

June 25, 1968

T. M. KELLEY ET AL

3,389,947

FLIP-TOP FOLDING VOTING BOOTH

Filed Jan. 4, 1967

3 Sheets-Sheet 1

Fig. 1

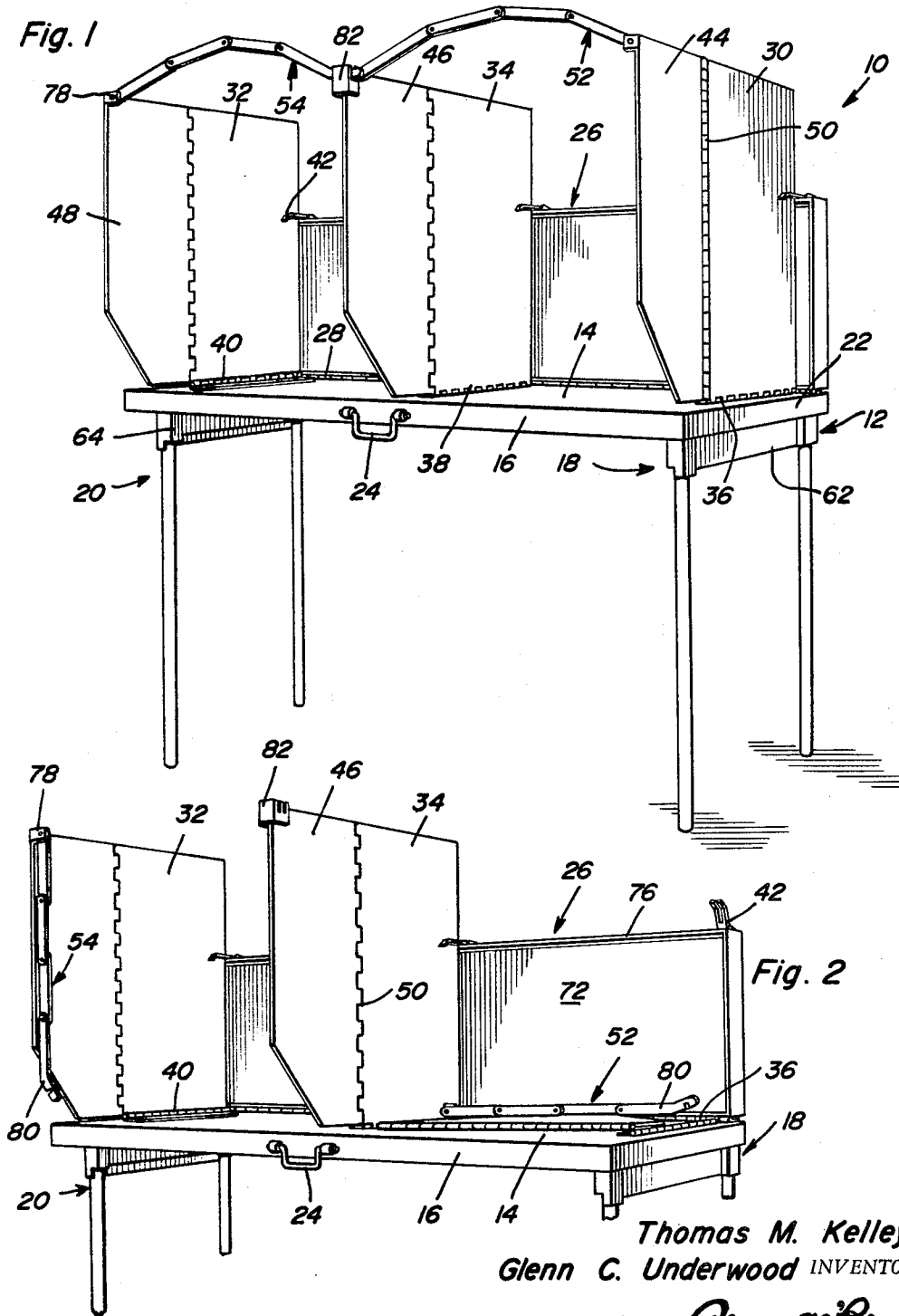


Fig. 2

