

Feb. 10, 1925.

1,525,630

F. WENDL

FURNITURE SUPPORT FASTENING

Original Filed Oct. 15, 1921

2 Sheets-Sheet 1

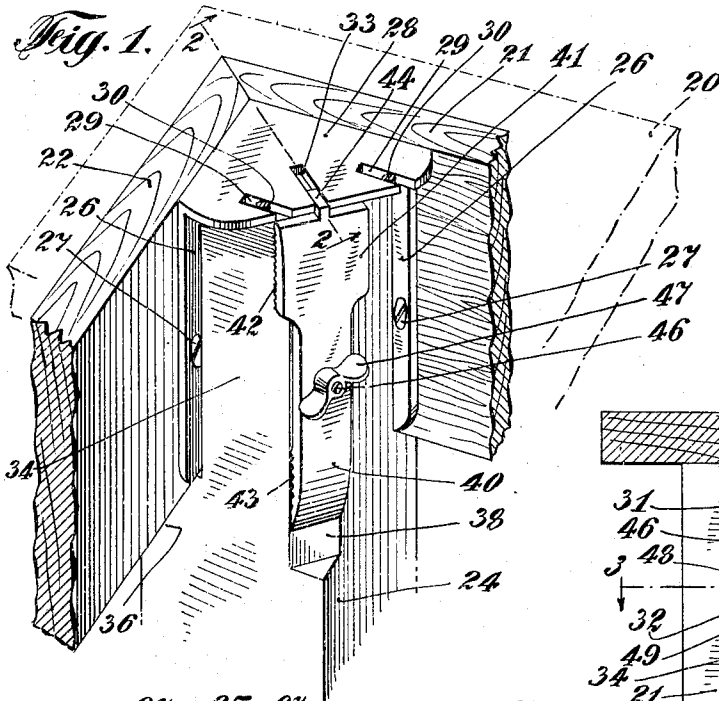
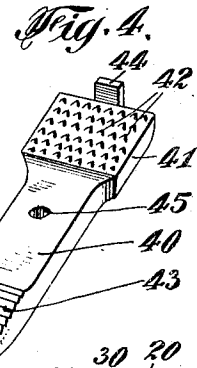
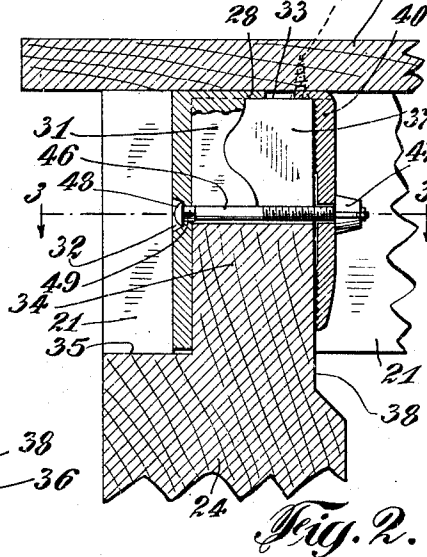
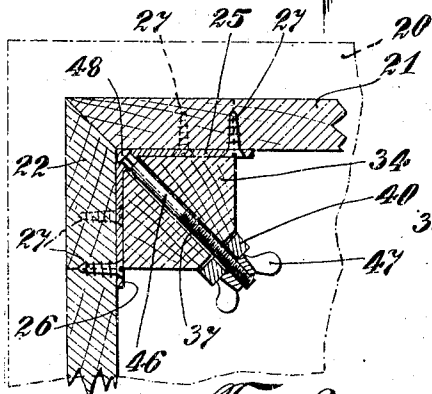
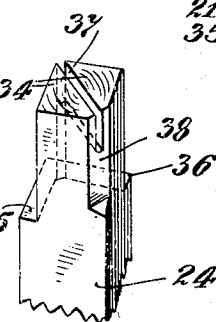


Fig. 3.

Fig. 5.

