July 4, 1933. B. BOESWINKLE 1,916,823

FOLDING TABLE

Filed May 24, 1932

Fig. 1.

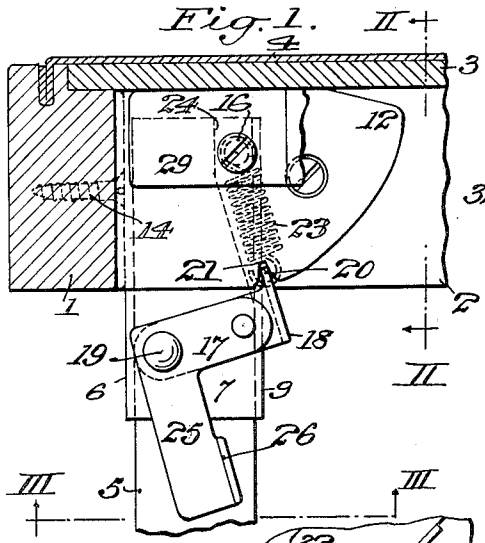


Fig. 2.

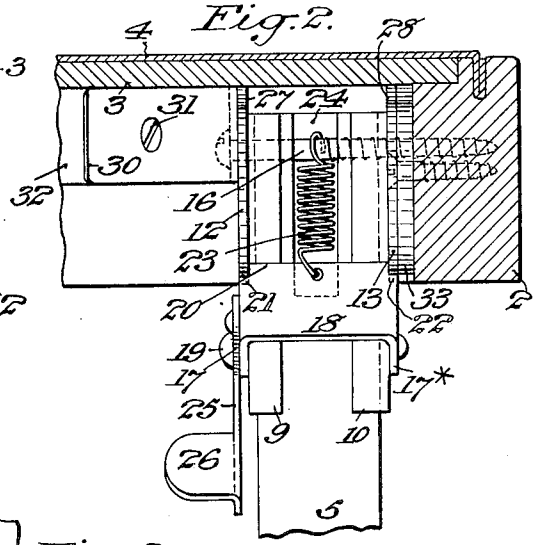


Fig. 3.

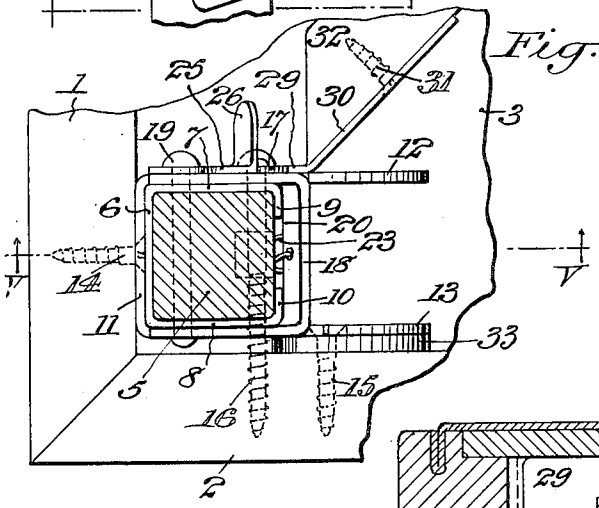


Fig. 4.

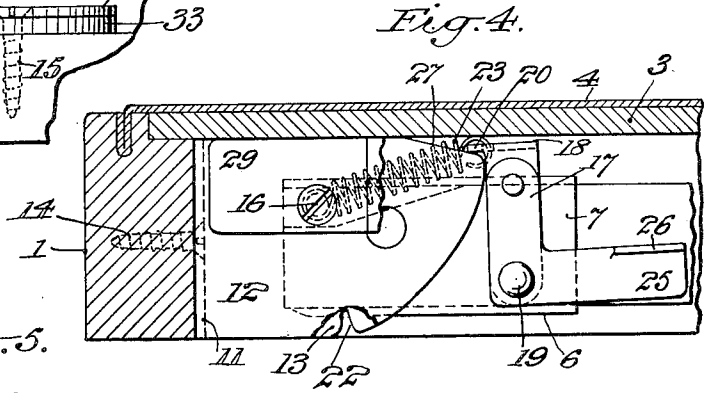
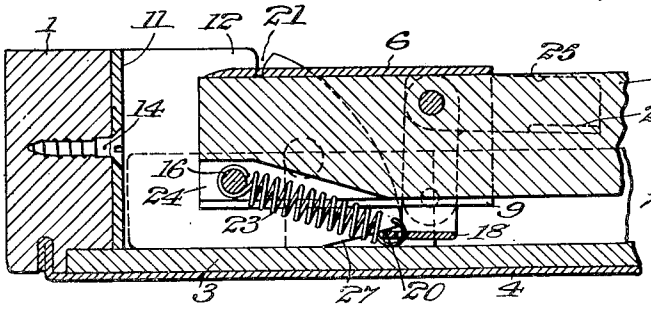


Fig. 5.



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UNITED STATES PATENT OFFICE

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FOLDING TABLE

Application filed May 24, 1932. Serial No. 613,197.

The object of this invention is to provide novel hinge structures for the folding legs of a table, each of said hinge structures including a manually releasable means for automatically locking the leg in its unfolded position and for yieldingly retaining the leg in its folded position against unintentional displacement.

