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COLLAPSIBLE TABLE LEG AND MOUNTING THEREFOR

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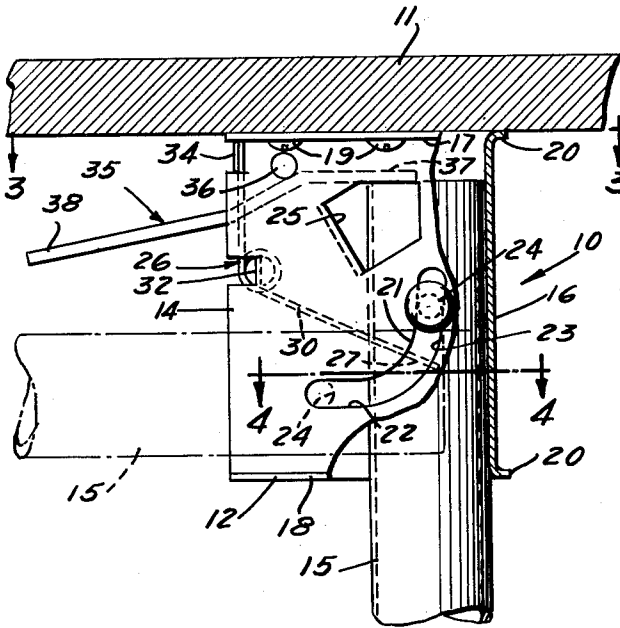


Fig. 1.

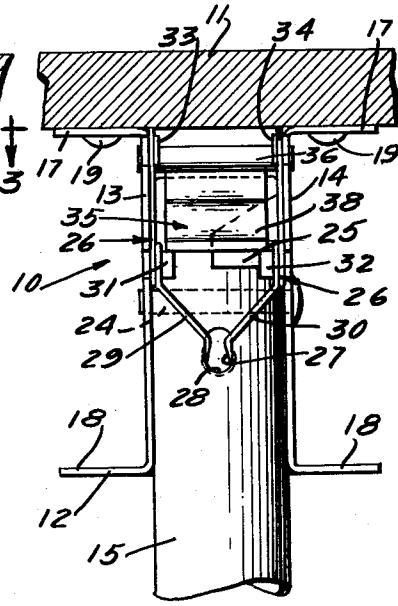


Fig. 2.

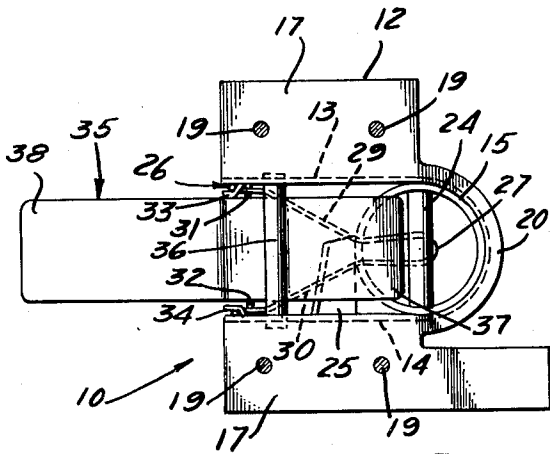


Fig. 3.

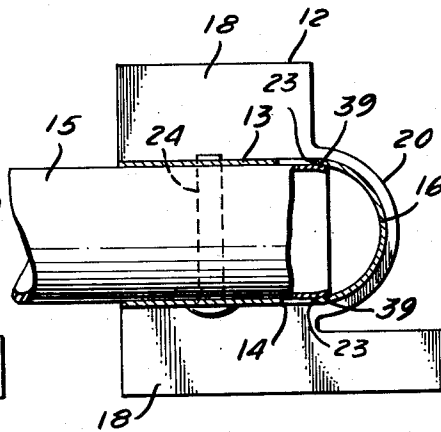


Fig. 4.

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COLLAPSIBLE TABLE LEG AND MOUNTING THEREFOR

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The present invention relates generally to a collapsible table leg and mounting for use in collapsible folding tables, benches, and the like.

One object of the herein disclosed invention is to provide a new and improved simplified pivotal mounting for the folding leg of a collapsible or folding table in which the leg may be easily moved to folded and extended positions, and wherein novel means are provided for releasably holding the leg in folded position, while in the extended position the leg will be rigidly wedged against movement.

A further object is to provide a unique bracket for mounting a folding table leg, in which the leg in its extended position is wedged in the bracket, such wedging action being increased as greater weight must be supported by the leg.

