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[33] **Germany**

[31] **W 45027**

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[54] **CABINET OR CABINET PANEL, FROM**  
**PREFABRICATED PARTS**  
**3 Claims, 8 Drawing Figs.**

[52] U.S. Cl. .... **312/257,**  
**312/138**

[51] Int. Cl. .... **A47b 43/00**

[50] Field of Search ..... **312/257,**  
**257 SK, 263, 264, 265, 138; 16/135, 162**

**ABSTRACT:** A prefabricated cabinet assembly having corner members comprising a pair of U-shaped rails, one nested inside the other. The inner rail has a plurality of notches in its sides for accommodating shelf support rails. Side panels are inserted into the inner rail. The rails are held together by mating grooves on their sides. The outer rail also has dovetail grooves in its outer sides for receiving rear panel connecting slats.

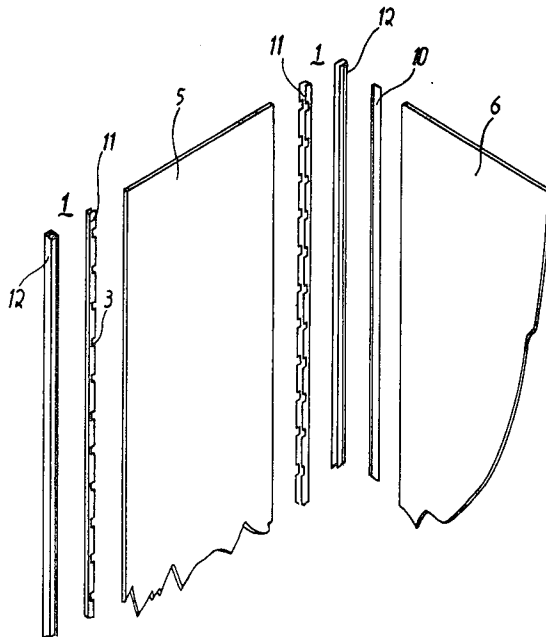


FIG. 1

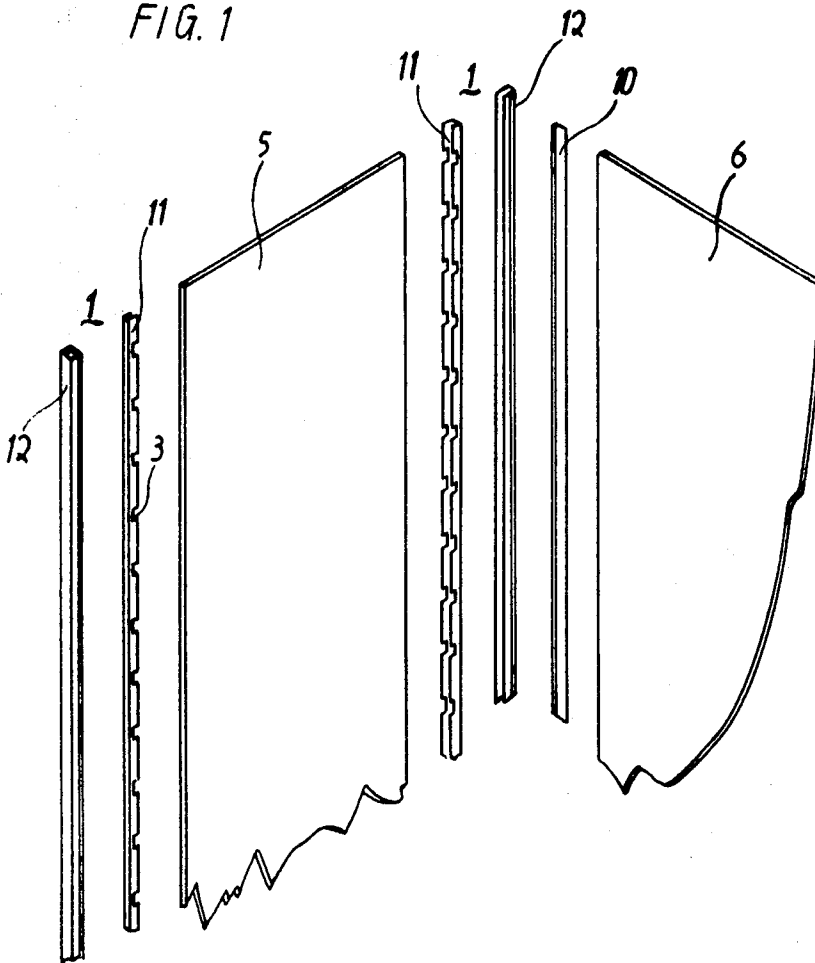
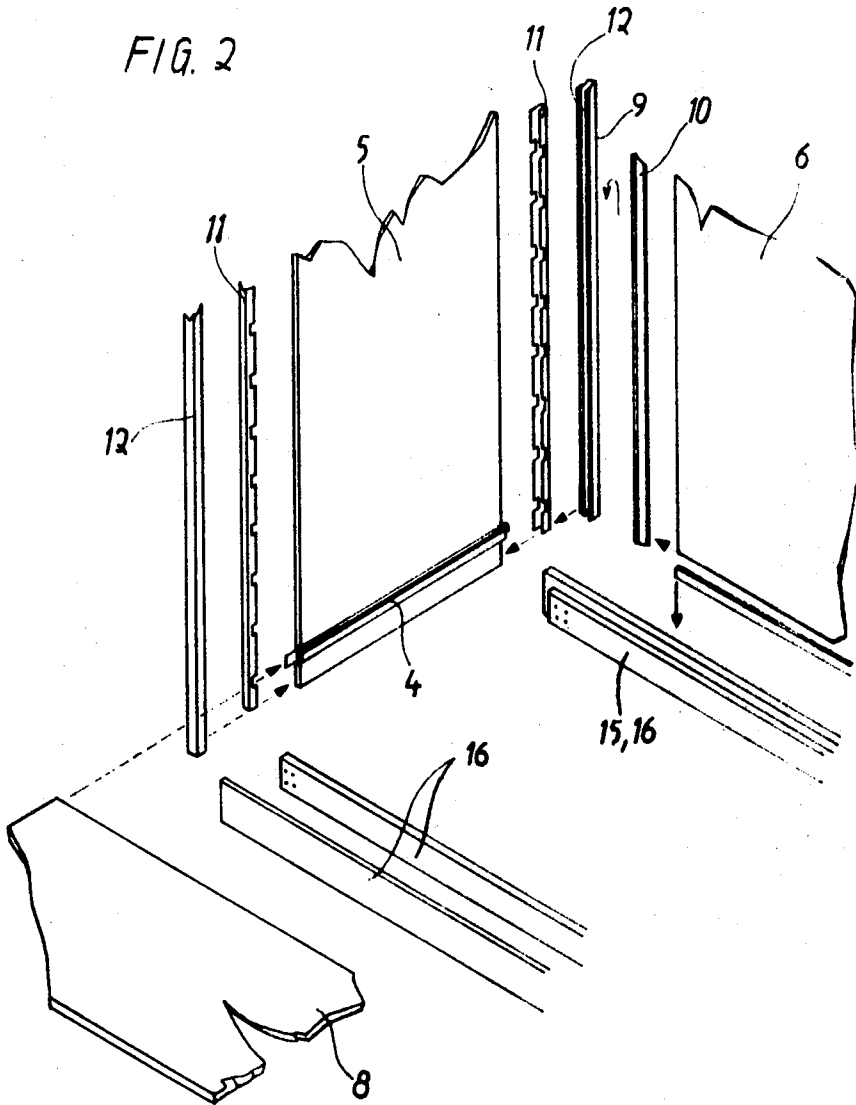


