



US 20050054492A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0054492 A1**

Neff

(43) **Pub. Date:** **Mar. 10, 2005**

(54) EXERCISE DEVICE FOR UNDER A DESK

(76) Inventor: **John D. Neff**, Austin, TX (US)

Correspondence Address:

Donald W. Meeker

Patent Agent

924 East Ocean Front #E

Newport Beach, CA 92661 (US)

(21) Appl. No.: **10/950,931**

(22) Filed: **Sep. 25, 2004**

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/621,075, filed on Jul. 15, 2003.

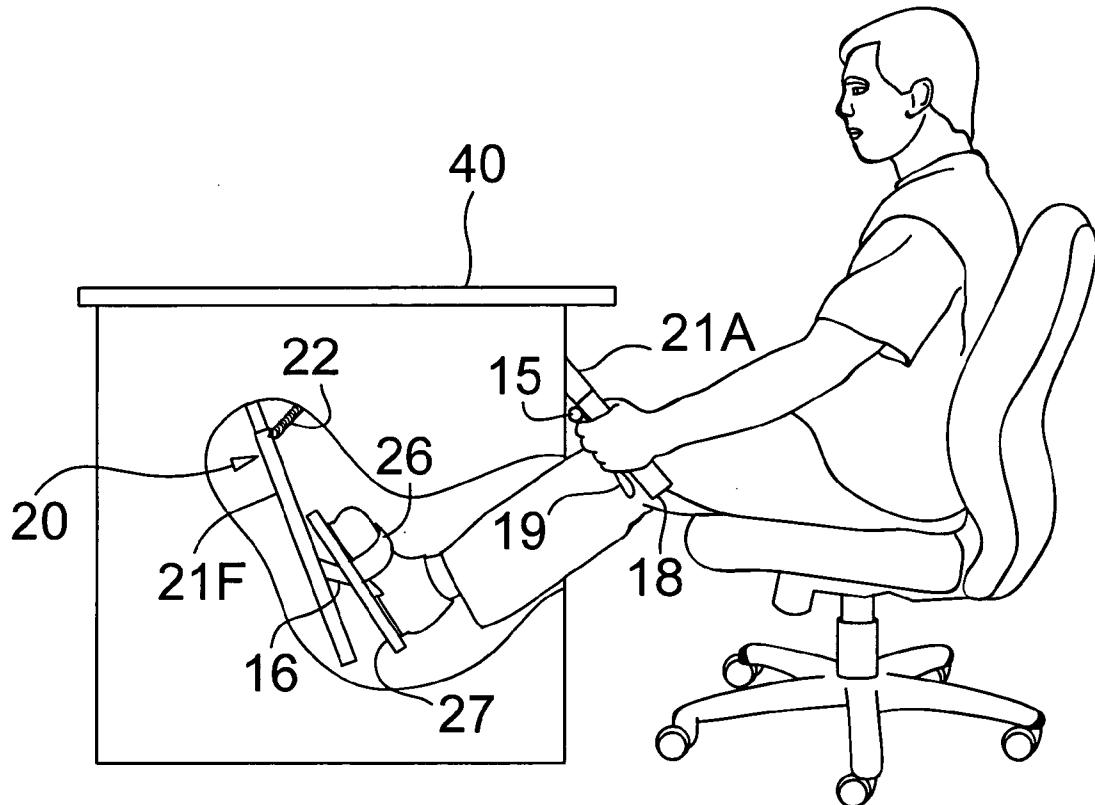
Publication Classification

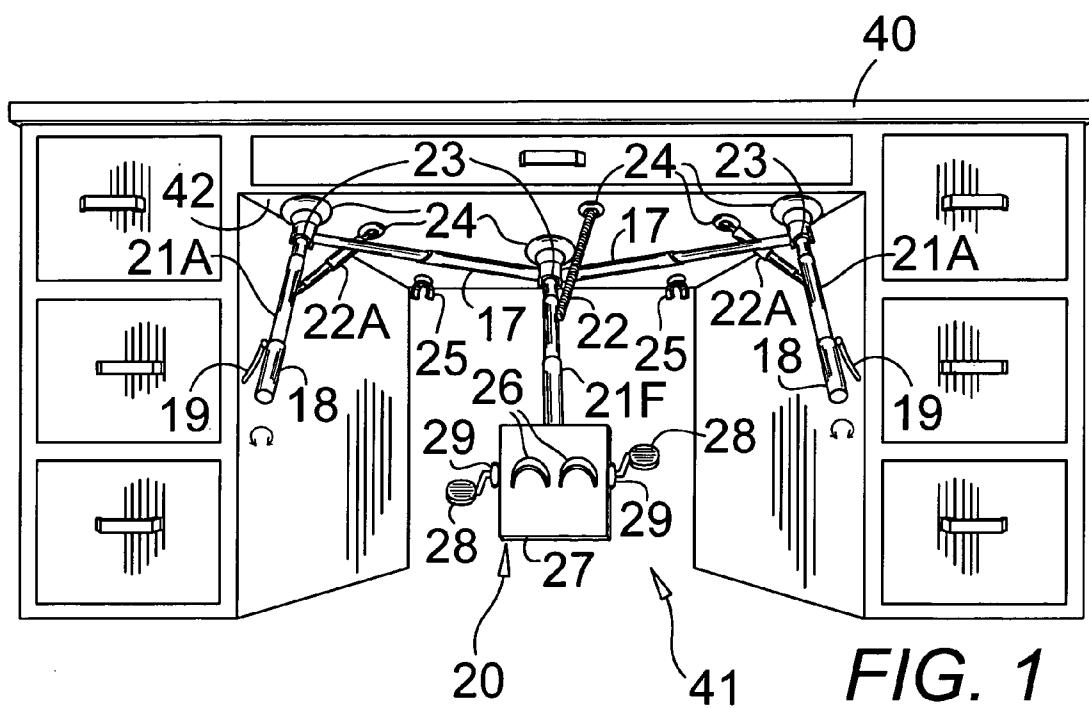
(51) **Int. Cl.⁷** **A63B 22/06**

(52) **U.S. Cl.** **482/57; 482/72**

(57) ABSTRACT

A pair of horizontal pivotable rowing arms and second pivotable vertical arms pivot on oil hydraulic motion resistance wedges attached to an underside of a desk. A vertical support with bicycle type pedals and handle bars pivots out at a desired angle for use. Other resistance devices may be a spring, rubberized cord, magnet, or air cylinder. Hand grips twist and have tension arms for gripping exercises as well as moving the lever arm for full arm exercises. Foot straps on a foot board and bicycle pedals enable leg exercises.





