US 20120037051A1

(19) **United States**

(12) **Patent Application Publication**

(10) **Pub. No.: US 2012/0037051 A1**

(43) **Pub. Date: Feb. 16, 2012**

Wang et al.

(54) **COMPUTER TABLE THAT IS FOLDED AND EXPANDED EASILY AND QUICKLY**

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(21) Appl. No.: **12/856,724**

(22) Filed: **Aug. 16, 2010**

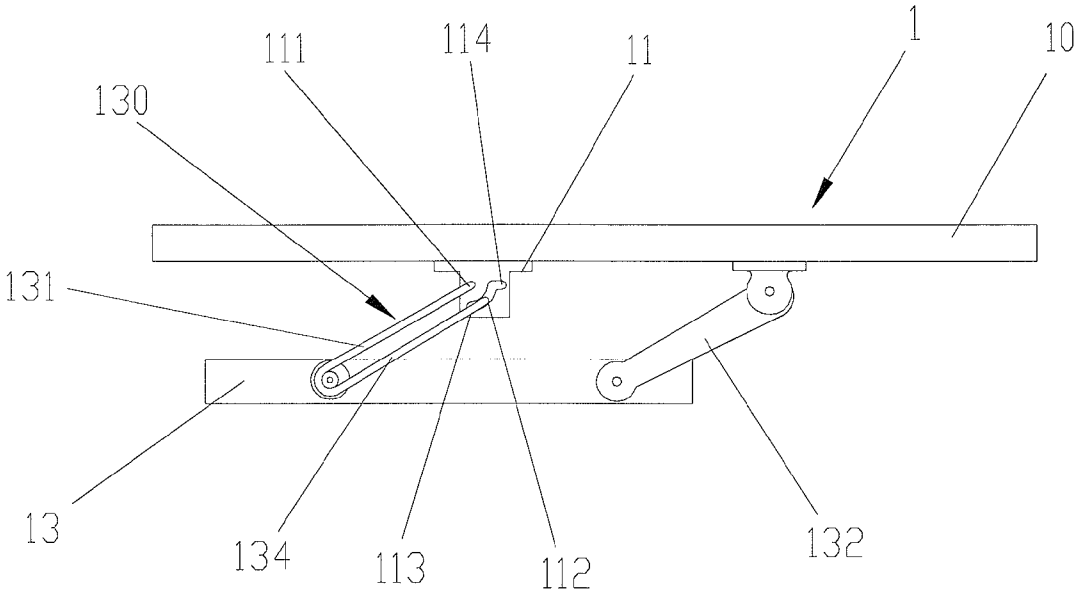
Publication Classification

(51) **Int. Cl.**
A47B 21/02 (2006.01)

(52) **U.S. Cl.** **108/106**

(57) **ABSTRACT**

A computer table includes a board assembly including a support board, a movable board pivotally connected with the support board by two elastic fastening members and two connecting members, and two fixing brackets each mounted on the support board and each connected with a respective one of the two elastic fastening members. Thus, the movable board is movable to space from the support board and is movable to abut the support board so that the board assembly is expanded for use with a user and can be folded when not in use to have a smaller volume.



