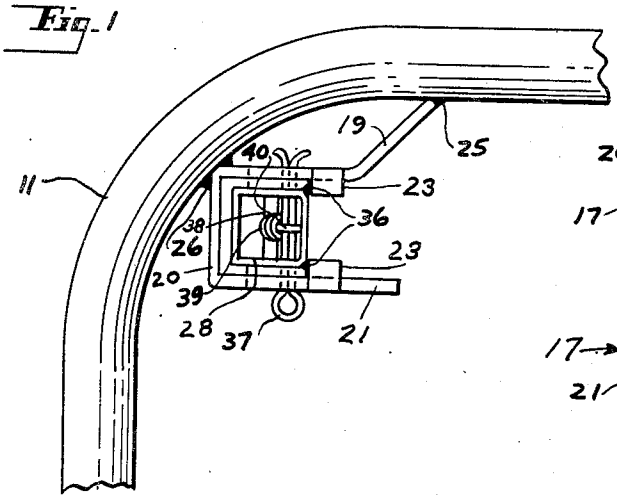
May 10, 1955 J. B. ADLER 2,708,146

TABLE LEG MOUNTING BRACKET AND LATCH STRUCTURE THEREFOR

Filed Jan. 26, 1954

Fig. 1



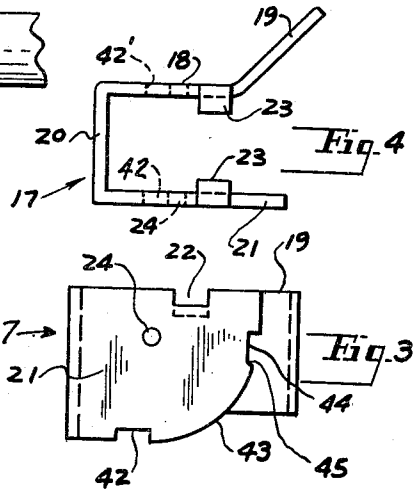


Fig. 4

Fig. 3

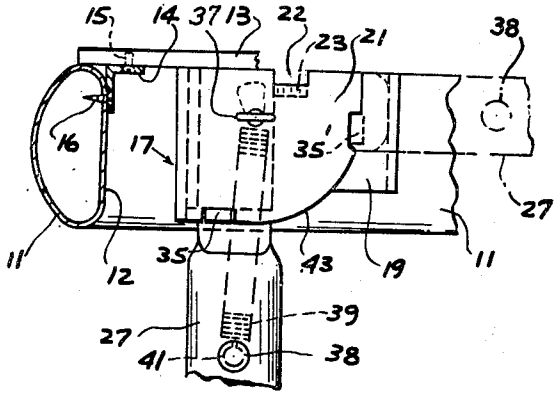


Fig. 2

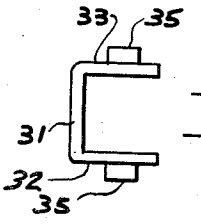


Fig. 6

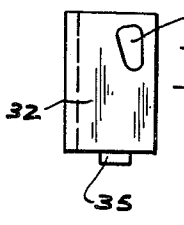


Fig. 5

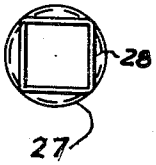


Fig. 8

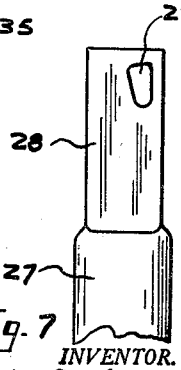


Fig. 7

INVENTOR.
JOHN B. ADLER.

BY

Robert A. Sloman
ATTORNEY.

United States Patent Office

2,708,146

Patented May 10, 1955

2,708,146

TABLE LEG MOUNTING BRACKET AND LATCH STRUCTURE THEREFOR

John B. Adler, Grosse Ile, Mich., assignor to Shwayder Brothers, Inc., Denver, Colo., a corporation of Colorado

Application January 26, 1954, Serial No. 406,280

1 Claim. (Cl. 311—99)

This invention relates to card tables, and more particularly to an automatic folding leg locking device therefor.

It is the object of the present invention to provide a lug type leg locking device for the folding legs of a table, wherein the upper end of the leg is secured within a corner bracket together with resilient means interconnecting said bracket and the leg.

It is the further object of the present invention to provide an automatic leg locking device, whereby the leg may be disengaged from its locked upright position and may be manually rotated into the plane of the table frame and locked against accidental release.