FIG. 2



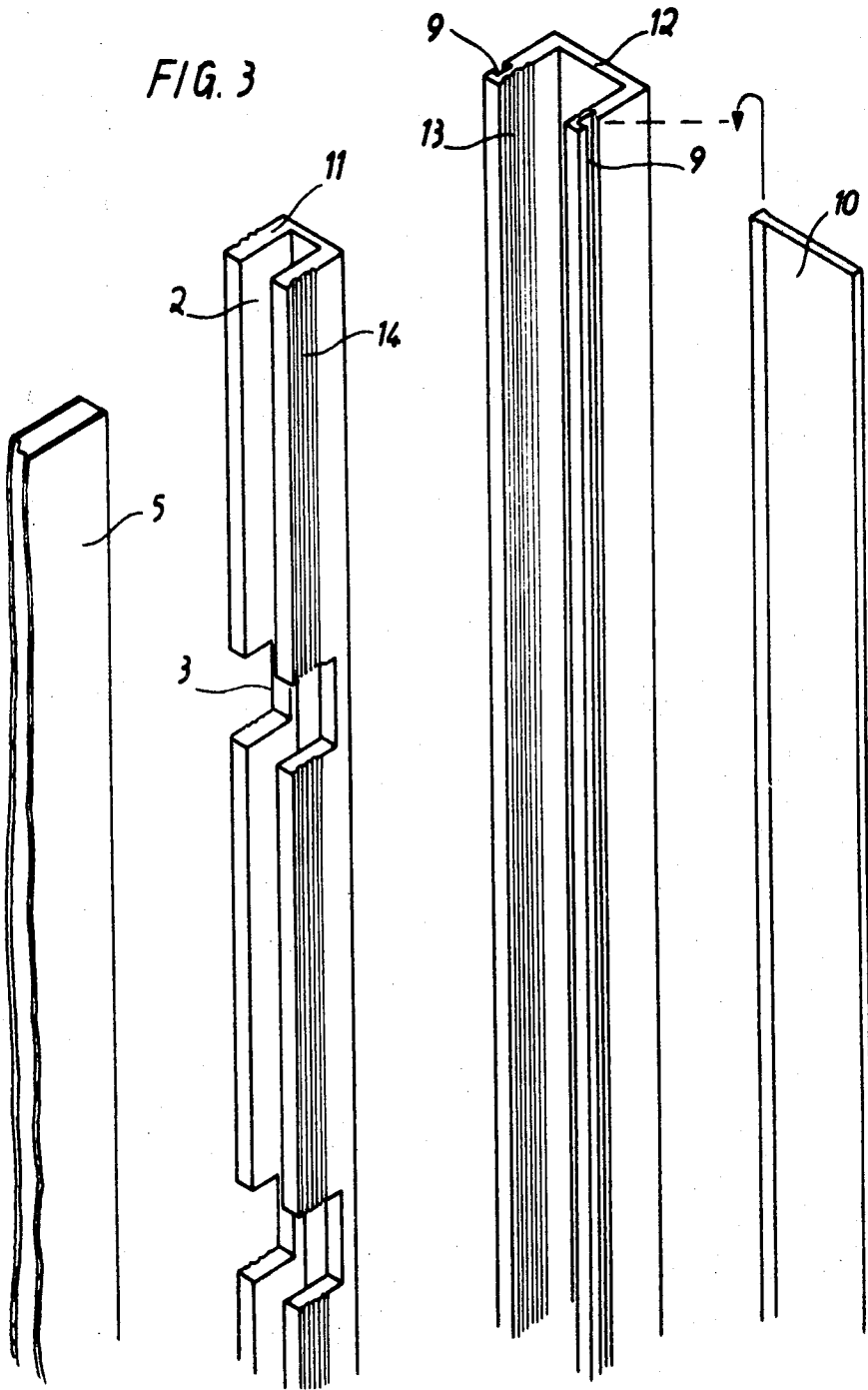
