



(19) **United States**

(12) **Patent Application Publication**

Maurer et al.

(10) **Pub. No.: US 2003/0234128 A1**

(43) **Pub. Date: Dec. 25, 2003**

(54) **PERSONAL TRANSPORTATION APPARATUS**

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(21) Appl. No.: **10/177,963**

(22) Filed: **Jun. 24, 2002**

Publication Classification

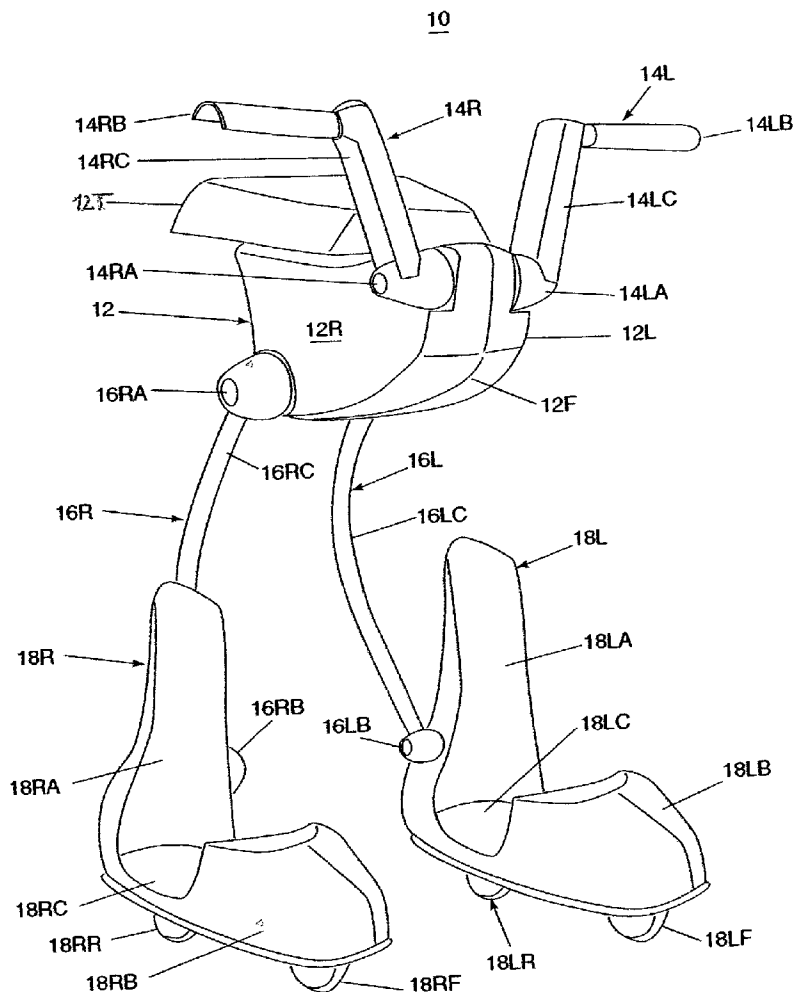
(51) **Int. Cl.⁷ A63C 17/12**

(52) **U.S. Cl. 180/180**

(57) **ABSTRACT**

A personal transportation apparatus (10) having a housing (12) and a handle (14) which has a right handle (14R)

pivotally connected to the housing right (12R) and a left handle (14L) pivotally connected to the housing left (12L). connected to rheostats electrically connected to the battery. A right leg (16R) having a right leg upper shaft (16RA) pivotally connected to the housing right (12R) and a left leg (16L) having a left leg upper shaft (16LA) pivotally connected to the housing left (12L). A right slipper (18R) having right slipper heel (18RA) securely connected to a right slipper toe (18RB) by a right slipper sole (18RC). A right slipper rear wheel (18RR) and right slipper front wheel (18RF) are connected to a right electric motor (not shown) positioned within the right slipper (18R). The right electric motor (not shown) is electrically connected to the right rheostat (not shown). The slipper (18) further has a left slipper (18L) having left slipper heel (18LA) securely connected to a left slipper toe (18LB) by a left slipper sole (18LC). A left slipper rear wheel (18LR) and left slipper front wheel (18LF) are connected to a left electric motor (not shown) positioned within the left slipper (18L). The left electric motor (not shown) is electrically connected to the left rheostat (not shown).



