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Cizmar et al.

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PORTABLE FOLDING TABLE

Inventors: Andrew B. Cizmar, Indianapolis, IN (US); Francis W. Ritchie, Peru, IN (US)

> Correspondence Address: **BAKER & DANIELS** 205 W. JEFFERSON BOULEVARD **SUITE 250** SOUTH BEND, IN 46601 (US)

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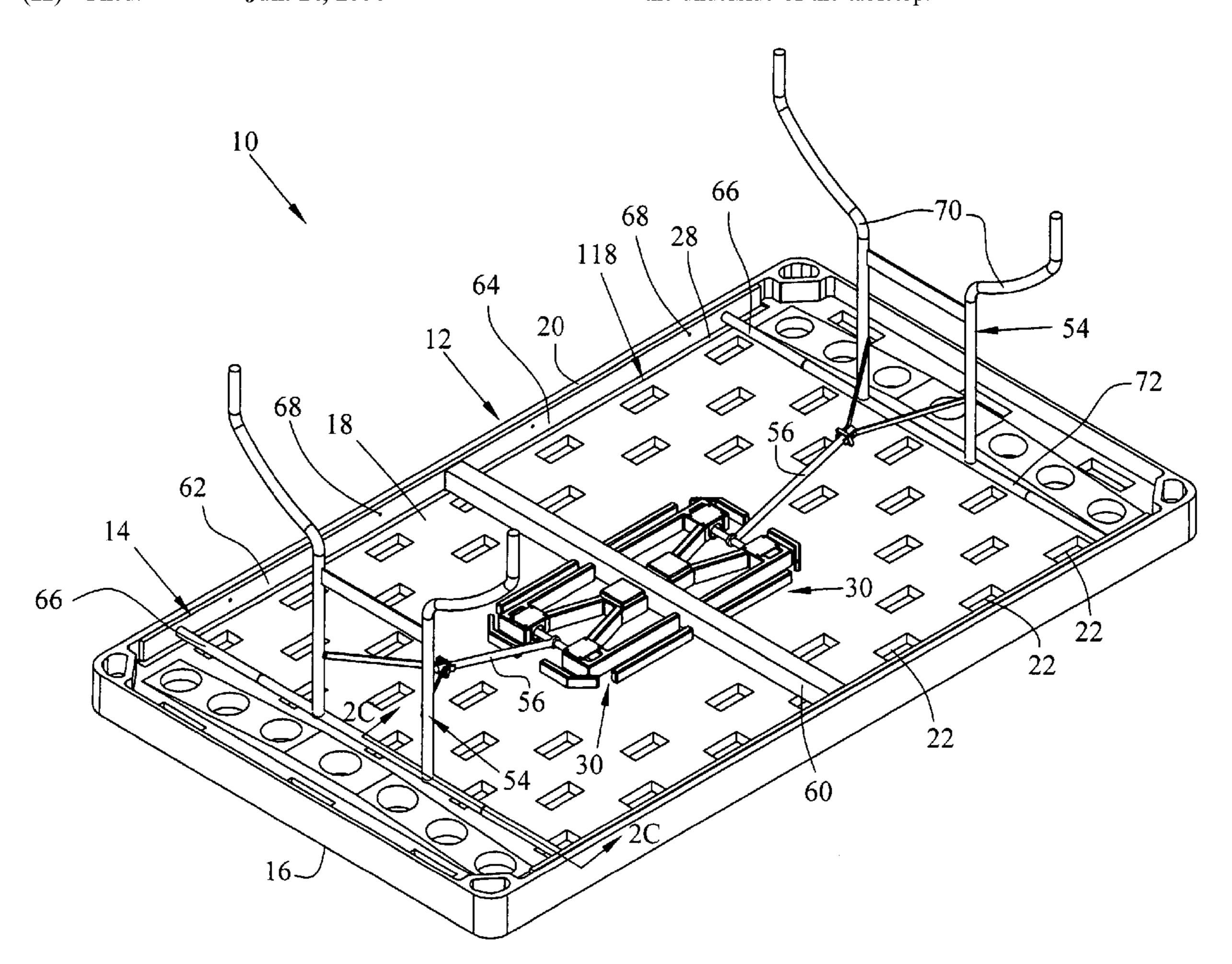
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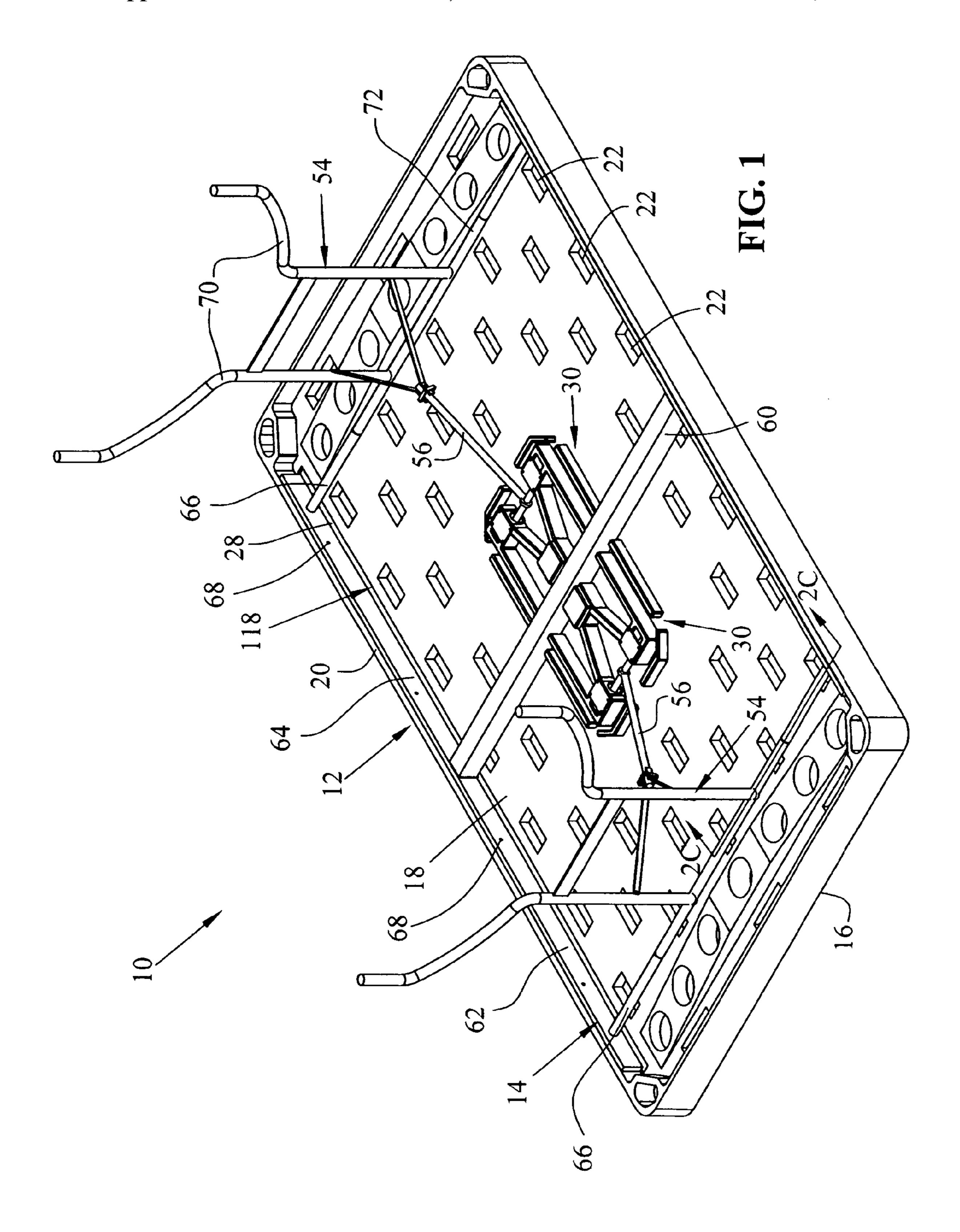
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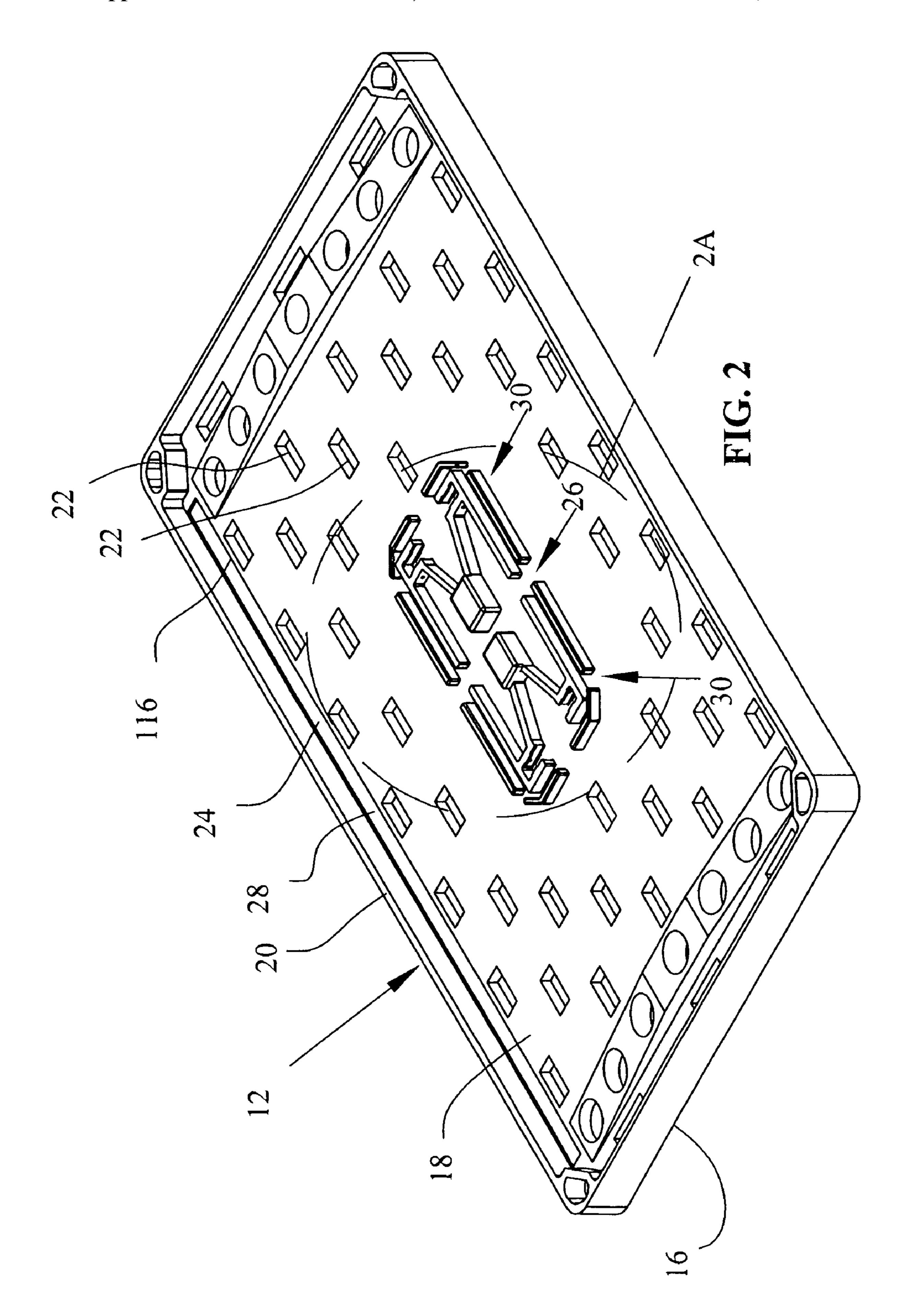
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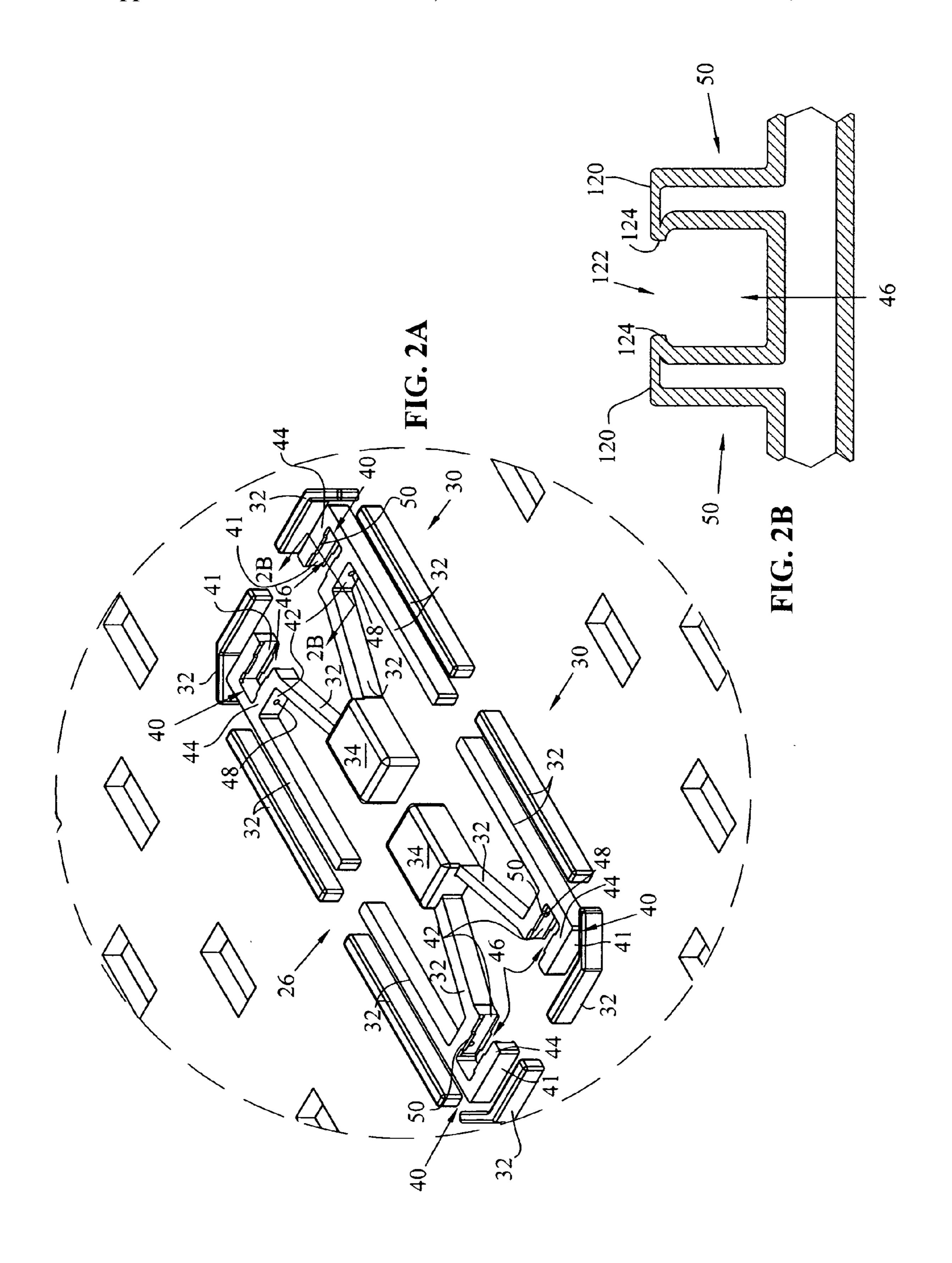
ABSTRACT (57)

