Sept. 6, 1932. D. J. McLAUGHLIN 1,876,336

TABLE LEG ATTACHMENT

Filed Dec. 16, 1925

Fig. 1

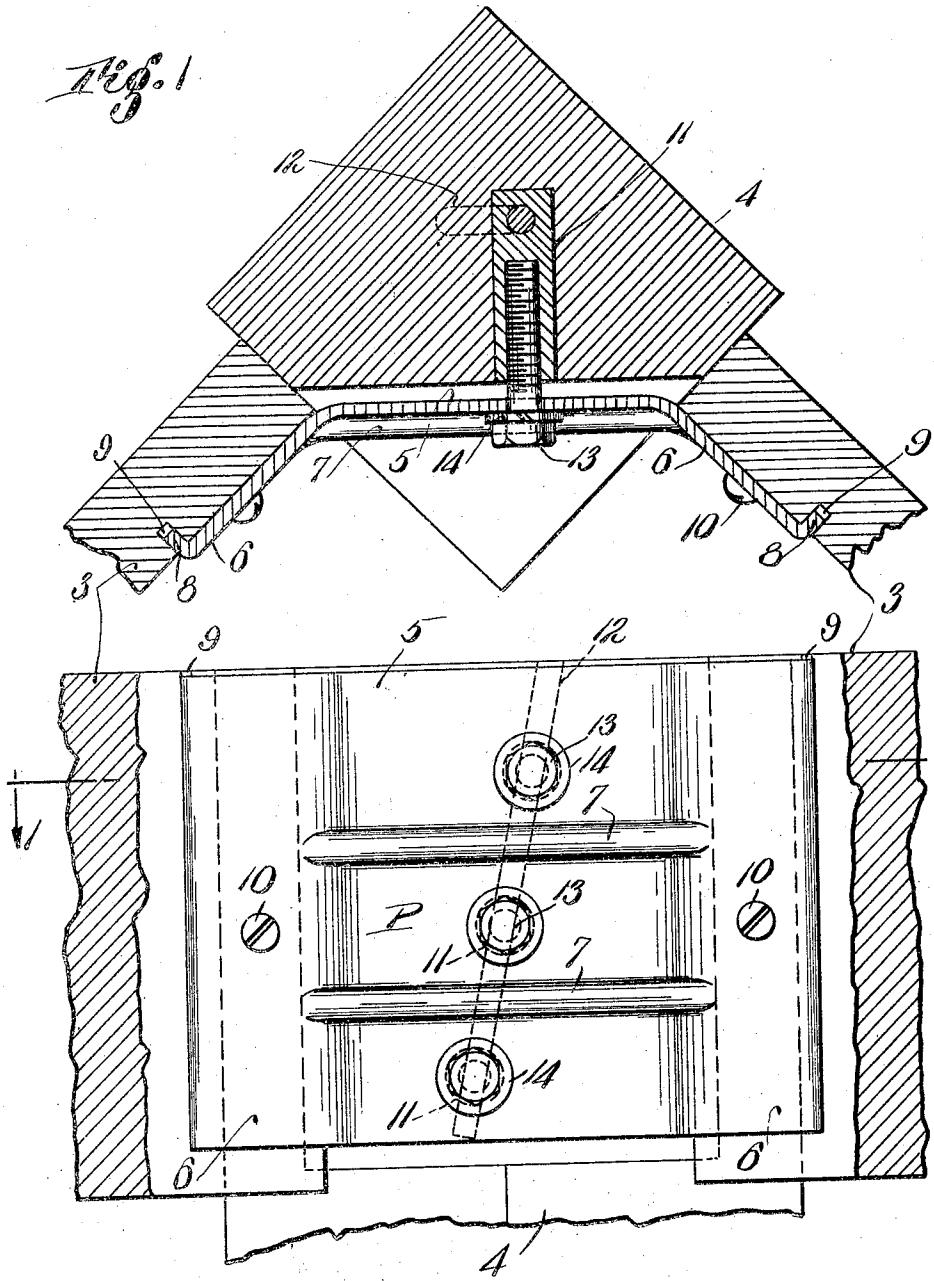

Fig. 2

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UNITED STATES PATENT OFFICE

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TABLE LEG ATTACHMENT

Application filed December 16, 1925. Serial No. 75,758.

