

[54] METAL-WOOD FURNITURE

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[58] Field of Search 312/257 R, 257 SK,
312/204, 330

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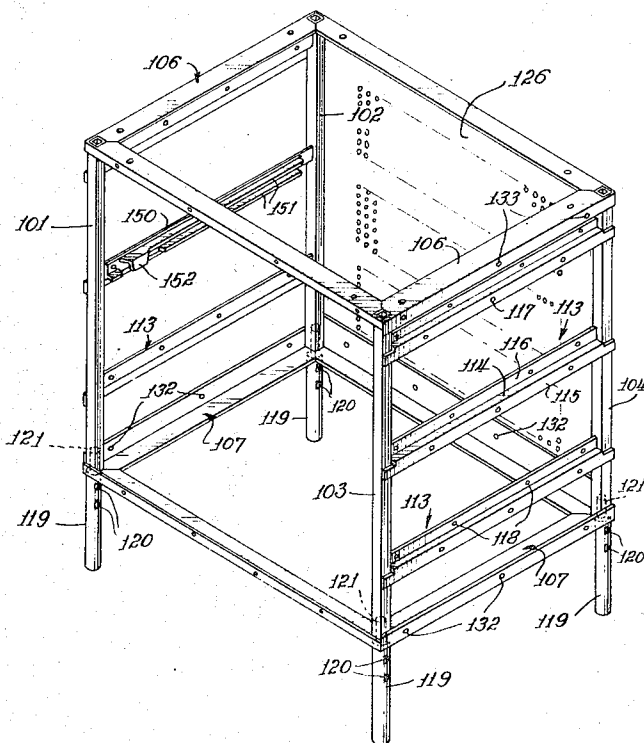
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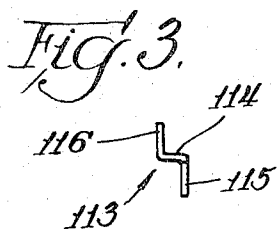
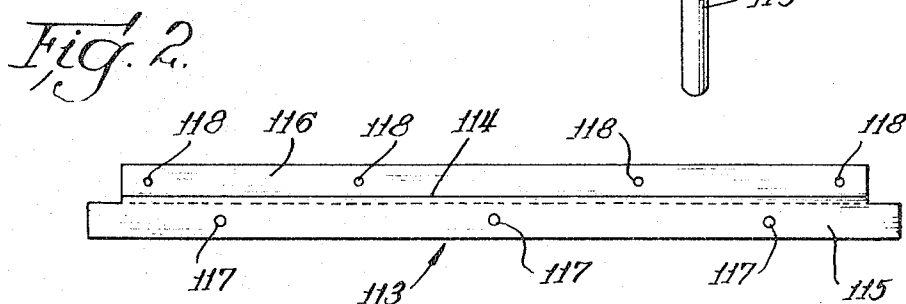
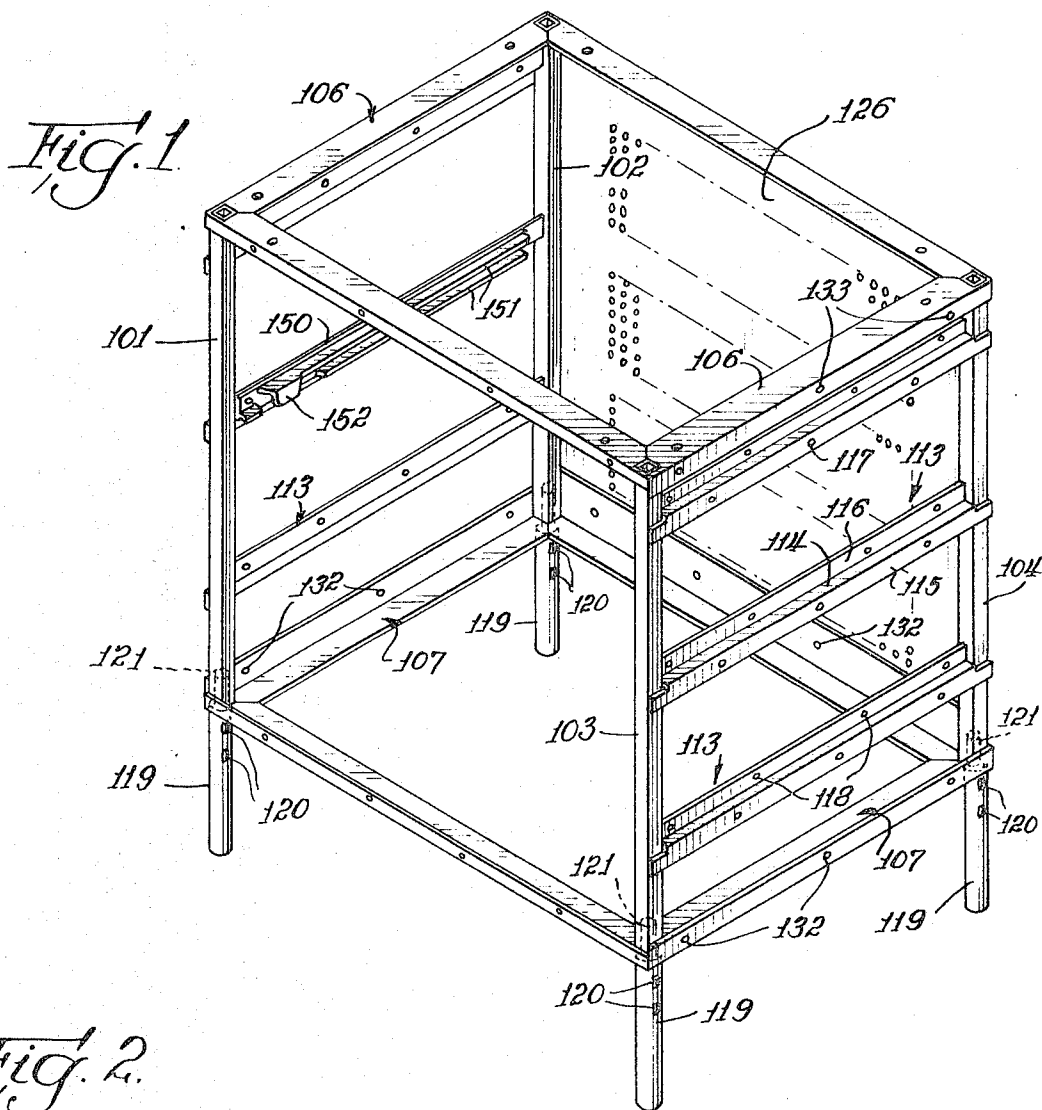
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ABSTRACT

