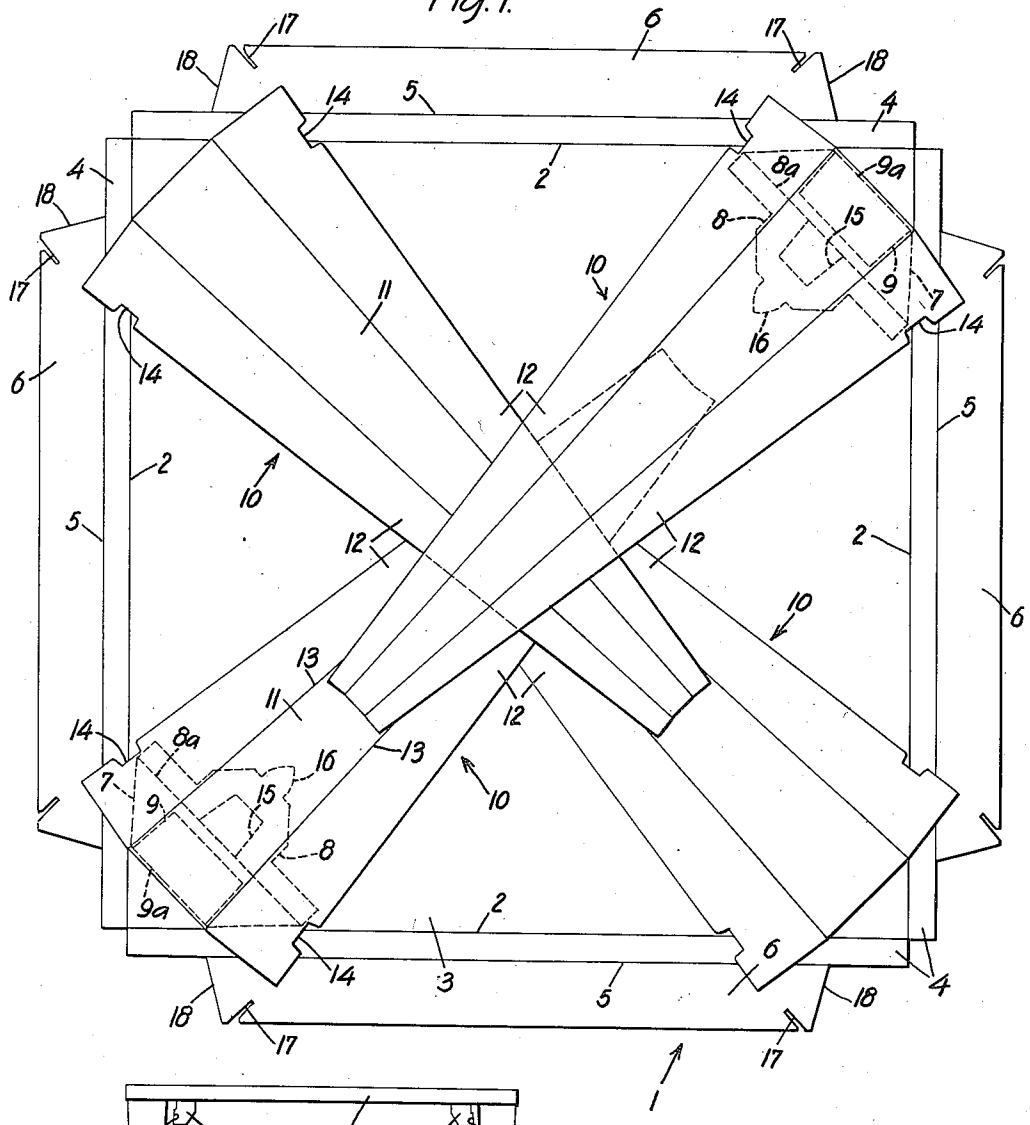
Aug. 11, 1936. J. V. HORR 2,050,840

FOLDABLE TABLE

Filed Nov. 23, 1933 3 Sheets-Sheet 1

Fig. 1.



