

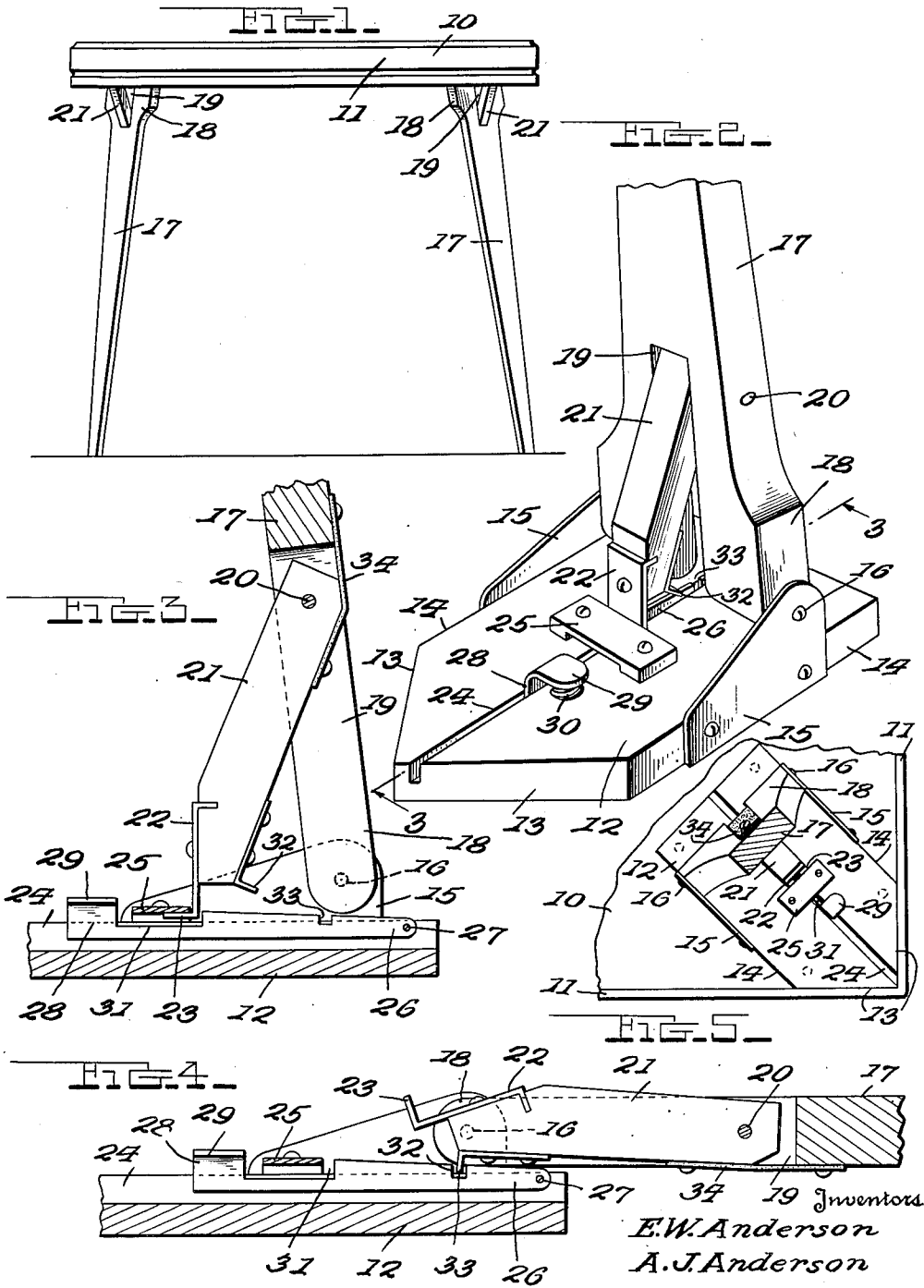
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LOCKING BRACE FOR FOLDING LEGS OF TABLES

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334

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LOCKING BRACE FOR FOLDING LEGS OF TABLES

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1

This invention relates to tables having legs foldable under the table for convenience in storage, and has special reference to a locking brace for such legs whereby the legs are firmly braced when the table is set up for use and the brace securely locked in position.