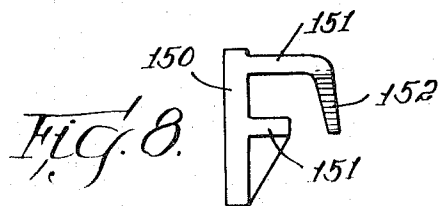
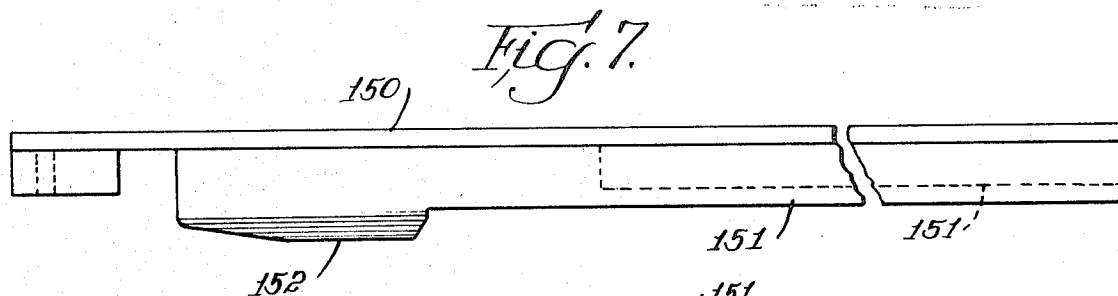
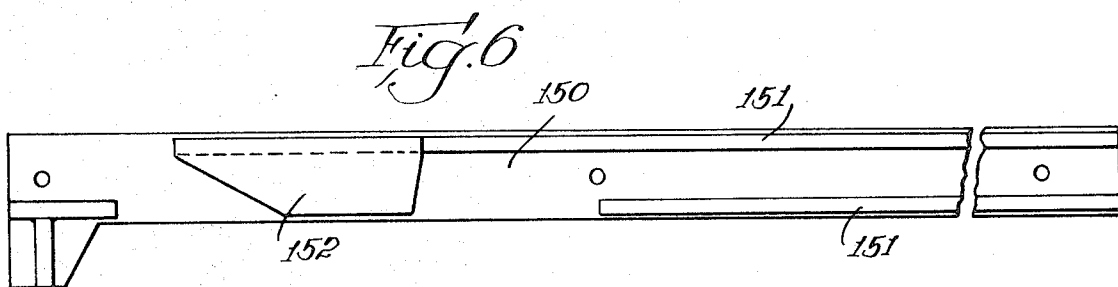
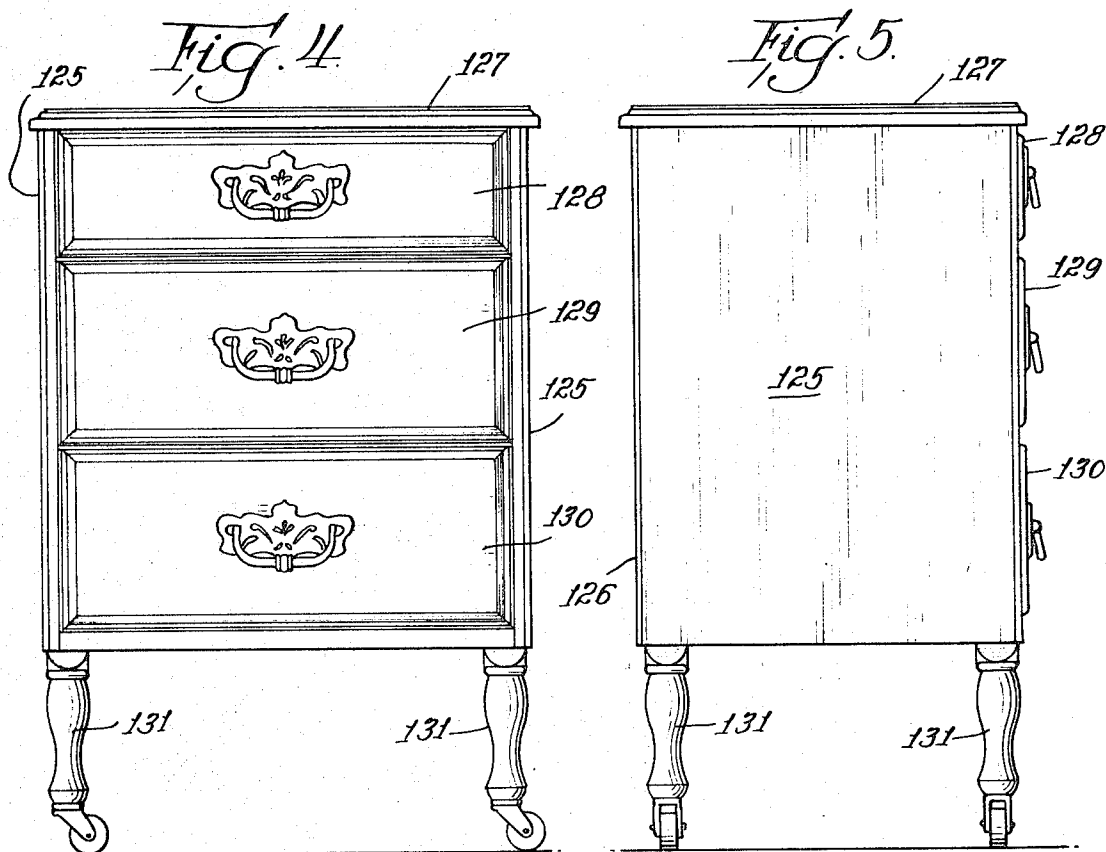
A metallic framework to which wooden panels are attached, to form furniture for general use and use in a patient's room in a hospital, which furniture may consist of bedside cabinets, dressers and the like.

