



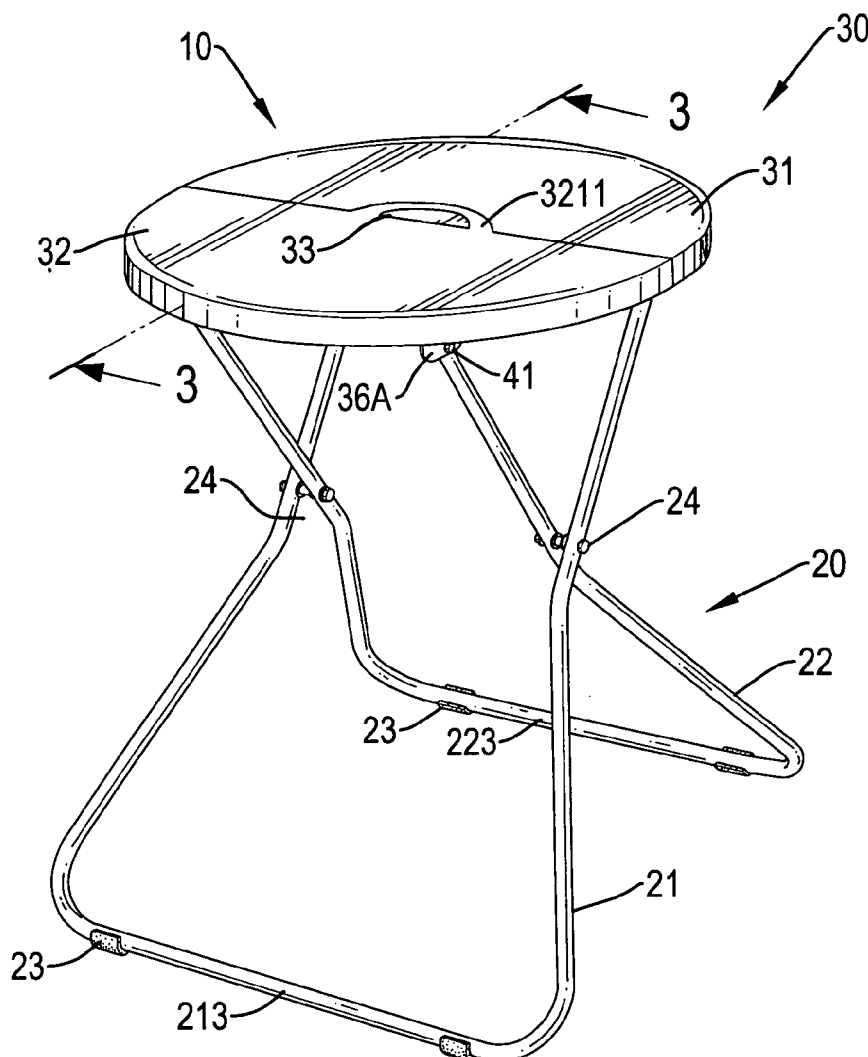
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Lo(10) **Pub. No.: US 2007/0101911 A1**(43) **Pub. Date: May 10, 2007**(54) **TABLE WITH A FOLDABLE TABLETOP****Publication Classification**(76) Inventor: **Chiu-Hsiang Lo**, Taichung Hsien (TW)(51) **Int. Cl.**
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(57) **ABSTRACT**

A table has a stand, a tabletop and a positioning device. The stand is composed of two legs pivotally combined together, and each leg has a top. The tabletop is pivotally attached to the tops of the legs and has a first half board and a second half board pivotally connected with each other and pivotally attached respectively to the tops of the legs. The positioning device is mounted between the half boards of the tabletop to hold the tabletop in an expanded condition. Accordingly, the space of the table for storing or transporting can be effectively reduced with the folded tabletop.

