

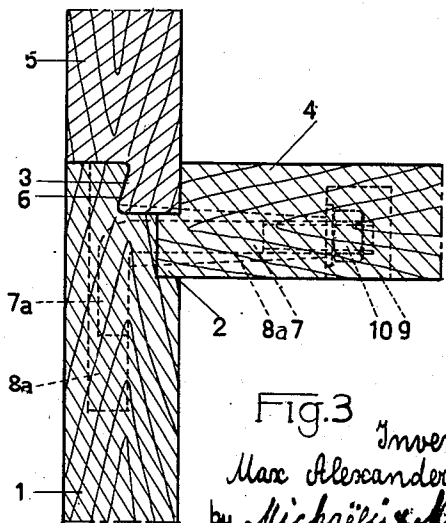
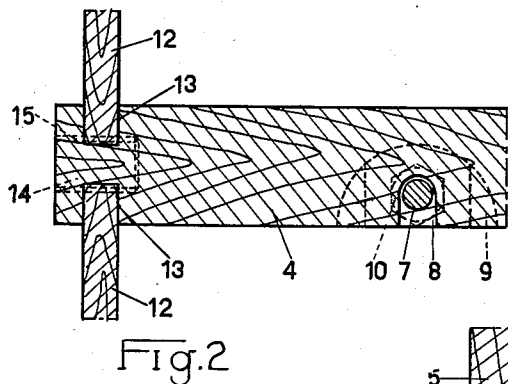
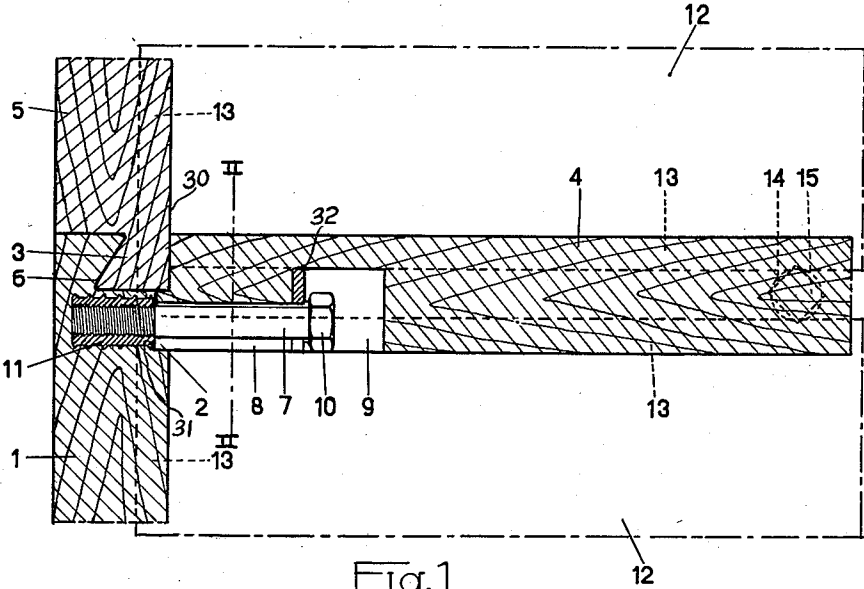
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JOINT FOR ARTICLES OF FURNITURE

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## UNITED STATES PATENT OFFICE

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## JOINT FOR ARTICLES OF FURNITURE

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4 Claims. (Cl. 20—92)

My invention relates to a joint for the walls of articles of furniture, which is more particularly adapted for assembling standardized parts of sectional furniture.

It is an object of my invention to provide a joint which enables even an unskilled person to build up such furniture from standardized parts within a short time.

Other objects of my invention will appear as the specification proceeds.

Sectional shelves, cases, cabinets and other articles of such furniture, i. e. of furniture which can be expanded by building up parts or complete sections of standard dimensions, are composed of a number of compartments or sections, which have, as a rule, open front sides and the walls of which, i. e. the side walls, the upper, the lower and the rear walls, are first finished with fixed dimensions, so that, in the assembling of such an article of furniture, generally the adjoining side walls of two compartments and the intermediate upper and lower walls of a compartment must as a rule be connected with each other and besides insertion of the rear walls of the compartments is required.