This invention relates to an attachment for table legs and more particularly to a device for fastening the leg to the side rails of a knocked down table.

Objects of the invention include the provision of a strong and durable device for securing a table leg in position, which although simple and economical of construction, will serve as an effective attachment adapted to ready removal and replacement; the utilization of bolt and bushing fastening for securing the device to the leg, with means for fixedly securing the bushing within the leg to prevent removal or rotation thereof; and additional novel features of construction as set forth in the following specification.

The invention comprises essentially a sheet metal corner plate having a substantially flat central portion and wing portions bent at an obtuse angle thereto, means for fastening the wing portions to the side rails of a table, and means for drawing the side rails and central portion of the corner plate against the table leg, said means preferably including the utilization of internally threaded bushings, fixed against turning movement within the table leg, and bolts passing through the central portion of the corner plate to engage the bushings.

One embodiment of the invention is illustrated in the accompanying drawing, in which:

Fig. 1 is a horizontal section through the leg and side rails of a table, showing the improved fastening device in attached position, taken on line 1—1 of Fig. 2; and

Fig. 2 is an elevation of the device looking outwardly toward a corner of the table.

The attachment device herein described is adapted for application to the corner legs of any table having the usual type of side rails upon which is fastened the table top, but the device is especially useful when utilized in assembling the elements of a so-called knocked down table. The ends of such side rails are shown at 3 in the drawing in abutment with the sides of a square-shaped table leg 4. A segment triangular in cross section is cut from the top of the leg at the inner corner thereof to provide space for the relatively wide central portion 5 of a corner plate P.

The corner plate P consists preferably of a substantially flat and relatively thin rectangular piece of sheet metal having side portions or wings 6 bent at an obtuse angle to the central portion, and abutting the inner surface of the side rails 3. In order to strengthen the corner plate angles, transverse ribs 7 are struck up from the central portion 5.

The ends of the wing portions 6 are hooked to provide integral flanges 8 which engage complemental slots 9 in the rails 3. Screws 10 may be used to secure the wing portions against the side rails and to hold the flanges within the grooves.

The common method of attaching the legs of knocked down tables to their supports includes the provision of wood screws fastening directly into the table leg, but this method is often found to be unsatisfactory owing to the insecurity of such a fastening and the tendency of the screw holes to become greatly oversized after a few assembling and dissembling operations. In order to eliminate the objections to this type of fastening, the corner plate herein described is attached to the table leg by bolt and bushing fastenings. Bushings 11 are inserted in transverse holes bored in the table leg and are secured therein by means of a pin 12 or other locking member, which is driven downwardly, through an opening in the table leg and through coaxial holes in the ends of the respective bushings. It is evident that pin 12 not only will prevent dislodgment of the bushings from the leg, but also will fixedly secure the bushings against rotation.

Threading into the bushings 11 to draw the table leg against the corner plate and side rails are bolts 13 which pass through

openings in the central portion 5 and which may be provided with lock washers 14. Three such bolts and bushings are shown in the drawing, to illustrate the manner of positioning the same when a fastening of unusual strength is desired, but it is obvious that two sets, or even one set, may be sufficient in many instances. The preferred manner of positioning a plurality of bushings is shown in Fig. 2, the bushings being laterally offset with respect to each other from the longitudinal plane of the leg 4, in order to lessen the danger of splitting the wood when boring holes for the bushings or for the pin 12, it being assumed that the grain of the wood usually follows the longitudinal plane of the table leg.

