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(54) **PARALLEL BAR STAND ASSISTANCE
DEVICE**

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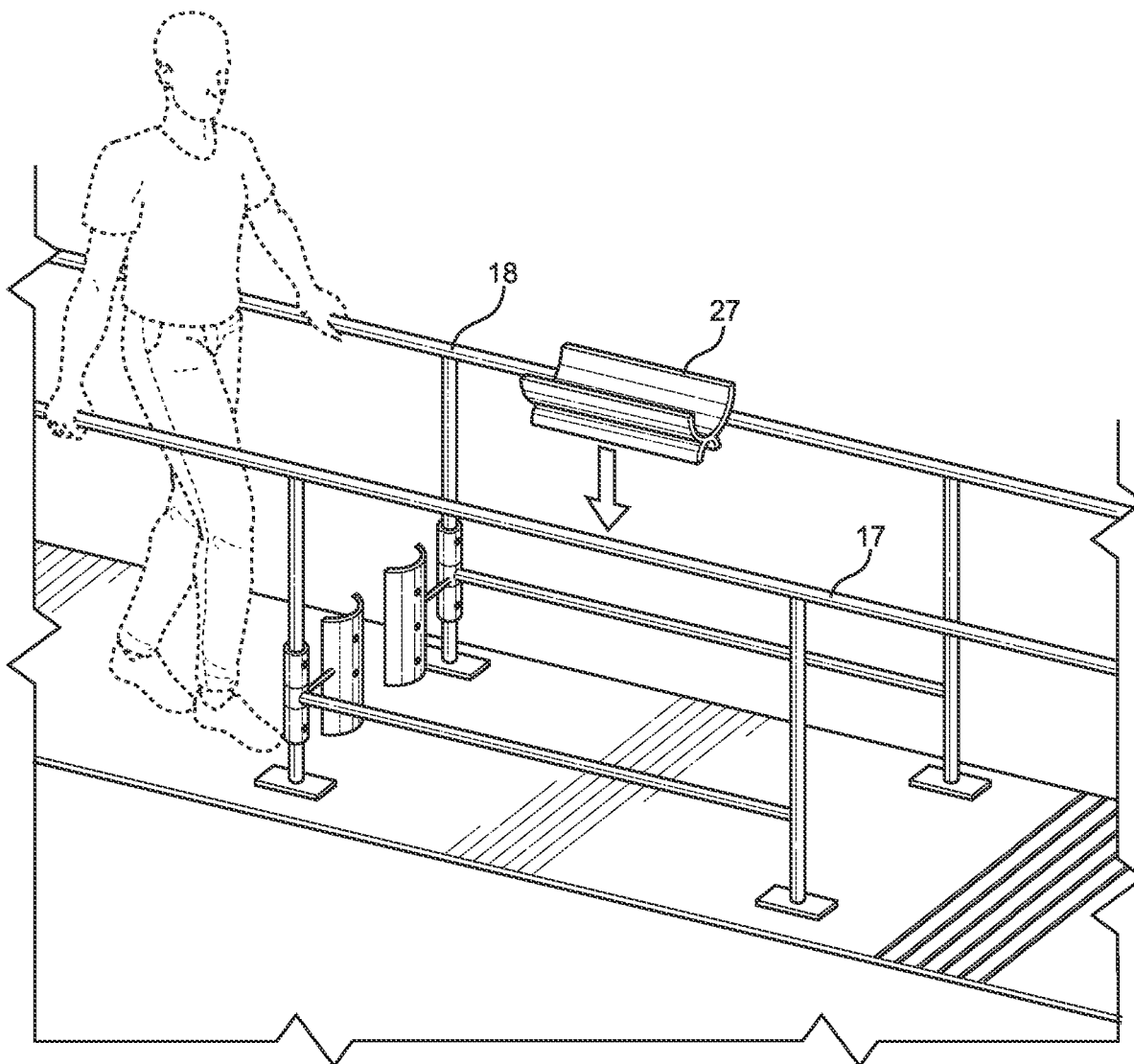
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(57) **ABSTRACT**

A parallel bar stand assistance device is provided. The parallel bar stand assistance device includes a first bar and a second bar that are placed in a vertical configuration. The first bar and the second bar are in a parallel alignment with each other. A first arm support is placed on the top end of the first bar, while a second arm support is placed on the top end of the second bar. A first leg support is slidable and is placed on the inner face of the first bar. A second leg support is slidable and is placed on the inner face of the second bar.