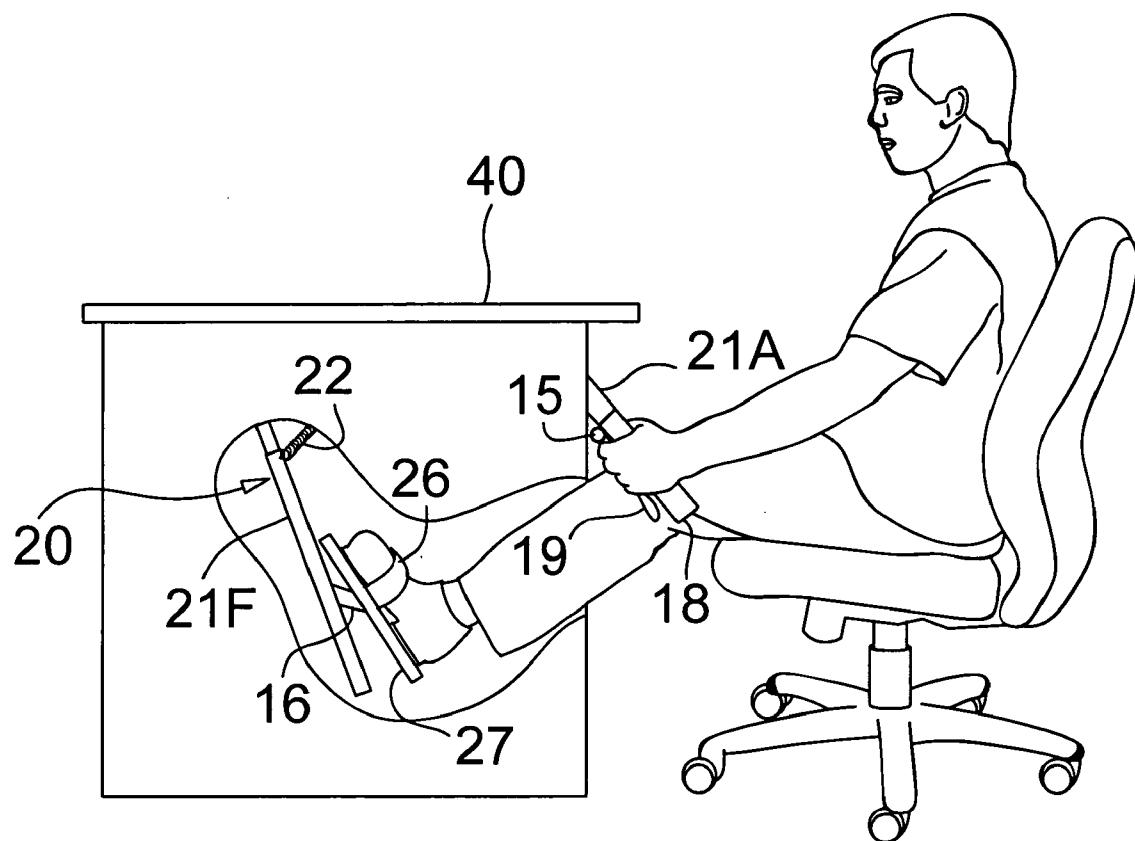
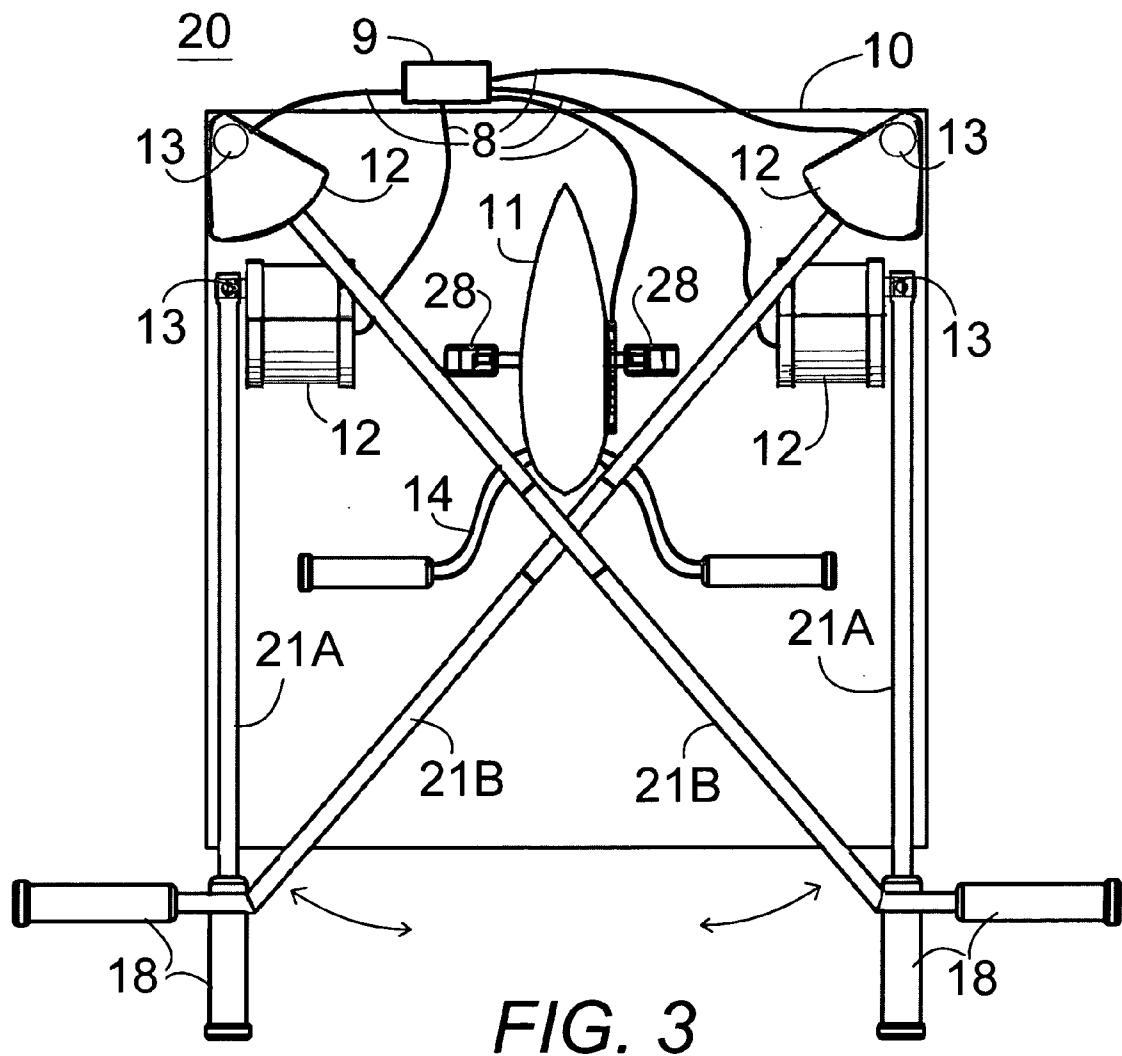
