June 24, 1958 E. WINER 2,840,430

PANEL CONSTRUCTION HAVING A CELLULAR CORE

Filed Nov. 28, 1952 5 Sheets-Sheet 1

Fig. 1

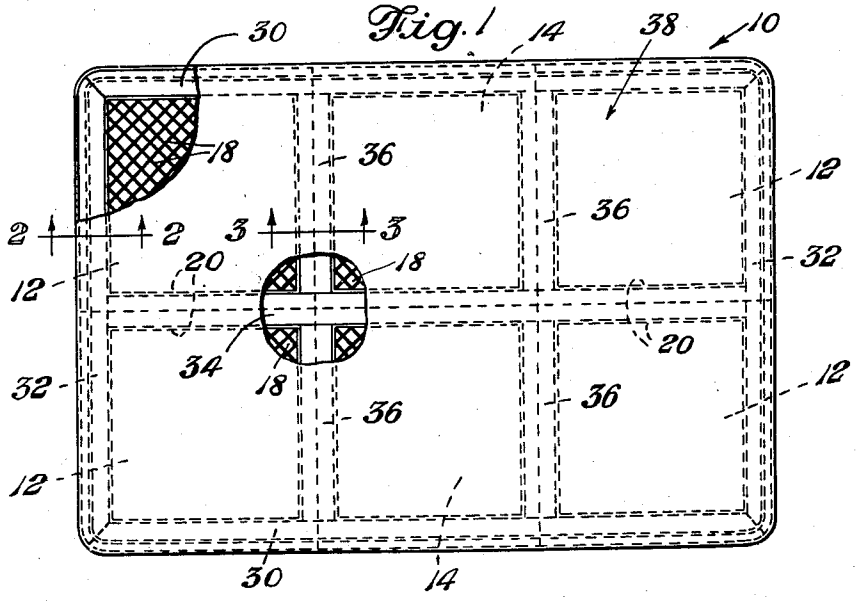


Fig. 2.

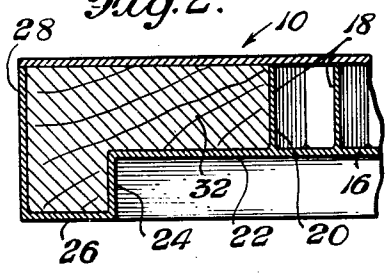
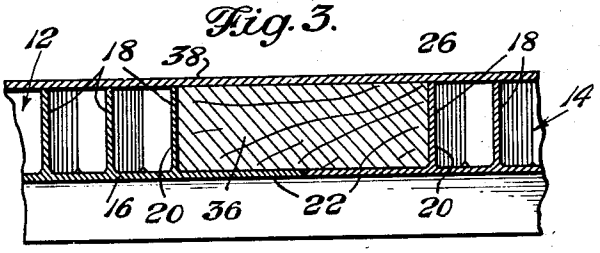


Fig. 3.



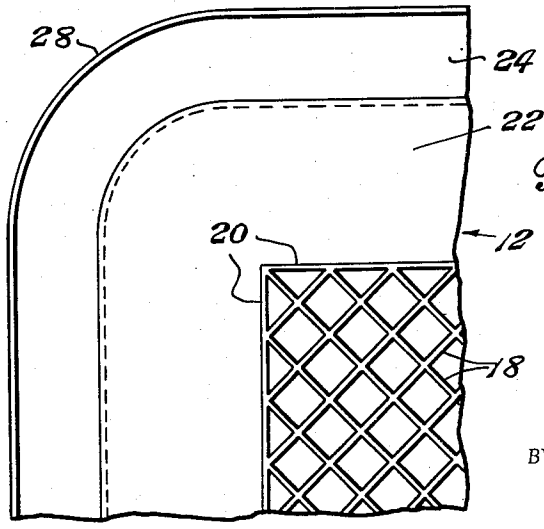


Fig. 4.

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June 24, 1958 E. WINER 2,840,430

PANEL CONSTRUCTION HAVING A CELLULAR CORE

Filed Nov. 28, 1952 5 Sheets-Sheet 2

Fig. 5.

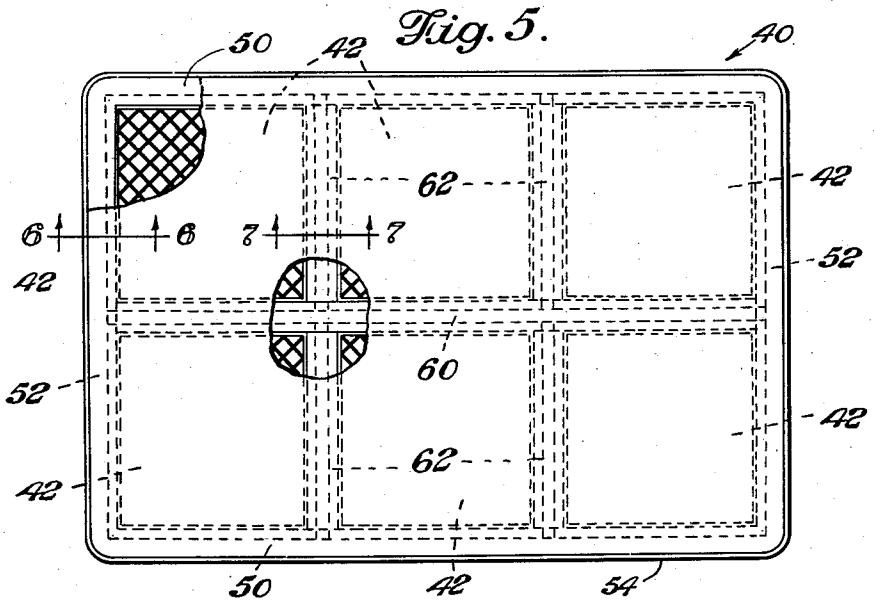


Fig. 6.