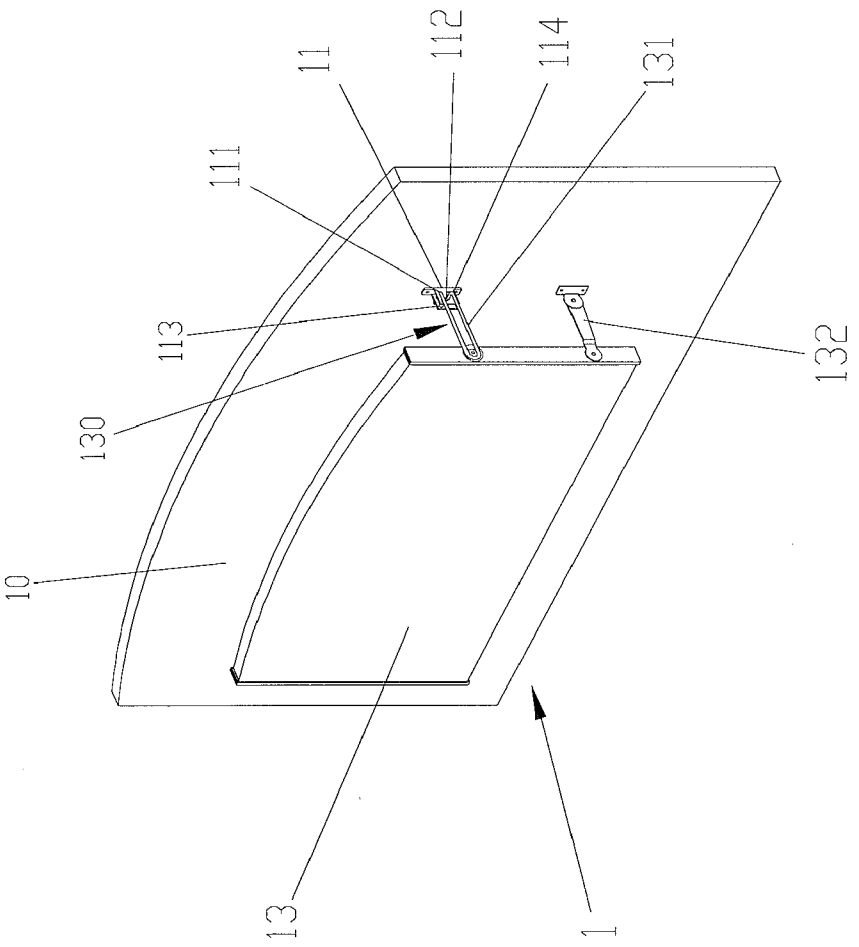


FIG. 1

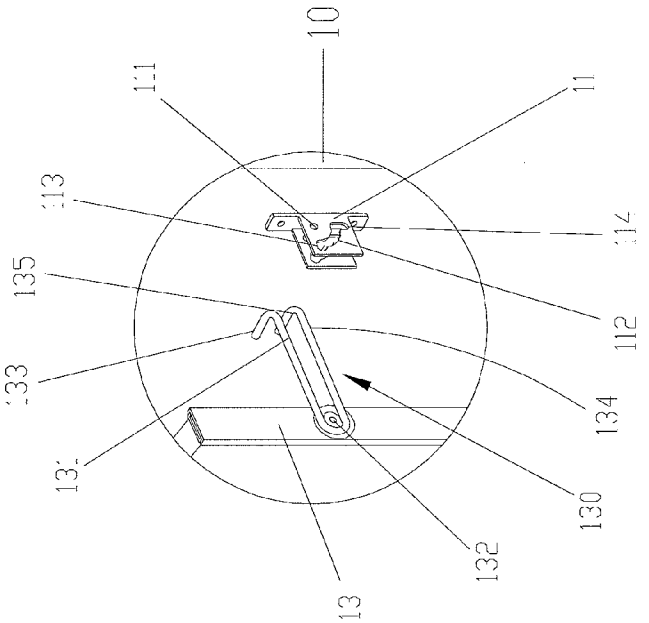

10
111
11
113
114
135
112
133
134
131
130
132
13

FIG. 3

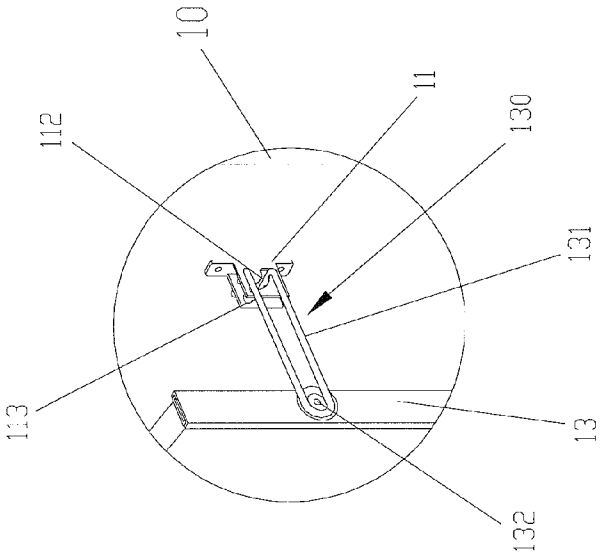

10
11
112
130
131
113
13
132

FIG. 2

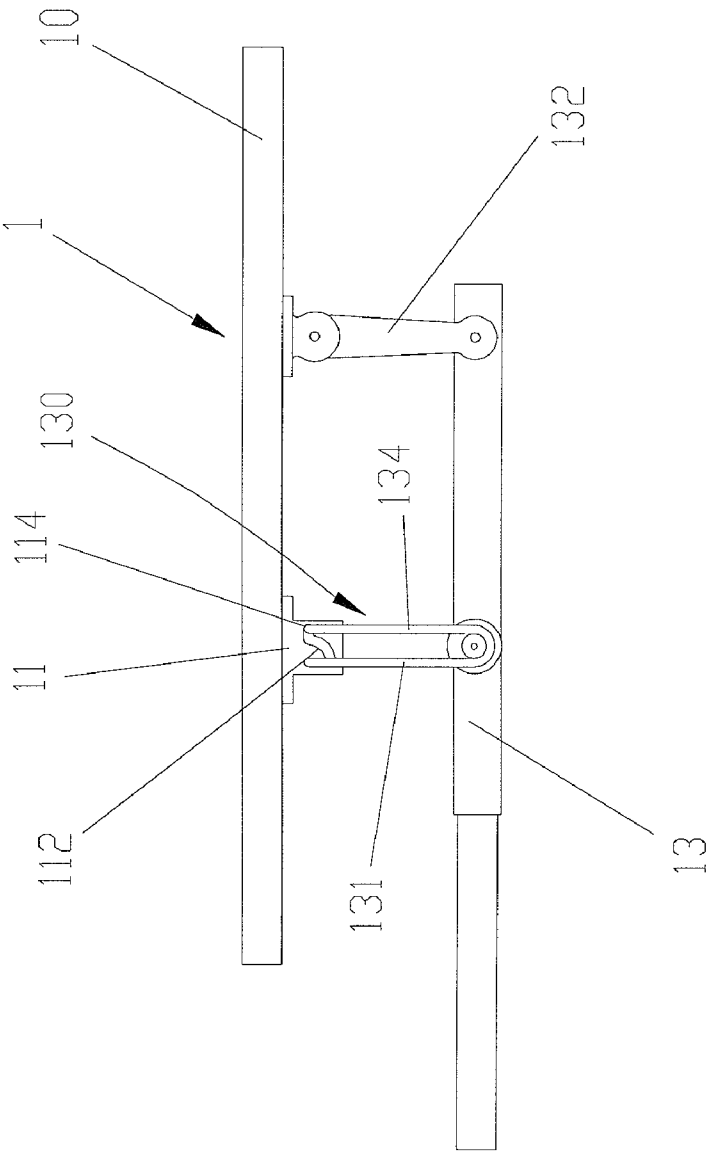


FIG. 4

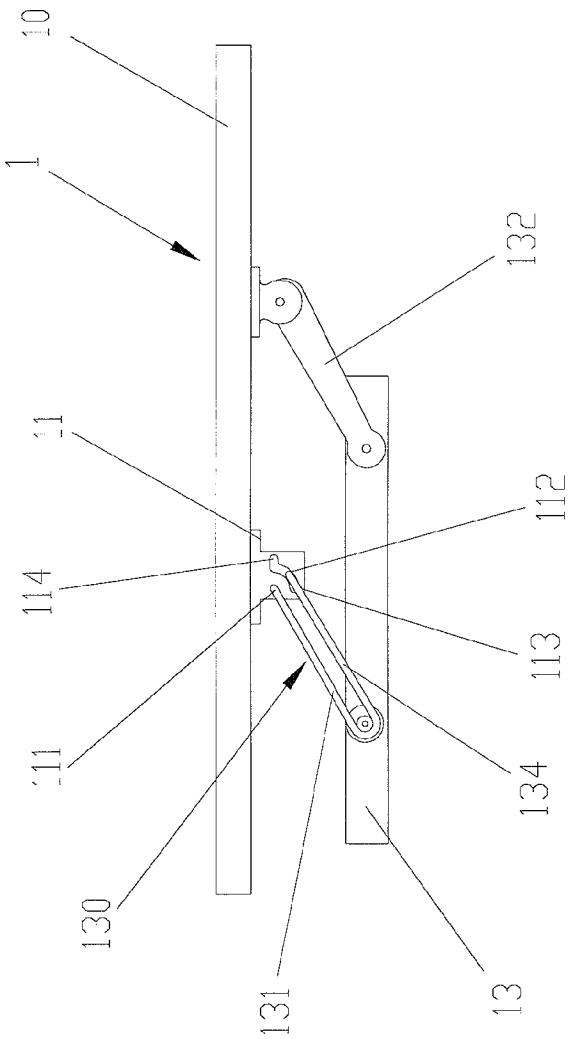


FIG. 5

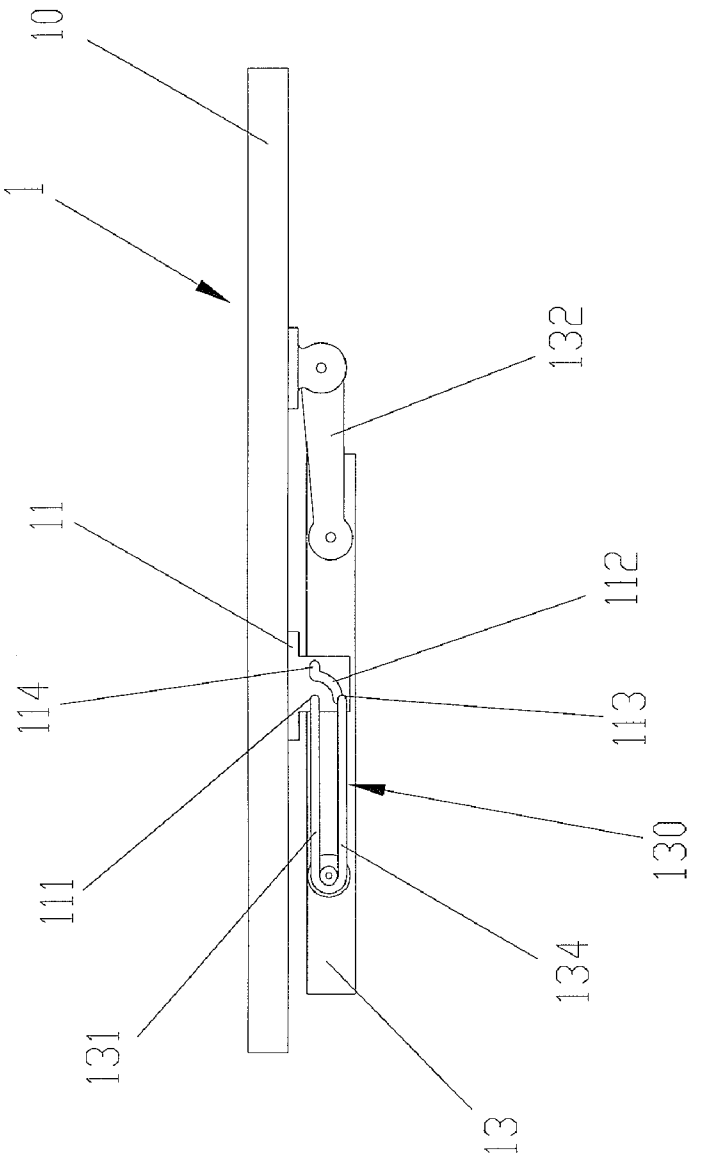


FIG. 6

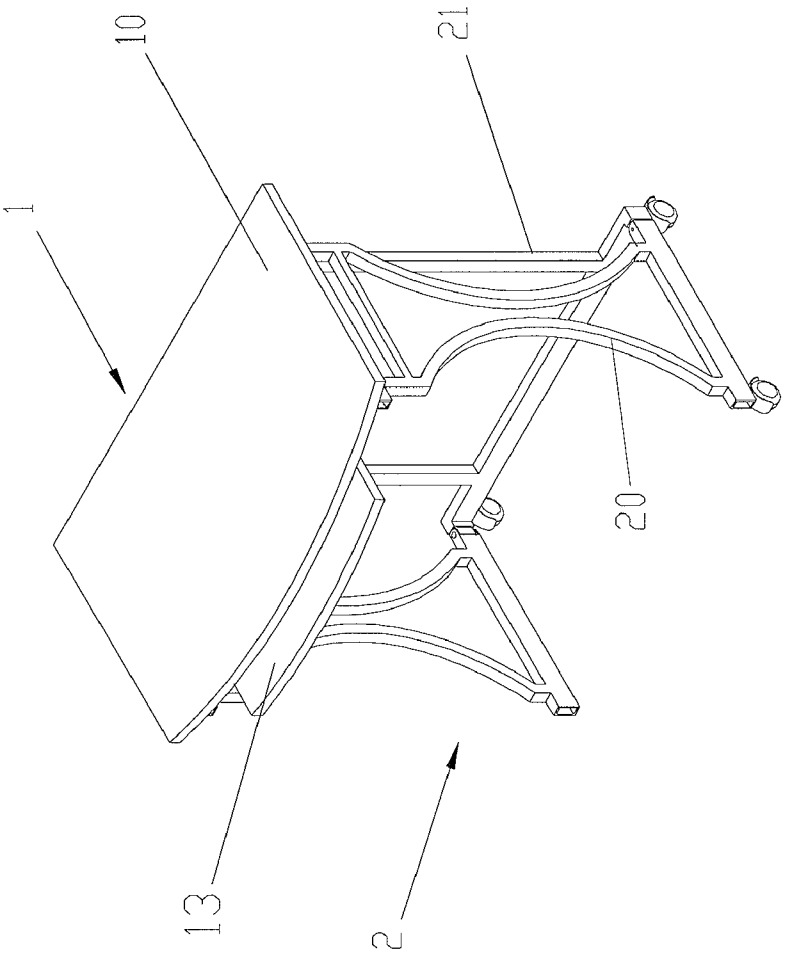


FIG. 7

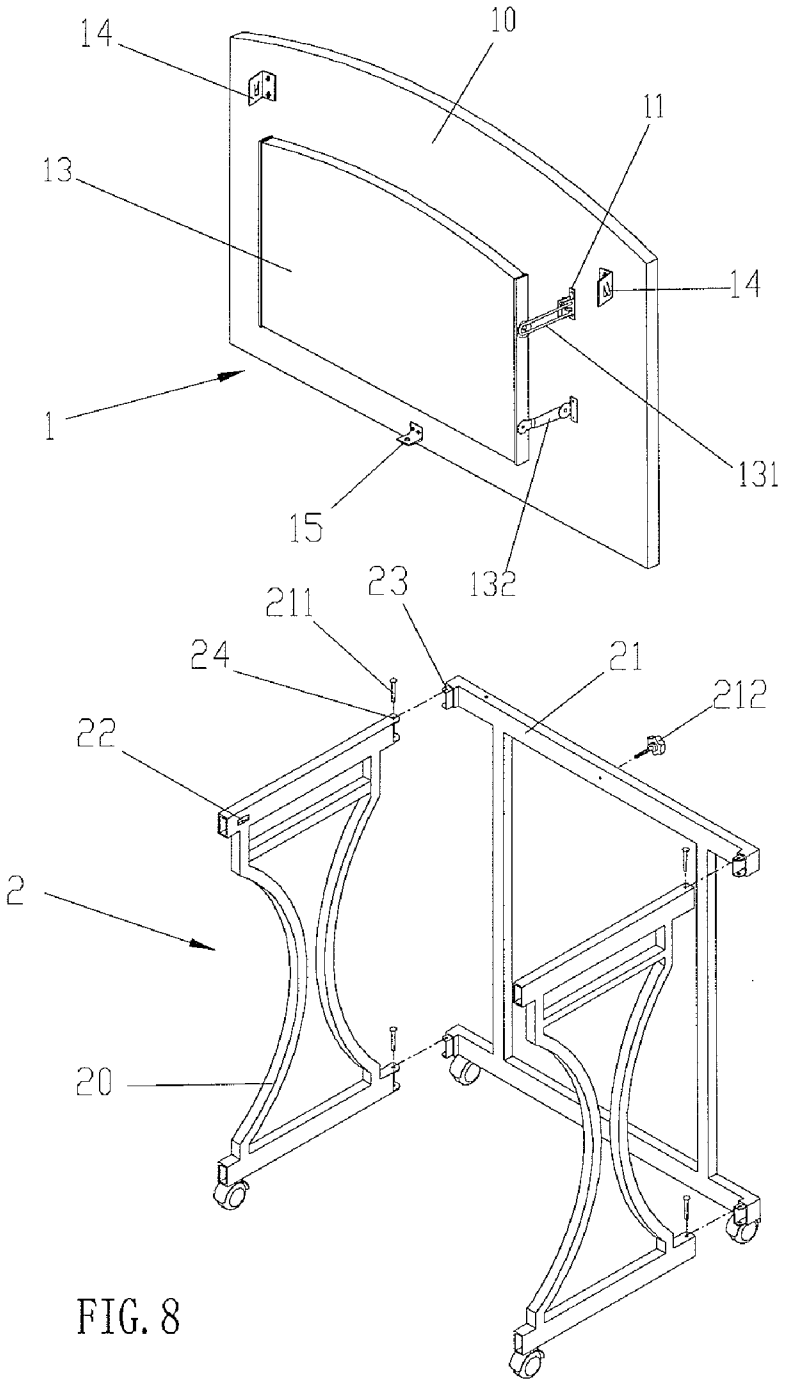


FIG. 8

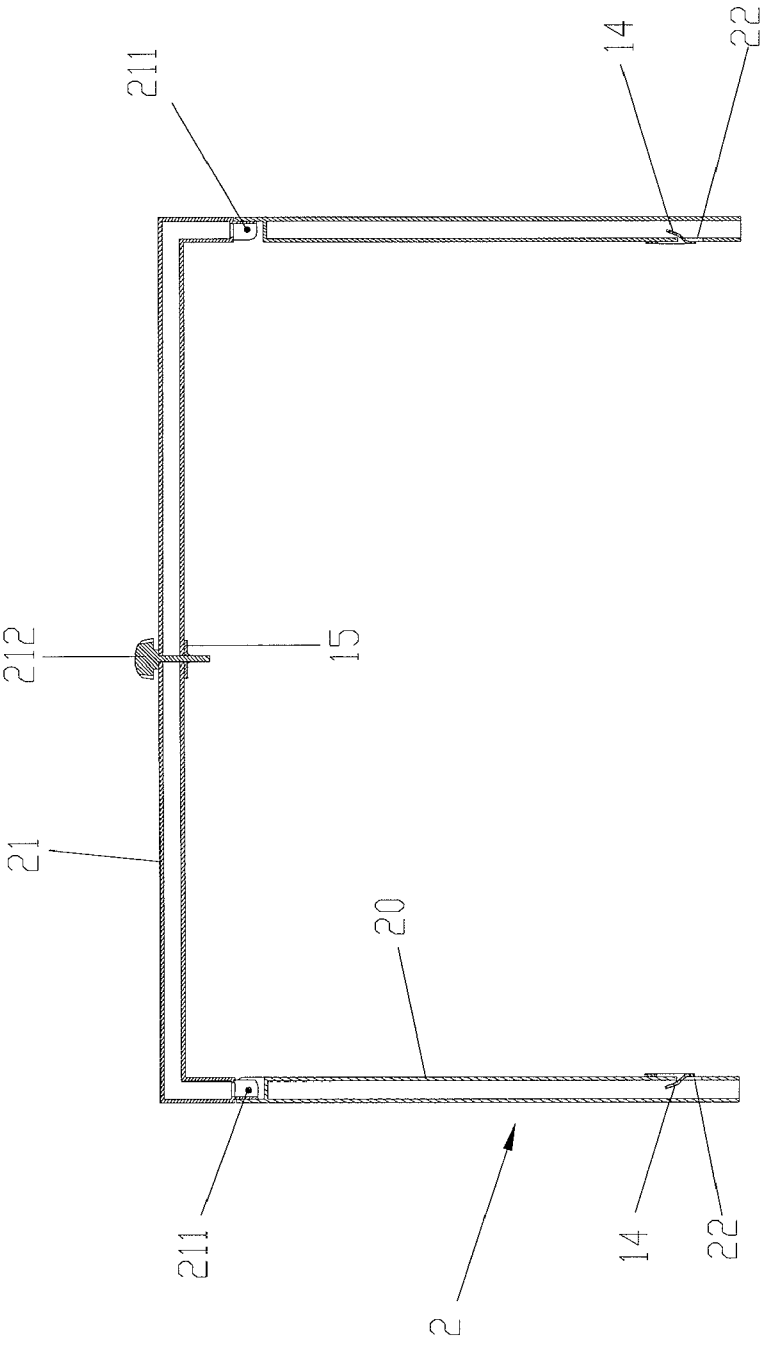


FIG. 9

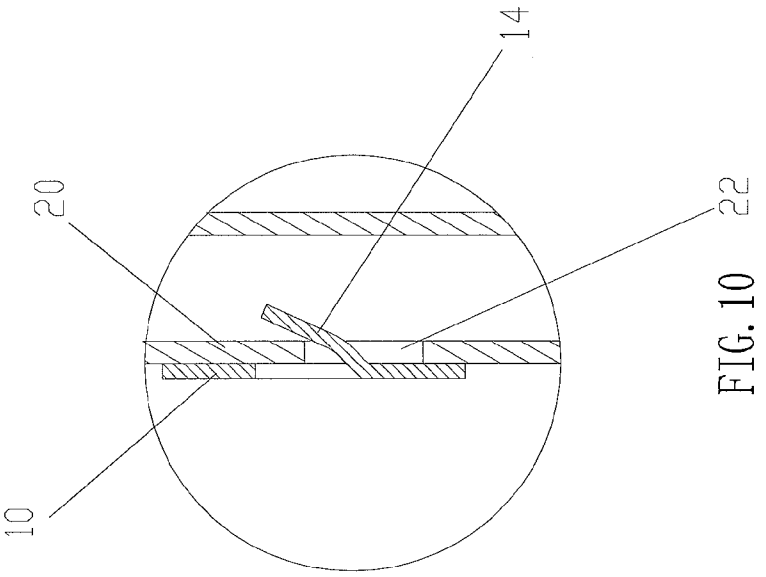


FIG. 10

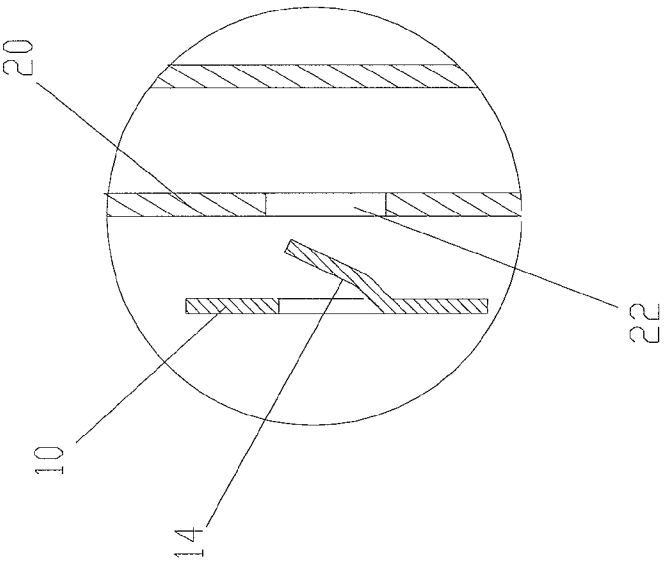


FIG. 11

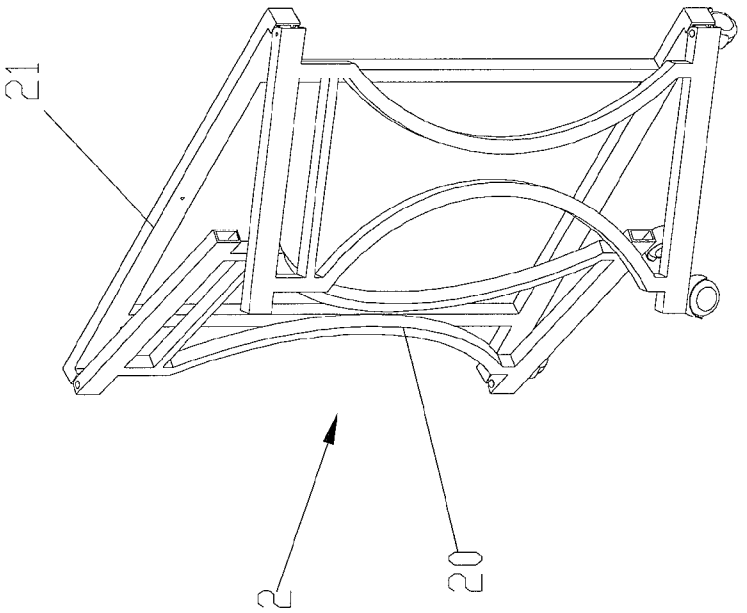


FIG. 12

COMPUTER TABLE THAT IS FOLDED AND EXPANDED EASILY AND QUICKLY

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a table and, more particularly, to a computer table for mounting a computer.

[0003] 2. Description of the Related Art

[0004] A conventional computer table is used for mounting a computer to facilitate a user operating the computer. However, the conventional computer table cannot be folded to have a smaller volume when not in use, thereby increasing the cost of packaging, storage and transportation of the computer table. In addition, the conventional computer table is not assembled and disassembled easily and quickly, thereby causing inconvenience to a user when assembling and disassembling the computer table.

