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(54) **Support structure for a table**

(57) A table may include a table top and a support structure connected to the table top. The support structure may include a pair of legs that are movable between extended and collapsed positions relative to the table top. The support structure may also include a brace assembly with a first portion connected to the legs and a

second portion connected to the table top. The first portion of the brace assembly may be a unitary, one-piece structure or it may include multiple interconnected components. The first portion of the brace assembly is preferably curved upwardly and inwardly towards a center portion of the table top.

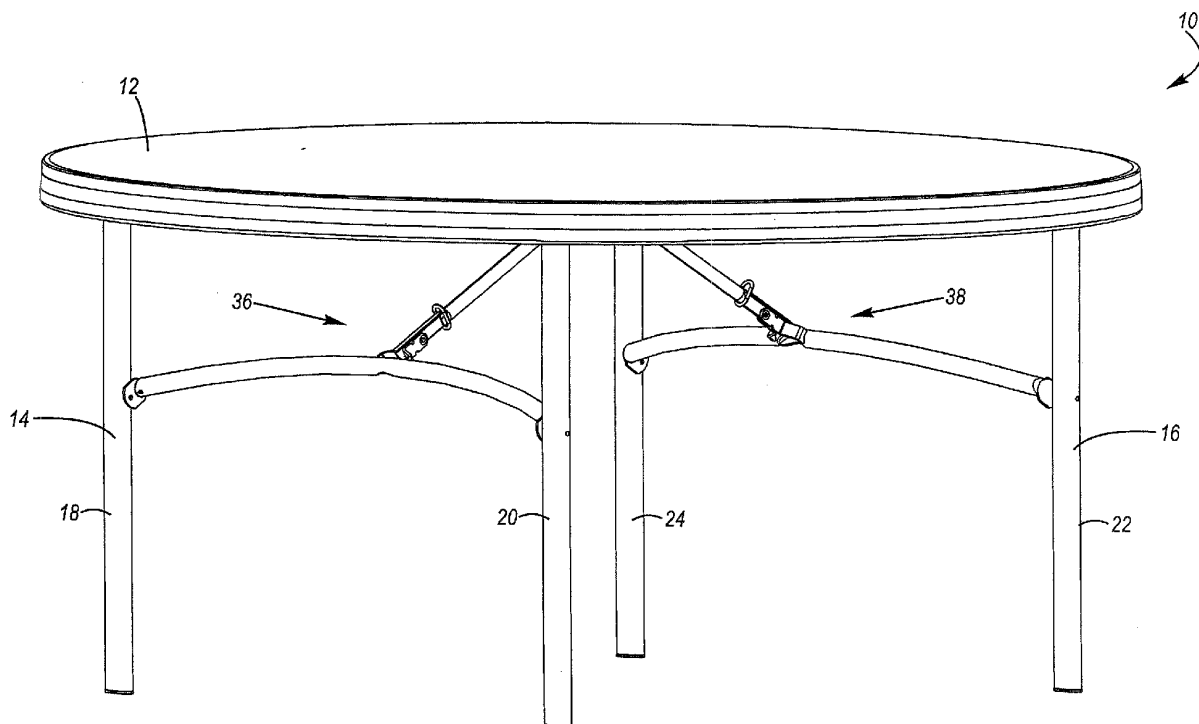


Figure 1

Description

Field of the Invention

[0001] The present invention generally relates to furniture and, in particular, to tables.

Description of Related Art

[0002] Conventional tables typically include legs that are connected to a table top. Many conventional tables include folding legs to allow the table to be more easily transported and stored. These conventional tables may include legs that are pivotally attached to the table top to allow the legs to be moved between an extended position in which the legs extend outwardly from the table top and a collapsed or storage position in which the legs are positioned near or adjacent to the table top. Thus, when the table is desired to be used, the legs are placed in the extended position. On the other hand, when the table is desired to be transported or stored, the legs can be placed in the collapsed or storage position.

[0003] Conventional tables may include support struts to secure the legs in the extended position. The support struts, however, may be tricky to use and the support struts can make it difficult and/or awkward to sit in particular positions relative to the table. The support struts may limit the leg room available to the users of the table.

BRIEF SUMMARY OF EMBODIMENTS OF THE INVENTION

[0004] A need therefore exists for a table that eliminates or diminishes the disadvantages and problems described above.

[0005] One aspect is a table that may include a table top and a support structure. The support structure may include one or more legs that may be movable between an extended or use position and a collapsed or storage position relative to the table top. The support structure may, for example, include a pair of legs and a brace assembly. The brace assembly may connect the pair of legs together and may be sized and configured to allow the legs to move between the use and storage positions. The brace assembly may also allow the legs to be locked in the extended and/or collapsed positions.

[0006] Another aspect is table that may include a table top and a support structure with a pair of legs and a brace assembly. The brace assembly may include a first portion connected to the legs and a second portion connected to the table top. The first and second portions of the brace assembly may be movably interconnected, which may allow the brace assembly and/or the legs to move between the extended and collapsed positions relative to the table top. In particular, as the legs are moved between the extended and collapsed positions, the first and second portions of the brace assembly may pivot, rotate, slide and/or otherwise move relative to each other to al-

low the brace assembly and/or the legs to move between the extended and collapsed positions. Additionally, if the first and second portions of the brace assembly are movably interconnected, then the legs and the brace assembly may be more easily positioned proximate or against a lower portion of the table top when the legs and brace assembly are in the storage position. Advantageously, when the legs and brace assembly are in the storage position, the legs and brace assembly may be generally aligned in the same plane and may be positioned adjacent to and/or contacting the lower portion of the table top, which may permit the table to be more efficiently stored and/or shipped. That is, because the legs and brace assembly may be disposed adjacent and/or contacting a lower portion of the table top when the legs and brace assembly are in the collapsed position, that may minimize the thickness of the table and allow the table to be more easily shipped or stored because less space may be required.