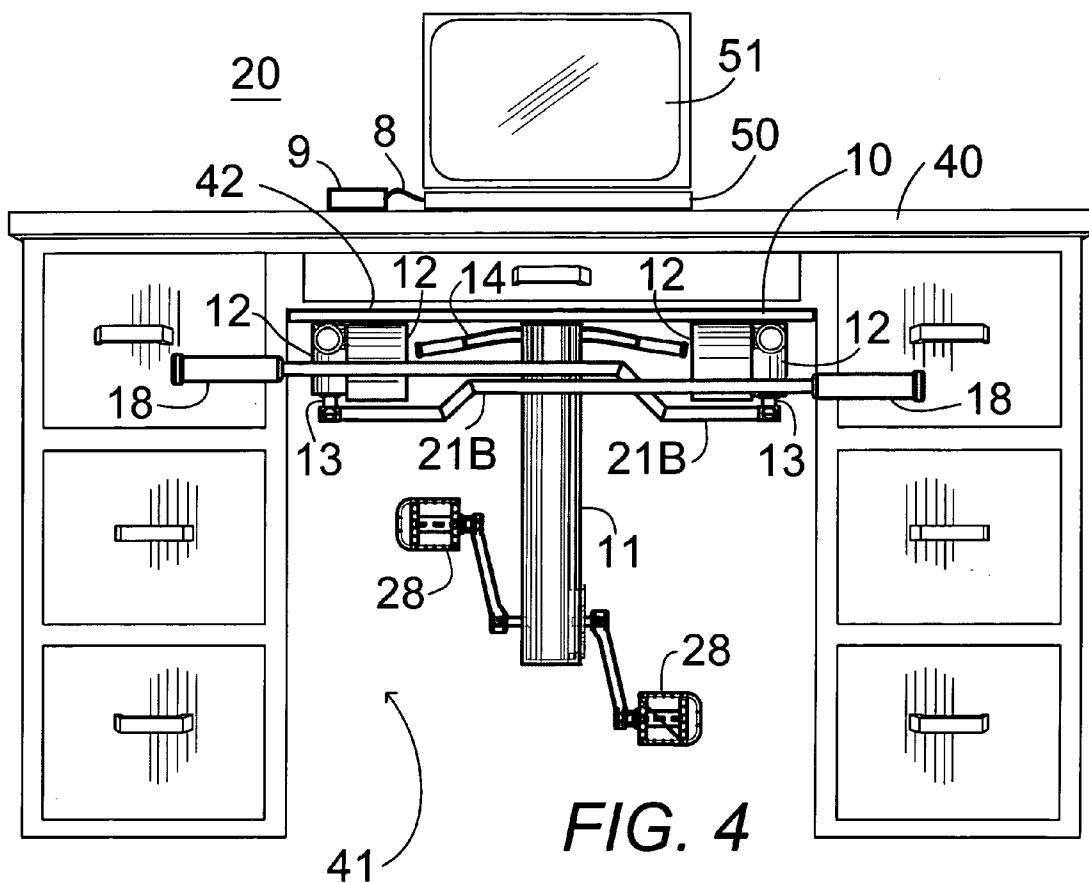
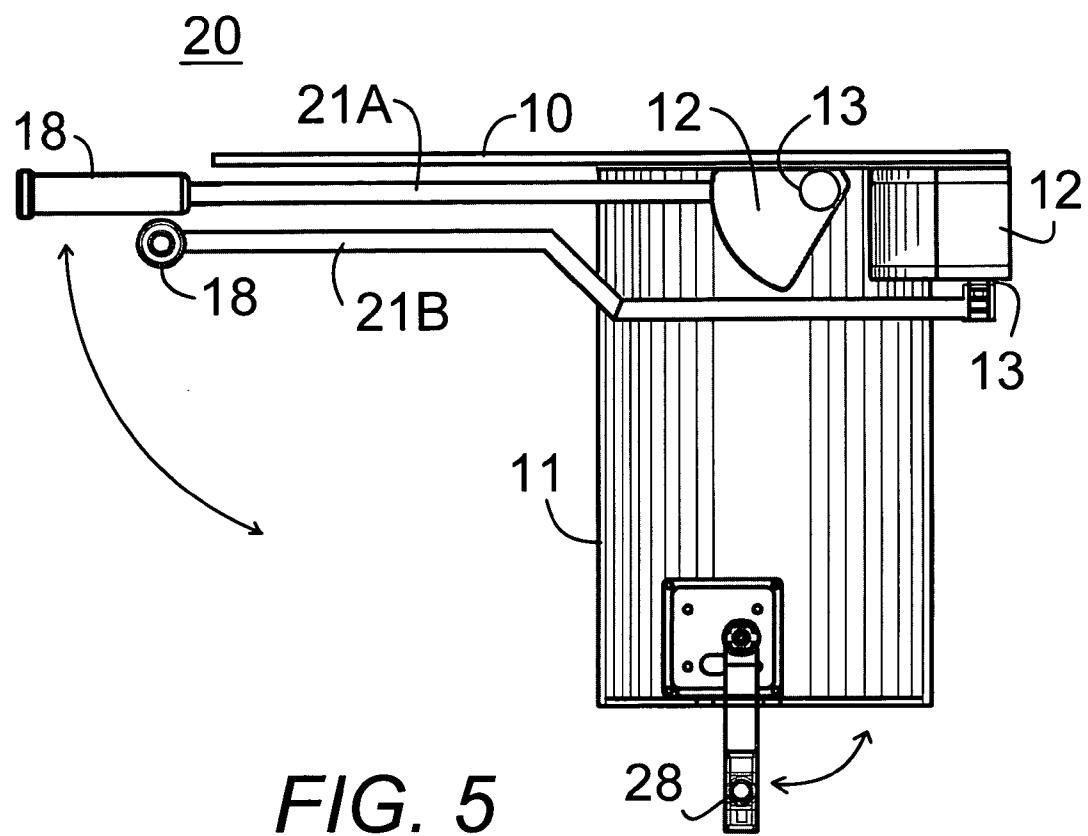


