

(57) Abstract

A folding table (10) has table top halves (12, 12') of molded plastic which are hinged together along a transverse center line of the table. The table top halves (12, 12') have integral moldings (30) for fitting folding metal legs as well as telescopic longitudinal metal reinforcing bars (54, 56) and transverse reinforcing bars (52, 52') held in place by the longitudinal reinforcing bars. The table has a unique carrying handle (18) arrangement and latching assemblies for holding the table top halves (12, 12') in an open position.

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FOLDING TABLE

Background of the Invention

This invention relates to a folding table of
5 the kind having a table top formed by two table top
halves hinged to each other along the center line of
the table for folding together in the manner of a
case, when the table is to be transported or stored,
and for unfolding into a coplanar disposition to form
10 the table top when the table is to be used. Each
table top half, on its undersurface, carries a hinged
leg assembly which can be positioned substantially
flat against the undersurface when the table is folded
and can swing out into an upright position to support
15 the table top when the table is unfolded.

Folding tables of this kind should meet
various requirements and the prior art is replete with
different designs. For example, the table should be
simple to unfold for setting up, and to fold for
20 taking down. It should be as light in weight as
possible, consistent with having sufficient rigidity
when unfolded. These requirements are particularly
important where, for example, the table is for use as
a banquet table, and large numbers of such tables need
25 to be set up and taken down at one time. Also, the
table should be simple and economical to manufacture
and should be simple and compact to transport and
store.

It is an object of the present invention to
30 provide a folding table of the kind described which,
to a large extent, meets the above requirements.

Summary of the Invention

In a folding table according to the
35 invention, the table top halves are conveniently made

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of injection molded plastic with ribs on the undersurface and various molded recesses and fittings for attaching and receiving parts of the table hardware such as hinges for the table top, folding
5 legs, supports for rigidifying the table top in use, and a carrying handle, any one or more of which parts may be made of metal.

In one embodiment of the invention, a novel form of carrying handle is mounted on the hinge line
10 between the table top halves, so as to be exposed for use when the table is folded and be hidden between the table top halves when they are unfolded. Preferably, for example, the table top halves are interconnected by a pair of hinges having a common hinge pin which,
15 in its center portion, forms the carrying handle.

Another aspect of this embodiment resides in the provision of longitudinal telescopic support assemblies on the undersurface of the table top halves including male telescopic elements which are extended
20 from respective tubular elements in one of the table top halves across the hinge line between the halves when the table is unfolded, and into further tubular elements on the other table top half to support and rigidify the table top. Conveniently, the tubular
25 elements on the respective table top halves may fit over and lock in place transversely extending metal support bars which fit in molded transverse channels on the undersurfaces of the table top halves adjacent the hinge line. The transversely extending metal
30 support bars may themselves fit over and lock in place projecting flanges on the hinges which attach the table top halves together, the hinges themselves being located in shallow pockets or the like formed in side

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walls of the transverse channels. With this arrangement, during assembly of the table, the hinge elements and transverse support bars can be fitted to the table top halves without the need for additional
5 fasteners, and only the longitudinal tubular elements need be attached by fasteners, such as screws and brackets, to the respective table top halves.

Still another feature of the first embodiment resides in a snap over toggle-type latch
10 arrangement which fits over the respective transverse support bars to further rigidity the table top when it is open and ensure a close fit of the table top halves along the hinge line.

In a second embodiment of the invention, the
15 table top halves include longitudinal tubular bracing elements which again fit over and lock in place transversely extending metal support bars fitting in molded transverse channels as in the first embodiment. In this embodiment, however, there are no telescopic
20 elements as in the previous embodiment and the hinge and handle structures are also modified. Thus, in the second embodiment, the hinges are welded directly to the longitudinal bracing elements, and the handle structure comprises a pair of slide-out handles of
25 plastic material carried by the respective longitudinal bracing elements. The handles can slide out from the sides of the respective table top halves when these are folded and back in when the table is unfolded. Also, the handles are designed to nest one
30 within the other when moved out for carrying to enhance carrying comfort.

Another feature of the second embodiment, is the provision of a spring-loaded lever-type latch

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carried by a hinge plate on one of the table top halves adjacent the hinge line, for snapping into engagement with a latch-receiving formation in the adjacent hinge plate on the other table top half when
5 the table is opened and latching the table in the open position.

Additional features and advantages of the invention will be apparent from the ensuing description and claims read in conjunction with the
10 attached drawings.

Brief Description of Drawings

- 15 Fig. 1 is a perspective view of a first embodiment folding table, showing the same in its folded position for carrying;
- Fig. 2 is a perspective view of the table in the unfolded assembled position;
- 20 Fig. 3 is a partial view showing a plurality of tables according to the invention nested for storage;
- Fig. 4 is a bottom plan view of the table unfolded and with the legs collapsed;
- 25 Fig. 5 is a transverse cross-sectional view on line 5-5 of Fig. 4;
- Figs. 6A & 6B are longitudinal cross-sectional views through telescoping locking elements taken along lines 6A-6A and 6B-6B of Figure 4, respectively;
- 30 Fig. 7 is an enlarged cross-sectional view on line 7-7 of Fig. 4, showing an integral hinge support for the folding legs;

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- Fig. 8 is an enlarged cross-sectional view on line 8-8 of Fig. 4, showing in detail a locking means for holding the legs in their unfolded position;
- 5 Fig. 9 is an enlarged cross-sectional view on line 9-9 of Fig. 4 and illustrating a snap-over-center latching means to provide the table with rigidity in its unfolded assembled position;
- 10 Fig. 10 is an enlarged cross-sectional view on line 10-10 of Fig. 4, showing a pivotal connection of a support for the folding legs to the underside of the table;
- 15 Fig. 11A & 11B are, respectively, views of a telescoping locking element in its locking position and in its withdrawn position;
- Fig. 12 is an enlarged cross-sectional view on line 12-12 of Fig. 4;
- 20 Fig. 13 is an end elevational view of the table, showing a different form of leg element;
- Fig. 14 is an elevational view of a second embodiment folding table according to the invention, showing same in its folded position for carrying;
- 25 Fig. 15 is an underneath plan view of the second embodiment table when unfolded;
- Fig. 16 is an enlarged sectional view on line 16-16 of Fig. 15 showing a spring latch in latched position;
- 30 Fig. 16A is a view similar to Fig. 16 showing the latch released;

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Fig. 17 is a sectional view on line 17-17 of Fig. 16;
Fig. 17A is a similar sectional view on line 17A-17A of Fig. 16A;
5 Fig. 18 is an enlarged sectional view on line 18-18 of Fig. 15;
Fig. 19 is an enlarged sectional view on line 19-19 of Fig. 15;
10 Fig. 20 is an enlarged sectional view on line 20-20 of Fig. 15; and
Figs. 21A and 21B are respective sides of an enlarged end elevational view of the second embodiment table in the folded position as seen from the left hand
15 side of Fig. 14.

Description of Preferred Embodiment

A first embodiment folding table 10 according to the invention can be readily converted as between a folded condition shown in Fig. 1, for transport and storage, and an unfolded assembled position, shown in Fig. 2, for use of the table. The table has molded plastic left and right hand table top
25 halves 12, 12' which are hinged together, generally along a transverse center line of the table by hinge assemblies 14, and the table top halves are provided with respective fold-out leg assemblies 16, 16'. From the unfolded assembled position shown in Fig. 2, the
30 leg assemblies can be collapsed against the undersurface of the respective table top halves by pivoting the legs as indicated by arrows A, and the table top halves can then be folded together about the

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hinge assemblies in the direction of arrows B, in the manner of a case, to convert the table to the transport and storage condition shown in Fig. 1. Also, as evident in Fig. 1, handle 18, which is formed by a common hinge pin 19 connected between the assemblies 14, becomes exposed for readily carrying the table when it is folded. It is evident that to convert the table to its unfolded assembled condition, the above operations are reversed. In the unfolded condition, handle 18 is concealed between the table top halves at the center line of the table.

Each of the table top halves 12 and 12' is in the form of a shallow tray or dish-like plastic molding having a top wall 20 or 20' with a depending peripheral flange 22 or 22'. Also, the table top halves may have peripherally extending ridges 24 or 24' or other formations allowing plural tables to be nested and stacked as shown in Fig. 3. Internally, each table top half provided with a latticework of longitudinal and transverse molded reinforcing ribs 26, 26' which are about half the height of the peripheral flanges 22, 22'.

The leg assemblies 16, 16' have respective crossbars 28, 28' by which they are pivoted to the table top halves. For example, the cross-bars may pivotally snap-fit into respective journals 30, 30 (Fig. 7) molded with the table top halves. To releasably lock the leg assemblies in the open position shown in Fig. 2, the leg assemblies have lockable bracing links 32, 32', pivotally connected to support links 34, 34' which are themselves pivotally attached to support pads 36, 36' screwed or otherwise suitably attached to molded plate sections on the

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undersurfaces of the table top halves. Slidable locking sleeves 38, 38' are provided to fit over the joint between the links 32, 32' and 34, 34' for releasably locking the leg assemblies in the open position. The leg assemblies may include base bars 40, 40' which may snap fit into retainers 42, 42' (Fig. 8) molded with the table top halves. An alternative configuration of leg assembly 17 is shown in Fig. 13.

10 The hinge assemblies 14 include respective hinge plates 44, 44' connected by the hinge pin 19 and perpendicular flanges 46, 46' at the bottom of the hinge plates (see particularly Fig. 12). The table top halves are formed with molded transverse channels 15 48, 48' adjacent their inner edges and the hinge plates 44, 44' locate in pockets 50, 50' on the inner channel wall with the flanges located on the bases of the respective channels. Transverse metal reinforcing bars 52, 52' fit in the channels over the flanges to 20 hold the hinge assemblies in place and also to rigidify the table top. As evident in Fig. 5, when the table top is open the pivot axis of the hinge assemblies, as defined by hinge pin 19, is below the upper surface of the table top, whereby the handle 18 25 is concealed between the table top halves.

