May 10, 1938. G. BUECHLER 2,117,239

FOLDING TABLE LEG

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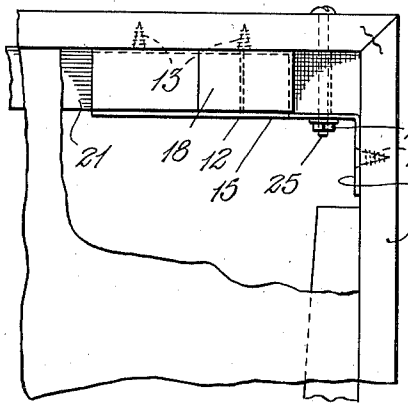



Fig. 1.

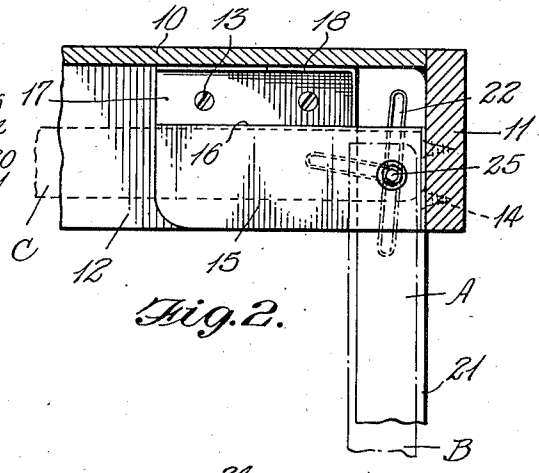



Fig. 2.

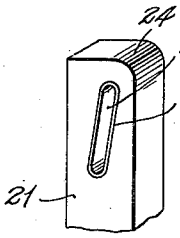



Fig. 4.




Fig. 3.

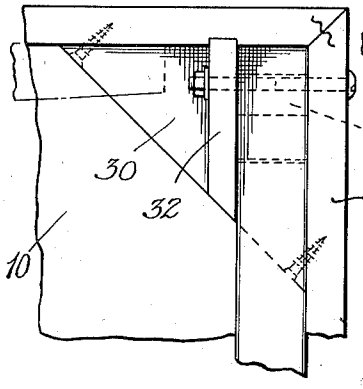



Fig. 5.

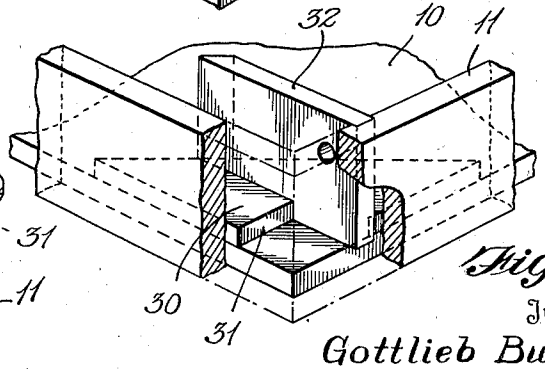



Fig. 6.

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# UNITED STATES PATENT OFFICE

2,117,239

## FOLDING TABLE LEG

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Application August 20, 1936, Serial No. 97,073

2 Claims. (Cl. 311—99)

This invention relates to new and useful improvements in folding table legs.

One object of the invention is to provide an improved mounting for folding table legs making for simplicity, stability, durability and safety.

An important object of the invention is to provide a table leg mounting wherein the usual hinged or sliding braces are entirely eliminated, thus doing away with the unsightliness as well as the finger-pinching proclivities of such braces; and at the same time affording a concealed mounting, simple of operation and sturdy when in use.

Another object of the invention is to provide a table leg mounting requiring only a single pivot for the leg and arranged to undergo a longitudinal movement, relatively of said pivot, so that by means of co-acting abutments, it is only necessary to move the leg a short distance, to firmly fasten it in upright position.

A construction designed to carry out the invention will be hereinafter described, together with other features of the invention.