It will be understood that the elements of the knocked down table are constructed separately for subsequent assemblage when desired, but that the table leg will be provided with the bushings 11 and retaining pin 12 during the course of its fabrication. In assembling the table, the side rails 3 are first fastened together at their ends by screwing the wing portions 6 of the cornor plate P to their inner surfaces with the flanges 8 interlocking with slots 9, and the leg 4 is then drawn securely against the side rails by tightening the bolts within the bushings. It is preferred that the dimensions of the elements be such that the leg will be spaced from the adjacent surface of the central plate portion 5 when attached, to permit compensation for future expansion or contraction of the wood under various atmospheric conditions; but it is obvious that the attachment will be secure if the leg abuts said surface of the corner plate.

The top of the table may be secured to the rails in any convenient manner, it being evident that it will lie flatwise upon the registering tops of the leg and the side rails, shown as a horizontal line at the top of Fig. 2. The upper edge of the corner plate may also register with said line or may be spaced therefrom as shown in Fig. 2.

Since it is one object of the present invention to provide a device which shall be economical of construction and adapted to ready assemblage, it is preferred that the corner plate have a free upper edge without the provision of unnecessary tabs or flanges, sometimes provided to permit a fastening with the table top; and it is also preferred that, when assembled, said free upper edge will be spaced slightly below the top of the leg, in order to allow for slight variations in the dimensions of the respective elements.

It will also be apparent that by slight varying the angle between the flanges 8 and their respective wing portions, a secure connection may be effected between the flanges 8 and the corresponding slots 9, obviating the necessity for the screws 10. For example, the flanges may be bent beyond the right angles shown in Fig. 1, to form acute angles with the outer surfaces of the respective wing portions; and the grooves 9 may have a corresponding inclination. The corner plate may then be joined to the side rails by sliding the flanges downwardly in the grooves from the top edges of the rails.

The foregoing description has detailed the construction of a preferred form of fastening for table legs, but it is apparent that structural modifications may be embodied in similar devices without departing from the essence of this invention as defined in the appended claims.

I claim:

1. A fastening for table legs comprising, in combination with the side rails and leg of a table, a corner plate having side portions abutting and fastened to said rails, a series of internally threaded bushings fixed transversely in the leg with their axes disposed in parallel relation in different spaced vertical planes, and having transverse openings through their inner ends in aligned relation, a single pin passing through said leg and through all of said openings to secure the bushings within the leg and to prevent rotation thereof, and bolts passing through the central portion of the corner plate and threading into said bushings for securing the corner plate and side rails against the leg.

2. A fastening for table legs comprising, in combination with the side rails and leg of a table, a corner plate having wing portions abutting the inner surface of said rails and a flat central portion, a series of internally threaded bushings fixed transversely in the leg in substantial alignment, said bushings being spaced from each other with the axes thereof disposed in a plane extending diagonally to the grain of the leg and having transverse openings through their inner ends, a pin passing obliquely through the leg and through said openings to secure the bushings within the leg and to prevent rotation thereof, and bolts passing through said central corner plate portion and threading into the bushings for drawing the leg against the corner plate and side rails.

3. A fastening for table legs comprising, in combination with the side rails and leg of a table, a sheet metal corner plate having wing portions abutting the inner surfaces of the side rails and a flat central portion bridging the space therebetween, said plate having a free upper edge spaced from the top surfaces of said leg and said rails and said side portions having hooked ends engaging slots in the rails, a series of internally threaded bushings fixed transversely in the leg in substantial alignment, said bushings being spaced from each other and laterally offset with respect to each other from the longitudinal plane of the leg and having

transverse openings through their inner ends, a pin passing obliquely through the leg and through said openings to secure the bushings within the leg and to prevent rotation thereof, and bolts passing through the central portion of the corner plate and threading into the bushings for drawing the leg against the side rails and securing the same in position.

Signed by me at Ilion, Herkimer County, New York, this twelfth day of December, 1925.

DENNIS J. McLAUGHLIN.