Dec. 23, 1924. 1,520,519

W. S. THOMASON

CONNECTER FOR THE END AND SIDE RAILS OF KNOCKDOWN TABLES

Filed Dec. 24, 1923

Fig. 1.

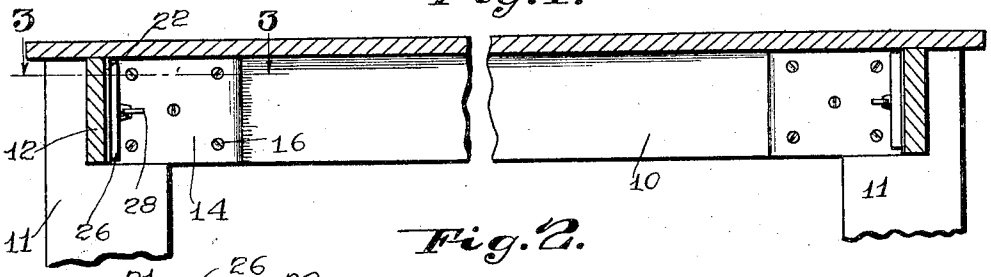


Fig. 2.

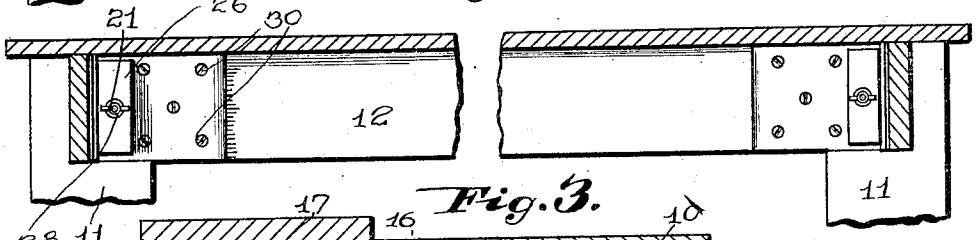


Fig. 3.

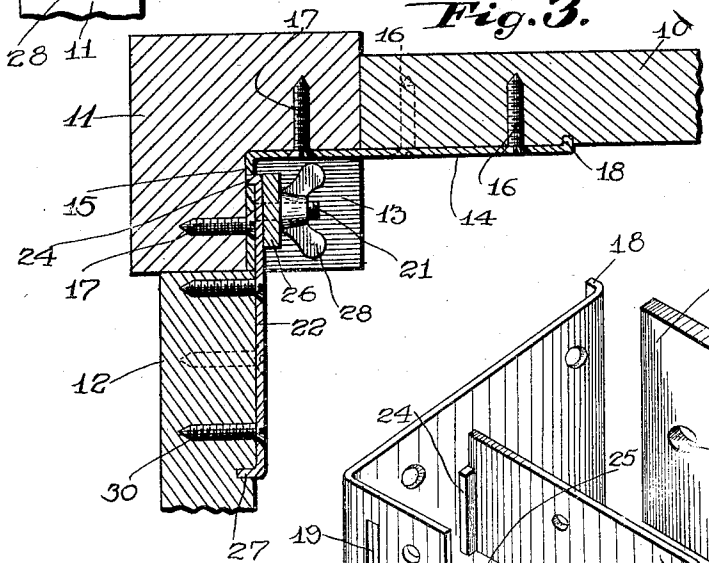
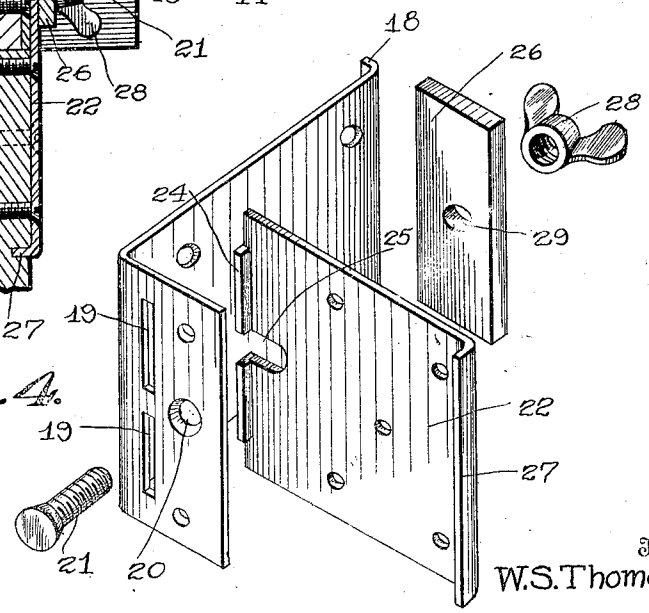


Fig. 4.