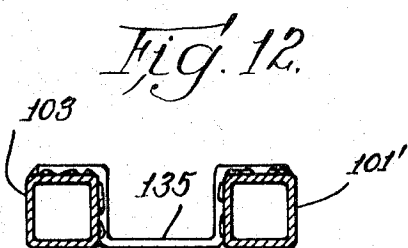
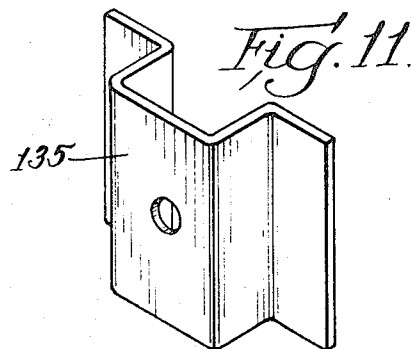
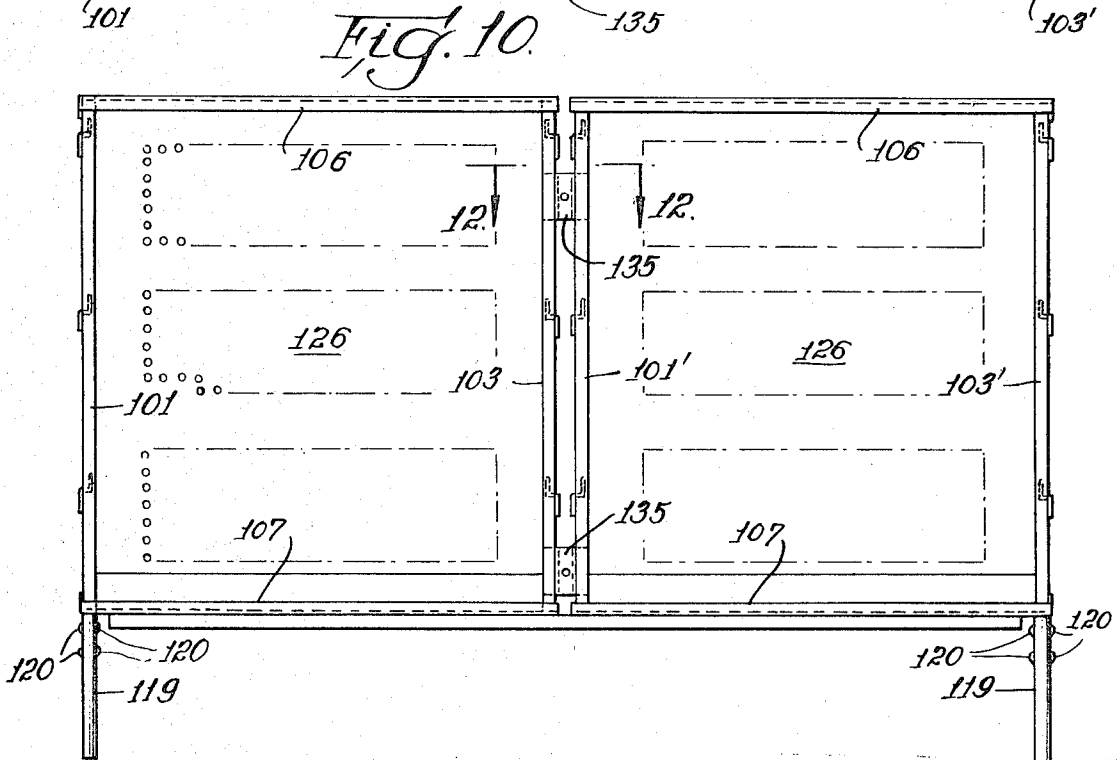
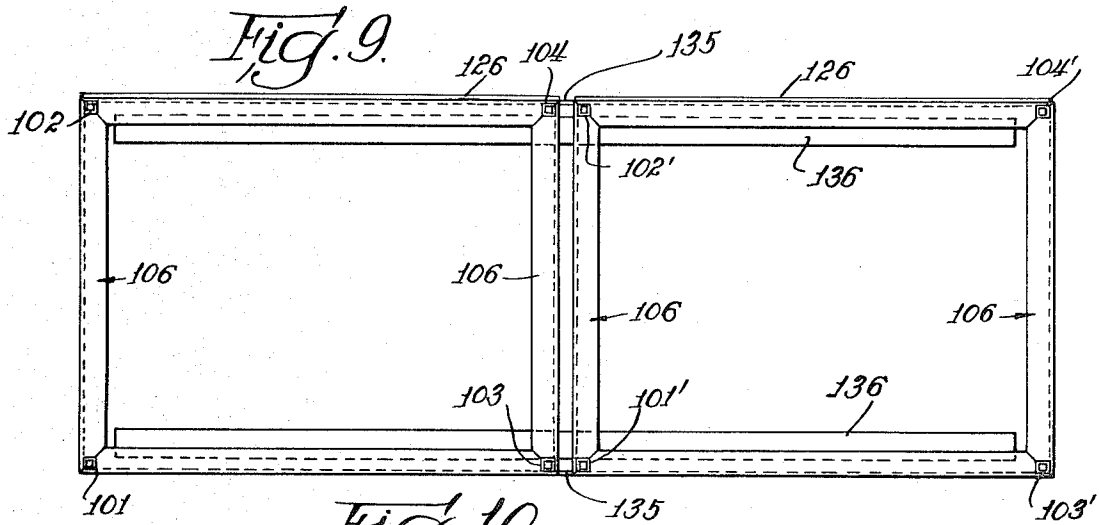
8 Claims, 22 Drawing Figures





