May 28, 1940. J. C. RALSON 2,202,318

TABLE LEG MOUNTING

Filed April 22, 1938

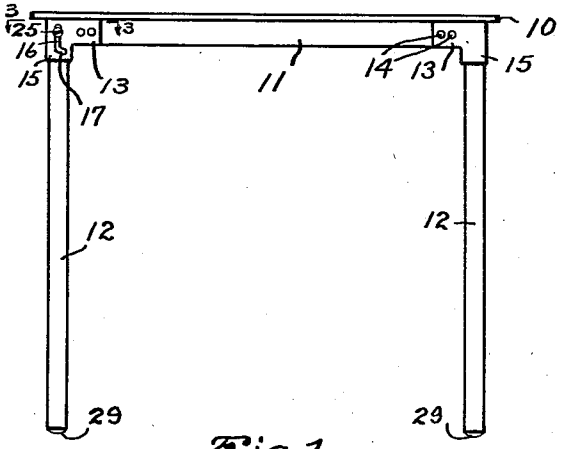


Fig. 1

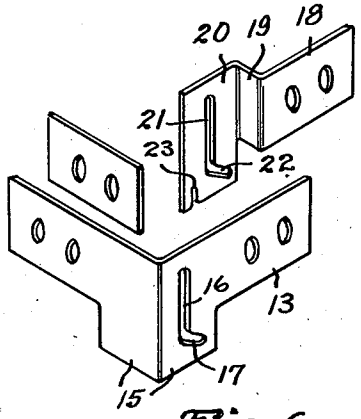


Fig. 6

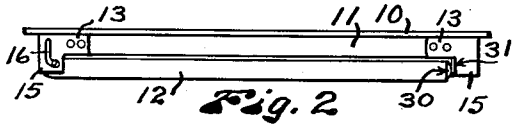


Fig. 2

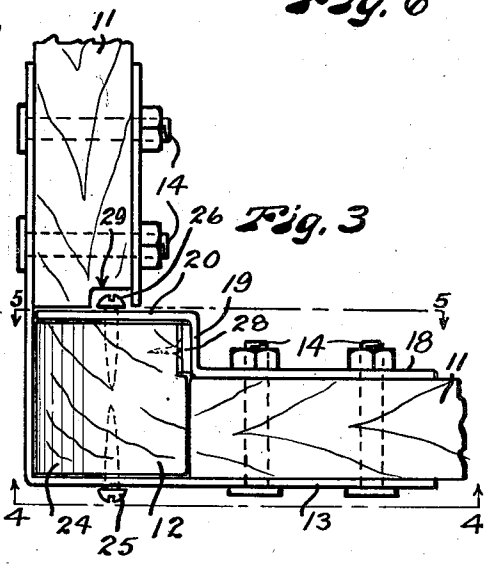


Fig. 3

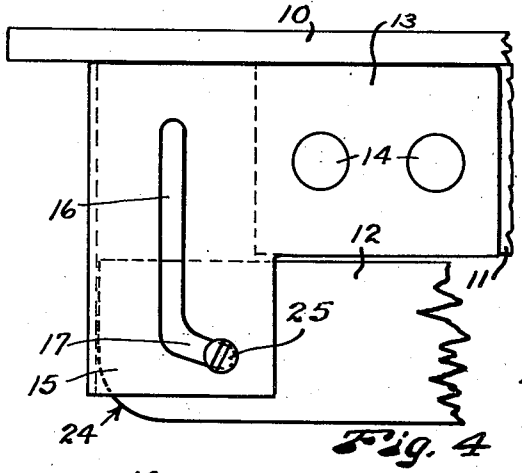


Fig. 4

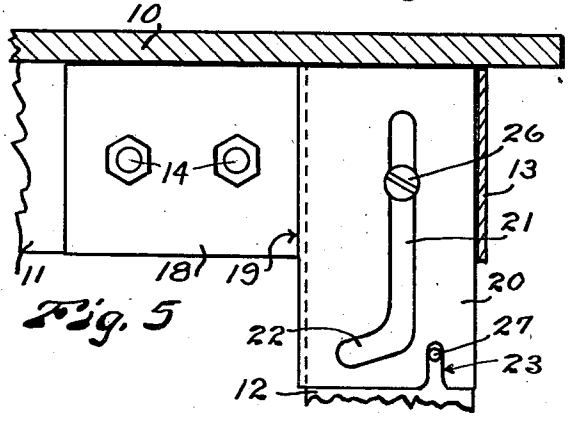


Fig. 5

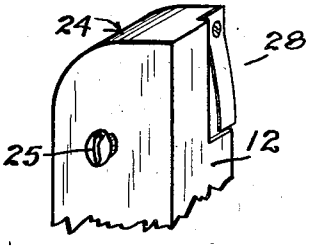


Fig. 7

INVENTOR
John C. Ralson
BY
Fred C. Matheny
ATTORNEY

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TABLE LEG MOUNTING

John C. Ralson, Seabold, Wash.