A portable folding table includes a tabletop, support for the tabletop and support pedestals. Braces extend from the support pedestals to the underside of the tabletop. The table further includes a transverse strut extending across the underside of the table top to provide support. The transverse strut is located intermediate the pins that attach the braces to the underside of the tabletop.









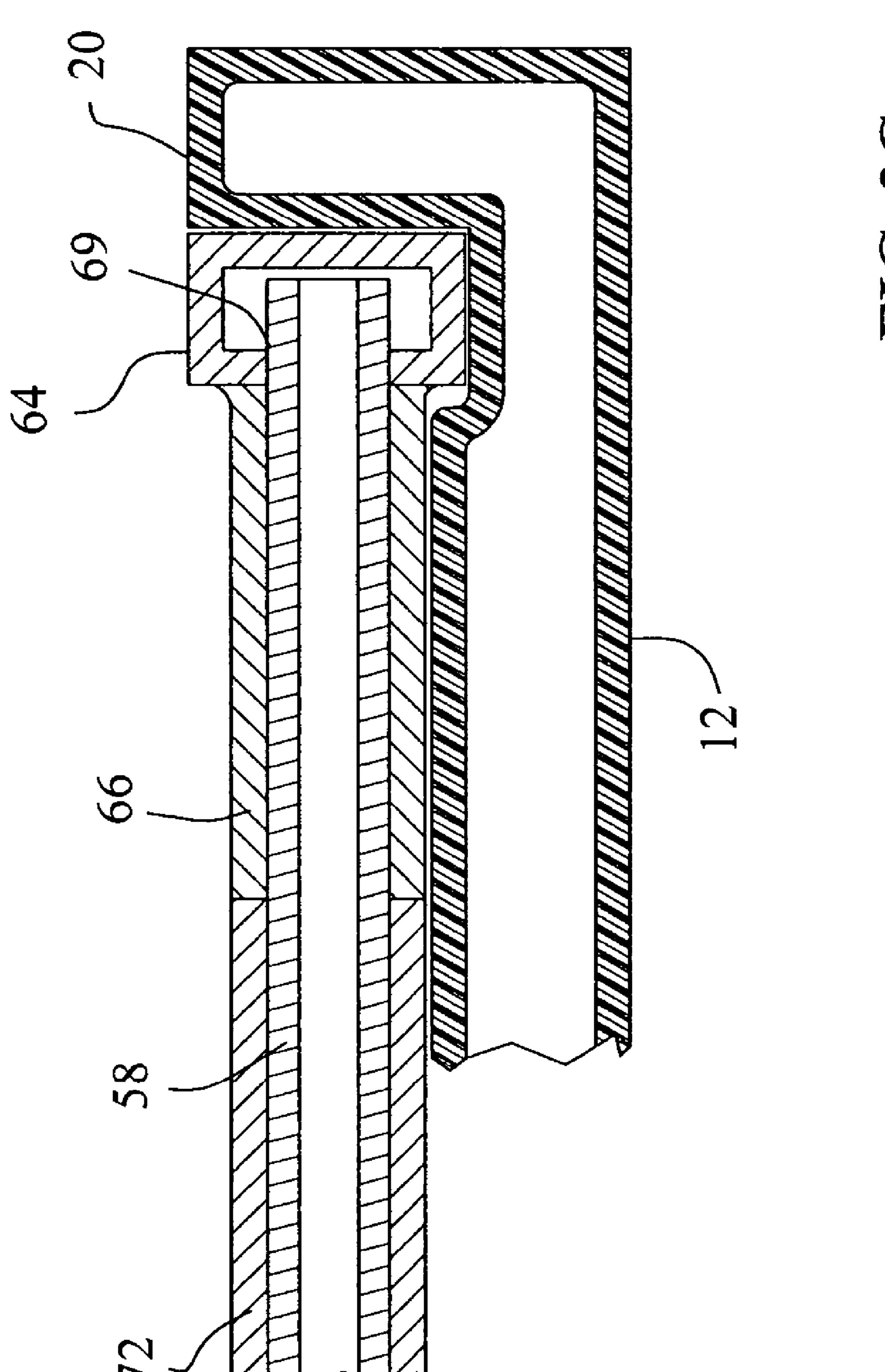
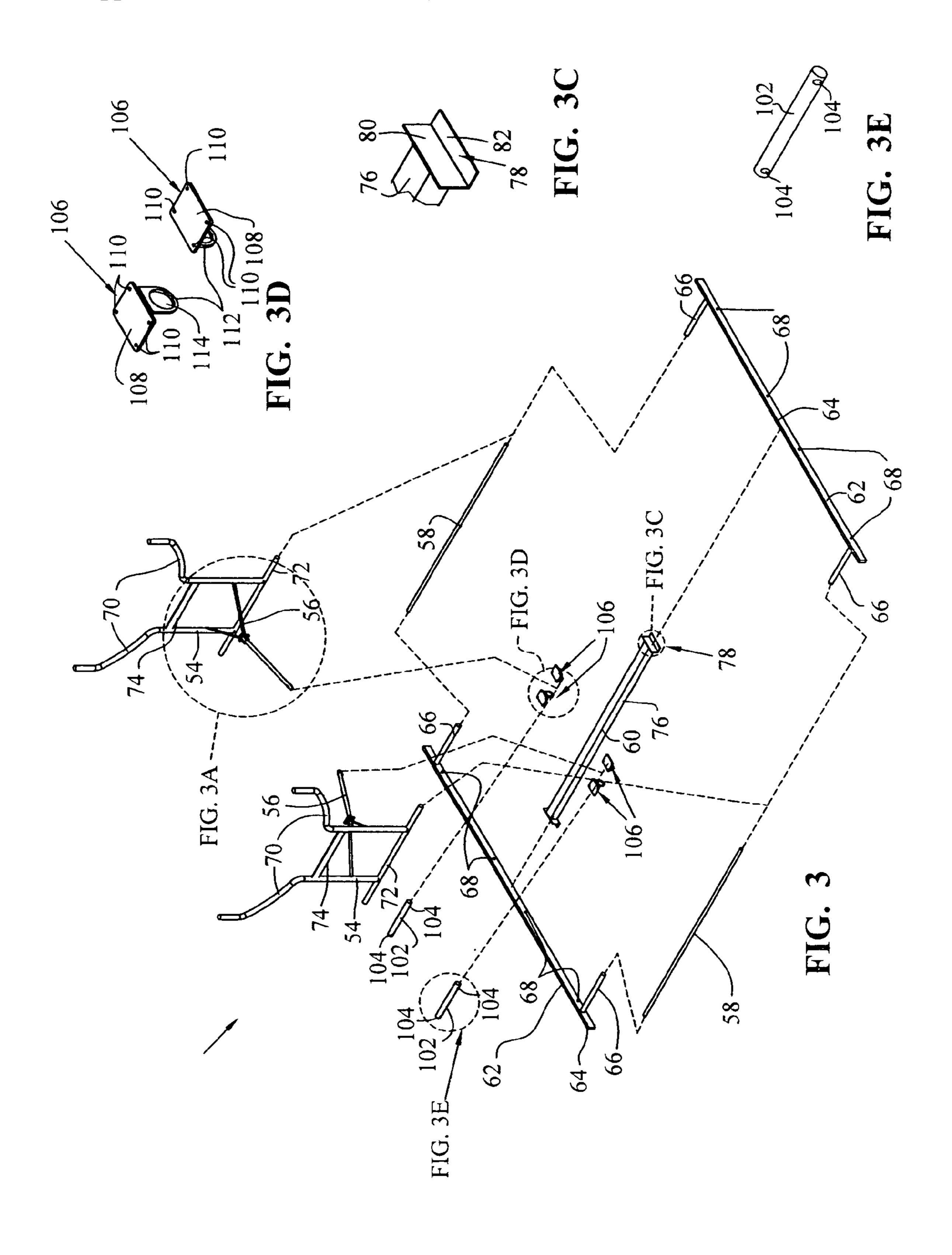
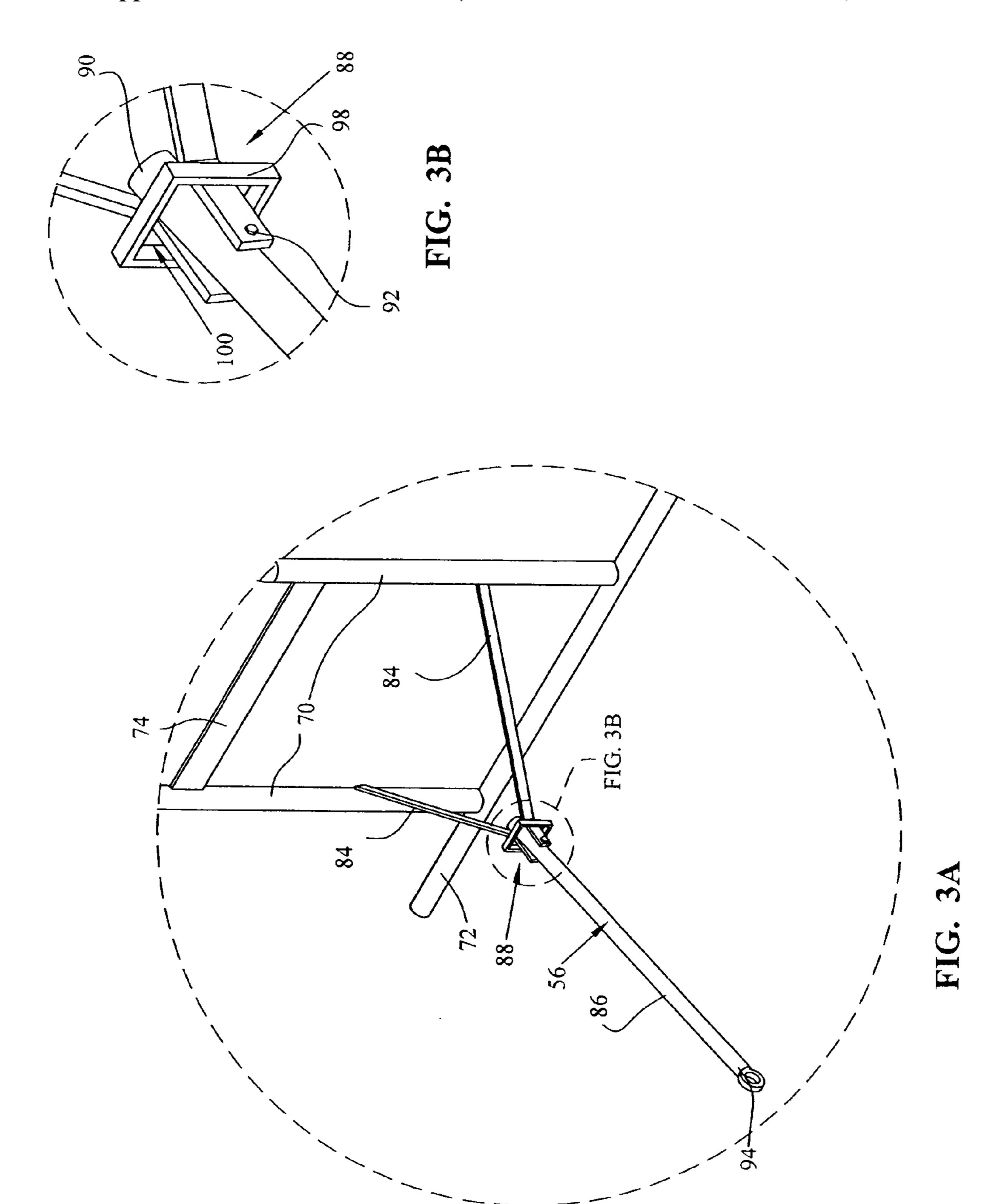
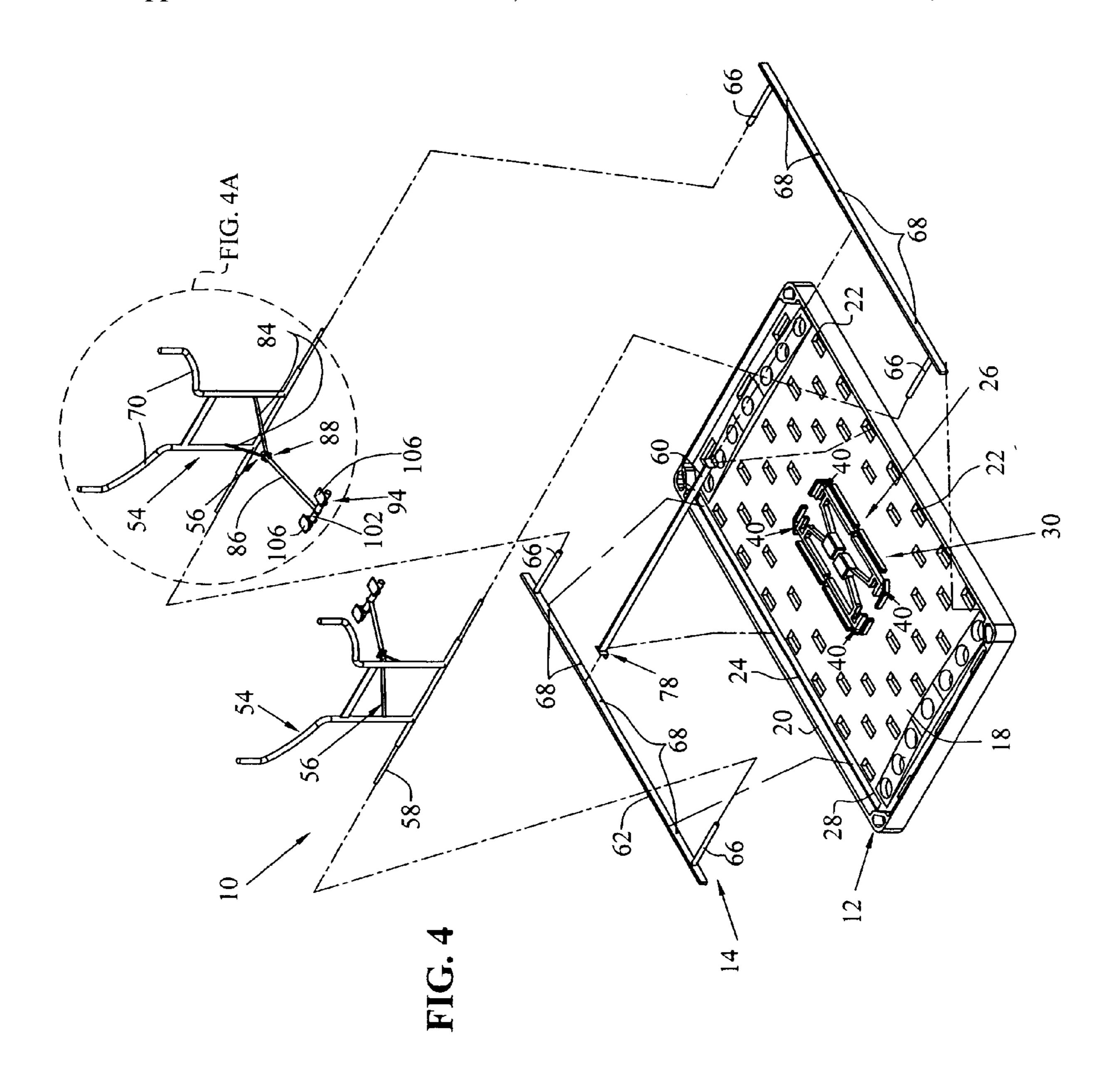
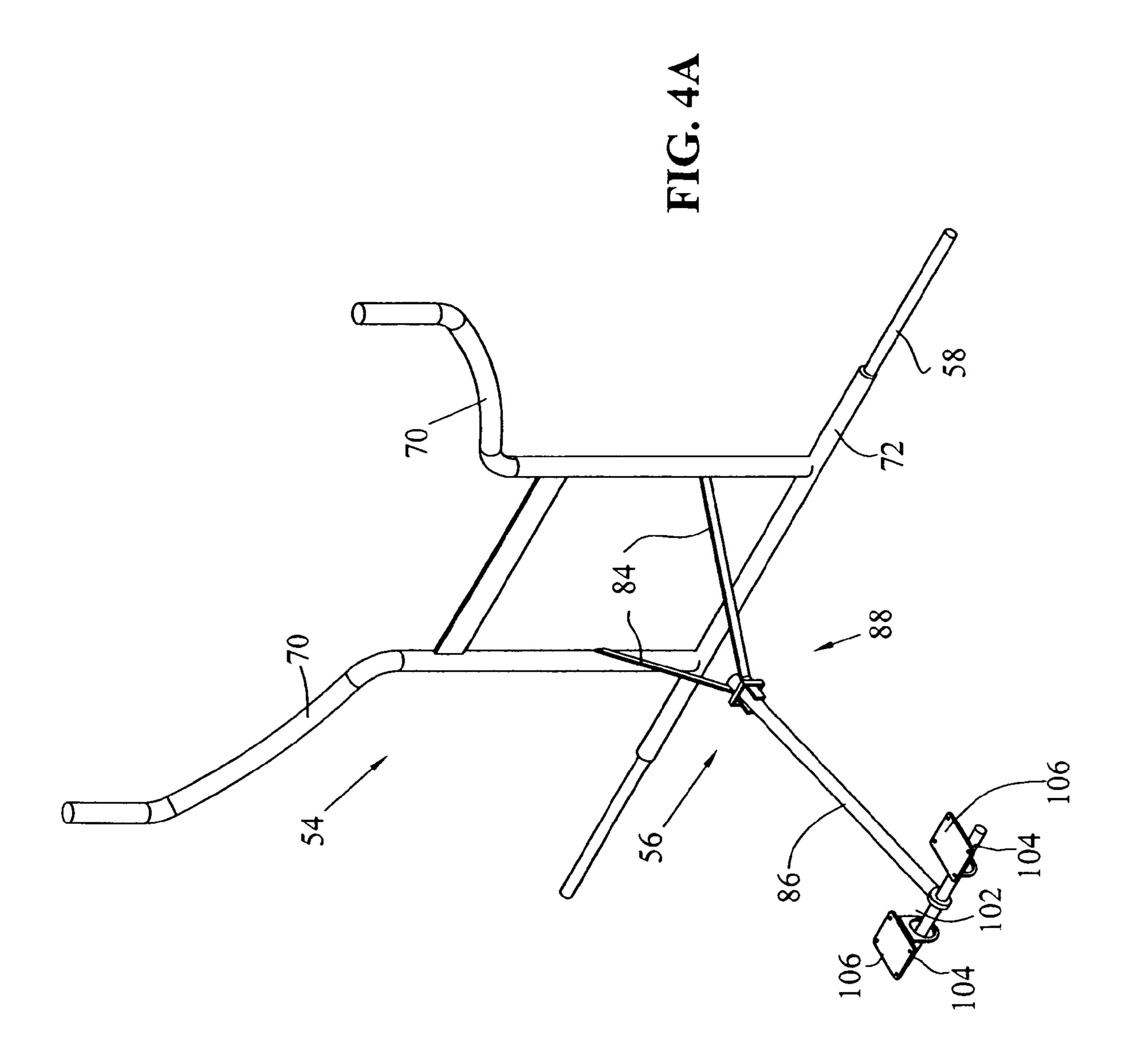