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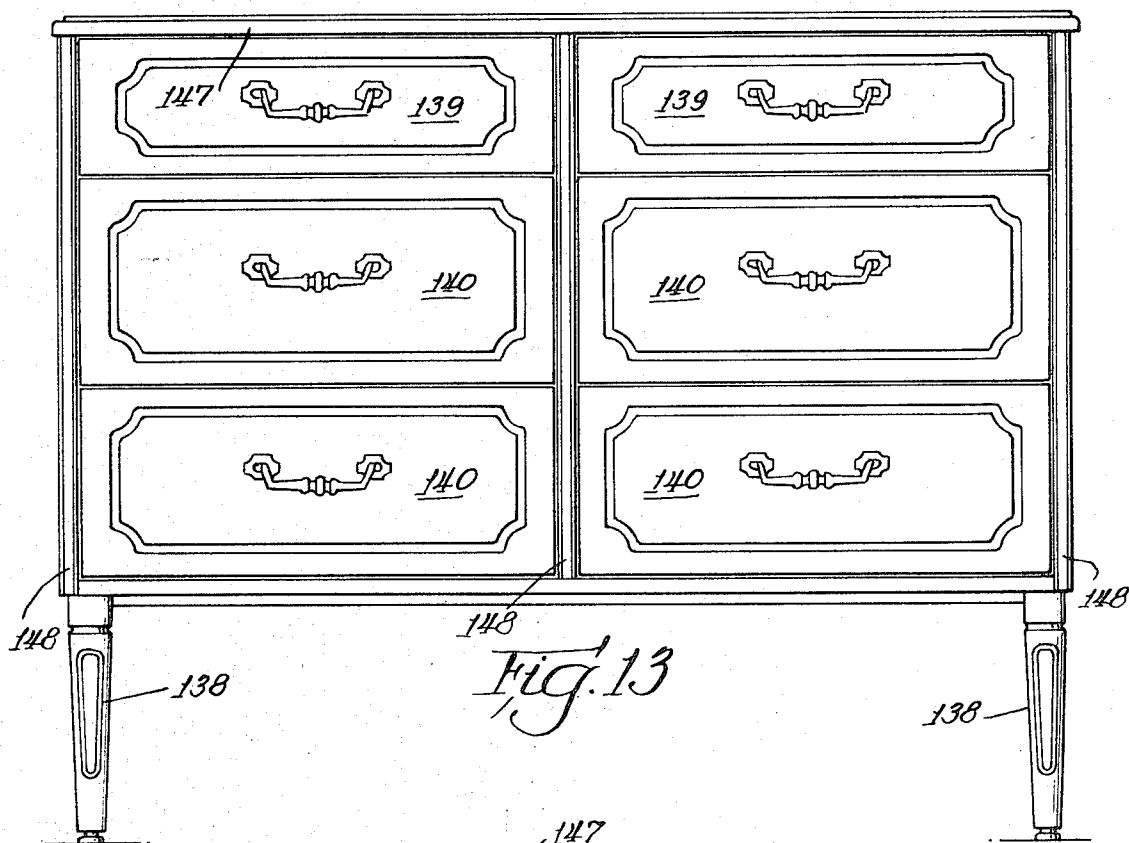


