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J. K. WIDDER

FURNITURE FRAME

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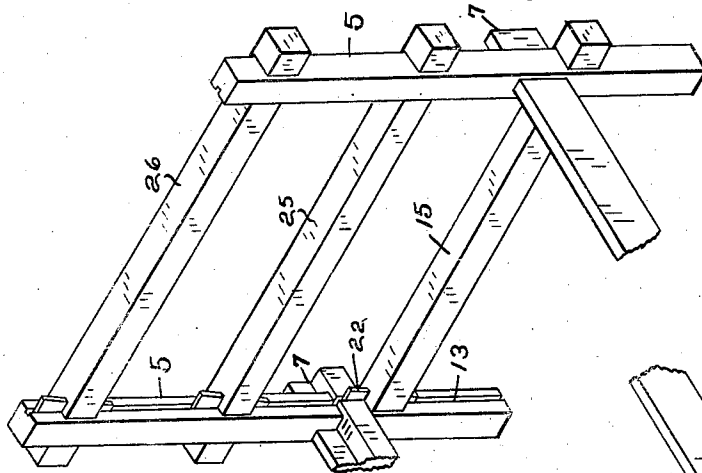
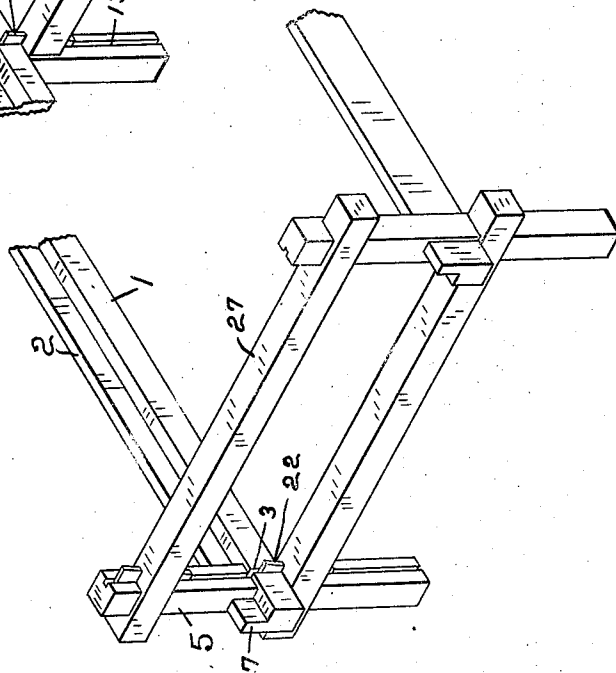
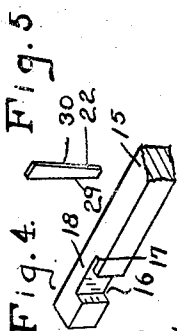
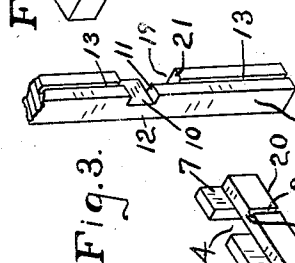


Fig. 1.



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FURNITURE FRAME.

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To all whom it may concern:

Be it known that I, JULIUS K. WIDDER, a citizen of the United States, residing at Sheboygan Falls, county of Sheboygan, and State of Wisconsin, have invented new and useful Improvements in Furniture Frames, of which the following is a specification.

My invention relates to improvements in frames for beds, chairs, tables, etc.

The object of my invention is to provide an improved jointing for the frame members, whereby they can be easily assembled and rigidly connected with each other by suitable wedges, and whereby all the frame members may be quickly separated from the others and stored in parallel relation to the others in such a manner as to occupy a minimum storage space.

In the drawings:

Figure 1 is a perspective view of a bed frame embodying my invention, the central portions of the side rails being broken away.

Figures 2, 3, 4, and 5 are details, respectively illustrating portions of a side rail, a post, a cross rail, and a wedge.

Like parts are identified by the same reference characters throughout the several views.

The side rail has a bottom portion 1 provided along one upper margin with a flange 2 preferably about one half the width of the bottom portion. Near the respective ends the bottom portion 1 has a vertical key receiving groove 3 on its inner side, and at the outer side a wider groove or channel 4 extends vertically across the rail and may be of sufficient depth to extend entirely through the flange 2 in cases where the rail is of sufficient thickness in its bottom portion to provide the necessary strength.