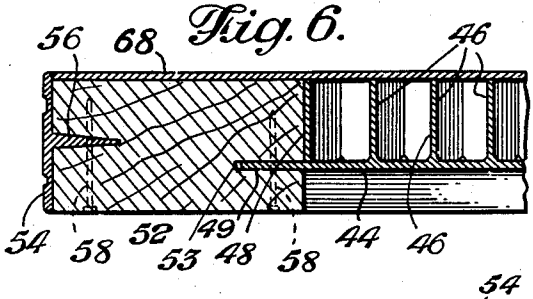
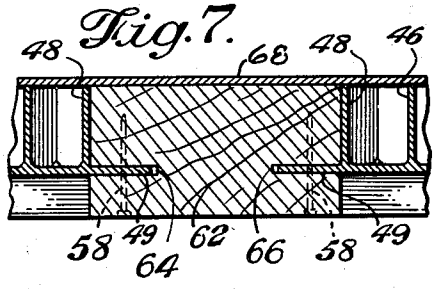


Fig. 7.



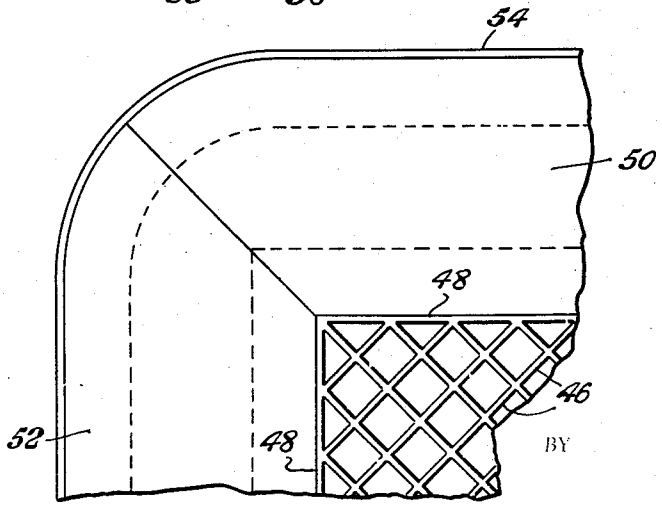


Fig. 8.

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June 24, 1958 E. WINER 2,840,430

PANEL CONSTRUCTION HAVING A CELLULAR CORE

Filed Nov. 28, 1952 5 Sheets-Sheet 3

Fig. 9.

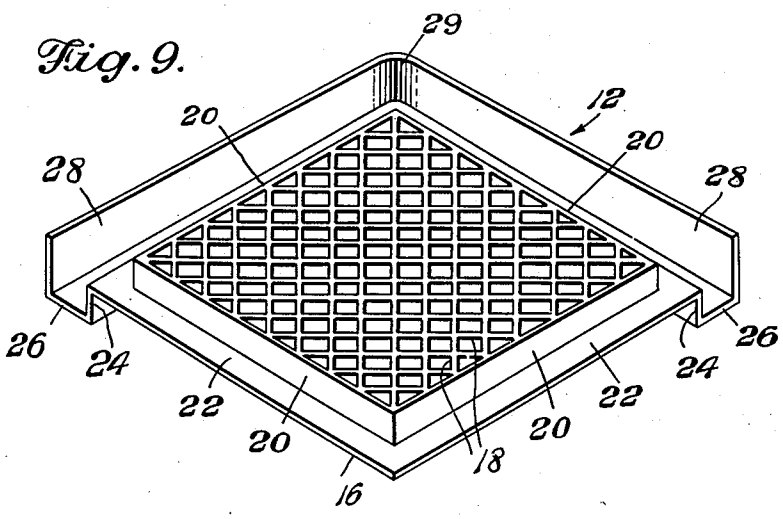


Fig. 10.

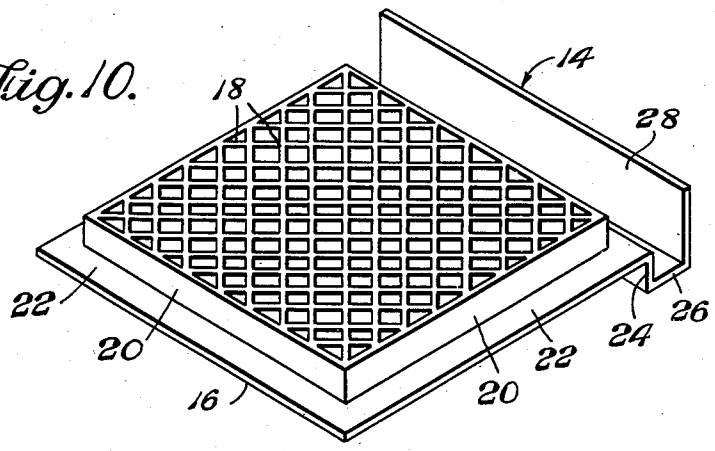
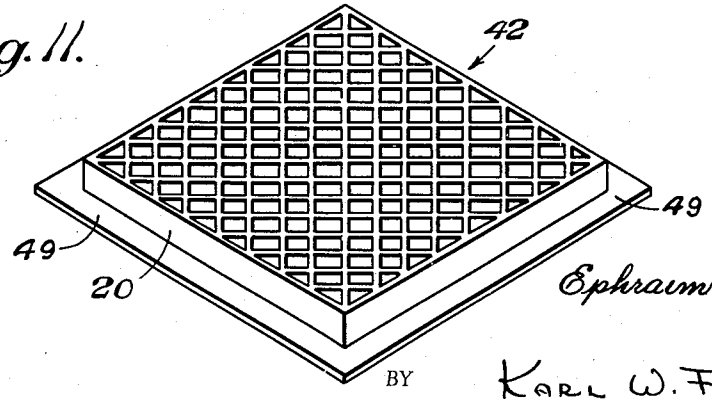


Fig. 11.



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June 24, 1958 E. WINER 2,840,430

PANEL CONSTRUCTION HAVING A CELLULAR CORE

Filed Nov. 28, 1952 5 Sheets-Sheet 4

Fig. 12.