(21) Appl. No.: **11/266,273**(22) Filed: **Nov. 4, 2005**

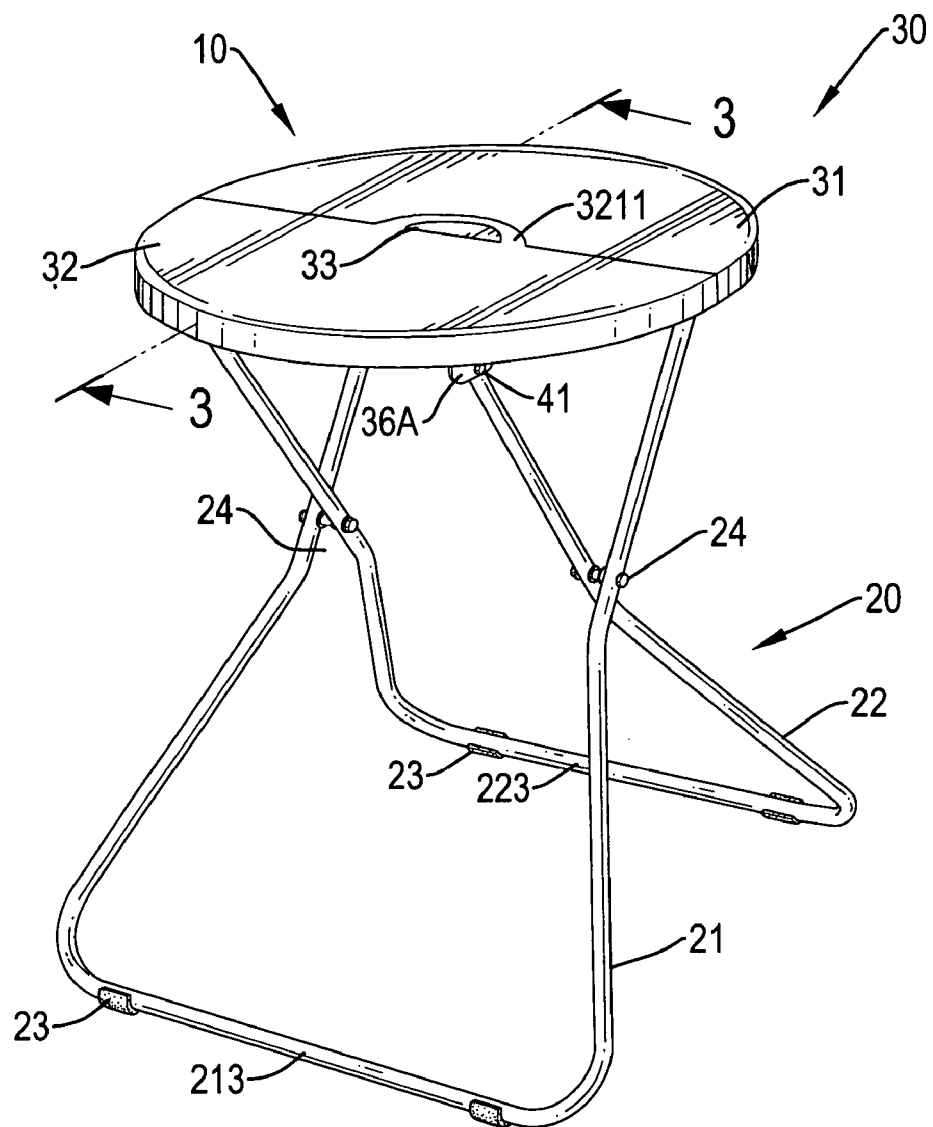


FIG.1

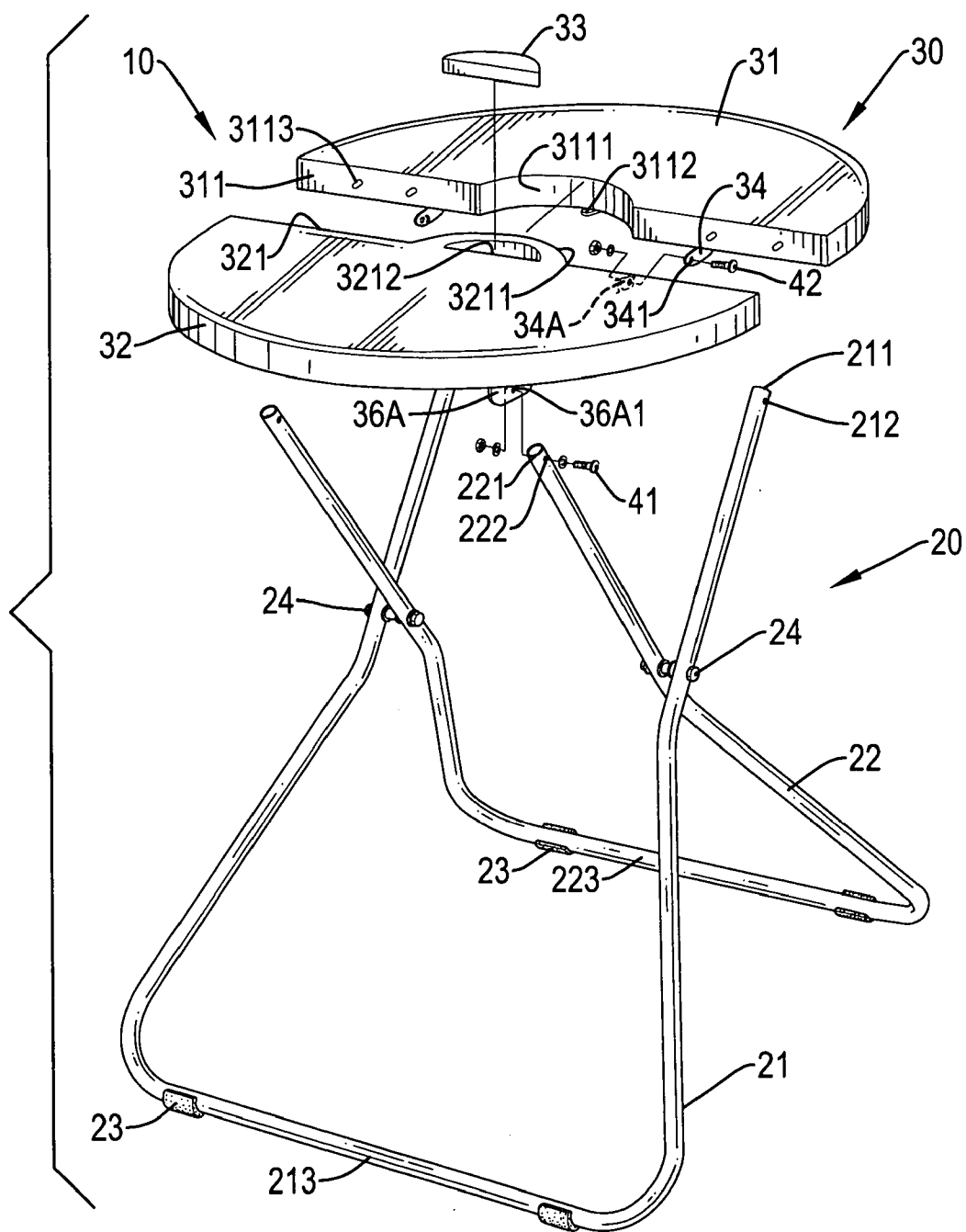


FIG.2

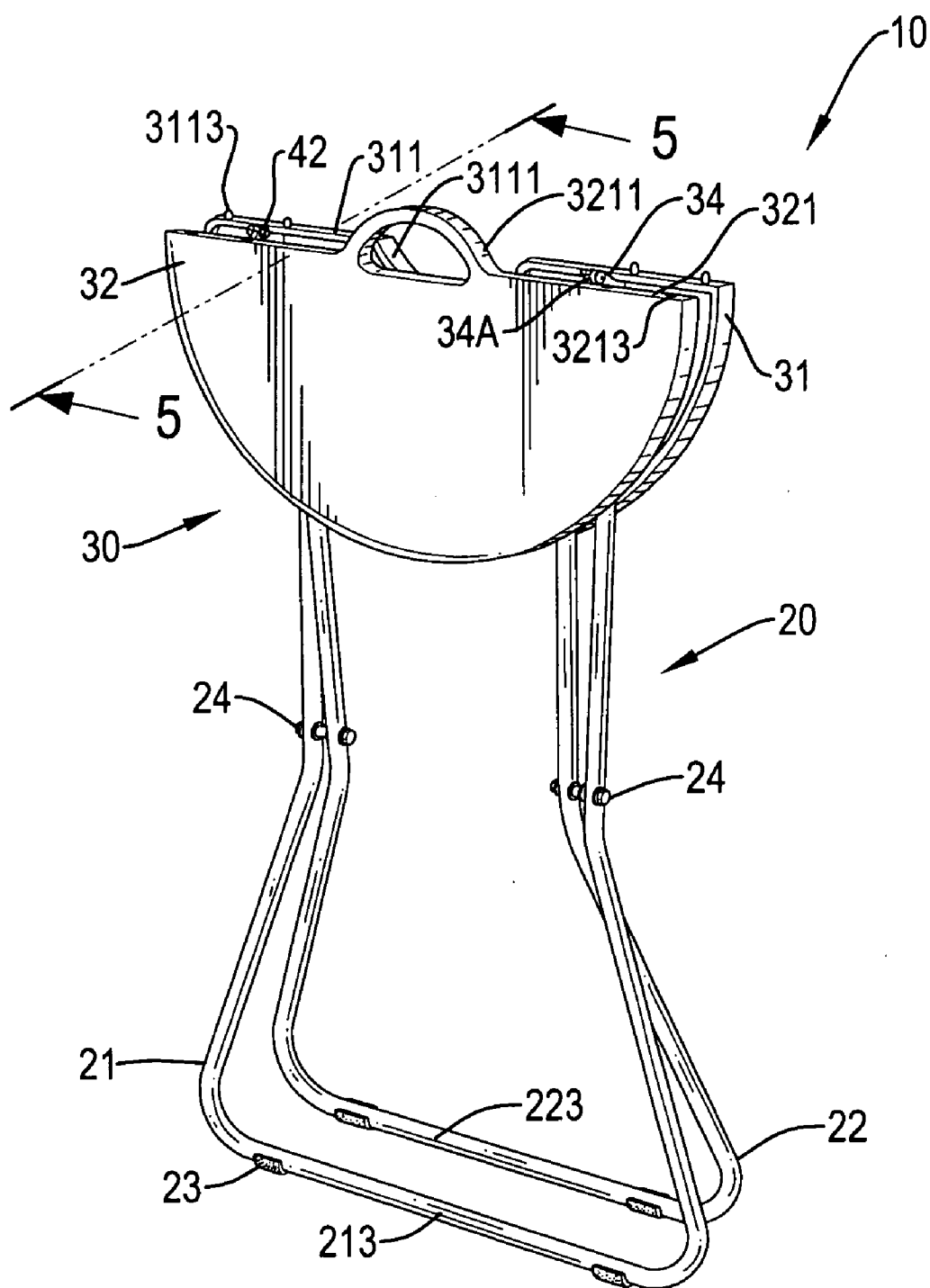


FIG.4

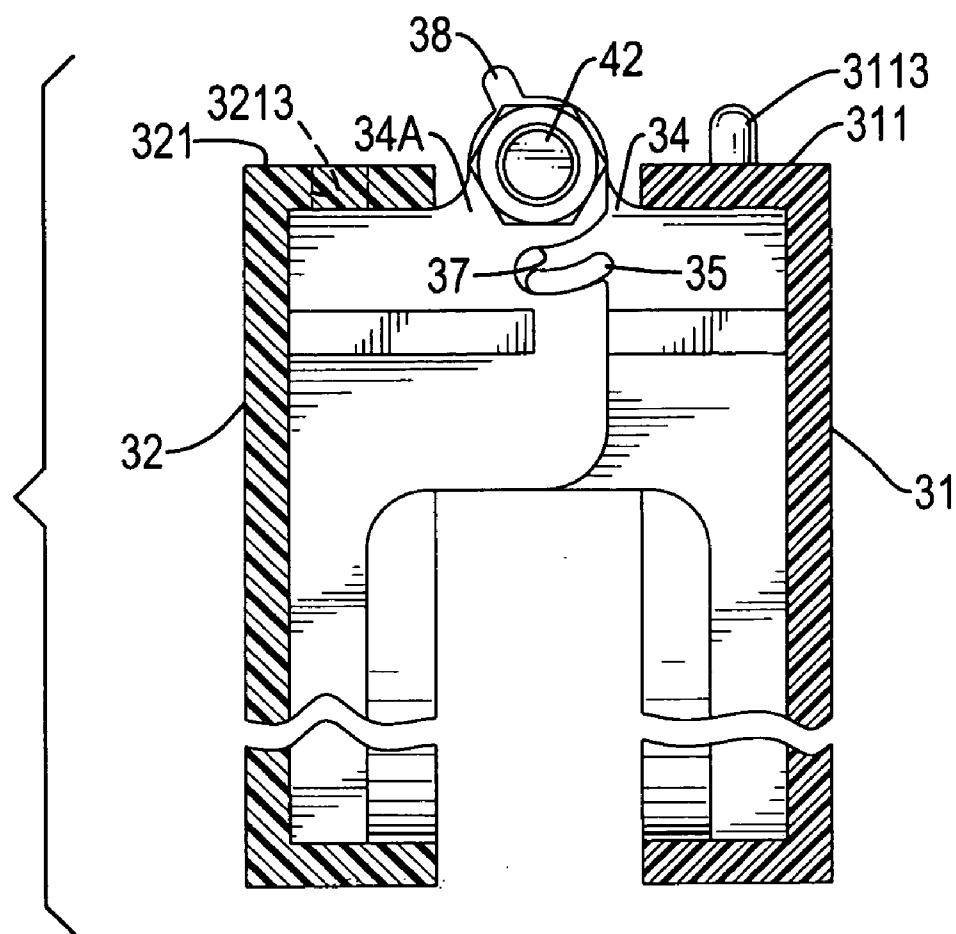


FIG.5

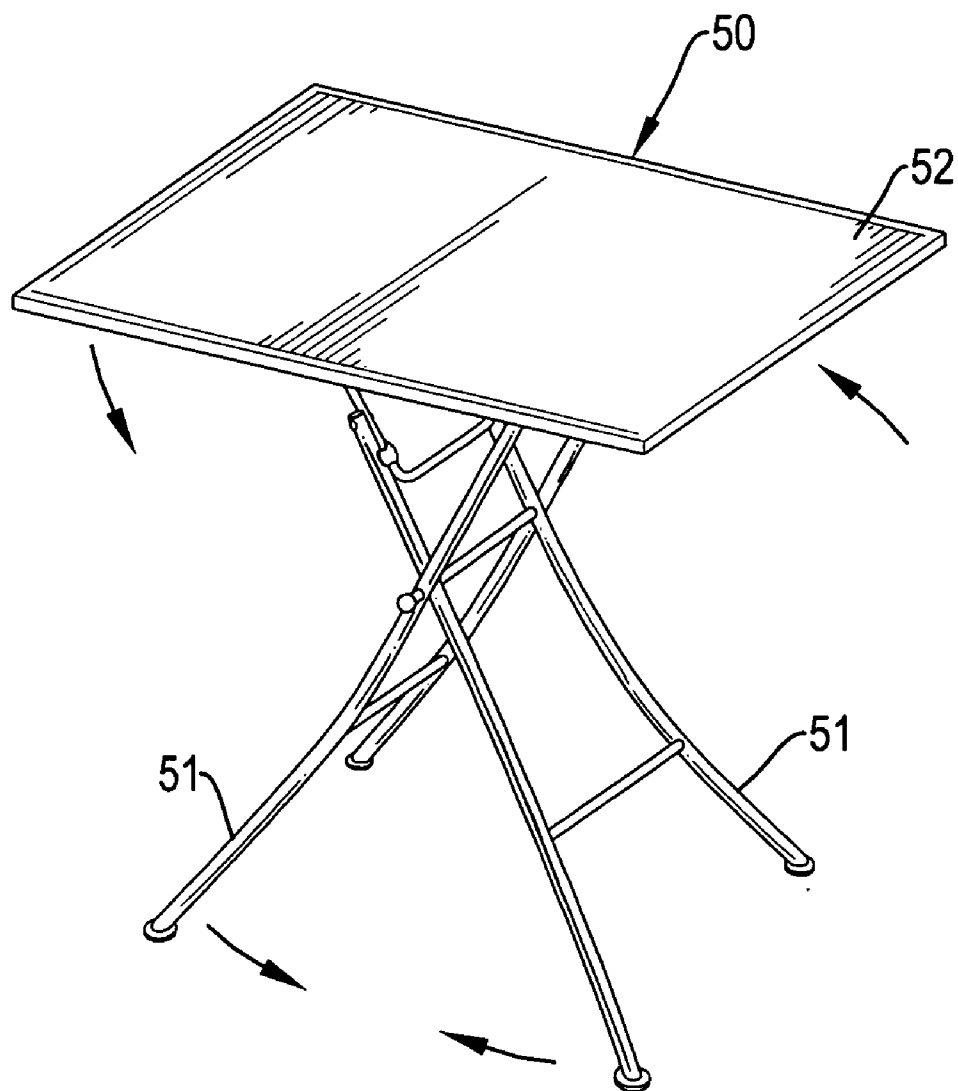


FIG.6
PRIOR ART

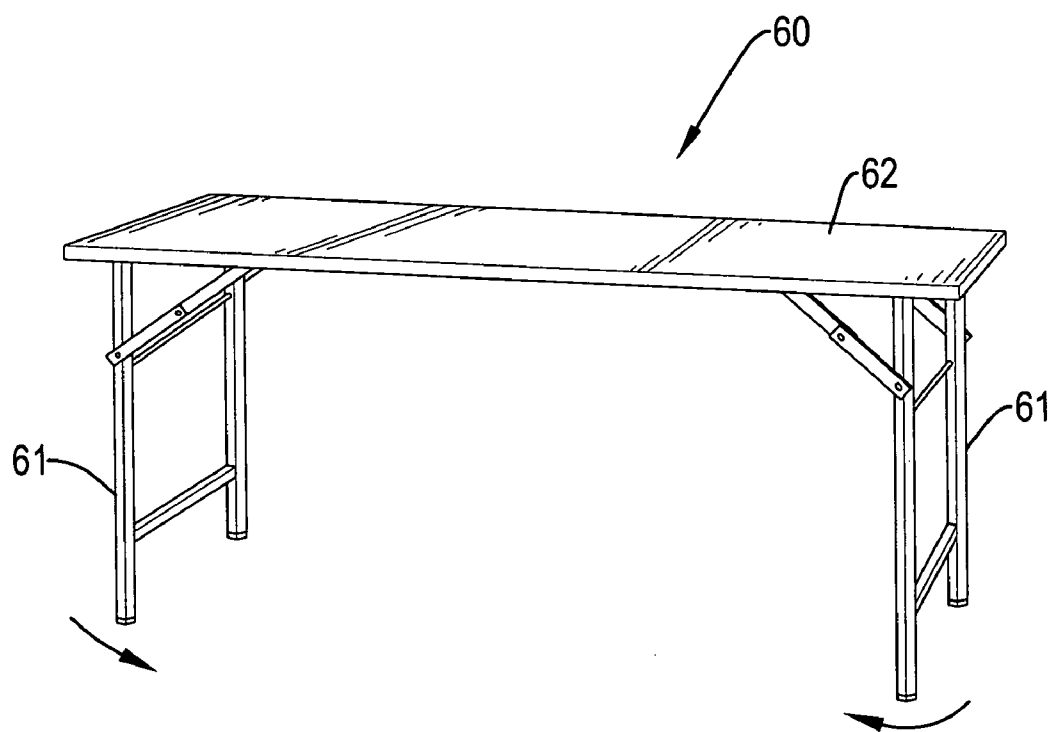


FIG.7
PRIOR ART

TABLE WITH A FOLDABLE TABLETOP

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a table, and more particularly to a table with a foldable tabletop to reduce the space required for storing and ease transporting of the table.

[0003] 2. Description of the Related Art