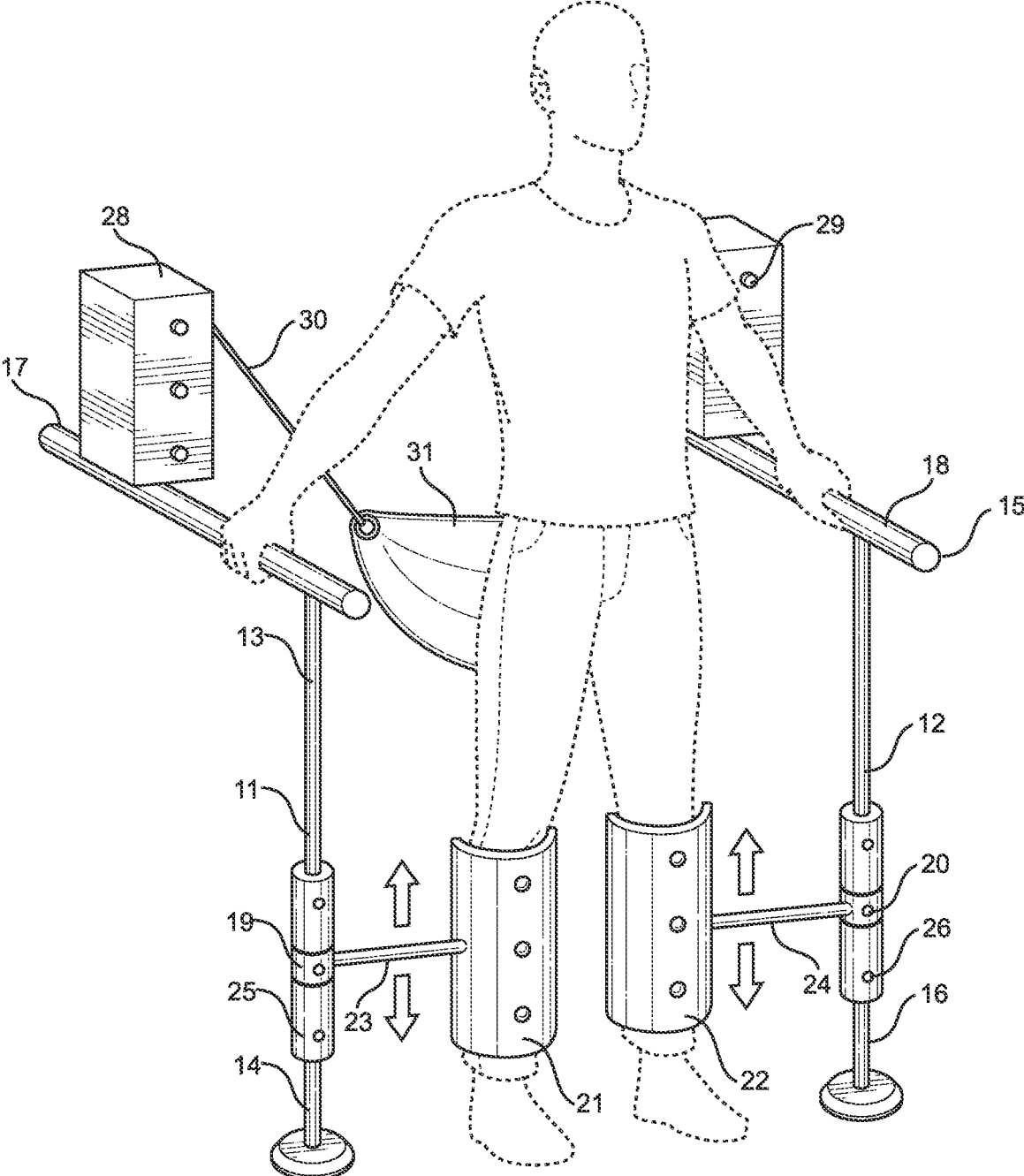


FIG. 1

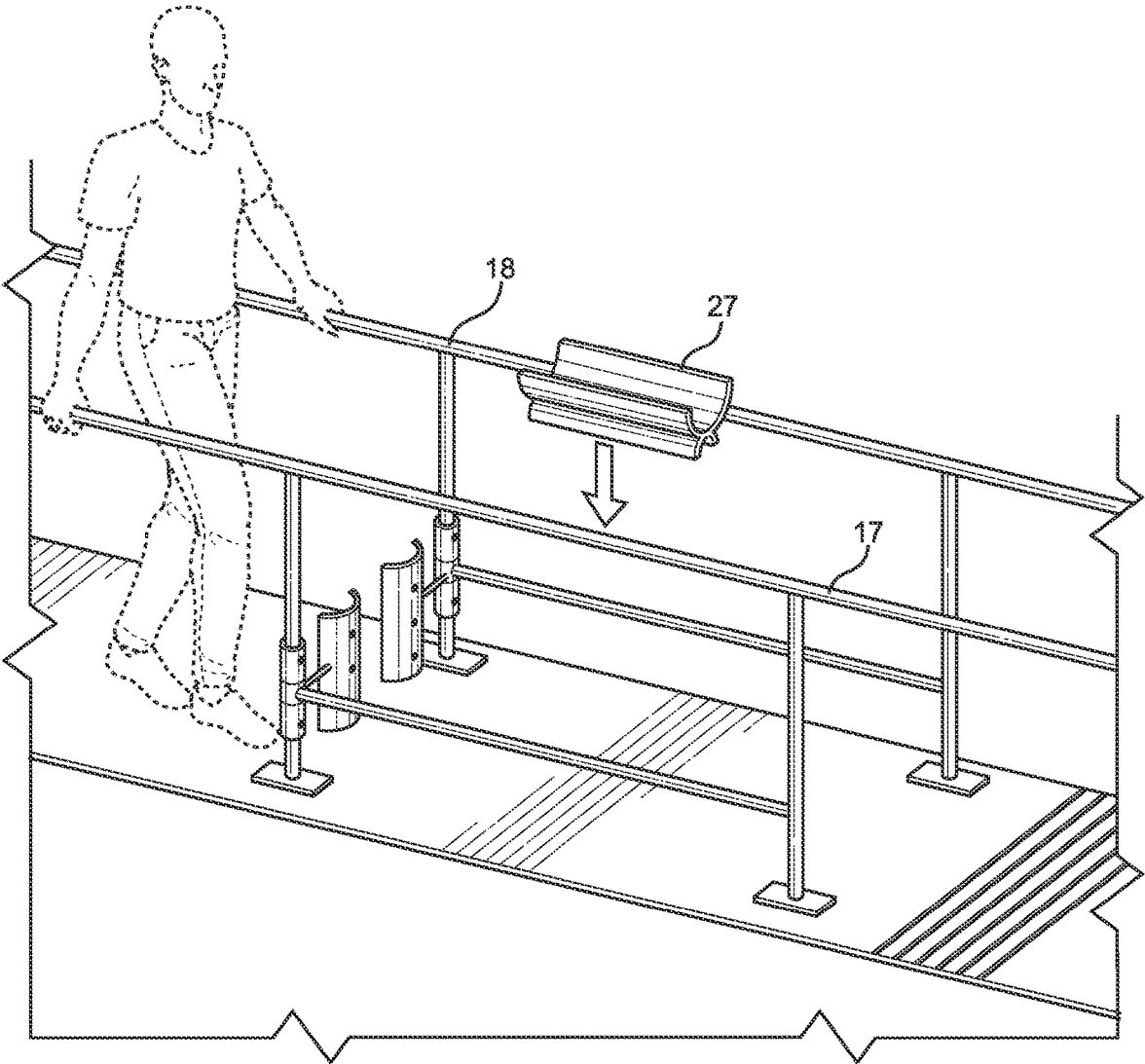


FIG. 2

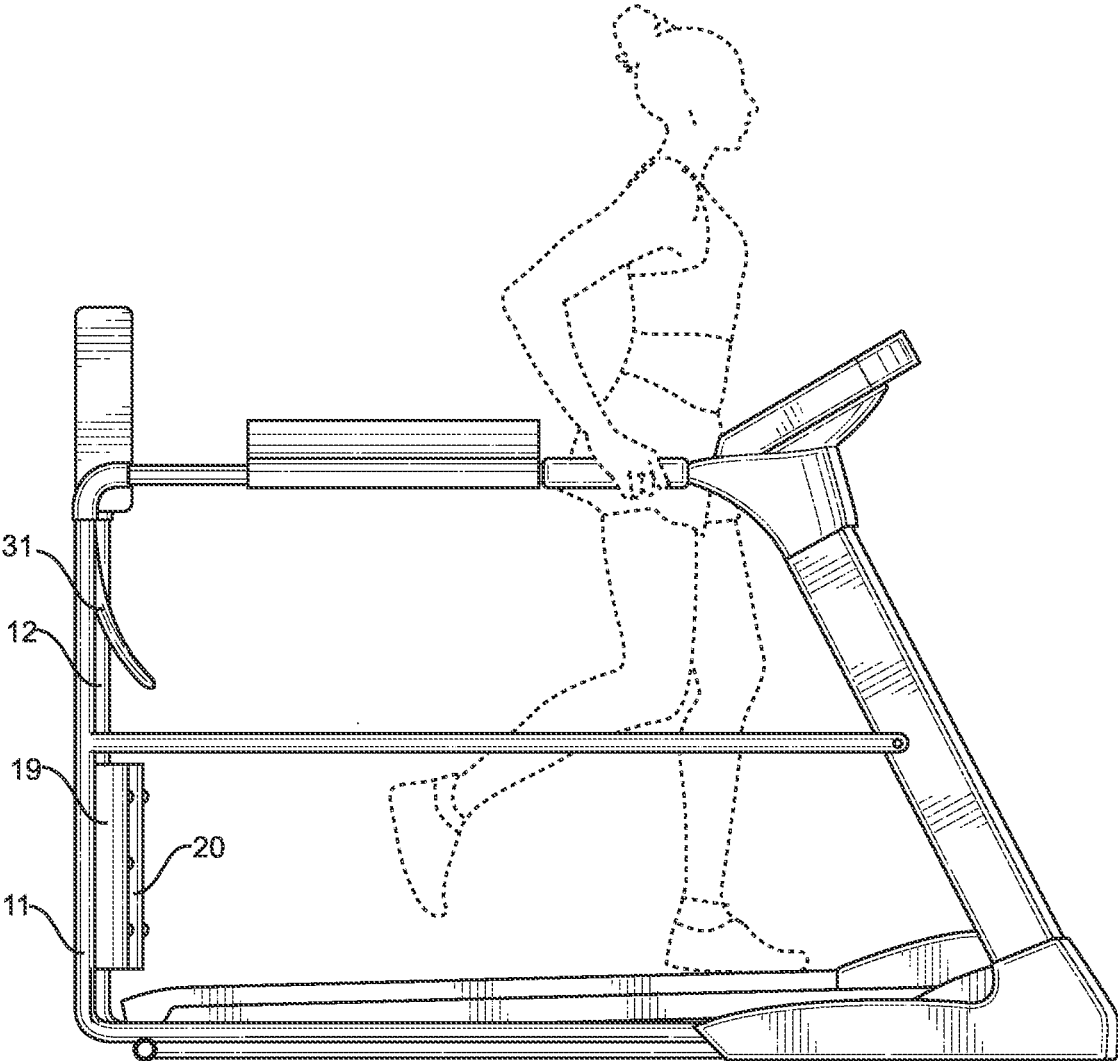


FIG. 3

PARALLEL BAR STAND ASSISTANCE DEVICE

DETAILED DESCRIPTION OF THE INVENTION

BACKGROUND OF THE INVENTION

[0001] The present invention relates to a parallel bar stand assistance device. More specifically, the parallel bar stand assistance device assists individuals undergoing physical therapy to increase their motor skills.