The reinforcing bars 52, 52' are themselves held in place at their opposite ends by longitudinally extending tubular members 54, 54' and 56, 56' forming respective female elements of telescopic table 30 reinforcing bar assemblies and the inner ends of which fit over the opposite end of bars 52, 52'. The tubular members are secured to the respective table top halves with straps or brackets 58, 58' and screws

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60, 60' fitting in molded sockets or the like in the table top halves. The screws thus effectively constitute the only fasteners needed to secure the longitudinal reinforcing bar assemblies as well as the
5 transverse reinforcing bars and hinge assemblies to the table top halves. The longitudinal reinforcing bar assemblies further include male longitudinal reinforcing bars 62, 62' slidably received in the
10 respective tubular members 54, 56' for extending movements into the tubular members 54, 56 when the table top is opened out to provide longitudinal bracing of the table top, and for retracting movements back into the tubular members 54, 56' when the table is to be folded for transport and storage. The bars
15 62, 62' carry screw and wing nut assemblies 64, 64' which travel in slots 66, 66' in the tubular members 54, 56' which allow the bars 62, 62' to be locked in both the extended and retracted positions, while the length of the slots define the length of travel of the
20 bars. As illustrated, the tubular members 54, 54' carrying the bars 62, 62' are on the opposite table top halves, however they may, alternatively, be on the same table top half.

As shown in Figs. 4 and 9, the table may
25 include latch assemblies 68, for locking over the transverse reinforcing bars 52, 52' to further rigidify the table top when it is open and ensure that the table top halves fit closely together at the transverse center-line of the table. The latch
30 assemblies comprise hubs 70, attached to table top half 12' by screws 72, arms 74, pivotally secured to the hubs, and pivotal toggle links 76, at the ends of the arms. When the table is open, the arms swing

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across the reinforcing bars 52, 52' and the links 76, are engaged behind the outer walls 49, of channel 48, which may be provided with a catch retaining lip 51, for this purpose.

5 It is evident from the above that the invention provides a folding table which is simple and economical to manufacture. When assembling the structure, the only fasteners required are the screws for the longitudinal reinforcing bar assemblies, the
10 screws for the folding leg pads, and the screws for the latch assemblies. All the remaining parts of the table hardware simply fit into suitable receiving formations molded into the table top halves. Further, the table is convenient to transport by means of the
15 handle which is exposed only when the table is folded, and storage of plural tables is facilitated by the nesting and stacking configuration. The table is simple to set up and take down by suitably pivoting the leg assemblies, sliding and locking in place the
20 longitudinal reinforcing bars and manipulating the latch assemblies. Also, in the open position, the molded plastic table top is rigidified and reinforced by the longitudinal and transverse reinforcing bars and the latch assemblies.

25 A second embodiment folding table 110 according to the invention, as shown in Figs. 14 to 21, is generally similar in construction and use to table 10 previously described, and can be readily converted between a folded carrying position shown in
30 Figs. 14 and 21, and an unfolded position shown in the remaining figures. The table again has molded plastic left and right hand table top halves 112, 112' which are hinged together along a transverse center line of

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the table by hinge assemblies 114, 114' and the table top halves are again provided with fold-out leg assemblies 116, 116' for folding and unfolding in like manner to the first embodiment table.

5 Again, each of the table top halves 112 and 112' is in the form of a shallow tray or dish-like plastic molding having a top wall 120 or 120' with a depending peripheral flange 122 or 122', and an internal lattice work of longitudinal and transverse
10 molded reinforcing ribs 126, 126'.

 The leg assemblies 116, 116' have respective cross-bars 128, 128' by which they are pivoted to the table top halves, again snap-fitting into respective journals defined by spaced ribs 130, 130' molded with
15 the respective table top halves. In this case, the cross-bars also fit through molded caps 131, 131' fitted in the respective journals. Caps 131 have projections 133 and caps 131' have complimentary grooves 133' (Figs. 18 and 19) which receive the
20 projections with a snap-fit when the table is closed. Also, the cross-bars 128 have pins or plugs 129, 129' to locate the legs laterally between the respective journals and prevent lateral displacement. To releasably lock the leg assemblies in the open
25 position they again have lockable bracing links 132, 132' pivotally connected to support links 134, 134' themselves pivotally attached to support pads 136, 136' secured as previously to the table top halves. Slideable locking sleeves are again provided. In this
30 case, the legs when folded closed, snap fit into plastic clips 139 139' having bases which are trapped beneath transverse metal bracing bars 141, 141'. The relevant reinforcing ribs 126, 126 have gaps to

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receive the bars. The legs have outer end cross-bars 140, 140' as previously.

As in the previous embodiment, the table top 5 halves are fitted with longitudinal tubular steel reinforcing bars 154, 154' and 156, 156' secured by 5 straps 158, 158' and screws 159, 159' to the undersurface thereof. There are no telescoping elements, however, and the inner ends of the longitudinal bars are connected to the hinge 10 assemblies 114, 114'. Thus, the hinge assemblies have respective hinge plates 113, 115 and 113', 115' welded to the respective reinforcing bars and connected by hinge pins 117, 117'. As best seen in Figs. 17 and 17A, the hinge plates are recessed to accomodate the 15 innermost straps 158, 158' and their fittings.

Operatively carried at the inner end of hinge plate 115 is a lever latch 119. The latch is pivotally mounted on a post 121 with a compression spring 123 urging the latch downwardly. On its 20 undersurface, the latch has a pair of projecting lugs 125, 127 adapted to fit in corresponding apertures 129, 131 in hinge plates 113, 115. When the table is opened out as shown in Figs. 15, 16 and 17, the lugs 125, 127 snap into the apertures 129, 131 and the 25 table is latched open. To fold up the table end portion 119a of the latch is depressed, see Fig. 17A, removing lug 125 from apertures 129 and allowing the table to fold. Another like latch arrangement can be provided, if required, on the opposite side of the 30 table.

As in the previous embodiment, the innermost ends of the longitudinal reinforcing bars 154, 154' and 156, 156', extend over and hold in place

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transverse reinforcing bars 152, 152' at the inner ends of the respective table top halves, see Fig. 15. Again, the transverse bars are located in pockets molded in the table top halves, or gaps in the latticework of ribs 126. In this embodiment, the bars 154, 154' also fit over and clamp in place the previously referred to transverse reinforcing bars 141, 141,.

As seen in Figs. 21 and 21A, the inner edges of the table top halves may be molded with projecting ribs 151, 151' and aligned pockets 153, 153' which receive the ribs when the table is opened out to provide a lateral locating and stabilization means for the table top halves precluding relative lateral displacement thereof when the table is open.

For carrying the table when it is folded closed, there are provided a pair of U-shaped sliding handles 160, 160', see Figs. 14, 15 and 21A, made of somewhat flexible plastic. The legs of the handles are flattened and have slots 162, 162' received with a friction fit between resilient washers 164, 164' on posts 166, 166' threaded into the longitudinal reinforcing bars 156, 156'. The handles can thus slide, as shown by the arrows in Fig. 15, inwardly of the table when it is opened out and outwardly when the table is to be folded so as to fit between the table top halves, for carrying the table. Also, handle 160' is narrower than handle 160 to the extent that it nests neatly and snugly inside of handle 160 when the table is folded, see Fig. 14, to improve user comfort when carrying the table. This handle structure is used when the dimensions of the table make it easier to carry from the side rather than the end as in the

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first embodiment.

While only preferred embodiments of the invention has been described herein in detail, the invention is not limited thereby and modifications can
5 be made within the scope of the attached claims.

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CLAIMS

1. A folding table comprising a table top formed of a pair of molded plastic tray-like table top halves and hinge means securing the table top halves together along a transverse center line of the table for folding the table top halves together into a closed position in which the table top halves are substantially juxtaposed in adjacent planes and an open position in which the table top halves are substantially coplanar, folding leg assemblies attached to undersurfaces of the respective table top halves, at least one transverse metal reinforcing bar on the undersurface of each table top half, a pair of transversely spaced longitudinal metal reinforcing bars for each table top half and fastener means securing the longitudinal reinforcing bars to the undersurface of each table top half over the respective transverse reinforcing bar whereby the transverse reinforcing bars are held in place by the longitudinal reinforcing bars.

2. A table as defined in claim 1, wherein each table top half includes a first transverse reinforcing bar adjacent said center line and a second transverse reinforcing bar spaced from the first transverse reinforcing bar, both said transverse reinforcing bars being held in place by the longitudinal reinforcing bars.

30

3. A table as defined in claim 2, including clips trapped in place by the second transverse reinforcing bars for releasably holding the

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respective leg assemblies in folded position against the undersurfaces of the respective table top halves.

4. A table as defined in claim 1, wherein
5 the fastener means comprises plural spaced straps fitted over each longitudinal reinforcing bar and screws threaded through the straps into the respective table top halves.

10 5. A table as defined in claim 1, wherein the hinge means comprises respective hinges welded between ends of the longitudinal reinforcing bars of the respective table top halves.

15 6. A table as defined in claim 1, wherein one of the hinges includes a latch mechanism for releasably latching the table in the open position.

7. A table as defined in claim 1, wherein
20 the leg assemblies are pivotally mounted in journals formed on the respective table top halves, the journals having respective covering caps, the covering caps on one of the table top halves having female fittings and the covering caps on the other table top
25 half having male fittings for releasable receipt in the female fittings when the table is closed.

8. A table as defined in claim 1, wherein
the table top halves have respective inner walls
30 adjacent the center line with male and female fittings which interengage when the table is in the open position to stabilize the table top halves laterally.

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9. A table as defined in claim 1, wherein the table top halves have respective handles which slide out between side walls of the respective table top halves for carrying the table in the closed position wherein one of said handles nests within the other of said handles.

10. A folding table comprising a table top formed of a pair of table top halves, a pair of hinge assemblies securing the table top halves together along a transverse center line of the table for folding the table top halves together into a closed position in which the table top halves are substantially juxtaposed in adjacent planes and an open position in which the table top halves are substantially coplanar, and folding leg assemblies attached to undersurfaces of the respective table top halves, wherein each hinge assembly comprises a first hinge plate secured to one of the table top halves, a second hinge plate secured to the other of the table top halves and a hinge pin connecting the plates, and wherein at least one of the hinge assemblies includes a latching mechanism for latching the table in the open position, said latching mechanism comprising a pin extending from the first hinge plate, a latching lever mounted on the pin, spring means on the pin urging the latching lever toward the first hinge plate, latching apertures in the first and second hinge plates, corresponding latching projections on the latching lever adapted to fit in said apertures when the table is opened for latching the table in the open position, and a manually depressible extension on the latching lever for manipulating the lever to

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release the projections from the apertures when the table is to be folded.

