Sept. 16, 1930. J. E. WOOD 1,775,663

TABLE

Filed May 10, 1929

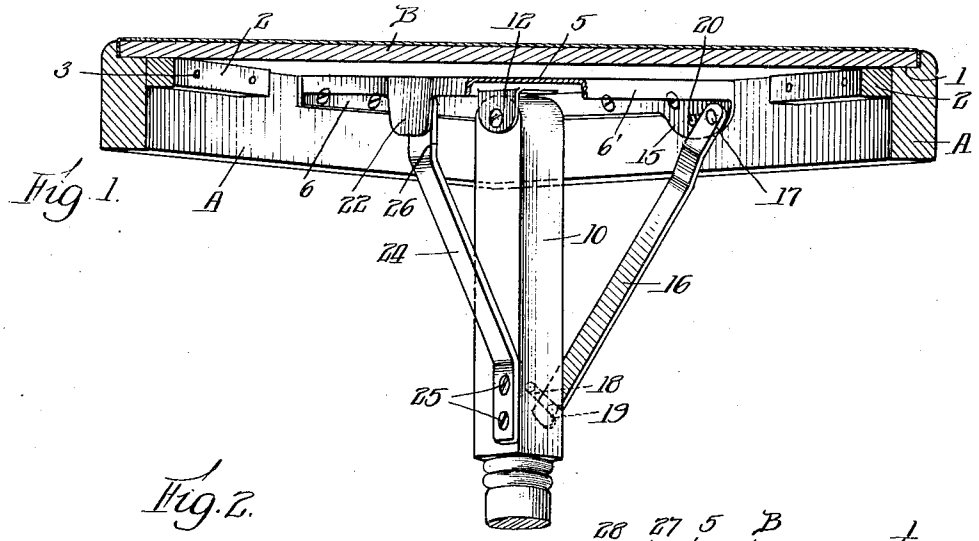


Fig. 1.

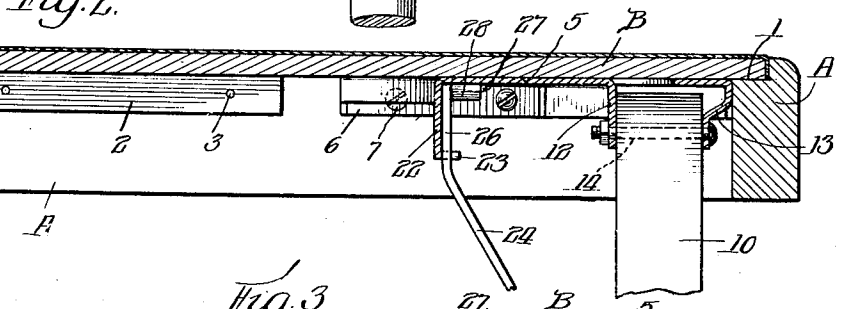


Fig. 2.

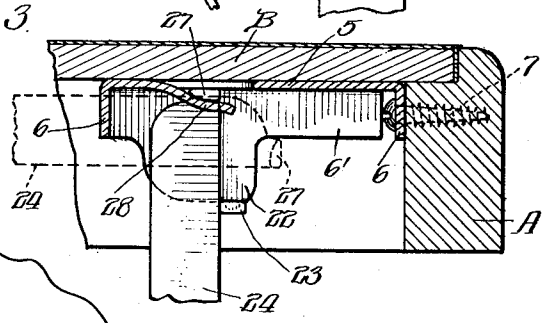


Fig. 3.



Fig. 4.

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# UNITED STATES PATENT OFFICE

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## TABLE

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My invention relates to improvements in tables and particularly to card tables having legs which fold within the confines of the top of the table.

The object of my invention is to provide a novel structure for supporting the folding legs entirely from the frame independently of the top board of the table.

Another object is to provide a folding leg structure having all of the parts mounted on a supporting member which can be fastened to the table frame as a unit.

A further object is to brace the legs in rigid and substantial relation to the table when in open position and to provide a novel means whereby the braces will automatically interlock with the supporting member as the legs are brought into open position and will automatically release and fold within the table frame as the legs are folded.

Other objects of my invention will appear hereinafter.

