support arms 32 by passing through eyelets 34. A series of holes 38 are provided in plates 30 radially equidistant from the axes of bolts 36. A second series of holes 40 are provided in plates 30, also radially-positioned with respect to bolts 36 and at a greater radius than holes 38. Brackets 42 are suitably secured to arms 32 as shown in FIG. 4, and which brackets are formed so as to selectively receive bolts 44 in alignment with either holes 38 or 40. The bolt 44 as shown in FIG. 5 is passed through a selected hole 38 or 40 and then through the proper aligned passageway in bracket 42, as shown in FIG. 4. Washers 46 prevent engagement of arms 32 with the surfaces of plates or portions 30 and are assembled on bolts 36 and 44. If it is desired to increase the flexibility of arms 32, bolts 44 are removed from their position in holes 40, as shown in FIG. 4, and then inserted similarly in holes 38 and through the corresponding passageway in bracket 42. An outer eyelet 48 is secured to the outer end of each arm 32 to receive a pair of longitudinal bars 50. Collars 52 are secured to bars 50 and prevent the bars from being longitudinally disengaged from the eyelets 48. The purpose of providing the two series of holes 38 and 40 is to position the arms 32 in selected angles to enable the person P to perform the various exercises shown in FIGS. 7 through 12, securing the bolts 44 in holes 38 providing more flexibility than if holes 40 are used. In each instance, however, the arms 32 will tend to flex as shown by dotted lines in FIG. 4. Arrows in FIGS. 7 through 11 indicate the direction of force exerted by the person P. In some instances only one bar may be used, as in FIGS. 7, 8 and 10.

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One form of exercise, that shown in FIG. 12, requires a clip 54 at each end of the bars 50, and which is also shown in FIG. 6. These clips embrace both bars 50 and prevents the latter from pivoting about the bolts 36 in this particular instance.

When preparing to exercise with this device, as shown in FIGS. 7 through 12, arms 32 are positioned in the desired location, and bolts 44 are inserted in the desired holes 38 or 40, and through the brackets 42. Washers 46 are provided on bolts 36 and 44, intermediate arms 32 and plates 30 in order to prevent engagement of the arms with the surface of the plates. Suitable washers and wing nuts are provided to secure the bolts in place.

It is within the purview of this invention to provide only one arm on each plate 30 if so desired, and which, obviously, limits the exercises possible with this device.

The above being a complete description of an illustrative embodiment of the invention, what is claimed as new and desired to be secured by Letters Patent of the United States is:

1. A physical exercising device comprising, in combination a base, a pair of upright supports spaced apart longitudinally on said base, and having upper arms supporting portions, a pair of flexible arms, pivotally mounted on each of said portions, said arms on each of said portions having inner and outer ends, said inner ends of said arms being secured to said upper portions on pivots having parallel extending axes, means on said portions to fix said arms thereto at selective angular positions about said pivots, and a longitudinally-extending bar secured at each end thereof to each one of said outer ends of said arms.

2. A physical exercising device as set forth in claim 1,

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in which said upper portions are provided with a first series of circumferentially-spaced apertures positioned radially from the axis of said pivots, and means on said arms to selectively engage said apertures and fix said arms thereat.

3. A physical exercising device as set forth in claim 2, in which a second series of circumferentially-spaced apertures are positioned radially from the axis of said pivots on a radius in excess of that of said first series, and means on said arms to selectively engage said apertures in said second series and to fix said arms thereat.

4. A physical exercising device as set forth in claim 1, in which said arms of said pair of arms are positioned on each of said upper portions on pivots spaced apart transversely.

5. A physical exercising device as set forth in claim 4, in which said bars are positioned upwardly in juxtaposition, and a clip embracing said bars mutually and positioned adjacent each extremity of said bars to prevent rotation of said arms about said pivots.

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U.S. Cl. X.R.

272—63