11. A table as defined in claim 10, wherein
5 the table top halves comprise plastic tray-like mouldings with longitudinal metal reinforcing bars and the hinge plates are welded to adjacent inner ends of respective pairs of the reinforcing bars.

10 12. A table as defined in claim 11, wherein the reinforcing bars are each secured to a surface of the respective table top half by plural spaced strap members screwed into the table top half and wherein the hinge plates each have a looped bridge portion to
15 accommodate one of the strap members.

13. A folding table comprising a table top formed of a pair of table top halves hinge means securing the table top halves together along a
20 transverse center line of the table for folding the table top halves together into a closed position in which the table top halves are substantially juxtaposed in adjacent planes and an open position in which the table top halves are substantially coplanar,
25 folding leg assemblies attached to undersurfaces of the respective table top halves, a U-shaped handle for each table top half and mounting means attaching the handles to the undersurfaces of the respective table top halves for in and out sliding movement of the
30 handles between retracted positions within the respective table top halves and extended positions projecting from respective sides of the table top halves for carrying the table in the closed position,

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wherein one of the handles is smaller than the other of the handles and is positioned to nest in the other of said handles when the handles are in the extended positions and the table is in the closed position.

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14. A table as defined in claim 13, wherein table top halves comprise plastic tray-like moldings with longitudinal metal reinforcing bars, and the mounting means attach the handles to respective ones
10 of the reinforcing bars.

15. A table as defined in claim 14, wherein each handle has a pair of slotted limbs and the attachment means for each handle comprises spaced pins
15 extending from the respective reinforcing bar through the respective slots and spaced washers on the pins trapping the respective limb therebetween with a sliding fit.

20 16. A folding table comprising a table top formed of a pair of molded plastic table top halves and hinge means securing the table top halves together along a transverse center line of the table top for folding the table top halves together into a closed
25 position in which the table top halves are substantially juxtaposed in adjacent planes and an open position in which the table top halves are substantially coplanar, a pair of metal leg assemblies, pivotal attachment means securing the
30 respective leg assemblies to undersurfaces of the respective table top halves for swinging movements of the leg assemblies when the table top is, in the open position between folded positions wherein the leg

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assemblies are substantially juxtaposed against the undersurfaces of the table top halves and unfolded positions wherein the leg assemblies are substantially perpendicular to the table top halves, and a pair of
5 longitudinal telescopic reinforcing assemblies, each reinforcing assembly comprising a pair of coaxial tubular member each secured along a substantial length of the undersurface of a respective table top half perpendicularly to said center line, and a
10 longitudinal male reinforcing bar slidingly received in one of said tubular members for extending movements across the center line into the other of said tubular members when the table top is in the open position to rigidify the table top, and for retracting movements
15 back into said one of the tubular members when the table top is in the open position to rigidify the table top, and for retracting movements back into said one of the tubular members when the table top is to be folded into the closed position.

20

17. A table as defined in claim 16, further including a pair of transverse metal reinforcing bars secured to the undersurface of the respective table top halves perpendicularly to said center line.

25

18. A table as defined in claim 17, wherein the transverse metal supporting bars are located adjacent said center line and fit over portions of the hinge means thereby securing the hinge means to the
30 respective table top halves.

19. A table as defined in claim 18, wherein the hinge means comprises a pair of hinges each comprising

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hinge plates connected by a hinge pin and flanges extending substantially perpendicularly from the hinge plates, wherein the table top halves include respective molded channels receiving the respective
5 transverse reinforcing bars and wherein the respective hinge plates fit against side walls of the channels and the flanges fit along base walls of the channels under the respective transverse reinforcing bars.

10 20. A table as defined in claim 19, wherein the side walls of the channels have pockets receiving the hinge plates and transversely locating the hinges.

15 21. A table as defined in claim 18, wherein inner end portions of the respective tubular members fit over outer end portions of the respective transverse reinforcing bars thereby securing the transverse reinforcing bars to the table top halves.

20 22. A table as defined in claim 21, including fastener means attaching the tubular members to the respective table top halves.

25 23. A table as defined in claim 19, wherein inner end portions of the respective tubular members fit over outer ends of the respective transverse reinforcing bars thereby securing the transverse reinforcing bars in said channels and wherein the table includes fastener means securing the tubular
30 members to the table top halves.

24. A table as defined in claim 16, wherein the hinge means comprises a hinge pin, a first pair of

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hinge plates on one end of the hinge pin, a second pair of hinge plates on an opposite end of the hinge pin, the hinge plates being secured to the respective table top halves, wherein a central portion of the
5 hinge pin defines a carrying handle for the table, the handle being exposed when the table top is in the closed position and concealed between the table top halves when the table top is in the open position.

10 25. A table as defined in claim 24, wherein the ends of the hinge pin define a hinge axis for the table top halves said axis being spaced below a top surface of the table top when the table top is in the open position, and wherein the hinge pin is bent so
15 that the central portion defining the handle is offset from the ends.

 26. The table as defined in claim 18, wherein the transverse supporting bars are located adjacent
20 said transverse center line of the table and wherein the table further includes at least one latch assembly secured to the undersurface of one of the table top halves for releasably gripping a portion of the other table top half over the transverse support bars when
25 the table top is in the open position so as to rigidify the table top and retain adjacent edges of the table top halves in proximity along said center line.

30 27. A table as defined in claim 16, wherein said pivotal attachment means for each leg assembly comprises a cross-bar on the leg assembly and spaced molded bearing assemblies on the undersurface of the

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respective table top half in which the cross-bar is rotatably snap-fitted.

28. A table as defined in claim 27, including a
5 brace assembly for each leg assembly for releasably locking the leg assembly in the open position, the brace assembly comprising a base plate secured to the undersurface of the respective table top half, a first link means pivotally connected to the base plate, a
10 second link means pivotally connected to the leg assembly, a pivot joint between the first and second link means, and a sliding sleeve on one of the link means for sliding over said pivot joint when the leg assembly is in the unfolded position to releasably
15 lock the link means and prevent movement of the leg assembly to the folded position until the sleeve is moved from over said joint.

29. A folding table comprising a table top
20 formed of a pair of table top halves and hinge means securing the table top halves together along a transverse center line of the table top for folding the table top halves together into a closed position in which the table top halves are substantially
25 juxtaposed in adjacent planes and an open position in which the table top halves are substantially coplanar, folding leg assemblies attached to undersurfaces of the respective table top halves, and a carrying handle for the table mounted between the table top halves
30 along said center line for exposure when the table top is in the closed position and concealment between the table top halves when the table top is in the open position.

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30. A table as defined in claim 29, wherein the hinge means comprises a pair of hinges mounted at opposite ends of a common hinge pin, each hinge comprising hinge plates secured to the respective
5 table top halves, and wherein the handle is formed by a central portion of the hinge pin between said ends.

31. A table as defined in claim 30, wherein said ends of the hinge pin define a hinge axis for the
10 table top halves which is displaced below an upper surface of the table top when the table top is in the open position, and wherein the central portion of the hinge pin defining the handle is offset from the ends of the hinge pin.

15

32. A table as defined in claim 30, wherein the hinge plates have perpendicular flanges at their free ends and are located in transverse channels formed in undersurfaces of the respective table top halves,
20 wherein the hinge plates are received in locating pockets formed in side walls of the channels, said flanges are received on base walls of the channels and further wherein the table includes transverse reinforcing bars received in said channels over said
25 flanges for retaining the hinges in place and rigidifying the table top.

33. A table as defined in claim 32, further including longitudinal members attached to the
30 undersurfaces of the table top halves, the longitudinal members having end portions extending over end portions of the transverse reinforcing bars for retaining the transverse reinforcing bars in said

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channels.

34. A folding table comprising a table top having a pair of table top halves, a pair of spaced
5 hinges connecting the table top halves together for folding and unfolding about a transverse center line of the table, and a hinge pin having end portions carrying hinge plates of the respective hinges and a central portion forming a carrying handle for the
10 table which is exposed when the table top halves are folded together and concealed between the table top halves when the table top halves are opened out into a substantially coplanar configuration.

15 35. A folding table according to claim 34, wherein the central portion of the hinge pin is offset from the end portions.