Still another object is to provide a more sturdy and compact mounting bracket for a folding table leg, which may be readily secured in a corner of the table top in a depending position, and is so constructed as to provide a rigid sturdy support without the necessity of providing additional bracing at the corners.

Further objects of the invention will be brought out in the following part of the specification, wherein detailed description is for the purpose of fully disclosing the invention without placing limitations thereon.

Referring to the accompanying drawings, which are for illustrative purposes only:

FIG. 1 is a fragmentary elevational view of a collapsible table leg and mounting embodying the features of the present invention, portions being cut away to disclose the cooperative relationship of certain parts thereof;

FIG. 2 is a front elevational view of the same;

FIG. 3 is a transverse sectional view, taken substantially on line 3-3 of FIG. 1; and

FIG. 4 is a transverse sectional view taken substantially on line 4-4 of FIG. 1, with the leg in folded position.

Referring now more specifically to the drawings, for illustrative purposes, the collapsible table leg and mounting of the present invention comprises a unitary assemblage 10 which is adapted to be secured as a unit to a table top 11 or other platform so as to extend therebelow and form a collapsible table structure having one or more foldable legs. Since each unitary assemblage 10 is similarly constructed, it will be necessary to discuss one only of these assemblages.

Referring to the disclosure in FIG. 1, the unitary assemblage comprises a bracket 12 which is of such construction that it may be fabricated from a flat sheet of suitable metallic material by stamping or otherwise. In its ultimate form, the bracket is of generally U-shaped construction having opposite sides 13 and 14 which are in parallel spaced apart relation and lie in the folding plane of a supporting leg 15 associated with the bracket. The sides 13 and 14 are integrally formed with a bridging back wall 16. The sides 13 and 14 are formed with upper flanges 17 respectively, and lower flanges 18 respectively which provide additional strength to the structure as well as means by which the unitary assemblage may be secured in operative position in depending relation to the table top as by suitable screws 19 in the case of a wooden top, or by welding in the case of a metal top

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structure. In addition, the upper and lower edges of the back wall 16 may be outwardly turned slightly as indicated at 20.

The sides 13 and 14 are constructed with angle slots 21 respectively therein, these slots being transversely aligned. Each slot has a leg portion 22 which extends in substantially parallel relation to the plane of the table top, and a leg portion 23 which extends generally along the axis of the back wall 16, but is slightly inclined relatively thereto so that as the end of this portion of the slot is approached, the spacing from the back wall 16 will be gradually diminished.

The leg 15 may be of any desired conventional construction, and may be preferably of tubular construction for lightness and portability of the table, and may further be tapered towards its outermost end. The leg 15 is supported with its innermost end positioned in the bracket 12 between the side walls 13 and 14, and is supported for swinging movement by means of a transversely extending pin 24 which extends through the leg from one side to the other and has its end portions respectively positioned in the angle slots 21 of the side walls. As thus mounted, the leg 15 may be moved between an extended position in which it is substantially at right angles to the table top 11, as shown in FIG. 1, and a folded position as shown in phantom lines in which it extends in substantially parallel relation to the table top.

It will be readily apparent from a consideration of FIG. 1 that as the leg 15 is moved from one position to the other, the ends of the pin 24 will be moved laterally along the associated angle slot 21, and that as the leg 15 approaches extended position, the end terminus supported in the bracket will be moved behind a stop member 25. This stop member may be formed in various ways, but is shown on the drawings as comprising a portion which is inwardly struck from the material of one or both of the sides 13 and 14, as best shown in FIG. 2. Also, that in the extended position of the leg 15, the pivoted end portion of the leg 15 nests into the curvature of the back wall 16, as best shown in FIG. 3. If pressure is now applied in a direction to longitudinally move the extended leg in a direction towards the table top, which is the direction in which it would be forced due to the weight of any material supported on the table, the movement of the ends of the pin 24 in the inclined leg portion 23 of the slot 21 will operate with a camming action to force this end of the leg into wedging pressure against the back wall 16, thus providing an extremely rigid support.

Movement of the leg 15, when in extended position, into a fully seated position is augmented by the action of a stressed spring 26 which has a looped portion 27 which extends through an opening 28 in the adjacent wall of the tubular pipe end. The spring has separate leg portions 29 and 30 which are respectively coiled around inwardly struck projections 31 and 32 of the adjacent sides 13 and 14. The end terminus of each of the spring legs is anchored behind additional inwardly struck projections 33 and 34. This spring also acts to resiliently retain the extended leg in seated position in the supporting bracket.