The abutting ends of the two aligned side walls are formed each with an undercut tenon, the tenons of two adjoining walls being arranged in staggered relation, and, when the walls are assembled, grip each other like two hooks and form one-half of a dovetail joint. The third wall is placed with its edge in contact with the back of that tenon, which extends on the inside of one of the two walls and means are provided for locking the third wall to the other side wall, whereby also the two tenons of the side walls are forced into interlocking engagement. Preferably the third wall is also formed with a tenon and the side wall, to which it is locked, with a groove, into which this tenon fits, and the locking means may then extend through this tenon and groove.

In the drawing affixed to this specification and forming part thereof, two embodiments of my invention are illustrated diagrammatically by way of example.

In the drawing

Fig. 1 is a longitudinal section through two adjoining side walls and the intermediate horizontal wall inserted between them.

Fig. 2 is a sectional view according to line II—II in Fig. 1, while

Fig. 3 is a similar view as Fig. 1 through part of a modification.

Referring to the drawing and first to Figs. 1 and 2, 1 and 5 are two walls aligned in superpo-

sition and 4 is a horizontal wall extending at right angles to the walls 1 and 5. From the outer half of the top edge of the vertical wall 1 extends an undercut tenon 6. From the inner half of the bottom edge of the vertical wall 5 extends an undercut tenon 3. The tenons 6 and 3 are symmetrically shaped, each tenon fitting in the groove formed by the other. The horizontal wall 4 is formed with a straight front edge 30 and a straight tenon 2 extending from the lower half of this edge. The straight front edge 30 rests against the inner side of the tenon 3, the straight tenon 2 extends into a straight groove 31 formed in the vertical wall 1. From the bottom of this groove an internally and externally threaded sleeve 11 extends into the wall 1. A groove 8 is formed in the bottom of the horizontal wall 4, this groove extending through the tenon 2 in alignment with the sleeve 11 and the inner end of the groove 8 is enlarged at 9. A screw bolt 7 is arranged in the groove 8 with its head 10 extending into the enlargement, while its threaded end can be screwed into the sleeve 11. A washer 32 of horseshoe section fitting in the cavity 9 serves as an abutment for the bolt head 10.

When the parts are assembled in position as shown in Fig. 1, they can be locked and the two vertical walls 1 and 5 held in interlocking engagement by tightening the bolt 7, which forces the straight edge face 40 of the horizontal wall 4 against the back of the inner tenon 3, thereby pressing the two tenons together and at the same time connecting the horizontal wall 4 with them.

In the modification of Fig. 3 the free end of the screw bolt is bent to form a hook 7a, and the wall is formed with a mortise 8a which replaces the threaded sleeve. The hook-shaped end of the bolt is inserted in the mortise; the horizontal wall 4 is placed on the bolt shaft and the nut 10 on the inner end of the bolt is screwed down to force the straight tenon 2 into the groove of the vertical wall 1 and to lock the three walls together.

Obviously the invention may be applied to the connection of any three abutting walls, two of which are aligned.

The strength of the joint described above may be further improved by also jointing the rear walls to the grooved horizontal and vertical walls. The horizontal walls 4 which are formed with grooves 13 for the insertion of the rear wall are provided to this end with a horizontal bore 14 which extends partly above and somewhat past these grooves. After a rear wall 12 has been inserted in a groove 13, a quadrangular hardwood

plug 15 is driven into the bore 14, two edges of this plug 15 entering the softer material of the rear wall 12 and thus fixing it in the groove.

The means according to the invention described above allow of combining or connecting finished parts, more particularly of standard dimensions, in a particularly simple manner to form an article of furniture.

I wish it to be understood that I do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

I claim:

1. Joint for three walls, two of which extend in substantial alignment, comprising in combination, an outer undercut tenon on that edge of one of said aligned walls which adjoins the other aligned wall, an inner undercut tenon on the corresponding edge of the other aligned wall, an edge on the third wall extending in contact with

the back of said inner undercut tenon and means for locking said third wall to that one of said aligned walls which carries the outer tenon, and thereby also locking said two tenons in interlocking engagement.

2. The joint of claim 1, in which a tenon on the edge of the third wall extends into a groove in the wall carrying the outer tenon and the locking means extends through said tenon and groove.

3. The joint of claim 1, in which a nut is held in a groove in the wall carrying the outer tenon and a threaded bolt held in the third wall fits in said nut.

4. The joint of claim 1, in which a hook-shaped screw-bolt is held in the third wall and extends into an angular groove in the wall carrying the outer tenon.

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