US 20050179291A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0179291 A1**

Brodeur (43) **Pub. Date: Aug. 18, 2005**

(54) **ADJUSTABLE CROSS-LEGGED SUPPORT SEAT**

(76) Inventor: **Carl Christopher Brodeur**, Banff (CA)

Correspondence Address:
BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030 (US)

(21) Appl. No.: **11/056,460**

(22) Filed: **Feb. 11, 2005**

Related U.S. Application Data

(60) Provisional application No. 60/543,678, filed on Feb. 12, 2004.

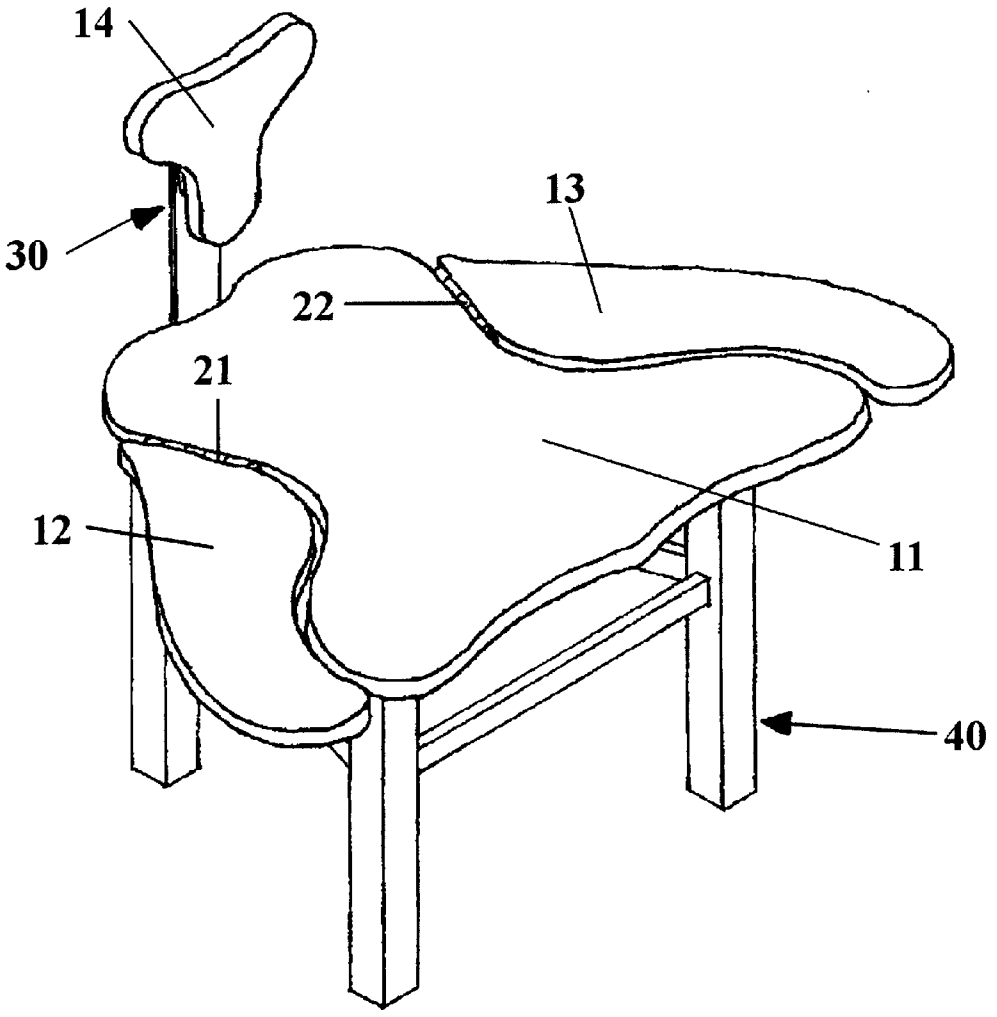
Publication Classification

(51) **Int. Cl.**[7] **A47C 7/50**

(52) **U.S. Cl.** **297/284.9**

(57) **ABSTRACT**

A seating apparatus for allowing a user to sit in either a cross-legged yoga position or in a conventional manner. The apparatus may also include a seat for supporting a user and two adjustable leg supports for supporting the user's left and right thighs at a desired angle when the user sits in a cross-legged position. The seat may also have an attached back support. In another embodiment the apparatus includes a seat having a surface area wide enough to allow a user to sit on the seat in a cross-legged position and having a tapered front to allow a user's legs to hang comfortably over the front of seat while the user sits in a conventional manner; and a base operatively connected to the seat for supporting the seat, the base for allowing use of the seating apparatus in a conventional chair-height environment.