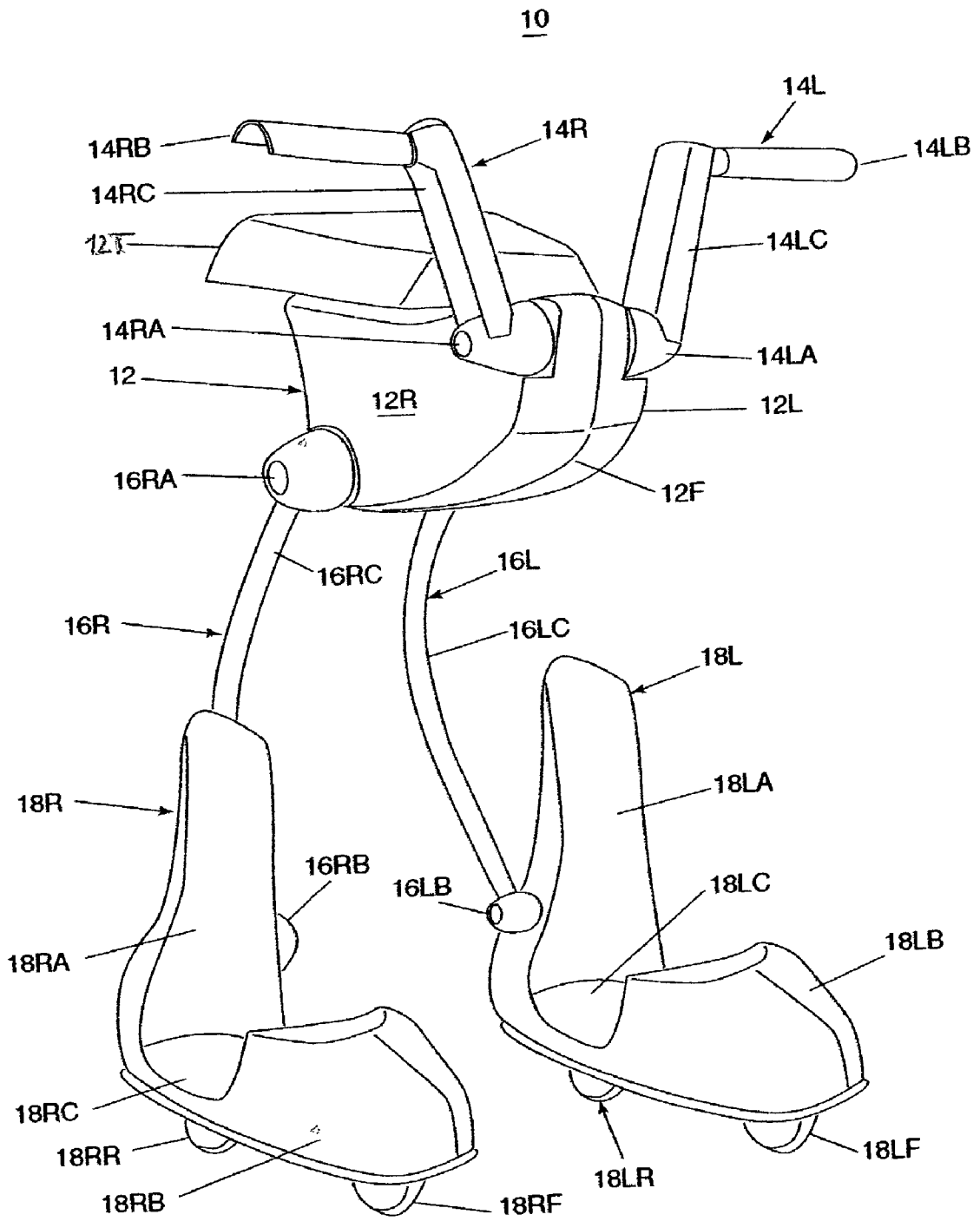


Fig. 1

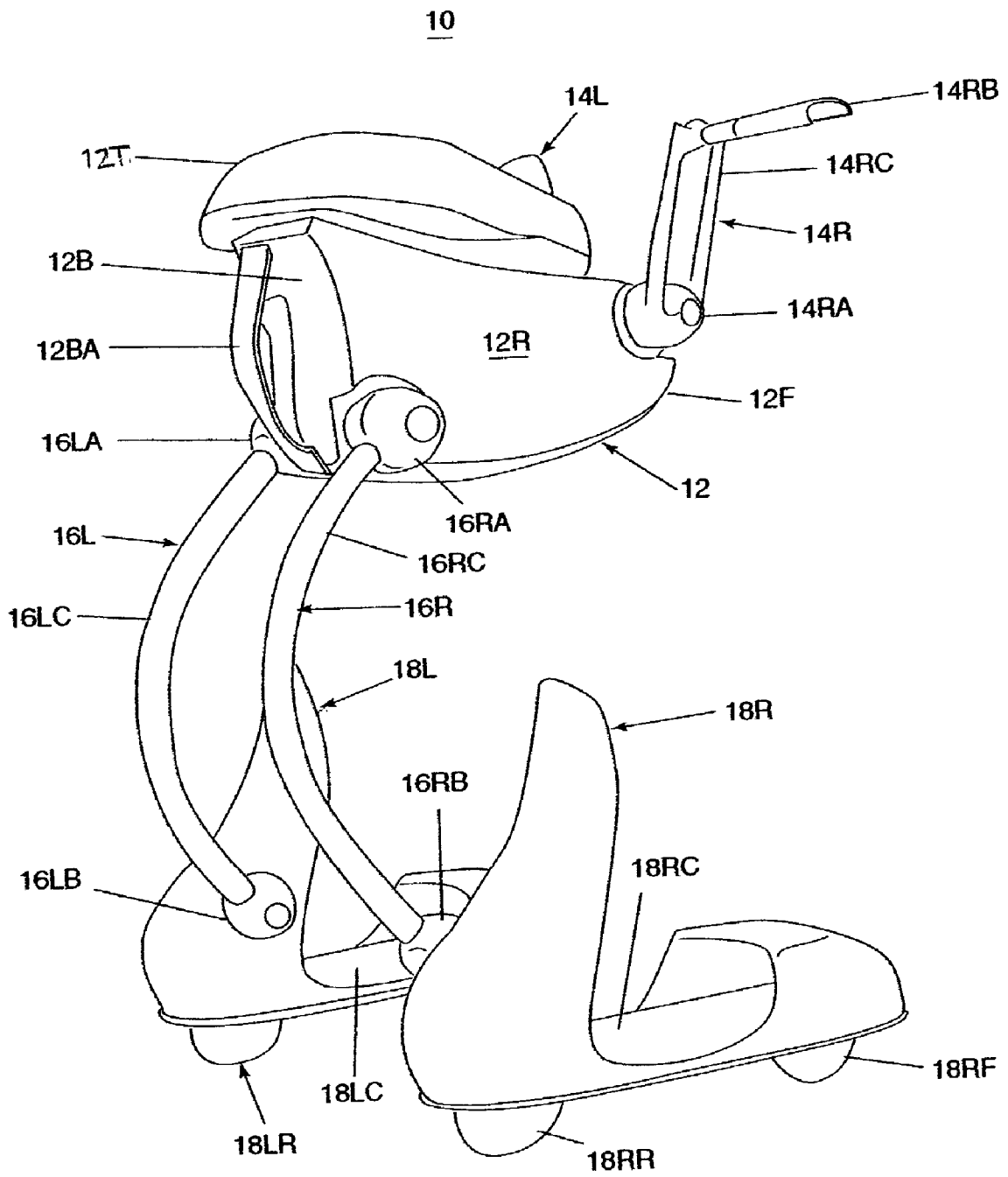


Fig. 2

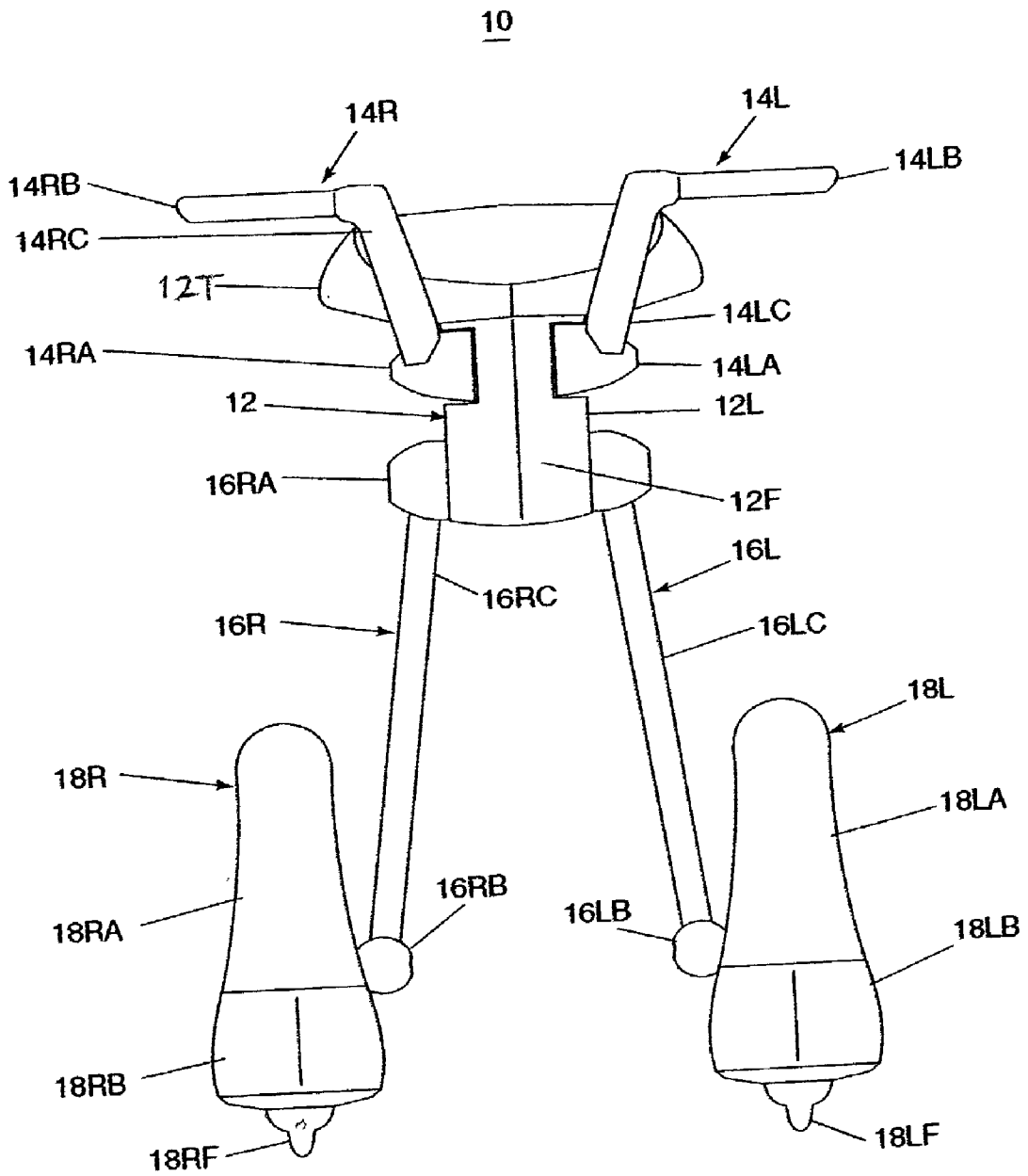


Fig. 3

10

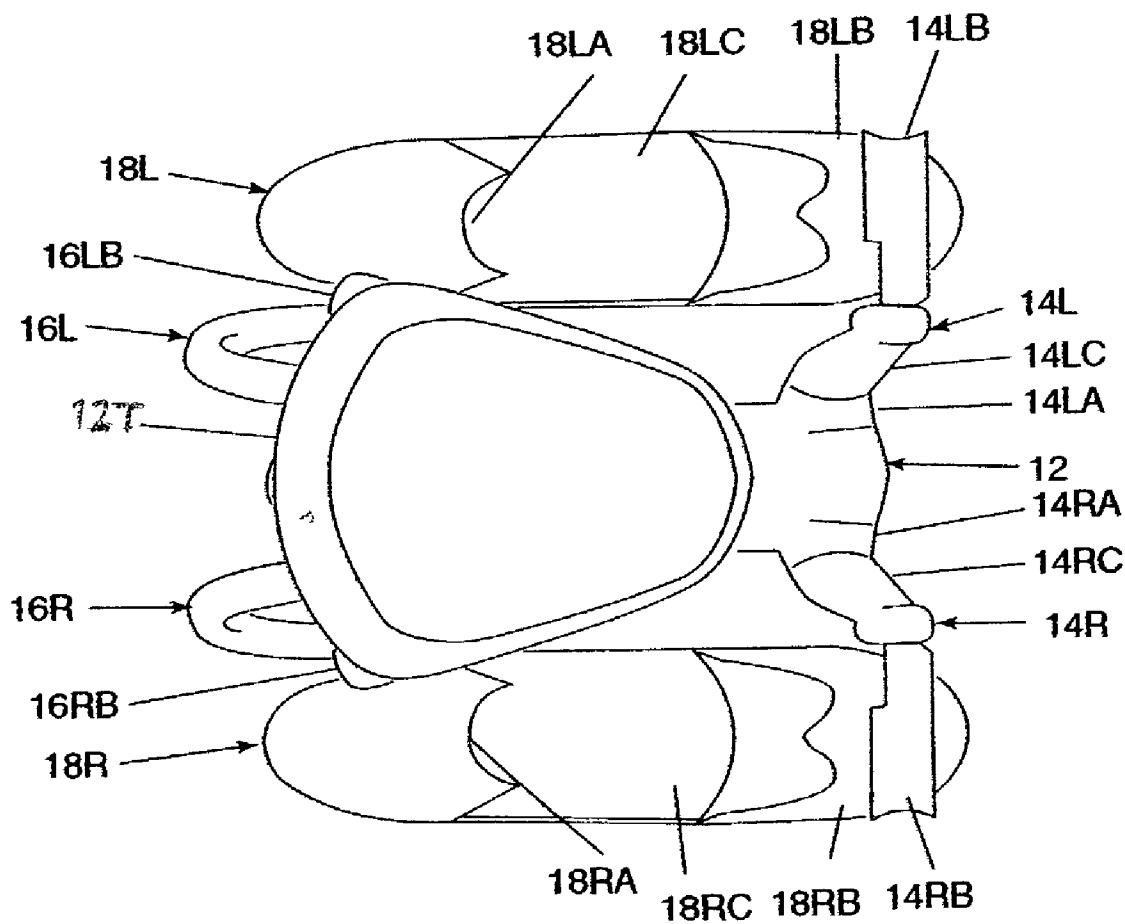


Fig. 4

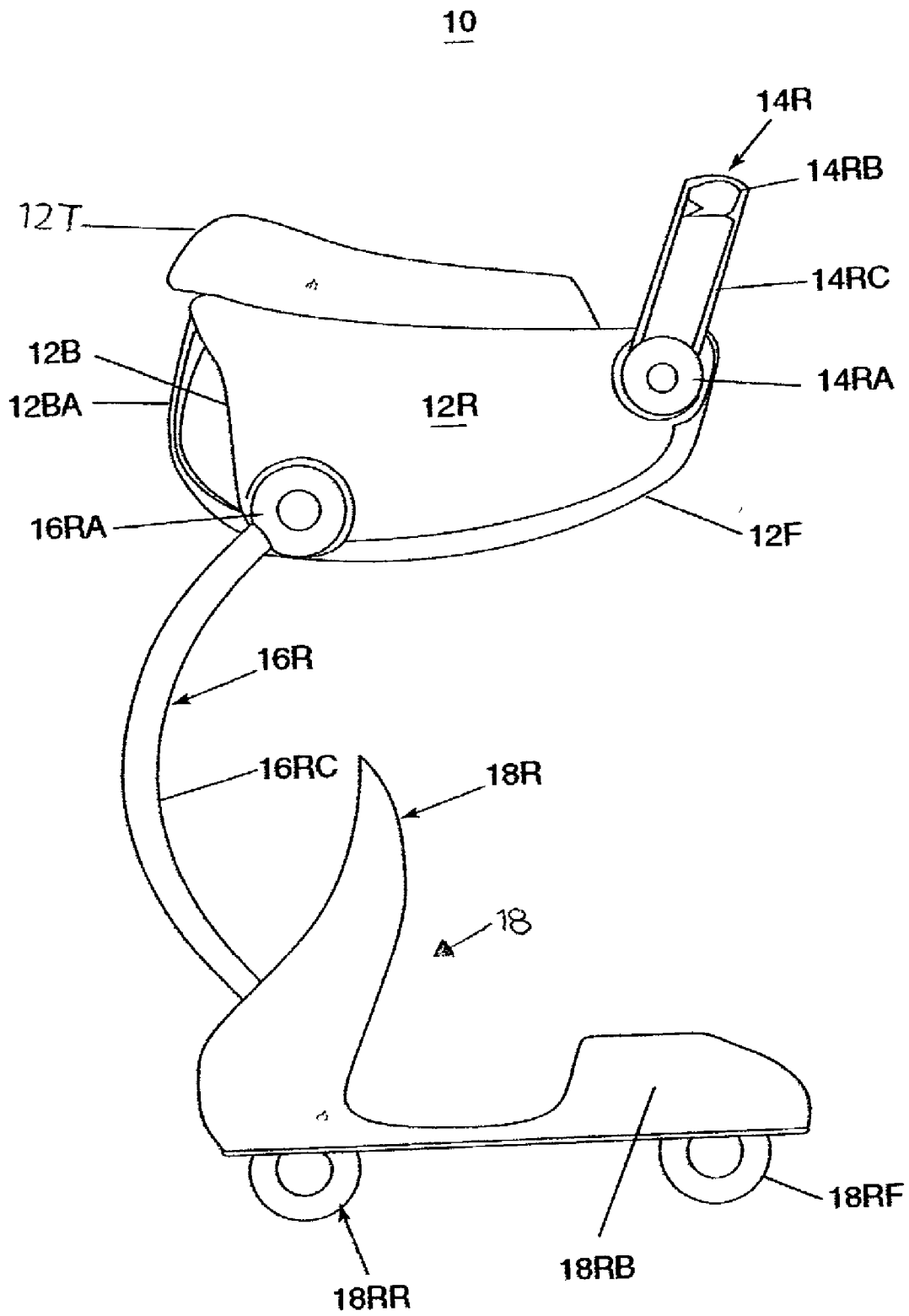


Fig. 5

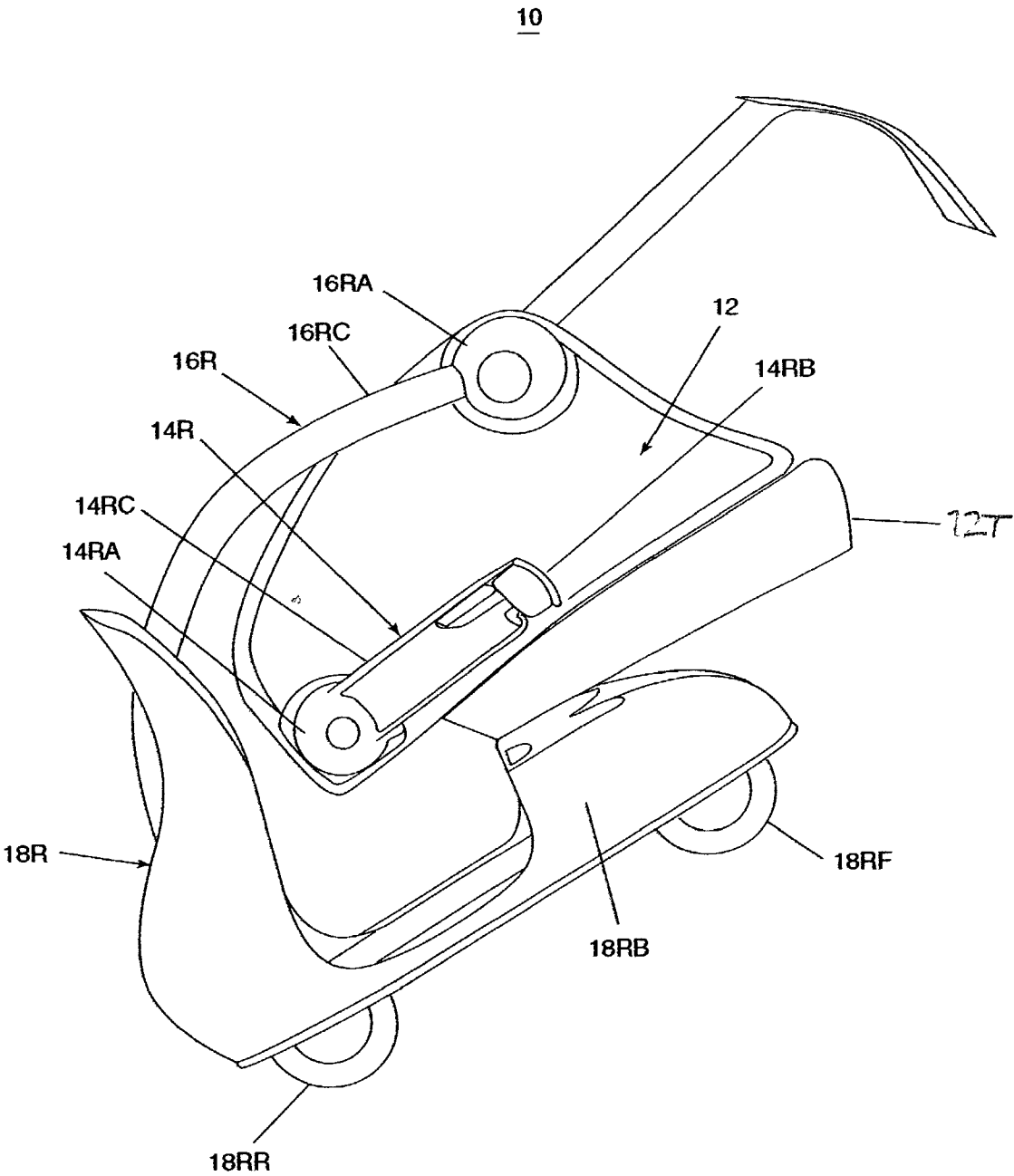


Fig. 6

PERSONAL TRANSPORTATION APPARATUS

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a personal transportation apparatus. More particularly, the present invention relates to a personal transportation apparatus which a user sits down and inserts his feet into moving slippers.

[0003] 2. Description of the Prior Art