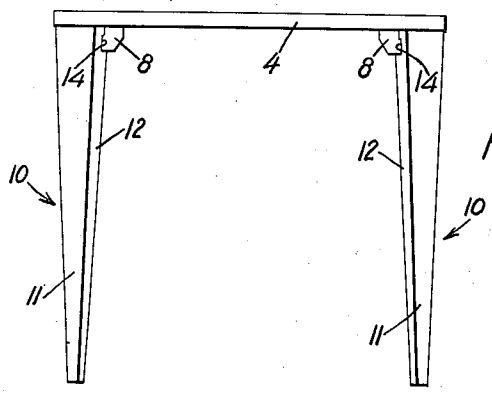


Fig. 2.

INVENTOR.
John V. Horr.

BY Moses & Wolfe
ATTORNEYS.

Aug. 11, 1936. J. V. HORR 2,050,840

FOLDABLE TABLE

Filed Nov. 23, 1933 3 Sheets-Sheet 2

Fig. 3.

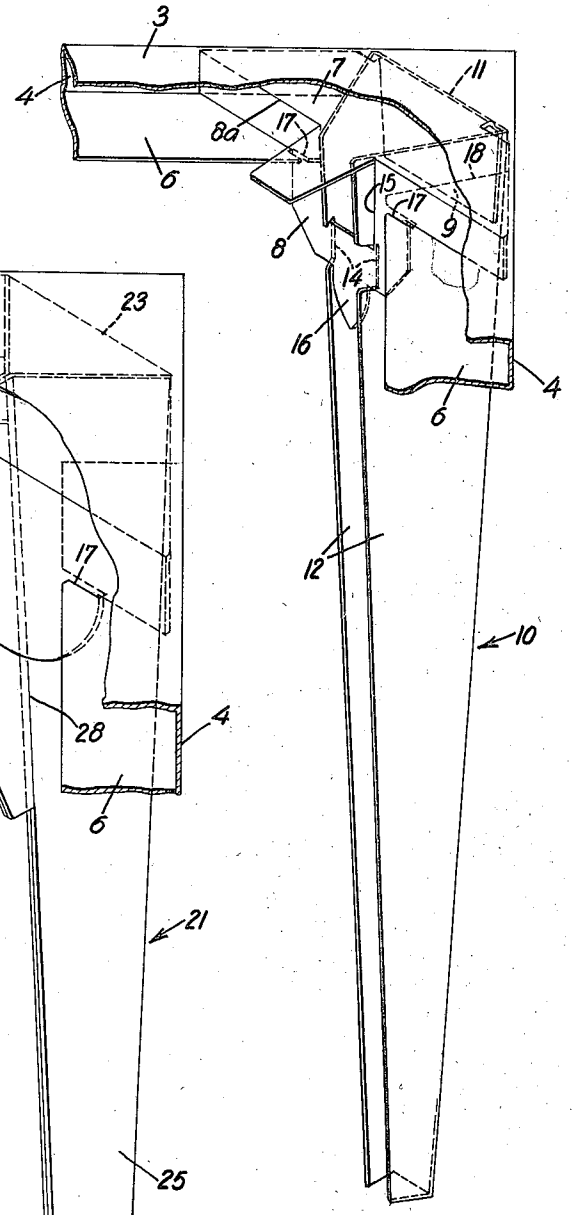
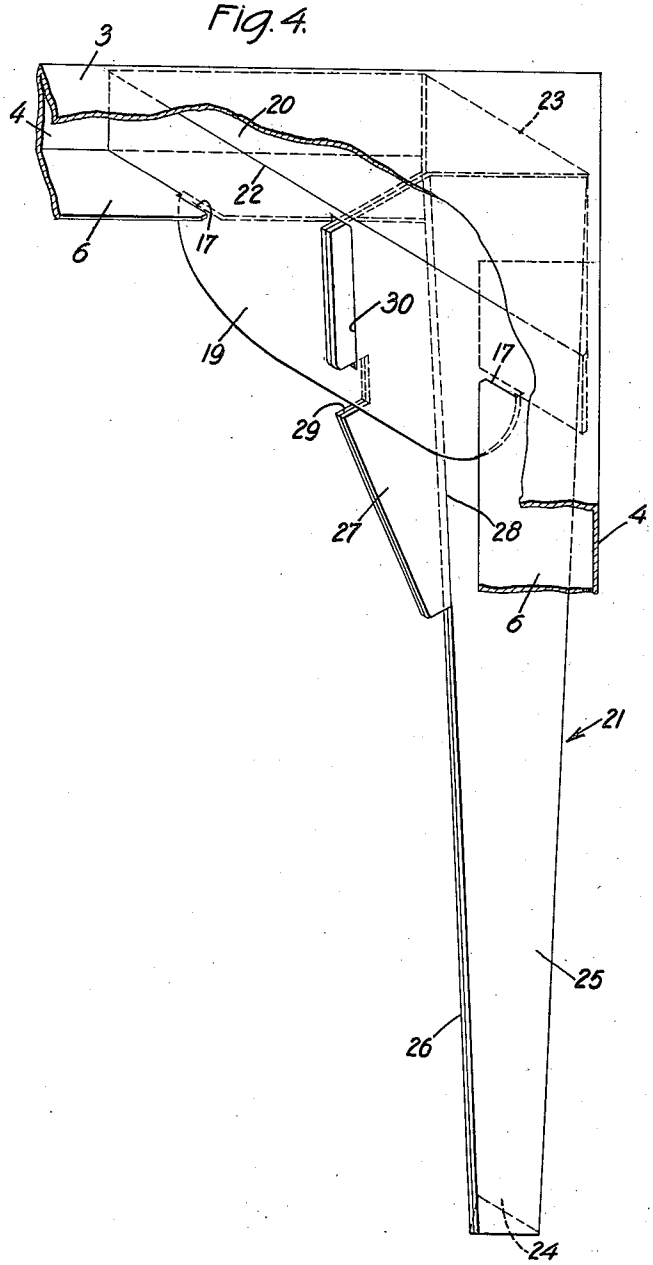