My invention is more particularly directed to a hinge structure which comprises table top and folding leg hinge members of novel form, said members coacting to hold the leg very rigidly in its unfolded position without the use of the customary diagonal leg braces.

A practical embodiment of my invention is represented in the accompanying drawing in which:

Fig. 1 represents a detail vertical section at one corner of the table with the folding leg locked in its unfolded position;

Fig. 2 represents a detail section taken in the plane of the line II—II of Fig. 1, looking in the direction of the arrows;

Fig. 3 represents a detail section taken in the plane of the line III—III of Fig. 1, looking in the direction of the arrows;

Fig. 4 represents a detail section similar to Fig. 1 with the leg shown in its folded position; and

Fig. 5 represents a detail section taken in the plane of the line V—V of Fig. 3, looking in the direction of the arrows, the leg being shown in its folded position.

The two table top frame side rails herein illustrated are denoted by 1 and 2, the table top by 3 and the flexible table top cover by 4.

The folding leg and table top hinge members are constructed, arranged and coact as follows: The folding leg hinge member comprises a sheet metal socket rigidly embracing the inner end of the folding leg 5, which socket consists of a back 6, two parallel sides 7, 8 and two inwardly turned lips 9, 10.

The table top hinge member comprises a sheet metal plate, U-shaped in cross section, arranged to receive the folding leg hinge member, said plate consisting of a back 11 and two parallel sides 12, 13. This table top hinge member is secured rigidly in the corner formed by the side rails 1 and 2 of the table top frame, by screws 14 and 15 which pass through the back 11 and side 13 into their respective side rails 1 and 2.

A pivot screw 16 serves to hinge the folding leg to the table top, which screw passes through the leg 5, the sides 7, 8 of the leg hinge member and the sides 12, 13 of the table top hinge member, into the side rail 2.

Manually releasable means are shown for automatically locking the leg 5 in its unfolded position and for frictionally retaining the leg in its folded position against unintentional displacement, said means being constructed, arranged and operated as follows: A spring actuated swinging latch comprises two arms 17, 17* connected by a crossbar 18. This latch is pivoted on a rivet bolt 19 which passes through the leg 5 and the sides 7, 8 of the leg hinge section, said rivet bolt 19 also serving the function of rigidly securing the leg in its hinge member. A lip 20 projects from the crossbar 18, which lip is arranged in position to enter alined notches 21 and 22 in the sides 12 and 13 of the table top hinge member, to lock the leg rigidly in its unfolded position. A coil spring 23 yieldingly holds the lip 20 of the latch against the edges of the sides 12 and 13 of the table top hinge member, which spring is attached at one end to the crossbar 18 of the latch and at its other end to the pivot screw 16. The leg 5 has a longitudinally extended recess 24 at its inner end, arranged to receive the inner portion of the spring 23. The arm 17 of the latch may be provided with a suitable handle 25 having a laterally disposed finger piece 26 for the ready manipulation of the latch.

The sides 12 and 13 of the table top hinge member have convex edges which lead from the notches 21 and 22 to inwardly directed cam portions 27 and 28 adjacent the underside of the table top 3. These cam portions serve as inclined shoulders which allow the latch to swing inwardly into engagement therewith as the leg reaches its folded position and thereby causes the lip 20 of the latch to yieldingly retain the leg in its folded position against unintentional displace-

ment; requiring a considerable pull on the leg to swing it from its folded position.

To further stiffen the hinge structure and also the corner of the table top a bent sheet metal brace is provided, one portion 29 of which being secured along the outer face of the side 12 of the table top hinge member by the pivot screw 16 hereinbefore referred to, and the other portion 30 of which brace being secured by a screw 31 along one face of a diagonally disposed reinforcing strip 32 for the underside of the table top 3.

A spacing block 33 may be interposed between the side 13 of the table top hinge member and the table top side rail 2, which spacing block is preferably shaped to conform to the contour of the said side 13.

From the above description it will be seen that a hinge structure is provided which will hold the leg rigidly against both lateral and longitudinal displacement; the locking of the leg hinge member to the table top hinge member upon opposite sides of the leg, by the coaction of the alined notches 21, 22 in the table top hinge member with the latch, serving to prevent any displacement of the leg in the plane of its swinging movement and the supporting of the outer side 12 of the table top hinge member by the brace 29, 30 serving to prevent any lateral displacement of the leg in an inward direction.

It will furthermore be seen that the spring for the latch member is well housed, thus presenting a very neat appearance to the hinge structure whether the leg is folded or unfolded.

It is evident that various changes may be resorted to in the construction, form and arrangement of the several parts without departing from the spirit and scope of my invention, and hence I do not intend to be limited to the particular embodiment herein shown and described, but

What I claim is:

A hinge structure for folding table legs comprising a table top hinge member U-shaped in cross section, a leg hinge member embracing the leg and inserted between the sides of the table top hinge member, a pivot screw passing through the leg and the sides of said table top and leg hinge members into the table top frame side rail, and a spring actuated swinging latch carried by the leg hinge member, the sides of the table top hinge member having alined notches for receiving the latch to lock the leg in its unfolded position and alined shoulders for engaging the latch to yieldingly retain the leg in its folded position.

In testimony, that I claim the foregoing as my invention, I have signed my name this 16th day of May 1932.

BERNARD BOESWINKLE.