[0004] Numerous innovations for personal transportation apparatuses have been provided in the prior art that are described as follows. Even though these innovations may be suitable for the specific individual purposes to which they address, they differ from the present invention as hereinafter contrasted.

[0005] In U.S. Pat. No. 5,829,543, by inventor, Diaz, titled, Motorized in-line blade roller skate, a motorized in-line blade roller skate having a longitudinally extending chassis plate with rear and front ends and several in-line blade roller members. A motor provides the necessary rotational movement that is transmitted through a cable to a gear assembly which in turn transmits it to a driving roller member. A bracket member is pivotally mounted to the rear end of the chassis plate and the driving roller member is rotatably mounted to the bracket. A clutch cable brings the driving roller member in contact with the rearmost roller member and thus transmitting the rotational movement to the latter. A second pivotally mounted bracket is provided for rotatably supporting the rear roller and is rigidly kept in place with, an adjustable linkage member. Adjusting this linkage member offset the wear and tear of the rear or driven roller and also permits a user to enhance gripping, preventing slip action, by bringing the rear roller member slightly below the plane defined by the other roller members.

[0006] In U.S. Pat. No. 5,797,466, by inventor, Gendle, titled, Powered in-line skate, powered skate having a small motor mounted on an in-line roller blade with a hand-held throttle. The motor, such as a small internal combustion engine, is mounted at the rear of an in-line skate having a frame secured to a user's shoe or boot and drives the rear roller via a reduction gear train, which may include a clutch assembly. The engine is started by a pull cord, and the engine speed is controlled by a hand-held control unit attached to the engine via a throttle cable, which may be secured to the user's body via arm and leg straps. The powered in-line skate and a non-powered in-line skate can safely drive a user to speeds of about 20 MPH, this providing alternate transportation for the user.