Fig. 4.



INVENTOR.
John V. Horr.

BY Moseo & Nolte
ATTORNEYS.

Aug. 11, 1936. J. V. HORR 2,050,840

FOLDABLE TABLE

Filed Nov. 23, 1933 3 Sheets-Sheet 3

Fig. 6.

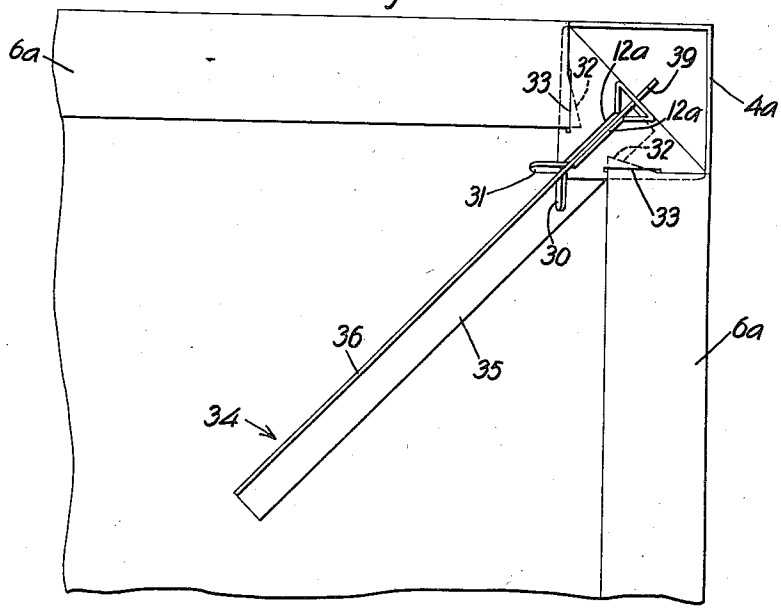
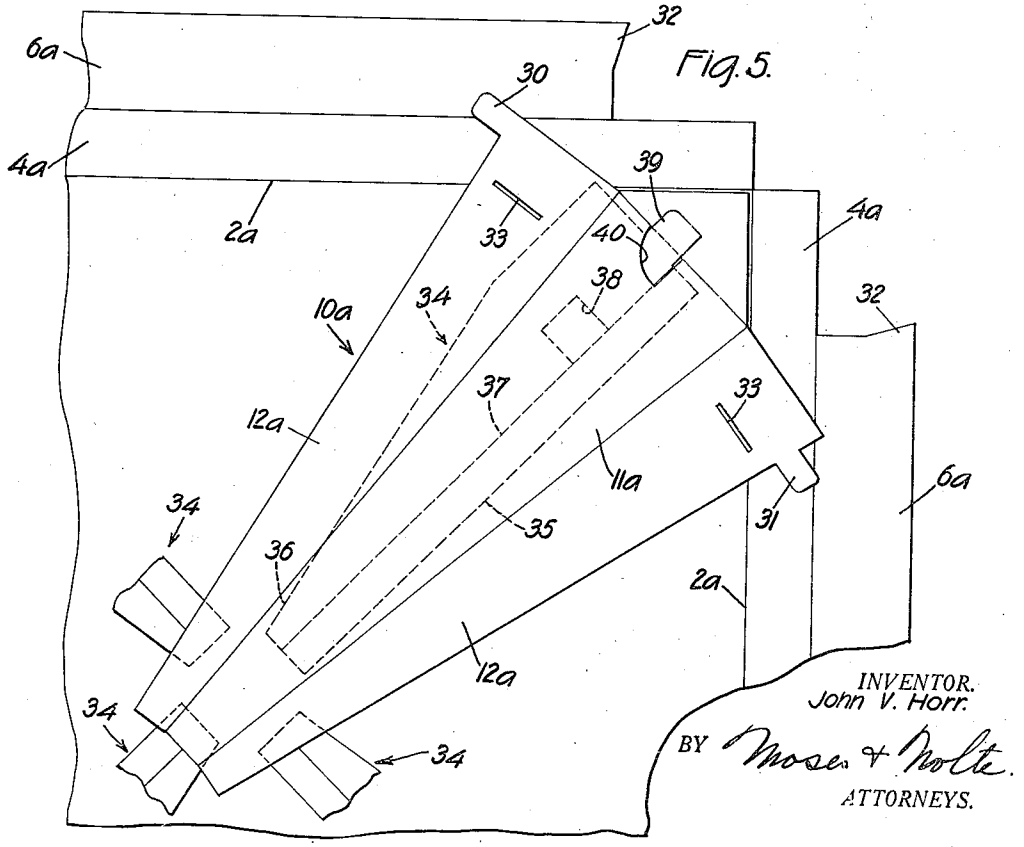


Fig. 5.



INVENTOR.
John V. Horr.
BY Moses & Nolte.
ATTORNEYS.

Patented Aug. 11, 1936 2,050,840

UNITED STATES PATENT OFFICE

2,050,840

FOLDABLE TABLE

John V. Horr, Hastings-upon-Hudson, N. Y.

Application November 23, 1933, Serial No. 699,313

19 Claims. (Cl. 311—77)

This invention relates to foldable tables adapted to be used for card playing and other purposes, to which folding portable tables are customarily put.

It is an object of the invention to provide a table of the kind referred to which is light, inexpensive and capable of being folded into a very flat condition, but which may be set up quickly and easily, and which is sturdy and serviceable in use.

To these ends it is a feature of the preferred embodiment of the invention that the body of the table is composed of a single piece of sheet material such as cardboard having fold or score lines defining the boundaries of the top, and marginal extensions beyond the fold lines, adapted to be folded downwardly and inwardly to form substantial reinforcements for the edges of the top.

It is a further feature that the legs are formed of sheet material such as cardboard, each leg comprising a main panel adapted to be hingedly attached to the body, and side panels hinged to the main panel, the several panels of a single leg being adapted to be disposed in coplanar relation against the bottom of the body, or in angular relation to form substantially polyhedral legs.