These and other objects will be seen from the following specification and claim, in conjunction with the appended drawings, in which:

Fig. 1 is a fragmentary plan view of a portion of the tubular frame of a card table, to which the present leg locking device is applied.

Fig. 2 is a fragmentary front elevational view thereof, with the frame shown in section and with a portion of the table top fragmentarily shown, said view in dotted lines indicating the collapsed position of the table leg.

Fig. 3 is a side elevational view of the corner angle or mounting bracket forming a part of the present leg locking device.

Fig. 4 is a plan view thereof.

Fig. 5 is a side elevational view of the lug bracket secured to the table leg by which the same is joined to the leg locking device.

Fig. 6 is a plan view thereof.

Fig. 7 is a fragmentary side elevational view of the upper portion of the table leg; and

Fig. 8 is a plan view thereof.

It will be understood that the above drawing illustrates merely a preferred embodiment of the invention, and that other embodiments are contemplated within the scope of the claim hereafter set forth.

Referring to the drawing, the present automatic lug type leg locking device for a card table is positioned within each of the interior corners of the tubular table frame **11**, which is of general rectangular shape and which has an interior upright wall **12**. Upon said frame is mounted a substantially rectangular table top fragmentarily indicated at **13** and which has depending from its undersurface adjacent its peripheral edge a series of angle members **14** secured thereto by the rivets **15** and with the depending portions of said angle members bearing against the wall **12** of said frame as shown in Fig. 2, and secured thereto by a series of screws **16**, which extend through transverse apertures in the angle members and through corresponding apertures in wall **12**, whereby the table top **13** is snugly supported and retained upon the hollow rectangular frame **11**.

Arranged in upright position within each of the interior corners of frame **11** are corner angle brackets **17**, each of which includes an upright base plate **20** and a pair of upright laterally extending spaced arms **18** and **21**.

Arm **18** has an angular extension **19**, which bears against the interior of frame **11** and is supportably secured thereto as by the weld **25**.

Base plate **20** is additionally in engagement with the interior of frame **11**, and immovably secured thereto as by the weld **26**; and in this manner each of the corner angle brackets are rigidly positioned within the respective frame corners to provide the pivotal mounting and locking device for each of the table legs **27**, in the manner hereafter described.

Upon opposite sides of arms **18** and **21**, there are arranged a pair of opposed inwardly directed horizontal lugs **23**, which are turned downwardly from portions of said arms, defining the slots **22**. Each of the arms is transversely apertured as at **24** for cooperatively receiving the pin **37**, upon which the leg is loosely mounted and pivoted, as hereafter set forth.

The tubular leg **27** terminates at its upper end in the tubular extension **28**, which is square in cross-section and which has in its opposite side walls the transverse downwardly tapered slots **29**, which loosely and cooperatively receive pivot pin **37**.

An upright U-shaped lug bracket **31** with laterally directed parallel spaced sides **32—33** and with downwardly tapered slots **34** formed in said side walls, is positioned around the upper end **28** of leg **27**, and immovably secured thereto as by the welds **36**, Fig. 1. So arranged, the slots **34** of lug bracket **31**, are in alignment with leg slots **29** and are adapted to loosely receive pivot pin **37**, as shown in Figs. 1 and 2.

At the lower ends of the side arms **32** and **33**, are a pair of outwardly directed horizontally disposed lugs **35** adapted for cooperative nesting and positioning within the transverse slots **42** and **42'** respectively, formed in the undersurfaces of angle bracket arms **21** and **18**, for maintaining leg **27** when open rigidly in an upright position and at right angles to the plane of frame **11**.

Transverse pin **38** extends through an upper portion of leg **27** and is suitably secured thereto as by riveting or otherwise. Coiled spring **39** is loosely positioned within the upper portion of leg **27** and leg element **28** and its upper end extends around and is secured to pivot pin **37** as at point **40**, Fig. 1, whereas the lower end of said spring is secured in tension as at **41** to the said transverse pin **38**. Spring **39** thus in cooperation with pins **37** and **38**, resiliently maintains leg **27** in upright position within angle bracket **17**, as shown in the drawing.

It will be noted furthermore that lug bracket **31** is snugly yet movably positioned within bracket **17** with the respective upright portions thereof cooperatively engaging the interior surface portions of plate **20** and arms **18** and **21**, which form a part thereof. This cooperation of the lug bracket with said angle bracket **17** effectively maintains the leg **27** in its upright position, so that it does not wobble, but on the other hand is substantially rigid, as it should be. Also upper portions of the plates **32** and **33** of lug bracket **31** cooperatively engage lugs **23** effectively maintaining said lug bracket snugly against interior surface portions of angle bracket **17**.