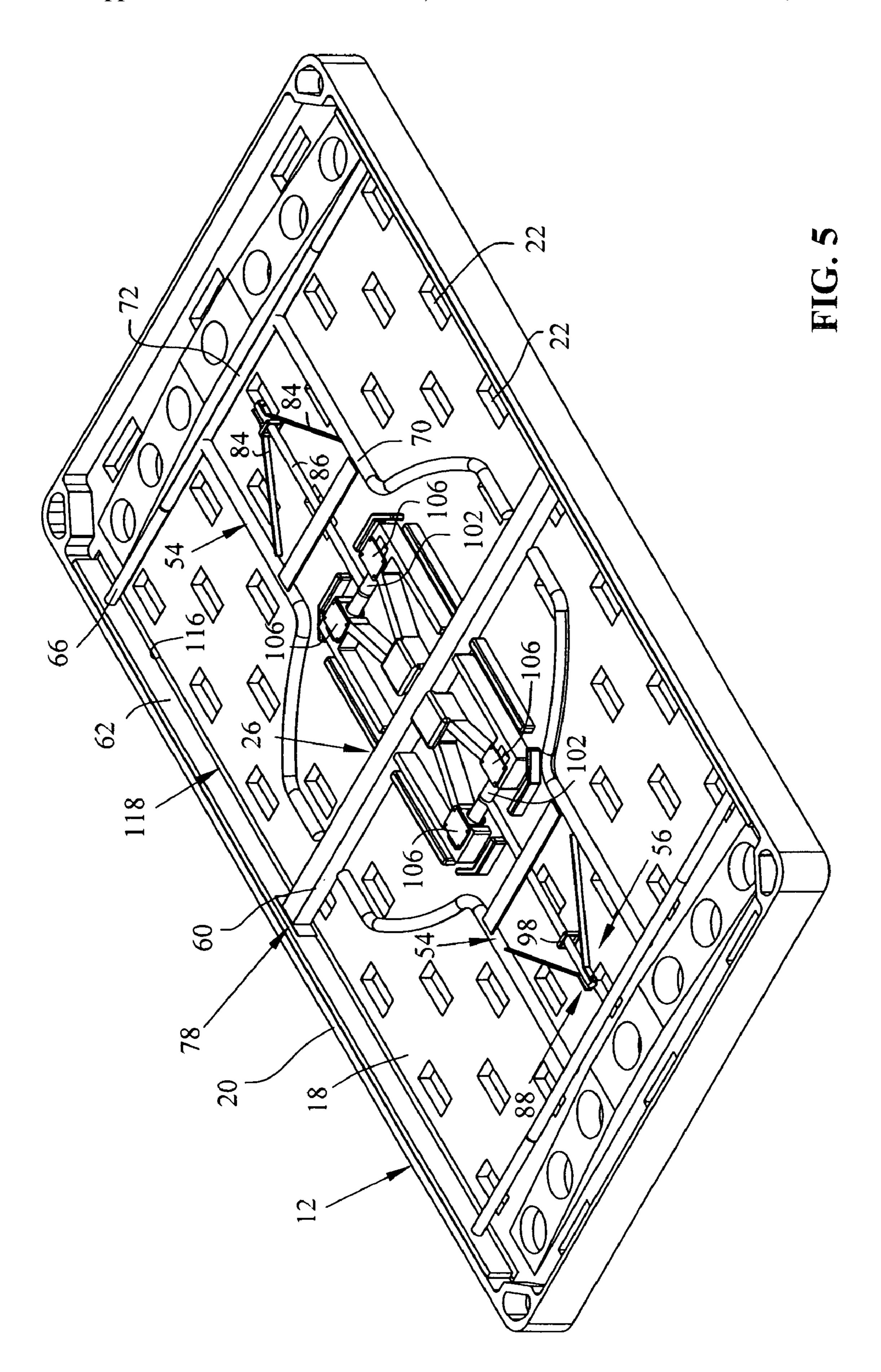
FIG. 2











PORTABLE FOLDING TABLE

[0001] This application claims the benefit of U.S. Provisional Patent Application Ser. No. 60/478,495 filed Jun. 13, 2003, the complete disclosure of which is hereby expressly incorporated by reference.

FIELD OF THE INVENTION

[0002] The present invention relates generally to portable folding tables with rigid support systems and, more particularly, to a portable folding table having foldable legs.

BACKGROUND OF THE INVENTION

[0003] The use of portable tables with foldable legs at events such as banquets, picnics, parties, festivals, etc., is well known. Portable tables typically include features allowing the legs to move between into a collapsed position, for relocation or storage, and an extended position for normal operation. Additionally, these tables typically have sufficient strength and rigidity allowing the table to support objects placed upon the tabletop during normal usage. Known portable tables also typically include a locking mechanism for securing the legs of the table in the operative position, thereby preventing the table from inadvertently collapsing.

[0004] Generally, when in the storage position, the legs of the table are located proximate the underside of the tabletop. This requires that an operator place the table on its side prior collapsing the legs. Consequently, heavy tables are undesirable as greater weight increases the difficulty of rotating a table onto its side.

[0005] Normally, known portable tables include systems for supporting any object placed upon the tabletop. Standard usage generally requires that the support system have high durability, since high durability allows the portable tables to withstand the wear and tear associated with the continuous relocation and setup of the portable table. Generally, in known tables, increased durability and load-bearing capability result in a significant increase in the weight of the table, and as explained above, the increase in the weight of the table generally increases the difficulty associated in moving and setting up the table.

[0006] In addition, the folding mechanisms coupled to the legs of a folding table must be manually operated when a user places the legs into the extended or operable position. In known portable folding tables, these mechanisms often require significant physical strength and/or dexterity. Furthermore, the prior art folding mechanisms may be complicated and involve numerous interacting parts, thereby increasing both the manufacturing costs and the assembly costs of the table.

[0007] Accordingly, there is a need for portable folding tables that are strong, durable, lightweight, and have simple folding mechanisms.

SUMMARY OF THE INVENTION

[0008] An embodiment of the present invention discloses a portable folding table. The portable folding table includes a tabletop having a top surface, or working surface, and an undersurface. The undersurface includes a wall extending about the periphery, and elongate channels extending proxi-

mate opposing edges of the tabletop. In addition, the undersurface also includes rib assemblies molded therein, defining a transverse channel.

[0009] The portable folding table further includes support tubes for supporting the tabletop. The support tubes include a main body and a plurality of tubular members extending therefrom. The support tubes are located within the elongate channels and are attached to a wall molded into the undersurface.

[0010] The table also includes pedestals for supporting the tabletop above a surface. The pedestals each include a pedestal support tube and legs. The legs may take a variety of shapes and may be joined to each other by braces in order to provide additional support. In addition, tubular supports extend through the pedestal support tubes and into the tubular members providing a pivot upon which the pedestals may rotate.

[0011] In addition, the portable folding table also includes support braces for retaining the pedestals in the extended position with the legs disposed away from the undersurface. The support braces include at least one angle arm and a straight arm fastened together in a manner allowing the straight arm to rotate about the fastened ends. The opposite end of the straight arm is joined to the underside of the tabletop by way of a pin. The pin is connected to the undersurface of the tabletop and remains distinct from the frame.

[0012] The folding table further includes a transverse strut extending between the support tubes of the frame. The transverse strut is confined within the transverse channel by way of attachment assemblies disposed between the frame and the undersurface. The interaction between the support tubes and the transverse strut succeeds in providing a normal force to the tabletop when the tabletop is supporting a load.

DETAILED DESCRIPTION OF THE DRAWINGS

[0013] These and other features of the invention will become more apparent and the present invention will be better understood upon consideration of the following description and the accompanying drawings wherein:

[0014] FIG. 1 depicts a perspective view of an embodiment of a portable table in the operative configuration;

[0015] FIG. 2 depicts a perspective view of the tabletop illustrated in FIG. 1;

[0016] FIG. 2A depicts an enlarged view of the encircled area shown in FIG. 2;

[0017] FIG. 2B depicts a cross-sectional view through lines 2B-2B of FIG. 2A;

[0018] FIG. 2C is a cross-sectional view through lines 2C-2C of FIG. 1;

[0019] FIG. 3 depicts an exploded perspective view of the support structure illustrated in FIG. 1;

[0020] FIG. 3A depicts an enlarged view of the encircled area shown in FIG. 3;

[0021] FIG. 3B depicts an enlarged view of the encircled area shown in FIG. 3A;

[0022] FIG. 3C depicts an enlarged view of the encircled area shown in FIG. 3;

[0023] FIG. 3D depicts an enlarged view of the encircled area shown in FIG. 3;

[0024] FIG. 3E depicts an enlarged view of a pin utilized in the present invention;

[0025] FIG. 4 depicts an exploded perspective view of the portable table illustrated in FIG. 1;

[0026] FIG. 4A depicts an enlarged view of the encircled area shown in FIG. 4; and

[0027] FIG. 5 depicts a perspective view of the portable table illustrated in FIG. 1 in the collapsed position.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0028] Referring first to FIG. 1, a portable table is generally indicated by numeral 10. Portable table 10 includes a tabletop 12 and a support system 14. In the embodiment depicted, the tabletop 12 is manufactured from blow molded plastic having a rectangular shape and includes a substantially smooth top surface 16 and an undersurface 18 located opposite thereof. However, in alternative embodiments, any or all of the shape, the texture of the surfaces, or the material of manufacture of the tabletop 12 may differ from that disclosed herein. For example, the tabletop 12 may be manufactured from injection-molded plastic or wood. Similarly, the shape of the tabletop 12 may take on the shape of a circle, square, triangle, or any other desired shape.