In accordance with a further feature of the invention, a brace is provided in association with each leg, the brace being also formed of sheet material and adapted to interfit with the side panels of the leg to retain said panels in fixed angular relation to one another.

Tables made in accordance with the invention are so inexpensive and embody so little material that they are exceptionally well adapted for use at picnics and in the contagious wards of hospitals. They can be burned when soiled or contaminated without undue extravagance and without substantial inconvenience.

In accordance with further and more specific features of the preferred embodiment of the invention, the downturned flanges of the body are caused to engage edges of the legs, and the ends of the inturned flanges of the body are caused to engage the outer faces of the side panels of the legs. The inturned flanges are further provided with notches for embracing the braces when the latter are turned down whereby the braces act to retain the inturned flanges in operative position, and the flanges act to retain the braces in downturned operative position. All hinged connections are desirably provided by scoring and folding the sheet material.

Other objects and advantages will hereinafter appear.

In the drawings forming part of this specification:

Figure 1 is a bottom plan view of a card table embodying a preferred form of the present invention. The legs are shown collapsed and the marginal extensions unfolded as the structure would appear when knocked down for storage;

Figure 2 is a view in elevation on a smaller scale than Figure 1 showing the table of Figure 1 erected;

Figure 3 is a fragmentary perspective view showing one corner of the erected table;

Figure 4 is a view similar to Figure 3 illustrating another form of embodiment of the invention;

Figure 5 is a fragmentary plan view of another embodiment of the invention in knocked down form; and

Figure 6 is a fragmentary plan view of a corner of the erected table of Figure 5.

The illustrative table of Figures 1 to 3 comprises a body 1 of sheet material, such as cardboard, having fold or score lines 2 defining the boundaries of a top portion 3, and dividing the top portion from flanges 4 which are adapted to be folded to form side flanges. The flanges 4 are divided by score lines 5 which extend parallel to the fold lines 2 and which divide the flanges 4 from portions 6 which are adapted to form inturned locking flanges. At each corner of the body provision is made of a brace piece 7 of suitable sheet material. The brace piece 7 comprises a central body portion which is fixedly secured in any suitable manner to the top 3. At the inner side the brace piece includes a brace 8 which is foldable downward about a fold line 8a. At the outer side the brace piece includes an extension 9 which is foldable downward about a fold line 9a. Each extension 9 has fixed to it a leg piece 10 which is formed of suitable sheet material such as cardboard.

Each leg piece comprises a central main panel 11, which is fixedly secured in any suitable manner to the extension 9 of the brace piece 7. Each leg portion also comprises two side panels which are divided from the main panel 11 by fold or score lines 13 which are desirably downwardly convergent. The side panels are foldable about the fold lines 13 when the legs are erected, to form with the main panel a partially closed polyhedron desirably having the appearance and form illustrated in Figure 3. The side panels are provided near the upper ends thereof with aligned notches 14. The brace 8 is made yoke-shaped,

being provided with an opening 15 which is adapted to embrace and fit against the jutting portions of the side panels which lie above the notches 14. The central portion of the brace enters and fits the notches 14, engaging both the upper and lower boundary walls thereof. Each brace includes a tongue 16 which engages the inner faces of the side panels for a distance below the notches 14. It will be seen that the tongue 16 limits approach of the side panels toward one another, while the yoke limits the separation of the side panels from one another. The yoke, moreover, by reason of its engagement with the upper and lower boundary walls of the notches, serves as a thrust transmitting or weight supporting element.

When the legs and the associated braces have been folded into the condition thus far described, namely, that illustrated in Figure 3, the marginal portions 4 are folded down and the marginal portions 6 are folded in. Each marginal portion 6 is provided with slots 17 near the opposite ends thereof, each slot being adapted to interfit with the central part of one of the braces. The materials of the table body and brace are slightly yielding, and since the braces do not lie in the planes of rotation of the extension 6, the extensions are sprung into interfitting relation with the braces and are frictionally retained against retrograde movement. Upward movement of the flanges 6 is limited by engagement with the lower edges of the side pieces of the brace 8, the side pieces being of the same height as the flanges 4.