[0007] Yet another aspect is a table that may provide increased leg room. For example, the table may include a brace assembly and a portion of the brace assembly may be curved or arched away from the outer edges of the table top, which may increase the leg room available under the table top. In addition, the table may include a brace assembly that is curved or arched upwardly, which may also increase the amount of leg room. Significantly, the brace assembly may be curved or arched both upwardly and away from the outer edges of the table top to increase leg room. Desirably, the brace assembly may be curved upwardly and inwardly towards a center portion of the table top. Advantageously, the curved or arched brace assembly may allow a shorter connecting member to be used to connect the curved portion of the brace assembly to the table top.

[0008] Still another aspect is a table that may allow users to sit in multiple different locations relative to the table top and still provide ample leg room to such users. For instance, the table may include legs and a brace assembly may help connect the legs to the table top. The brace assembly preferably increases the versatility of the table by allowing persons to sit in various positions relative to the table top without limiting the leg room of the persons sitting at the table. That is, the brace assembly may be sized and configured to allow persons to sit at any locations relative to the table top without limiting the leg room of such persons.

[0009] Still yet another aspect is a table that may include a support structure with a first leg, a second leg and a brace assembly. The brace assembly may include a first portion that is connected to the first and second legs and a second portion that is connected to the table top. In greater detail, the first portion is preferably movably connected to the legs and the second portion is preferably movably connected to the table top. The first portion of the brace assembly preferably has a rigid, inflexible configuration and securely connects the first and second legs, which may help strengthen and/or reinforce the

support structure. The secure connection of the legs by the first portion of the brace assembly may also help create a table that is sturdy and stable. Advantageously, the secure connection of the legs by the first portion of the brace may help eliminate the need for additional structure or supports interconnecting the first and second legs. That is, no additional supports or structures may be required to connect the legs. Because additional structure or supports may not be needed, the table may have more leg room. The additional legroom may also help provide more versatile seating at the table. For example, because the additional structure or supports may be eliminated, this may allow persons to sit in additional locations relative to the table top without the additional structure or supports limiting leg room or preventing persons from sitting in certain locations.

[0010] A further aspect is a table that may include a brace assembly which pivotally connects first and second legs to a table top. The brace assembly may include a first portion with one end that is connected to the first leg and a second end that is connected to the second leg. The first portion of the brace assembly is preferably pivotally connected to the first and second legs. The first portion of the brace assembly may be constructed as part of a unitary, one-piece structure. For example, the first portion of the brace may be constructed from a tube or rod. The first portion of the brace may also be constructed from one or more components that may be interconnected. For instance, the first portion of the brace may include a first section that is connected to the first leg and a second section that is connected to the second leg. The first and second sections may then be connected to form the first portion of the brace assembly.

[0011] Another further aspect is a table that may include a brace assembly with a first portion and a second portion that are connected by a bracket. For example, the first portion of the brace assembly may include a first section and a second section that are connected by the bracket. The second portion of the brace assembly may also be connected to the bracket. The bracket may include flanges to facilitate connection of the bracket to the first and second sections of the brace assembly. The bracket may also include a flange that straddles and/or engages the second portion of the brace assembly when the brace assembly is in the storage position, which may help position the legs and/or the brace assembly proximate or against a lower portion of the table top when the legs and brace assembly as in the storage position.

[0012] Yet another further aspect is a table that may include legs which are pivotally connected to a table top and a brace assembly that is pivotally connected to the legs. For example, the brace assembly may include a first portion that is pivotally connected proximate a midpoint of a first leg and a second leg. The first portion of the brace assembly may be curved or arched upwardly and towards a center portion of the table top. A second portion of the brace assembly is preferably pivotally connected to the first portion of the brace assembly by a

bracket. The pivotal connection of the first and second portions of the brace assembly is preferably disposed proximate the first portion of the brace assembly but spaced apart from the first portion of the brace assembly by a distance. This may allow, for instance, the pivotal connection of the first portion of the brace assembly to the legs to be aligned along an axis and the pivotal connection of the first and second portions of the brace assembly to be spaced apart from the axis and disposed towards the center portion of the table top. This may also allow the first portion and the second portion of the brace to have approximately the same length, which may facilitate shipping and/or manufacturing of the table.

[0013] Still another further aspect is a brace assembly for a table that may include a first portion which is pivotally connected to a first leg and a second leg of the table. The brace assembly may also include a second portion that is pivotally connected to the table top. The first portion and the second portion of the brace assembly may be connected by a bracket. In particular, the bracket may be connected proximate a center or midpoint of the first portion of the brace assembly and the bracket may be pivotally connected to an end of the second portion of the brace assembly. Thus, the brace assembly may include four pivot points and the pivotal connection of the second portion of the brace assembly to the bracket is preferably disposed proximate the first portion of the brace. For instance, the distance separating the pivotal connection of the second portion of the brace assembly and the bracket to the first portion of the brace assembly may be less than the distance that the first portion of the bracket extends inwardly. That is, the first portion of the brace assembly may be curved inwardly by a distance that is more than the distance separating the pivotal connection of the second portion of the brace assembly to the bracket and the first portion of the bracket.

[0014] Yet another further aspect is a brace assembly for a table that includes an engaging surface that engages a portion of the brace assembly when the legs are in the collapsed position. For example, the brace assembly may include a bracket with a flange that is sized and configured to engage part of the second portion of the brace assembly when the legs are in the collapsed position. The brace assembly may also include a receiving portion that is sized and configured to receive a portion of the brace assembly when the legs are in the collapsed position.

