No. 882,064. PATENTED MAR. 17, 1908.

A. E. HOWLETT.

FOLDING TABLE.

APPLICATION FILED APR. 12, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

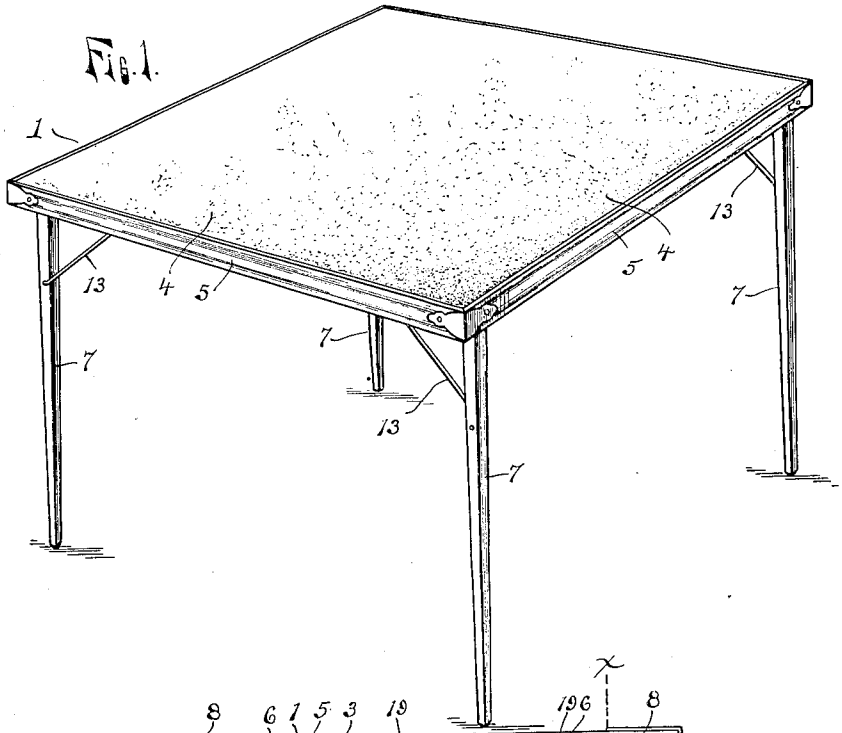
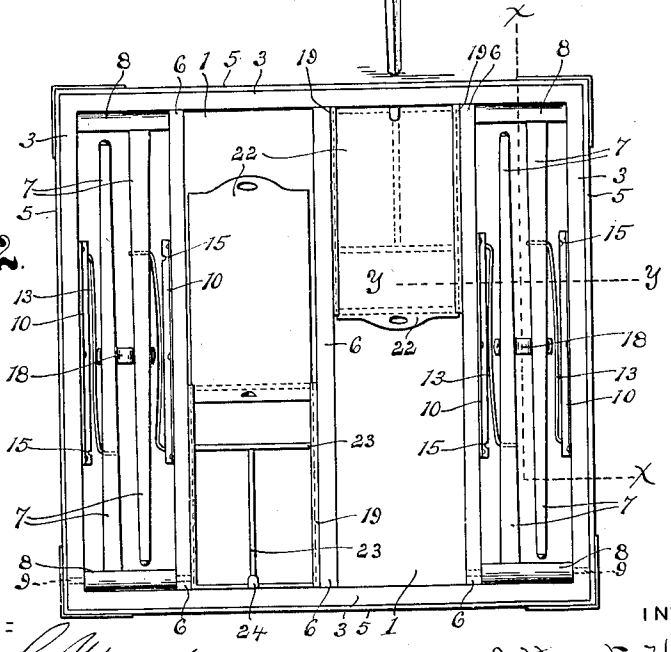


Fig. 2.



WITNESSES:

William C. Manchester

Benjamin F. Mulford

INVENTOR:

Arthur E. Howlett

By Lewis E. Flandes

Attorney.

No. 882,064. PATENTED MAR. 17, 1908.

A. E. HOWLETT.

FOLDING TABLE.

APPLICATION FILED APR. 12, 1906.