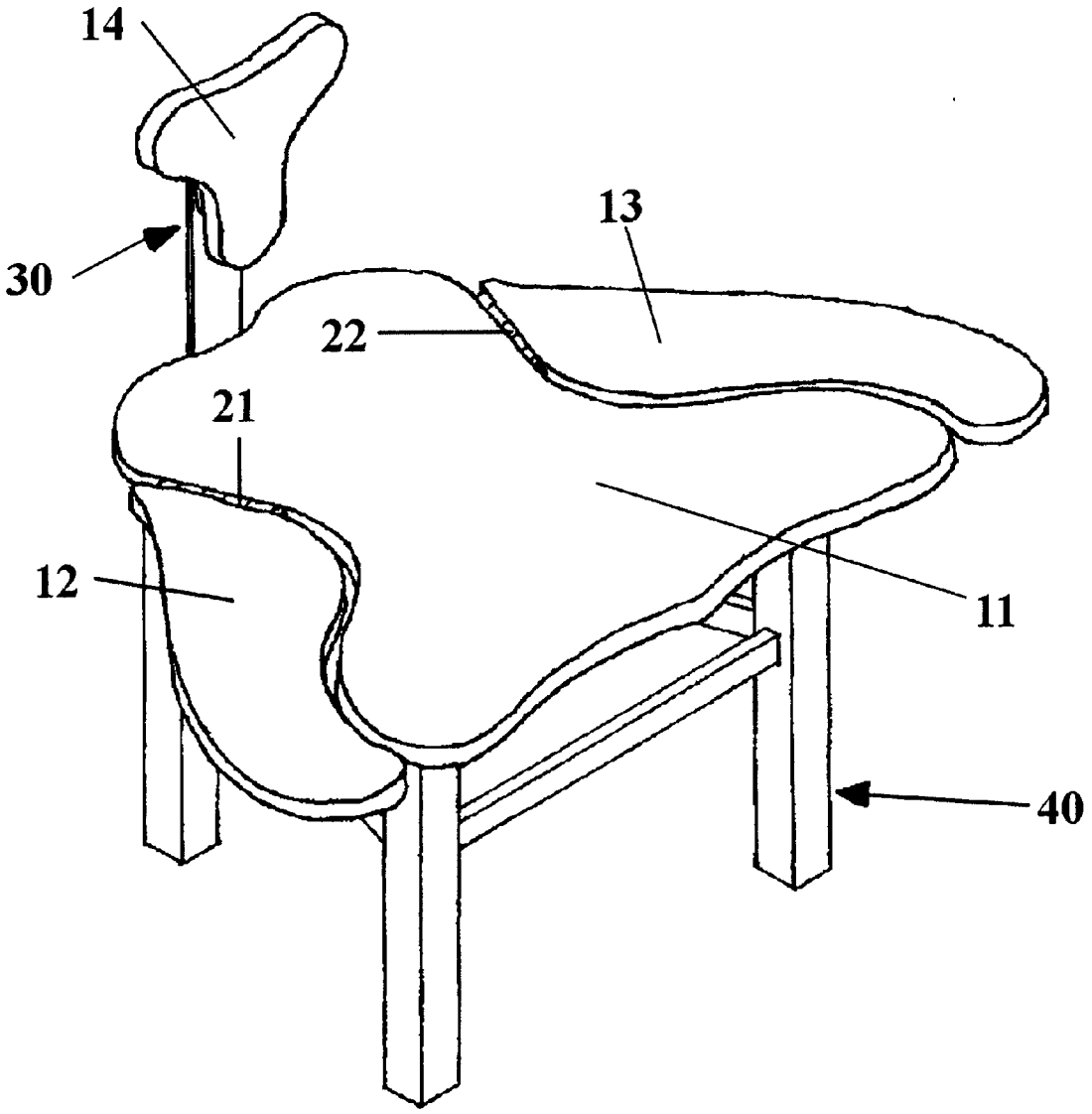


FIG. 1

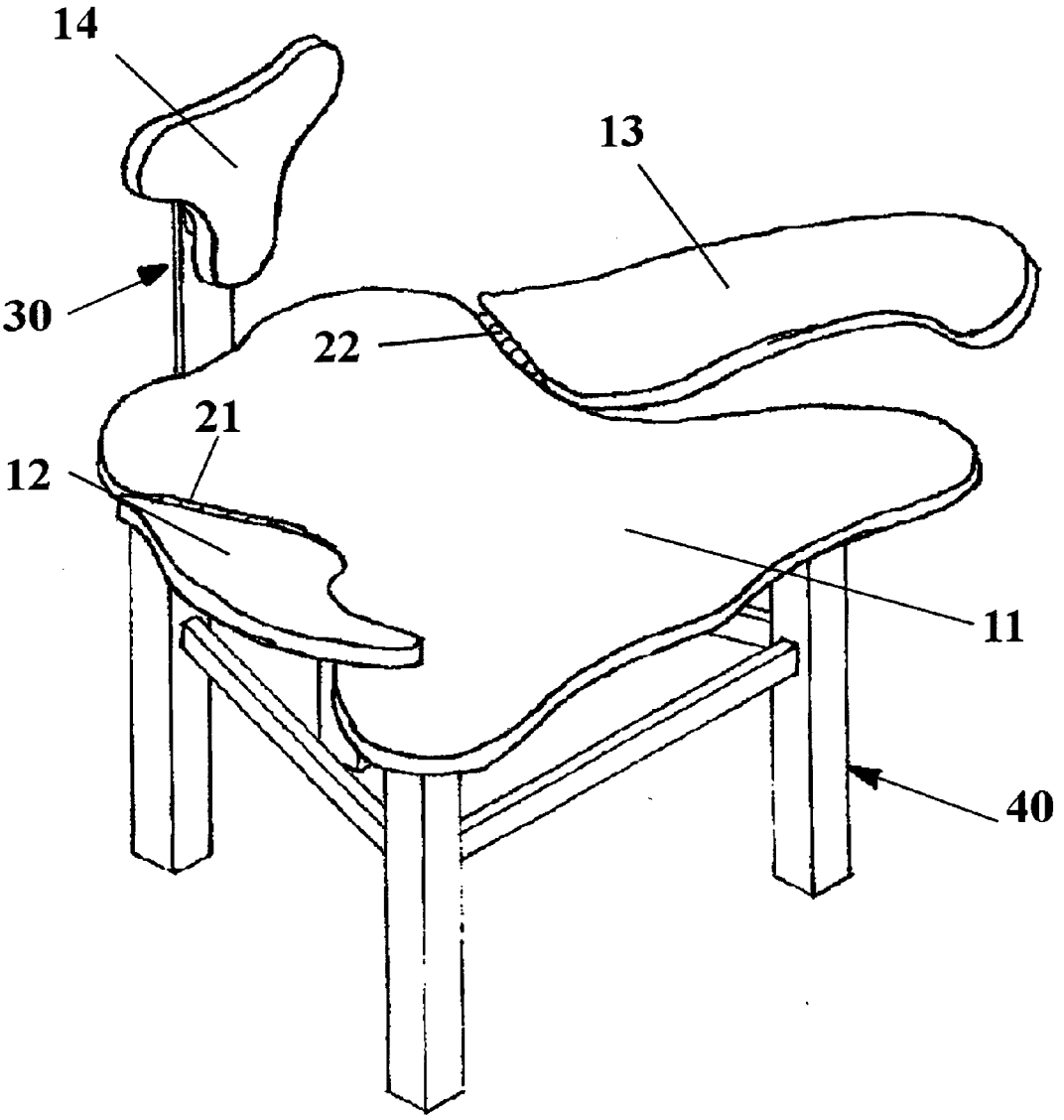


FIG. 2

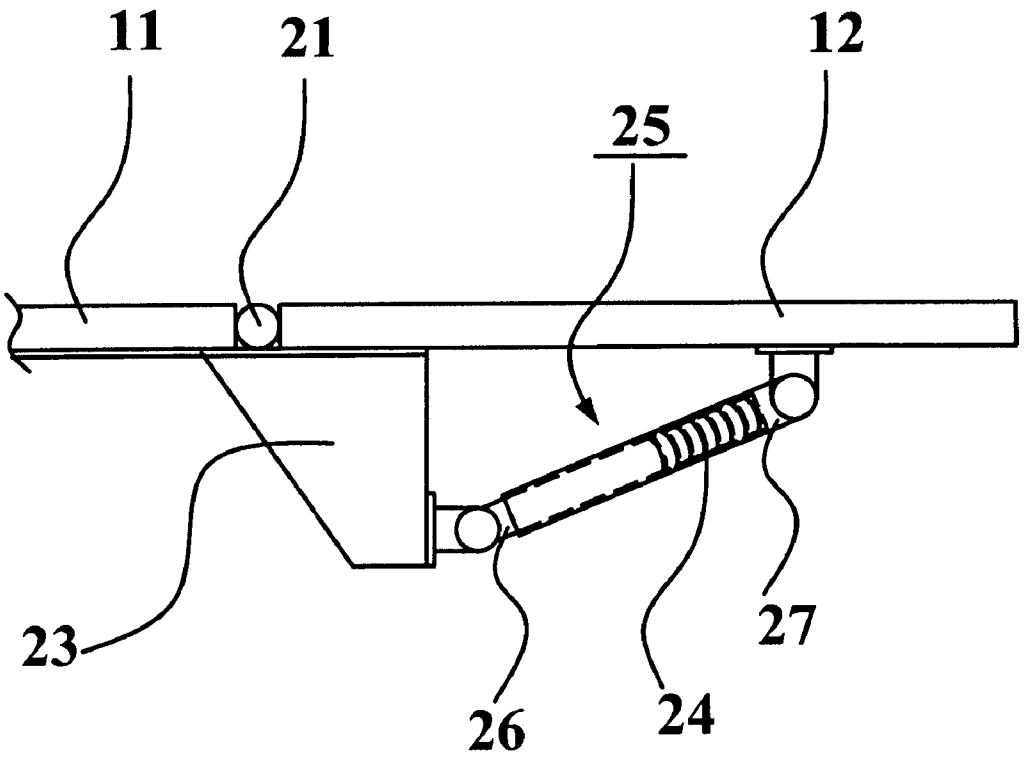


FIG. 3

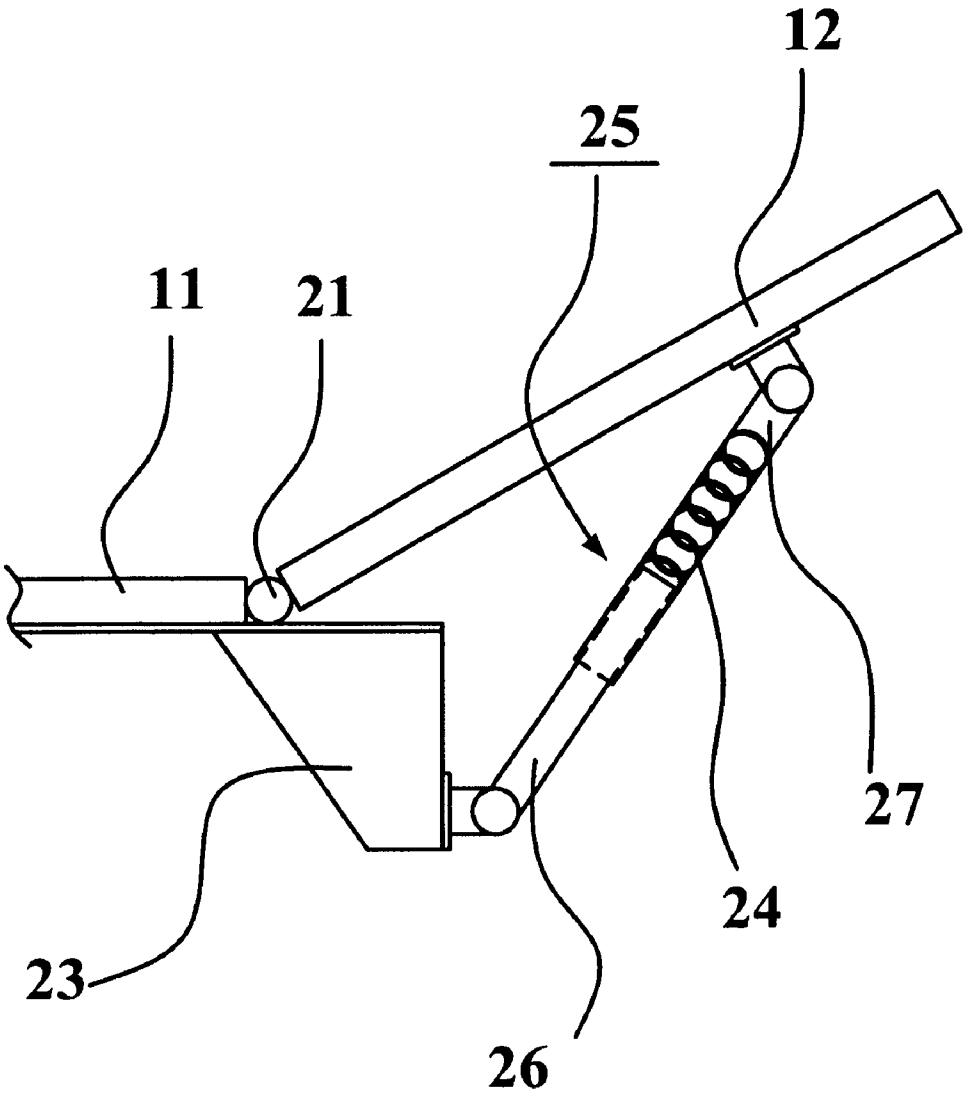


FIG. 4

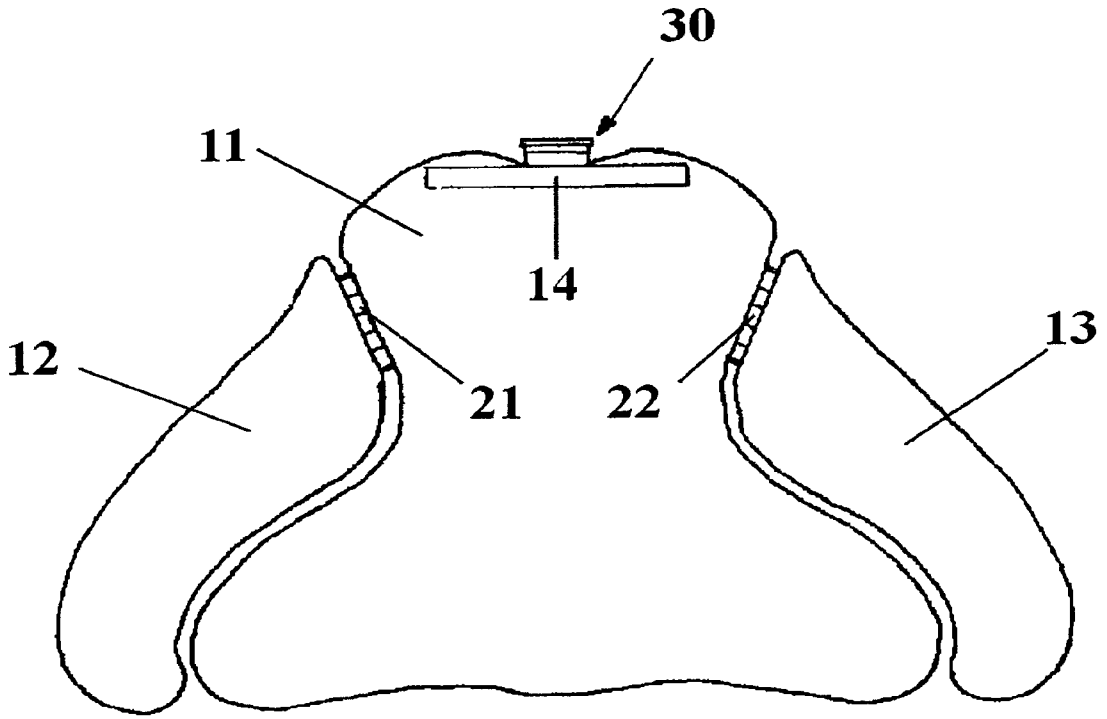


FIG. 5

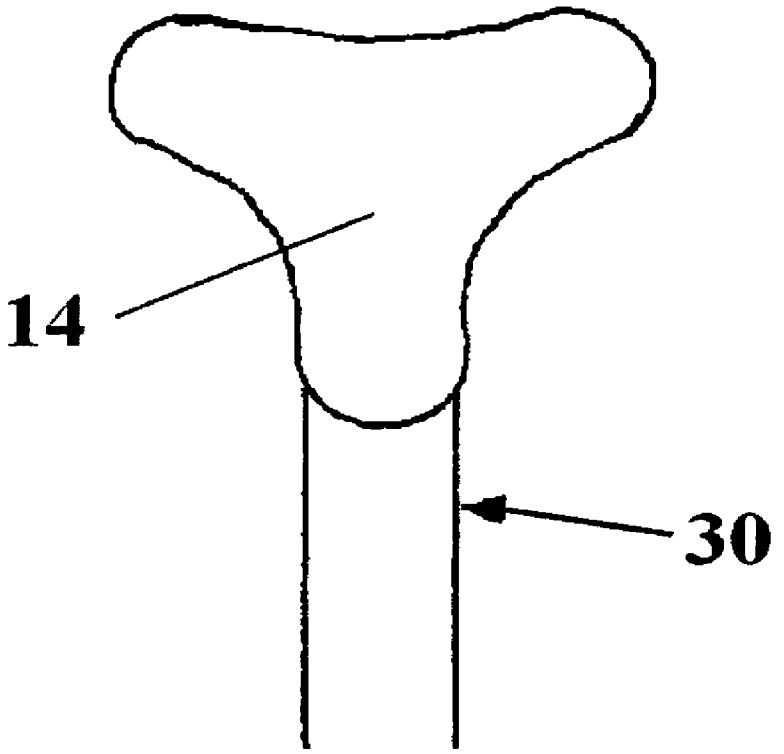


FIG. 6

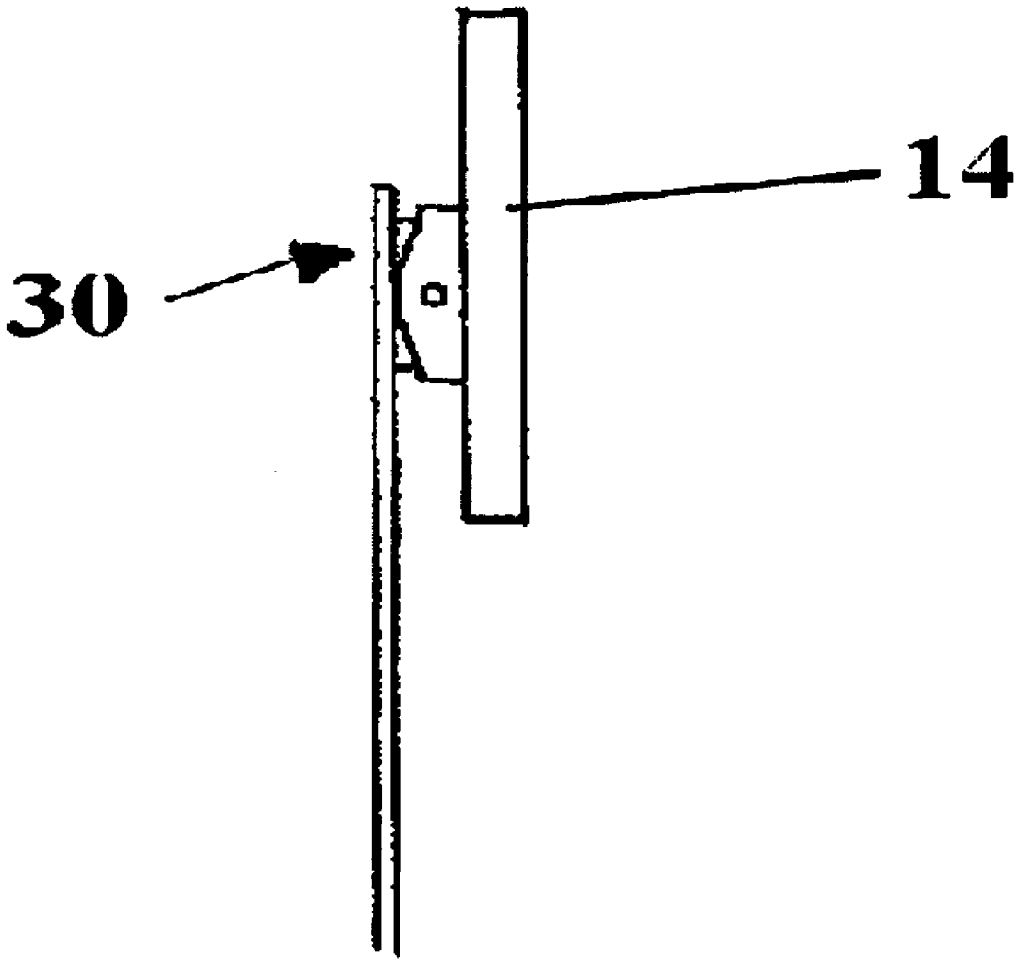


FIG. 7

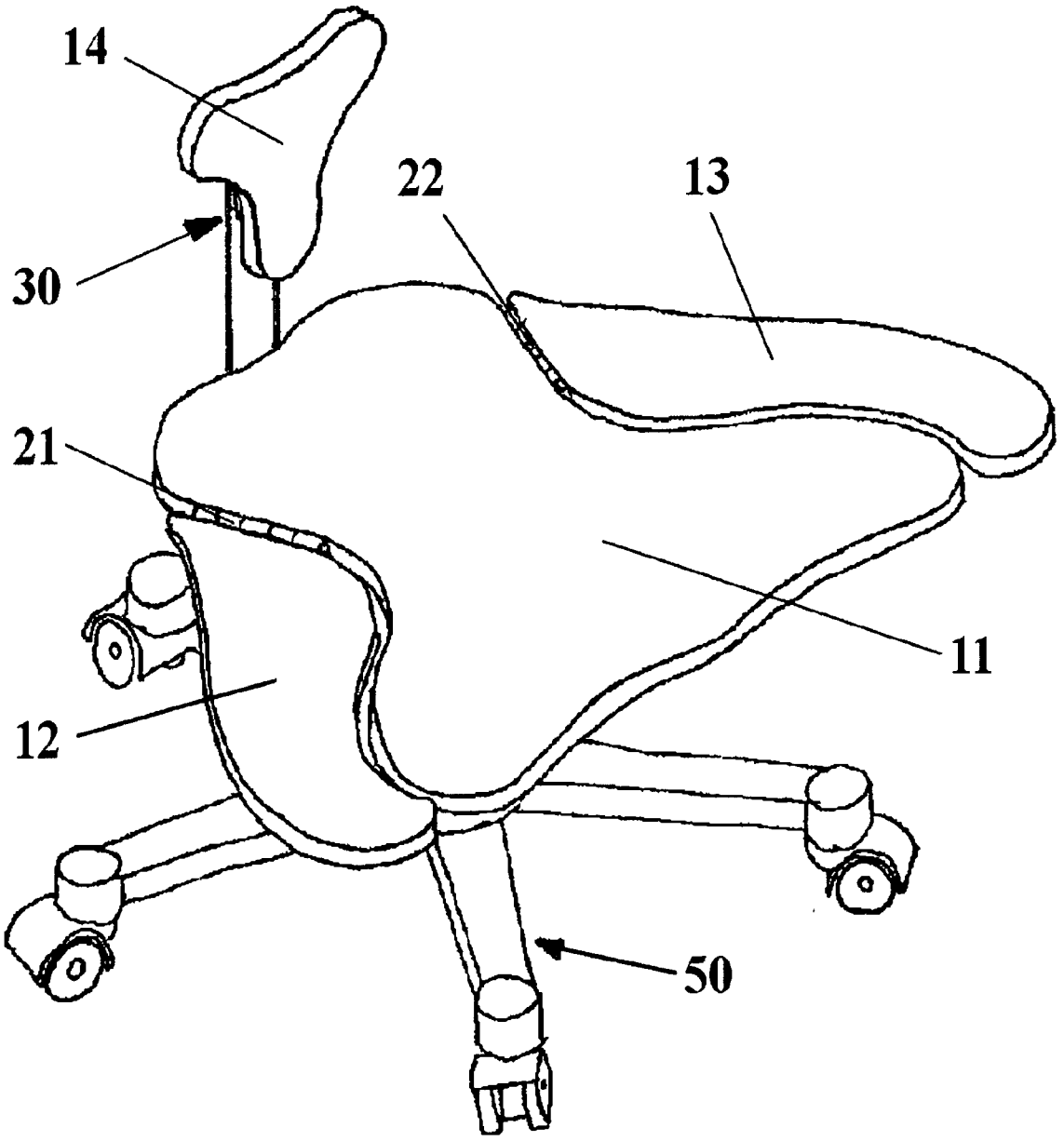


FIG. 8

ADJUSTABLE CROSS-LEGGED SUPPORT SEAT

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Provisional Application No. 60/543,678, filed Feb. 12, 2004, which is incorporated herein by reference.

FIELD OF THE INVENTION