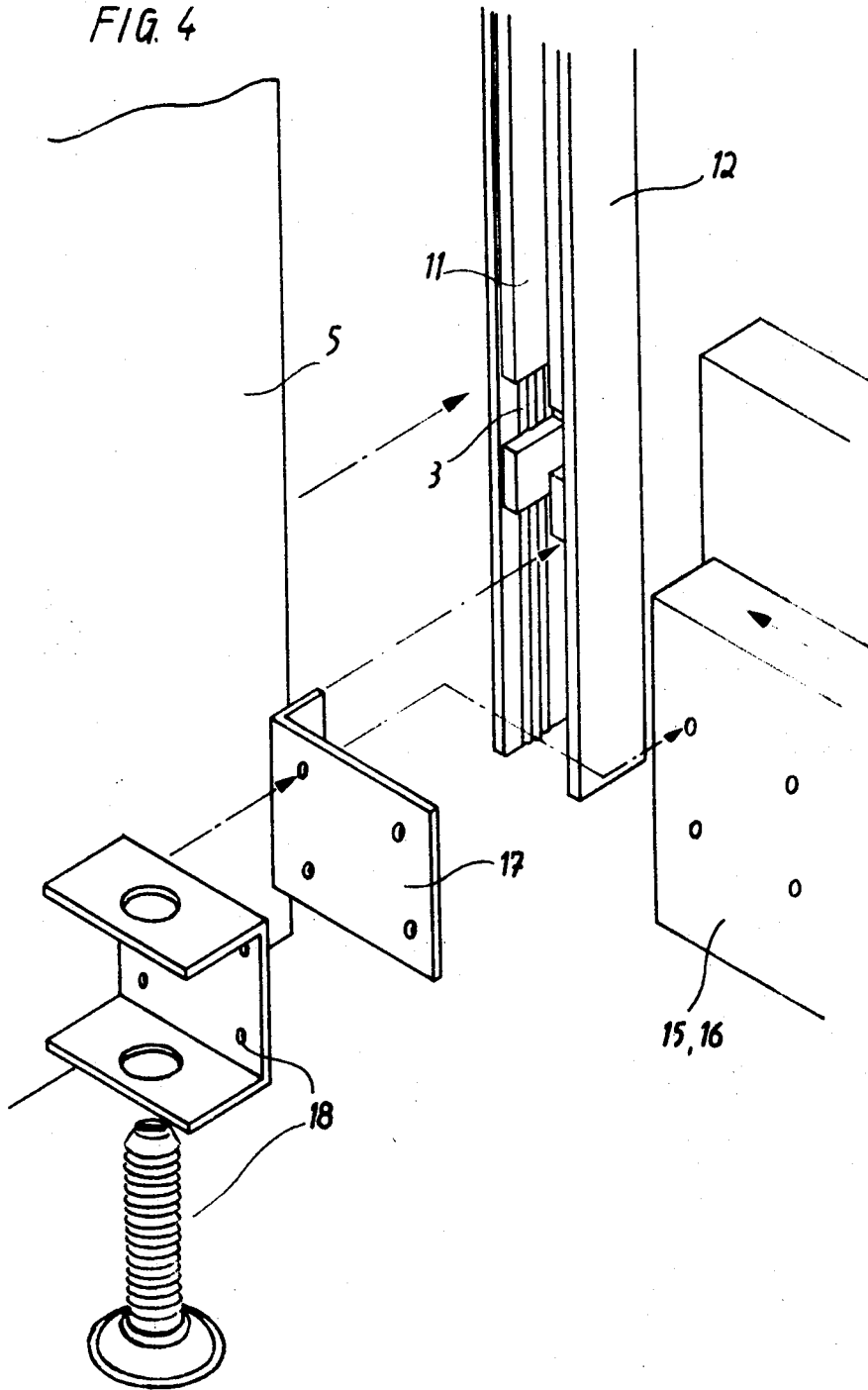