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June 25, 1968

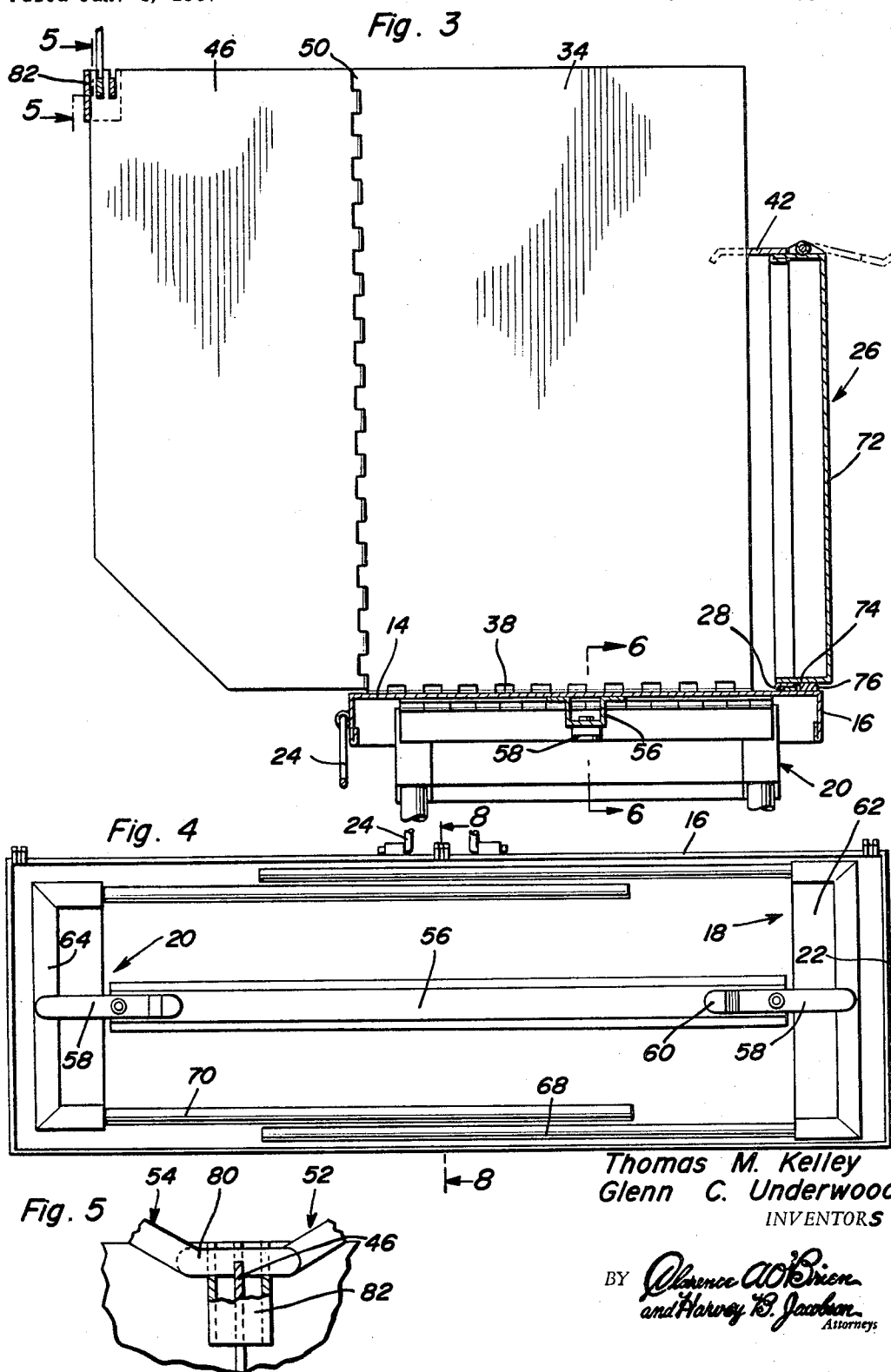
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Fig. 6