One important object of this invention is to provide a novel construction for hinging folding legs to tables wherein the legs will, when folded, extend diagonally inward from the corners of the table top.

A further important object of the invention is to provide a novel bracing construction at the hinged ends of the legs of such tables whereby the legs, when the table is set up, will incline outwardly from the hinge, the legs having a swinging movement of more than 90° from the positions they assume when folded.

Another object of the invention is to provide a novel arrangement for releasably holding the leg brace in both the erected and folded positions of the legs.

A still further object of the invention is to provide a novel hinge and brace construction for the legs of a table having folding legs whereby this hinge and brace strongly support the leg against folding and lateral swinging movements.

With the above and other objects in view, as will be presently set forth, the invention consists in general of certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawings and particularly claimed.

In the accompanying drawings, like characters of reference indicate like parts in the several views, and

Figure 1 is a side elevation of a table having folding legs hinged and braced in accordance with this invention;

Figure 2 is an inverted perspective view of the hinge and brace arrangement of one of the table legs;

Figure 3 is a section on the line 3—3 of Figure 2 and showing a leg in set-up or erected position;

Figure 4 is a similar section but showing the arrangement of the parts with the leg in folded or knockdown position; and

Figure 5 is a fragmentary bottom plan view of one corner of the table with the leg shown in section.

In the invention as here disclosed, there is illustrated a table having a square top 10 with a skirt 11 depending therearound, and references

2

to the positions of parts vertically are to be understood as applying to the set-up position of the table.

Fitted in each corner of the skirt is a base block 12 which bears against the under side of the table top and is there securely held as by screws, gluing or other suitable means. This block has end edges 13 arranged at right angles to each other to provide a close fit in the corner. The side edges 14 of the block 12 are parallel and a bearing plate 15 is secured to each side edge, these plates 15 being provided with aligned openings for the reception of screws 16.

Each of the legs 17 is provided with a laterally widened head 18 to fit between the plates 15, the screws 16 engaging in the sides of the head 18 to provide pivots for the leg journaled in the plates 15. The head 18 has a slot 19 formed centrally between the pivoted sides and this slot extends into the upper main portion of the leg 17. A pivot pin 20 extends across the slot 19 and has its ends engaging in the leg 17 at the sides of the slot. A latch arm 21 has one end pivoted on the pin 20 and its free end may swing between the position shown in Figure 3 and that shown in Figure 4. The free end of the arm 21 is bevelled on one side and on this bevelled face is fixed an extension arm 22 having a finger 23 at its free end, this finger projecting away from the pivotal axis of the leg.

The block 12 has a groove 24 extending from end to end along the under side thereof. Spanning the groove 24 is a keeper 25 fixed to the under side of the block and having its central portion spaced from the block so that the finger 23 may engage thereunder as in Figures 2 and 3. In order to provide means for preventing accidental disengagement of the finger from the keeper, a latch lever 26 is positioned in the slot 24 and is pivoted at 27 to the block 12 at the end of the latter remote from the corner of the apron 11. The lever 26 extends beneath the keeper 25 and is provided at its free end with a downwardly extending terminal portion 28 having a presser head 29 extending laterally beneath the under surface of the block. Between the block 12 and the presser head 29 is located a coiled compression spring 30, as shown in Figure 2, which urges the free end of the lever 26 downwardly to engage the keeper 25. In the lower edge of that portion of the lever which passes over the keeper there is provided an elongated notch 31. The end of this notch nearer the pivot 27 engages behind the member 22 upon the finger being engaged by the keeper

3

and thus holds the brace from accidental disengagement.