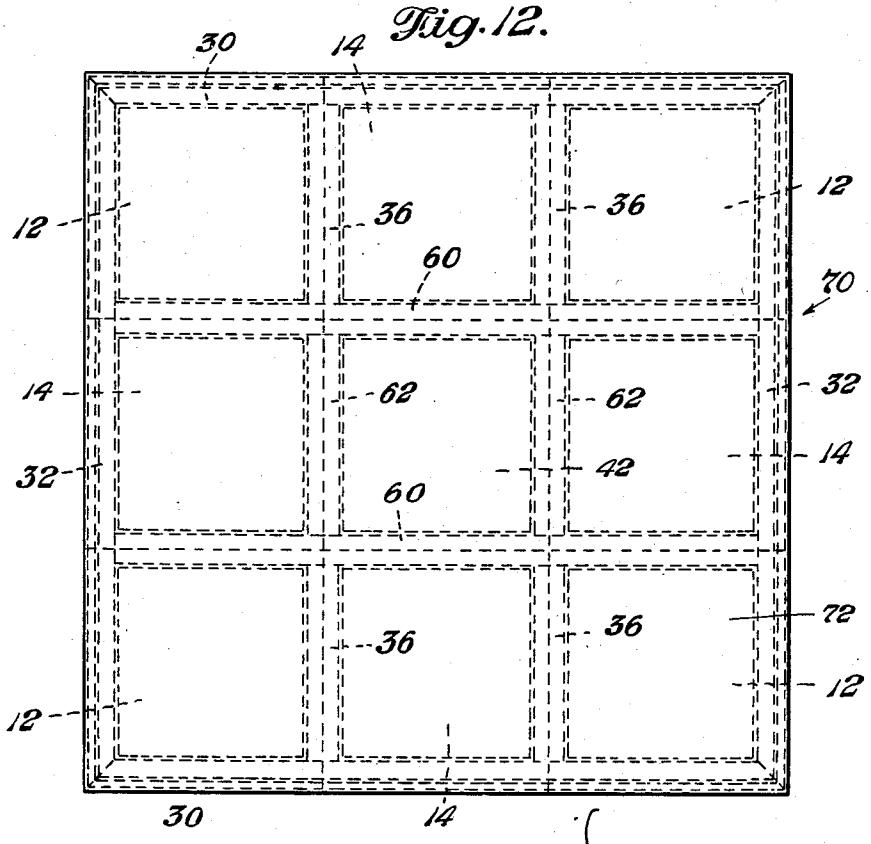


Fig. 13.

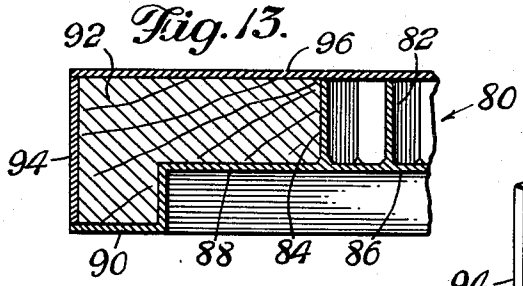
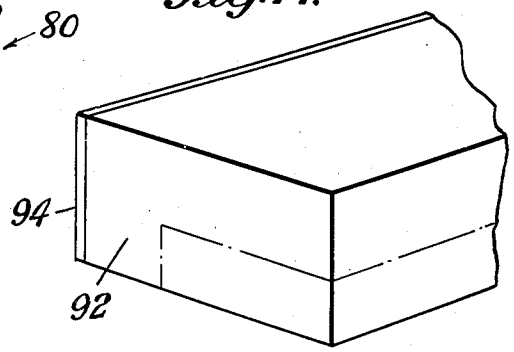


Fig. 14.



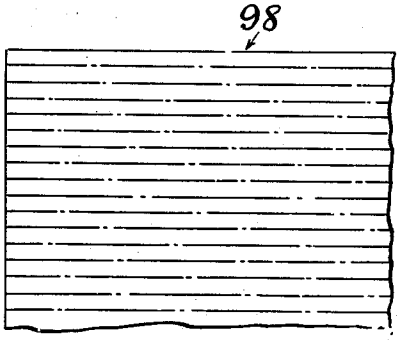


Fig. 15.

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June 24, 1958 E. WINER 2,840,430

PANEL CONSTRUCTION HAVING A CELLULAR CORE

Filed Nov. 28, 1952 5 Sheets-Sheet 5

Fig. 16.

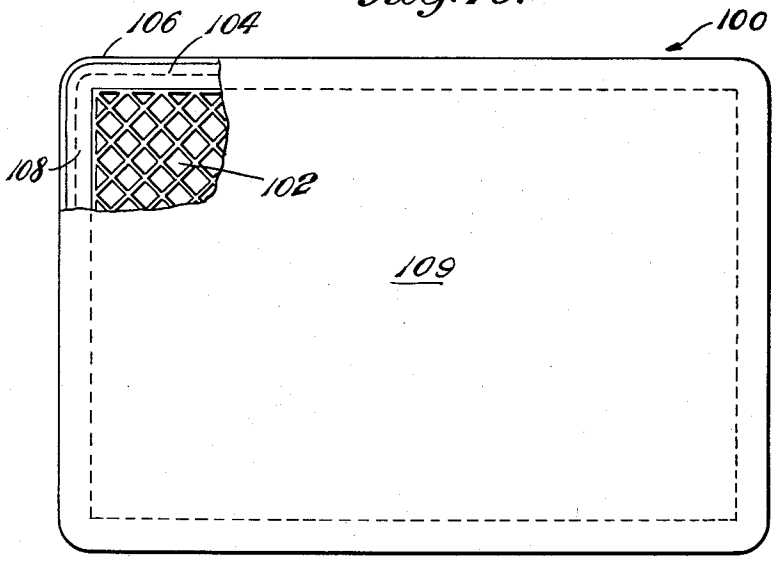
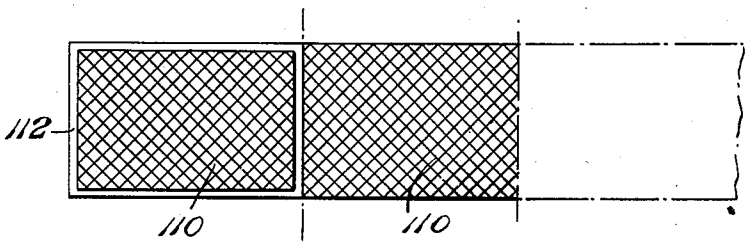


Fig. 17.