In the drawings—

Fig. 1 is a section of a corner portion of a card table showing in perspective the folding leg structure,

Fig. 2 is a sectional view on the line 2—2 of Fig. 4,

Fig. 3 is an enlarged detail section on the line 3—3 of Fig. 4, and

Fig. 4 is a bottom plan view of the corner portion of the frame and the folding leg structure, with the leg itself shown in section.

My invention is more especially adapted to card tables and therefore is illustrated in connection with a table of this type. The drawings show a portion of one corner of the table together with the folding leg associated with that corner, but is understood that the folding leg structures are duplicated at the other corners of the table. The table has a frame A and a top board B. The frame A is preferably made of wood strips disposed at right angles with relation to each other and joined together at their ends by mitering and gluing to form the corners of the frame. The upper edges of these frame strips have a continuous depressed shoulder 1 to receive the top board B which is fitted in the shoulder to finish off the edges. In addition to this the under surface of the top board has a plurality of small wooden cleats 2 preferably glued thereto and distributed around the frame. These cleats are fastened to the frame on the inside thereof by nails 3. One of these cleats 2′, Fig. 2, is positioned in each corner of the frame to prevent the corners of the top board from becoming displaced with respect to the frame.

In each corner within the frame I provide a leg supporting member 5 which is in the form of a flat plate substantially triangular in shape with two of its sides at right angles to each other and parallel to the adjacent frame member B. This supporting member may be inexpensively made as a metal stamping and its edges are turned at right angles to form flanges 6 and 6′ for strengthening the plate and making it more rigid against bending when subjected to the strain of the legs in open position. The supporting member is firmly secured in position in the corner of the frame by the screws 7 which extend through the flanges 6 and into the frame members B. The supporting member is preferably positioned in the frame with its top surface substantially in the plane of the shoulder 1 of the frame thus forming an under support for the corner portions of the top board although not fastened directly to the top board in any way. The supporting plate 5 has a rectangular cutout portion, Fig. 4, so as to fit around the corner cleat 2′, and the edges of this cutout portion are also turned to form flanges 6.

The legs 10 may be of any suitable size and material. Their upper portions are rectangular in the cross section. The upper ends are rounded off so that the pivots for the legs can be placed as close as possible to the supporting plate 5. Each leg is pivoted to swing to open or folded position in a plane substantially parallel to the corresponding side member of the frame. The supporting member 5 has an inside ear 12 struck up at right angles thereto and an outside ear 13 formed on the side flange 6 at the point opposite the lug 12. The ear 13 is offset from the flange, Figs. 2 and 4, as to space the leg inwardly a suitable distance from the inner side of the frame member B. The leg is positioned between

the ears 12 and 13 and a bolt 14 is passed through the ears and the leg to form a suitable pivot for the leg. The same flange 6 has another ear 15 formed thereon and spaced from the pivotal point of the leg.

A diagonal brace 16, formed preferably of strap metal, extends between this ear 15 and the leg. It is pivoted at 17 on the ear and has a sliding engagement with a U-shaped keeper or staple 18 on the leg permitting the leg to be swung to open or folded position. When the leg is folded within the frame, as shown in dotted lines in Fig. 4, the brace 16 also swings on its pivot and folds into the frame in the space between the leg and the frame member. The lower end of the brace has a notch 19 which, when the leg is swung to open position, engages one of the legs of the keeper and locks the leg in open position. In order to insure the engagement of the notch 19 with the keeper the ear 15 has a stud 20 positioned close to the pivotal point 17 of the brace. As the leg approaches open position this stud is engaged by the brace and applies sufficient pressure to the brace so that when the leg finally reaches its open position the end of the brace will be forced into engagement with the keeper, there being sufficient spring in the parts to cause the brace to snap into engagement with the keeper. Thus the brace 16, in the open position of the leg, rigidly holds the leg against movement in either direction transverse to its pivotal axis.