BRIEF SUMMARY OF THE INVENTION

[0005] In accordance with the present invention, there is provided a computer table, comprising a board assembly including a support board, a movable board pivotally connected with the support board by two elastic fastening members and two connecting members, and two fixing brackets each mounted on the support board and each connected with a respective one of the two elastic fastening members.

[0006] Each of the two fixing brackets of the board assembly has a surface formed with at least one pivot hole and at least one guide slot. The guide slot of each of the two fixing brackets has a first end formed with a first locking groove and a second end formed with a second locking groove. Each of the two elastic fastening members of the board assembly has a first distal end formed with a bent pivot portion pivotally mounted in the pivot hole of the respective fixing bracket and a second distal end formed with a bent locking portion movably mounted in the guide slot of the respective fixing bracket and releasably locked in the first locking groove or the second locking groove of the guide slot.

[0007] Each of the two elastic fastening members of the board assembly is pivotally mounted on the movable board by a pivot seat and is detachably locked onto a respective one of the two fixing brackets. Each of the two elastic fastening members of the board assembly has a substantially U-shaped profile. The guide slot of each of the two fixing brackets has a substantially arc-shaped profile. The first locking groove of each of the two fixing brackets is inclined relative to the guide slot. The second locking groove of each of the two fixing brackets is inclined relative to the guide slot. Each of the two connecting members of the board assembly has a first end pivotally connected with the support board and a second end pivotally connected with the movable board.

[0008] The primary objective of the present invention is to provide a computer table that is folded and expanded easily and quickly.

[0009] According to the primary advantage of the present invention, the computer table can be folded to have a smaller volume so as to decrease the cost of packaging, storage and transportation of the computer table.

[0010] According to another advantage of the present invention, the computer table is assembled and disassembled easily and quickly, thereby facilitating a user assembling and disassembling the computer table.