[0002] The present invention relates to a chair for supporting a user in a cross-legged yoga position. More particularly, the present invention includes a chair having leg supports which can be adjusted according to a user's comfort level while sitting in a cross-legged yoga position.

BACKGROUND OF THE INVENTION

[0003] Chairs are used by many people every day without much second thought. However, the effects of chair use are profound, both mentally and physically. Many physical and mental aliments, including depression, lower back pain and arthritis can be attributed to the regular use of chairs.

[0004] Meditation and yoga are becoming more and more common in North America and these practices have been proven to benefit those practicing them as well as those around them; such practices include sitting cross-legged which is more common globally than sitting in chairs for the simple economic reason that most people globally cannot afford to buy chairs. Unfortunately, conventional North American chairs do not take advantage of these practices. The present invention is intended to blend the skills and insight of eastern and western cultures by allowing conventional North American chairs to take advantage of these practices.

[0005] There are many inventions pertaining to aiding one to sit in a cross-legged position. However, most of these devices are comprised of a cushion or wooden platform that is placed at floor level or just slightly above, such as U.S. Pat. No. 5,374,109, U.S. Pat. No. 5,876,098, U.S. Pat. No. 5,490,717, U.S. Pat. No. 4,673,216, U.S. Pat. No. 5,029,350, U.S. Pat. No. 5,134,740, U.S. Pat. No. 3,890,004, French Patent 2769813 and Japanese patent 7204059A2. While the devices taught by these patents are useful for meditation while sitting on the floor they are not a practical tool in an environment designed around chairs.

[0006] A further cross legged sitting device is taught in U.S. Pat. No. 5,605,379 which discloses a chair with its height and its seat adapted to the contour of a user's body such contour resulting from the user's legs. However, this chair cannot be adjusted to improve the comfort level of different users.

[0007] Accordingly, in view of the above-mentioned in the art, it is desirable to provide a chair for allowing a user to sit in a cross-legged yoga position in any environment such as an office, home, school and restaurant and which will accommodate the user sitting in either a cross-legged position or a conventional seated position, and which adjusts to overcome the shortcomings of the prior art.