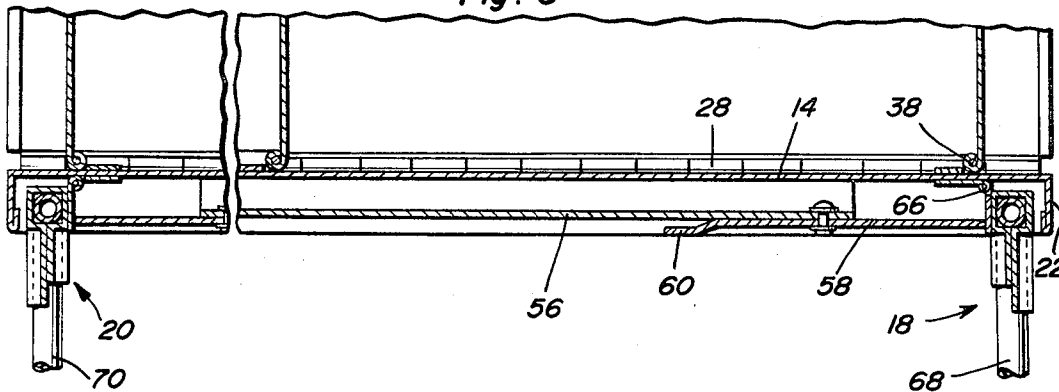


Fig. 7

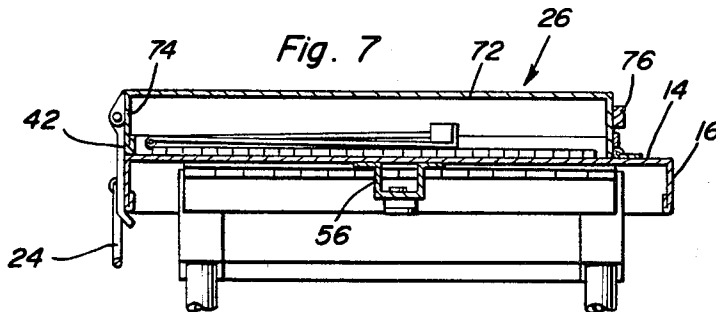


Fig. 8

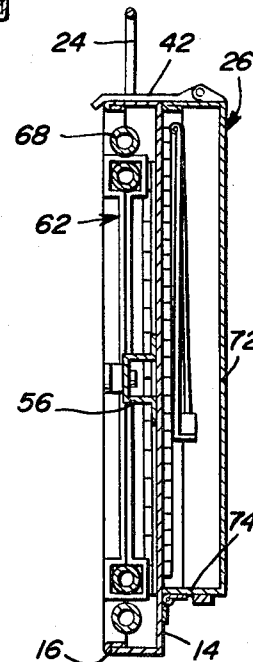


Fig. 9

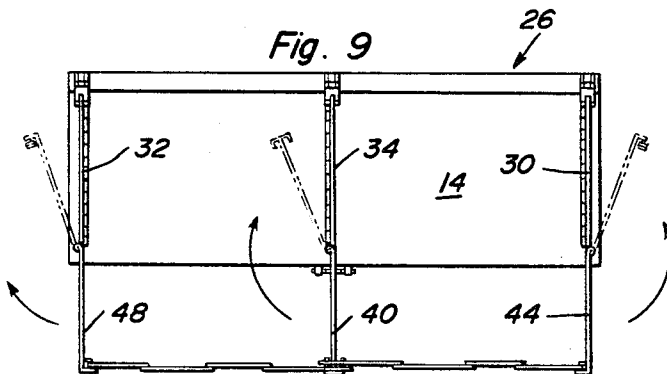
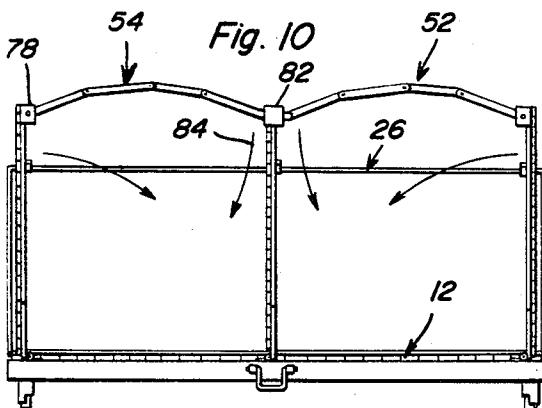


Fig. 10



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FLIP-TOP FOLDING VOTING BOOTH

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Filed Jan. 4, 1967, Ser. No. 607,288

7 Claims. (Cl. 312-258)

ABSTRACT OF THE DISCLOSURE

A foldable structure that collapses into a relatively thin rectangular assembly made mostly of sheet metal parts. The assembly is basically a table having supporting legs that fold under the table top. Flat panels are hinged to the table top to form compartments when extended upwardly. A backing member is also hinged along one longitudinal edge of the table top and folds down to enclose the panels when they are folded onto the table top. When erected, the panels are locked to the backing member in vertically upright positions on top of the table. Each erected panel also has an extension unfolded to extend the compartments forwardly of the table top. Curtain bars hold the extensions unfolded.