[0011] According to a further advantage of the present invention, the movable board is movable to space from the support board and is movable to abut the support board so that the board assembly is expanded for use with a user and can be folded when not in use to have a smaller volume so as to decrease the cost of packaging, storage and transportation of the computer table.

[0012] According to a further advantage of the present invention, the board assembly is assembled easily and quickly, thereby facilitating the user assembling the computer table.

[0013] Further benefits and advantages of the present invention will become apparent after a careful reading of the detailed description with appropriate reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S)

[0014] FIG. **1** is a perspective view of a board assembly of a computer table in accordance with the preferred embodiment of the present invention.

[0015] FIG. **2** is a locally enlarged view of the board assembly of the computer table as shown in FIG. **1**.

[0016] FIG. **3** is an exploded perspective view of the board assembly of the computer table as shown in FIG. **2**.

[0017] FIG. **4** is a side view of the board assembly of the computer table as shown in FIG. **1**.

[0018] FIG. **5** is a schematic operational view of the computer table as shown in FIG. **4**.

[0019] FIG. **6** is a schematic operational view of the computer table as shown in FIG. **5**.

[0020] FIG. **7** is a perspective view of a computer table in accordance with the preferred embodiment of the present invention.

[0021] FIG. **8** is an exploded perspective view of the computer table as shown in FIG. **7**.

[0022] FIG. **9** is a top cross-sectional view of the computer table as shown in FIG. **7**.

[0023] FIG. **10** is a locally enlarged view of the computer table as shown in FIG. **9**.

[0024] FIG. **11** is an exploded cross-sectional view of the computer table as shown in FIG. **10**.

[0025] FIG. **12** is a perspective folded view of the computer table as shown in FIG. **7**.

DETAILED DESCRIPTION OF THE INVENTION

[0026] Referring to the drawings and initially to FIGS. **1-6**, a computer table in accordance with the preferred embodiment of the present invention comprises a board assembly **1** that can be folded and expanded to support a computer.

[0027] The board assembly **1** includes a support board **10**, a movable board **13** pivotally connected with the support board **10** by two elastic fastening members **130** and two connecting members **132**, and two fixing brackets **11** each mounted on the support board **10** and each connected with a respective one of the two elastic fastening members **130**.