SUMMARY OF THE INVENTION

[0008] It is another object of the present invention to provide a chair for allowing a user to sit in a cross-legged yoga position comprising: a seat; a chair base operatively connected to the seat for supporting the seat; leg support members for providing support for each of a user's legs while the user sits in a cross-legged position; and an adjustable support system including an adjustable arm connected to the seat and each leg support member for allowing a user to adjust the height of each leg support member according to the user's comfort level.

[0009] It is another object of the present invention to provide a chair including a seat having a surface area wide enough to allow a user to sit on the seat in a cross-legged position and having a tapered front to allow a user's legs to hang comfortably over the front of seat while the user sits in a conventional manner; and a chair base operatively connected to the seat for supporting the seat, the chair base for allowing use of the chair in an office environment or other environments where conventional chairs are usually used. Such a chair provides flexibility by allowing users to choose how they wish to sit thereby increasing the versatility of the chair.

[0010] In one embodiment, the present invention includes a seat which accommodates a user sitting in a cross-legged meditation or yogic meditation or exercise posture or which is equally capable of supporting the user sitting in a conventional manner.

[0011] In another embodiment, the present invention employs a highly effective method of adjusting the leg support members, allowing a user to select the desired angle of thigh support when sitting in a cross-legged position.

[0012] The present invention may also include a fully adjustable or fixed back support connected to the rear of the seat for providing back support to the user.

[0013] The present invention combines the functionality of conventional chairs' heights which is suitable for use in a plurality of environments typically found in North America with an effective adjustable support system to allow a user to sit in a cross-legged position to experience the benefits of sitting in a meditation or yogic meditation or exercise posture.

[0014] Other aspects and features of the present invention will become apparent to those ordinarily skilled in the art upon review of the following description of specific embodiments of the present invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] The present invention will be described in more detail below with reference to the accompanying drawings which are provided by way of example only, in which:

[0016] **FIG. 1** is a perspective view of a chair in accordance with an embodiment of the present invention.

[0017] **FIG. 2** is a perspective view of a chair having raised adjustable leg supports in accordance with an embodiment of the present invention.

[0018] **FIG. 3** is a side view of an adjustable support system in accordance with an embodiment of the present invention.

[0019] **FIG. 4** is a side view of an adjustable support system in accordance with an embodiment of the present invention.

[0020] **FIG. 5** is a top view of a seat and leg supports in accordance with an embodiment of the present invention.

[0021] **FIG. 6** is a front view of a back support in accordance with an embodiment of the present invention.

[0022] **FIG. 7** is a side view of a back support in accordance with an embodiment of the present invention.

[0023] **FIG. 8** is a perspective view of a chair in accordance with an embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0024] As shown in **FIGS. 1, 2** and **8**, the present invention generally includes a seat **11**, adjustable leg supports **12** and **13** and a conventional chair base **40** connected to and supporting the seat **11**. Leg supports **12** and **13** are hingedly connected to seat **11** and thus to conventional chair base **40**. In operation, a user sits cross-legged on seat **11** and adjusts the leg supports **12** and **13** up or down as required to change the angle at which the user's legs will be supported to maximize the user's comfort level. The leg supports **12** and **13** are adjusted by pivoting the leg supports about hinges **21** and **22**, which are connected to the seat **11**. The leg supports **12** and **13** may then be held in place using any mechanism **25** which is adjustable in length. The seat **11** is also designed to allow a user to sit in a conventional fashion if desired.

[0025] As shown in **FIGS. 3, 4** and **5**, the leg supports **12** and **13** are each connected to the seat **11** by an adjustable arm **25** to allow the leg supports **12** and **13** to be adjusted by the user. The adjustable arm **25** includes an arm slider **26** and a receptacle **27**. An arm slider **26** and receptacle **27** are hingedly mounted between the seat **11** and each of the leg supports **12** and **13**, respectively. Alternatively, the arm slider **26** and receptacle **27** may be hingedly mounted on a bracket **23** which is attached to the seat **11** and each of the leg supports **12** and **13**. The bracket **23** is adapted to ensure a strong connection between the seat **11** and each of the leg supports **12** and **13** to increase the support for the legs supports **12** and **13** and to allow the leg supports **12** and **13** to be raised higher. The bracket **23** also allows the adjustable arm **25** to adjust smoothly through the full range of motion allowing for abroad range of angles for the leg supports **12** and **13**, in particular when near-flat or at low relative angles to the seat.

[0026] In one embodiment, the receptacle **27** includes an elastic spring **24** which compresses and extends depending upon the weight placed upon the leg support **12** or **13**. In operation, when a user sits cross-legged on seat **11**, the leg supports **12** and **13** are loaded from the weight of the user's legs, which then apply downward pressure on the adjustable arm **25**. As a result, the arm slider **26** slides into the receptacle **27** and compresses the elastic spring **24**. When the user gets off the seat **11**, the arm slider **26** slides out of receptacle **27** by the restoration force of elastic spring **24**. Therefore, the user leg supports **12** and **13** allow the user to adjust the angle of the leg supports **12** and **13** independently of each other anywhere between 0 and about 50 degrees relative to the plane of the seat **11**. The arm slider **26** and the receptacle **27** also maybe operated by an air pressure system, an oil pressure system, a hydraulic system or any other appropriate mechanism known to those skilled in the art.