The corners of the main panels run substantially to the score lines 2 and hence, when the legs are formed and the portions 4 are folded downward, the portions 4 are adapted to be limited in their swinging movement by engagement with the edges of the legs. The ends 18 of the portion 6 are formed to engage the outer faces of the side panels of the legs, and hence to cooperate with the yoke portion of the brace in preventing separation of the side panels.

When the table is fully formed and erected in the manner described, it is found to be of surprising strength. A person may sit upon the corner of the table without apparently putting any undue strain upon it. Between the corners substantial rigidity is provided by the downturned flanges.

When it is desired to store the table, the flange portions are folded outward, the braces are folded down flat against the lower face of the table body, the leg panels are folded into coplanar relationship, and the leg pieces are then folded flat against the lower face of the table body as illustrated in Figure 1. The folded table is extremely light and extremely thin. The material of which the table is constructed is cheap and the construction and assembly are very simple.

The embodiment of Figure 4 is generally similar to that of Figures 1 to 3. The body of the table is the same as that of Figures 1 to 3 and hence corresponding numerals have been applied to the parts of the body and these parts will not be described again. The differences relate to the leg and brace structure. In Figure 4 each brace is made of the same piece of material as the associated leg. This piece of material comprises a brace portion 19, a body portion 20 and a leg portion 21. The body portion 20 is fixedly secured to the table top, and the brace portion 19 and the leg portion 21 are hingedly secured to the body portion 20, being divided from the body portion 20 by fold or score lines 22 and 23, respectively. The leg portion comprises a main panel 24 and side panels 25 and 26 which are divided from the main panel by downwardly convergent score lines which desirably converge downwardly. The side panels in this instance are arranged to be folded into edge contact with one another so that a substantially complete inverted truncated pyramid is formed.

Each side panel includes an integral extension 27 which is unitary with the side panel and divided therefrom by a fold line 28. The extensions 27 are adapted to be disposed exteriorly of the space enclosed by the panel and in juxtaposed relation to one another. The extensions 27 have aligned angular notches 29, and the brace 19 is provided with a portion adapted to enter the notches and simultaneously to engage the upper and lower boundary walls thereof. The brace 19 is provided with a slot 30 formed to embrace and fit the jutting portions of the extensions 27 which lie above the notches 29. The flanges 6 of the table body cooperate with the brace 19 in the same manner in which the flanges 6 of Figure 1 cooperate with the brace 8.

In the embodiment of Figures 5 and 6 the general features of construction are the same as before. The table body comprises a top bounded by fold lines 2*a* and having successive flange portions 4*a* and 6*a*. At each corner a leg piece 10*a* of sheet material is provided composed of a main panel 11*a* hinged to the body and side panels 12*a* hinged to the main panel.

In this instance, however, the side panels 12*a* are provided with ears or extensions 30 and 31, the ear 30 being at the upper extremity of the side panel upon which it is formed, and the ear 31 lying just below the ear 30 in position to cross and engage the same when the leg piece is folded. The flanges 6*a* are provided with ears 32 which enter slots 33 in the side panels 12*a* for retaining the flanges 6*a* in horizontal positions.

This embodiment of the invention differs substantially from the embodiments previously described in that provision is made of diagonally extending brace pieces 34 which are also desirably of sheet material such as cardboard. Each brace piece extends from a point near a corner of the top to a point near the center thereof, and comprises a body portion 35 fixed to the table top and a foldable brace 36 which is divided from the portion 35 by a fold line 37 that extends substantially along a diagonal of the table top. The brace 36 is adapted to be folded downward to a vertical position prior to the folding of the associated leg, and is received between the adjacent edges of the side panels of the folded leg. The portion 36 is provided with an opening 38 through which the ears 30 and 31 are fitted. The height of this opening is such that the member 36 presses the ears firmly against one another, being assisted in this function by the table top and the portion 35 of the brace piece fixed thereto.