Fig. 14.

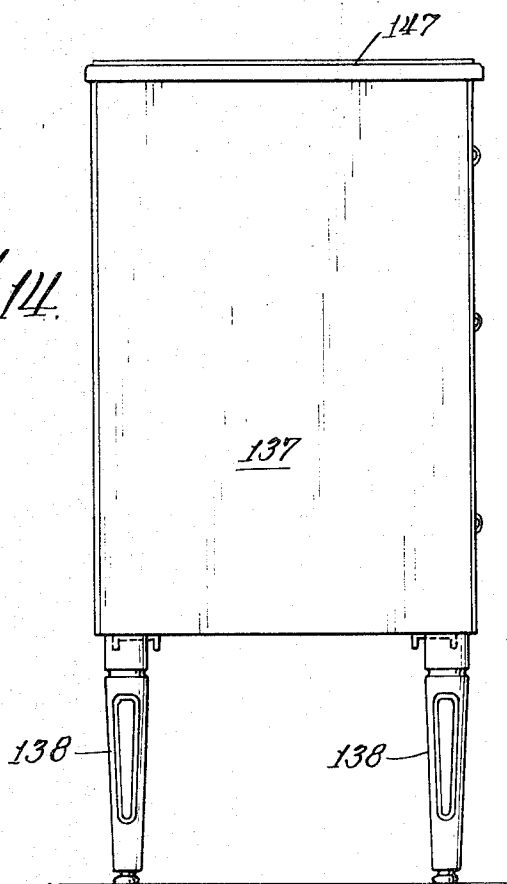
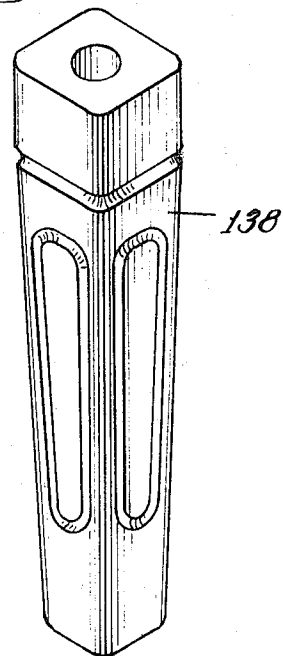
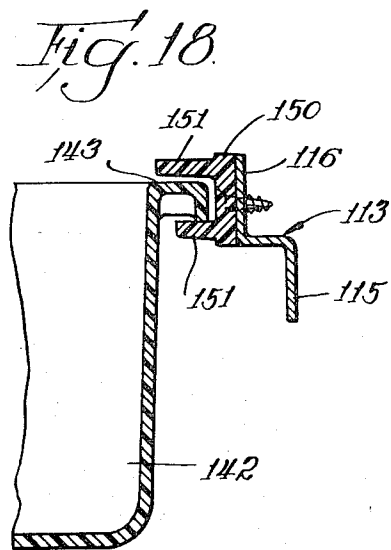