Application April 22, 1938, Serial No. 203,559

2 Claims. (Cl. 311—99)

This invention relates to pivotal mounting means for legs of tables and like furniture and the primary object of this invention is to provide a pivotal mounting means of this nature that is very strong and substantial in construction, that is capable of being very easily folded into a compact and out of the way position and that can not fold accidentally as long as it is supporting a table or piece of furniture.

Other objects are to provide a leg mounting means of this nature which is very simple in construction and very inexpensive to manufacture and which is especially well adapted for use on small tables, such as folding card tables.

While this invention is herein disclosed as being incorporated in a table, it will be understood that the same may be used in connection with other pieces of furniture and with articles other than furniture on which the legs are to be folded.

Other and more specific objects of the invention will be apparent from the following description taken in connection with the accompanying drawing.

In the drawing:

Fig. 1 is a view in side elevation on a reduced scale of a table having legs provided with mounting means constructed in accordance with this invention, the legs being in extended position.

Fig. 2 is a side elevation of the table with the legs folded.

Fig. 3 is a fragmentary plan view taken substantially on broken line 3—3 of Fig. 1, and showing, on a larger scale than Fig. 1, one corner portion of the table and the folding leg therefor, as the same would appear with the table top removed.

Fig. 4 is a fragmentary side elevation on broken line 4—4 of Fig. 3.

Fig. 5 is a fragmentary sectional view, with parts in elevation, on broken line 5—5 of Fig. 3.

Fig. 6 is a detached exploded perspective view of the metal plates embodied in the invention.

Fig. 7 is a fragmentary perspective view of the upper end portion of one of the legs.

Referring to the drawing, 10 designates a table top having four reinforcing and supporting members 11 secured to the bottom side thereof in rectangular formation and positioned a short distance inwardly from the respective sides of the table top. These supports 11 do not intersect at the corners but terminate just short of the position where they would intersect, as best shown in Fig. 3, to leave open corner spaces for the reception of table legs 12. As the table leg mountings at all four corners of the table are identical only one of the same is described in detail.

Each two adjacent ends of the supports 11 are connected with each other by a right angle corner bracket 13 which is applied to the outer sides of these supports 11 and secured thereto by bolts 14, preferably having flat heads positioned outermost and nuts positioned at the inner sides of the supports 11. In some instances rivets will be used instead of the bolts 14. The corner forming portion of the bracket 13 has portions 15 of substantially the transverse width of the table leg which extend vertically below the plane of the bottom edge of the remainder of said bracket and serve as leg brace means. A vertical slot 16 is provided in one part of the corner bracket 13 near the corner thereof, said slot 16 extending from near the top edge of the corner bracket 13 down into the leg brace portion 15 and connecting at its lower end with an angle slot 19 which extends inwardly and is inclined downwardly at greater than a right angle relative to the slot 16.

A leg holding plate comprising a portion 18 adapted to engage with and rest against a support 11 and an offset portion 19 and a longer leg engaging portion 20 is positioned against the inner side of one of the table top supports 11 and is secured thereto by the same bolts 14 which secure the corner forming bracket 13 to said support. This leg holding plate 18 is positioned opposite the portion of the corner forming bracket 13 which has the slot 16—17 therein and said leg holding plate is provided with a slot 21—22 of the same shape as the slot 16—17 and positioned directly opposite said slot 16—17. A notch 23 is provided in the bottom edge of the table leg engaging portion 20, as shown in Figs. 5 and 6. Preferably a flat plate 24 is provided in engagement with the inner side of the support 11 opposite the non-slotted side of the corner forming bracket 13 and some of the bolts 14 pass through bracket 13, support 11 and this plate 14.

The upper end of the table leg 12 has one corner thereof removed to provide the rounded portion 24 which gives clearance to allow the leg to be angularly moved between a position at right angles to the table top and a position parallel to the table top. Each leg member 12 is provided near the upper end with two screws 25 and 26 positioned in alignment with each other and extending through the slots 16—17 and 20—21 respectively and entering the leg from opposite sides. Obviously a single pin extending through the leg and through the slots 16—17 and 20—21

may be provided instead of the screws 25 and 26. The end portion of the support 11 adjacent the inner screw 26 may have a relieved portion 29 to provide clearance for the head of the screw. A pin 27 is also rigidly connected with the leg 12 and is positioned so that it is adapted to rest within the notch 23 when the leg is in extended position to provide additional brace means for the leg.