2 SHEETS—SHEET 2.

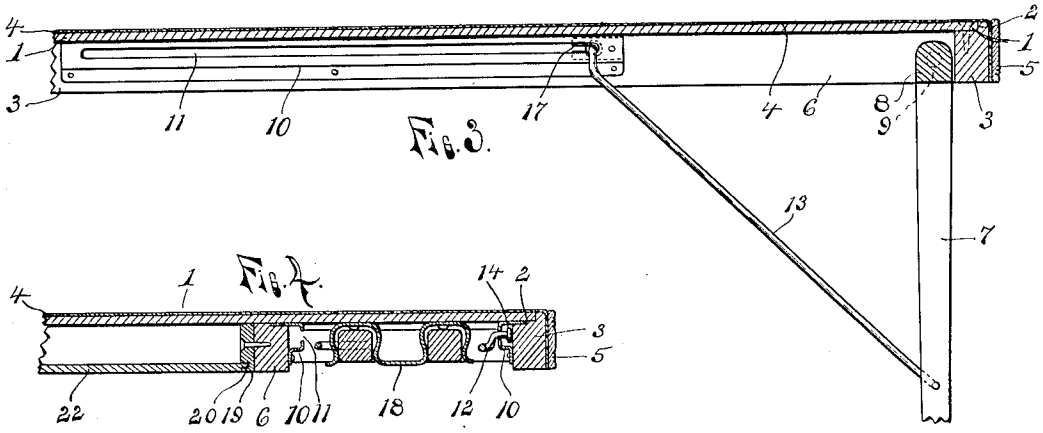


Fig. 3.

Fig. 4.

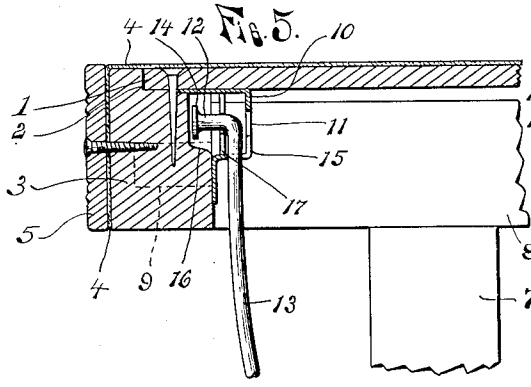


Fig. 5.

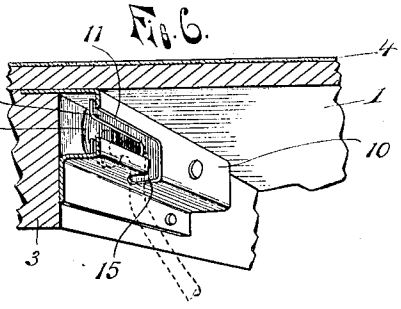


Fig. 6.

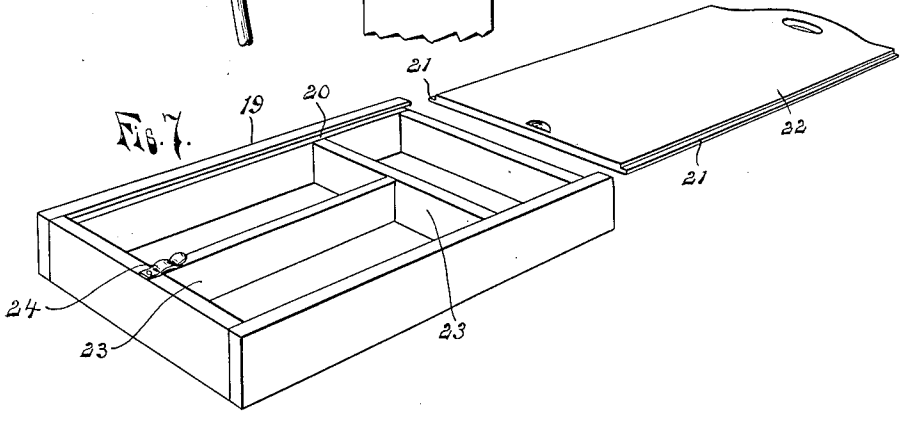


Fig. 7.

WITNESSES:

William C. Marchant

Benjamin F. Mulford

INVENTOR:

Arthur E. Howlett

by Lewis C. Flanders

Attorney.

UNITED STATES PATENT OFFICE.

ARTHUR E. HOWLETT, OF DETROIT, MICHIGAN.

FOLDING TABLE.

No. 882,064. Specification of Letters Patent. Patented March 17, 1908.