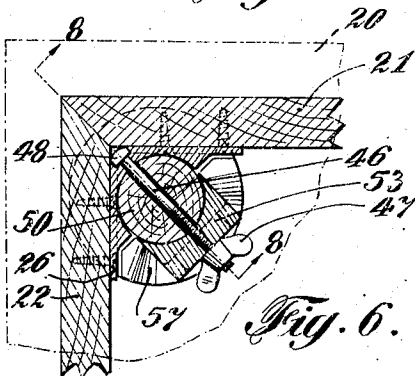


Fig. 6.

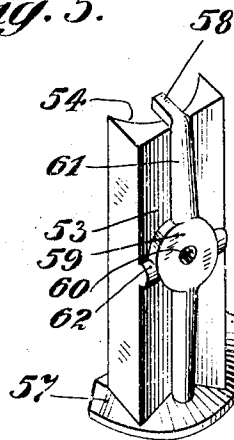


Fig. 7.

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FURNITURE SUPPORT FASTENING

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2 Sheets-Sheet 2

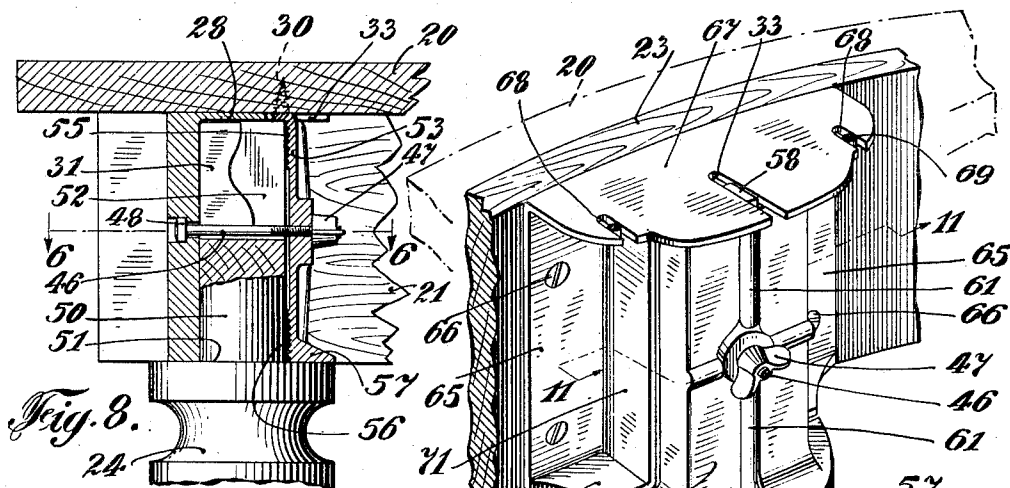
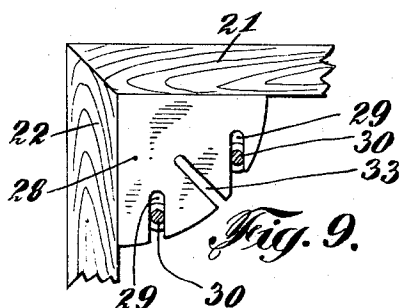


Fig. 10.

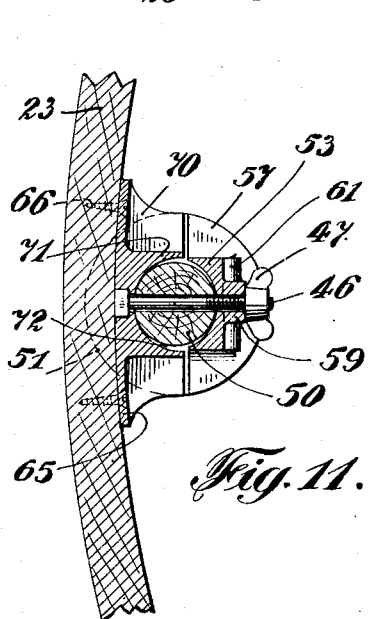


Fig. 11.