[0015] Another aspect is a table may include a table top and a support structure connected to the table top. The support structure may be movable between a use position and a collapsed position relative to the table top. The support structure may include a first leg, a second leg and a brace assembly movably connected to the first leg and the second leg. The brace assembly may include a first portion connected to the first leg and the second leg, the first portion having a curved configuration that curves towards a central portion of the table top when the support structure is in the use position. The brace

assembly may also include a second portion with a first end connected to the first portion of the brace assembly and a second end connected to the table top.

[0016] If desired, the first leg and the second leg may be disposed in a first plane, the first portion of the brace assembly may be disposed at an angle from the first plane when the support structure is in the use position, and the first portion of the brace assembly may be generally disposed in the first plane when the support structure is in the collapsed storage position. The first portion of the brace assembly may be constructed from a unitary, one-piece metal tube. The first portion of the brace assembly may include a receiving portion that is sized and configured to receive a part of the second portion of the brace assembly when the support structure is in the collapsed position, and the second portion of the brace assembly may be disposed outside of and spaced apart from the receiving portion when the support structure is in the use position. The first portion of the brace assembly may be movably connected to the second portion of the brace assembly by a bracket. The first portion of the brace assembly may be the only structure connected to the first leg and the second leg between a lower end and an upper end of the first leg and the second leg. The first portion of the brace assembly may include a bracket and the bracket may include a receiving portion that is sized and configured to receive a part of the second portion of the brace assembly when the support structure is in the collapsed position, and the part of the second portion of the brace assembly may be disposed outside of and spaced apart from the receiving portion when the support structure is in the use position. The first portion of the brace assembly may be movably connected to the second portion of the brace assembly by the bracket.

[0017] Still another aspect is a table may include a table top and a support structure that is movable between a use position and a collapsed position relative to the table top. The support structure may include a cross member connected to the table top, a first leg connected to the cross member, a second leg connected to the cross member, and a brace assembly including a first portion connected to the first leg and the second leg, the first portion of the brace assembly having an arch-shaped configuration with an apex of the arch extending upwardly and inwardly towards a center portion of the table top when the support structure is in the use position, the brace assembly including a second portion with a first end connected to the first portion of the brace assembly and a second end connected to the table top.

[0018] If desired, the first and second legs may be generally disposed in a first plane, the first portion of the brace assembly may be offset from the first plane at an angle when the support structure in the use position, and the first portion of the brace assembly may be generally disposed in the first plane when the support structure is in the collapsed position. The first portion of the brace assembly may have a generally constant radius of curvature between a first end connected to the first leg to a

second end connected to the second leg. The first portion of the brace assembly may include a receiving portion that is sized and configured to receive a part of the second portion of the brace assembly when the support structure is in the collapsed position. The first portion of the brace assembly may be constructed from a unitary, one-piece metal tube. The first portion of the brace assembly may include a bracket and the bracket may have a receiving portion that is sized and configured to receive a part of the second portion of the brace assembly when the support structure is in the collapsed position.

[0019] Yet another aspect is a table that may a table top and a support structure connected to the table top. The support structure being capable of moving between a use position that facilitate use of the table and a collapsed position that facilitates shipping or storage of the table. The support structure may include a first leg, a second leg, and a brace assembly. The brace assembly may include a first portion connected to the first leg and the second leg, the first portion having a curved configuration that extends upwardly and towards a center portion of the table top when the support structure is in the use position, the brace assembly including a second portion that is connected to the first portion of the brace assembly and the table top.

[0020] If desired, the table may further include a bracket connecting the first portion of the brace assembly to the second portion of the brace assembly, the bracket including an engaging portion that engages a part of the second portion of the brace assembly when the support structure is in the collapsed position. The first portion of the brace assembly may be curved inwardly by a distance that is greater than a length of the bracket when the support structure is in the use position. The first portion of the brace assembly may include a receiving portion that is sized and configured to receive a part of the second portion of the brace assembly when the support structure is in the collapsed position. The first portion of the brace assembly may be disposed between and generally aligned with the first leg and the second leg when the support structure is in the collapsed position.

[0021] These and other aspects, features and advantages of the present invention will become more fully apparent from the following detailed description of preferred embodiments and appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0022] The appended drawings contain figures of preferred embodiments to further illustrate and clarify the above and other aspects, advantages and features of the present invention. It will be appreciated that these drawings depict only preferred embodiments of the invention and are not intended to limit its scope. The invention will be described and explained with additional specificity and detail through the use of the accompanying drawings in which:

[0023] Figure 1 is an upper perspective view of an ex-

emplary table;

[0024] Figure 2 is a lower perspective view of the table shown in Figure 1;

[0025] Figure 3 is perspective view of a portion of the table shown in Figure 2, illustrating a support structure and a brace assembly;

[0026] Figure 4 is an enlarged perspective view of a portion of the table shown in Figure 3;

[0027] Figure 5 is a perspective view of a portion of the table shown in Figure 4;

[0028] Figure 6 is perspective of another exemplary brace assembly;

[0029] Figure 7 is an enlarged perspective view of a portion of the table shown in Figure 6;

[0030] Figure 8 is an enlarged perspective view of a portion of the table shown in Figure 7, illustrating a bracket; and

[0031] Figure 9 is a perspective view of a portion of the brace assembly shown in Figure 6, illustrating the brace assembly in a storage or collapsed position.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0032] The present invention is generally directed towards tables. The principles of the present invention, however, are not limited to tables. It will be understood that, in light of the present disclosure, the invention disclosed herein can be successfully used in connection with other types of structures such as chairs, benches, seats and the like.