[0007] In U.S. Pat. No. 5,236,058, by inventor, Yamet, et al., titled, Motor driven roller skates, a combination of a conventional roller skate having a platform which supports the skater and axles/wheels below the supporting platform which are mounted in rotational relationship to the platform; and a motor adapted to drive the wheels. In this combination, there is provided a braking system which is operatively associated with the wheels and/or axles and which is operated by hinged depressing a forward portion of the support platform by means of the forward portion of the skater's foot, such as the toes. Depressing the forward portion of the support platform forces a braking means into effective stopping contact with the wheels. There is further provided

a means to start the motor which is associated with the skate. In this embodiment, an auxiliary wheel is provided rearwardly of the skate and out of contact with the surface on which the skate wheels bear. The skater starts skating in a conventional manner, and when enough speed has been achieved, the skate is pivoted about the rear wheels to cause the auxiliary wheel to contact the surface on which the conventional wheels bear. This contact turns the auxiliary wheel which jump starts the motor.

[0008] In U.S. Pat. No. 4,546,841, by inventor, Sipiano, titled, Motor roller-skate, a motor system is releasably connected to a roller-skate provided with a driving shaft. The motor system comprises a power unit mounted on a frame which can be tied as a kit-bag to a roller-skate body and a flexible connection for transmitting the movement from the power unit to the driving shaft. A releasable clutch is interposed between the flexible connection of the motor system and the driving shaft of the roller skate.

[0009] In U.S. Pat. No. 4,508,187, by inventor, Wenzel, titled, Powered roller skates, a powered roller skate apparatus includes a motor supported on the back of a user, with a flexible drive extending from the motor to a front wheel truck for a standard roller skate. The wheel truck is interchangeable with that of any standard roller skate, and only one bolt need be removed and replaced to effect the change. Instead of an internal shaft to drive the one driven wheel, the wheel drive system includes a hub adjacent to the outside of the wheel, and a series of prongs extend from the hub directly into the side of the urethane wheel. Gear reduction from the motor is achieved through two angle drive gear boxes, one at each end of the flexible drive, which may include different-sized gears for the reduction, at the same time this enabling the flexible drive to be oriented generally upright between the skate and the motor. The motor is supported on a back pack type frame, with a pair of handle bars extending forwardly at the hips of the user, including a throttle control and a rope start handle mounted on these handle bars.

[0010] Numerous innovations for personal transportation apparatuses have been provided in the prior art that are adapted to be used. Even though these innovations may be suitable for the specific individual purposes to which they address, they would not be suitable for the purposes of the present invention as heretofore described.

SUMMARY OF THE INVENTION

[0011] The present invention relates to a personal transportation apparatus. More particularly, the present invention relates to a personal transportation apparatus which a user sits down and inserts his feet into moving slippers.

[0012] The types of problems encountered in the prior art are personal transportation in tight areas.

[0013] In the prior art, unsuccessful attempts to solve this problem were attempted namely: motorized carts, bicycles, skateboards and scooters. However, the problem was solved by the present invention because it is more maneuverable.

[0014] Innovations within the prior art are rapidly being exploited in the field of personal transportation apparatuses.

[0015] The present invention went contrary to the teaching of the art which describes and claims motorized carts, bicycles, skateboards and scooters.

[0016] The present invention solved a long felt need for a maneuverable personal transportation apparatus.

[0017] Accordingly, it is an object of the present invention to provide a personal transportation apparatus having a housing, handle, leg, and slipper.

[0018] More particularly, it is an object of the present invention to provide a housing having a housing front, housing right, housing left, housing back with a housing back holder and a housing top.

[0019] In keeping with these objects, and with others which will become apparent hereinafter, one feature of the present invention resides, briefly stated, in the handle having a right handle, right handle shaft, right handle grip, right handle vertical, left handle, left handle shaft, left handle grip, and left handle vertical.

[0020] When the leg is designed in accordance with the present invention, it has a right leg, right leg upper shaft, right leg lower shaft, right leg vertical, left leg, left leg upper shaft, left leg lower shaft, and left leg vertical.

[0021] In accordance with another feature of the present invention, the slipper has a right slipper, right slipper heel, right slipper toe, right slipper sole, right slipper rear wheel, right slipper front wheel, left slipper, left slipper heel, left slipper toe, left slipper sole, left slipper rear wheel, and left slipper front wheel.

[0022] The novel features which are considered characteristic for the invention are set forth in the appended claims. The invention itself, however, both as to its construction and its method of operation, together with additional objects and advantages thereof, will be best understood from the following description of the specific embodiments when read and understood in connection with the accompanying drawings.

LIST OF REFERENCE NUMERALS UTILIZED IN THE DRAWINGS

- [0023] 10—personal transportation apparatus (10)
- [0024] 12—housing (12)
- [0025] 12F—housing front (12F)
- [0026] 12R—housing right (12R)
- [0027] 12L—housing left (12L)
- [0028] 12B—housing back (12B)
- [0029] 12BA—housing back holder (12BA)
- [0030] 12T—housing top (12T)
- [0031] 14—handle (14)
- [0032] 14R—right handle (14R)
- [0033] 14RA—right handle shaft (14RA)
- [0034] 14RB—right handle grip (14RB)
- [0035] 14RC—right handle vertical (14RC)
- [0036] 14L—left handle (14L)
- [0037] 14LA—left handle shaft (14LA)
- [0038] 14LB—left handle grip (14LB)
- [0039] 14LC—left handle vertical (14LC)

[0040] 16—leg (16)

[0041] 16R—right leg (16R)

[0042] 16RA—right leg upper shaft (16RA)

[0043] 16RB—right leg lower shaft (16RB)

[0044] 16RC—right leg vertical (16RC)

[0045] 16L—left leg (16L)

[0046] 16LA—left leg upper shaft (16LA)

[0047] 16LB—left leg lower shaft (16LB)

[0048] 16LC—left leg vertical (16LC)

[0049] 18—slipper (18)

[0050] 18R—right slipper (18R)

[0051] 18RA—right slipper heel (18RA)

[0052] 18RB—right slipper toe (18RB)

[0053] 18RC—right slipper sole (18RC)

[0054] 18RR—right slipper rear wheel (18RR)

[0055] 18RF—right slipper front wheel (18RF)

[0056] 18L—left slipper (18L)

[0057] 18LA—left slipper heel (18LA)

[0058] 18LB—left slipper toe (18LB)

[0059] 18LC—left slipper sole (18LC)

[0060] 18LL—left slipper rear wheel (18LL)

[0061] 18LF—left slipper front wheel (18LF)

BRIEF DESCRIPTION OF THE DRAWINGS

[0062] FIG. 1 is a right top front perspective view of a personal transportation apparatus (10).