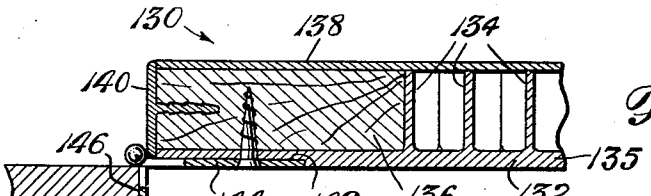


Fig. 19.

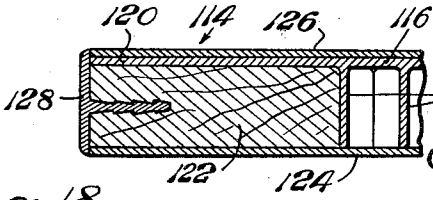


Fig. 18.

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United States Patent Office 2,840,430 Patented June 24, 1958

2,840,430

PANEL CONSTRUCTION HAVING A CELLULAR CORE

Ephraim Winer, Baltimore, Md., assignor to The National Plastic Products Company, Odenton, Md., a corporation of Maryland

Application November 28, 1952, Serial No. 322,906

21 Claims. (Cl. 311—106)

The present invention relates to a panel construction. More particularly, the present invention relates to a panel construction in which a thermoplastic molded core is incorporated therein.

Prior to the instant invention, in the production of laminated panels and more specifically table tops, it was the usual practice to employ a wood or plywood core to which was securely glued or fastened a thermoset laminated plastic top skin and a bottom laminated sheet. The construction was finished off by trimming the edges with metal trim or plastic edging. Although these heretofore known table tops had desirable qualities, such as being waterproof and warp-proof, they were found to be undesirable from several viewpoints. One objection to these heretofore known table top constructions was that the wood core prohibitively increased the weight of the panel and, consequently, the table. Moreover, the procedure employed in cutting and fitting the wood core to the skin and applying the trimming to the edges was not only expensive, but time-consuming.

It is an object of the present invention to provide a panel that incorporates a molded cellular core construction therein.

Another object of the present invention is to provide a panel in which the edges thereof are formed integral with the molded core construction.

Still another object of the present invention is to provide a panel construction incorporating the cellular core whereby the panel construction is utilized as a table top.

Still another object of the present invention is to provide a table top in which the edges are formed by inserting a block into a molded core, the block having a thermoset laminated edge secured thereto.

Still another object of the present invention is to provide a panel construction incorporating the cellular core whereby the panel construction is utilized as a kitchen cabinet front.

Still another object of the present invention is to provide a panel construction incorporating the cellular core whereby the panel construction is employed in a door assembly.

Other objects and the nature and advantages of the instant invention will be apparent from the following description taken in conjunction with the accompanying drawings, wherein:

Fig. 1 is a plan view with parts broken away of a table top embodying one form of the present invention;

Fig. 2 is a section taken along the line 2—2 of Fig. 1;

Fig. 3 is a section taken along the line 3—3 of Fig. 1;

Fig. 4 is an enlarged view of a corner construction of the table top illustrated in Fig. 1;

Fig. 5 is a plan view with parts broken away of a table top embodying a modification of the present invention;

Fig. 6 is a view taken along the line 6—6 of Fig. 5;

Fig. 7 is a view taken along the line 7—7 of Fig. 5;

Fig. 8 is an enlarged view of a corner construction of the table top shown in Fig. 5;

Fig. 9 is a perspective view of an injection molded core utilized for the corners in the table top construction illustrated in Fig. 1;

Fig. 10 is a perspective view of an injection molded core utilized for the middle section in the table top construction illustrated in Fig. 1;

Fig. 11 is a perspective view of an injection molded core employed in the table top construction illustrated in Fig. 5;

Fig. 12 is a plan view of a modified table top construction which incorporates the molded cores illustrated in Figs. 9, 10 and 11;

Fig. 13 is a vertical sectional view of a portion of another modified form of the present invention;

Fig. 14 is a perspective view of a frame member utilized in the modification shown in Fig. 13;

Fig. 15 is a view showing a portion of a block from which the frame members shown in Fig. 14 are cut;

Fig. 16 is a plan view of a table top with parts broken away, illustrating a complete one-piece core construction;

Fig. 17 is a plan view of a molded sheet of core material;

Fig. 18 is a vertical sectional view of a modified form of panel construction with a laminate applied to the flat surface of the core structure; and

Fig. 19 is a vertical sectional view of a panel construction for use as a kitchen cabinet front.

Referring to the drawings, and particularly Figs. 1–4, one form of the table top construction embodied in the present invention is illustrated. The table top shown in Fig. 1 is indicated generally at **10** and includes a plurality of square-like cores joined together, as will hereinafter be described, to form a table top assembly having a rectangular configuration. As shown in Fig. 1, the cores comprising the table top assembly include corner cores **12** and middle cores **14** positioned between the corner cores **12**. The cores **12** and **14** illustrated in Fig. 1 may be formed from any suitable material but are preferably formed from a thermoplastic material and are injection molded into the square configurations. It will be apparent from the description hereinafter that the cores **12, 14** have the same general construction, differing only in the arrangement of the outside side walls.