[0028] The movable board **13** of the board assembly **1** is disposed under the support board **10** and has a size smaller than that of the support board **10**.

[0029] Each of the two fixing brackets **11** of the board assembly **1** has a surface formed with at least one pivot hole **111** and at least one guide slot **112**. The guide slot **112** of each of the two fixing brackets **11** has a substantially arc-shaped

profile and has a first end formed with a first locking groove **113** and a second end formed with a second locking groove **114**. The first locking groove **113** of each of the two fixing brackets **11** is inclined relative to the guide slot **112**. The second locking groove **114** of each of the two fixing brackets **11** is inclined relative to the guide slot **112**.

[0030] Each of the two connecting members **132** of the board assembly **1** has a first end pivotally connected with the support board **10** and a second end pivotally connected with the movable board **13**.

[0031] Each of the two elastic fastening members **130** of the board assembly **1** is pivotally mounted on the movable board **13** by a pivot seat **132** and is detachably locked onto a respective one of the two fixing brackets **11**. Each of the two elastic fastening members **130** of the board assembly **1** has a substantially U-shaped profile and has a first distal end **131** formed with a bent pivot portion **133** pivotally mounted in the pivot hole **111** of the respective fixing bracket **11** and a second distal end **134** formed with a bent locking portion **135** movably mounted in the guide slot **112** of the respective fixing bracket **11** and releasably locked in the first locking groove **113** or the second locking groove **114** of the guide slot **112**.

[0032] In use, each of the two elastic fastening members **130** of the board assembly **1** is perpendicular to the support board **10** and the movable board **13** as shown in FIG. **4** when the locking portion **135** of each of the two elastic fastening members **130** is locked in the second locking groove **114** of the respective fixing bracket **11** so that the movable board **13** is parallel with and spaced from the support board **10**, and each of the two elastic fastening members **130** of the board assembly **1** is parallel with the support board **10** and the movable board **13** as shown in FIG. **6** when the locking portion **135** of each of the two elastic fastening members **130** is locked in the first locking groove **113** of the respective fixing bracket **11** so that the movable board **13** is movable to abut the support board **10**.

[0033] In operation, referring to FIGS. **4-6** with reference to FIGS. **1-3**, the locking portion **135** of each of the two elastic fastening members **130** is initially locked in the second locking groove **114** of the respective fixing bracket **11** so that each of the two elastic fastening members **130** is locked onto the respective fixing bracket **11** so as to position the movable board **13**. At this time, the movable board **13** is parallel with and spaced from the support board **10** as shown in FIG. **4**. Thus, the movable board **13** is expanded for use with a user.

[0034] When the user applies a force to push the locking portion **135** of each of the two elastic fastening members **130** to detach from the second locking groove **114** of the respective fixing bracket **11**, the locking portion **135** of each of the two elastic fastening members **130** is movable in the guide slot **112** of the respective fixing bracket **11** as shown in FIG. **5** to reach the first locking groove **113** of the respective fixing bracket **11**. Then, the locking portion **135** of each of the two elastic fastening members **130** is inserted into and locked in the first locking groove **113** of the respective fixing bracket **11** by the elastic force of each of the two elastic fastening members **130**. At this time, the movable board **13** abuts the support board **10** as shown in FIG. **6**. Thus, the movable board **13** is folded when not in use.

[0035] When the user again applies a force to push the locking portion **135** of each of the two elastic fastening members **130** to detach from the first locking groove **113** of the respective fixing bracket **11**, the locking portion **135** of each of the two elastic fastening members **130** is movable in the guide slot **112** of the respective fixing bracket **11** as shown in FIG. **5** to reach the second locking groove **114** of the respective fixing bracket **11**. Then, the locking portion **135** of each of the two elastic fastening members **130** is inserted into and locked in the second locking groove **114** of the respective fixing bracket **11** by the elastic force of each of the two elastic fastening members **130**.

[0036] Accordingly, the movable board **13** is movable to space from the support board **10** and is movable to abut the support board **10** so that the board assembly **1** is expanded for use with a user and can be folded when not in use to have a smaller volume so as to decrease the cost of packaging, storage and transportation of the computer table. In addition, the board assembly **1** is assembled easily and quickly, thereby facilitating the user assembling the computer table.

[0037] Referring to FIGS. **7-12**, the computer table in accordance with the preferred embodiment of the present invention further comprises a frame assembly **2** connected with the board assembly **1** to support the board assembly **1**. The frame assembly **2** includes a rear frame **21** and two side frames **20** pivotally mounted on two opposite ends of the rear frame **21** respectively.

[0038] Each of the two opposite ends of the rear frame **21** has an upper portion and a lower portion each provided with a first pivot section **23**. Each of the two side frames **20** has a rear end having an upper portion and a lower portion each provided with a second pivot section **24** pivotally connected with the respective first pivot section **23** of the rear frame **21** by a pivot pin **211** so that the rear end of each of the two side frames **20** is pivotally connected with the rear frame **21**. Each of the two side frames **20** has a front end having an upper portion formed with an elongate locking slot **22**.

[0039] The support board **10** of the board assembly **1** is detachably mounted on the rear frame **21** and the two side frames **20** of the frame assembly **2**. The support board **10** of the board assembly **1** has a front end provided with two locking pieces **14** each inserted into and detachably locked in the locking slot **22** of a respective one of the two side frames **20** to attach the support board **10** of the board assembly **1** to the two side frames **20** of the frame assembly **2**. The support board **10** of the board assembly **1** has a rear end provided with a threaded locking plate **15** locked onto the rear frame **21** by a threaded locking knob **212** to attach the support board **10** of the board assembly **1** to the rear frame **21** of the frame assembly **2**. The threaded locking knob **212** is extended through the rear frame **21** and is screwed into the threaded locking plate **15** of the support board **10**.