[0063] FIG. 2 is a right bottom rear perspective view of a personal transportation apparatus (10).

[0064] FIG. 3 is a front view of a personal transportation apparatus (10).

[0065] FIG. 4 is a top view of a personal transportation apparatus (10).

[0066] FIG. 5 is a right side view of a personal transportation apparatus (10) in an extended position.

[0067] FIG. 6 is a right side view of a personal transportation apparatus (10) in a collapsed position.

DESCRIPTION OF THE PREFERRED EMBODIMENT

[0068] Referring to FIGS. 1, 2, 3, and 4 which are a right top front perspective view, right bottom rear perspective view, front view, and top view, respectively of a personal transportation apparatus (10) comprising a housing (12) which comprises a housing front (12F), housing right (12R), housing left (12L), housing back (12B) and housing top (12T). The housing back (12B) further comprises a housing back holder (12BA) extending therefrom. The housing top (12T) has a seat securely attached thereon. The seat is preferably padded. The housing (12) is preferably manufactured from a lightweight durable material. The lightweight

durable material is selected from a group consisting of plastic, plastic composites, rubber, rubber composites, metal, metal composite, fiberglass, and epoxy.

[0069] The personal transportation apparatus (10) further comprises personal a handle (14) which comprises a right handle (14R) pivotally connected to the housing right (12R) by a right handle shaft (14RA) which is securely connected at an outer distal end to a bottom distal end of a right handle vertical (14RC) connected at a top distal end to a right handle grip (14RB). The right handle shaft (14RA) is securely connected to a right rheostat (not shown) electrically connected to a battery mounted within the housing (12). The handle (14) further comprises a left handle (14L) pivotally connected to the housing left (12L) by a left handle shaft (14LA) which is securely connected at an outer distal end to a bottom distal end of a left handle vertical (14LC) connected at a top distal end to a left handle grip (14LB). The left handle shaft (14LA) is securely connected to a left rheostat (not shown) electrically connected to the battery. The handle (14) is manufactured from a lightweight durable material. The lightweight durable material is selected from a group consisting of plastic, plastic composites, rubber, rubber composites, metal, metal composite, fiberglass, and epoxy.

[0070] The further the right handle (14R) is moved forward, the more electricity the right rheostat (not shown) sends to the right motor (not shown) causing the right slipper rear wheel (18RR) and the right slipper front wheel (18RF) to move in a fast forward rotation propelling the right slipper (18R) in a forward direction. The further the left handle (14L) is moved forward, the more electricity the left rheostat (not shown) sends to the left motor (not shown) causing the left slipper rear wheel (18LR) and the left slipper front wheel (18LF) to move in a fast forward rotation propelling the left slipper (18L) in a forward direction.

[0071] The further the right handle (14R) is moved rearward, the more electricity the right rheostat (not shown) sends to the right motor (not shown) causing the right slipper rear wheel (18RR) and the right slipper front wheel (18RF) to move in a fast rearward rotation propelling the right slipper (18R) in a rearward direction. The further the left handle (14L) is moved rearward, the more electricity the left rheostat (not shown) sends to the left motor (not shown) causing the left slipper rear wheel (18LR) and the left slipper front wheel (18LF) to move in a fast rearward rotation propelling the left slipper (18L) in a rearward direction.

[0072] If the right handle (14R) is moved forward and the left handle (14L) is moved rearward, the personal transportation apparatus (10) turns left. If the right handle (14R) is moved rearward and the left handle (14L) is moved forward, the personal transportation apparatus (10) turns right.

[0073] The personal transportation apparatus (10) further comprises a leg (16) which comprises a right leg (16R) having a right leg upper shaft (16RA) pivotally connected to the housing right (12R). The right leg upper shaft (16RA) is connected at an outer distal end to a top distal end of a right leg vertical (16RC) connected at a lower distal end to an outer distal end of a right leg lower shaft (16RB). The leg (16) further comprises a left leg (16L) having a left leg upper shaft (16LA) pivotally connected to the housing left (12L). The left leg upper shaft (16LA) is connected at an outer distal end to a top distal end of a left leg vertical (16LC)

connected at a lower distal end to an outer distal end of a left leg lower shaft (16LB). The leg (16) comprises a bow shape bent configuration to allow for room for a user's calf. The leg (16) is manufactured from a lightweight durable material. The lightweight durable material is selected from a group consisting of plastic, plastic composites, rubber, rubber composites, metal, metal composite, fiberglass, and epoxy.

[0074] The personal transportation apparatus (10) further comprises a slipper (18) which comprises a right slipper (18R) having right slipper heel (18RA) securely connected to a right slipper toe (18RB) by a right slipper sole (18RC). A right slipper rear wheel (18RR) and right slipper front wheel (18RF) are connected to a right electric motor (not shown) positioned within the right slipper (18R). The right electric motor (not shown) is electrically connected to the right rheostat (not shown). The slipper (18) further comprises a left slipper (18L) having left slipper heel (18LA) securely connected to a left slipper toe (18LB) by a left slipper sole (18LC). A left slipper rear wheel (18LR) and left slipper front wheel (18LF) are connected to a left electric motor (not shown) positioned within the left slipper (18L). The left electric motor (not shown) is electrically connected to the left rheostat (not shown). The right slipper heel (18RA) and the left slipper heel (18LA) comprises a high vertical back. The right slipper toe (18RB) and the left slipper toe (18LB) comprises an enclosed front compartment. A user inserts his right foot into the right slipper (18R) and left foot into the left slipper (18L). The slipper (18) is manufactured from a lightweight durable material. The lightweight durable material is selected from a group consisting of plastic, plastic composites, rubber, rubber composites, metal, metal composite, fiberglass, and epoxy.