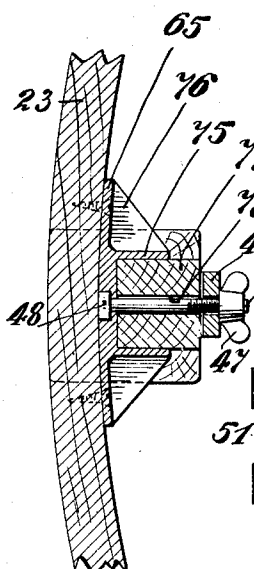
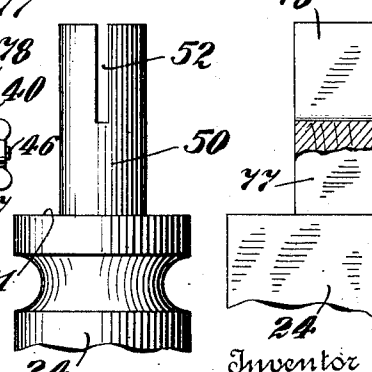


Fig. 12.

Fig. 13. Fig. 14.



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UNITED STATES PATENT OFFICE.

FERDINAND WENDL, OF NEW YORK, N. Y.

FURNITURE-SUPPORT FASTENING.

Application filed October 15, 1921, Serial No. 507,924. Renewed September 18, 1924.

To all whom it may concern:

Be it known that I, FERDINAND WENDL, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Furniture-Support Fastenings, of which the following is a specification.

The principal purpose of this invention is to produce means for firmly fastening the bodies of tables, stands and like articles of furniture, particularly of the "knock-down" type, whereby the entire assemblage of top or cover, side frames or rails and their legs or posts, is accomplished without dowels, dovetails, tenons or glue, the attachment or detachment of the leg members being made by hand in a rapid manner without the use of tools or appliances of any kind.

Another object is to provide leg attaching means for separable structures which materially reinforce the bodies at their joints or corners, thus augmenting the strength of the structure at points where weakness occurs.

A further object is in the provision of means which permit the wood used in the structure, hereafter generally referred to as a table, to shrink or swell within ordinary limits, without fracture, loosening or damage either to itself or to the fastening.

Other objects are, to avoid mutilating the body or legs of the article in the application of the device; to suit the same to square, round or other shapes of tables, and to be able to construct the fastenings at a low cost, due to their simplicity and practicability.

These and other objects, which will appear as the description proceeds, are attained by the novel design, construction and arrangement of parts hereafter described and shown in the annexed drawings, constituting an essential part of this disclosure, and in which:

Fig. 1 is a fragmentary perspective view looking at the inner corner of a conventional type of square table, the top or cover being removed to disclose the application of fastening means made in accordance with the invention.

Fig. 2 is a vertical sectional view taken on line 2—2 of Fig. 1.

Fig. 3 is a transverse sectional view taken on line 3—3 of Fig. 2.

Fig. 4 is a perspective view of the clamping member used in connection with square tables.

Fig. 5 is a perspective view of the upper part of a leg shaped to suit the preferred form of fastening.

Fig. 6 is a transverse sectional view taken on line 6—6 of Fig. 8.

Fig. 7 is a perspective view of a form of clamp used with a round leg, looking from the outer side.

Fig. 8 is a vertical sectional view taken substantially on line 8—8 of Fig. 6.

Fig. 9 is a top plan view of the fastening shown in Figs. 6 and 8.

Fig. 10 is a perspective view similar to Fig. 1, showing a leg attached to the rail of a curved table.

Fig. 11 is a transverse sectional view taken substantially on line 11—11 of Fig. 10.

Fig. 12 is a similar transverse sectional view illustrating the attachment of a square tenoned leg.

Fig. 13 is a fragmentary side elevational view of a cylindrically tenoned leg.

Fig. 14 is a similar view of a rectangularly tenoned leg, the same being taken in a different plane and broken away to show the construction.

Throughout the several views the numeral 20 designates the top or cover of a table, which may be rectangular, polygonal, round or curved in outline as preferred, these tops being usually constructed of wood, as are the side and end frame or rail members, respectively, 21 and 22, or their curved counterparts 23.

The joints of the frame need not necessarily be mitered and preferably, in square tables, are not fastened by tenons, glue, nails, etc., such securing means not being required and being objectionable when dismounting for packing, storage and transportation.

The legs or posts, whatever their shape, as square, round or fancifully formed, are generally designated by the numeral 24 and are provided with extensions or tenons at their upper ends made in conformity with the type of fasteners with which they are to be used.