Application filed April 12, 1906. Serial No. 311,232.

To all whom it may concern:

Be it known that I, ARTHUR E. HOWLETT, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Folding Tables, of which the following is a specification.

This invention relates to improvements in folding tables or stands known as folding card tables in which the legs are arranged to fold within the table top or frame, and are held when in their extended position by brace rods having a sliding engagement with the top to permit such folding.

The object of the invention is to provide a very light, yet strong and rigid structure having a top formed of thin material which is so held by the top-frame as to greatly facilitate its manufacture and add to its rigidity, and provided with guide-ways for the brace rods which are so constructed that the rods will slide freely therein and when said rods are in their locked position they will be firmly held against movement to rigidly hold the legs.

A further object of the invention is to provide simple and efficient means for detachably holding the legs in their folded position within the table top.

It is also an object of the invention to provide a table having certain other new and useful features and the several advantages of the particular construction, arrangement and combination of parts, all as hereinafter more fully described, reference being had to the accompanying drawings in which—

Figure 1 is a perspective view of a table embodying the invention; Fig. 2, an inverted plan view of the same in its folded position; Fig. 3, an enlarged section on the line *x*—*x* of Fig. 2; Fig. 4, a similar section on the line *y*—*y* of Fig. 2; Fig. 5, is a further enlarged detail showing a section through the locking notch in one of the guides; Fig. 6, a sectional detail showing part of one of the guides in perspective; and Fig. 7 is a perspective view of one of the receptacles, detached.

As shown in the drawing, 1 is the table top consisting of one piece of any suitable thin material, such as straw-board, which is secured at its edges within a rabbet 2 in the upper and inner edges of the four bars forming the rectangular frame 3 of the table top. This frame 3 is thus strengthened and squared by securing the top within the rabbet and the upwardly extending rib along the outer edges of the frame outside the rabbet, protects the edges of the straw-board which are difficult to make straight and smooth, and forms a smooth, even corner over which to draw the surface covering 4 of felt or other suitable material, which is drawn tight over the frame and its edges tacked to the outer sides of said frame, a molding 5 or other suitable finishing strip being then secured by screws over the edges of the felt with its upper edge even with the upper edge of the frame. The manufacture of the table is therefore greatly facilitated by securing the top board in a rabbet as it is not necessary that the edges of the board be perfectly smooth and true, any slight space between the edge of the board and side of the rabbet not being noticeable when the surface covering is secured in place. The top board is supported within the frame by cross-bars 6 extending across the frame with their upper edges in the plane of the bottom of the rabbet and the legs 7 are pivoted within the space between the frame and the two outer cross-bars to turn independently and lie side by side within said space and wholly within the plane of the frame, by rigidly securing each to a short transverse bar 8 pivotally held by pintles 9 engaging openings in the frame and in the ends of said short bar.

Secured to the inner surface of the frame sides and to the sides of the cross-bars adjacent to the legs when folded, are the guide-ways 10 each formed of sheet metal bent into U-shape in cross-section to form a channel and provided with a longitudinal slot 11 through which the laterally bent ends 12 on the brace rods 13 extend and slide as the legs are folded, the opposite end of each of said rods being pivotally attached to its leg by being bent at right angles and secured to turn freely within an opening in the leg. The guide ways are secured to the vertical side surface of the side bars and cross bars of the frame, each with the open side of the channel toward the frame, by flanges which are a part of the sides of the channel, one of said flanges extending horizontally between the bar and table top and the other turned downward at right angle to the side of the channel and secured by screws or nails to the surface of the bar. A very cheap and efficient guide way is thus secured, which lies closely within the angle formed by the meeting of the bar and top and has no sharp cor-

ners or projections to catch the brace rod and prevent its free movement. A head 14 is formed on the end 12 of each brace-rod to slide within the channel of the guide-way and prevent the said ends from escaping from the slots 11, and at the end of said slot nearest the pivot of the leg is formed a notch 15 which extends inward in the lower side of the guide-way to receive the brace-rod when the leg is fully extended and hold the brace in position. The braces are formed of heavy wire or rods in such a manner that they have a tendency to yieldingly press or spring toward the guide-ways, and therefore when the legs are extended and the braces thus moved along the slots until they reach the notches, they will automatically spring into said notches and be held in engagement therewith, it being necessary when it is desired to fold the legs, to press the braces from the notches against such spring action. These notches are of such depth that the brace-rods are permitted to spring inward until their laterally bent ends are wholly within the guide-ways, out of engagement with the guide-slot, the frame members being cut away at 10 to permit such inward movement, and to prevent any vertical play of the rods within the guides and thus rigidly hold the legs in their extended position, an auxiliary strip 17 provided with a slot extending inward from one end thereof is secured within each guide-way opposite the notch to receive the laterally bent end of the brace in its slot. The braces are thus held against vertical play by said strips and against horizontal movement by their engagement with the notches, to rigidly hold the legs.