The invention will be more readily understood from a reading of the following specification and by reference to the accompanying drawing, in which an example of the invention is shown, and wherein:

Fig. 1 is a partial plan view of one corner of a table equipped with a leg mounting constructed in accordance with the invention, a portion of the top being omitted to show underlying structures,

Fig. 2 is a vertical section of the same, the leg being shown in its extended supporting position in full lines and in its intermediate and folded positions in dotted lines.

Fig. 3 is an enlarged isometrical view of the leg mounting with the leg in full lines in supported position and in dotted lines in folded position, the top panel being omitted.

Fig. 4 is a detail of the upper end of the leg.

Fig. 5 is an underside view of a modified form of leg mounting, and

Fig. 6 is an isometrical view of the same partly in elevation and partly in section.

In the drawing, the numeral 10 designates the top panel of a folding table which is set flush with a marginal frame 11, forming the apron of the table. This illustration is used by way of explanation of the invention and is, of course, subject to variation. In carrying out the invention a leg is mounted in each corner of the frame and therefore an explanation of one leg mounting will enable one skilled in the art to practice the invention.

A metallic bracket 12 is mounted in the corner of the frame and fastened to the inner faces of the frame or apron by means of screws 13 and 14. The bracket includes a skirt 15 depending and bent down from the outer edge of a shoulder 16, from the inner edge of which, a shank 17 extends upwardly. The shank lies flat against the side face of the apron 11 and the screws 13 pass therethrough. A shelf or panel support 18 is extended outwardly from the top edge of the shank and is positioned to support the top panel.

The bracket is cut back and a portion bent upwardly from the corner end of the shoulder 16 to form an upright abutment 19. This strip of metal is again bent horizontally to form part of the shelf 18. The free end of the skirt 15 is bent at right angles to provide an ear 20 lying against the end face of the apron and through which the screws 14 are passed. The inner corner or end and side faces of the apron 11, the contiguous portion of the skirt 15 and the abutment 19 constitute a socket for the reception of the upper end of a table leg 21. The elements contacting the upper end of the leg also constitute abutments.

The leg is preferably made square or rectangular in cross section and is provided with an inclined slot 22 in its upper end. This slot may be provided with a conformed thin metal liner 23. One upper edge of the leg contiguous to the end face of the apron is rounded at 24. The slot 22 is inclined toward this rounded edge and receives a hinge pin, which may take the form of a bolt 25 mounted in the side member of the apron and extending through the slot and skirt 15. The bolt may be fastened by nut 26 and washer 27. Any hinge pin suitable for the purpose may be used.

The bolt 25 is so positioned and the slot 22 is of such length that when the leg is pulled down, to the intermediate position B, shown in dot-and-dash lines in Fig. 2, said leg may then be swung to its horizontal or folded position C, shown in dotted lines in said Fig. 2. The rounded edge 24 permits the swinging or folding of the leg. When folded the leg underlies the shoulder 16 and frictionally engages the side face of the frame and the inner face of the skirt 15. By making the bracket 12 of sheet steel or other resilient metal and bending the free end of the skirt inwardly, a friction grip for the folded leg is provided. The lower free corner of the skirt may be rounded to prevent scoring the leg.

To extend the leg 21 and move it to its supporting position, said leg is first swung down from its folded position C (Fig. 2) to its intermediate position B (Fig. 2). Then to insert the

leg in its socket it is merely necessary to push it longitudinally into the same, which brings it to its supporting position A. When the leg is pushed into its socket the co-action between the bolt 25 and the slot 22, causes the upper end of the leg to displace toward the inner end face of the apron. However, the fit of the leg in the socket is sufficiently close, to cause it to also lie in intimate contact with the abutment 19 which is ample to adequately brace the leg.

In the supporting position A (Fig. 2) the extreme upper end of the leg will be firmly held between the abutment 19 and the end face of the apron 11, as well as between the side face of the apron and the skirt 15. The bolt 25 will be at the lower end of the slot and below the abutment, whereby it resists any tendency of the leg to swing or wobble. The movement of the leg 21 into the socket is preferably limited by the engagement of its top with the underside of the top panel 10, but it could be limited by the engagement of the lower end of the slot 22 with the bolt 25.