Background of the invention

This invention relates to collapsible voting booths of the portable type forming a plurality of separate compartments.

Foldable types of voting booths are well known in the prior art including those that form two or more separated compartments. Such structures however, are quite heavy and bulky even when collapsed. One of the reasons for such bulkiness, arises from the number of legs required to support the vertical panels and the use of separately hinged writing surfaces for each compartment.

Summary of the invention

In accordance with the present invention, the bulkiness of a multi-compartment voting booth is significantly reduced by utilizing a common writing surface for all compartments and supporting the panels on writing surface itself. Since the compartment forming parts fold onto the common writing surface, a relatively compact assembly will be formed when the supporting legs are folded thereunder. Further, by using a common writing surface such as a table top, separate legs will not be required for each panel. The number of supporting legs may thereby be reduced with a corresponding reduction in weight of the assembly.

A primary object of the present invention therefore is to provide a relatively inexpensive, compact and lightweight foldable voting booth capable of being rapidly erected and collapsed yet providing the requisite privacy for a plurality of compartments.

An additional object of the present invention is to provide in combination with a folding leg table, a collapsible voting booth through which a plurality of compartments are formed that extend above and forwardly of a common, rigid table surface.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of an erected voting booth in accordance with the present invention.

FIGURE 2 is a partial perspective view of the voting booth shown partially collapsed.

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FIGURE 3 is a side sectional view through an erected voting booth constructed in accordance with the present invention.

FIGURE 4 is a bottom view of a completely collapsed voting booth.

FIGURE 5 is an enlarged partial sectional view taken substantially through a plane indicated by section line 5-5 in FIGURE 3.

FIGURE 6 is a partial sectional view taken substantially through a plane indicated by section line 6-6 in FIGURE 3.

FIGURE 7 is a side sectional view similar to FIGURE 3 but showing the voting booth in a substantially collapsed condition.

FIGURE 8 is a side sectional view showing the voting booth in a completely collapsed condition.

FIGURE 9 is a simplified top plan view of the voting booth in a fully erected position as shown by solid line.

FIGURE 10 is a simplified partial front elevational view of the erected voting booth.

Referring now to the drawings in detail, FIGURE 1 illustrates the foldable voting booth generally denoted by reference numeral 10 in its erected condition. In the illustrated embodiment, two compartments are formed above a table portion generally referred to by reference numeral 12. The table portion includes a relatively rigid table top 14 having a peripheral apron 16 substantially rectangular in shape. The table top is supported at a proper distance above the ground by a pair of leg assemblies 18 and 20 located adjacent the opposite longitudinal ends 22. Mounted on the apron 16 intermediate the ends 22 along the forward longitudinal edge of the table top, is a handle 24 by means of which the voting booth assembly may be carried when in a collapsed condition. A backing member generally referred to by reference numeral 26 is pivotally connected by the elongated piano hinge 28 to the table top adjacent the rear longitudinal edge thereof. The backing member 26 as shown in FIGURE 1 extends substantially the longitudinal length of the table top in a vertically upright position locked to a plurality of flat panels including the end panels 30 and 32 and an intermediate partition panel 34. The panels are respectively connected to the table top by piano hinges 36, 38 and 40. When erected, the panels are locked to the backing member 26 by slotted hook elements 42 pivotally mounted by the backing member 26 in alignment with the respective panels. Associated with the respective panels, are panel extensions 44, 46 and 48 pivotally connected by hinges 50 to the edges of the panels remotely spaced from the backing member. Accordingly, when the extensions are unfolded from their associated panels as shown in FIGURE 1, they will form with the panel compartments which project forwardly beyond the table top. The panel extensions are held in their unfolded positions by curtain suspension bar assemblies 52 and 54 which interconnect the extensions at the upper corners thereof remote from the panels. The bar assemblies also serve as curtain suspension rods.