[0075] Lastly, referring to FIG. 5 and FIG. 6 which are right side views of a personal transportation apparatus (10) in an extended and collapsed position, respectively. The housing back (12B) further comprises a housing back holder (12BA) extending therefrom. The housing back holder (12BA) functions to facilitate carrying the personal transportation apparatus (10) when in a collapsed position. The pivotal connections of the right handle shaft (14RA), left handle shaft (14LA), right leg upper shaft (16RA), right leg lower shaft (16RB), left leg upper shaft (16LA), and left leg lower shaft (16LB) allow the personal transportation apparatus (10) to collapse into a compact configuration.

[0076] It will be understood that each of the elements described above, or two or more together, may also find a useful application in other types of constructions differing from the type described above.

[0077] While the invention has been illustrated and described as embodied in a personal transportation apparatus, it is not intended to be limited to the details shown, since it will be understood that various omissions, modifications, substitutions and changes in the forms and details of the device illustrated and in its operation can be made by those skilled in heart without departing in any way from the spirit of the present invention.

[0078] Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can, by applying current knowledge, readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention.

[0079] What is claimed as new and desired to be protected by Letters Patent is set forth in the appended claims.

What is claimed is:

1. A personal transportation apparatus (10) comprising:
 - A) a housing (12) which comprises a housing front (12F), housing right (12R), housing left (12L), housing back (12B) and housing top (12T);
 - B) a handle (14) which comprises a right handle (14R) pivotally connected to the housing right (12R) by a right handle shaft (14RA) which is securely connected at an outer distal end to a bottom distal end of a right handle vertical (14RC) connected at a top distal end to a right handle grip (14RB), the right handle shaft (14RA) is securely connected to a right rheostat (not shown) electrically connected to a battery mounted within the housing (12), the handle (14) further comprises a left handle (14L) pivotally connected to the housing left (12L) by a left handle shaft (14LA) which is securely connected at an outer distal end to a bottom distal end of a left handle vertical (14LC) connected at a top distal end to a left handle grip (14LB), the left handle shaft (14LA) is securely connected to a left rheostat electrically connected to the battery;
 - C) a leg (16) which comprises a right leg (16R) having a right leg upper shaft (16RA) pivotally connected to the housing right (12R), the right leg upper shaft (16RA) is connected at an outer distal end to a top distal end of a right leg vertical (16RC) connected at a lower distal end to an outer distal end of a right leg lower shaft (16RB), the leg (16) further comprises a left leg (16L) having a left leg upper shaft (16LA) pivotally connected to the housing left (12L), the left leg upper shaft (16LA) is connected at an outer distal end to a top distal end of a left leg vertical (16LC) connected at a lower distal end to an outer distal end of a left leg lower shaft (16LB); and
 - D) a slipper (18) which comprises a right slipper (18R) having right slipper heel (18RA) securely connected to a right slipper toe (18RB) by a right slipper sole (18RC), a right slipper rear wheel (18RR) and right slipper front wheel (18RF) are connected to a right electric motor positioned within the right slipper (18R), the right electric motor is electrically connected to the right rheostat, the slipper (18) further comprises a left slipper (18L) having left slipper heel (18LA) securely connected to a left slipper toe (18LB) by a left slipper sole (18LC), a left slipper rear wheel (18LR) and left slipper front wheel (18LF) are connected to a left electric motor positioned within the left slipper (18L), the left electric motor is electrically connected to the left rheostat.

2. The personal transportation apparatus (10) as described in claim 1, wherein the housing back (12B) further comprises a housing back holder (12BA) extending therefrom.

3. The personal transportation apparatus (10) as described in claim 1, wherein the housing top (12T) has a seat securely attached thereon.

4. The personal transportation apparatus (10) as described in claim 3, wherein the seat is padded.

5. The personal transportation apparatus (10) as described in claim 1, wherein the housing (12) is manufactured from a lightweight durable material.

6. The personal transportation apparatus (10) as described in claim 5, wherein the lightweight durable material is selected from a group consisting of plastic, plastic composites, rubber, rubber composites, metal, metal composite, fiberglass, and epoxy.

7. The personal transportation apparatus (10) as described in claim 1, wherein the handle (14) is manufactured from a lightweight durable material.

8. The personal transportation apparatus (10) as described in claim 7, wherein the lightweight durable material is selected from a group consisting of plastic, plastic composites, rubber, rubber composites, metal, metal composite, fiberglass, and epoxy.

9. The personal transportation apparatus (10) as described in claim 1, wherein the leg (16) comprises a bow shape bent configuration.

10. The personal transportation apparatus (10) as described in claim 1, wherein the leg (16) is manufactured from a lightweight durable material.

11. The personal transportation apparatus (10) as described in claim 10, wherein the lightweight durable material is selected from a group consisting of plastic, plastic composites, rubber, rubber composites, metal, metal composite, fiberglass, and epoxy.

12. The personal transportation apparatus (10) as described in claim 1, wherein the right slipper heel (18RA) and the left slipper heel (18LA) comprises a high vertical back.

13. The personal transportation apparatus (10) as described in claim 1, wherein the right slipper toe (18RB) and the left slipper toe (18LB) comprises an enclosed front compartment.

14. The personal transportation apparatus (10) as described in claim 1, wherein the slipper (18) is manufactured from a lightweight durable material.

15. The personal transportation apparatus (10) as described in claim 13, wherein the lightweight durable material is selected from a group consisting of plastic, plastic composites, rubber, rubber composites, metal, metal composite, fiberglass, and epoxy.

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