Referring to Fig. 9, a corner core **12** is illustrated therein and is shown comprising a molded unit having a cellular body. As shown in Figs. 2 and 3, the cellular body of the core **12** includes a bottom sheet **16** which has integrally joined thereto a series of vertical walls **18**. As seen in Fig. 4, the vertical walls **18** extend obliquely and cross one another at right angles to form with the bottom sheet **16** a series of hollow cells or cavities. Enclosing and extending around the square cellular body of the core section **12** are end walls **20** which are joined integrally to adjacent vertical walls **18** and the bottom sheet **16**. The bottom sheet **16** of the core **12** extends outwardly from the end walls **20** to form a shelf **22** around the cellular body, the purpose of which will hereinafter be described. Integrally joined to the shelf **22** at right angles thereto along the sides of the core **12** facing the outside margin of the table top **10** is a downwardly depending vertical wall **24**. The downwardly depending vertical wall **24** has joined thereto a horizontally extending bottom portion **26** which, in turn, has joined at right angles thereto a side wall **28**. The vertical wall **24**, bottom portion **26** and side wall **28** define therebetween a channel which is adapted to receive a wood fill, the purpose of which will be more fully explained hereinafter. The corner of the side wall **28** is rounded at **29** for the purpose of eliminating the objectionable sharp corners normally associated with table tops. As shown in Fig. 9, the side wall **28** extends around only the outside edges

of the core 12 and thereby defines the edging of the table top 10 when all of the cores are in the assembled position. As again shown in Fig. 9, the side wall 28, the vertical wall 24 and bottom portion 26 depend below the body of the core 12. It is apparent that when the cores are assembled together (Fig. 1), the depending portion of the cores will form an apron around the table top.

Referring now to Fig. 10, a middle core 14 is illustrated and comprises a square thermoplastic molded unit formed by injection molding having a cellular body which is similar in construction to the cellular body of the core 12 described hereinabove. The middle core 14 is adapted to be positioned between the corner cores 12, as illustrated in Fig. 1 and, therefore, only one side of the core 14 will face along the outer margin of the table top 10. Consequently, the short vertical wall 24, bottom portion 26 and side wall 28 are only formed on the edge of the middle core 14 that faces along the outer margin of the table top 10.

In assembling the table top 10 illustrated in Fig. 1, the corner cores 12 are placed in the corner positions and the middle cores 14 are placed therebetween. With the cores 12, 14 in this position, the side wall 28 extends continuously around the outer margin of the table top 10 and defines the outer edge thereof. In order to secure the cores in the assembled position, elongated wood fills or frame members 30 are provided which extend the length of the table top 10 and similar frame members 32 are provided which extend the width of the table top 10. As shown in Figs. 1 and 2, the frame members 30 and 32 are L-shaped, one side of the L fitting snugly in the channel defined by the side wall 28 and the vertical wall 24, and the other side of the L engaging the shelf 22. The members 30, 32 completely fill the space between the side wall 28 and the end wall 20 of the cellular body and not only aid in the assembly of the cores 12, 14 but act to reinforce the cores 12, 14 in the assembled position. The ends of the members 30, 32 are rounded to engage the rounded corners of the side wall 28 of the core 12 and are cut angularly so that a snug fit may be effected at the corners of the assembly. The members 30, 32 are also formed so that they extend only to the top level of the side wall 28 and the cellular body and thereby define with the cellular body a level surface for receiving a suitable top. Additional wood fills or frame members 34, 36 are provided for the inner margins of the cores 12 and 14 and are adapted to aid in firmly securing the cores in position. The elongated member 34 is positioned between the adjacent cores 12, 14 and extends the length of the table top 10, being limited by the members 32. The smaller wood fills or frame members 36 connect the inner margins of the core sections 12, 14 and are limited by the elongated members 30 and 34. As shown in Fig. 3, it is apparent that the members 34 and 36 require a rectangular cross section since they are adapted to engage only the shelves 22 of adjacent cores. The members 34 and 36 also extend to the top level of the cellular body of the adjacent cores 12, 14 and thereby present with the cores 12, 14 and members 30, 32 a completely level surface. All of the frame members are secured to the cores 12, 14 by a suitable resin adhesive which not only waterproofs the adhering joints, but reinforces the assembly.

With the cores 12, 14 in the position shown in Fig. 1, a top 38 having a rectangular configuration which is determined by the assembly of the cores 12, 14 is placed over the assembled cores. The top 38 is formed from paper which has been laminated together, impregnated with a thermoset plastic material and compression molded with any desirable design formed therein. The table top assembly is then completed by applying a suitable adhesive between the top 38 and the cores 12, 14 and frame members 30, 32, 34, 36 and applying pressure for a prescribed period of time.

Referring now to Figs. 5–8 and 11, a modification of the invention is illustrated and comprises a table top indicated generally in Fig. 5 at 40. The table top 40 includes a plurality of molded thermoplastic cores 42 which, as shown in Fig. 11, are injection molded in a single unit and are similar in construction to the cores 12 and 14 described hereinabove. Each core 42 includes a cellular body defined by a bottom sheet 44 and a plurality of obliquely extending vertical walls 46 and end walls 48 joined integrally to the bottom sheet 44. The core 42 is completed by extending the bottom sheet 44 outwardly from the cellular body to define a shelf 49. In the assembled position shown in Fig. 5, the cores 42 are secured together by elongated frame members 50 and 52 which are arranged to form the margins of a rectangle, their ends being rounded and angularly cut. It is apparent that when the frame members 50, 52 are assembled, the rounded ends of the frame members 50, 52 will combine to form the rounded edges of the table top corners. Referring to Fig. 6, a core 42 is shown secured to the frame member 52, the shelf 49 extending into a kerf or groove 53 provided along the interior edge of the frame member 52. The frame member 52, which depends below the body of the core 42, not only serves to reinforce the table top construction, but also provides a means for receiving an edging 54 thereon, and furthermore serves as an apron for the table top. The edging 54 is of extruded T section and may be formed from metal such as aluminum, but is preferably formed from a thermoplastic material. The edging 54 includes a leg 56 which is forced into the frame member 52 and thereby secures the edging thereto. Pins 58 are hammered into the underside of the frame 52, extending through the shelf 48 and the leg 56 and thereby firmly securing the edging 54 and core 42 to the frame 52. It is apparent that the cores 42 and edging 54 are secured to the frame members 50 in the manner described above with respect to the frame member 52.