[0004] With reference to FIG. 6, a conventional table (50) in accordance with the prior art comprises a stand and a tabletop (52). The stand comprises two legs (51) pivotally combined with each other and each having a top. The tabletop (52) is pivotally attached to the tops of the legs (51). When the tabletop (52) is pivoted relative to the legs (51) of the stand, the space for storing the table (50) can be reduced. However, the tabletop (52) of the conventional table cannot be folded and still takes a large space even when the table (50) is in the folded condition.

[0005] With reference to FIG. 7, another conventional table (60) in accordance with the prior art comprises a stand and a tabletop (62). The stand comprises two legs (61) pivotally connected to two ends of the tabletop (62). When the legs (61) are pivoted relative to the tabletop (62), the table (60) is folded. However, the tabletop (62) of the conventional table (60) also cannot be folded, so the conventional tables (50,60) are not convenient to store and transport.

[0006] To overcome the shortcomings, the present invention tends to provide a foldable table to mitigate or obviate the aforementioned problems.

SUMMARY OF THE INVENTION

[0007] The main objective of the invention is to provide a table with a foldable tabletop to effectively reduce the space required for storing and for ease of transporting the table. The table has a stand, a tabletop and a positioning device. The stand is composed of two legs pivotally combined together, and each leg has a top. The tabletop is pivotally attached to the tops of the legs and has a first half board and a second half board pivotally connected with each other and pivotally attached respectively to the tops of the legs. The positioning device is mounted between the half boards of the tabletop to hold the tabletop in an expanded condition.

[0008] Other objectives, advantages and novel features of the invention will become more apparent from the following detailed description when taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 is a perspective view of a table in accordance with the present invention;

[0010] FIG. 2 is an exploded perspective view of the table in FIG. 1;

[0011] FIG. 3 is a side view in partial cross section of the tabletop of the table along line 3-3 in FIG. 1;

[0012] FIG. 4 is a perspective view of the table in FIG. 1 showing the table in a folded condition;

[0013] FIG. 5 is a side view in partial cross section of the tabletop of the table along line 5-5 in FIG. 4;

[0014] FIG. 6 is a perspective view of a conventional table in accordance with the prior art; and

[0015] FIG. 7 is a perspective view of another conventional table in accordance with the prior art.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENT

[0016] With reference to FIGS. 1 to 3, a table (10) in accordance with the present invention comprises a stand (20), a tabletop (30) and a positioning device.