[0033] Additionally, to assist in the description of the table, words such as top, bottom, front, rear, right and left may be used to describe the accompanying figures, which may be but are not necessarily drawn to scale. It will be appreciated that the table can also be located in a variety of positions and/or orientations. It will further be appreciated that the table can have a variety of suitable shapes, sizes, configurations and arrangements. For example, the table may be a card table, utility table, picnic table, personal table, etc. The table may also be round, square, rectangular, oval and so forth. Thus, a person of ordinary skill in the art will understand that the table may have a variety of suitable forms and figures depending, for example, upon the intended use of the table. A detailed description of the table now follows.

[0034] As shown in Figures 1 and 2, a table 10 may include a table top 12 and the table top may be constructed from blow-molded plastic. The table top 12 may include an upper surface, a lower surface and an outer perimeter. The upper surface of the table top 12 may be spaced apart from the lower surface of the table top by a distance, which may be a generally constant distance. The table top 12 may also include a hollow interior portion disposed between the upper and lower portions of the table top. The table top 12, including the upper portion, the lower portion and the hollow interior portion, may be integrally formed as part of unitary, one-piece structure

during the blow-molding process. It will be appreciated that the table top 12 may be constructed using other suitable materials such as wood, metal and the like. It will also be appreciated that the table top 12 may be constructed using other processes and methods such as injection molding, rotary molding, and the like.

[0035] The table 10 may also include a first support structure 14 and the second support structure 16. The support structures 14, 16 may include one or more legs and the support structures may be movable between an extended or use position and a collapsed or storage position relative to the table top 12. For example, the first support structure 14 may include a first pair of legs 18, 20, and the second support structure 16 may include a second pair of legs 22, 24.

[0036] The table 10 may include a frame 26 and the frame may be connected to the table top 12. If desired, the support structures 14, 16 may be connected to the frame 26. In addition, the support structures 14, 16 may be movably connected to the frame 26 to allow the legs 18, 20, 22, 24 to move between the use and storage positions. For example, the support structures 14, 16 may include cross members 28, 30 and the legs 18, 20, 22, 24 may be connected to the cross members. The cross member 28, 30 may then be connected to the frame 26. In particular, the frame 26 may include elongated support members or rails 32, 34 and the cross members 28, 30 may be connected to the rails. It will be appreciated that the cross members 28, 30 may also be part of the frame 26.

[0037] The legs 18, 20, 22, 24, however, do not have to be connected to the cross members 28, 30 or the frame 26. Instead, the legs 18, 20, 22, 24 may be connected to any suitable portions of the table 10. It will also be appreciated that the table 10 may include any suitable number of legs and/or support structures depending, for example, upon the intended use of the table. It will also be appreciated that the table top 12, the support structures 14, 16, and the legs 18, 20, 22, 24 may have various sizes, shapes, configurations and arrangements depending, for example, upon the intended use of the table 10. It will further be appreciated that the frame 26, the rails 32, 34 and/or the cross members 28, 30 are not required; and that the table 10 may have other components, features, aspects, characteristics and the like, if desired.

[0038] The first and second support structures 14, 16 may also include first and second brace assemblies 36, 38, respectively. The brace assemblies 36, 38 may be connected to the legs 18, 20, 22, 24, and may be sized and configured to allow the legs to move between the use and storage positions. As shown in Figures 2 and 3, the brace assemblies 36, 38 may include a first portion 40 that may be connected to the legs 18, 20, 22, 24, respectively, and a second portion 42 that may be connected to the table top 12. The first and second portions 40, 42 may be interconnected to form the brace assemblies 36, 38.

[0039] In greater detail, the first portion 40 of the brace assemblies 36, 38 may be pivotally connected to the legs 18, 20, 22, 24, respectively, and the second portion 42 of the brace assemblies may be pivotally connected to the table top 12. Desirably, the brace assemblies 36, 38 and the legs 18, 20, 22, 24 move together between the extended or use position and the collapsed or storage position. In particular, as the legs 18, 20, 22, 24 are moved between the use and storage positions, the supports 40, 42 may pivot, rotate, slide and/or move relative to each other to allow the brace assemblies 36, 38 and/or the legs to move between the use and storage positions. The legs 18, 20, 22, 24 and the brace assemblies 36, 38 are preferably positioned proximate and/or against the lower portion of the table top 12 in the storage position, which may permit the table 10 to be more efficiently stored and/or shipped because the thickness or width of the table may be minimized.

[0040] As shown in Figure 3, the first portion 40 of the brace assemblies 36, 38 may include a first section 44 and a second section 46. The first section 44 may be connected to the first leg 18, 22, respectively, and the second section 46 may be connected to the second leg 20, 24, respectively. The first section 44 is preferably pivotally connected to the first leg 18, 22 and the second section 46 is preferably pivotally connected to the second leg 20, 24.

[0041] The first portion 40 of the brace assemblies 36, 38 may be part of a unitary, one-piece structure. Thus, the first section 44 and the second section 46 of the first portion 40 of the brace assemblies 36, 38 may be part of the unitary, one-piece structure. The first portion 40 of the brace assemblies 36, 38 may also include an intermediate section 48 that is disposed between the first and second sections 44, 46.

[0042] In greater detail, as shown in Figures 3 and 4, the first portion 40 of the brace assembly 36, 38 may be constructed from a unitary, one-piece member, such as an elongated tube or rod 50. The tube or rod 50 may include a first end 52 connected to the first leg 18, 22, a second end 54 connected to the second leg 20, 24, and an intermediate portion 56 disposed between the first and second ends of tube or rod.

[0043] The first portion 40 of the brace assemblies 36, 38 preferably securely connects the first leg 18, 22 and the second leg 20, 24, respectively. In addition, the first portion 40 of the brace assemblies 36, 38 is preferably a generally rigid, relatively strong and inflexible member that helps secure the legs 18, 20, 22, 24 in a fixed position.