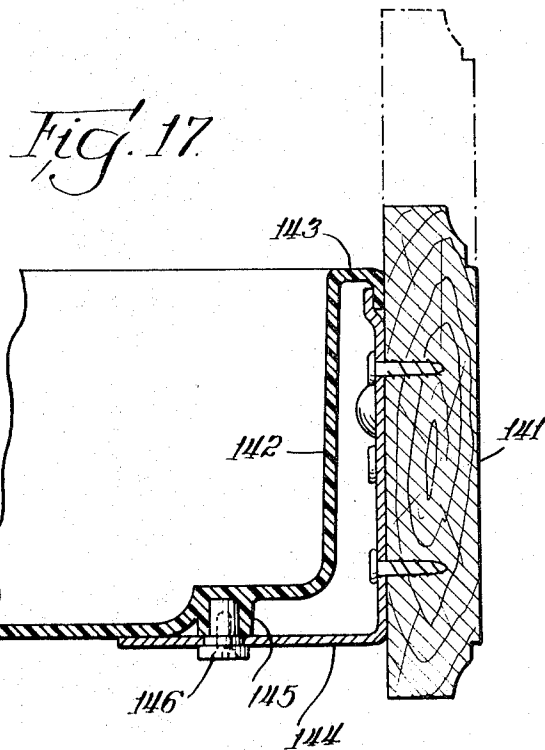
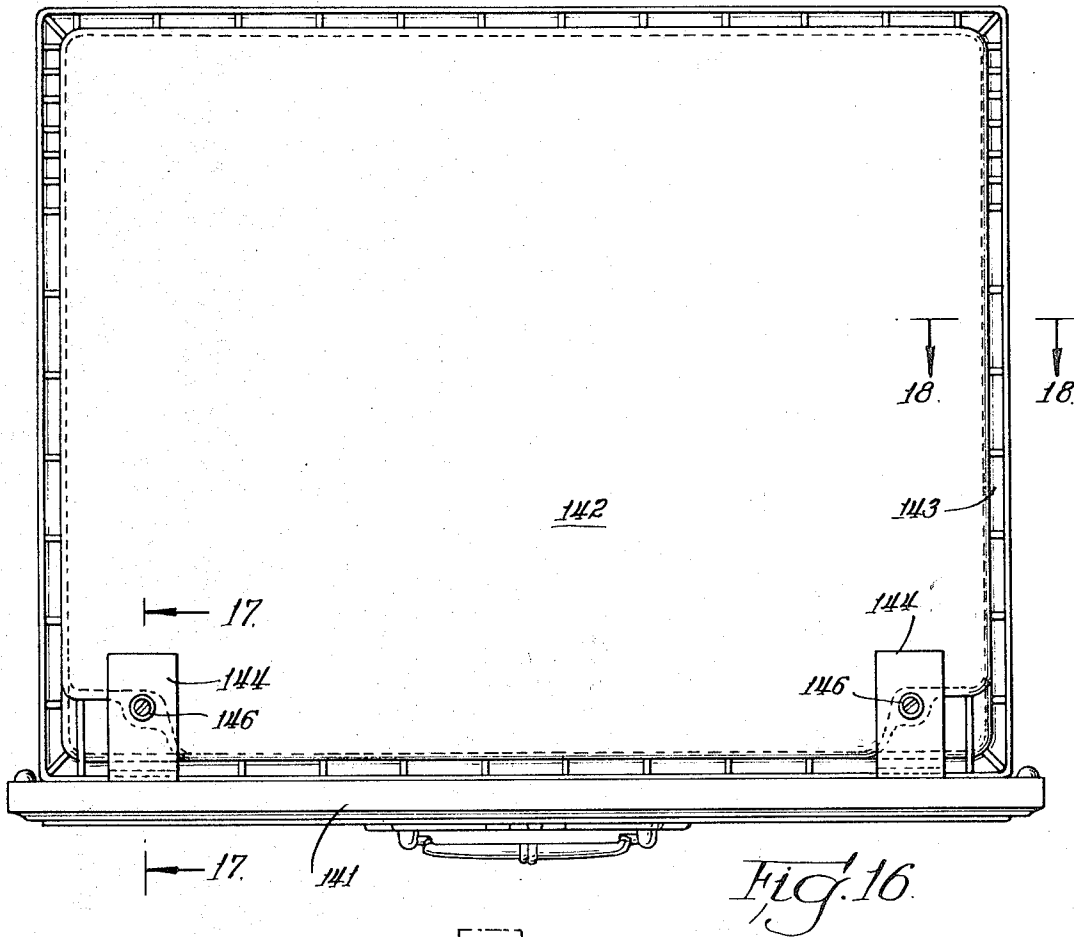
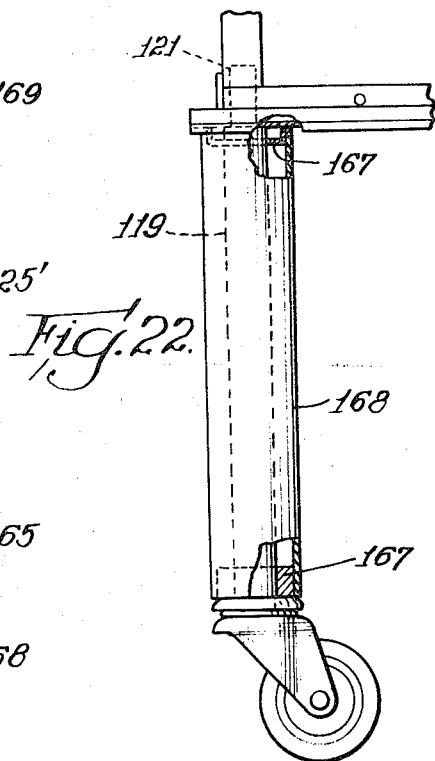
