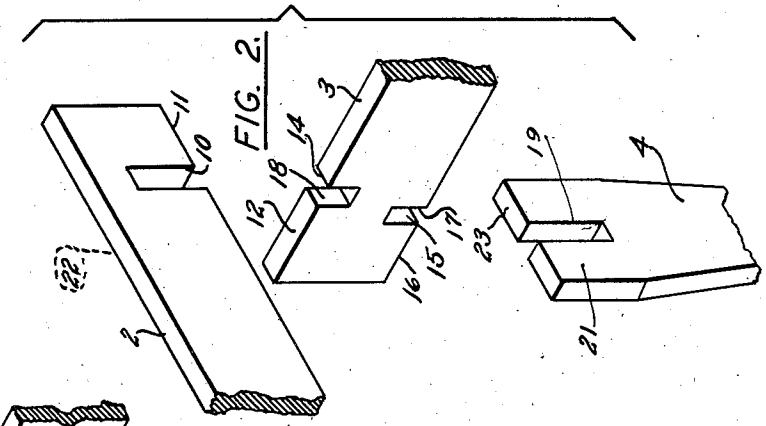
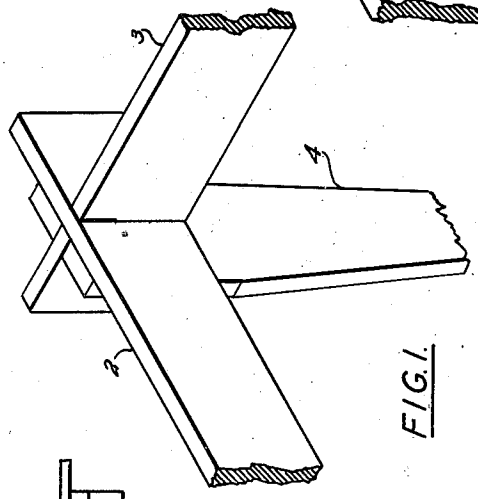
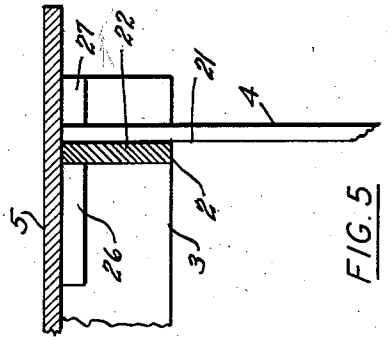
Sept. 23, 1947. B. BERGER 2,427,832

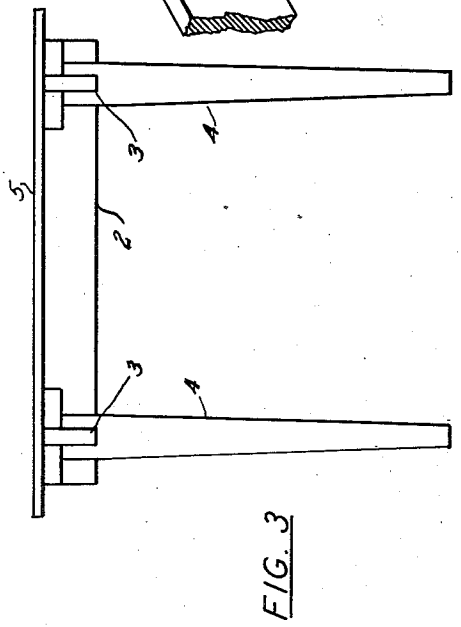
FURNITURE CONSTRUCTION

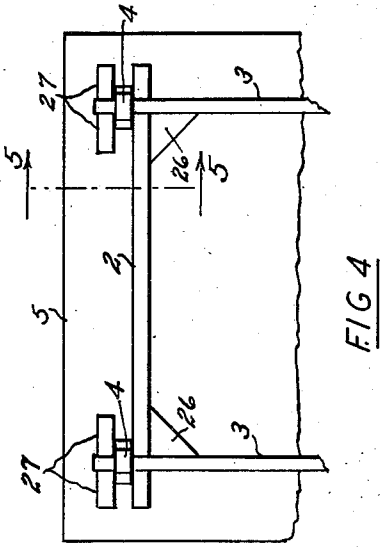
Filed March 21, 1944











INVENTOR
Bela Berger
By Scott L. Yowiel
Attorney

Patented Sept. 23, 1947 2,427,832

UNITED STATES PATENT OFFICE

2,427,832

FURNITURE CONSTRUCTION

Bela Berger, Phoenix, Ariz.