[0017] The stand (20) is composed of two legs (21,22) pivotally combined together. Each leg (21,22) is substantially U-shaped, has a top (211,221) and includes a bottom rod (213,223) and two arms extending upward from two ends of the bottom rod (213,223). Multiple bumpers (23) are attached to the bottom rod (213,223) of each leg (21,22). The legs (21,22) are pivotally combined with each other at the middles of the arms with pivots (24).

[0018] The tabletop (30) is pivotally attached to the tops (211,221) of the legs (21,22) and comprises a first half board (31) and a second half board (32). The half boards (31,32) are pivotally connected with each other and are pivotally attached respectively to the tops (211,221) of the legs (21,22). To pivotally connect the half boards (31,32) with each other, each half board (31,32) has multiple pivotal tabs (34,34A) extending respectively toward the pivotal tabs (34,34A) on the other half board (31,32). Each pivotal tab (34,34A) on the first and second half boards (31,32) has a pivotal hole (341). Multiple pivots (42) extend respectively through the pivotal holes (341) in the corresponding pivotal tabs (34,34A) on the first and second half boards (31,32) to pivotally connect the first and second half boards (31,32) together.

[0019] To pivotally connect the half boards (31,32) to the legs (21,22), two pivotal plates (36A) are mounted on the bottom of each half board (31,32), and each pivotal plate (36A) has a pivotal hole (36A1). Each leg (21,22) has two pivotal holes (212,222) defined respectively in the tops (211,221) of the arms and corresponding to the pivotal holes (36A1) in the pivotal plates (36A) on a corresponding half board (31,32). Four pivots (41) extend respectively through the pivotal holes (212,222,36A1) in the tops of the legs (21,22) and the pivotal plates (36A) on the half boards (31,32) to pivotally connect the half boards (31,32) to the legs (21,22).

[0020] Each half board (31,32) has an abutting edge (311,321) abutting with each other. The first half board (31) has a concave cutout (3111) defined in the abutting edge (311). The second half board (32) has a convex protrusion (3211) formed on the abutting edge (321) and extending into the cutout (3111) in the first half board (31). The first half board (31) further has a supporting tab (3112) laterally formed on the abutting edge (311) at the concave cutout (3111) to hold the protrusion (3211) on the second half board (32). The second half board (32) has a through hole (3212) defined through the second half board (32) near the protrusion (3211), and a cap (33) is detachably held inside the through hole (3212) to close the through hole (3212).

[0021] The positioning device is mounted between the half boards (31,32) of the tabletop (30) to hold the tabletop (30) in an expanded condition. In a preferred embodiment, the positioning device comprises multiple arcuate blocks (35) and multiple engaging fingers (38). The arcuate blocks (35) are formed respectively on the pivotal tabs (34) on the first half board (31). The engaging fingers (38) are formed on the pivotal tabs (34A) on the second half board (32) and respectively correspond to and abut against the arcuate blocks (35) on the pivotal tabs (34) of the first half board (31). With the abutment between the arcuate blocks (35) and the fingers (38), the tabletop (30) can be securely held in the expanded condition.

[0022] In addition, each pivotal tab (34A) on the second half board (32) has an arcuate guiding channel (37) corresponding to a corresponding arcuate block (35) on the first half board (31). The first half board (31) further has multiple stubs (3113) formed on the abutting edge (311) and extending toward the second half board (32). The second half board (32) further has multiple positioning holes (3213) defined in the abutting edge (321) and corresponding respectively to the stubs (3113) on the first half board (31). When the tabletop (30) is expanded, the stubs (3113) on the first half board (31) are held respectively inside the positioning holes (3213) to provide a further positioning effect to the tabletop (30).

[0023] When the table (10) is not in use, with reference to FIGS. 4 and 5, the table (10) can be conveniently folded by pivotally rotating the legs (21,22) and the half boards (31,32) to each other to reduce the space required for storing or easing transporting of the table (10). Because the tabletop (30) is composed of two pivotally-connected half boards (31,32) and is foldable, the volume of the folded table (10) can be minimized. When the tabletop (30) is folded, the arcuate blocks (35) are held respectively inside the arcuate guiding channel (37) to provide a positioning effect to the folded tabletop (30). In addition, by removing the cap (33) from the through hole (3212) in the second half board (32), a handle complemented by the convex protrusion (3211) and the through hole (3212) is provided for conveniently carrying the table (10) to any desired location.

[0024] Even though numerous characteristics and advantages of the present invention have been set forth in the foregoing description, together with details of the structure and function of the invention, the disclosure is illustrative only. Changes may be made in the details, especially in matters of shape, size, and arrangement of parts within the principles of the invention to the full extent indicated by the broad general meaning of the terms in which the appended claims are expressed.