[0029] FIG. 2 depicts a perspective view of the tabletop 12. In this embodiment, undersurface 18 includes a wall 20 extending downward from the edges of the tabletop 12. As illustrated, the wall 20 is molded into undersurface 18 forming a right angle. In addition, undersurface 18 also includes a plurality of dimples 22 uniformly spaced throughout, as a mechanism of rigidifying undersurface 18. Undersurface 18 further includes a pair of elongate channels 24 extending proximate the long edges of tabletop 12 and a transverse channel 26 extending the width of the tabletop 12 perpendicular to the elongate channels 24.

[0030] The elongate channels 24, set forth above, are recessed into undersurface 18. Each channel 24 includes a flat surface 28 defining the most recessed position of the channel 24. Flat surface 28 may be recessed into undersurface 18 any distance desired. In alternative embodiments, flat surface 28 need not be recessed into undersurface 18 at all. When flat surface 28 is recessed into undersurface 18, a lip 116 is formed separating undersurface 18 and flat surface 28.

[0031] FIG. 2 also depicts transverse channel 26, which extends transversely across the width of undersurface 18. The transverse channel 26 extends between the two elongate channels 24. However, unlike the elongate channels 24, transverse channel 26 is not defined by a flat surface recessed into undersurface 18. Rather, the area separating a molded pair of rib assemblies 30 defines the transverse channel 26. In the embodiment depicted, the transverse channel 26 is located mid-way between the two short edges of tabletop 12.

[0032] FIGS. 2 and 2A both depict two molded rib assemblies 30, separated by transverse channel 26. Each rib

assembly 30 is molded into undersurface 18 and includes a plurality of ribs 32, a main body 34, and a pair of pin connecting sections 40. In the embodiment depicted, the rib assemblies 30 include eight ribs 32 molded into undersurface 18. Four of the ribs 32 extend outward from transverse channel 26. Two of the ribs 32 extend substantially parallel to transverse channel 26 proximate pin connecting section 40. Finally, the remaining ribs 32 extend from the main body 34 to the pin connecting section 40.

[0033] In the embodiment depicted, the main body 34 of each rib assembly 30 perpendicularly radiates outward from transverse channel 26, toward the short edges of the tabletop 12. Furthermore, main body 34 is centered between the two long edges of the table 12 and extends upwards a distance from undersurface 18 equaling the height of wall 20. In the present embodiment, this distance is slightly greater than the distance separating the top surface of the ribs 32 and the undersurface 18. In addition, main body 34 has a width approximately double that of each of the ribs 32.

[0034] As stated above, the rib assemblies 30 each include two pin connecting sections 40. The pin connecting sections 40 are molded into undersurface 18 and have the same height, with respect to undersurface 18, as the ribs 32. Each of the pin connecting sections 40 includes a side wall 41, a side wall 42, a top surface 44, and a pin receiving channel 46.

[0035] FIG. 2A illustrates that each pin connecting section 40 joins two ribs 32. In the embodiment depicted, side wall 42 represents the portion of the pin connecting sections 40 separating the joined ribs 32. As depicted, side wall 42 includes an aperture 48 extending therethrough.

[0036] Each pin connecting section 40 also includes a top surface 44. In the embodiment depicted, top surface 44 is substantially smooth with a square profile. In addition, a pin receiving channel 46 is inset into top surface 44. As can be seen, the side walls 41, 42 are located on opposite sides of pin receiving channel 46. In addition, the two pin receiving channels 46 of each rib assembly 30 open toward each other as depicted in FIG. 2.

[0037] Each pin receiving channel 46 represents a void extending into the center of the pin connecting section 40. In addition, each channel 46 includes tabs 50 depicted in FIGS. 2A and 2B. The tabs 50 extend toward the center of the pin receiving channel 46 from each of the side walls 41, 42.

[0038] Referring now to FIG. 2B, a section view taken through the channel 46 is depicted. Each tab 50 includes a main body 120 including a recess 122 defined by a shoulder 124. As shown in FIGS. 2A and 2B, two shoulders 124 of the two tabs 50 are positioned opposite each other across the channel 46.

[0039] Referring now to FIG. 3, an exploded perspective view of support system 14 is depicted. Support system 14 includes pedestals 54, support braces 56, tubular supports 58, a transverse strut 60, and a pair of support tubes 62. In the embodiment depicted, each support tube 62 includes a main body 64 and tubular members 66. The tubular members 66 inward from the main body 64. The support tubes 62 may be manufactured from steel or, any material similar, having sufficient strength to prevent the tube 62 from twisting about its longitudinal axis, when loaded.

[0040] In the embodiment depicted, main body 64 has a length approximately equal to that of the elongate channels 24 of undersurface 18 (depicted in FIG. 2). In addition, the support tubes 62 have a width slightly smaller than the width of the elongate channels 24. Furthermore, the height of main body 64 is equivalent to the distance separating the top edge of wall 20 (depicted in FIG. 2) from flat surface 28 (depicted in FIG. 2). It should be noted that although the main body 64 is depicted as including a rectangular cross section, this cross section might take any shape desired.

[0041] Main body 64 also includes a plurality of apertures 68 that extend through two of the opposing walls thereof. Specifically, the apertures 68 are disposed in the wall of main body 64 that abuts against wall 20 (depicted in FIG. 2). Apertures 68 are also disposed throughout main body 64 opposite wall 20. In addition, the apertures 68 located in each of the opposing walls of body 64 are aligned in pairs, thereby allowing a fastener (not shown) to extend completely through main body 64.

[0042] In the depicted embodiment, tubular members 66 are fixedly attached to main body 64. The tubular members 66 have a circular cross-section and are spaced inward toward the center of main body 64, from the ends thereof. Additionally, the tubular members 66 are manufactured from the same type of material that forms main body 64. In the embodiment depicted, the main body 64 and the tubular members 66 are steel, and the tubular members 66 are affixed to main body 64 by way of welding. In alternative embodiments, however, the tubular members 66 may be attached to main body 64 in any well-known manner, and main body 64 may be manufactured from any durable material. Main body 64 also includes circular apertures 69 (FIG. 2C) located proximate the ends thereof with each aperture 69 having diameter approximately equal to the inner diameter of the tubular members 66. The circular apertures 69 are disposed throughout in main body 64 in a manner ensuring the apertures 69 are aligned with the tubular members 66.

[0043] Referring still to FIG. 3, it can be seen that each of the pedestals 54 includes a pair of laterally spaced apart support legs 70 radiating from a pedestal support tube 72. Generally, support legs 70 and pedestal support tube 72 are manufactured from the same material comprising the support tubes 62. In the embodiment depicted, both the legs 70 and the support tube 72 of each pedestal 54 have circular cross-sections, and furthermore, the pedestal support tube 72 has a circular cross section approximately equivalent to that of the tubular members 66. In addition, the support tube 72 is independently welded to each leg 70. Braces 74 extend between the two support legs 70 proximate the ends thereof, thereby allowing the legs 70 to support each other.

[0044] As indicated above, support system 14 also includes tubular supports 58 located at opposite ends of the support system 14. The diameter of the tubular supports 58 is slightly less than the diameter of both the tubular members 66 and pedestal support tubes 72. In addition, the tubular supports 58 are longer than tubes 72, such that a portion of the supports 58 extends outward from the tubes 72, as best shown in FIG. 4. Accordingly, the tubular supports 58 extend through both the pedestal support tubes 72 and into the tubular members 66. Furthermore, the tubular supports 58 extend into the support tubes 62 through the circular apertures 69, as depicted in FIG. 2C.

[0045] As explained above, tubular supports 58 have a diameter less than the tubular members 66, the circular apertures 69 and the support tubes 72. Accordingly, when fully assembled as depicted in FIG. 2C, support tubes 72 may rotate about the tubular support 58, extending therethrough. Thus, this connection allows support pedestals 54 to rotate with respect to the tabletop 12 between an extended position and a collapsed position.

[0046] Referring again to FIG. 3, transverse strut 60 of the support system 14 is depicted. The transverse strut 60 includes a main body portion 76 having a rectangular cross section and an attachment assembly 78 located at each end thereof. In the embodiment depicted, each attachment assembly 78 comprises an angle plate including a vertical plate 80 and a horizontal plate 82. Vertical plate 80 extends above the top surface of main body portion 76, with horizontal plate 82 extending perpendicularly therefrom. This attachment creates an angle between the two plates 80, 82 approximately measuring 90 degrees.