In order to secure the inner margins of the cores 42 in the assembled position, a middle elongated frame member 60 and short inner frame members 62 are provided. The middle frame member 60 extends the length of the table top 42 and receives the shelves 49 of the cores 42 in an appropriate kerf or groove. Referring to Fig. 7, an inner frame member 62 is shown secured between two adjacent cores 42 and has formed therein kerfs 64, 66 for receiving the shelves 49 of the adjacent cores 42. Pins 58 are secured in the underside of the frame member 62 and firmly connect the cores 42 thereto.

Prior to the application of the edging 54 and with the cores 42 secured together by the frame members 50, 52, 60, 62 a top member 68 of laminated paper, which has been impregnated with thermosetting resin and compression molded into a plastic sheet is placed in position over the cores. A suitable adhesive is applied and with a suitable application of pressure, the top 68 is secured to the cores and the frame members. The edging 54 is then secured to the outer margin frame members 50, 52 to complete the table top assembly.

Referring to Fig. 12, a modification of the rectangular table top illustrated in Figs. 1–4 is indicated generally at 70 and comprises a plurality of cores arranged to form a square table top. The table top assembly 70 includes the corner cores 12 and middle core 14, which are secured in position and define the table top outer margin. The edges along the outer margin of the table top 70 are formed by the side wall 28 which is integrally joined to the outwardly extending shelf 22 of the cores 12, 14, as hereinabove described. Isolated from the outer table top margin and positioned in the center of the assembly is a core 42. As shown in Fig. 12, the core 42 is completely surrounded by the cores 14 and is secured thereto by suitable frame members. The outer edge of the cores 12 and 14 receives the elongated L-shaped frame members 30 and 32 for securing the cores

12, 14 in position, while inner frame members having a cross section similar to frame member 36 are secured to the cores 14 and 42, as described hereinabove. A suitable top sheet 72 is placed over the cores and secured thereto by applying a suitable adhesive and the necessary pressure. It is apparent that any size table top can be constructed by using a combination of the cores 12, 14 and 42. A rectangular and square configuration using six and nine cores, respectively, are illustrated, but other table tops using more or less cores are contemplated and are within the scope of the present invention.

Referring now to Figs. 13, 14 and 15, a further modification of the present invention is illustrated and includes a core indicated generally at 80. The core 80 is formed with a cellular body as hereinabove discussed and includes cavities defined by vertical walls 82, an end wall 84 and a bottom sheet 86. The bottom sheet 86 extends into a shelf portion 88 which in turn has formed integrally therewith a vertical and horizontal wall comprising a stepped portion 90. Engaging the stepped portion 90 and the shelf portion 88 is an L-shaped wood fill or frame member 92 which forms the margin around the table top. The member 92 is preformed with an edge 94 which is formed of paper sheets impregnated with a thermosetting plastic and compression molded. The laminated edge 94 is secured to the member 92 as will hereinafter be described, and is fixed in position on the stepped portion 90 and shelf 88 by a suitable adhesive. The inner extending shelf 88 of each of the cores 80 are suitably secured to frame members and the assembly is completed by a top member 96 formed of a laminated material which is secured to the cores 80 by a suitable adhesive and application of pressure.

In forming the member 92, it is desirable to form an edge thereon that corresponds to the material utilized on the top of the table. Since it is difficult to form narrow strips of laminated thermoset plastic material and then secure them to an edge, a sheet of the material, similar to the top sheet 96, is pressed onto a sheet of wood 98, a portion of which is shown in Fig. 15. The sheet 98 with the plastic sheet adhered thereto is then cut into strips lengthwise, as indicated in Fig. 15, the result being a series of blocks as shown in full lines in Fig. 14. The frame member 92 is then formed by rabbeting out the blocks along the dotted lines shown in Fig. 14. The resulting member 92 is formed complete with the laminated edge 94 and is easily placed on the stepped portion 90 and shelf 88 of the table top 80, and secured thereto by a suitable resin adhesive.

The modification illustrated in Figs. 13, 14 and 15 incorporates a modified core 80 which includes the stepped portion 90 joined to the shelf 88. With this construction, it is necessary to utilize the L-shaped frame member 92. It is also contemplated to employ a core 42, such as illustrated in Fig. 11 and a frame member 52, such as illustrated in Fig. 6 with the technique discussed above with respect to the preformed laminated edge. In this further modification, the frame member 52 is preformed with a thermoset laminated plastic strip secured to the edge thereof, as shown in Figs. 14 and 15 and is kerfed to receive the shelf 48 of the core 42. The frame member 52 complete with the laminated edge 94 is then placed in position engaging the core 42 and the laminated top 64. It is apparent that by employing this latter procedure, the special core 80 is no longer required and the rabbeting step necessary to form the frame member to fit the core is obviated.

Referring now to Fig. 16, a panel construction generally indicated at 100 is illustrated and includes a core 102 of the type described above in connection with Figs. 1–4 and 9. The core 102 is formed in a single piece structure of any desirable configuration and includes inner depending walls 104 and outside edges 106 which define a channel for receiving frame members 108 which, in turn, define the outer margins of the panel. This construction is similar to the structure illustrated in Fig. 2. A laminated top 109 is secured to the one-piece core and assembled members 108, and completes the panel assembly. The one-piece core 102 obviates the need of the inner frame members for securing individual core members together and enables a complete panel construction to be assembled with a minimum of time and effort. The panel construction illustrated in Fig. 16 is shown and described as being formed in a manner similar to the panel illustrated in Figs. 1–4 and 9. However, it is apparent that a panel of the type shown in Figs. 5–8 and 11 can also be formed in a one-piece construction.