[0002] Individuals that are recovering from serious injuries may need to undergo physical therapy, or a similar treatment program, in order to resume their daily activities. In many cases, individuals must undergo such treatment in order to resume walking. These types of treatments may be difficult for patients, as they can be physically and mentally challenging. The patients may become upset or stressed as they progress through treatment, particularly when the treatment is over a long period of time or is difficult. Individuals that experience difficulty standing, and that may be sedentary for a significant amount of time, will experience greater difficulty in these treatments, as well as an increased risk of incurring additional health problems that may prolong recovery. As such, there is a defined need in the known art for a parallel bar stand assistance device that provides enhanced utility and function to individuals undergoing physical therapy to regain the ability to walk.

SUMMARY OF THE INVENTION

[0003] In view of the foregoing disadvantages inherent in the known types of systems and apparatuses to assist individuals with standing now present in the prior art, the present invention provides a bar stand assistance device wherein the same can be utilized for providing convenience for the user when assisting individuals in rehabilitative physical therapy for walking.

[0004] The present system comprises a first bar and a second bar. The first bar and the second bar are disposed in a vertical configuration. Furthermore, the first bar and the second bar are, ideally, in a parallel vertical alignment. A first arm support is disposed on a top end of the first bar. A second arm support is disposed on a top end of the second bar. A first leg support is slidably disposed on an inner face of the first bar. A second leg support is slidably disposed on an inner face of the second bar. As such, the parallel bar stand assistance device is configured to assist a user in physical therapy aimed at enabling free walking of the user.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] Although the characteristic features of this invention will be particularly pointed out in the claims, the invention itself and manner in which it may be made and used may be better understood after a review of the following description, taken in connection with the accompanying drawings wherein like numeral annotations are provided throughout.

[0006] FIG. 1 shows a perspective view of an embodiment of the parallel bar stand assistance device in use.

[0007] FIG. 2 shows a perspective view of an embodiment of the parallel bar stand assistance device in use.

[0008] FIG. 3 shows a perspective view of an embodiment of the parallel bar stand assistance device in use.

[0009] Reference is made herein to the attached drawings. Like reference numerals are used throughout the drawings to depict like or similar elements of the parallel bar stand assistance device. The figures are intended for representative purposes only and should not be considered to be limiting in any respect.

[0010] Referring now to FIG. 1, there is shown a perspective view of an embodiment of the parallel bar stand assistance device in use. The parallel bar stand assistance device comprises a first bar 11 and a second bar 12. The first bar 11 and the second bar 12 are disposed in a vertical configuration. As such the first bar 11 defines a first top end 13 and a first bottom end 14 and the second bar 12 defines a second top end 15 and a second bottom end 16. The first bar 11 and the second bar 12 are made of a light weight and durable material. For example, in some embodiments, the first bar 11 and the second bar 12 are made of titanium.

[0011] A first arm support 17 is disposed on the first top end 13 of the first bar 11. The first arm support 17 is configured to provide support to a first arm of the user. A second arm support 18 is disposed on the second top end 15 of the second bar 12. The second arm support 18 is configured to provide support to the second arm of the user. The first arm support 17 and the second arm support 18 are of any suitable configuration for providing support to the user. For example, in some embodiments, the first arm support 17 and the second arm support 18 may comprise a handle. As such, the user may more easily grasp the first arm support 17 and the second arm support 18. Furthermore, the first arm support 17 and the second arm support 18 are configured to secure to a horizontal bar, such as by a sliding fastener. As such, the parallel bar stand assistance device can be mounted upon a pair of horizontally disposed bars configured to assist individuals in walking.

[0012] A first leg support 19 is slidably disposed on an inner face of the first bar 11. The first leg support 19 is configured to provide support to the first leg of the user. A second leg support 20 is slidably disposed on an inner face of the second bar 12. The second leg support 20 is configured to provide support to the second leg of the user. In the illustrated embodiment, each of the first leg support 19 and the second leg support 20 define a sleeve 21, 22. Each sleeve 21, 22 is dimensioned to receive a leg of the user therein. In the illustrated embodiment, the sleeves 21, 22 are elongated, such as to extend over the knees of the user. Specifically, in the illustrated embodiment, each sleeve 21, 22 is arcuate in shape and is disposed on the end of a rod 23, 24 which is attached to a slider 25, 26 disposed on each of the first bar 11 and the second bar 12. In some embodiments, a padded material is disposed on an internal surface of each sleeve 21, 22. As such, the comfortability of the first leg support 19 and the second leg support 20 is increased. The padded material may be of any soft material, such as foam, to alleviate force upon the legs of the user. Additionally, in the illustrated embodiment, a pair of plates 32 are disposed on the bottom ends 14, 16 of each of the first leg 11 and the second leg 12. The pair of plates 32 are configured to secure the first leg 11 and the second leg 12 in a fixed position.