[0040] In assembly, the second pivot section **24** of each of the two side frames **20** is pivotally connected with the respective first pivot section **23** of the rear frame **21** by the pivot pin **211** so that the rear end of each of the two side frames **20** is pivotally connected with the rear frame **21**. Then, each of the two locking pieces **14** of the support board **10** is inserted into the locking slot **22** of the respective side frame **11**. Then, the support board **10** is moved rearward relative to the two side frames **20** so that each of the two locking pieces **14** of the support board **10** is locked in the locking slot **22** of the respective side frame **11** as shown in FIG. **10** to attach the support board **10** to the two side frames **20**. Finally the threaded locking knob **212** is extended through the rear frame **21** and is screwed into the threaded locking plate **15** of the support board **10** to attach the support board **10** to the rear frame **21** so as to assemble the computer table as shown in FIG. **7**.

[0041] When not in use, the threaded locking knob **212** is unscrewed from the threaded locking plate **15** of the support board **10** and is removed from the rear frame **21** to detach the support board **10** from the rear frame **21**. Then, the support board **10** is moved forward relative to the two side frames **20** so that each of the two locking pieces **14** of the support board **10** is unlocked and detached from the locking slot **22** of the respective side frame **11** as shown in FIG. **11** to detach the support board **10** from the two side frames **20**. Thus, the support board **10** can be removed from the rear frame **21** and the two side frames **20**. In such a manner, after the support board **10** is removed from the rear frame **21** and the two side frames **20**, each of the two side frames **20** is pivoted relative to the rear frame **21** so that each of the two side frames **20** can be moved to abut the rear frame **21** so as to fold the computer table as shown in FIG. **12**.

[0042] Accordingly, the computer table can be folded to have a smaller volume so as to decrease the cost of packaging, storage and transportation of the computer table. In addition, the computer table is assembled and disassembled easily and quickly, thereby facilitating a user assembling and disassembling the computer table.

[0043] Although the invention has been explained in relation to its preferred embodiment(s) as mentioned above, it is to be understood that many other possible modifications and variations can be made without departing from the scope of the present invention. It is, therefore, contemplated that the appended claim or claims will cover such modifications and variations that fall within the true scope of the invention.

1. A computer table, comprising:
a board assembly including:
a support board;
a movable board pivotally connected with the support board by two elastic fastening members and two connecting members; and
two fixing brackets each mounted on the support board and each connected with a respective one of the two elastic fastening members.

2. The computer table of claim **1**, wherein
each of the two fixing brackets of the board assembly has a surface formed with at least one pivot hole and at least one guide slot;
the guide slot of each of the two fixing brackets has a first end formed with a first locking groove and a second end formed with a second locking groove;
each of the two elastic fastening members of the board assembly has a first distal end formed with a bent pivot portion pivotally mounted in the pivot hole of the respective fixing bracket and a second distal end formed with a bent locking portion movably mounted in the guide slot of the respective fixing bracket and releasably locked in the first locking groove or the second locking groove of the guide slot.

3. The computer table of claim **1**, wherein each of the two elastic fastening members of the board assembly is pivotally mounted on the movable board by a pivot seat and is detachably locked onto a respective one of the two fixing brackets.

4. The computer table of claim **2**, wherein each of the two elastic fastening members of the board assembly has a substantially U-shaped profile.

5. The computer table of claim **2**, wherein the guide slot of each of the two fixing brackets has a substantially arc-shaped profile.

6. The computer table of claim **2**, wherein the first locking groove of each of the two fixing brackets is inclined relative to the guide slot.

7. The computer table of claim **2**, wherein the second locking groove of each of the two fixing brackets is inclined relative to the guide slot.

8. The computer table of claim **1**, wherein each of the two connecting members of the board assembly has a first end pivotally connected with the support board and a second end pivotally connected with the movable board.

9. The computer table of claim **2**, wherein each of the two elastic fastening members of the board assembly is perpendicular to the support board and the movable board when the locking portion of each of the two elastic fastening members is locked in the second locking groove of the respective fixing bracket so that the movable board is parallel with and spaced from the support board.

10. The computer table of claim **2**, wherein each of the two elastic fastening members of the board assembly is parallel with the support board and the movable board when the locking portion of each of the two elastic fastening members is locked in the first locking groove of the respective fixing bracket so that the movable board is movable to abut the support board.

11. The computer table of claim **1**, wherein the movable board of the board assembly is disposed under the support board and has a size smaller than that of the support board.

12. The computer table of claim **1**, wherein
the computer table further comprises a frame assembly connected with the board assembly to support the board assembly;
the frame assembly includes a rear frame and two side frames pivotally mounted on two opposite ends of the rear frame respectively;
each of the two opposite ends of the rear frame has an upper portion and a lower portion each provided with a first pivot section;
each of the two side frames has a rear end having an upper portion and a lower portion each provided with a second pivot section pivotally connected with the respective first pivot section of the rear frame by a pivot pin so that the rear end of each of the two side frames is pivotally connected with the rear frame;
each of the two side frames has a front end having an upper portion formed with an elongate locking slot;
the support board of the board assembly is detachably mounted on the rear frame and the two side frames of the frame assembly;
the support board of the board assembly has a front end provided with two locking pieces each inserted into and detachably locked in the locking slot of a respective one of the two side frames to attach the support board of the board assembly to the two side frames of the frame assembly;
the support board of the board assembly has a rear end provided with a threaded locking plate locked onto the rear frame by a threaded locking knob to attach the support board of the board assembly to the rear frame of the frame assembly;
the threaded locking knob is extended through the rear frame and is screwed into the threaded locking plate of the support board.

* * * * *