[0044] As shown in the accompanying figures, the first portion 40 of the brace assemblies 36, 38 may have a generally curved configuration. The first portion 40 of the brace assemblies 36, 38 preferably curves upwardly and inwardly towards a central portion of the table top 12 when the legs are in the extended or use position. In addition, when the legs are in the extended or use position, the first portion 40 of the brace assembly 36, 38 may be generally positioned offset from a plane aligned with

the first leg 18, 22 and the second leg 20, 24, respectively, which may help provide additional legroom. The first portion 40 of the brace assemblies 36, 38 is generally aligned and in the same plane as the legs 18, 20, 22, 24 with the legs are in the collapsed or storage position.

[0045] The first portion 40 of the brace assemblies 36, 38 may help strengthen and/or reinforce the legs 18, 20, 22, 24. This may help avoid the need for additional supports or other structures to be connected to the legs 18, 20, 22, 24. For example, the first portion 40 of the brace assemblies 36, 38 may securely hold the legs 18, 20, 22, 24 in the desired positions when the legs are in the collapsed and/or extended positions. This may eliminate the need for any other supports or structures to be connected to the legs. Specifically, no other supports or structures may be needed to interconnect the legs or attach the legs to the table. Therefore, no additional supports or structures may be disposed between the legs and/or aligned in the same plane as the first and second legs. Because the first pair of legs 18, 20 and the second pair of legs 22, 24 may only be connected by the first portion 40 of the brace assemblies 36, 38, the first portion of the brace assembly may be the structure that is disposed between the distal ends of the legs 18, 20, 22, 24 and the cross members 28, 30. Because no additional support or structures may be used to connect and position the legs 18, 20, 22, 24, the table 10 may have even more leg room than a conventional table.

[0046] The additional legroom may help provide more versatile seating at the table 10. For example, because the brace assemblies 36, 38 may not interfere or limit the positioning of persons around the table 10, the table may be used in more configurations and arrangements. In addition, if the table 10 has a round table top 12, then the brace assemblies 36, 38 may allow persons to be seated at virtually any position relative to the table top without the brace assemblies interfering with sitting at the table. It will be appreciated that the brace assemblies 36, 38 may also be used with tables 10 and table tops 12 having different shapes, sizes, configurations and arrangements. It will also be appreciated that the table 10 may include additional supports interconnecting the legs. It will further be appreciated that the first portion 40 of the brace assembly 36, 38 may have other suitable shapes, sizes, configurations and arrangements depending, for example, upon the intended use of the table 10.

[0047] As best seen in Figure 2, the first portion 40 of the brace assemblies 36, 38 is attached proximate a mid-point of the legs 18, 20, 22, 24. Preferably there is no other structure connected to the legs 18, 20, 22, 24 other than the first portion 40 of the brace assemblies 36, 38. The first portion 40 of the brace assemblies 36, 38 is preferably pivotally connected to the legs 18, 20, 22, 24, and to the second portion 42 of the brace assemblies. The pivot point where the first and second portions 40, 42 of the brace assemblies is preferably spaced apart from the first portion by a distance. The distance separating the pivot point of the first and second portions 40,

42 from the first portion is preferably less than the distance the first portion is curved or arched inwardly.

[0048] To help position the legs 18, 20, 22, 24 and the brace assemblies 36, 38 proximate and/or against the lower portion of the table top 12, the first portion 40 of the brace assembly 36, 38 may straddle and/or engage a section of the second portion 42 of the brace assembly. For example, the first portion 40 may include a receiving portion 58 (such as an opening, cut-out, recess, notch, channel, groove or the like) that is sized and configured to receive a section of the second portion 42 when the legs 18, 20, 22, 24 and/or the brace assemblies 36, 38 are in the storage position. In addition, the first portion 40 of the brace assembly 36, 38 may straddle a section of the second portion 42 when the legs 18, 20, 22, 24 and/or the brace assemblies 36, 38 are in the storage position. The receiving portion 58 is preferably disposed at least proximate the intermediate portions 48, 56 of the first portion 40 of the brace assembly 36, 38.

[0049] As shown in Figure 5, the second portion 42 of the brace assembly may have a generally T-shaped end 60, which may be connected to the first portion 40 of the brace assembly by one or more brackets 62. The generally T-shaped configuration of the end 60 of the second portion 42 of the brace assembly may advantageously help the second portion resist torque that may be applied to the support structures 14, 16. An opposing end 64 of the second portion 40 of the support brace may be connected to the table top 12. For example, a cross member 66 may be connected to the table top 12 and the second portion 42 of the brace assemblies 36, 38 may be connected to the cross member 66. It will be appreciated that the second portion 42 of the brace assemblies 36, 38 may be connected to any suitable portions of the table 10 and the cross member 66 is not required. It will also be appreciated that the brace assemblies 36, 38 may have other suitable shapes, sizes, configurations and arrangements depending, for example, upon the intended use of the table 10. It will further be appreciated that support structures 14, 16 may have other suitable shapes, sizes, configurations and arrangements depending, for example, upon the shape, size, configuration and arrangement of the brace assemblies 36, 38.

[0050] For example, as shown in Figures 6-9, the brace assembly 68 may include a first portion 70 that is connected to the legs 18, 20, 22, 24, respectively, and a second portion 72 that is connected to the table top 12. Preferably, the first portion 70 is pivotally connected to the legs 18, 20, 22, 24, respectively, and the second portion 72 is pivotally connected to the table top 12. In addition, the first and second portions 70, 72 of the brace assembly 68 are preferably pivotally connected.

[0051] In greater detail, the first portion 70 of the brace assembly 68 may include a first section 74 that is connected to the first leg 18, 22, and a second section 76 that is connected to the second leg 20, 24. The first portion 70 of the brace assembly 68 may also include an intermediate section 78 that is disposed between or con-

nected to the first and second sections 74, 76. The first portion 70 of the brace assembly 68 may have a unitary, one-piece construction or it may include multiple components that are interconnected. Desirably, the first portion 70 of the brace assembly 68 has a relatively strong and rigid configuration in which the first, second and intermediate sections 74, 76, 78 are disposed in a fixed position. Advantageously, this may allow the first portion 70 of the brace assembly 68 to securely hold the legs 18, 20, 22, 24 in a fixed position.