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FIG. 1

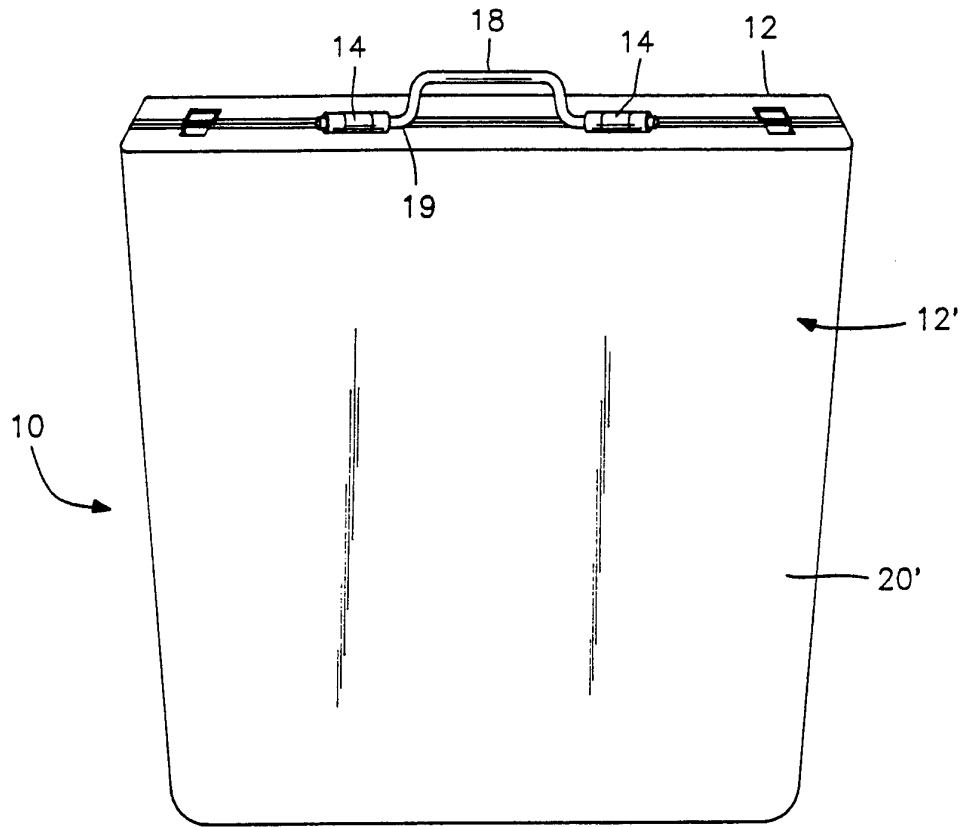


FIG. 2

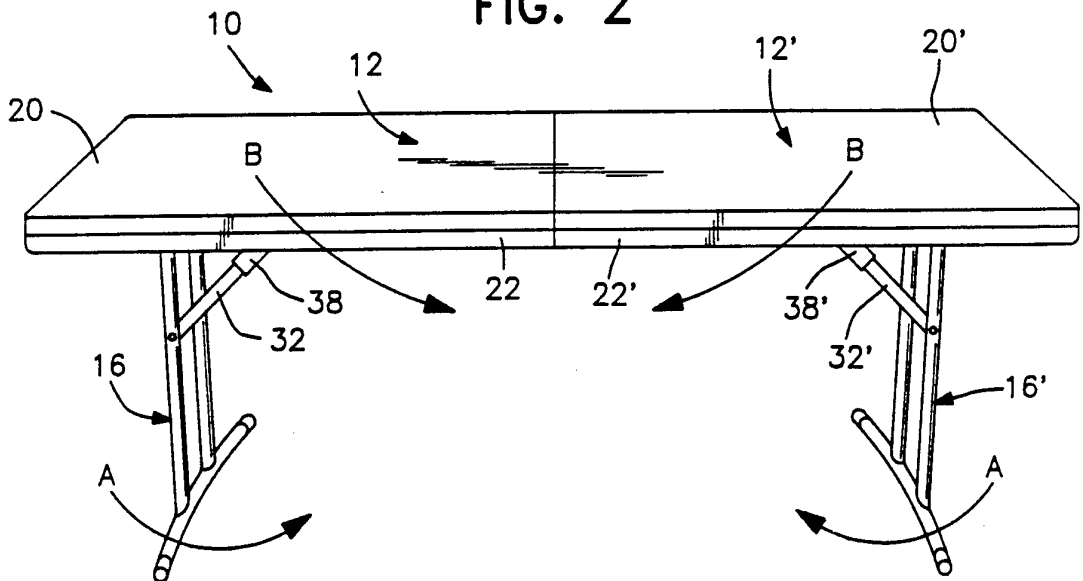


FIG. 3

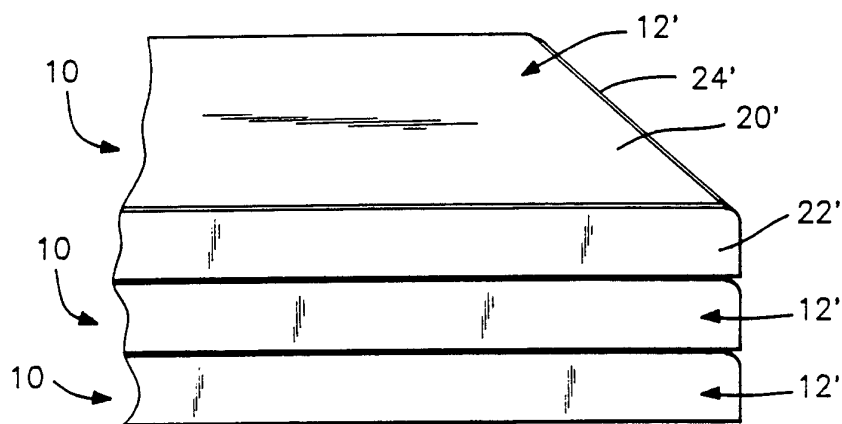


FIG. 13

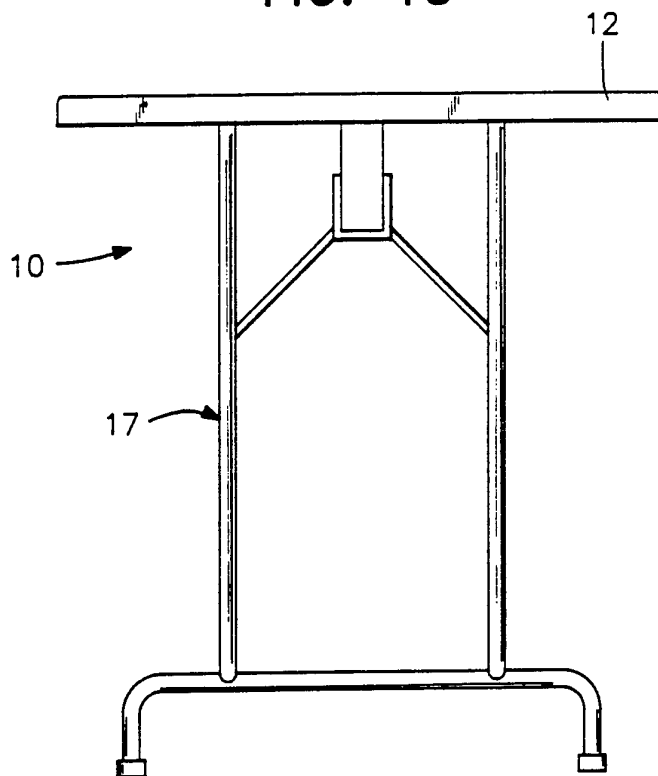


FIG. 4

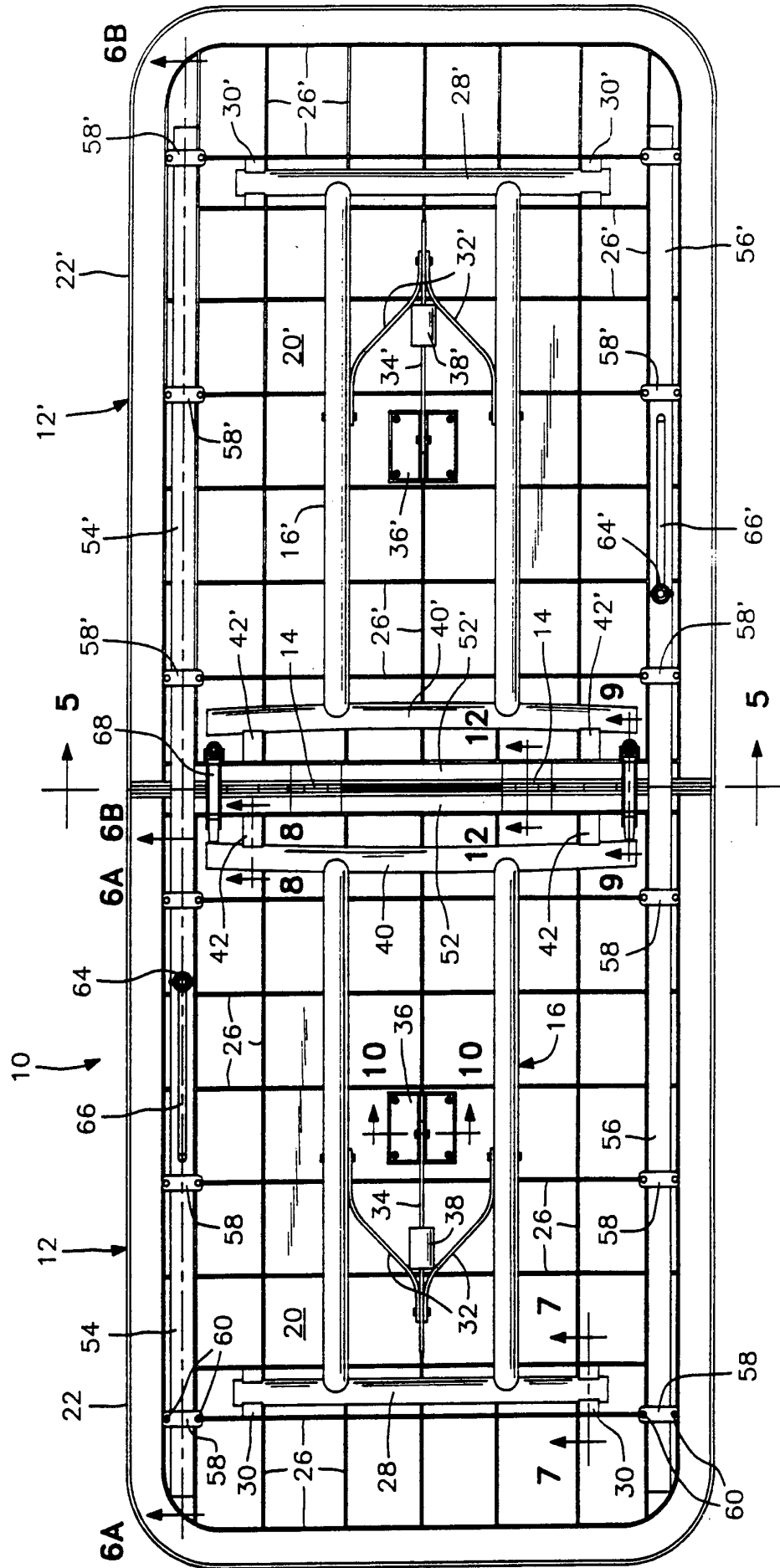


FIG. 5