Referring now to Fig. 17, a modified core construction is illustrated and comprises an extended molded sheet 110 of core material. The core sheet 110 is adapted to be cut into suitable lengths for use in a panel construction such as a table top and can also be cut into the desired configuration, such as, for example, a rectangle, square or circle. The individual cores cut from the core sheet 110 are adapted to be assembled with frame members in the same manner as illustrated and described in connection with Fig. 6. However, it is apparent that the panels formed will include a single core instead of a plurality of cores joined together. The single core construction is similar to that described above in connection with Fig. 16. In order to form suitable shelves for receiving the necessary frame members for reinforcing the newly formed core, the ends and sides of the new core are sliced away to leave a shelf portion 112, as shown in Fig. 17. The core is then assembled with the frame members and laminated top as described above.

Referring now to Fig. 18, a further modification of the panel construction is illustrated generally at 114 and comprises a molded cellular core which is defined by a sheet 116 and a plurality of vertical walls 118 formed integral therewith. The cellular core is shown in an inverted position, the cellular side facing downwardly. A shelf portion 120 is formed integral with the sheet 116 and is so constructed as to define a large surface for receiving a frame member 122. The frame member, which is somewhat wider than that described hereinabove, is secured to the widened shelf portion 120 and the end wall of the cellular core and is adapted to have secured thereto a backing sheet 124. The backing sheet 124 forms the bottom of the panel construction 114 and is securely held in place by a suitable adhesive applied to the surface of the frame member 122. The panel assembly is completed by a laminated top 126 secured to the sheet 116 and an edging 128 secured to the frame member 122. Only a section of the panel construction 114 is illustrated in Fig. 18, but it is understood that a table top or the like may be formed having a one-piece core such as illustrated above in connection with Fig. 16, or a plurality of cores may be joined together such as illustrated in Figs. 5–8.

Referring now to Fig. 19, a panel construction indicated generally at 130 is illustrated and is adapted to be utilized as a kitchen cabinet front, or the like. The panel construction 130 includes a molded cellular core which comprises a bottom sheet 132 and integral walls 134 forming cells or cavities therebetween. The bottom sheet 132 extends into a shelf portion 135 which receives thereon a frame member 136 reinforcing the core and forming the outer margin of the panel. A laminated top 138 is secured to the open celled side of the core and a suitable edging 140 is secured to the frame member 136, thereby completing the panel assembly. The bottom sheet 132 has a recess 142 formed therein, when the core is molded, which is adapted to receive one side of a hinge member 144. The other side of the hinge member 144 is suitably secured in a recess 146 formed in the side of the kitchen cabinet. It is apparent that the panel construction 130 described above can be formed employ-

ing a one-piece cellular core. However, it is also contemplated to form the panel with a plurality of cores joined together as described above.

It is apparent from the foregoing that the panels constructed in accordance with the present invention are not only light in weight, but are strong and durable, waterproof and warp-proof. The molded cores are simple to manufacture, being injection molded, and require no special fittings or attachments in assembling other than the frame members. The edges are either conveniently formed as a unit with the cores or inserted individually on the frame members. If it is desirable to utilize a thermoplastic edge, a strip may be secured to the frame members. However, if a more stylish table is desired, a laminated plastic edge may be preformed with a frame member, the plastic edge corresponding in color and design to the laminated top sheet of the table top.

It will be obvious to those skilled in the art that various changes may be made without departing from the spirit of the invention and, therefore, the invention is not limited to what is shown in the drawings and described in the specification, but only as indicated in the appended claims.

What is claimed is:

1. In a panel construction, a plurality of molded plastic cores, each of said cores comprising a cellular body, said cellular body including a bottom sheet and a series of vertical walls formed integral with said bottom sheet, said bottom sheet projecting outwardly beyond said cellular body to form a shelf-like portion, outer frame members defining the outer margins of said panel construction and engaging the outside edges of said cores, inner frame members engaging the inside edges of said cores, said inner and outer frame members securing said cores together, and a top member secured to said cores and forming the upper surface of said panel construction.

2. In a panel construction, a molded plastic core, said core comprising a cellular body, shelf means formed integral with said body and extending outwardly therefrom, a short vertical wall joined integrally to said shelf means, a horizontal portion joined integrally to the bottom-most portion of said short vertical wall and a side wall joined integrally to said horizontal portion, said side wall and said short vertical wall defining a channel therebetween, a frame member having an L-shaped cross section disposed in said channel and engaging said shelf means, said frame member defining an outer margin of said panel construction, a second frame member having a rectangular cross section engaging the inner side of said shelf means, thereby reinforcing said core, and a top member engaging said core and said frame members and thereby defining the upper surface of said panel construction.

3. In a panel construction, a plurality of molded plastic cores, each of said cores comprising a cellular body, said cellular body including a bottom sheet and a series of vertical walls formed integral with said bottom sheet, said bottom sheet projecting outwardly beyond said body to form a shelf-like portion, wall portions integrally joined to said shelf-like portion and defining therebetween a channel, one of said wall portions forming the outer edge for said panel construction, a frame member disposed in each of said channels formed in said cores and defining the outer margin of said panel construction, additional frame members engaging said shelf-like portion at the inner side of said cores, said frame members securing said cores together and reinforcing said cores, and a top member secured to said cores and said frame members and thereby defining the upper surface of said panel construction.

4. In a table top, a plurality of molded plastic cores, each of said cores comprising a cellular body, a bottom sheet formed integral with said cellular body, said bottom sheet extending outwardly from said body to define a shelf, said shelf having an integral portion joined thereto, said integral portion including a short vertical wall and a side wall, said short vertical wall and side wall defining a channel therebetween, means disposed in said channel and engaging said shelf, said means defining the outer margins of said table top and securing said cores together, and a top sheet member secured to said cores and forming the upper surface of said table top.

5. In a table top, a plurality of cores, each of said cores including a side wall integrally joined thereto, said side wall defining the edge of said table top, frame members engaging said side wall and said cores and defining the outside margin of said table top, and top means secured to said cores and frame members forming the upper surface of said table top.

6. In a table top as set forth in claim 5, wherein additional frame members having a rectangular cross section engage the inner edges of said cores, thereby securing the adjacent cores together.