It would be possible to make the mounting socket entirely of wood as shown in Figs. 5 and 6. Here a triangular block 30 is fastened to the under side of the top panel 10 and against the inner end and side faces of the apron 11. At the corner the block is cut out to form an abutment 31 and receive a notched skirt 32. The leg 21, slot 22 and bolt 25 may be the same. As both the abutments 19 and 31 act as guides and stops, such abutment may be short like 31; the primary fastening being provided by the co-action of the apron, the slot and the bolt. The leg 21 in Figs. 5 and 6 is hinged between the skirt 32 and the side apron and by tightening the nut 26, sufficient friction may be had to hold the leg in its folded position.

It is obvious that the leg, in either form, may be quickly swung to its lowered position and easily pushed into its socket with little effort. This may be accomplished with a continuous movement of the leg. In folding the leg it is simply necessary to pull it out of its socket and swing it to its folded position. The operator grasps the apron in one hand and the lower end of the leg in the other hand, which not only provides for easy operation but keeps the hands away from the hinge joint and saves them from injury.

There are no moving parts other than the leg, and the mounting is most substantial and durable, as well as simple and free from swinging and sliding braces. By reason of the tight fit caused by the inclined slot 22, the leg is much more firmly held and therefore will not wobble like the ordinary table leg of this type of table. The table will be more steady and less likely to get out of order.

What I claim as new and desire to secure by Letters Patent is:

1. A foldable table leg mounting including, in combination, a table top provided with a socket on its under side, said socket having opposed outer and inner vertical abutments, the outer abutment being of substantial length and the inner abutment relatively short, a horizontal leg-supporting hinge pin extending crosswise of said socket, below the relatively short inner abutment thereof and in opposed parallel spaced relation in front of the lower portion of the longer outer abutment, and a table leg having its upper end portion correspondingly formed to enter said socket and having opposite longitudinal sides to respectively engage said outer and inner abutments of the socket, said leg having a longitudinal slot in its upper end portion through which said hinge pin extends with a sliding fit, said slot inclining upwardly and outwardly from its lower end located near the longitudinal middle of the leg to its upper end located near the outer end corner of the leg, whereby the leg in opened position is movable endwise inwardly and outwardly in said socket and by its inward movement is wedged with its contiguous outer longitudinal side in engagement with the outer abutment of the socket and the contiguous end portion of its inner longitudinal side is in abutting relation to the inner abutment of the socket, said leg upon movement outwardly from the socket being rotatable on the hinge pin and movable under the inner abutment of the socket to and from its closed position.

2. A foldable table leg mounting including, in combination, a table top having depending marginal aprons meeting at a right angle at the corners of the table, bracket elements secured to the aprons in bracing relation thereto and supporting the table top, and legs foldably supported by said bracket elements and the adjacent apron portions at each corner of the table, each bracket element having a vertical abutment in opposed spaced relation to one of the aprons and a lateral skirt depending vertically from the bracket element and extending below said abutment and in opposed spaced relation to the other apron, a horizontal leg-supporting hinge pin supported at its ends on the skirt portion of the bracket element and the opposed apron in a plane below the abutment of the bracket element and in parallel opposed spaced relation to the lower portion of the apron opposed to said abutment, and the correlated leg having its upper end portion formed to enter cooperatively between said apron corner portions and the abutment and skirt portion of the bracket element and having a longitudinal slot extending at an incline from its lower end located near the longitudinal middle of the leg to its upper end located near the outer end corner of the leg and said leg corner portion being made blunt to reduce the distance between the end of the slot to permit swing of the leg, said slot having the hinge pin extended therethrough with sliding fit, whereby the leg in opened position is slidable endwise upwardly on the pin with the upper end portion of the leg located between the abutment of the bracket element and the opposed apron and the contiguous longitudinal side of the leg being wedged in contact with the apron, and upon withdrawal of the leg downwardly it is swingable on the hinge pin under the abutment of the bracket element into closed position.

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