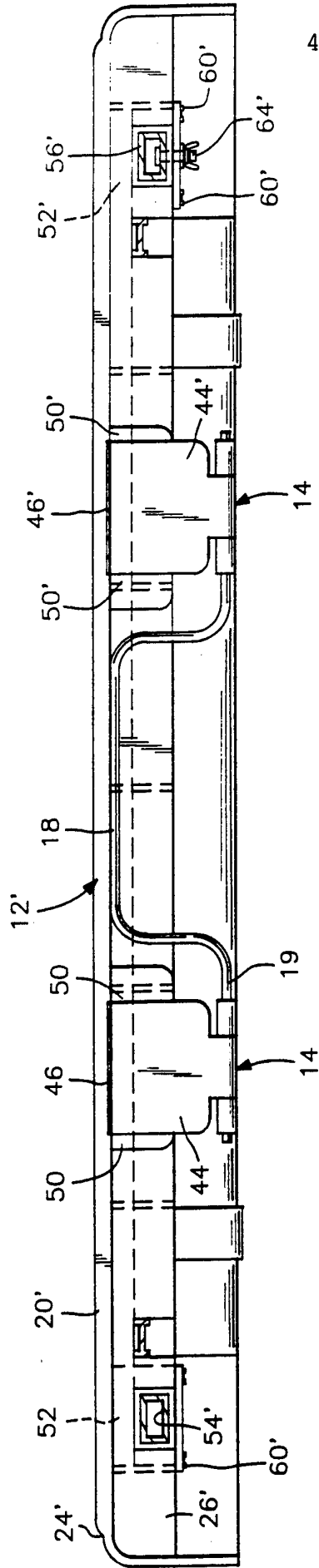


FIG. 8

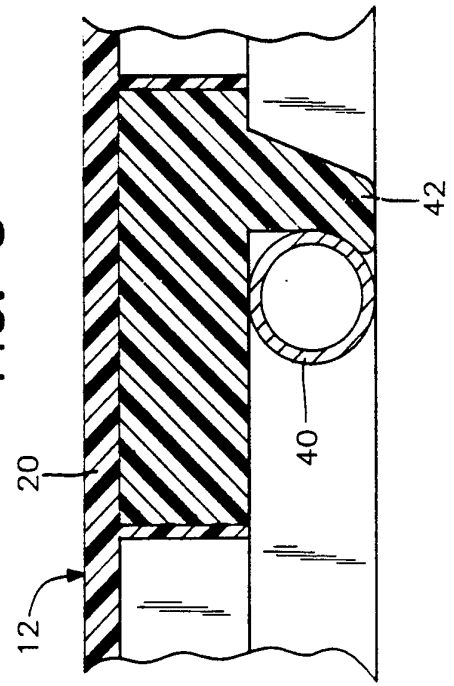


FIG. 7

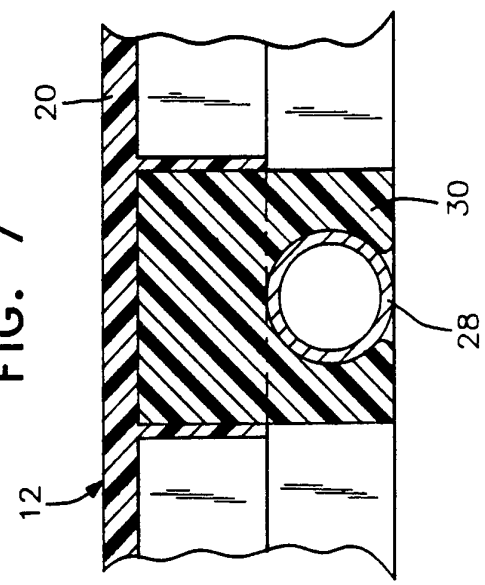


FIG. 6A

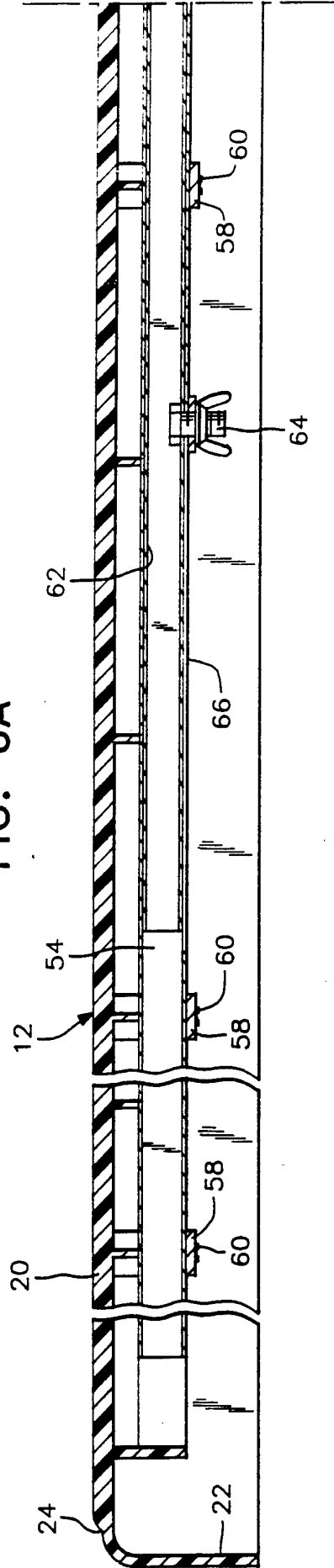


FIG. 6B

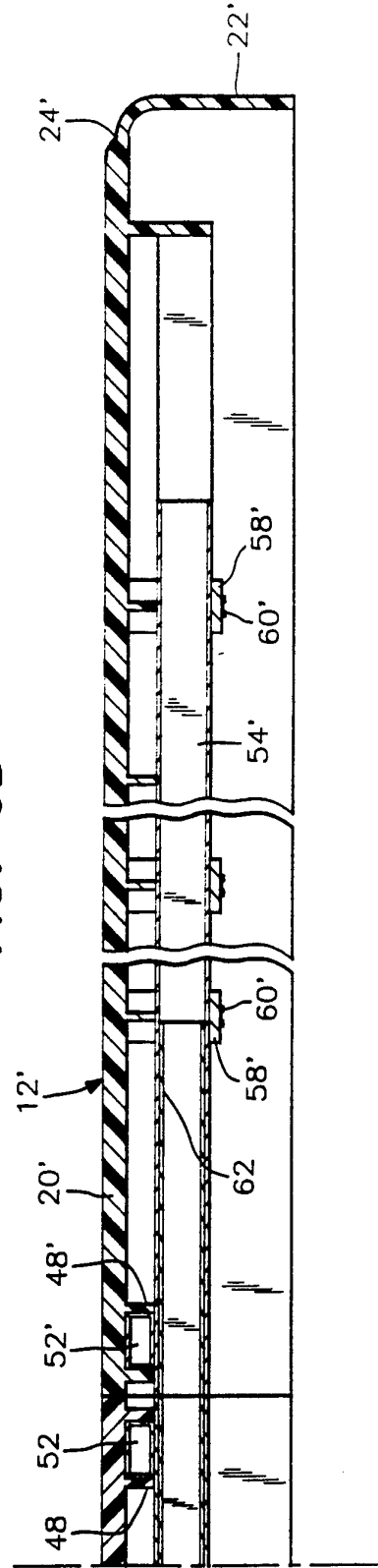


FIG. 11A

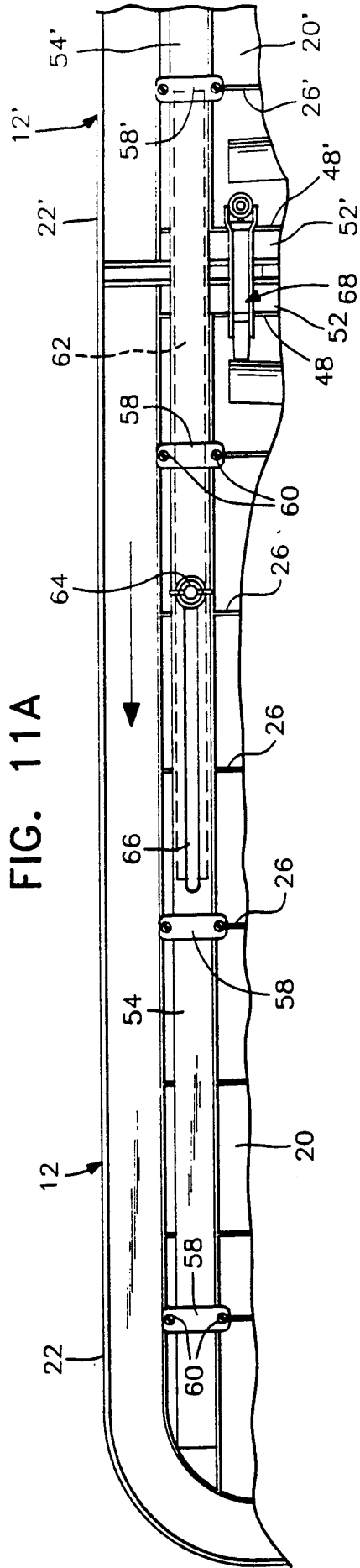
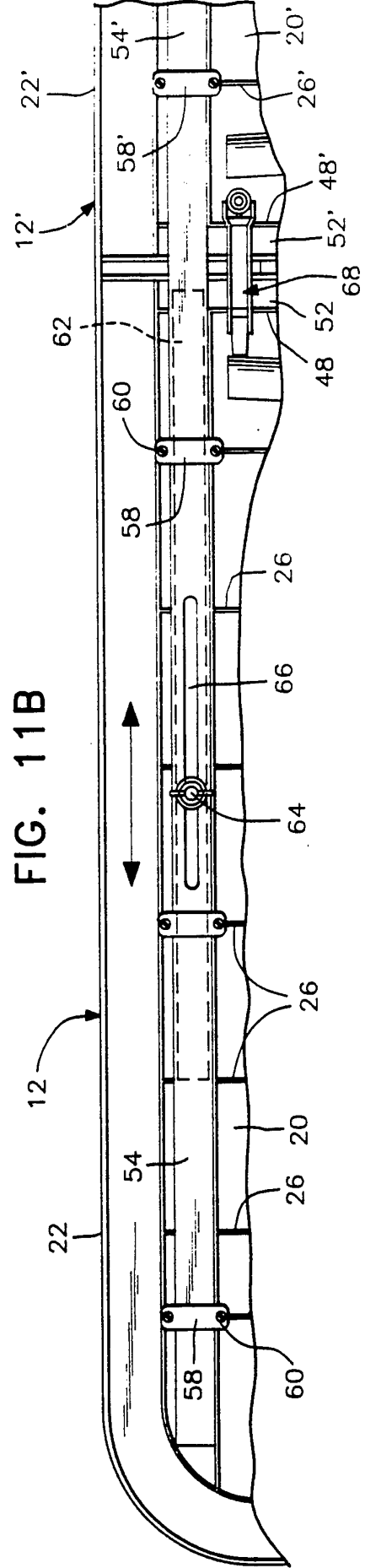