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UNITED STATES PATENT OFFICE.

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CONNECTER FOR THE END AND SIDE RAILS OF KNOCKDOWN TABLES.

Application filed December 24, 1923. Serial No. 682,428.

To all whom it may concern:

Be it known that I, WILLIAM S. THOMASON, a citizen of the United States, residing at Norfolk, in the county of Norfolk and State of Virginia, have invented certain new and useful Improvements in Connecters for the End and Side Rails of Knockdown Tables, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to tables or like articles of furniture and particularly to means whereby the side and end rails of a table may be detachably connected with each other.

In knock-down tables, such as are used in hotels and restaurants for banquets, it is desirable that the end rails of the table should be detachable from the side rails thereof and that one or the other of these rails and preferably the end rails should carry the table legs, thus permitting the end rails with the legs of a number of tables to be stacked one against the other and the side rails of a number of tables to be so stacked. Thus the sections of the tables may be stored compactly in relatively small space.

With these ends in view one of the objects of my invention is to provide a very simple, rigid and effective construction whereby the two sections of the table may be detachably connected and which construction is such that the two sections have interlocking engagement of such character as to render the joint between the two sections particularly rigid and strong but which permits quick detachment of the side rails from the end rails and legs or quick attachment of these parts to each other.

A further object is to provide coacting connecting members which are very simple, which may be cheaply made, readily applied to the sections and which are very effective in actual use.

Other objects will appear in the course of the following description.

My invention is illustrated in the accompanying drawings wherein:—

Figure 1 is an elevation of an end rail of a table and the two legs thereof, the side rails being shown in section, the figure illustrating the application of my connecting device thereto;

Figure 2 is a like view to Figure 1 but showing one of the end rails and a means whereby it is detachably connected to the side rails, the side rails being shown in section;

Figure 3 is a horizontal section through a portion of one of the end rails, one of the side rails and the leg and showing in section my connecting device applied thereto;

Figure 4 is a perspective view of the connecting device showing the parts separated.

Referring to the drawings and particularly to Figures 3 and 4, 10 designates the end rail of a table, 11 a leg thereof and 12 one of the side rails. The leg 11 is cut out at its inner corner, as at 13, and connecting the leg 11 to the rail 10 is a metallic plate 14 which lies flush against the inside face of the rail 10 and extends beyond this rail at the end thereof and then is laterally angled or bent as at 15. This angular portion of the plate 14 is disposed within and fits the cut away portion or recess 13. This plate 14 is held to the rail 10 by a plurality of screws 16 and the angular portion of the plate is held to the leg 11 by a plurality of screws 17, the surface of the plate being countersunk so that the heads of these screws are flush with the outer surface of the plate. Preferably, that end of the plate 14 which lies against the inner face of the rail 10 is angularly bent, as at 18, and fits within a vertical groove or recess extending into the rail 10. The angular portion 15 of the plate 14, as illustrated in Figure 4, is formed with two vertically extending slots 19 disposed in vertical alignment with each other and outward of these slots and in a line between the slots there is an aperture 20 countersunk for the reception of the head of a bolt 21.

Coacting with the plate 14 is a second plate or section 22, best illustrated in Figure 4, which is flat and lies against the inner face of the rail 12 and which projects beyond the end face of the rail 12 so as to overlie the angular end 15 of the plate 14. This plate 22 at one end is angularly bent, as at 23, this angular bend being forced into the wood of the rail 12 and at its opposite end it is formed to provide two inwardly projecting lugs 24 which are adapted to engage in and interlock with the slots 19. Between these two lugs 24 the plate 22 is formed with a longitudinally extending slot 25 which opens upon the end of the plate and which is adapted to register with the aperture 20. The bolt 21 has its head dis-

posed in the countersink of the bolt opening 20 and a screw-threaded shank extending through the aperture 25. Adapted to fit loosely over the shank of this bolt and bear against the outer face of the plate 22 is a bearing block 26 having an aperture 27 through which the bolt 21 passes. This bearing block 26 bears against the inner face of the plate 22. A wing nut 28 engages the bolt 21.