When it is desired to move a leg from extended position to folded position, the leg may be moved from seated position and wedged engagement with the back wall 16 by means of a pry-lever consisting of an elongate strap 35 which is secured intermediate its ends to a supporting pin 36 having its ends pivoted in the sides 13 and 14 respectively which serves as a fulcrum about which the lever may be rocked. This lever has its innermost end 37 positioned between the sides 13 and 14, and is of sufficient length to project over the adjacent end of the asso-

ciated leg 15. An opposite end 38 extends to the exterior of the bracket 12 where it may conveniently be engaged for manual manipulation, when it is desired to release the leg from its wedged position so that it may be folded.

In swinging the extended leg to folded position, as shown in phantom lines in FIG. 1, the end edge margin at the pivoted end of the leg will be moved into engagement with the adjacent curved portions of the back wall 16. By making the end portion which extends outwardly from the pin 24 of proper length, the opposite edges of the leg at the inner end will be deformed inwardly as shown at 39—39 as the leg assumes a horizontal position, as shown in FIG. 4. Due to the resilient characteristic of the leg material, the deformation of the edge as just explained will result in a gripping action which will retain the folded leg in folded position, yet permit its being manually moved when desired to swing it to an extended position.

Provision is thus made for releasably holding the leg in both its folded position and its extended position. Also it will be clearly evident that when the leg is extended, any increase in weight applied to the table will act to force the upper end of the leg into a more tightly wedged position against the back wall 16, thus providing a most rigid mounting and leg assembly.

Various modifications may suggest themselves to those skilled in the art without departing from the spirit of my invention, and, hence, I do not wish to be restricted to the specific form shown or uses mentioned, except to the extent indicated in the appended claims.

I claim:

1. A collapsible or folding table leg mounting structure for a folding table having a top, comprising: a corner bracket attached so as to depend from the table top and including spaced opposite side walls disposed in the folding plane of the leg and cooperating with a back wall to form a leg socket, each of said side walls having a slot formed therein in transverse alignment with each other, said slot having a portion inclined with respect to said back wall; a table leg having an end portion positioned in said socket; projecting means carried by said end portion extending into said slots for pivotally supporting said leg for movement to a folded position and to an extended position with the projecting means in said inclined portion of the slot, movement of said projecting means therein acting to move said end portions into pressure engagement with said back wall with said leg end portion seated in the socket; and a pivoted lever having one end positioned in said socket for engagement by said end portion in its seated position, and its other end extending to the exterior of the socket for manual actuation to pry the end portion out of the seated position.

2. A collapsible or folding table leg mounting structure for a folding table having a top, comprising: a U-shaped bracket member having opposite sides and a bridging

back thereon adapted to be secured so as to depend from the table top; a table leg having a tubular end portion positioned in said bracket member between said sides thereof; a pin and slot connection between each side wall and the adjacent wall of said end portion enabling swinging movement of the leg between a leg extended position with the end portion substantially parallel to the longitudinal axis of the bridging back, and a folded position with the leg axis substantially at right angles to said bridging back axis, the slot in each case having a portion inclined with respect to said back axis so as to wedge the end portion, in the extended position of the leg, against the bridging back; spring means normally biasing the extended leg towards the wedged position; and a manually operable lever for moving said leg from the wedged position against said spring.

3. A collapsible or folding table leg mounting structure for a folding table having a top, comprising: a U-shaped bracket member having opposite sides and a bridging back thereon adapted to be secured so as to depend from the table top; a table leg having a tubular end portion positioned in said bracket member between said sides thereof; a pin and slot connection between each side wall and the adjacent wall of said end portion enabling swinging movement of the leg between a leg extended position with the end portion substantially parallel to the longitudinal axis of the bridging back, and a folded position with the leg axis substantially at right angles to said bridging back axis, the slot in each case having a portion inclined with respect to said back axis so as to wedge the end portion, in the extended position of the leg, against the bridging back; spring means normally biasing the extended leg towards the wedged position; a lever member positioned between the opposite sides of said bracket and pivoted between its ends for rocking movement, one end of said lever being arranged to extend over the edge margin of said end in said extended position, and the other end of said lever projecting from the open front of the U-shaped bracket member for manual actuation to pry said leg out of its wedged extended position.

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