FIG. 11B



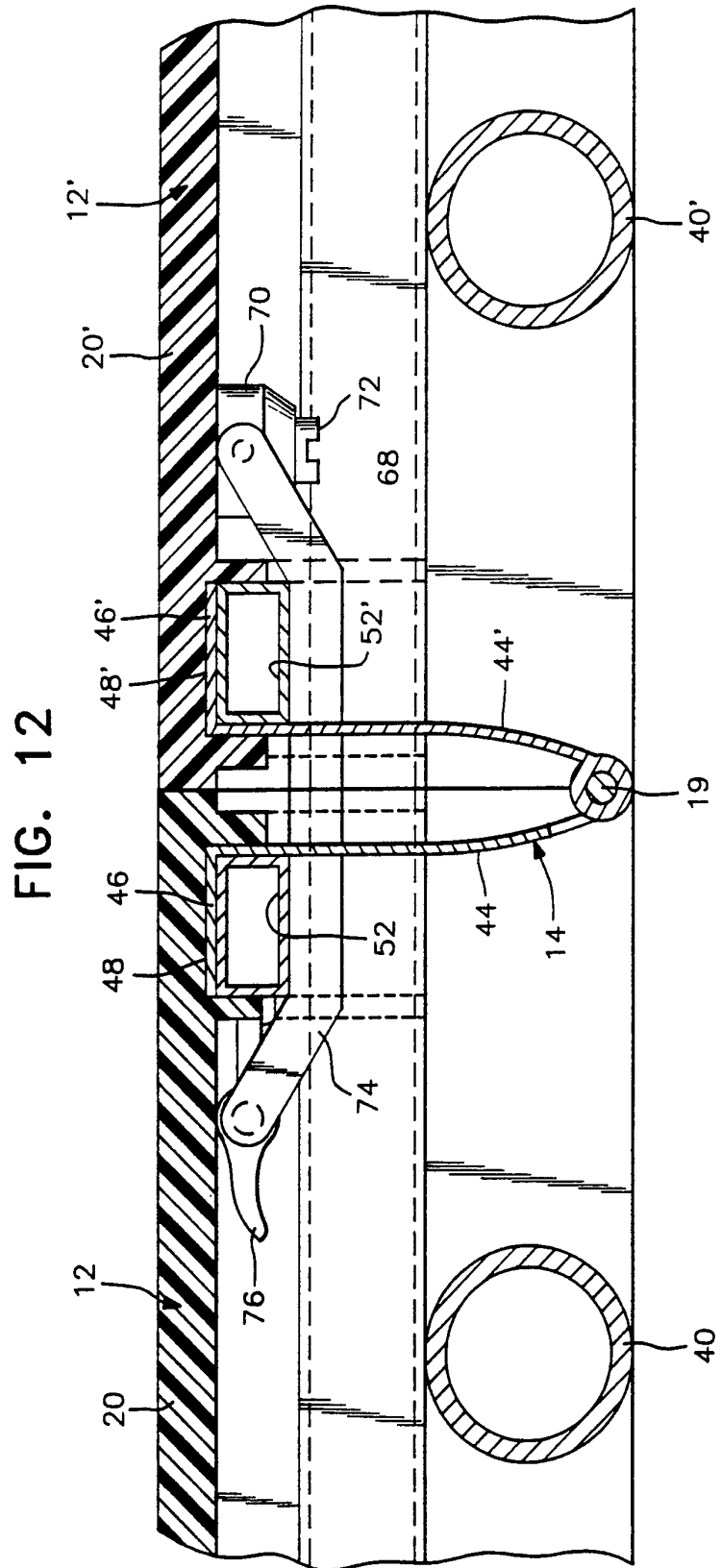


FIG. 14

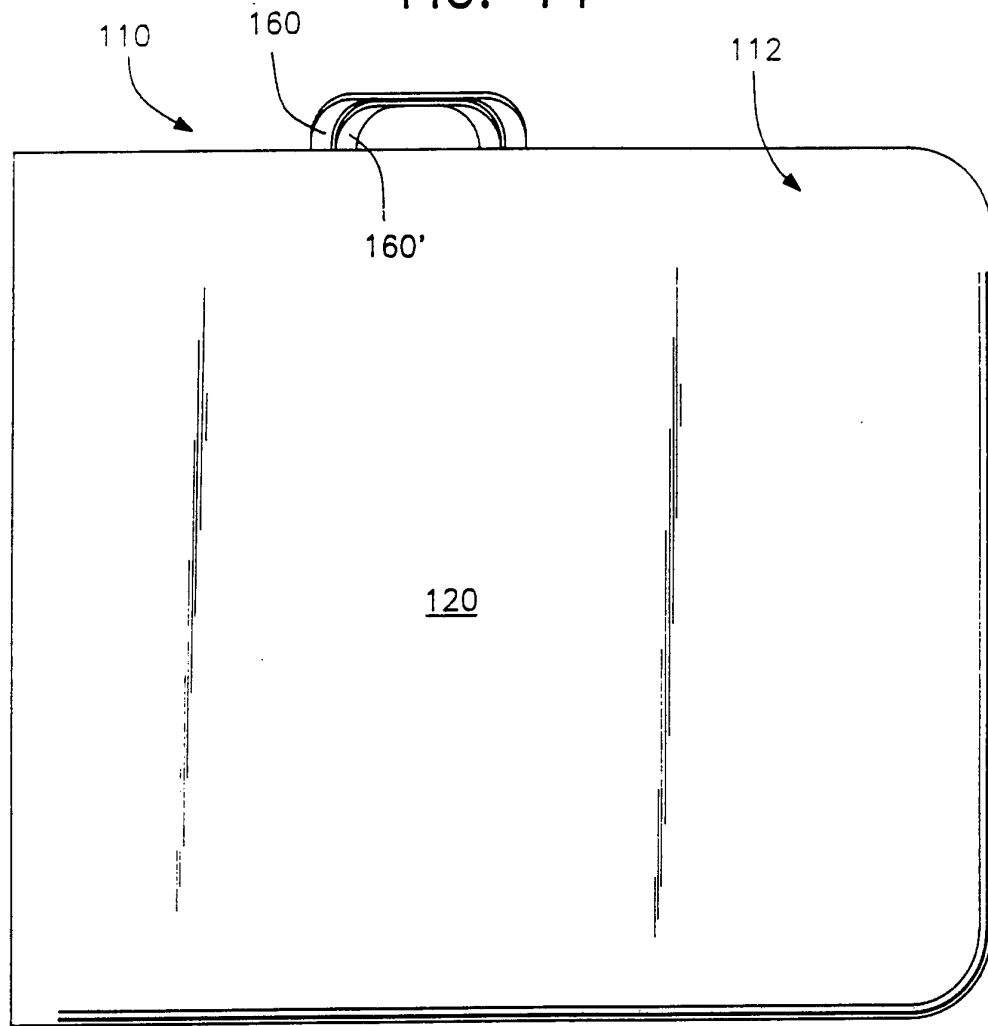


FIG. 20

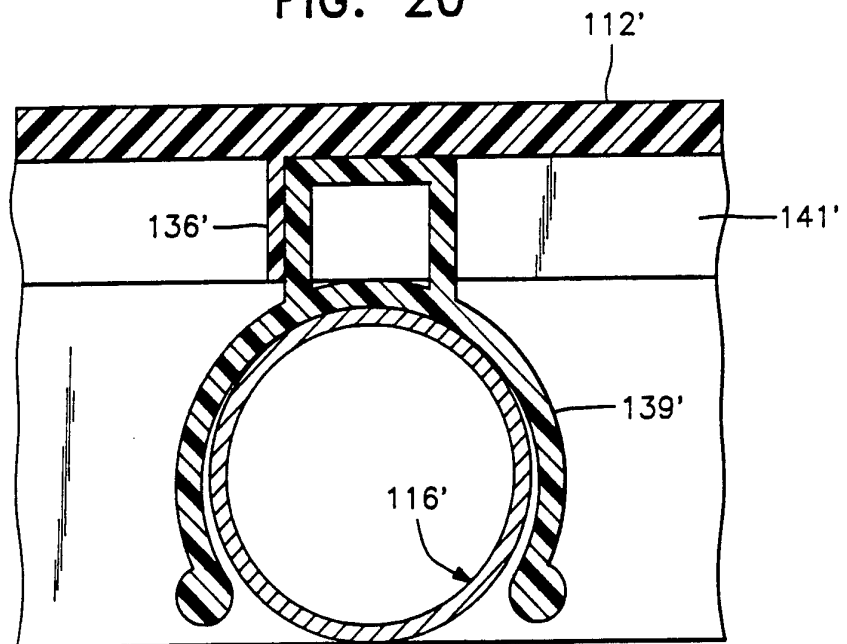


FIG. 15

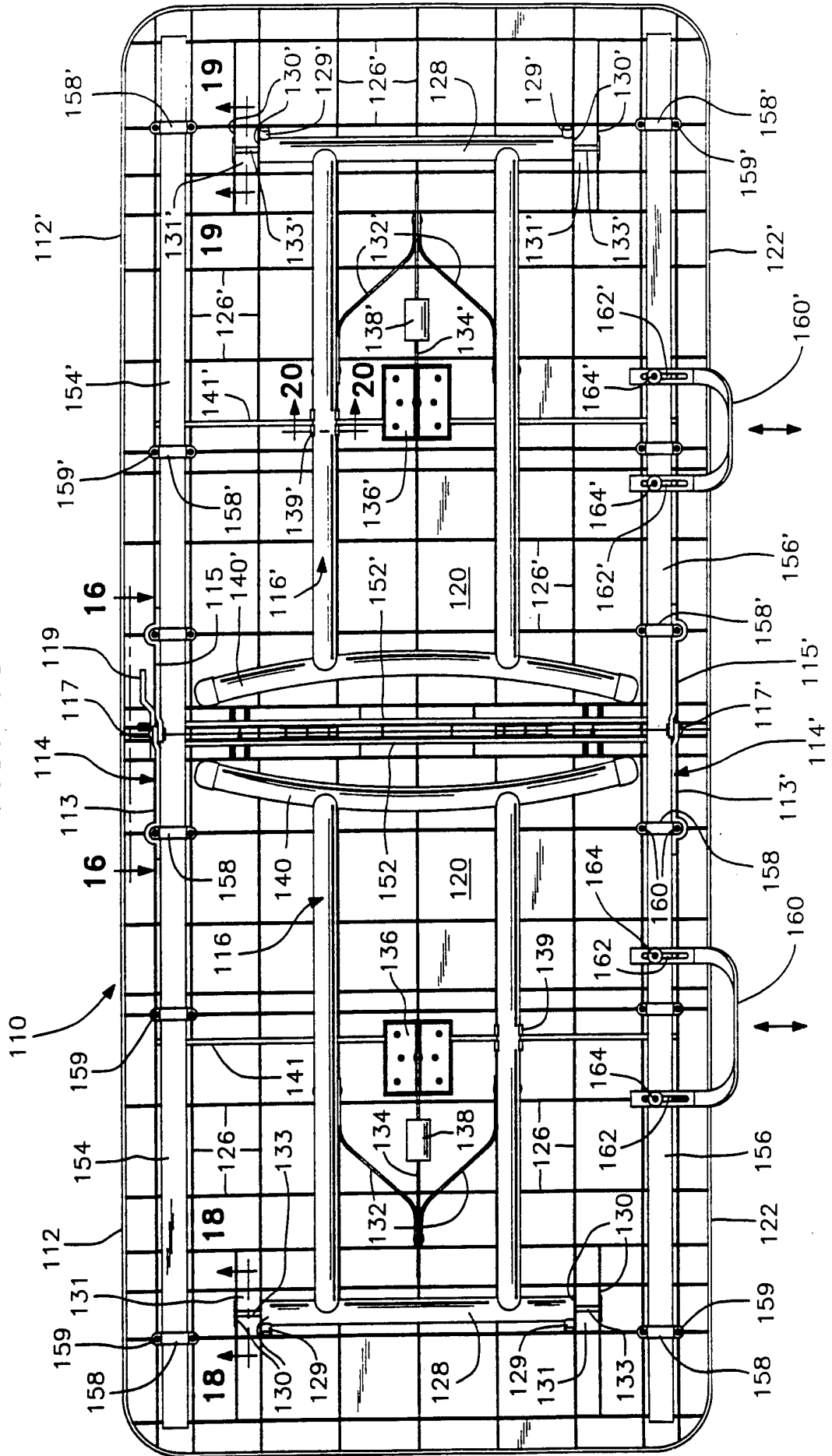