The brace 36 is also provided with an extending ear 39 for bracing the table corner, which ear protrudes outward beyond the main panel 11*a* and plays in an arcuate opening 40 formed in the main panel.

The diagonal braces add materially to the rigidity of the table top and to the firmness and strength of the entire structure.

Tables embodying the invention are adapted to be manufactured and sold in assembled form as illustrated. Since the assembly is so simple, however, it is also contemplated that the several units composing the table may be sold as sep-

arate articles of commerce for assembly by the purchaser.

While I have illustrated and described in detail certain preferred forms of my invention, it is to be understood that changes may be made therein and the invention embodied in other structures. I do not, therefore, desire to limit myself to the specific constructions illustrated, but intend to cover my invention broadly in whatever form its principle may be utilized.

I claim:

1. A foldable table comprising a body, legs of sheet material, each leg comprising a main panel foldably connected to the body, and side panels foldably connected to the main panel, said panels being adapted to be disposed in a single plane and in juxtaposed relation to the lower side of the body for storage and to be folded substantially into the form of an inverted truncated pyramid for serving as a support, and means for engaging the side panels to retain them releasably in their folded position.

2. A foldable table comprising a body, legs of sheet material, each leg comprising a main panel foldably connected at its upper end to the body, a side panel foldably connected to the main panel and adapted to be disposed either in coplanar or angular relation to the main panel, and means for releasably retaining the side panel in substantially fixed angular relation to the main panel.

3. A foldable table comprising a body of semi-rigid sheet material, legs of sheet material divided into panels adapted to be disposed either in coplanar or angular relation to one another, braces foldably attached to the body and adapted to interfit with the leg panels and marginal extensions on the body adapted to be folded down and in and having portions formed to interfit with the braces.

4. A foldable table comprising a body of semi-rigid sheet material, legs of sheet material divided into panels adapted to be disposed either in coplanar or angular relation to one another, braces foldably attached to the body and adapted to interfit with the leg panels and marginal extensions on the body adapted to be folded down and in and having portions formed to interfit with the braces and to engage the outer faces of the folded panels to assist in fixing the angular relationship of the latter.

5. A foldable table comprising a body, legs of sheet material, each leg comprising a main panel foldably connected at its upper end to the body portion, and side panels integral with the main panel and foldable relatively thereto, said side panels having aligned notches near the upper ends thereof, a yoke-shaped brace of sheet material foldably connected to the body, said brace being foldable downward to enter the side panel notches and to embrace the jutting portions of the side panels lying above the notches for preventing separation of the side panels, and having a spacing extension received between the side panels below the notches for preventing approach of the panels, and means for retaining the brace in down-folded condition.

6. A foldable table comprising a body, legs of sheet material, each leg comprising a main panel foldably connected at its upper end to the body, and side panels integral with the main panel and foldable relatively thereto, said side panels having aligned notches near the upper ends thereof, a yoke-shaped brace of sheet material foldably connected to the body, said brace being foldable downward to enter the side panel notches and engage the upper and lower boundary walls thereof and to embrace the jutting portions of the side panels lying above the notches for preventing separation of the side panels, and having a spacing extension received between the side panels below the notches for preventing approach of the panels, and means for retaining the brace in down-folded condition.

7. A foldable table comprising a body, legs of sheet material, each leg comprising a main panel foldably connected at its upper end to the body, and side panels integral with the main panel and foldable relatively thereto, said side panels having aligned notches near the upper ends thereof, a yoke-shaped brace of sheet material foldably connected to the body, said brace being foldable downward to enter the side panel notches and to embrace the jutting portions of the side panels lying above the notches for preventing separation of the side panels, and unitary extensions provided on the body and foldable downward and inward to engage the outer faces of the side panels and to interfit with the brace.

8. A foldable table comprising a body and leg portions permanently foldably connected thereto, said body being of semi-rigid sheet material and including a top portion and marginal portions foldably connected to the top and adapted to be folded down and in to form edge reinforcements, and means permanently connected to the top for releasably retaining the folded marginal portions in folded condition, the marginal portions being also capable of being unfolded into coplanar relation with the top portion.