These rails are assembled with posts 5, which are morticed as clearly shown in Figure 3, wherein the notched and grooved portion 9 of the bottom 1 is received in the notch 10 of the post 5 and supported upon the shoulder 11 forming the base of said notch. The portion 12 of the post is received in the notch 4. The portion 7 of the rail projects beyond the post, as shown in Figure 1. The groove 3 registers with a vertical groove 13 extending along the inner face of the post.

The associated cross rail 15 has a notch 16, and one wall of this notch is provided with a channel 17. The notched portion 18 of this cross rail is adapted to fit a notch

19 in the outer side of the post 5 directly underneath the notch 11, whereby the cross rail 15, when assembled with the post, occupies a supporting relation to the portion 20 of the side rail. The cross rail rests upon the shoulder 21 constituting the base of the notch 19, and the notches 16 of the cross rail and 19 of the post are of sufficient depth to allow the groove 17 in the cross rail to register with the vertical groove 13 in the post.

A tapered key 22 may, therefore, be driven downwardly in the groove 13 to engage in the groove 3 of the side rail and the grooves 17 of the cross rail, whereby this single key will serve to anchor the post, the side rail, and the cross rail together.

The upper cross rails 25 and 26 are identical with the cross rail 15, and the posts have notches corresponding with the notch 19 shown in Figure 3. However, in the construction shown there are no side rails at these levels and, therefore, the posts are not provided with notches 10 in association with the notches which receive the cross rails 25 and 26. The same is true of the cross rail 27 at the foot of the bed frame, illustrated in Figure 1.

It will, of course, be understood that each of the four posts illustrated in Figure 1 are notched in the same manner as above described with reference to Figure 3 and the lettered post 5 in Figure 1.

It will be observed that the keys 22 have their post engaging side margins 29 at right angles to their upper margins. The side margins 30 are inclined. These keys not only bind the parts together with a wedging action, but the engagement of their margins 29 in the post grooves largely relieves the morticed portions of the side and cross rails from strain and prevents end portions, such as the portions 7, from being split or torn away by weaving movements of the frame. In fact, the frame has unusual rigidity and stability for this reason.

I claim:

1. A frame for furniture having in combination, posts, side and cross rails in morticed relation to each other, the posts having key receiving vertical grooves, and the side and cross rails each having key receiving grooves adapted for registry with the grooves of their associated posts, and keys adapted to fit the registering post and rail grooves.

2. A furniture frame having in combination a vertically grooved post provided with transverse notches on the two sides, the notches on one side extending across the grooved face thereof, a side rail having a notched portion fitted to one of the post notches, a cross rail having a notched portion fitted to another post notch, and a removable key engageable with the post and both of said rails to lock them in assembled relation.

3. A furniture frame having in combination a post, a set of cross rails disposed at right angles to each other and engaging said post, and a single removable key in interlocking relation to the post and both of said cross rails to hold them together.

4. A furniture frame comprising one member having a longitudinally extending groove and also having a notch extending across said groove, another frame member having a notched portion adapted to be received in the notch of the first mentioned member and provided with a groove adapted for registry with the first mentioned groove, and a key engageable in both grooves and adapted to bind said members together in assembled relation.

5. A furniture frame comprising one member having a longitudinally extending groove and also having a notch extending

across said groove, another frame member having a notched portion adapted to be received in the notch of the first mentioned member and provided with a groove adapted for registry with the first mentioned groove, and a key engageable in both grooves and adapted to bind said members together in assembled relation, said key having converging side margins and being of greater width at its larger end than the distance between the bases of the grooves in which it engages.

6. A furniture frame having in combination a member provided with a longitudinally extending groove in one side face, said member also having a notch extending across said groove and another notch extending at right angles thereto and offset from the first mentioned notch a distance substantially equal to its width, cross members fitted to the respective notches and engaging unnotched portions of the first mentioned member near their respective ends, said cross members also having grooves adapted for registry with the groove in the first mentioned member, and a wedge key adapted to slide in the first mentioned groove into engagement with the grooves in said cross members.

JULIUS K. WIDDER.