[0052] The brace assembly 68 is preferably constructed from a relatively strong and sturdy material such as metal. For example, the first and second sections 74, 76 of the first portion 70 of the brace assembly 68 may be constructed from elongated members, such as metal rods or tubes 80, 82. It will be appreciated that the brace assembly 68 may be constructed from other materials with suitable characteristics.

[0053] As best seen in Figures 6-9, the first portion 70 of the brace assembly 68 may include a bracket 84 and the bracket may connect the first and second sections 74, 76 of the first portion 70 of the brace assembly 68. In greater detail, the elongated members 80, 82 may include a first portion that is pivotally connected to the first leg 18, 22 and a second portion that is connected to the bracket 84 in a fixed position. As shown in the accompanying drawings, the elongated members 80, 82 may be curved inwardly and upwardly towards a central portion of the table top 12. In addition, the elongated members 80, 82 may be generally positioned offset from a plane aligned with the first leg 18, 22 and the second leg 20, 24, when the first and second legs are in the extended or use position. The elongated members 80, 82 may be generally aligned in the plane when the first and second legs 18, 20, 22, 24 are in the collapsed or storage position.

[0054] To help position the legs 18, 20, 22, 24 and the brace assembly 68 proximate and/or adjacent to the lower portion of the table top 12, a part of the first portion 70 of the brace assembly 68 may straddle a part of the second portion 72 of the brace assembly. For example, as shown in Figures 8-9, the first portion 70 of the brace assembly 68 may include a receiving portion 86 that is sized and configured to receive a part of the second portion 72 when the legs 18, 20, 22, 24 and/or the brace assemblies 68 are in the storage position. The receiving portion 86 may be disposed between first and second flanges 88, 90 of the bracket 84. In addition, the flanges 88, 90 of the bracket 84 may straddle part of the second portion 72 of the brace assembly 68 when the legs 18, 20, 22, 24 and/or the brace assemblies 68 are in the storage position. When the legs 18, 20, 22, 24 and/or the brace assemblies 68 are in the use position, the second portion 72 of the brace assembly 68 is preferably not disposed in the receiving portion 86. As shown in Figure 6, the bracket 84 and the receiving portion 86 may be disposed at least proximate the intermediate portion 78 of the first portion 70 of the brace assembly 68. It will be appreciated, however, that the brace assembly 68 may

have other suitable shapes, sizes, configurations and arrangements depending, for example, upon the intended use of the table 10. It will also be appreciated that the brace assembly 68 may have other suitable parts, components, aspects and features, if desired.

[0055] As discussed above, the table top 12 may be construed from molded plastic and the other portions of the table 10 may be constructed from metal. For instance, the frame 26, the rails 32, 34 and/or the brace assemblies 36, 38 and 68 may be constructed from metal, which may allow a relatively strong and lightweight table 10 to be constructed. It will be appreciated that the table 10, including the table top 12 and the various components discussed above, may also be constructed from other suitable materials and using different processes.

[0056] Although this invention has been described in terms of certain preferred embodiments, other embodiments apparent to those of ordinary skill in the art are also within the scope of this invention. Accordingly, the scope of the invention is intended to be defined only by the claims which follow.

Claims

1. A table comprising:

a table top; and
a support structure connected to the table top and movable between a use position and a collapsed position relative to the table top, the support structure comprising:

a first leg;
a second leg; and
a brace assembly movably connected to the first leg and the second leg, the brace assembly comprising:

a first portion connected to the first leg and the second leg, the first portion having a curved configuration that curves towards a central portion of the table top when the support structure is in the use position; and
a second portion including a first end connected to the first portion of the brace assembly and a second end connected to the table top.

2. The table as in Claim 1, wherein the first leg and the second leg are generally disposed in a first plane; wherein the first portion of the brace assembly is disposed at an angle from the first plane when the support structure is in the use position; and wherein the first portion of the brace assembly is generally disposed in the first plane when the support structure is in the collapsed storage position.

3. The table as in Claim 1, wherein the first portion of the brace assembly is constructed from a unitary, one-piece metal tube.

4. The table as in Claim 3, wherein the first portion of the brace assembly includes a receiving portion that is sized and configured to receive a part of the second portion of the brace assembly when the support structure is in the collapsed position; and wherein the second portion of the brace assembly is disposed outside of and is spaced apart from the receiving portion when the support structure is in the use position.

5. The table as in Claim 4, wherein the first portion of the brace assembly is movably connected to the second portion of the brace assembly by a bracket.

6. The table as in Claim 3, wherein the first portion of the brace assembly is the only structure connected to the first leg and the second leg between a lower end and an upper end of the first leg and the second leg.

7. The table as in Claim 1, wherein the first portion of the brace assembly includes a bracket, the bracket including a receiving portion that is sized and configured to receive a part of the second portion of the brace assembly when the support structure is in the collapsed position.

8. The table as in Claim 7, wherein the part of the second portion of the brace assembly is disposed outside of and is spaced apart from the receiving portion when the support structure is in the use position.

9. The table as in Claim 8, wherein the first portion of the brace assembly is movably connected to the second portion of the brace assembly by the bracket.

10. A table comprising:

a table top; and
a support structure connected to the table top, the support structure being capable of moving between a use position that facilitate use of the table and a collapsed position that facilitates shipping or storage of the table, the support structure comprising:

a first leg;
a second leg; and
a brace assembly, the brace assembly including a first portion connected to the first leg and the second leg, the first portion having a curved configuration that extends upwardly and towards a center portion of the table top when the support structure is in

the use position, the brace assembly including a second portion that is connected to the first portion of the brace assembly and the table top.