FIG. 2







EXERCISE DEVICE FOR UNDER A DESK**REFERENCES TO RELATED APPLICATIONS**

[0001] This is a continuation-in-part of patent application number 10/621,075, filed Jul. 15, 2003.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] The present invention generally relates to office exercise devices that can be used by a user while seated at a desk, and in particular, to a hand and foot lever-arm rowing type exercise device that is mounted in the foot space under a desk.

[0004] 2. Description of the Prior Art

[0005] Many people appreciate the need to exercise regularly. Unfortunately, busy business schedules often make it difficult to incorporate a regular exercise schedule into a working week. An exercise device that can be used while a person is working would provide the benefit of exercise that can be achieved during working hours.

[0006] U.S. Pat. No. 5,807,211, issued Sep. 15, 1998 to Berryhill, shows an exercise device that is particularly adapted for use by individuals while seated in a stationary chair. The inventive exercise device employs a folding frame, which has attached bicycle type pedals, a leg press bar, and resistance pulls. The bicycle type pedals are attached to one side of the folding frame, the leg press bar hangs from a horizontal bar on the opposite side of the folding frame, and the resistance pulls are also attached to the other side of the folding frame, opposite the bicycle type pedals. By positioning the front of the exercise device in front of an individual seated in a chair, pedaling exercises can be accomplished.

[0007] U.S. patent application No. 20020137606, published Sep. 26, 2002 by Willis, puts forth a portable leg or arm powered exercise device for a person that may include a seating pad permanently or detachably affixed to a support base upon which one or more resistance members are mounted for engagement by one or both feet or hands of the user. Preferably the resistance members include coil springs to provide the resistance and spring control guides to prevent overly sharp angular bending of the coil springs. The exercise device can be used while seated with the device placed under a desk or table having limited vertical dimensions.

[0008] U.S. patent application No. 20020142898, published Oct. 3, 2002 by Willis, concerns an office chair and office desk independently incorporating certain activity features. The chair and desk arrangements allow the user to perform beneficial exercise without leaving the chair or desk by utilizing movable exercise arms attached to adjustable variable resistance bearing assemblies attached to the chair seat or the desk to provide a full range of omni-directional exercises.

[0009] U.S. Pat. No. 5,807,212, issued Sep. 15, 1998 to Nelson, concerns a leg exerciser that includes a leg exercise device sized to fit beneath the desk of a user, and an anchoring device attached to the exercise device. The anchoring device is adapted to be affixed to the user's chair. This allows the user to sit at his or her desk in the chair and actuate the leg exerciser while doing so.

[0010] U.S. Pat. No. 6,261,212, issued Jul. 17, 2001 to Vallone, provides an adjustable resistance rehabilitation exercise device for use by individuals without supervision to follow prescribed or desired iterative cycles of therapeutic exercise regimens. The adjustable resistance rehabilitation exercise device preferably includes a pilot pulley assembly and a adjustable resistance control spooler assembly, mounted and secured to individual 'O' clamp and/or channeled 'U' clamp assemblies, interconnected by a flexible cord, with bayonet clips secured at both ends of the cord, and supplemented with hand grips, precision straight scale, multi-purpose harness assembly and anchoring device. The 'O' clamp and channeled 'U' clamp screw assemblies may be disassembled and employed in either of two 'O' clamp screw holes and also are interchangeable between the 'O' and Channeled 'U' clamps. The pilot pulley assembly is configured with a single grooved roller and performs the primary function of establishing and maintaining a tangential path for the flexible cord travel from the adjustable resistance control spooler assembly to the pilot pulley roller to minimize friction and resultant added exercise forces. The adjustable resistance rehabilitation exercise device accessories include hand grip(s) and a precision, spring style, straight scale for calibrating and verifying prescribed and preset exercise forces for individual therapeutic regimens. The channeled 'U' clamp is more ideally suited for attachment to flat board surfaces such as found in physical therapy plinths, tables, desks and exercise/work bench configurations.

[0011] U.S. Pat. No. 4,482,149, issued Nov. 13, 1984 to Weldon, discloses an arm exercise device that has an exercising arm adjustable to different lengths to accommodate forearms of different lengths and attached to a bearing-supported lateral rod which has an upright portion at the other end. Springs or other tension devices are attached at one end to the lateral rod and, at the other end, to a tension bar that is adjustable with respect to the base. In one variation, the tension arm can be re-positioned 180 degrees from its initial position, thereby permitting use of the device for exercising right or left arms. In a further refinement, safety stops are provided which limit the movement of the exercising arm, thereby preventing it from passing the upright position. The base of the exercise machine is held in place on a table or desk by table clamp braces.

[0012] U.S. Pat. No. 5,160,303, issued Nov. 3, 1992 to Smith, indicates a compact and easily adjusted exercising device useful for exercising the upper arms, shoulders, calves or the like. The device has a base that may be supported on a desk, table or floor. A pair of uprights support an upper bar over which one or more rubber bands are placed. This bar is removable when it is desired to change the rubber bands. A hollow lower bar is held between the uprights and the one or more rubber bands pass over this bar. A handle-supporting bar is then slid through vertical slots in the uprights and through the center of the lower supporting bar. This provides a light, easily adjusted exercising device that can be easily used by the busy executive or even by bedridden persons.

[0013] U.S. Pat. No. 5,044,633, issued Sep. 3, 1991 to Rice, provides chair that functions well as an ordinary office chair and which can be used to perform exercises. The chair includes all the attributes of a comfortable office chair, including a padded seat with a seat bottom and seat back,

and a pedestal with casters that rollably support the seat on a chair pad lying behind an office desk. The seat back has an upper part with extendable handles that can be grasped to raise and lower it while a mechanism resists vertical movement to provide exercise. The seat has armrests that each have a moveable portion with extendable handles and a resistance mechanism to provide exercise in raising and lowering the armrests. The chair also has an extendable mechanism mounted under the seat bottom and having a pair of foot handles that allow the seated person to move the handles forward and back for further exercise. All exercise mechanisms of the chair can be deployed, used, and stowed while the person remains seated, so the person is encouraged to conduct exercises during brief appropriate periods such as when the person is talking on a speakerphone.