FIG. 16

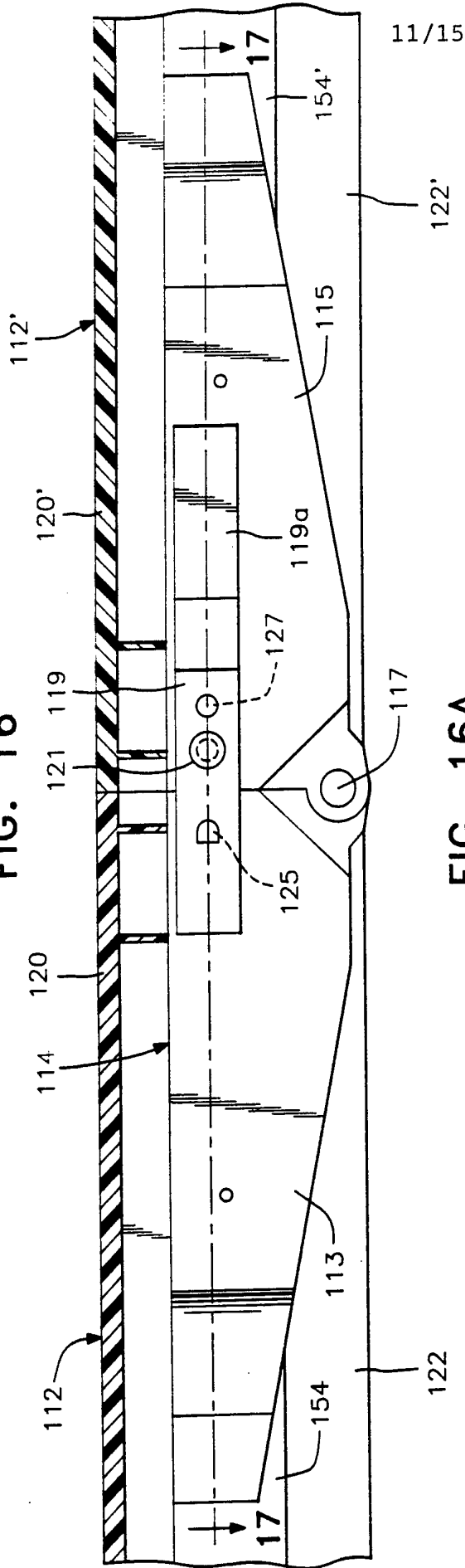


FIG. 16A

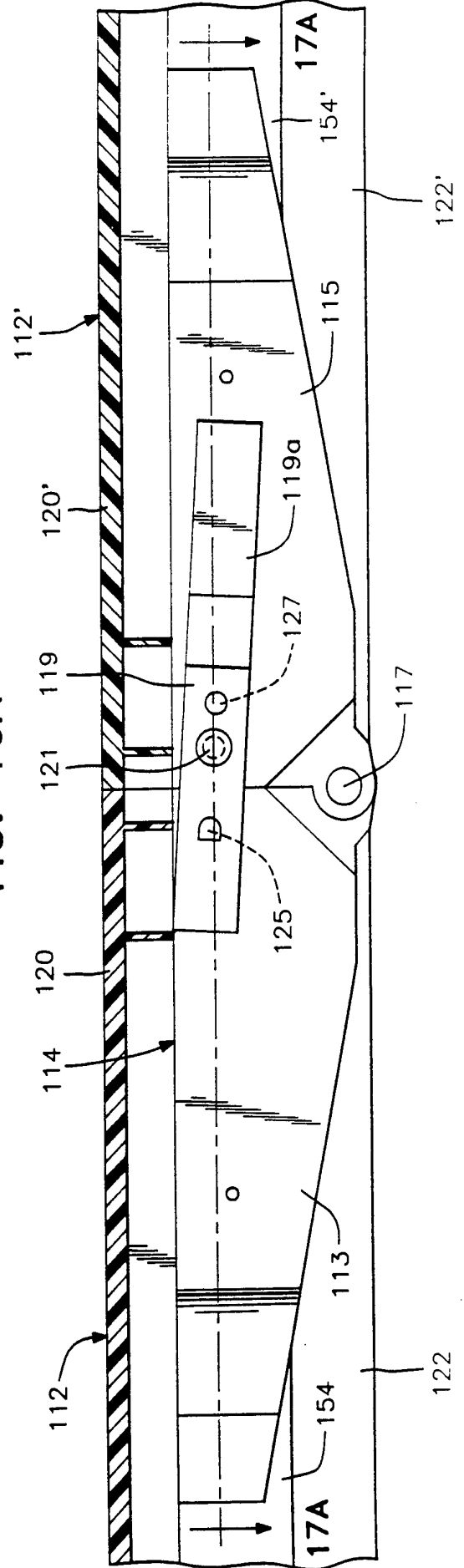


FIG. 17

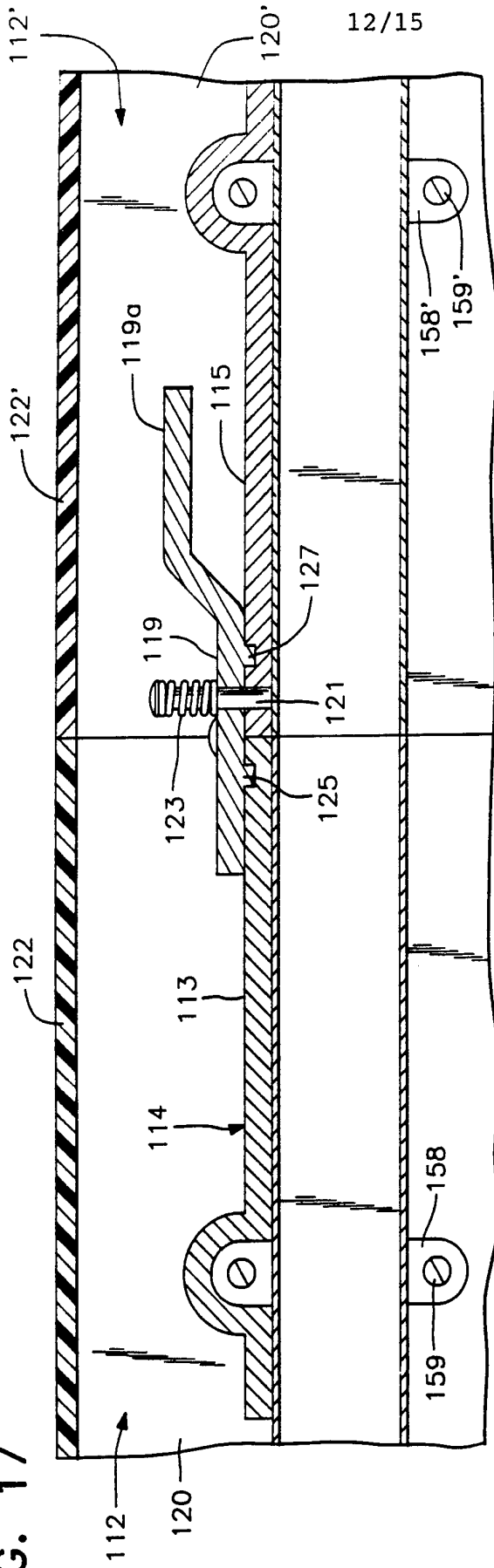
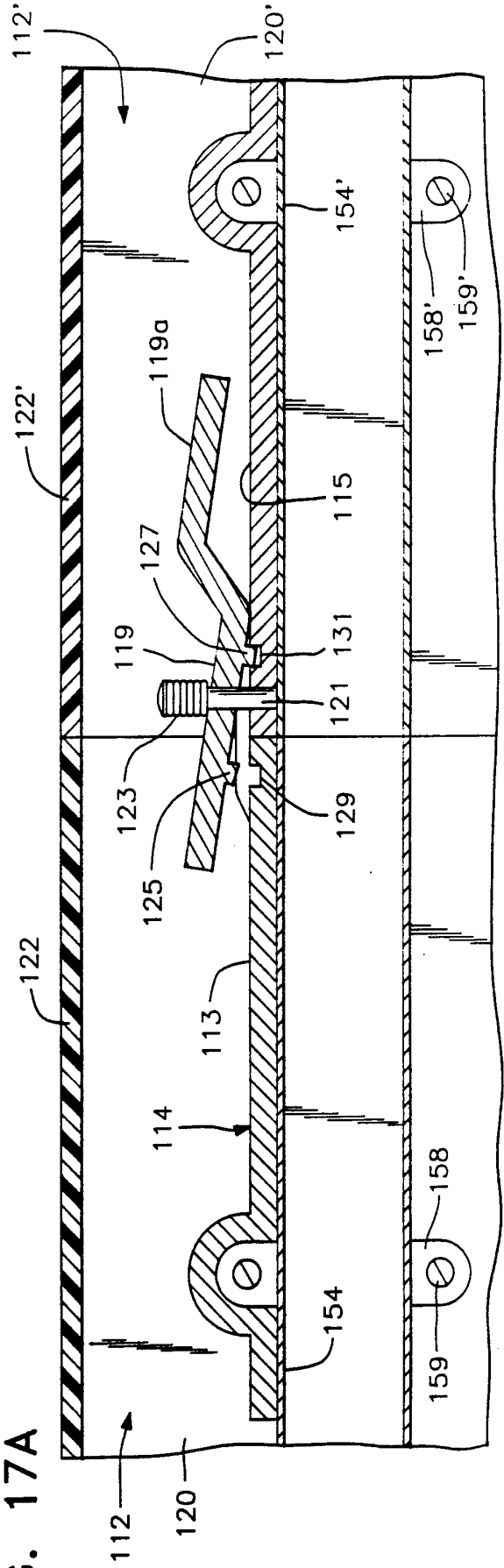