Referring more specifically to Figs. 1 to 5 of the drawings, the fastener will be seen to consist of an interior corner bracket hav-

ing right angle plate extensions 25 and 26 adapted to make intimate contact with the frame members 21 and 22, to which they are rigidly but removably engaged by a plurality of suitable screws 27 arranged in number and position to suit the conditions, their heads being readily accessible when the legs are removed, as will be evident.

Formed with the side plates is a top plate 28, its upper surface being level and flush with the upper edges of the frame members, the front edge of the top plate extending out, like the base of a triangle, over the leg when assembled.

Open slots 29 extend into the plate from its front edge, both slots being parallel with one of the side plates, as 26, and serve to receive screws 30 entering the table top 20, holding it down upon the frame members and top plate, the slots permitting the wooden top to expand or contract without becoming loose or damaging the structure, it being understood that the heads of the screws bear against the underside of the top plate, but are not tightened or set up to bind so tightly as to prevent movement.

A tenon plate 31 extends diagonally from the intersections of the sides 25 and 26, below the top plate 28, terminating just above a small square opening 32 in the corner of the bracket, this opening being positioned about midway in the height of the bracket.

A third or central slot 33, extends in from the front edge of the top plate to the front edge of the plate 31, with which it aligns, as best shown in Figs. 1 and 2.

All of the several parts of the bracket are integrally formed, preferably cast in brass, steel or malleable iron and require no fitting or machine work except rough grinding the outer exposed surfaces and ordinary snagging accorded such castings.

The table leg 24, used with this type of bracket, has an extension 34, above the shoulders 35 and 36, on which the frame sides 21 and 22 solidly rest. A slot 37 is formed diagonally in the top of the extension 34 and the front corner of the extension is beveled, as at 38, at a right angle to the slot, which is adapted to receive the plate 31 in the manner of a tenon.

A clamp, generally designated 40, is comprised of a metal strap approximately the width of the bevel 38, and an enlarged head 41, its operative face being roughened by spurs 42 and the lower portion having sharp serrations 43.

At the upper end of the clamp is a lug 44 extending in advance of the spurs 42 and fitted to engage the slot 33 of the bracket.

The central, slightly retracted portion of the clamp has in it a hole 45 for a clamp bolt 46 to which is fitted a winged nut 47.

The head 48 of this bolt, which is of the ordinary carriage bolt variety, rests in a

recess in the corner of the bracket, and the squared portion 49 fits the hole 32 of the bracket preventing the bolt from turning when manipulating the nut.

The bolt passes closely adjacent the lower edge of the tenon plate 31, through the slot 37 of the leg extension, and clamp strap 40, thus enabling the leg to be secured in the bracket in a firm and effective manner, and without affecting the table top or frame elements except to more firmly bind the several elements together.

A similar construction is disclosed in Figs. 6 to 9, except that, to accommodate a round leg in connection with a square table, the bracket is changed to present a semi-cylindrical socket.

The leg, shown in Fig. 12, has a cylindrical axial extension 50, presenting an annular shoulder 51 at its base which is disposed below the side frame, the extension 50 having a slot 52 engaging the tenon plate 31.

The clamp 53, shown in detail in Fig. 7, is formed with a semi-circular inner surface 54 having spurs or serrations 55 and 56 respectively at the upper and lower portion, and a base flange 57 extending co-incident with the shoulder 51 of the leg upon which it seats.

A guide lug 58 fits the slot 33 and a drilled boss 59 receives the clamp bolt 46 through the opening 60, as before described.

If desired, ribs 61 and 62 are extended radially from the boss, over the entire surface, of the clamp to reinforce and strengthen the same.

Figures 10 to 12 show a modified form of fastener bracket as applied to tables having curved side frames, Fig. 12 indicating the use of a leg having a rectangular extension, while Figs. 10 and 11 show a leg of the type last described.

In this case an arcuately curved plate 65, held to the inner surface of the frame 23 by screws 66, is provided with an overhanging top plate 67 having spaced slots 68 for the screws 69 to engage the table top.

Other flanges 70 extend from the bottom and between these flanges and the top plate are vertical ribs 71, presenting semi-circular cavities 72, which, in conjunction with the clamp element shown in Fig. 7, constitute a socket for the leg extension 50.