[0014] U.S. Pat. No. 3,738,649, issued Jun. 12, 1973 to Miller, discloses an exercising arrangement that includes a chair with a space beneath the seat portion. The exercise devices are mounted on a platform beneath the seat and concealed by front and side panels. A track comprises the mount for the platform, permitting it to be extended in front of the seat portion where the exercise apparatus is accessible for manipulation by a person sitting in the chair.

[0015] U.S. Pat. No. 5,833,575, issued Nov. 10, 1998 to Holstag, illustrates a portable exercise apparatus that includes a support frame, which has a base mountable under a chair to hold the base in a stationary position with a user seated on the chair and an upright standard mounted upon the base. The apparatus also comprises a shaft mounted to an upper end of the upright standard and that has opposite ends extending from opposite sides thereof. The apparatus further comprises a pair of arms disposed on opposite sides of the upright standard with each arm at one end mounted to one end of the shaft for rotatably mounting the arm to the upright standard. The apparatus includes a pair of pedals each mounted to the other end of each of the arms for engagement by a user to create the force necessary to rotate the arms relative to the upright standard. The apparatus also includes a resistance generating and adjusting mechanism disposed on the ends of the shaft at the opposite sides of the upright standard and engaged with the one ends of the arms and being operable to generate and selectively adjust a level of resistance to rotation of the pair of arms relative to the upright standard in response to rotation of the arms. The resistance generating and adjusting mechanism includes at least one conical-shaped spring washer received over one of the shaft ends and being respectively compressible and expandable for correspondingly increasing and decreasing the level of resistance to rotation of the arms by the user. The support frame is attachable to a desk chair or the like.

[0016] U.S. Pat. No. 5,314,392, issued May 24, 1994 to Hawkins, illustrates a pedal exerciser for performing stepper exercises. The device includes a pair of pedal cranks, each crank driving one of a pair of crankshafts that are coupled together by bevel gears such that, when one pedal is forced to rotate downward, the other pedal rises thereby providing reciprocating stair climbing motion. Adjustable resistance to stepping is provided by a resistance pad against either the idler bevel gear or one or both crankshafts. The compact construction is amenable to positioning the exerciser under a desk or table for a seated user. A detachable frame with handles may be attached for an erect user.

[0017] U.S. Pat. No. 3,751,033, issued Aug. 7, 1973 to Rosenthal, indicates a combination of a chair and an advanceable and retractable pedaling device. The pedaling device is pivotally secured to the bottom of a chair by a telescoping member. The telescoping member with the pedaling device may be adjusted to a desired angle for comfortable pedaling. The length of the telescoping member may be adjusted to suit the length of the user's legs. An adjustable counter-force device is provided to vary the force desired applied by the user. The device may be locked in place out of the way, under the chair.

[0018] While there have been a number of portable exercise devices and exercise devices attachable to furniture, none provide a lever-arm rowing type exerciser attached under a desk. The present invention addresses the inadequacies of the prior art by providing a simplified exercise device for use while seated in a chair. The exercise device of the present invention is small, lightweight and easily secured to any desk or cubicle. In addition, due to its relatively small size and lightweight the exercise device of present invention is easily stored.

SUMMARY OF THE INVENTION

[0019] An object of the present invention is to provide a simplified lever-arm rowing type exercise device that is easily mounted under a desk for use while seated in a chair at the desk.

[0020] A preferred object of the present invention is to provide a pair of horizontal rowing arms, a pair of vertical push and pull arms, and a bicycle pedal exerciser with handle bars for multiple exercise means all attached and usable within an under-desk leg space while seated at the desk.

[0021] A related object of the present invention is to provide oil hydraulic pivot resisting wedges with oil and/or liquid Silicon of different viscosities and with built-in motion sensors to feed data to a personal computer for monitoring performance and coordinating video or other graphic images on the computer monitor related to the exercise being performed and related to the level of performance and effectiveness of the exercise on the user's health and fitness level.

[0022] Another object of the present invention is to provide a lever-arm rowing type exercise device that is small, lightweight and easily secured to any desk in the leg space under the desk.

[0023] One more object of the present invention is to provide an exercise device for use with a desk or cubicle that is easily stored when not in use by holding the lever arms flat against the upper portion of the leg space with friction clamps.

[0024] A succeeding object of the present invention is to provide a hand grip that has a turning means for wrist twisting exercises and a squeeze handle for performing hand gripping exercises.

[0025] Once again another object of the present invention is to provide a foot attaching portion for moving the second lever arm for leg exercises, which further comprises a pair of foot pedals for bicycling exercises.

[0026] In brief, a preferred embodiment of the present invention has three pieces of exercise equipment including a pair of horizontal rowing arms, a pair of vertical push and pull arms, and a bicycle pedal exerciser with handle bars for multiple exercise means all attached and usable within an under-desk leg space while seated at the desk.

[0027] Oil hydraulic pivot resisting wedges with oil and/or liquid Silicon of different viscosities and with built-in motion sensors feed data to a personal computer for monitoring performance and coordinating video or other graphic images on the computer monitor related to the exercise being performed and related to the level of performance and effectiveness of the exercise on the user's health and fitness level.

[0028] The under-desk exercise device of the present invention further comprises oil hydraulic wedge-shaped pivots with oil and/or liquid Silicon of different viscosities attached between the arms and the underside of the desk to create an adjustable resistance to the motion of each of the exercise devices.

[0029] The three exercise components of the present invention may each be attached to the underside of the desk by double stick tape, suction cups, threaded fasteners or each attached to a plate which is secured to the underside of the desk by brackets or threaded fasteners or adhesive means.

[0030] An alternate embodiment provides a lever-arm rowing type exercise device that is mountable in a leg space under a desk, which comprises pivotally attached lever arms for exercising both arms and legs. The lever arms may be one piece, telescopic, or two pieces that are joined by a length adjustable threaded connection, and are removably mountable to the desk surface by suction cups or other attachment means that have pivot rods for pivotally mounting the lever arms thereon. The lever arms are telescopically adjustable in length and have a spring or tensioned rubberized cords or an air cylinder or other pneumatic system connected between the lever arm and the desk or a magnetic attraction or repulsion system, which provide resistance while exercising. When not in use the lever arms are easily stored and held flat against the desk by friction clamps.