What is claimed is:

1. A table comprising:

a stand composed of two legs pivotally combined together and each leg having a top;

a tabletop pivotally attached to the tops of the legs and comprising a first half board and a second half board pivotally connected with each other and pivotally attached respectively to the tops of the legs; and

a positioning device mounted between the half boards of the tabletop to hold the tabletop in an expanded condition.

2. The table as claimed in claim 1, wherein

each one of the first and second half boards has an abutting edge abutting with each other;

the first half board has a concave cutout defined in the abutting edge; and

the second half board has a convex protrusion formed on the abutting edge and extending into the cutout in the first half board.

3. The table as claimed in claim 2, wherein

the first half board has multiple pivotal tabs extending toward the second half board;

the second half board has multiple pivotal tabs extending toward the first half board and corresponding respectively to the pivotal tabs on the first half board;

multiple pivots extending respectively through corresponding pivotal tabs on the first and second half board to pivotally connect the first and second half board together.

4. The table as claimed in claim 3, wherein

the positioning device comprises

multiple arcuate blocks formed respectively on the pivotal tabs on the first half board; and

multiple engaging fingers formed on the pivotal tabs on the second half board and respectively corresponding to and abutting against the arcuate blocks on the pivotal tabs of the first half board when the tabletop is in the expanded condition.

5. The table as claimed in claim 4, wherein each pivotal tab on the second half board has an arcuate guiding channel corresponding to a corresponding arcuate block on the first half board to hold the corresponding arcuate block inside when the tabletop is in a folded condition.

6. The table as claimed in claim 5, wherein the first half board further has multiple stubs formed on the abutting edge and extending toward the second half board; and

the second half board further has multiple positioning holes defined in the abutting edge and corresponding respectively to the stubs on the first half board to hold the stubs inside in respective when the tabletop is in the expanded condition.

7. The table as claimed in claim 6, wherein the first half board further has a supporting tab laterally formed on the abutting edge at the concave cutout to hold the protrusion on the second half board.

8. The table as claimed in claim 7, wherein

the second half board has a through hole defined through the second half board near the protrusion; and

a cap detachably held inside the through hole to close the through hole.

9. The table as claimed in claim 2, wherein the first half board further has multiple stubs formed on the abutting edge and extending toward the second half board; and

the second half board further has multiple positioning holes defined in the abutting edge and corresponding respectively to the stubs on the first half board to hold the stubs inside respectively when the tabletop is in the expanded condition.

10. The table as claimed in claim 9, wherein the first half board further has a supporting tab laterally formed on the abutting edge at the concave cutout to hold the protrusion on the second half board.

11. The table as claimed in claim 10, wherein

the second half board has a through hole defined through the second half board near the protrusion; and

a cap detachably held inside the through hole to close the through hole.

12. The table as claimed in claim 1, wherein

the first half board has multiple pivotal tabs extending toward the second half board;

the second half board has multiple pivotal tabs extending toward the first half board and corresponding respectively to the pivotal tabs on the first half board;

multiple pivots extending respectively through corresponding pivotal tabs on the first and second half board to pivotally connect the first and second half board together.

13. The table as claimed in claim 12, wherein

the positioning device comprises

multiple arcuate blocks formed respectively on the pivotal tabs on the first half board; and

multiple engaging fingers formed on the pivotal tabs on the second half board and respectively corresponding to and abutting against the arcuate blocks on the pivotal tabs of the first half board when the tabletop is in the expanded condition.

14. The table as claimed in claim 13, wherein each pivotal tab on the second half board has an arcuate guiding channel corresponding to a corresponding arcuate block on the first half board to hold the corresponding arcuate block inside when the tabletop is in a folded condition.

15. The table as claimed in claim 1, wherein

each one of the first and second half boards has an abutting edge abutting with each other;

the first half board further has multiple stubs formed on the abutting edge and extending toward the second half board; and

the second half board further has multiple positioning holes defined in the abutting edge and corresponding respectively to the stubs on the first half board to hold the stubs inside respectively when the tabletop is in the expanded condition.

16. The table as claimed in claim 2, wherein the first half board further has a supporting tab laterally formed on the abutting edge at the concave cutout to hold the protrusion on the second half board.

17. The table as claimed in claim 2, wherein

the second half board has a through hole defined through the second half board near the protrusion; and

a cap detachably held inside the through hole to close the through hole.

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