FIG. 17A



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FIG. 18

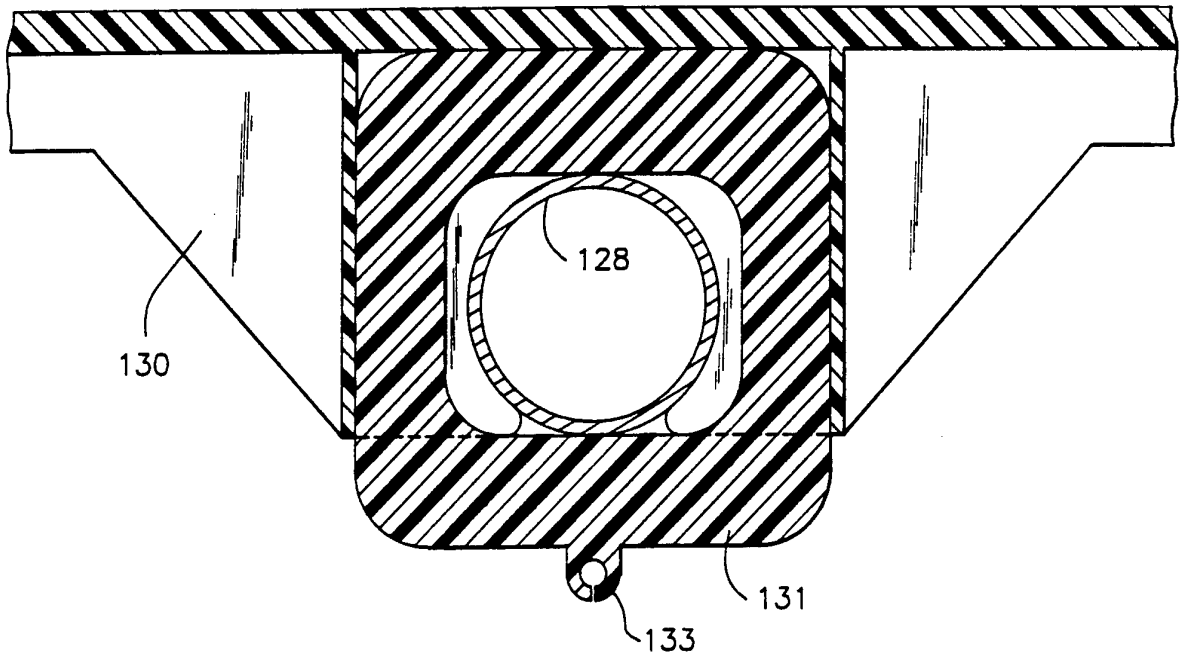


FIG. 19

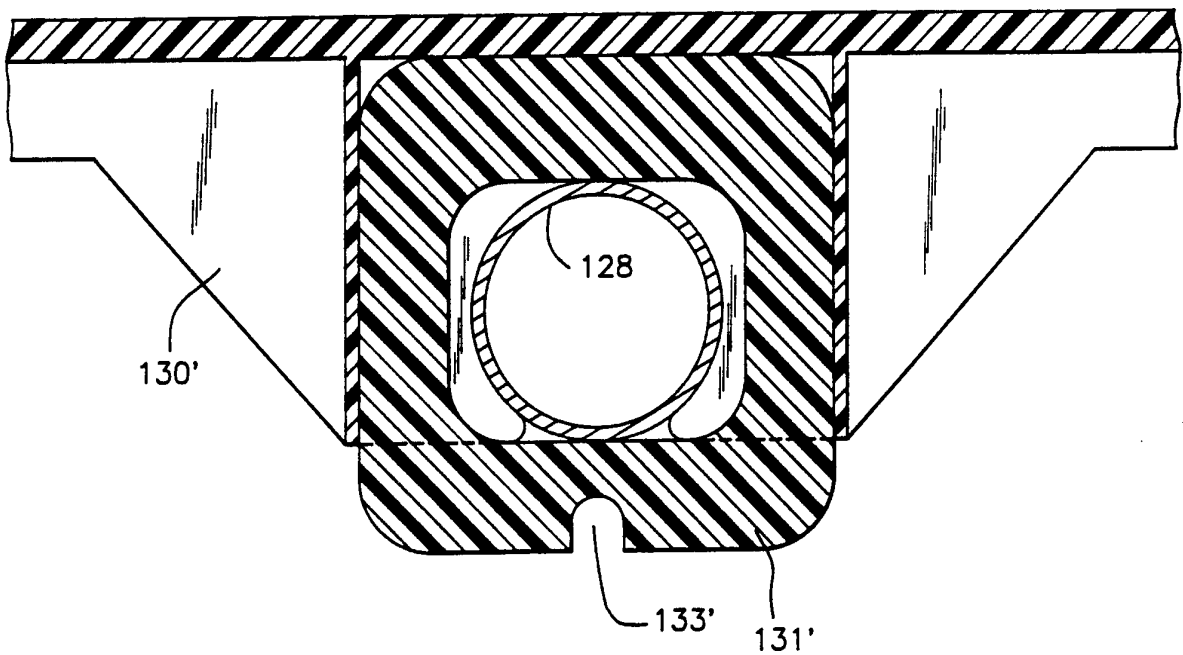
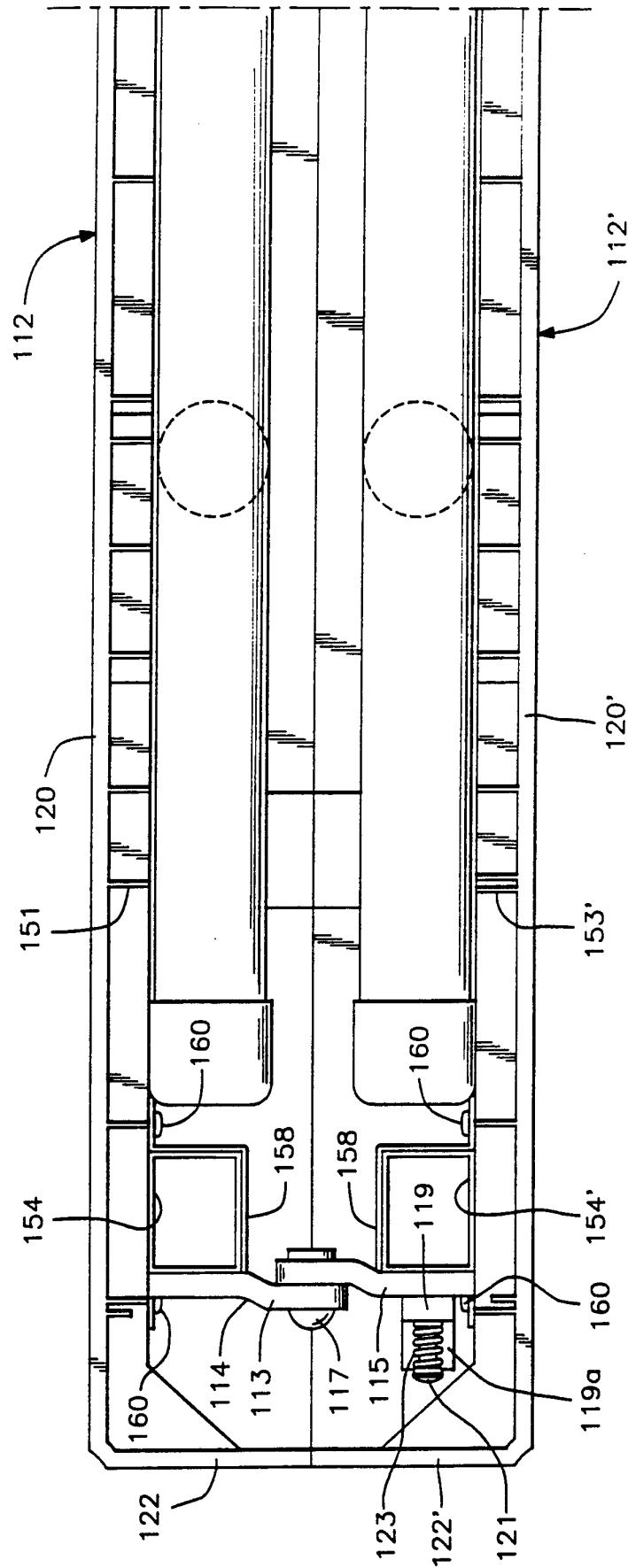


FIG. 21A



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US93/10617**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(5) :A47B 3/00

US CL : 108/35

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 108/34, 35, 36, 132

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US, A, 2,643,926 (Pucci) 30 June 1953, entire document	16 and 17
X	GB, A, 22,561 (Scott) 28 December 1891, entire document	29
A	US, A, 3,368,507 (Orth) 13 February 1968, entire document	1-35

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be part of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

11 January 1994

Date of mailing of the international search report

26 JAN 1994

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Authorized officer

Michael Milano
MICHAEL MILANO

Facsimile No. NOT APPLICABLE

Telephone No. (703) 305 2168