FIG. 4



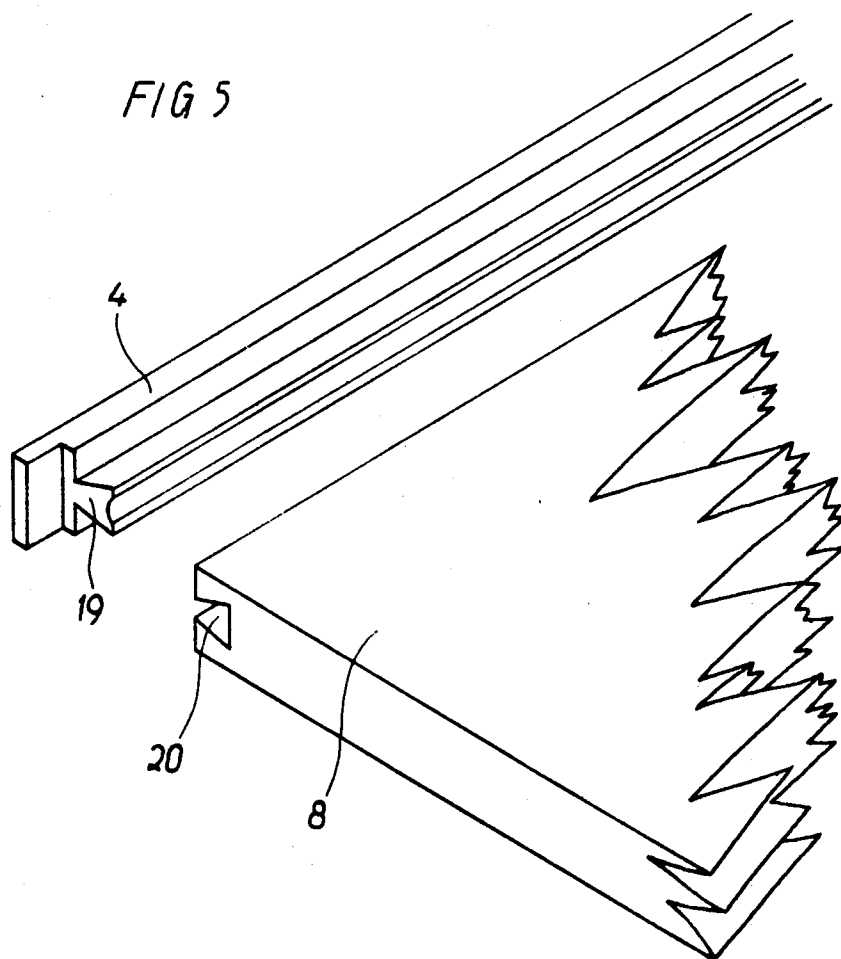


FIG. 6

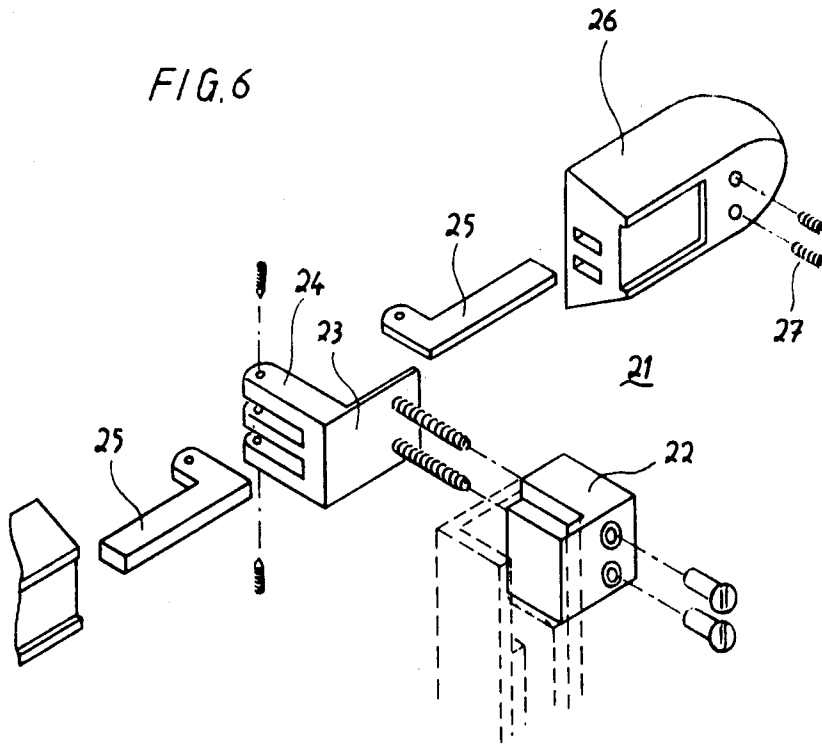
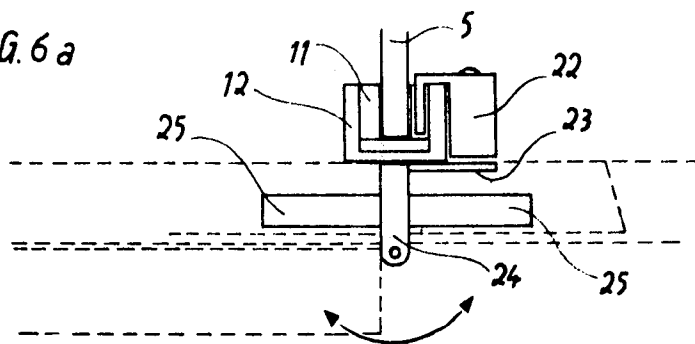
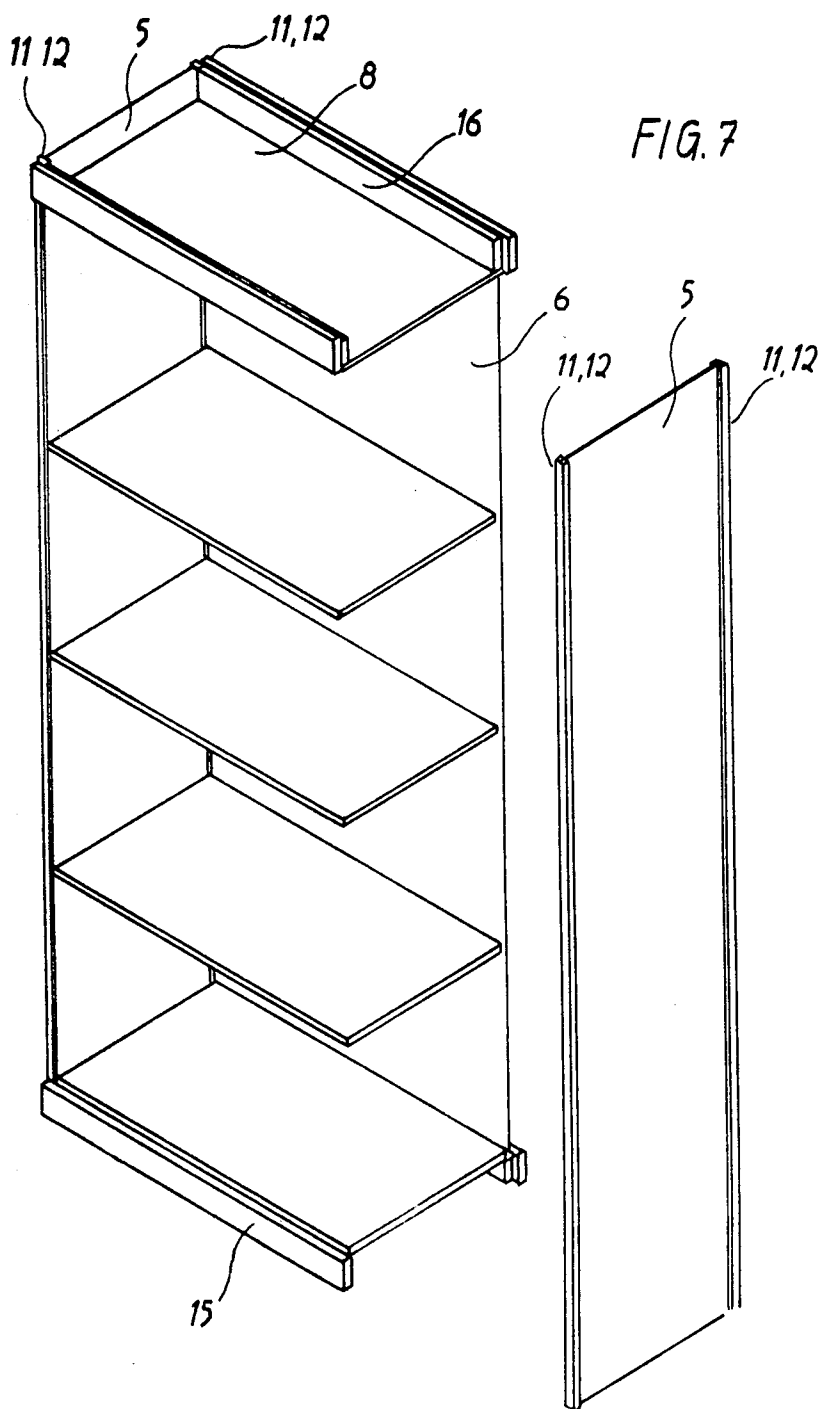


FIG. 6a





## CABINET OR CABINET PANEL, FROM PREFABRICATED PARTS

This invention relates to a cabinet, cupboard or the like, assembled from prefabricated parts, or to a cabinet panel which can be built-up from such parts in any size, even around a corner.

Cabinet panels or built-up cabinets of known design generally consist of prefabricated parts which either mounted in erection rails, or screwed on each other or adjacent each other, or fixed by means of locking devices. The prefabricated cabinet parts are usually small compartments with base, top and sidewalls, as well as various kinds of doors and the like. In many cases the particular kind of assembly can be recognized from outside. A considerable disadvantage of these individual cabinets or compartments which are placed side by side each other, and upon each other, and are joined together, is that instead of one, there are always two intermediate partitions abutting each other, in all directions, whereas in principle, only one partition should be necessary.