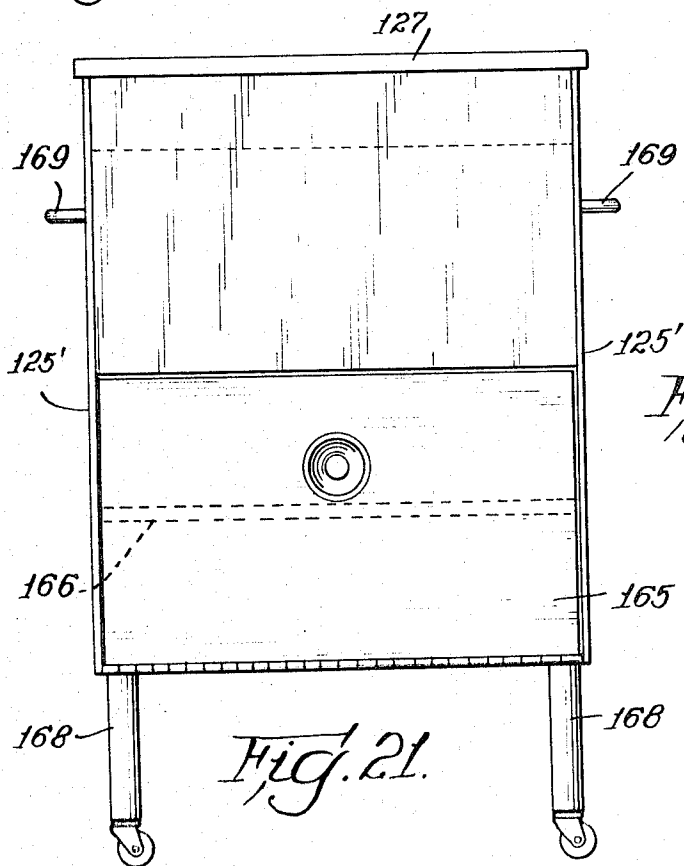
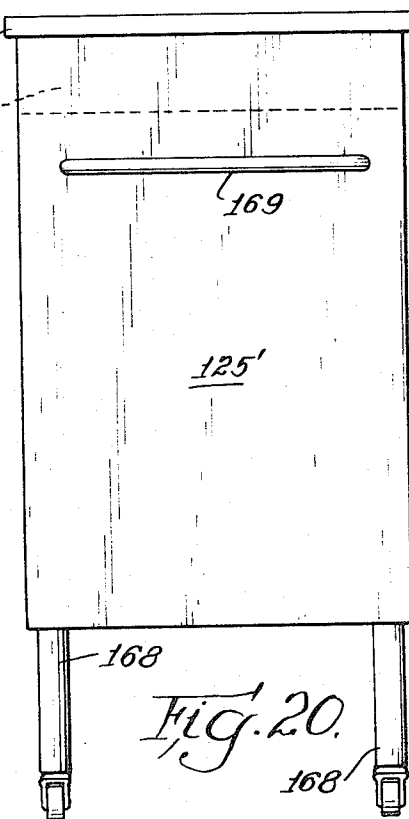
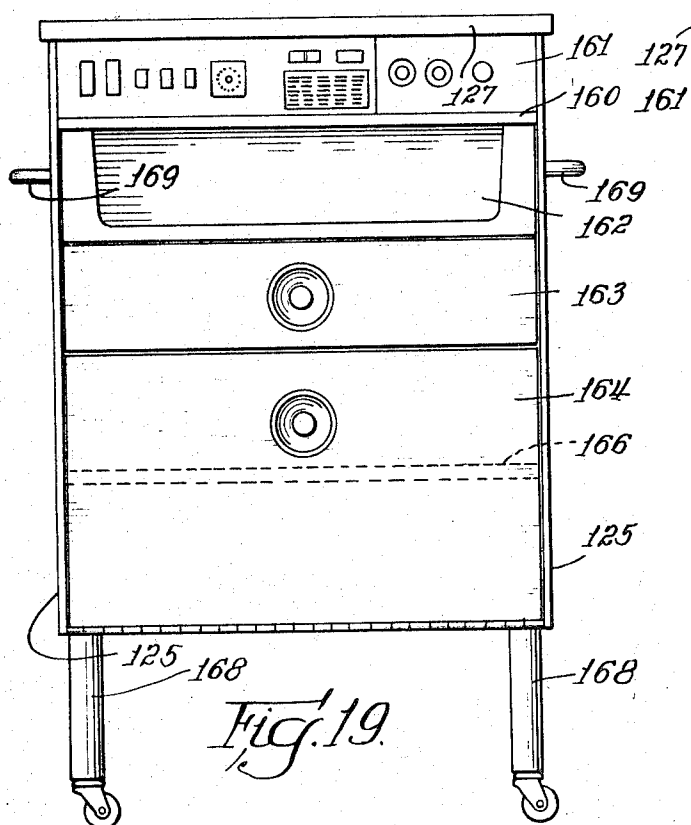