The upper end of the table leg 12 fits snugly into the receptacle provided between the right angle corner bracket 13 and the inside plate member 18—19—20 and the portions 15 and 20 extend downwardly far enough so that said leg is very firmly braced and provides a very strong and substantial leg means without using any diagonal brace means of the type sometimes employed. The only side on which the table leg, when extended, is not braced and supported below the plane of the table top supports 11, by the metal corner members 15 and 20 is the inner side in the direction in which the leg folds and this side must be kept open to allow the leg to fold. The table leg, when extended, is securely braced against angular movement toward this open side by the pin 27 which is always positioned in the notch 23 in plate portion 20 when the table leg is in extended or set up position. A flat spring 28 is secured to each table leg 12 to frictionally engage with a portion of one of the metal plates. The screws 25 and 26, being positioned in the slots 16 and 21 help to brace and support the table leg 12 but their main function is to provide pivot means slidable in the slots 16—17 and 21—22 on which the table legs may be pivotally moved and by which detachment of the table legs from the table will be prevented. It will be noted that the angular portions 17 and 22 of these slots are not at right angles to the upright slot portions 16 and 21 but that their incline is in excess of a right angle. This incline has been found to be important in helping to provide smooth and easy action of the legs when folding. The incline of these slot portions 17 and 22 prevents the screws 25 and 26 from binding in these slots and the rounded portion 24 from binding against the corner forming bracket 13 as I have found they will do if slot portions 17 and 22 are at right angles to slots 16 and 21.

The spring 28 provides enough friction to prevent the legs from dropping down out of their proper sockets in the event the table is lifted up while the legs are extended but the legs may be easily pulled out or pushed into their sockets.

When the legs are folded they lie parallel with and against the supports 11, as shown in Fig. 2, and said legs are preferably retained in their folded position by frictional engagement of the ends of the legs with the outer side of the plate portions 20 of the legs at the opposite corners of the table. I have shown a glider member 30 on the bottom end of each table leg and have shown a pad 31 of friction material, as rubber, on each plate part 20 for the glider member 30 to engage with. If desired the glider members may be made of rubber and the pads 31 dispensed with.

The foregoing description and accompanying drawing clearly show a preferred embodiment of my invention but it will be understood that this disclosure is merely illustrative and that such changes may be made which are within the scope and spirit of the following claims.

I claim:

1. In leg mounting means of the class described, a member to be supported; supports secured to said member in rectangular formation with their adjacent ends spaced apart to leave a receptacle between said ends; a table leg having an upper end portion thereof positioned in said receptacle between adjacent ends of said supports when said table leg is extended, the upper end of said table leg having one outer corner thereof rounded off; to provide clearance for said leg when the same is angularly moved; a corner forming bracket of right angle shape positioned against the outer sides of two adjacent supports and having a portion positioned alongside of the table leg and extending below the plane of the bottom edges of the supports; a leg supporting plate positioned against the inner side of one of the supports opposite one portion of said corner forming bracket; means securing said corner forming bracket and said leg supporting plate to the support against which they are positioned; correspondingly positioned substantially upright L shaped slots in said leg supporting plate and in a parallel portion of said corner forming bracket; and aligned pins in said leg operatively disposed in said slots permitting said leg to be moved longitudinally between said plate and said bracket and to be folded parallel to the adjacent support.

2. In leg mounting means of the class described, a member to be supported; supports secured to said member in rectangular formation with their adjacent ends spaced apart to leave a receptacle between said ends; a table leg having an upper end portion thereof positioned in said receptacle between adjacent ends of said supports when said table leg is extended, the upper end of said table leg having one outer corner thereof rounded off; a corner forming bracket of right angle shape secured to the outer sides of two adjacent supports, said corner forming bracket having downwardly extending leg brace portions at the location of the table leg and one side of said corner forming bracket having a vertical slot adjacent the corner of the bracket extending from near the top of the bracket to a location below the bottom edge of the supports and having an inclined slot connected with the lower end portion of said vertical slot and extending inwardly and downwardly therefrom, a leg supporting plate secured to the inner side of one of the supports opposite the slotted portion of said corner forming bracket, said leg supporting plate being transversely offset to fit around the leg and having a vertical slot and an inclined slot corresponding in size and shape with the slots in said corner forming bracket and positioned in alignment therewith; two aligned pin members fixed in the leg and operatively disposed in said slots providing pivot means on which the leg may be angularly moved; a notch in the bottom edge of said leg supporting plate and a pin in said leg positioned in said notch when the leg is in extended position.

JOHN C. RALSON.