With this construction it is obvious that when it is desired to engage the side rails 12 with the end rails 10 and the legs 11, it is only necessary to loosen the nut 28 somewhat to thereby permit the bearing block 26 to shift outward on the bolt and then to slip the margin of the plate 22 into overlapping relation to the angular end 15 of the plate 14, the bolt 21 passing into the slot 25 and the lugs 24 engaging the slots 19 and then tighten up on the nut 28 forcing the lugs 24 fully into the slots 19 and thus locking the plate 22 firmly to the plate 14 and locking the end rails 12 firmly against the legs 11. By forming the aperture 25 as a slot opening upon the end of the plate, it is not necessary to completely detach the nut 28 but only necessary to run the nut out on the bolt a slight distance, just enough to permit the lugs 24 to escape the slots 19, and then the plate 22 may be withdrawn from its engagement with the plate 14 with very slight trouble. It will be seen that this construction permits the end rails and side rails of tables to be readily assembled or disassembled and that when assembled the end rails, the legs and the side rails will be held rigidly engaged with each other against any tendency to relative motion and that the side rails will be brought tightly against the side faces of the legs and held at right angles to these side faces. If the bearing block 26 were not used there would be a slight liability of the projecting portion of the plate 22 twisting or bending sufficiently to carry the lugs 24 out of the slots 19, but by providing the bearing block 26 the effective area acted on by the nut 28 is very greatly increased and the whole of the projecting portion of the plate 22 is held in firm engagement with the angular end of the plate 14. Of course, it will be understood that the plate 22 is held to the rail 12 by means of screws 30 or like devices. It will further be seen that the plate 14 being angular in section is relatively strong and that it fits snugly within the recess 13 and that thus the table leg is held from any turning movement with relation to the rail 10. The plates have preferably a width equal to the width of the rails 10 and 12 so that a maximum supporting surface is provided. While I have illustrated certain details of construction and arrangement of parts which I have found to be particularly effective, I do not wish to be limited to these as it is obvious that many changes might be made in these details without departing from the spirit of the invention as defined in the appended claims.

I claim:—

1. In a table, an end rail, a side rail and a leg, the leg being disposed at the end of one of said rails and having its inner corner cut away, a member angular in horizontal section attached to one of said rails and extending into the cut away portion of the leg, the angular end of the member being vertically slotted and having a bolt projecting from it, and a member attached to the other rails and projecting beyond the same and adapted to be disposed within the cut away portion of the leg and adapted to overlie the first named member and having an angularly disposed lug engageable in said slot and having an aperture opening upon the end of the member through which said bolt is adapted to pass and a nut on the bolt.

2. In a table, an end rail, a leg and a side rail, the leg being cut out upon its inner corner, the cut out portion being rectangular in form, an angular plate attached to the inner face of the end rail and extending into said cut out portion of the leg and being attached thereto, said angular end of the plate having aligned vertical slots and outward of the slots being formed with a bolt aperture, and a plate attached to the inner side face of the side rail and projecting beyond the same into overlapping engagement with the angular end of the first named plate, said second named plate at its projecting end being formed with two vertically aligned lugs adapted to engage in said slots and with a longitudinally extending slot opening upon the end of the second named plate, and a bolt passing through the aperture and the angular end of the first named plate and through the slot in the first named plate, a bearing member through which the bolt loosely passes and disposed against the outer face of the projecting end of the first named plate and a nut engaging said bolt.

3. In a table, an end rail, a side rail and a leg, means engaging one of said rails to the leg, and means permanently engaging one of said rails to the leg and detachably engaging the other rail to the leg, comprising a plate angular in horizontal section and disposed against the inner face of the first named rail, the leg being cut out to receive the angular end of said plate, said plate being attached to the rail and leg and having at its end overlying the rail an inwardly projecting flange engaging the rail, the angular end of the plate being formed with a slot and carrying an outwardly projecting bolt, and a plate attached to the second named rail projecting beyond the same and

adapted to overlie the angular end of the first named rail, the extremity of the second named plate being formed with an angularly projecting lug adapted to engage in said slot and with a bolt aperture, the opposite end of the plate being angularly bent and extending into the wood of the corresponding rail, and a bolt passing through the bolt aperture, both plates having a nut whereby said plates may be forced into interlocking engagement with each other.

In testimony whereof I hereunto affix my signature.

WILLIAM S. THOMASON.