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11. The table as in Claim 10, further comprising a bracket connecting the first portion of the brace assembly to the second portion of the brace assembly, the bracket including an engaging portion that engages a part of the second portion of the brace assembly when the support structure is in the collapsed position. 10
12. The table as in Claim 11, wherein the first portion of the brace assembly is curved inwardly by a distance that is greater than a length of the bracket when the support structure is in the use position. 15
13. The table as in Claim 10, further comprising a receiving portion in the first portion of the brace assembly that is sized and configured to receive a part of the second portion of the brace assembly when the support structure is in the collapsed position. 20
14. The table as in Claim 10, wherein the first portion of the brace assembly is disposed between and generally aligned with the first leg and the second leg when the support structure is in the collapsed position. 25

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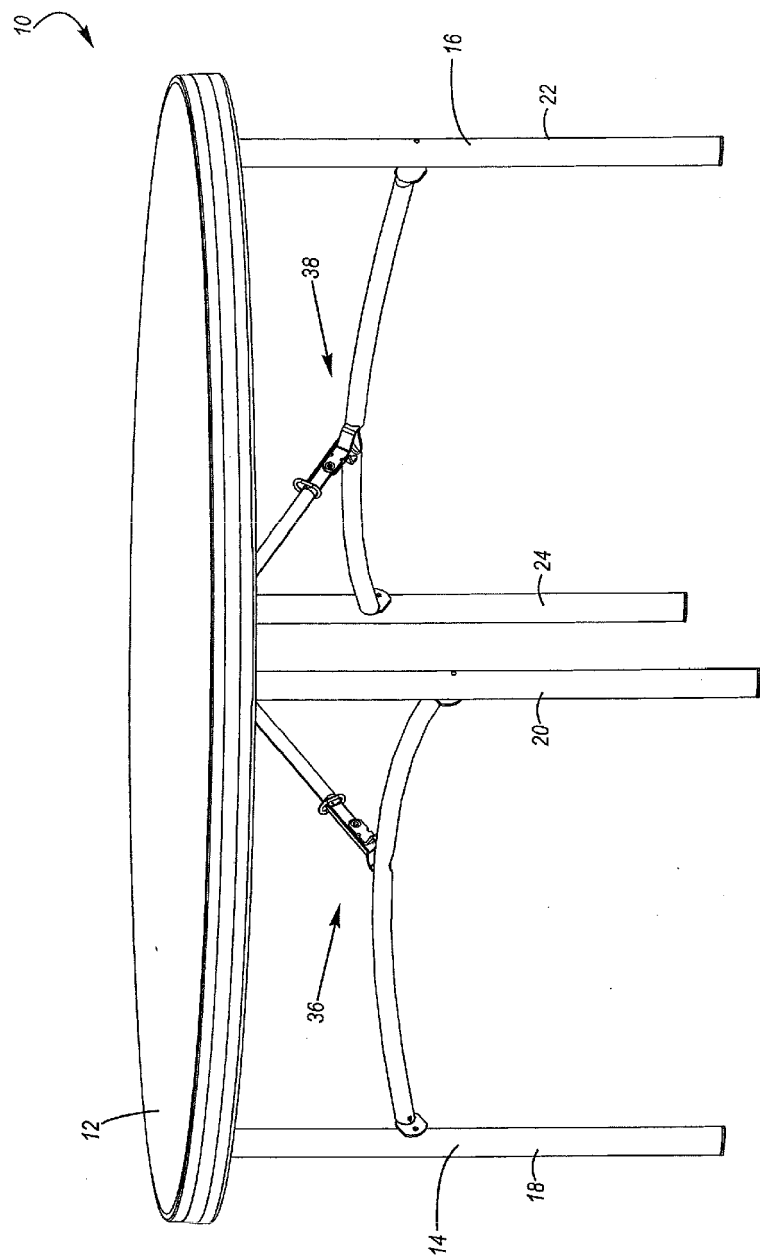