[0047] The support system 14 also includes a pair of support braces 56, as depicted in FIGS. 3, 3A and 3B. Each support brace 56 includes angled arms 84, a straight arm 86 and a junction 88 therebetween. A portion of straight arm 86 is pinned between the angled arms 84. A fastener 92 affixes the angled arms 84 to a first end 90 of the straight arm 86 in a manner allowing straight arm 86 to rotate with respect to the angled arms 84.

[0048] Straight arm 86 also includes a second end 94 located opposite first end 90. Second end 94 includes an aperture 96 positioned therein having a circular cross-section. In the embodiment depicted, the support braces 56 further include locking components 98 having a rectangular shape. The locking components 98 include an aperture 100 extending through the center. Straight arm 86 extends through aperture 100. Aperture 100 has a size sufficient to allow for the sliding movement of locking component 98 proximate first end 90. Furthermore, when straight arm 86 is aligned with the angled arms 84, the locking component 98 may be positioned over junction 88 in order to prevent rotation of the straight arm 86 about fastener 92.

[0049] FIG. 4A depicts a pin 102 having a circular cross-section sized and configured to extend through aperture 96 of straight arms 86. The pin 102 is further sized and configured in both length and diameter to allow for the insertion of the pin 102 into the pin receiving channels 46 depicted in FIG. 2. The pin 102 includes mounting apertures 104 located proximate its ends.

[0050] Referring again to FIGS. 3 and 3D, the support system 14 further includes pin clamps 106. In the embodiment depicted, the pin clamps 106 are manufactured from the same type of material comprising pedestals 54, support braces 56 and support tubes 62. Each pin clamp 106 includes a flat plate 108 with a rectangular shape that includes a plurality of apertures 110. In the embodiment depicted, apertures 110 are located proximate the corners of plate 108. The apertures 110, however, may be disposed throughout plate 108 as desired. The pin clamps 106 further include ears 112, which extend perpendicularly downward from the flat plates 108, forming a right angle therebetween. Each ear 112 includes an aperture 114 extending therethrough. Aperture 114 is sized and configured to allow pin 102 to extend therethrough.

[0051] Now that the major components comprising portable table 10 have been explained, the assembled structure of portable table 10 will be described in detail with reference to FIG. 4. Beginning with transverse strut 60, the transverse strut 60 is positioned within located in the transverse channel 26 of undersurface 18. Transverse strut 60 is sized to both substantially fill channel 26 and also extend across the undersurface 18 of tabletop 12. When transverse strut 60 is properly located, the horizontal plates 82 of the attachment assemblies 78 should rest flush against the flat surfaces 28 of the elongate channels 26.

[0052] Once transverse strut 60 has been properly positioned within transverse channel 26, the remainder of support system 14 is then positioned within the undersurface 18 of the tabletop 12. In no particular order, tubular support 58 is inserted into a pedestal support tube 72 of one of the support pedestals 54. The tubular supports 58 are then inserted into the tubular members 66 of the support tubes 62, in the manner described above. Next, the support tubes 62 are positioned within the elongate channels 24 of undersurface 18. A plurality of fasteners, such as screws (not shown), affixes the support tubes 62 to the wall 20. Specifically, the fasteners extend through apertures 68 and into wall 20 of tabletop 12. In the embodiment depicted, the portable table 10 requires eight fasteners to attach both support tubes 62 to wall 20. In alternative embodiments, however, a different number or type of fastener may be employed.

[0053] It should be noted that the attachment of the support tubes 62 to the tabletop 12 in the manner set forth above retains the support tubes 62 against the wall 20. Furthermore, in the embodiment depicted, since the width of elongate channel 24 is greater than the width of the support tubes 62, the retention of the support tubes 62 against wall 20 prevents the support tubes 62 from contacting the raised lips 116 of the elongate channels 24. This creates a gap 118 between the lips 116 and the tubes 62. It should be noted that in this embodiment, since the support tubes 62 are positioned within the elongate channels 24 only after transverse strut 60 has been positioned within transverse channel 26, the horizontal plates 82 of the transverse strut 60 are positioned intermediate support tubes 62 and flat surface 28. This means of engagement causes the transverse strut **60** to "hang" from the support tubes 62 by way of the horizontal plates 82.

[0054] Following the connection of the support tubes 62 to wall 20, the pins 102, pin clamps 106 and second ends 94 of the straight arms 86 are first assembled together and then affixed to undersurface 18 of tabletop 12. In the embodiment depicted, pins 102 are inserted into the apertures 96 (FIG. 3A) of pin clamps 106, as shown in FIG. 4A. Pins 102 may then be pressed into the pin receiving channels 46 (FIG. 2A) of the pin connecting sections 40. As explained above, each pin receiving channel 46 includes a plurality of shoulders 124 (FIG. 2B). As each pin 102 is pressed into the pin receiving channel 46, the shoulder 124 will deform allowing the pin 102 to pass therethrough. The pin 102 is received by space 122, shoulders 124 return to their original position thereby trapping pin 102.

[0055] In an effort to ensure that the pins 102 remain situated within the pin receiving channels 46, fasteners (not shown) are inserted into the aperture 48 (FIG. 2A) located within side wall 42. The apertures 48 of the pin connecting

sections 40 should align with the mounting apertures 104 located proximate the ends of the pins 102, thereby allowing for the insertion of the fastener into the pins 102. The extension of the fastener through apertures 48 and into apertures 104 succeeds in retaining securing the pins 102 within the pin receiving channels 46.

[0056] The attachment of pin clamps 106 to the pin connecting sections 40 further succeeds in retaining the pins 102 within the pin receiving channels 46. As described above, each of the pin clamps 106 includes a plurality of apertures 110 dispersed throughout flat plate 108. Fasteners (not shown) may be inserted through the apertures 110 (FIG. 3B) into top surface 44 of pin connecting section 40, thereby affixing the pin clamps 106 to the top surfaces 44. Since the pins 102 extend through ears 112, the retention of the pin clamps 106 against the pin connecting sections 40 further ensures that the pins 102 remain secured within the pin receiving channels 46. The attachment of the pin clamps 106 to the pin connection sections 40 represents the final step of assembling the portable table 10.

[0057] Now that the assembly of portable table 10 has been described, the function of portable table 10 will now be explained in detail with reference to FIGS. 1 and 5. FIG. 5 depicts the portable table 10 configured in the storage position with the pedestals 54 located proximate undersurface 18. Generally, this position is preferred when either storing or moving the portable table 10, as the portable table 10 occupies less area than that occupied by the table 10 when in the operative position illustrated in FIG. 1. In the operative position, the pedestals 54 extend away from undersurface 18.

[0058] Referring now to FIGS. 4 and 5, and starting first with the pedestals 54, the interaction of the pedestal support tubes 72 and the tubular support 58 allows the pedestals 54 to pivot about the support 58 and into the operative position illustrated in FIG. 1.

[0059] Referring still to FIG. 1, when the pedestals 54 extend away from the tabletop 12 in the operative position, the straight arms 86 and angled arms 84 the support braces 56 align to share a common longitudinal axis (not shown). In order to prevent the portable table 10 from inadvertently collapsing, the brace locks 98 lock the support braces 56 in this position by being placed over junction 88. This prevents the rotation of straight arm 86 about fastener 92, thereby preventing the pedestals 54 from undesirably moving into the storage position illustrated in FIG. 5.

[0060] Once the table 10 is configured in the operative position, the portable table 10 is capable of supporting loads above the floor. The load associated with an object placed on the center of the table 10 is counteracted by the interaction between the transverse strut 60 and tubular supports 62. Specifically, a load supported by the center of the table 10 travels through the tabletop 12 and into the transverse strut 60, where the force of the load is met with a countering, or normal, force. This normal force exists by way of the interaction between the transverse strut 60 and the support tubes 62. Specifically, the normal force travels up from the floor (not shown) through the legs 70 of the support pedestals **54**. The force then travels into the pedestal support tubes 72, through the tubular supports 58, and into the tubular members 66. Once the normal force reaches tubular members 66, it transfers into the support tubes 62 and travels

down the support tubes 62 into the transverse strut 60. In this manner, portable table 10 prevents the tabletop 12 from bowing when the tabletop 12 is loaded in the center.

[0061] Once a load has been placed upon the table 10, at a position other than the center, the force of the load travels through the tabletop 12 and into the support tubes 62. The normal force for counteracting the force of the load is supplied to the support tubes 62 from the floor in a manner identical to that described above. In this manner, portable table 10 can support a load exerted anywhere upon top surface 16.