The purpose of this invention is to create a cabinet which can be built up from a prefabricated parts or to provide a cabinet panel of such a kind that the supporting assembly parts are invisible from outside and which can rapidly be put together, dismantled again and set up afresh at some other place, besides being capable of combination in a large diversity of shapes and sizes.

According to the invention, this is attained by arranging that the components supporting and holding the entire construction together, take the form of unilaterally open hollow-section rails arranged at the corners of the individual cabinets, these rails being provided with grooves for accommodating the panels and with several cavities situated vertically above each other for accommodating support rails for drawers and bases. The side panels and partition walls are directly insertable in the rail, the latter also having grooves along its sides for receiving rear panel connecting slats which in turn are insertable in grooves in a rear pane.

In a preferred embodiment, the hollow-section rails consist of two U-section rails fitting into each other, the one lying inside serving to accommodate the partition walls or the side panels. For the purpose of accommodating the support rails, one of the two rails is provided with a number of cavities in the vertical direction. Preferably, the inner rail is constructed as a notched section rail and exhibits a regular raster of cavities for receiving support rails, this raster being covered, at least partially, by the outer section rail. At their lateral faces, the outer U-section rail and the inner one are provided at the inside or outside as the case may be with one or more gripping channels or flutes. These are of fir-tree shape and run in the longitudinal direction of the section rails, with the object of insuring with certainty that the inner rail does not slip out of the outer rail.

The section rails positioned at the four corners are then connected together by bottom and top frame members by fitting these members with holding angles which laterally protrude and are capable of insertion into cavities in the notched section rail. This notched section rail moreover serves to accommodate appropriately shaped door fittings which, according to a preferred embodiment, comprise a mounting member for insertion into the rail. A hinge fitting, with three overhang arms, is applied to this mounting member, while hinge arms for right- or left-hand hung doors are inserted insertable into these overhang arms. The hinge arms are in turn insertable into door supporting members.

Advantageously, the hollow section rails will be produced from tough, shock-proof material, which however is flexurally resilient. Preferably the base frame members are provided with height-adjusting devices, known per se, which are secured to the holding angles of the bottom frame members and therefore engage the notched section rails directly, for the purpose of height adjustment. Also, the support rails preferably have a laterally protruding dovetail profile into which the bases of shelves which have similarly shaped

recesses, can be inserted. At the same time it is of advantage to expand the cross section of the dovetail profile to a somewhat greater degree than the corresponding groove in the base boards, so that the dovetail profile exerts a horizontal but always outwardly directed force on the base boards.

The invention will now be explained in detail in conjunction with a preferred embodiment, with the aid of the accompanying drawings in which:

FIG. 1 is a general view of the corner construction,

FIG. 2 is a similar view at the base of the cabinet, and

FIG. 3 is a detailed view of the U-section rails;

FIG. 4 shows the attachment of the bottom frame members and the height adjustment device,

FIG. 5 the attachment of bases and shelves to support rails,

FIG. 6 and 6a a door fitting, preferably used, and

FIG. 7 is a partial view of a cabinet.

FIG. 1 shows the unilaterally open hollow-section rail 1, which in the embodiment illustrated, is composed of two U-section rails 11 and 12, which however may be made in one piece either drawn, machined, extruded or shaped in any other manner. The partitions or side panels 5 are inserted in the open end of the inner hollow section rail 11 which is here illustrated as a notched section rail and comprises a raster of cavities 3 arranged one above the other. The figure also illustrates a rear panel connecting slat 10 which is expanded in dovetail manner at the left-hand end and is insertable in a corresponding groove in the rail 12. The rear panel 6 with a corresponding groove is in turn pushed on to the rear panel slat 10.

FIG. 2 shows the same parts as in FIG. 1, but in addition it indicates a support rail 4 which is insertable in the cavities 3 of the notched section rail. As the arrows indicate, the base or shelf 8 can then be pushed on to this support rail, as will be explained in detail later. The bottom frame members 15, which are identical with the top frame members 16, are also indicated.

FIG. 3 shows the two U-section rails in full detail. In connection with the rail 11 formed as a notched section rail, this figure discloses the groove 2 for accommodating panel 5, the cavities 3 for accommodating the support rails, door fittings and the like, and in particular the gripping flutes 14 corresponding in shape to the flutes 13 of the outer rail 12, so that, after the two rails have been pushed over each other, the inner rail cannot pull out of the outer rail. The FIG. also shows the groove 9, serving to accommodate the rear panel slat 10, which is expanded in dovetail fashion at the left-hand end.