On Fig. 12 parallel elements 75 extend from the bottom flanges 76 to the top plate 67, forming a box-like structure, receptive of the projection 77 of the leg as shown in Fig. 14, the same having a slot 78, which, like the slots 52 and 37, engage the tenon plates 31, formed in all the several types of connection brackets.

The last described adaptation of the device takes the clamp shown in Fig. 4 and the bolt, like that in the preceding structure, may have a square head set in a recess ap-

appropriately formed in the back of the castings.

From the foregoing the simplicity and the cheapness of the structures will be apparent, together with the manner of their construction, application and use, dismounting the legs being accomplished by merely loosening the nut and withdrawing the leg, while the screws entering the table top are preferably adjusted to move within their slots, permitting shifting and removal of the top as may be desired.

As changes of construction could be made within the scope of the invention, it is intended that all matter contained in the foregoing description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A table leg securing means comprising a bracket having means for attachment to the frame sides and top of the table, said bracket having a longitudinal socket open outwardly and at its lower end, the leg of the table having a shouldered extension engageable in the socket and containing a through slot, the table frame sides resting on the shoulder of the leg, a clamp bar contacting at its ends with the leg extension, a key on said clamp engaging an opening in said bracket, and a bolt for tightening said clamp to force the extension into the socket of the bracket, said bolt passing through the mentioned slot.

2. A table joint bracket comprising side plates secured to the inner surfaces of adjacent members of the side frames of the table, a top plate integral with said side plates, said top plate having open recesses parallel with one of its sides; securing means for the table top passing through the mentioned slots, means for detachably engaging a table leg between said side plates and a tenon formed with said bracket engageable in a recess in the table leg.

3. A joint bracket for tables having a top, side frame and legs, said bracket comprising plates attached to the inner surfaces of said side frames at their joints, a plate integral with said side plates extending below said top, said plate having open parallel slots, means for securing the top through the slots in said plate, a rib below said slotted plate adapted to enter a slot in the leg, said leg being received between said side plates, and means for forcing the leg toward the junction of said side plates.

4. A bracket rigidly engaged with the side frame of a table, means for adjustably engaging the table top therewith, a socket

receptive of the reduced portion of a table leg, a rib in said socket enterable into said leg, a clamp complementary to said socket, a lug on said clamp engaging a slot in said bracket, corrugations near the ends of said clamp adapted to be impressed into the table leg, and means carried by said bracket to force said clamp against the leg and into its socket.

5. A corner bracket for rectangular tables comprising a pair of angularly disposed plates having openings receptive of securing means, a cover plate integral therewith having slots parallel with one of its sides, a clamp having corrugations adapted to impinge on the table leg, a lug on said clamp engaging another slot in said cover plate, a bolt held at the junction of said angular plates, said bolt extending through the leg and clamp, a wing nut engaging said bolt exteriorly said clamp, a rigid rib extending from the junction of said plates into the table leg above said bolt, and means for securing a table top to said cover plate through the mentioned slots.

6. A corner bracket for rectangular tables comprising a pair of angularly disposed plates having opening receptive of securing means, a cover plate combined therewith having slots, a clamp having corrugations adapted to impinge on the table leg, said clamp being ribbed and having a base to rest upon a shoulder of the table leg, a lug on said clamp engaging one of the slots in said cover plate, a bolt held at the junction of said angular plates, said bolt extending through the leg and clamp, a wing nut engaging said bolt exteriorly said clamp, a rigid rib extending from the junction of said plates into the table leg, and means for releasably engaging a table top to said bracket.

7. A joint bracket for tables having a top, side frame and shouldered legs on which the side frame rests, the bracket comprising vertical plates fixed to the inner sides of said side frame, an integral horizontal plate at the upper edges of said side plates, adjustable means in said horizontal plate for securing said top, an open socket formed with said side plates receptive of the table leg above its shoulder, a clamp member complementary to said socket, means for maintaining said clamp member upright, means passing through a slot in said leg for drawing said clamp into firm contact with the leg, and a plate tenon integral with said bracket entering the slot in the leg.

In testimony whereof I have signed my name to this application.

FERDINAND WENDL.