[0031] The first set of lever arms, which are to be used for arm and upper body workout, include a hand grip that enables movement of the lever arm by a user. The hand grip also has a means for turning, as indicated by the arched two-headed arrow, relative to the lever arm for wrist twisting exercises. The hand grip further comprises a squeeze handle that is pivotally mounted to the hand grip with a tension means, such as a spring hinge, therebetween for performing hand gripping exercises.

[0032] The second lever arm, which is used for leg and lower body workout, includes a foot attaching portion with foot receiving loops for receiving at least one foot of a user for the purpose of moving the second lever arm for leg exercises. The foot attaching portion further comprises a pair of foot pedals, which are attached to the side of the foot attaching portion by a rotatable means having a tension means, such as a torsion knob, for alternately exercising the legs of the user in a bicycle pedaling motion.

[0033] An advantage of the present invention is that it may be used while seated at a desk.

[0034] Another advantage of the present invention is that it provides a variety of exercises for both arms and legs.

[0035] An additional advantage of the present invention is that it may be held in place, out of the way when not in use.

[0036] One more advantage of the present invention is that it is easily secured to any desk.

[0037] Yet another advantage of the present invention is that it is small and lightweight.

[0038] Still another advantage of the present invention is that it provides a way to fit exercise into a busy schedule or a sedentary lifestyle.

BRIEF DESCRIPTION OF THE DRAWINGS

[0039] These and other details of my invention will be described in connection with the accompanying drawings, which are furnished only by way of illustration and not in limitation of the invention, and in which drawings:

[0040] FIG. 1 is a front perspective view of the hand and foot lever-arm rowing type exercise device of the present invention mounted in the leg space under a desk;

[0041] FIG. 2 is a side elevational partial broken view showing a seated exerciser using the device of FIG. 1.

BEST MODE FOR CARRYING OUT THE INVENTION

[0042] In FIGS. 1 and 2, a lever-arm rowing type exercise device 20 that is mountable in a leg space 41 under a desk 40, which comprises preferably two adjustable lever arms 21A, attached to a desk surface 42 within the leg space 41 of the desk 40 by a pivotable means, such as a pivot rod hinge 23, at the first end of each of the lever arms 21A with one lever arm 21A on each side. The lever arms may be one piece, telescopic, or two pieces that are joined by a length adjustable threaded connection.

[0043] The device 20 also comprises a tension means, such as a spring means 22 or rubberized cord or an air pressure means 22A, such as an air cylinder or other pneumatic device or a magnetic means, which is attached between the lever arm 21A and the desk surface 42 to create a resistance to moving the lever arm 21A for the purpose of exercising by moving the lever arm 21A.

[0044] The device 20 further comprises a hand grip 18 that is attached to the second end of the lever arm 21A. The hand grip 18 enables movement of the lever arm 21A by a user. The hand grip 18 has a means for turning, as indicated by the arched two-headed arrow shown in FIG. 1, relative to the lever arm 21A for wrist twisting exercises. The hand grip 18 also comprises a squeeze handle 19, which is pivotally mounted to the hand grip 18 with a tension means, such as a spring hinge 15, therebetween for performing hand gripping exercises, as shown in FIG. 2.

[0045] The device 20 also comprises a second lever arm 21F, preferably an adjustable single arm 21F centrally attached to the desk surface 42 within the foot space 41 of the desk 40 by a pivotable means 23 at the first end of the second lever arm 21F. A tension means that comprises a spring means 22 or rubberized cord or an air pressure means 22A, such as an air cylinder or other pneumatic means or magnetic means is attached between the second lever arm

21F and the desk surface **42** to create a resistance to moving the second lever arm **21F** for the purpose of exercising by moving the second lever arm **21F**. A foot attaching portion **27**, which comprises a flat surface **27** mounted on the second lever arm **21F**, attached to the second end of the second lever arm **21F** by a hinged bracket **16**. The foot attaching portion **27** receives the feet of a user for the purpose of moving the second lever arm **21F** for leg exercises, as shown in **FIG. 2**. The foot attaching portion **27**, which receives feet of the user has a pair of foot receiving loops **26** attached to the flat surface **27**. The foot attaching portion **27** further comprises a pair of foot pedals **28** that attach to the side of the foot attaching portion **27** by a rotatable means that has a tension means, such as a torsion knob **29**, for exercising the legs of the user in a bicycle pedaling movement.

[0046] The lever arms **21A** and **21F** are adjustable in length by a telescoping means and are connected together at the attachment means **23** and **24** by two telescoping adjustable rods **17**. The lever arms **21A** and **21F** are removably mountable to the desk surface **42** by suction cups **24** or other mounting means that have a pivot rod connecting means **23** for pivotally mounting the lever arms **21A** and **21F** thereon, as shown in **FIG. 1**.

[0047] In practice, the lever-arm rowing type exercise device **20** would be mounted to the upper surface **42** of a leg space **41** under a desk **40** by adhering the suction cups **24** for the lever arms **21A** and **21F** and the tension means **22** or **22A** to the desk surface **42**. Prior to use the user would need to adjust the telescoping portions of the lever arms **21A** and **21F** to the desired length.

[0048] To exercise the wrists the user would twist the hand grip **18**, as indicated by the arched two-headed arrow, as shown in **FIG. 1**, relative to the lever arm **21A**.

[0049] To perform hand gripping exercises, the user would alternately grip and release the squeeze handle **19**, which is pivotally mounted to the hand grip **18** with a tension means, such as a spring hinge **15** therebetween, as shown in **FIG. 2**.

[0050] To perform arm exercises the user would grasp the hand grips **18** and push or pull the lever arm **21A** against the resistant force of the spring **22** or rubberized cord or the air pressure means **22A**, such as an air cylinder or other pneumatic means, thereby strengthening the arms, as shown in **FIG. 2**.

[0051] To perform leg exercises the user would insert their feet into the foot receiving loops **26** attached to the flat surface **27** and push or pull the second lever arm **21F** against the resistant force of the tension means **22** or **22A**, thereby strengthening the legs, as shown in **FIG. 2**. The user could also exercise their legs by placing their feet on the pedals **28**, which are attached to the sides of the flat surface **27**, and moving the pedals **28** in a bicycling motion.