The supporting member 5 has a portion which lies substantially parallel with the frame and is positioned opposite the pivotal axis of the leg and at the point some distance inwardly from the pivot lug 12 of the leg. This parallel portion has an upstanding flat lug 22 on which is formed an inturned stop lug 23. The leg carries a diagonal brace 24 on the side thereof opposite the sliding brace 16 previously described. The lower end of the brace 24 is rigidly secured, Fig. 1, to the leg by means of the screws 25. The brace extends diagonally upward away from the leg and its free end portion 26 is bent to a vertical position so that it lies adjacent to the lug 22 of the supporting member. The free end of the upturned portion 26 of the brace is reduced in size, Figs. 2 and 3, and turned laterally parallel to the supporting member 5 to form an interlocking member 27. This interlocking member is offset to one side of the longitudinal center of the brace 24 and is adapted, as the leg and brace approach the open position, to be carried into engagement with a keeper lug 28, Fig. 3, which is struck up from the supporting plate 5. This keeper lug is spaced from the plate member 5 to provide room for the interlocking member 27 and it is inclined sufficiently so as to provide a wedging engagement for said member 27. The member 27 is long enough to straddle the opening in the plate member 5 formed by cutting the keeper lug from said plate member. Hence it will engage the plate member 5 and will not enter the opening.

It will be seen by reference more particularly to Fig. 3 that when the leg is in folded position the interlocking member 27 is out of engagement with the keeper lug, but when the leg is unfolded the interlocking member 27 will be carried by the movement of the brace into engagement with the keeper lug 28, this engagement being completed when the leg reaches its complete open position. The interlocking engagement of the members 27 and 28 coincides with the locking action of the brace 16 with the leg. The stop lug 23, Fig. 3, lies in the path of the free end of the brace 24 and is engaged by said brace just as the leg reaches its fully open position and serves to prevent the brace 24 from being sprung or accidentally moved out of interlocking engagement with the member 28. The brace member 24 does not operate as the brace until the leg is swung to its open position and the brace is interlocked with the plate member 5. In this position it does act as a brace to prevent movement of the leg in either direction parallel with the pivotal axis of the leg.

By reference to Fig. 4 it will be seen that the leg is positioned a sufficient distance inwardly from the frame member B to provide room for the lower end of the folded leg from the opposite corner so that the end of this leg reaches practically to the frame member and thus makes it possible to obtain the maximum length of leg within the frame.

While I have shown and described my invention in conjunction with folding card tables, it will be obvious that it may be embodied in other types of tables or other furniture, and I reserve the right to make all such changes as fairly fall within the scope and spirit of the invention.

I claim:

1. The combination of a table frame, a leg supporting member secured to said frame, a leg pivotally mounted on said supporting member to swing substantially parallel to the one side of said frame, means for holding the leg in open position, and a brace member secured to the leg and adapted to move into interlocking engagement with means on the supporting member when the leg is moved to open position.

2. The combination of a table frame, a leg supporting member secured to said frame, a leg pivotally mounted on said supporting member to swing substantially parallel to the one side of said frame, means for holding the leg in open position, a diagonal brace secured to the leg, and means on said supporting member moved into engagement with said diagonal brace when the leg is swung to open

position for interlocking the member and brace.

3. The combination of a table frame, a leg pivotally mounted on the frame to swing to open or folded position, a brace member fixedly carried by the leg, and means operable when the leg is swung into open position for locking the bracing member to the frame.

4. The combination of a table frame, a leg pivotally mounted on the frame to swing to open or folded position, a brace mounted on the leg and extending to a point inward of the pivot of the leg and inward from the side member of the frame, and means mounted on the frame at said inward point adapted to be engaged by the bracing member to be moved to interlock the bracing member and the frame when the leg is swung to open position.

5. The combination of a table frame having side members at right angles to form a corner, a plate member positioned in said corner and secured to said side frame members, a leg pivotally mounted on said plate member to swing parallel to one of said frame members, a diagonal brace connected to the leg and to said plate member for holding the leg in open position against movement in the direction of its pivotal movement, a second diagonal brace fastened at one end to the leg and having its free end extended to a point adjacent the plate member, and means on the free end of said brace adapted to engage the plate member when the leg is in open position only.

6. The combination of a table frame having side members at right angles to form a corner, a plate member positioned in said corner and secured to said side frame members, a leg pivotally mounted on said plate member to swing parallel to one of said frame members, a diagonal brace connected to the leg and to said plate member for holding the leg in open position against movement in the direction of its pivotal movement, a second diagonal brace fastened at one end to the leg and having its free end extended to a point adjacent the plate member, an interlocking member on the free end of said brace, and a keeper lug on said plate member adapted to be engaged by the interlocking member when the leg and second diagonal brace are swung to open position.

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