Figure 1

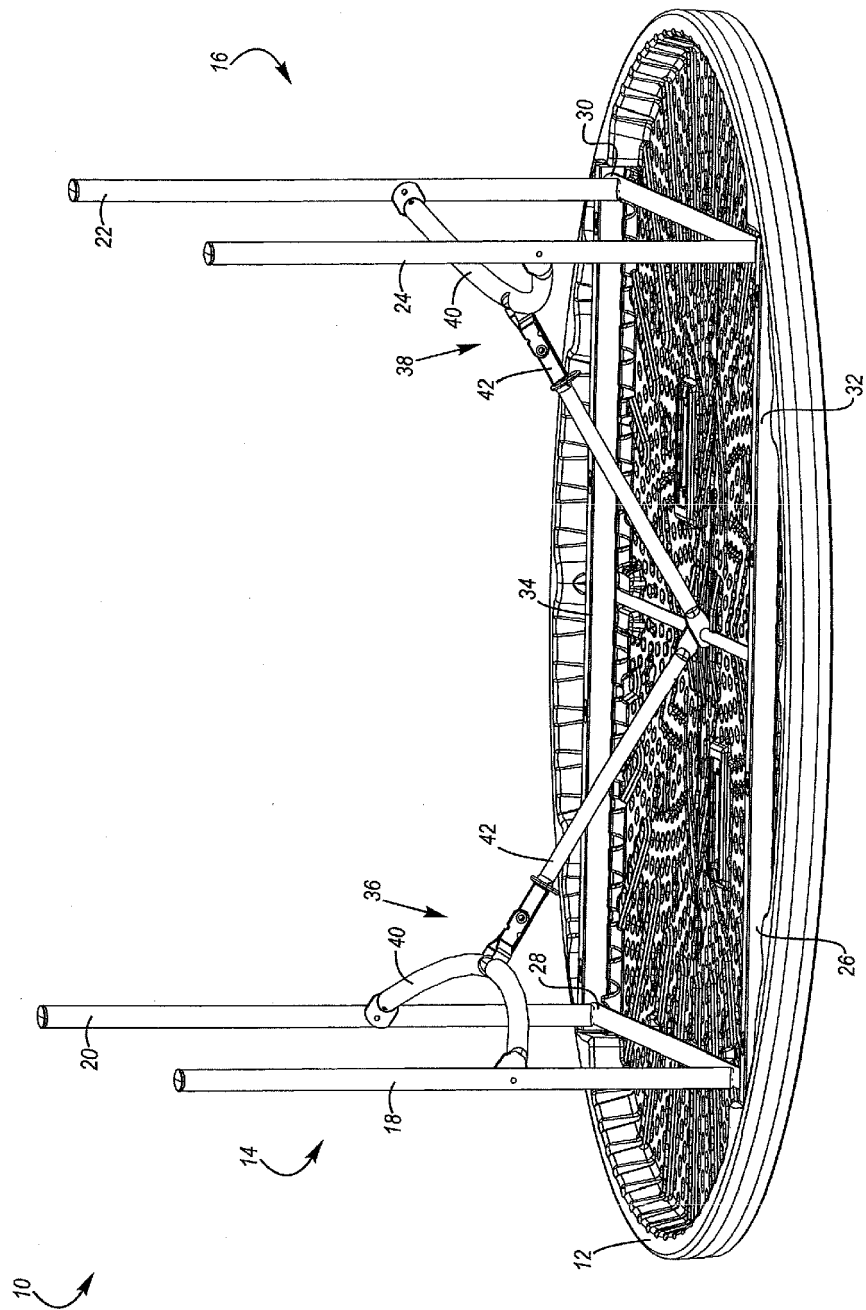


Figure 2

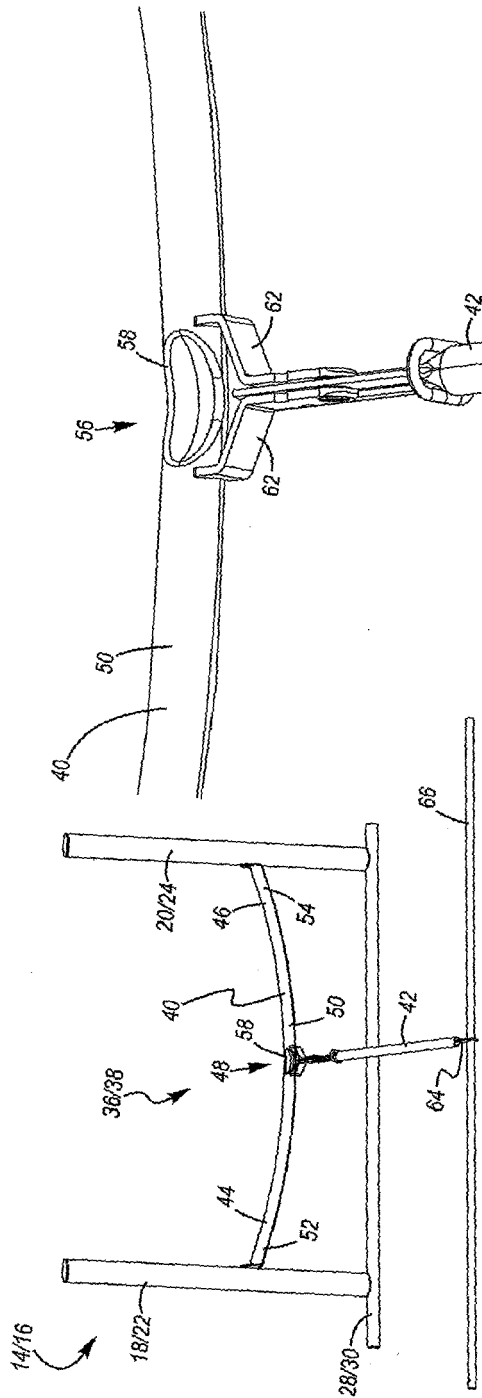


Figure 3

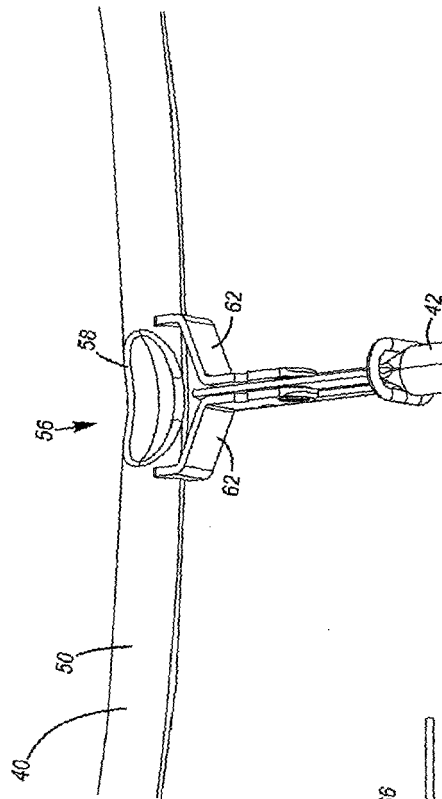


Figure 4

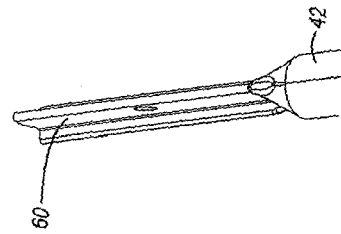


Figure 5