[0062] Furthermore, the design of the table allows for the pedestal legs to be easily stored. For example, as the pins 102 and their associated rib assemblies are narrow, the pedestal legs 70 flank the combination of the pins 102 and rib assemblies 30 when in the stored position, as shown in FIG. 5. This is advantageous, since this configuration does not require the legs 70 to be collapsed or reduced in length when positioned against undersurface 18.

[0063] The present support system 14 also provides a very rigid assembly. As the tubes 62 are rectangular in cross section, they themselves are quite rigid. However, the torsional rigidity of the tubes 62 is increased by the extension of tubular support 58 through the tubular members 66.

[0064] The present table also provides a cosmetically appealing design from the perspective of the underside structure 14. In particular, as the support tubes 66 and the tubular members 72 have a consistent diameter, the combination of the tubes 66, 72 take on the appearance of a continuous tube.

[0065] The presently disclosed embodiment provides a portable folding table that is lightweight, easy to fold/unfold and may be efficiently stored when folded. The portable folding table provides functionality and load-bearing capability when unfolded with relatively few separate parts. Accordingly, manufacture and assembly of the portable folding table is relatively efficient.

[0066] While the invention has been described in its currently best known modes of operation and embodiments, other modes and embodiments of the invention will be apparent to those skilled in the art and are contemplated.

What we claim is:

- 1. A table comprising:
- a tabletop including an underside and a pair of rib assemblies defining a transverse channel intermediate the rib assemblies;
- a transverse strut disposed in said transverse channel, said transverse strut supporting the tabletop;
- a pair of pivotal support pedestals moveable between an extended position and a collapsed position; and
- a pair of braces extending between said support pedestals and a pair of attachment points;
- wherein said transverse strut is positioned intermediate said attachment points.
- 2. The table as set forth in claim 1, further comprising a pair of pins connected to said rib assemblies, said pins providing said attachment point for said braces.

- 3. The table as set forth in claim 2, wherein said support pedestals include a pair of legs, said pins intermediate said legs when said support pedestals are in the collapsed position.
- 4. The table as set forth in claim 1, further comprising a pair of support tubes disposed within a pair of elongate channels integrally formed in said undersurface, said transverse strut extending between and being connected to said support tubes.
- 5. The table as set forth in claim 4, wherein each said support tube comprises a main body and a pair of tubular members, a portion of said transverse strut being disposed between said main bodies and said undersurface.
- 6. The table as set forth in claim 5, further comprising a pair of tubular supports extending between said tubular members of said support tubes, said tubular supports extending through a support tube included in each of said pedestals, wherein said pedestals pivot about said tubular support.
- 7. The table as set forth in claim 6, wherein said transverse strut further comprises a pair of attachment assemblies including a horizontal plate, wherein said horizontal plate is disposed between said undersurface and said main bodies.
- 8. The table as set forth in claim 7, wherein said pins are distinct from said support tubes.
- 9. The table as set forth in claim 2, further comprising a plurality of brackets and a plurality of fasteners connecting said pin to said undersurface.
- 10. The table as set forth in claim 2, wherein said rib assemblies include channels for receiving said pins.
- 11. The table as set forth in claim 10, wherein said pins include apertures for receiving fasteners extending through said channels.
- 12. The table as set forth in claim 1, wherein said table top is a one-piece table top manufactured from blow molded plastic.
 - 13. A table comprising:
 - a tabletop including an underside and a pair of elongate channels integrally formed therein;
 - a pair of support tubes disposed in said elongate channels including a main body and a pair of tubular members;
 - a pair of tubular supports extending between each pair of said tubular members; and
 - a pair of pedestals each including a pedestal support tube and a plurality of legs extending therefrom, wherein one of said tubular supports extends through one of said pedestal support tubes thereby allowing said pedestals to pivot about said tubular supports between an extended and a collapsed position.
- 14. The table as set forth in claim 13, wherein said tubular members include an outer diameter and said pedestal support tubes include an outer diameter sized equivalent to said outer diameters of said tubular members.
- 15. The table as set forth in claim 13, wherein said undersurface includes a pair of rib assemblies defining a transverse channel disposed perpendicular to said elongate channels, said transverse channel receiving a transverse strut supporting said tabletop.
- 16. The table as set forth in claim 15, wherein said transverse strut is connected to said support tubes.
- 17. The table as set forth in claim 16, wherein said transverse strut includes a pair of attachment assemblies

located at each end, a portion of said attachment assemblies disposed between said underside and said support tubes.

- 18. The table as set forth in claim 17, further comprising a pair of braces extending between said underside and said support pedestals, said braces attached to said underside at attachment points.
- 19. The table as set forth in claim 18, further comprising a pair of pins attached to said underside at said attachment points, each of said pins extending through an aperture located in one of said braces.
- 20. The table as set forth in claim 19, wherein each of said rib assembles includes channels and said pins are located within said channels.
- 21. The folding table as set forth in claim 13, wherein said table top is a one-piece table top manufactured from blow molded plastic.
 - 22. A folding table comprising:
 - a tabletop comprising a top surface and an undersurface located opposite said top surface, said undersurface including a pair of elongate channels extending proximate the edges of said tabletop and a transverse channel extending perpendicular to said elongate channels;
 - a support structure comprising a pair of support tubes disposed in said elongate channels;
 - a pair of pedestals each including a pedestal support tube and a pair of legs, said pair of pedestals being rotatable between a storage position with said legs proximate said undersurface and an operative position with said legs located distant from said undersurface, each said pedestal rotating about said pedestal support tube;
 - a pair of support braces each having a first end attached to one of said pedestals and a second end attached to a pin mounted to said undersurface; and
 - a transverse strut disposed within said transverse channel;
 - wherein each said pin is located intermediate a different pair of said legs of said pedestals when said pedestals are arranged in said storage position.
- 23. The folding table as set forth in claim 22, wherein said transverse strut includes an attachment assembly at each end, said attachment assembly being disposed between said undersurface and said frame in order to retain said transverse strut within said transverse channel.
- 24. The folding table as set forth in claim 22, wherein said transverse channel is located intermediate said pins attached to said undersurface.
- 25. The folding table as set forth in claim 22, further including a pair of tubular supports extending between said support tubes, each of said tubular supports being located within one of said pedestal support tubes.
- 26. The folding table as set forth in claim 22, further including a plurality of fasteners attaching said pins to said undersurface.
- 27. The folding table as set forth in claim 22, further including a plurality of pin clamps including an ear and a flat plate, one of said pins being disposed within said ear and said flat plate being attached to said undersurface by way of a plurality of fasteners.
- 28. The folding table as set forth in claim 22, wherein said table top is a one-piece table top manufactured from blow molded plastic.

29. A folding table comprising:

- a tabletop comprising a top surface and an undersurface located opposite said top surface, a pair of elongate channels disposed in said undersurface and extending proximate the edges of said tabletop;
- a support structure comprising a pair of support tubes, rectangular in cross-section, including a main body and a pair of tubular members, attached thereto adjacent to the ends of the support tubes, said support tubes being disposed within said elongate channels;
- a pair of pedestals each including a pedestal support tube and a plurality of legs extending therefrom; and
- a pair of tubular supports extending between said tubular members of said pair of said support tubes and through said support tube of said pedestal.
- 30. The folding table of claim 29, wherein the rectangular support tubes have a plurality of apertures located proximate said tubular members, whereby the tubular support which extends through said pedestal support tube and said tubular members, also extends into said rectangular support tubes.
- 31. The folding table as set forth in claim 29, further comprising a pair of braces and a pair of pins, said braces extending from said pedestals to said pins.
- 32. The folding table as set forth in claim 31, wherein each said brace is joined to a different one of said pins.
- 33. The folding table as set forth in claim 32, wherein each said pin is disposed in different said rib assemblies.
- 34. The folding table as set forth in claim 33, wherein said pins remain distinct from said support tubes.
- 35. The folding table as set forth in claim 34, wherein said support braces include a pair of fastened angled arms joined by a fastener to a first end of a straight arm at a junction, said straight arm being rotatable about said fastener at said junction.
- 36. The folding table as set forth in claim 35, wherein said straight arms include a second end opposite said first end, said pin attached to said second end.
- 37. The folding table as set forth in claim 36, wherein said attachment assemblies include a horizontal plate and a vertical plate, said horizontal plate being disposed within said elongate channels between said undersurface and said support tubes.
- 38. The folding table as set forth in claim 37, wherein said support tubes include a plurality of apertures spaced throughout a pair of opposing side walls, said apertures being of sufficient size to receive a plurality of fasteners that extend through said apertures and into said wall.
- 39. The folding table as set forth in claim 38, wherein said rib assemblies include a pin receiving channel having tabs for retaining said pin therein.
- 40. The folding table as set forth in claim 39, wherein said pins include at least one aperture, a fastener extending through said rib assemblies and said at least one aperture thereby affixing said pin to said rib assembly.
- 41. The folding table as set forth in claim 29, wherein said table top is a one-piece table top manufactured from blow molded plastic.

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