Referring now to FIGURES 3, 4 and 6 in particular it will be observed that the table top may be made of sheet metal such as aluminum rigidified on its underside by a central channel 56, the ends of which terminate in spaced relation to the ends 22 of the table top. Pivotaly mounted adjacent the ends of the channel 56, are a pair of lock elements 58 having offset end portions 60 spaced from the channel by means of which the lock elements may be manually displaced into and out of engagement with the leg mounting members 62 and 64 associated with the leg assemblies 18 and 20 respectively. A hinge 66 pivotally connects each of the leg mounting members 62 and 64 to the underside of the table top 14 adjacent

the ends 22 as more clearly seen in FIGURE 6. Thus, the leg mounting members may be locked by the locking elements 58 either in extended positions as shown in FIGURE 6 with the legs 68 and 70 extending downwardly from the table top or in retracted positions as shown in FIGURE 4 with the legs being enclosed by the apron 16 against the underside of the table top.

Referring now to FIGURES 3, 7 and 8, it will be observed that the backing member 26 includes a flat wall portion 72 rectangular in shape from which a peripheral apron 74 extends. On one longitudinal side, the piano hinge 28 connects the backing member to the table top 14 in spaced adjacency to the rear longitudinal edge of the table top. A spacing bar 76 is secured to the apron 74 along the hinged edge of the backing member so as to support the backing member in a vertically upright position as shown in FIGURE 3. The forward longitudinal edge of the backing member on the other hand, has the slotted hook elements 42 pivoted thereto so as to receive the panels 30, 34 and 32 when erected as shown in FIGURES 1 and 3. On the other hand, when the panels and their extensions are folded against the table top, they may be enclosed within the backing member as shown in FIGURES 7 and 8, the hook elements 42 then overlapping the forward longitudinal edge of the table top.

It will be appreciated that when the panels are locked to the backing member in their upright positions by the hook elements 42, the space above the table top 14 will be compartmented. Each compartment is however extended forwardly from the table top by the extensions 44, 46 and 48 aforementioned which when unfolded from the associated panels, project forwardly from the table top. The extensions 44 and 48 associated with the end panels 30 and 32 are provided at the upper corners remote from the hinges 50, with pivot tabs 78 to which the curtain bars 52 and 54 are pivotally connected. Each of the curtain bars includes a plurality of pivotally interconnected link elements with a terminal portion 80 formed at the end of the link bar remote from the pivot tab 78 as more clearly seen in FIGURES 2 and 5. The terminal portions 80 of the link bars are received within spaced slots formed in a locking bracket 82 secured to the upper corner of the panel extension 46 remote from the hinge 50 as shown in FIGURES 1, 2 and 3. Aligned slots formed in the upper edge of the panel 46 receive the corresponding slots in the terminal portions 80 as shown in FIGURE 5 when straddling the slots in the bracket 82 so that the panels are interconnected with each other by the curtain bars in order to hold the panels in their unfolded condition illustrated in FIGURE 1. The curtain bars also extend in an upward arch and serve as a suspension rod for curtains (not shown) whereby the compartments may be enclosed for privacy purposes.

Referring now to FIGURES 1, 2, 9 and 10, the erected voting booth is collapsed by initially disengaging the link bars 52 and 54 from the locking bracket 82 so that they may swing downwardly as shown by the arrows 84 in FIGURE 10 to positions as shown in FIGURE 2. The panel extensions 46 and 48 may then be swung clockwise as shown in FIGURE 9 against the panels 32 and 34 while the panel extension 44 is swung counterclockwise against its panel 30. After the hook elements 42 are swung out of the way, the end panels 30 and 32 with the extensions thereof in folded positions may be swung in opposite angular directions downwardly onto the table top 14 of the table portion and the center partition panel 34 swung in either direction on top thereof. Once the panels and their extensions are folded down flat on the table top, the backing member may be turned downwardly thereover enclosing the folded panels and extensions as shown in FIGURE 7. The table leg assemblies 18 and 20 may then be folded into the retracted positions against the underside of the table top and locked in such positions by the locking elements 58 to form a relatively compact rectangular assembly as shown in FIGURE 8.

The voting booth is unfolded and erected by a reverse procedure.