To detachably hold the legs in their folded position within the top frame, suitable spring clips 18 are provided each formed of a strip of sheet metal bent transversely to form two open loops, one to receive each leg, said loops being bent so that their open sides are narrower than the width of the leg, and thus when the legs are folded and forced into said loops the sides thereof will yieldingly contact the legs and firmly hold the same therein against any accidental unfolding in handling the table.

If desired the space between the inner sides of the cross-bars may be utilized by providing suitable frames 19 of a size to fit between the bars, which frames are formed with grooves 20 along their upper edges to receive tongues 21 on sliding covers 22. Each frame is divided by partitions 23 to form suitable receptacles for cards or other articles, the covers preventing said articles from falling out when the table is in use. A suitable spring catch 24 is provided to prevent each cover from being accidentally opened. These frames may be very cheaply manufactured apart from the table and quickly and cheaply secured in place or left off as desired, the construction of the table proper being the same in either case.

Having thus fully described my invention, what I claim is:

1. In a folding table, the combination with a top and top frame, of legs pivotally attached to the frame to fold within the same, guide-ways formed of sheet metal bent U-shape in cross-section and each secured to the vertical surface of the frame member with the open side of its channel toward said surface, and each way provided with a longitudinal slot in its vertical bottom, having a notch at one end extending laterally therefrom into the horizontal side of the channel, brace rods pivotally attached at one end to the legs and engaging the guide slots at their opposite ends, said rods being formed to yieldingly press toward the guide-ways to spring into engagement with said notches when the legs are fully extended.

2. In a folding table, the combination with a top frame having side and cross bars and a top secured upon said bars, of legs pivotally attached to the frame, guide-ways secured to the frame, each formed of sheet metal bent into U-shape in cross-section to form a channel and each secured to the vertical side surface of one of the bars with the open side of the channel toward said surface, by flanges forming a part of the sides of the channel, one of said flanges extending horizontally between the bar and top and the other extending vertically downward upon the surface of the bar and secured thereto, said guide ways being each formed with a longitudinal slot in the vertical bottom of the channel having a lateral notch extending into the lower side of said channel, brace rods pivotally attached at one end to the legs and provided with laterally bent ends to engage the slots, said rods being formed to yieldingly press toward the guide-ways, and heads on the laterally bent ends of said rods within the channels of the guide-ways.

3. In a folding table, the combination with a top and top frame, of legs pivotally attached to the frame, guide-ways secured to the frame, each formed of sheet metal bent into U-shape in cross-section to form a channel and provided with a longitudinal slot formed with a lateral notch extending inward in the lower side of the guide-way, brace rods pivotally attached at one end to the legs and provided at their opposite ends with laterally bent portions to engage the slots, and auxiliary strips secured within the channels opposite the notches and each having a slot extending inward from one end to receive the laterally bent portions of the rods and form bearings therefor when the rods are engaged with the notches.

4. In a folding table, the combination with a rectangular top and top-frame of legs pivotally attached to said top frame, guide-ways secured to the inner sides of the frame each formed of sheet metal bent to form a longitudinal channel and provided with a longitudinal slot and a notch extending laterally from one end of said slot, spring brace rods pivotally attached at one end to the legs and formed with laterally bent ends to project through the slots of the guide-ways, heads on the bent ends of said rods to travel in the channels of the guide-ways, auxiliary strips within the guide-ways opposite the notches and formed with slots extending inward from one end to receive the said ends of the brace rods and form bearings therefor when said rods are in engagement with said notches, and spring clips secured to the table top to receive and detachably hold the legs when folded.

In testimony whereof I affix my signature in presence of two witnesses.

ARTHUR E. HOWLETT.

Witnesses:
F. R. SWARTWOUT,
LEWIS E. FLANDERS.