7. In a panel construction, a plurality of cores, each of said cores having a cellular body and a shelf extending outwardly from said cellular body, frame members engaging said shelf and defining the outer margin of said table top, said frame members having a groove formed therein for receiving said shelf, additional frame members having grooves formed therein, said additional frame members engaging the inner edges of said cores and receiving the inner extension of said shelves in said grooves, thereby securing adjacent cores together, an edging secured to the outer surface of said first-named frame members and forming the edging of said panel construction, and a top member secured to said cores and forming the upper surface of said panel construction.

8. In a table top, a core having a cellular body, said cellular body including a bottom sheet and a plurality of vertical walls formed integral with said bottom sheet, said bottom sheet extending outwardly from said cellular body to form a shelf, a frame member having a groove formed therein engaging said core, said frame member forming the outer margin of said table top, said groove receiving said shelf therein for securing said frame member to said core, an edging secured to the outside surface of said frame member, and a top sheet secured to said core and defining the upper surface of said table top.

9. In a table top, a core comprising a cellular body and a shelf formed integral with said cellular body and extending outwardly therefrom, elongated frame members engaging said shelf and said cellular body and forming the outer margin of said table top, edging means secured to said frame members and forming the edging for said table top, and a top member secured to said cellular body and said frame members and forming the upper surface of said table top.

10. In a table top, a core comprising a cellular body, a shelf portion formed integral with said cellular body and extending outwardly therefrom and a stepped portion formed integral with said shelf portion, a frame member engaging said shelf portion and said stepped portion and defining the outer margin of said table top, said frame member having secured thereto a laminated plastic edge, and a top member secured to said core and frame member and forming the upper surface of said table top.

11. In a table top, a core having a body and a shelf portion formed integral with said body and extending outwardly therefrom, an L-shaped frame member having a laminated strip of plastic secured thereto, said frame member engaging said shelf portion and forming the outer margin of said table top, said laminated edge of said frame member defining the outer edge of said table top, and a top member secured to said core and said frame member and forming the upper surface of said table top.

12. In a table top, a molded plastic core having a cellular body and formed with a projecting shelf, a downwardly projecting apron formed integral with said shelf and including a side wall, said side wall forming the edge

of said table top, and a top member covering said core and forming the upper surface of said table top.

13. In a table top, a core formed with an end wall and a projecting shelf and having a plurality of cavities formed therein, a frame member engaging said shelf and said end wall, said frame member depending below said core to form an apron, an edging formed around said frame member and secured thereto, and a top member secured to said core and frame and forming the upper surface of said table top.

14. In a panel construction, a one-piece molded core comprising the body of said panel construction, said body being formed in a cellular structure defined by a bottom sheet, a series of vertical walls formed integral with said bottom sheet and end walls, said bottom sheet extending beyond said end walls and defining a shelf for receiving frame members, said frame members engaging said end walls and forming the outer margins of said panel construction, and a top laminated sheet secured to the top of said core and frame members and forming the upper surface of said panel construction.

15. In a panel construction, a one-piece molded core comprising the body of said panel construction, said one-piece molded core being formed from an extended sheet of molded core material, said body defining a cellular structure and including a bottom sheet and a series of vertical walls and end walls formed integral with said bottom sheet, a shelf being formed integral with said bottom sheet and extending outwardly from said end walls, frame members engaging said end walls and shelf and forming the outer margins of said panel construction, and a top laminated sheet secured to the top of said core and frame members and forming the upper surface of said panel construction.

16. In a panel construction, a molded plastic core, said core comprising a cellular body, said cellular body including a flat sheet and a plurality of vertical walls formed integral with said flat sheet, said flat sheet projecting outwardly beyond said cellular body to form a shelf, a frame member engaging said shelf and reinforcing said core, and forming a margin for said panel construction, a backing sheet secured to the open-celled side of said core and to said frame member, and a laminated sheet secured to said flat sheet and forming the upper surface of said panel construction.

17. In a door construction, a molded plastic core comprising a cellular body, said cellular body including a flat sheet extending into a shelf portion, a frame member engaging said shelf portion and reinforcing said core, a backing sheet secured to the open-celled side of said core and to said frame member forming one side of said door, and a laminated sheet secured to said flat sheet and forming the other side of said door.

18. In a kitchen cabinet, a door construction including a molded plastic core, said core comprising a cellular body, said cellular body including a bottom sheet extending into a shelf portion, said shelf portion having a recess located on the underside thereof, said recess being formed in the molding process, a frame member engaging said shelf portion and reinforcing said core, a top laminated sheet secured to the open-celled side of said core and to said frame member thereby forming the front of said door, an edging secured to the outside edge of said frame member and forming the outer edge of said door, and hinge means fitting into said recess and secured to said core member, said hinge means being operatively connected to said kitchen cabinet thereby permitting hinged movement of said door with respect to said kitchen cabinet.

19. In a kitchen cabinet, a door construction comprising a molded plastic core formed with a cellular body, a shelf portion formed integral with said body and extending outwardly therefrom, said shelf portion having a recess located therein adapted to receive a hinge, a reinforcing member engaging said shelf portion and a laminated sheet secured to the open-celled side of said core and to said reinforcing member, thereby defining the front of said door.

20. In a panel construction, a core comprising a bottom sheet and a series of vertical walls formed integral with said bottom sheet, said bottom sheet and vertical walls defining a cellular body, said bottom sheet projecting outwardly beyond said cellular body to form a shelf-like portion, wall portions integrally joined to said shelf-like portion and defining a channel therebetween, one of said wall portions forming the outer edge of said panel construction, a frame member positioned in said channel for reinforcing said core, and a top member secured to said core and said frame member and defining the upper surface of said panel construction.

21. In a panel construction, a molded cellular body, the bottom of said cellular body projecting outwardly to form a channel, the outer wall of said channel defining the outer edge of said panel construction, means positioned in said channel for reinforcing said cellular body, and a top member secured to said cellular body and said reinforcing means and defining the upper surface of said panel construction.

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