[0013] In the illustrated embodiment, the parallel bar stand assistance device comprises an attachment member 28, 29 disposed on each of the top ends 13, 15 of the first bar 11 and the second bar 12. Each attachment member 28, 29 is

configured to receive a cable end **30** therethrough. The pair of cable ends **30** define a cable. The cable comprises a sling **31**. The sling **31** is configured to provide support to the user, while the parallel bar stand assistance device is in use. In some embodiments, the sling **31** is configured to be secured around the torso of the user, such that additional stability is provided to prevent the user from falling. The attachment members **28**, **29** tension the cable to provide upward force to support the user.

[0014] Referring now to FIG. **2**, there is shown a perspective view of an embodiment of the parallel bar stand assistance device in use. In the illustrated embodiment, each of the first arm support **17** and the second arm support **18** comprises a trough **27**. In a further embodiment, each of the troughs **27** comprises a padded material on an interior surface thereof. As such, the troughs **27** are more comfortable for the user. The troughs comprise an upper channel for an arm and a lower channel to receive the handrail. They are slidable over the handrail to allow the user to walk the length of the physical therapy track.

[0015] Referring now to FIG. **3**, there is shown a perspective view of an embodiment of the parallel bar stand assistance device in use. In the illustrated embodiment, the first leg **11** and the second leg **12** are secured upon opposing sides of a treadmill **33**. As such, the parallel bar stand assistance device may be utilized to assist individuals in walking upon a treadmill **33**. In the illustrated embodiment, the first leg support **19** and the second leg support **20** are placed behind the user for safety. Additionally, a sling **31** is disposed across the rear of the treadmill **33**.

[0016] It is therefore submitted that the instant invention has been shown and described in various embodiments. It is recognized, however, that departures may be made within the scope of the invention and that obvious modifications will occur to a person skilled in the art. With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of the invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention.

[0017] Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

I claim:

1. A parallel bar stand assistance device, comprising: a first bar and a second bar disposed in a vertical configuration; the first bar and the second bar being in a parallel alignment; a first arm support disposed on a first top end of the first bar; a second arm support disposed on a second top end of the second bar; a first leg support slidably disposed on an inner face of the first bar; a second leg support slidably disposed on an inner face of the second bar.
2. The parallel bar stand assistance device of claim **1**, wherein the first leg support and the second leg support each define a sleeve configured to secure the first leg support and the second leg support to the legs of the user.
3. The parallel bar stand assistance device of claim **1**, wherein the first leg support and the second leg support comprise a padded material disposed on an interior surface thereof.
4. The parallel bar stand assistance device of claim **3**, wherein the padded material is a foam material.
5. The parallel bar stand assistance device of claim **1**, wherein the first arm support and the second arm support each comprises a trough.
6. The parallel bar stand assistance device of claim **5**, wherein the trough comprises a padded material disposed on an interior surface thereof.
7. The parallel bar stand assistance device of claim **1**, wherein an attachment member is disposed each of the first top end of the first bar and the second top end the second bar, the attachment members configured to receive a cable end therethrough.
8. The parallel bar stand assistance device of claim **7**, wherein a cable defining each of the cable ends comprises a sling.
9. The parallel bar stand assistance device of claim **8**, wherein the sling is configured to be secure about a torso of the user.
10. The parallel bar stand assistance device of claim **1**, wherein a plate is disposed on a bottom end of each of the first bar and the second bar.
11. The parallel bar stand assistance device of claim **1**, wherein a handle is defined on the top end of each of the first bar and the second bar.
12. The parallel bar stand assistance device of claim **1**, wherein the bottom end of each of the first bar and the second bar are secured to opposing sides of a treadmill.
13. The parallel bar stand assistance device of claim **1**, wherein the first bar and the second bar are made of titanium.

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