It will be appreciated therefore, that the described structure may be rapidly unfolded from a compact rectangular assembly into a multi-compartment voting booth formed by spaced vertical panels 30, 34 and 34 all supported on a common table top 14 which also forms a writing surface within each compartment. Further, the panel extensions 44, 46 and 48 project the compartments forwardly of the table top so that persons may be enclosed within the compartments, by curtains hung from the link bars 52 and 54, while standing in front of the writing surface.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. In combination with a table surface having spaced longitudinal edges interconnected by end edges, a pair of end panels hingedly connected to said table surface adjacent to said end edges, at least one intermediate panel hingedly connected to the table surface between said end panels, a backing member hingedly connected to the table surface adjacent one of the longitudinal edges, means releasably connecting the panels to the backing member in erected positions perpendicular to the table surface, extensions hingedly connected to the panels in spaced relation to the backing member, and means interconnecting the extensions in spaced relation to each other to form compartments extending from the backing member transversely beyond the other of the longitudinal edges of the table surface between the panels, said interconnecting means including link bars pivotally connected to the extensions associated with the end panels, and locking means mounted on the extension associated with the intermediate panel receiving adjacent end portions of the link bars.

2. The combination of claim 1 wherein said releasable connecting means comprises a plurality of hook elements pivotally mounted by the backing member, each hook element being slotted to engage one of the panels when erected, said backing member enclosing the panels and the extensions when folded onto the table surface.

3. The combination of claim 2 wherein said backing member includes a peripheral apron having spaced longitudinal portions adapted to enclose the panels and extensions therebetween, hinge means pivotally mounted on one of said longitudinal portions of the apron for mounting the backing member on the table surface, a spacing bar mounted on said one of the portions of the apron supporting the backing member in a position substantially perpendicular to the table surface, said releasable connecting means being pivotally mounted on the other of the longitudinal portions of the apron and extending therefrom for engagement with the panels in the erected positions.

4. In combination with a table surface having spaced longitudinal edges interconnected by end edges, a pair of end panels hingedly connected to said table surface adjacent to said end edges, at least one intermediate panel hingedly connected to the table surface between said end panels, a backing member hingedly connected to the table surface adjacent one of the longitudinal edges, means releasably connecting the panels to the backing member in erected positions perpendicular to the table surface, extensions hingedly connected to the panels in spaced relation to the backing member, and means interconnecting the extensions in spaced relation to each other to form compartments extending from the backing member transversely beyond the other of the longitudinal

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edges of the table surface between the panels, said releasable connecting means comprising a plurality of hook elements pivotally mounted by the backing member, each hook element being slotted to engage one of the panels when erected, said backing member enclosing the panels and the extensions when folded onto the table surface.

5. In combination with a table surface having spaced longitudinal edges interconnected by end edges, a pair of end panels hingedly connected to said table surface adjacent to said end edges, at least one intermediate panel hingedly connected to the table surface between said end panels, a backing member hingedly connected to the table surface adjacent one of the longitudinal edges, means releasably connecting the panels to the backing member in erected positions perpendicular to the table surface, extensions hingedly connected to the panels in spaced relation to the backing member, and means interconnecting the extensions in spaced relation to each other to form compartments extending from the backing member transversely beyond the other of the longitudinal edges of the table surface between the panels, said backing member including a peripheral apron having spaced longitudinal portions adapted to enclose the panels and extensions therebetween, hinge means pivotally mounted on one of said longitudinal portions of the apron for mounting the backing member on the table surface, a spacing bar mounted on said one of the portions of the apron supporting the backing member in a position substantially perpendicular to the table surface, said releasable connecting means being pivotally mounted on the other of the longitudinal portions of the apron and extending therefrom for engagement with the panels in the erected positions.

6. In a collapsible, portable assembly, a table member

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having spaced longitudinal edges interconnected by end edges, a backing member hingedly connected to the table member adjacent one of the longitudinal edges, a pair of end panels hingedly connected to one of said members adjacent to said end edges, at least one intermediate panel hingedly connected to said one of the members between said end panels, releasable means pivotally mounted by the backing member for engaging and holding the panels in erected positions substantially perpendicular to the table member, said panels including rigid, foldable extensions, curtain suspension means connected to the extensions of said end panels, and locking means mounted on the extension of said intermediate panel and engageable with the curtain suspension means for holding the extensions in spaced relation to each other, said extensions being folded against the panels and the panels being enclosed within the backing member when folded over the table member.

7. The combination of claim 6 wherein said releasable means comprises a plurality of hook elements pivotally connected to the backing member remote from said one of the longitudinal edges of the table member, each hook element being slotted to engage one of the panels when erected.

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