Application March 21, 1944, Serial No. 527,479

3 Claims. (Cl. 311—110)

1

This invention relates to furniture construction, particularly as applied to the construction of knock down tables and has for its objects:

First, the provision of a knock-down table whereby two frame rail members are interlocked at an angle to each other in the same plane by a supporting or leg member:

Second, the provision of knock-down furniture construction whereby notched table members may be mutually firmly joined in angular relation to each other by and with a supporting member extending transversely to the plane of said members first mentioned:

Third, the provision of a table leg and frame structure in which the frame rails may be locked together to and with the legs by notches cut in the respective parts, and the table top may be placed on said frame and held in position thereon by frictional engagement therewith, said top forming an additional lock binding said parts together; the parts being relatively fitted so that they may be shipped and marketed in knock-down form and may be assembled quickly and easily without the use of tools or implements; and

Fourth, an improved form of knock down furniture construction whereby the several parts of the furniture, for example, a table, may be packed, shipped, stored, and sold in knock-down or disassembled form, thereby saving space and crating, and may be manually assembled, to form a solid usable structure.

Other objects will appear hereinafter.

I attain the foregoing objects by means of the devices, construction, and parts illustrated in the accompanying drawings, in which—

Figure 1 is a perspective of a table rail and leg joint made to include my improvements:

Figure 2, a view of the three main parts comprising said joint, in expanded relation, as the parts appear before being wedged together:

Figure 3, a side elevation of a table having rail and leg construction embodying my improved joint construction;

Figure 4, a bottom view of a portion of said table showing the means of attaching the joints to the table top; and

Figure 5, a fragmentary sectional view taken on line 5—5, Figure 4, drawn on a slightly larger scale.

Similar numerals refer to similar parts in the several views.

In Figures 1 and 2 the parts 2 may be termed the side or longitudinal rail and part indicated by numeral 3 the transverse or supporting end rail. These rails are positioned at right angles

2

to each other and both lie in the same horizontal plane. The leg 4 extends at right angles to this plane. The rail and leg assembly constitutes a frame on which top 5 is fitted.

In the table shown in Figures 3 and 4 there are two end rails, two side rails, and four legs. The joint construction at each corner of the frame is the same as that shown in Figures 1 and 2.

The corner joints, mentioned, are formed by cutting a notch 14 in transverse rail 3 extending down from its top face 12 about one-third of its elevation. This notch is proportioned to receive the width of rail 2 with a snug fit. Rail 2 has notch 10 cut to extend from its lower edge upward for about two-thirds of its elevation. The notch is wide enough to receive the width of rail 3 at the position of its notch 14. In the present structure both notches are cut at right angles to the faces of the respective rails. When the rails are fitted together with the notches mutually engaged they intersect at right angles and their top edges lie in the same horizontal plane to form a smooth support for the table top. The joint is completed by the addition of the locking member which is the leg 4 and constitutes a vertical supporting member.

A second notch 15 is cut in the under side of transverse rail 3 extending from its edge 16 upward about one-third of its elevation. This notch is just wide enough to receive the thickness of the top portion of leg 4. It is positioned along the length of rail 3 so that its rear face 17 is vertically alined in the same plane as the outer face 18 of notch 14. Leg 4 is provided with a longitudinal notch 19 cut from its top end face 23 down to a depth equal to two-thirds of the elevation of rail 3 and wide enough to just receive the width of rail 3. When the leg end is inserted in notch 15 at the position of its notch 19, the top of the leg is even with the plane of the upper faces of both rails. Since faces 16 and 17 of notches 14 and 15, respectively, are in the same plane, the inner face 21 of leg 3 is brought adjacent to and in contact with the outer face of rail 2. The parts are proportioned so that these adjacent faces are in frictional contact when the leg is pushed in place in notch 15. After the rails are joined the positioning of the leg acts as a lock and binds all three parts together. The leg is held against side movement by its notch 19; it is held against forward and backward movement and rotative displacement by notch 15 and contact with rail 2; and the rails are held in position by mutual engagement of their notches.