[0027] Alternatively, the adjustable arm **25** may also include a locking device (not shown) for allowing a user to lock the leg supports **12** and **13** in a stable position based upon the desired angle of thigh support when sitting in a cross-legged position. To adjust the leg supports **12** and **13**, a user unlocks the locking device and lifts the leg supports **12** and **13** to desired angle. A user then locks the locking device to secure the adjustable arm **25** to prevent movement to the leg supports **12** and **13**.

[0028] In one embodiment of the present invention as illustrated in FIGS. **6** to **8**, the chair may include a lower back support **30**. The back support **30** is connected to the seat **11**. The top of the back support **30** consists of a back rest **14** for supporting a user's back. The back rest **14** is hingedly connected to the back support **30** to allow adjustment to increase the user's comfort level. The back support **30** also may have a shape for aligning the pelvic bone with the rest of the user's spinal column for maximizing the postural benefits of sitting in the chair.

[0029] In any of the above embodiments, set **11** may have a particulars shape to ensure that it supports both cross-legged and conventional seating. In one embodiment shown in **FIGS. 1, 2** and **8**, seat **11** tapers inward from the user's hips to accommodate the leg supports **12** and **13** and then curves outward to accommodate a user's feet while sitting in a cross-legged position. Further, the front of seat **11** defines tapered recesses which are meant to allow room for a user's legs when sitting in a conventional manner on the chair.

[0030] In any of the above embodiments, the surface of the seat **11**, leg supports **12** and **13** and the lower back support **30** may be optionally padded with foam or other padding material, and then covered with suitable upholstery (not shown).

[0031] In any of the above embodiments, chair base **40** is any chair base of a suitable height for work environments typically found in North America, such as an office chair base or wooden chair base. For example, as illustrated in **FIG. 8**, office chair base **50** is a type typically found on office chairs. More specifically, the office chair base **50** includes a stem (not shown) and a floor base **51**. The floor base **51** may include wheels **52** for providing mobility. The stem may be height adjustable to ensure that the chair can be adjusted to a height suitable for the user's environment.

[0032] The embodiments of the present invention described above are intended to be examples only. Alterations, modifications and variations may be effect to the particular embodiments by those of skill in the art without departing from the scope of the invention.

What is claimed is:

1. A seating apparatus for supporting a user sitting in either a cross-legged position or a regular position comprising:

(a) a seat having a surface area wide enough to allow a user to sit on the seat in a cross-legged position and having tapered recesses in the front of the seat for allowing a user's legs to hang comfortably over the front of the seat; and

(b) a base operatively connected to the seat for supporting the seat, the base for allowing use of the apparatus in a conventional chair-height environment.

2. The apparatus as in claim 1 wherein the base is a regular chair with a multiplicity of legs.

3. The apparatus as in claim 1 wherein the base has a stem for adjusting the height of the seat and a floor base having wheels for providing mobility.

4. An apparatus for supporting a user sitting in a cross-legged position comprising:

(a) a seat;

(b) a base operatively connected to the seat for supporting the seat; and

(c) adjustable leg supports each hingedly connected to either side of the seat for providing support for each of the user's legs while the user sits in a cross-legged position.

5. The apparatus as in claim 4 wherein the seat includes an adjustable arm for hingedly connecting each of the leg supports to the seat.

6. The apparatus as in claim 5 wherein the adjustable arm consists of an arm slider and receptacle.

7. The apparatus as in claim 5 wherein the adjustable arm includes a locking device for fixing the adjusted position.

8. The apparatus as in claim 6 wherein the receptacle includes an elastic spring system for reciprocating the slider.

9. The apparatus as in claim 6 wherein the receptacle includes an air pressure system for reciprocating the slider.

10. The apparatus as in claim 6 wherein the receptacle includes an oil pressure system for reciprocating the slider.

11. The apparatus as in claim 6 wherein the receptacle includes a hydraulic pressure system for reciprocating the slider.

12. An apparatus for supporting a user sitting in a cross-legged position comprising:

(a) a seat;

(b) an apparatus base operatively connected to the seat for supporting the seat;

(c) adjustable leg supports each hingedly connected to either side of the seat for providing adjustable support for each of the user's legs while the user sits in a cross-legged position;

(d) a bracket attached to the seat for supporting strongly the leg supports and allowing each leg support to move in a broader range of angle.

13. An apparatus for supporting a user sitting in a cross-legged position comprising:

(a) a seat;

(b) an apparatus base operatively connected to the seat for supporting the seat;

(c) leg supports each hingedly connected to the seat for providing adjustable support for each of the user's legs while the user sits in a cross-legged position; and

(d) a back support hingedly connected to the rear of the seat.

14. The apparatus as in claim 13 wherein the back support includes an adjustable back rest for supporting a user's back.

15. A method for allowing a user to sit in either a cross-legged or in a regular sitting position comprising the step of:

(a) providing the user an apparatus including a seat having a surface area wide enough to allow a user to sit on the seat in a cross-legged position and having a tapered front to allow a user's legs to hang comfortably over the front of seat while the user sits in a conventional position and an apparatus base operatively connected to the seat for supporting the seat.

16. A method for allowing a user to sit in either a cross-legged position or in a regular sitting position comprising the step of:

(a) providing an apparatus including a seat, an apparatus base operatively connected to the seat for supporting the seat, and adjustable leg supports each hingedly connected to either side of the seat for providing support for each of the user's legs while the user sits in a cross-legged position.

* * * * *