The connection between the bottom end of a hollow-section rail 1 (which is here shown as consisting of the U-sections 11 and 12) and the bottom frame members, is shown in FIG. 4. A holding angle 17 is screwed on to the bottom frame member 15 for example by means of four screws, and is inserted in the lowermost cavity of the inner notched section rail 11. A height adjusting device 18 may be mounted on this holding angle 17, for example by screws. The side panel or partition panel 5 which is then to be inserted, firmly retains the holding angle 17 from the other side. When the height adjusting device is regulated, it lifts the holding angle 17, the notched section rail 11 and consequently the entire open hollow-section rail 1, depending on the rotation of the adjusting screw.

The attachment of a base or shelf is shown in FIG. 5. Here, the partially shown support rail 4 is provided with a dovetail profile extension 19 on to which a base board 8, which has a groove 20 of substantially similar shape, can be pushed. The cross section of the dovetail profile 19 of the support rails 4 is expanded to a somewhat greater degree than the corresponding groove in the base boards 8 so that these latter are acted upon by a tensile force which is directed horizontally but always outwardly and also contributes to the rigidity of the entire construction.

FIG. 6 discloses the novel door fitting which consists of a mounting member 22 which, as will be apparent from the sectional view in FIG. 6a, can also be introduced into the notched

section rail 11. A hinge fitting 23 is screwed on to this mounting member 22, preferably by using screws in conjunction with pins having internal threads. In the embodiment shown, this hinge fitting 23 is provided with three overhang arms 24 which are adapted to receive the hinge arms 25. As will be seen, the hinge arms 25 may be inserted both for right-hand as well as left-hand hung doors. These hinge arms engage in corresponding cavities of a door supporting member which has a dovetail cross section and can be fitted into a corresponding cross section in the door. The attachment of the hinge arms 25 to the door-supporting member 26 is effected by means of two grub screws 27 which press against the side faces of the inserted hinge arms and thus firmly secure the door. This novel door attachment cannot only be inserted at any height without damaging a wall member, but may be introduced in any other manner and enables the doors to be opened through 180 degrees.

FIG. 7 schematically illustrates a portion of a cabinet constructed in accordance with the described embodiment of the invention. Further description is however not necessary.

It is obvious that the new cabinet may be erected in any standard heights and that the prefabricated parts indicated may be built-up to long cabinet panels, even around corners. Any subdivisions, and sizes of doors and any dividing into inside compartments is possible. This new cabinet, or indeed this new cabinet panel, may be constructed with a minimum of tools and with unbelievable speed. It can also be adapted to room height without the necessity for making up special panels. In particular, the cabinet, or the cabinet panel as the case may be, can be aligned perfectly horizontal and vertical, so that warping and distortion are practically eliminated.

The invention is of course described in conjunction with a specific embodiment. It remains open to the skilled person however to introduce a number of modified versions, with the

aid of the individual components described, but these of course will also fall within the scope of protection of the invention.

The embodiment of the invention in which an exclusive property or privilege is claimed is defined as follows:

1. A prefabricated cabinet assembly comprising in combination, a unilaterally open U-shaped hollow section rail means having vertically arranged grooves for accommodating side panels and back panels located at each corner, and characterized in that at least one of the inner sidewall surfaces of each U-shaped rail is provided with a plurality of vertically arranged notches, said notches being at least partially concealed by an outer wall of said U-shaped rail for accommodating support rails for drawers and shelves and simultaneously securing the lateral stability of the entire construction, wherein the hollow-section rail means consists of two U-section rails, one of said U-section rails being disposed within the other U-section rail, the inwardly disposed U-section rail serving to accommodate the side panels.

2. A prefabricated cabinet assembly as defined in claim 1 wherein said inner U-section rail is constructed as a notched section rail having a plurality of notches spaced along its length for accommodating support rails, said inner U-section rail being at least partially concealed by the outer U-section rail.

3. A prefabricated cabinet assembly as defined in claim 1 wherein the outer U-section rail is provided on the inside surface with at least one gripping flute running in the longitudinal direction of the section rail, and the inner U-section rail is provided on the outside surface with at least one of said gripping flutes, said flutes preventing the inner U-section rail from slipping out of the outer U-section rail.

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