Table top 5 is fitted on top of the leg-rail assembly, and held in position by triangular shaped blocks 26 which fit against the adjoining rails at each inner corner, and four pairs of blocks 27, which contact the outer face of the upper ends of each leg. The upper portion of the legs and the adjacent end portion of each side rail are wedged between each block 26 and blocks 27. This wedging action or frictional engagement can be made sufficient to retain the top in place without additional fastenings, since these blocks form a channel to receive and bind the engaged parts together. This furnishes additional rigidity to the legs. In the example here illustrated the rails and legs are made of plywood about one inch thick, with the notches of the several parts cut accordingly. The top is preferably made of the same material but can be thinner, and positioning and holding blocks 26 and 27 made one inch thick securely cemented to the under side of the top.

All the component parts can be packed, shipped, stored and kept in knock down or dis-assembled form until it is desired to set up and use the table. When this is to be done cross rails 3 are hooked onto legs 4 at each end; the side rails 2 are then wedged into position at each of their ends. This operation takes less time than setting up the conventional card table of the folding leg type. When the legs and rails are assembled the top is pressed down on this assembly and the table is ready for use. It is to be understood that, to make an adequately strong structure, some type of grainless, non-splitting wood, or similar material, or some type of plastic should be used. I have found that plywood one inch thick is suitable for the legs and rails and three eighths to five eighths thick plywood is sufficient for the top. Various plastics, and composite wood plastics may be used for these parts. These can be molded to shape, and the notches formed without cutting.

While I have shown my invention as applied to a table construction it is readily understood that it may be used for many articles of furniture. Further, it is conceivable that the members of the joints need not be at right angles to each other or their plane at right angles to the legs; the invention is adapted to vari-angled construction. Other modifications may readily be suggested. Therefore I wish to be limited only by the following claims.

I claim:

1. Joint construction for furniture, including a longitudinal horizontal frame member, a horizontal transverse frame member crossing said longitudinal member, said members being mutually notched at the place of crossing to form an inletted joint, and a vertically extending supporting member, its upper end being notched to receive said transverse member, and said transverse member being notched and inletted to receive said notched portion of said vertical member at a position so that the adjacent faces of the supporting member and said frame member are in frictional engagement, and a horizontal top member having locking blocks on its under side arranged to embrace the top portions of said longitudinal transverse and supporting members adjacent the said inletted joint and attached thereto by frictional engagement therewith.

2. A table comprising a frame composed of end members with notches cut in their upper edges near the ends thereof, to receive lateral members, and notches cut in their lower edges near the ends to receive legs; lateral members notched on their under edges near their ends to recess into the upper notches of the said end members so that their top edges are flush with the top edges of said end members, said notches on the under side of said end members being positioned so that when said legs are inserted therein the inner face of the leg is in frictional engagement with the outer face of said lateral member in said upper notch; legs notched at their top ends to recess into the notches on the lower edges of said end members with their top ends flush with the top edges of said end and lateral members; and a top member having blocks on its under side adapted to frictional compression engagement with the outer upper end of each leg and the adjacent inner face of each lateral member at each leg position and said blocks being arranged to form a groove adapted to frictionally receive the outer end of each of said end members along its upper edge.

3. A knock-down table comprising a top, a frame, and legs depending therefrom, said frame being composed of end and transverse members, said end members being notched on their upper edges near their ends to receive the ends of said transverse members, and said transverse members being notched on their under edges to fit into the said notches on said end members so that the top edges of both members are flush and form frame corner joints; said end members having notches cut on their under edges near their ends to receive the upper ends of said legs; said legs positioned at each of said corner joints having slots cut in their upper ends, forming a fork-like structure, proportioned to engage the notches on the under edges of said end members with the upper leg ends flush with the upper edges of said end and transverse members; said notches on the under edge of said end members being positioned so that the inner face of each leg is in frictional engagement with the adjacent outer face of each transverse member at each respective corner joint; said top having frictional retention members on its under side adapted to secure said top to said frame and leg assembly at each corner joint consisting of inner corner blocks positioned to engage the inner upper edges of said end and transverse members at the corners of their intersections, and pairs of outer corner joint blocks adapted to engage the outer faces of the upper ends of said legs to secure frictional engagement therewith and compress the said leg portion against the portion of said transverse members in contact with said leg against the adjacent corner block, and to coincidentally hold said end members against lateral displacement.

BELA BERGER.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
352,328	Kaufhold	Nov. 9, 1886
437,539	Warner	Sept. 30, 1890
479,363	Hanson	July 19, 1892
796,333	Howell et al.	Aug. 1, 1905
1,393,679	Forster	Oct. 11, 1921
1,480,905	Hebert	Jan. 15, 1924
1,645,336	McGlothern	Oct. 11, 1927
1,861,305	Fasching	May 31, 1932