Arm **21** has a curved edge **43**, portions of which are equi-distant from pin **37**, and over which one of the lugs **35** is adapted to ride as the leg is manually pivoted about pin **37** from the upright position of Fig. 2, into its dotted line position, within the plane of the frame **11**.

In order to release the lugs **35** from the slots **42** and **42'**, the leg **27** is manually moved downwardly slightly in a direction at right angles to the plane of the table frame, and against the action of spring **39**, whereby said lugs are disengaged from slots **42**, permitting rotation of leg **27**, spring **39** maintaining lug **35** against curved surface **43** as said leg is rotated.

Before rotation however, this downward disengage

ment of lugs 35, also disengages lug bracket 31 from the angle bracket lugs 23, whereby the leg is now free to rotate. In addition to the lugs 23, the slots 42 and 43', in retaining lugs 35, effectively secure the leg in an upright open position.

Curved edge 43 terminates in the transverse upright slot 44 formed in arm 21, which slot lies in a plane at right angles to a plane passing through arm slots 42 and 42'.

As the leg rotates 90 degrees, one of the lugs 35 retainingly nests within arm slot 44 for maintaining the leg in a collapsed position within the table frame. One end of slot 44 has a tapered portion 45 which merges with the upper end of curved arm portion 43 and upon a downward thrust exerted upon the leg there is a camming relationship established between lug 35 and said inclined surface 45, in order to disengage said lug from slot 44, and to thereby permit rotary downward movement of the leg and bracket 31 about pin 37 with said lug riding upon curved surface 43.

As the two lugs 35 reach the slots 42 and 42', they will snap into position therein, in view of the action of the spring 39, which is under tension at all times. At the same time the leg and lug bracket 31 move upwardly sufficiently so as to be retainingly engaged at their upper ends by the angle bracket lugs 23, thus locking the legs in upright open position for use.

35' designated in Fig. 2, indicates the dotted line located positioning of lug 35 within slot 44, corresponding to the dotted line positioning of leg 27 when said leg is pivoted into the plane of frame 11.

Having described my invention, reference should now be had to the claim which follows for determining the scope thereof.

I claim:

A leg locking device for a card table having a frame comprising an upright U-shaped corner angle bracket secured to said frame at each of its interior corners, each bracket having an upright base plate and a pair of upright laterally extending spaced arms, with opposed apertures therethrough, a tubular leg with its upper end retainingly nested within said bracket, a transversely arranged pin extending through said apertures and loosely through said leg, a coiled spring loosely disposed within

said leg with its upper end secured to said pin and with its lower end secured in tension to said leg, said leg having opposed upright downwardly converging slots cooperatively receiving said pin, said leg being manually movable downwardly of said frame relatively to said pin against the tension of said spring, an upright U-shaped lug bracket with laterally directed spaced sides secured around the sides of said leg at its upper end, cooperatively engaging said base plate and arms, said sides having opposed apertures corresponding to and aligned with said leg apertures loosely receiving said pin, inwardly directed horizontally disposed lugs extending from upper portions of said arms spaced from said base plate, the upper end of said lug bracket being retainingly positioned between said base plate and lugs, said arms having undercut slots in their lower edges spaced outwardly of said base plate, lugs projecting outwardly from said lug bracket retainingly nested within said latter slots, said lug bracket upon downward movement of said leg with respect to said angle bracket being disengageable from said arm lugs, said bracket lugs being disengageable from said arm slots, whereby said leg may be pivoted about said pin into the plane of said frame, one of said slotted arms having a curved portion with parts thereof equi-distant from said pin, said curved portion terminating in a transverse slot lying in a plane at right angles to said first arm slots, one of said bracket lugs being adapted to ride over said curved portion and retainingly nest within said transverse slot, one wall of said latter transverse slot being tapered towards said curved arm portion for camming engagement with one of said bracket lugs to facilitate downward pivotal opening movement of said leg.

References Cited in the file of this patent

UNITED STATES PATENTS

1,809,564	O'Connor et al.	June 9, 1931
1,820,592	Bauer	Aug. 25, 1931
1,855,857	Harman	Apr. 26, 1932
1,876,010	Kusterle	Sept. 6, 1932
1,910,974	Vance	May 23, 1933
1,938,507	Wilson	Dec. 5, 1933
2,003,835	Mitchell	June 4, 1935
2,487,401	Turner	Nov. 8, 1949