On the side of the arm 21 opposite the member 22 there is fixed a latching finger 32 positioned to engage in a notch 33 when the leg is closed under the table top as shown in Figure 4. This arrangement retains the legs in folded position until released by pressing on the presser head 29. In order to ensure folding movement of the arm 21 into the slot 19 there is provided a strap 34 preferably of strongly elastic rubber. One end of this strap is fixed to the leg 17 adjacent the end of the slot 19 and the other end of the strap is fastened to the arm 21. As shown in Figure 3, the arm, when biased to effect bracing, causes extension of the strap 34. When the arm 21 is released by pressing on the member 29, the strap contracts and causes the arm to move into and be held in the position shown in Figure 4.

While there is herein shown and described the preferred embodiment of the invention, it is nevertheless to be understood that minor changes may be made therein such as will fall within the scope of the invention as claimed.

What is claimed is:

1. In a table having a top and legs hingedly connected thereto for folding inwardly against said top, locking brace means for each of said legs including a brace member pivotally attached to said leg below the leg hinge, said brace member extending in the direction of said leg hinge and adapted when retracted to lie entirely within the plane of said leg, means for normally and resiliently biasing said brace member into such retracted planar alignment, and releasable locking means on said top adjacent said leg hinge engageable with the outer free end of said brace member whereby said leg may be locked in extended position against the pull of said resilient biasing means but when said locking means is released said brace member will retract into the plane of said leg.

2. A structure as set forth in claim 1 further including means cooperable with the free end of said brace member and said resilient biasing means to releasably lock said leg in closed position against the table top when the table is folded.

3. A structure as set forth in claim 1 wherein said brace member biasing means comprises a relatively thin elastic strip, one end of said strip being attached to the face of said leg opposite the direction of pivotal movement of said brace member and at a point outwardly of the pivotal connection of said brace member to the leg and the opposite end of said strip being attached to the face of said brace member inwardly of said pivotal connection.

4. In a table having a top and legs hingedly connected thereto for folding inwardly against said top, locking brace means for each of said legs including a brace member pivotally attached to said leg below the leg hinge, said brace member extending in the direction of said leg hinge and adapted when retracted to lie entirely within the plane of said leg, means for normally and resiliently biasing said brace member into such retracted planar alignment, a keeper on the under face of said top adjacent said leg hinge and engageable when the table is open with a foot on the outer free end of said brace member to hold said leg in extended position, and a spring biased latch pivotally attached to said top and having a shoulder engageable with said foot when

4

said latch is in biased position to hold said foot under said keeper against the pull of the brace member resilient biasing means.

5. A structure as set forth in claim 4, further including a second foot on the outer free end of said brace member and a second shoulder on said latch engageable with said second foot when said leg is pivoted to closed position and thereby hold said leg in closed position, said foot being held in engagement with said shoulder by the brace member resilient biasing means.

6. In a table having a top and legs hingedly connected thereto for folding inwardly against said top, locking brace means for each of said legs including a base block fixed to the under side of the top, said leg having a slot disposed between the leg sides and extending downwardly from its top, a pair of bearing members carried by opposite sides of said block and having the bifurcations of said leg pivotally attached thereto, a bracing member positioned within said slot and having its lower end pivotally attached to said leg, means for normally and resiliently biasing said brace member into retracted planar alignment with said leg, said base block having a groove formed longitudinally thereof in its lower face, the axis of said groove intersecting the longitudinal axis of the slot formed in said leg, a pivoted latch positioned within said groove having spring means biasing it outwardly of the groove, a keeper bridging said groove and overlying said latch member, a first shoulder on said latch engageable with a foot on the outer free end of said brace member to hold said foot under said keeper against the pull of said brace member biasing means when said leg is in extended position, and a second shoulder on said latch engageable when said leg is pivoted to closed position with a second foot on the free end of said brace member, said foot being held in engagement with said latch shoulder by the brace member resilient biasing means.

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