[0052] When not in use the lever arms **21A** and **21F** may be easily stored with the lever arms **21A** and **21F** held flat against the desk surface **42** by friction clamps **25**.

[0053] In **FIGS. 3-5**, a preferred embodiment of the exercise device **20** of the present invention comprises a pair of horizontal rowing lever arms **21B**, a pair of vertical lever-arms **21A**, and a vertical post **11** with rotatable bicycle-type pedals **28** all mountable in a leg space **41** under a desk **40** or cubicle work surface. The lever arms may be

one piece, telescopic, or two pieces that are joined by a length adjustable threaded connection.

[0054] The pair of rowing lever arms **21B** is adapted to attach to an under-desk surface **42** within an under-desk leg space **41** of a desk **40**. Each of the pair of rowing lever arms **21B** comprises a first end attachable to a desk surface by a horizontal pivotable means, preferably an oil filled hydraulic chamber, such as an oil hydraulic resistance adjustable wedge-shaped pivot **12**, with oil and or liquid Silicon of different viscosities, mounted horizontally at a back of the under-desk surface **41** acting as a pivot resistance means, and a second end having a horizontal handle **18** aligned in a proximal parallel alignment with a front of a desk **40**, the handles **18** adapted to be grasped like oars of a boat and pulled toward a user pivoting the rowing lever arms horizontally in a movement simulating rowing a boat with oars in oarlocks.

[0055] Each of the pair of rowing lever arms **21B** is attachable to the under-desk surface **42** adjacent to one wall of an under-desk leg space at a back of the leg space **41** and each of the handles **18** protrude horizontally out of a front of a desk adjacent to an opposite wall of an under-desk leg space and each of the pair of rowing lever arms is adapted to pivot away from a desk toward a user seated in front of a desk.

[0056] The second pair of lever arms **21A** is adapted to attach to an under-desk surface **42** within a leg space **41** of a desk, each of the second pair of lever arms comprising a first end attachable to a desk surface by a vertical pivotable means, preferably an oil hydraulic resistance adjustable wedge-shaped pivot **12**, with oil and/or liquid Silicon of different viscosities, mounted vertically at a back of the under-desk surface **41**, and a second end having a handle **18** aligned in a proximal perpendicular alignment with a front of a desk **40** sticking out of the desk toward user seated at the desk. The second pair of handles **18** are adapted to be grasped and pushed forward and down and pulled upward and back, while the oil hydraulic wedge-shaped pivot **12** creates a pivot resistance means to create a resistance to pivoting the second pair of lever arms for the purpose of exercising by pulling and pushing to pivot the second pair of lever arms vertically under the desk **40** in the under-desk leg space **41**.

[0057] The vertical support **11** is attachable to the under-desk surface **42** of the leg space **41** by a hinge or pivot means for moving the vertical support forward at any desired angle for usage and backward for storage. A handle bar **14** attached to the vertical support **11** is adapted for grasping by a user to tilt the vertical support **11** toward a user to a comfortable angle for pedaling and away from the user for storage, and further adapted for grasping by a user during pedaling for a seated exercise it the desk similar to riding a bicycle. The pair of foot pedals **28** are attached to the vertical support **11** by a rotatable means having a tension means for exercising a user's legs in a bicycle pedaling movement.

[0058] The exercise device of the present invention further comprises a motion sensing means built into each of the oil wedge pivots **12** and bicycle pedal resistance and at least one cable **8** from the sensing means to a USB port or other link means **9** to a personal computer **50** to transmit motion data to the computer, and a software program in the computer to process the motion data and translate it into health related

information, such as the number of calories burned during each exercise session, which information may be viewed on the computer monitor 51 using graphics and words and sound if desired and simulated images related to an exercise.

[0059] The lever arms 21A and 21B and oil wedge pivots 12 and the vertical support 11 of the present invention are each attachable to an underside of a desk by an attachment means taken from a list of attachment means including double stick tape, suction cups, threaded fasteners, directly or indirectly by an attaching plate 10 secured to an underside of a desk by brackets or threaded fasteners or adhesive attachment means.

[0060] It is understood that the preceding description is given merely by way of illustration and not in limitation of the invention and that various modifications may be made thereto without departing from the spirit of the invention as claimed.

What is claimed is:

1. A lever-arm rowing type exercise device mountable in a leg space under a desk or cubicle work surface, the device comprising:

a pair of rowing lever arms adapted to attach to a desk surface within an under-desk leg space of a desk, each of the pair of rowing lever arms comprising a first end attachable to a desk surface by a horizontal pivotable means and a second end having a handle aligned in a proximal parallel alignment with a front of a desk, the handles adapted to be grasped like oars of a boat and pulled toward a user pivoting the rowing lever arms horizontally in a movement simulating rowing a boat with oars in oarlocks;

a pivot resistance means attachable between each of the pair of rowing lever arms and the desk surface to create a resistance to pivoting the pair of rowing lever arms for the purpose of exercising by pulling to pivot the pair of rowing lever arms horizontally.

2. The exercise device of claim 1 wherein each of the pair of rowing lever arms is attachable to a desk surface adjacent to one wall of an under-desk leg space and each of the handles protrude horizontally out of a front of a desk adjacent to an opposite wall of an under-desk leg space and each of the pair of rowing lever arms is adapted to pivot away from a desk toward a user seated in front of a desk.

3. The exercise device of claim 1 wherein the pivot resistance means comprises a hydraulic chamber.

4. The exercise device of claim 3 wherein the hydraulic chamber comprises an oil filled chamber with oil of a desired viscosity.

5. The exercise device of claim 3 wherein the hydraulic chamber comprises a liquid Silicon filled chamber with liquid Silicon of a desired viscosity.

6. The exercise device of claim 1 further comprising a second pair of lever arms adapted to attach to a desk surface within a leg space of a desk, each of the second pair of lever arms comprising a first end attachable to a desk surface by a vertical pivotable means and a second end having a handle aligned in a proximal perpendicular alignment with a front of a desk, the handles adapted to be grasped and pushed forward and down and pulled upward and back, and a pivot resistance means attachable between each of the second pair of lever arms and the desk surface to create a resistance to

pivoting the second pair of lever arms for the purpose of exercising by pulling and pushing to pivot the second pair of lever arms vertically.