9. A foldable table comprising a top formed of a single piece of cardboard and legs each formed of a single piece of cardboard and pivotally connected to said top, said top having marginal portions scored along parallel lines to facilitate the forming of successive downturned and inturned flanges, and each leg piece being scored along downwardly extending lines to facilitate the forming of polyhedral legs said marginal portions being collapsible into the plane of the central top portion and said legs being foldable flat against the lower side of the central top portion.

10. A foldable table comprising a top formed of a single piece of cardboard and legs, each formed of a single piece of cardboard and pivotally connected to said top, said top having marginal portions scored along parallel lines to facilitate the forming of successive downturned and inturned flanges, and each leg piece being scored along downwardly converging lines to facilitate the forming of polyhedral legs, and said leg and flange portions having mutually engaging and supporting portions adapted to be manipulated into non-supporting relation for collapsing.

11. A foldable table comprising a top formed of a single piece of cardboard and legs, each formed of a single piece of cardboard, said top having marginal portions scored along parallel lines to facilitate the forming of successive downturned and inturned flanges, and each leg piece being scored along downwardly converging lines to facilitate the forming of polyhedral legs, the arrangement being such that the leg edges formed by folding of the legs will engage the inner faces of the downturned flanges.

12. A foldable table comprising a top formed of a single piece of cardboard and legs, each formed of a single piece of cardboard, said top having marginal portions scored along parallel lines to

facilitate the forming of successive downturned and inturned flanges, and each leg piece being scored along downwardly converging lines to facilitate the forming of polyhedral legs, the arrangement being such that the leg edges formed by folding of the legs will engage the inner faces of the downturned flanges and the extremities of the inturned flanges engage outer faces of the formed legs.

13. A foldable table comprising a body, leg portions of sheet material forming panels adapted to be disposed either in coplanar or angular relation to one another, and braces hingedly attached to the body and adapted to interfit with the leg portions, each brace being formed of the same piece of material as the associated leg portion.

14. A foldable table comprising a body, leg portions of sheet material forming panels adapted to be disposed either in coplanar or angular relation to one another, and braces foldably attached to the body and adapted to interfit with the leg portions, each brace being formed of a piece of sheet material distinct from the associated leg portion and having a folding extension to which the leg portion is fixedly attached.

15. A foldable table comprising a body, leg portions each comprising a main panel foldably connected to the body, side panels foldably connected to the main panel and foldable to form therewith a substantially closed polyhedron, foldable extensions on the side panels adapted to be disposed exteriorly thereof and in juxtaposed relation to one another, said extensions having aligned notches, and a brace associated with each leg and foldably connected to the body and having a portion adapted to enter the notches and to engage the upper and lower boundary walls thereof, said brace having a slot arranged to receive and fit the jutting portions of the extensions located above the notches.

16. A structure as set forth in claim 15 wherein each brace is formed of the same piece of material as the associated leg portions.

17. A structure as set forth in claim 15 wherein each brace and associated leg portion are formed of a single piece of cardboard and the foldability is provided by fold lines.

18. A foldable table comprising a body, legs of sheet material, each leg comprising a main panel foldably connected to the body and side panels foldably connected to the main panel and foldable substantially into edge contact, and diagonal braces of sheet material foldably connected to the body and adapted to be disposed at right angles thereto, each brace comprising a portion adapted to be received between the side panels of an associated leg and to be held in bracing position by said panels.

19. A foldable table comprising a body, legs of sheet material, each leg comprising a main panel foldably connected to the body and side panels foldably connected to the main panel and foldable substantially into edge contact, and diagonal braces of sheet material foldably connected to the body and adapted to be disposed at right angles thereto, each brace comprising a portion adapted to be received between the side panels of an associated leg and to be held in bracing position by said panels, and each brace having portions arranged to hold one of the panels of the associated leg in place when the table is erected.

JOHN V. HORR.