7. The exercise device of claim 6 wherein the pivot resistance means comprises a hydraulic chamber.

8. The exercise device of claim 7 wherein the hydraulic chamber comprises an oil filled chamber with oil of a desired viscosity.

9. The exercise device of claim 7 wherein the hydraulic chamber comprises a liquid Silicon filled chamber with liquid Silicon of a desired viscosity.

10. The exercise device of claim 7 wherein the lever arms are structured by a lever arm structure taken from the list of structures including one piece lever arms, telescopic lever arms, or two piece lever arms that are joined by a length adjustable threaded connection.

11. The exercise device of claim 1 further comprising a vertical support attachable to a desk surface and a pair of foot pedals attachable to the vertical support by a rotatable means having a tension means for exercising a user's legs in a bicycle pedaling movement.

12. The exercise device of claim 11 wherein the vertical support is attachable to a desk by a means for moving the vertical support forward at any desired angle for usage and backward for storage.

13. The exercise device of claim 12 further comprising a handle bar attached to the vertical support, the handle bar adapted for grasping by a user to tilt the vertical support toward a user to a comfortable angle for pedaling and away from the user for storage and adapted for grasping by a user during pedaling.

14. The exercise device of claim 1 further comprises a motion sensing means for each of the exercise components and at least one cable from the sensing means to a USB port of a personal computer to transmit motion data to a computer, and a software program in a computer to process the motion data and translate it into health related information, such as the number of calories burned during each exercise session, which information may be viewed on a computer monitor using graphics and words and sound if desired and simulated images related to an exercise.

15. A lever-arm rowing type exercise device mountable in a leg space under a desk or cubicle work surface, the device comprising:

a pair of rowing lever arms adapted to attach to a desk surface within an under-desk leg space of a desk, each of the pair of rowing lever arms comprising a first end attachable to a desk surface by a horizontal pivotable means and a second end having a handle aligned in a proximal parallel alignment with a front of a desk, the handles adapted to be grasped like oars of a boat and pulled toward a user pivoting the rowing lever arms horizontally in a movement simulating rowing a boat with oars in oarlocks;

a horizontally aligned pivot resistance means attachable between each of the pair of rowing lever arms and the desk surface to create a resistance to pivoting the pair of rowing lever arms for the purpose of exercising by pulling to pivot the pair of rowing lever arms horizontally,

a second pair of lever arms adapted to attach to a desk surface within a foot space of a desk, each of the second pair of lever arms comprising a first end attachable to

a desk surface by a vertical pivotable means and a second end having a handle aligned in a proximal perpendicular alignment with a front of a desk, the handles adapted to be grasped and pushed forward and down and pulled upward and back;

a vertically aligned pivot resistance means attachable between each of the second pair of lever arms and the desk surface to create a resistance to pivoting the second pair of lever arms for the purpose of exercising by pulling and pushing to pivot the second pair of lever arms vertically.

16. The exercise device of claim 15 further comprising an oil hydraulic resistance adjustable wedge-shaped pivot attached between each of the arms and an underside of a desk to create an adjustable resistance to the motion of each of the lever arms.

17. The exercise device of claim 15 further comprising a vertical support attachable to a desk by a means for moving the vertical support forward at any desired angle for usage and backward for storage and a pair of foot pedals pivotally attached to the vertical support by a rotatable means having a tension means for exercising a user's legs in a bicycle pedaling movement, and further comprising a handle bar attached to the vertical support, the handle bar adapted for grasping by a user to tilt the vertical support toward a user to a comfortable angle for pedaling and away from the user for storage and adapted for grasping by a user during pedaling.

18. The exercise device of claim 1 wherein the lever arms and the vertical support of the present invention are each attachable to an underside of a desk by an attachment means taken from a list of attachment means including double stick tape, suction cups, threaded fasteners, and an attaching plate secured to an underside of a desk by brackets or threaded fasteners or adhesive attachment means.

19. A lever-arm rowing type exercise device mountable in a leg space under a desk or cubicle work surface, the device comprising:

at least one lever arm attachable to a desk surface within a foot space of a desk by a pivotable means at a first end of the at least one lever arm;

a tension means attachable between the at least one lever arm and the desk surface to create a resistance to moving the at least one lever arm for the purpose of exercising by moving the at least one lever arm;

a hand grip attached to the at least one lever arm at a second end of the lever arm, the hand grip enabling movement of the at least one lever arm by a user, the hand grip further comprising a means for turning relative to the at least one lever arm for wrist twisting

exercise and a squeeze handle pivotally mounted to the hand grip with a tension means therebetween for performing hand gripping exercises; at least one second lever arm attachable to the desk surface within the foot space of the desk by a pivotable means at a first end of the at least one second lever arm;

a tension means attachable between the at least one second lever arm and the desk surface to create a resistance to moving the at least one second lever arm for the purpose of exercising by moving the at least one second lever arm;

a foot attaching portion attached to the at least one second lever arm at a second end of the at least one second lever arm, the foot attaching portion capable of receiving at least one foot of a user for the purpose of moving the at least one second lever arm for leg exercises;

at least one second lever arm attachable to the desk surface within the foot space of the desk by a pivotable means at a first end of the at least one second lever arm;

a tension means attachable between the at least one second lever arm and the desk surface to create a resistance to moving the at least one second lever arm for the purpose of exercising by moving the at least one second lever arm;

a foot attaching portion attached to the at least one second lever arm at a second end of the at least one second lever arm, the foot attaching portion capable of receiving at least one foot of a user for the purpose of moving the at least one second lever arm for leg exercises.

20. The exercise device of claim 19 wherein the foot attaching portion comprises a flat surface mounted on the at least one second lever arm, the foot attaching portion capable of receiving at least one foot of the user and at least one foot receiving loop attached to the flat surface.

21. The exercise device of claim 20 wherein the foot attaching portion further comprises a pair of foot pedals attachable to the foot attaching portion by a rotatable means having a tension means for exercising the legs of the user in a bicycle pedaling movement.

22. The exercise device of claim 19 wherein the tension means between the desk surface and the at least one lever arm and between the desk surface and the at least one second lever arm comprises a tension means taken from a variety of tension means including a spring means, a rubberized cord means, an air pressure means, an air cylinder, a hydraulic cylinder, and an oil cylinder.

23. The exercise device of claim 19 wherein the lever arms are adjustable in length by a telescoping means.

* * * * *