Fig. 15.







METAL-WOOD FURNITURE

BACKGROUND OF THE INVENTION

Heretofore furniture has been constructed either of metal or of wood, or a combination of wood and a plastic. The furniture in a patient's room in a hospital has, for the most part, been constructed of metal. Although the exposed parts of the furniture have oftentimes been grained to resemble wood, even then the furniture definitely makes the room look like a hospital room.

It has been found that the sameness in appearance of hospital rooms has been detrimental to rapid recovery by a patient.

The trend in modern hospitals has been toward making the patient's room look more like a room in a home, rather than in a hospital. This is accomplished by making the furniture in a patient's room out of wood, rather than metal. Such change has been found to be beneficial to the patient's recovery.

SUMMARY OF THE INVENTION

The present invention provides a combination of metal and wood that achieves all of the advantages of each of these materials. This is accomplished by means of a metal framework which is covered with wooden panels of desired shape to form not only bedside cabinets, but also dressers and the like when required. Two or more of these basic frameworks can be attached together to form a double dresser such as might be used in a semi-private ward which contains two patients. The framework is a sturdy article that is fairly lightweight. The wooden panels attached to the framework can be, and are, much thinner than would be required in the absence of the framework. Drawer slides and the like can be provided to permit drawers to be mounted in the framework. Suitable casters can be employed to give the desired degree of mobility to the framework and cabinet built thereon.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a metal framework incorporating teachings of the present invention;

FIG. 2 is a plan view of an intermediate crossbar such as are shown in FIG. 1;

FIG. 3 is an end view of the crossbar shown in FIG. 2;

FIG. 4 is a front elevational view of a three-drawer cabinet;

FIG. 5 is a side elevational view of the cabinet shown in FIG. 4;

FIG. 6 is an elevational view of the drawer guide of the type used in the cabinets of the present invention;

FIG. 7 is a plan view of the drawer guide shown in FIG. 6;

FIG. 8 is an end elevational view of the drawer guide shown in FIGS. 6 and 7;

FIG. 9 is a top side plan view of a double frame;

FIG. 10 is a front elevational view of the double frame shown in FIG. 9;

FIG. 11 is a perspective view of a coupling unit used to connect together the individual frameworks;

FIG. 12 is a cross-sectional view taken along the line 12-12 of FIG. 10 looking in the direction of the arrows;

FIG. 13 is a front elevational view of a double cabinet;

FIG. 14 is an end elevational view of the double cabinet;

FIG. 15 is a perspective view of an ornamental wooden leg;

FIG. 16 is a plan view of a drawer attached to a drawer front such as shown in FIG. 13;

FIG. 17 is a cross-sectional view along the line 17-17 of FIG. 16 showing the attachment of the drawer front to the drawer structure;

FIG. 18 is a cross-sectional view along the line 18-18 of FIG. 16 showing particularly the engagement of the flange on the drawer with the drawer slide;

FIG. 19 is a front elevational view of a patient oriented bedside cabinet;

FIG. 20 is a side elevational view of the cabinet shown in FIG. 19;

FIG. 21 is a backside elevational view of the cabinet; and

FIG. 22 is an enlarged view of a metal leg attached to the metal leg of the framework.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The metal framework, which is the heart of the present invention, will best be seen in FIGS. 1, 2 and 3. As shown, four corner posts 101, 102, 103 and 104, each tubular and rectangular in cross-section, are joined to an upper hollow rectangular frame 106 in registration with and welded to the top of the four posts. A similar frame 107 is registered with and welded to the bottoms of the posts. Frames 106 and 107 are formed from a single bar of angle iron, mitered and bent into shape as a hollow rectangle. The two ends of the bar are welded together to complete the frame.

Extending between posts 101 and 102 and between posts 103 and 104 are intermediate crossbars 113. As will be seen best in FIGS. 2 and 3, each crossbar 113 has a central section 114 disposed horizontally in the framework. Extending downwardly from the outer edge of the central section 114 is a flange 115 and extending upwardly from the inner edge of the central section 114 is another flange 116. The central section 114 of the crossbar 113 abuts against corner posts at both of its ends and the downward extending flange 115 extends beyond the central section 114 and engages the outside of the posts to which it is welded.

The upwardly extending flange 116 contains a plurality of spaced-apart holes 118 for a purpose to be explained hereinafter. The downwardly extending flange 115 contains three openings 117 to be hereinafter explained.

The framework thus described is equipped with downwardly extending metal legs 119 which have tenons 121 that extend into the posts to position the legs with respect to the framework to which the legs are welded. The length of the legs 119 determines the height of the framework.

A back panel member 126 is registered with the top hollow rectangular frame 106, the bottom frame 107 and with the back posts 102 and 104. This panel is welded to the members with which it is registered.

As will be seen in FIGS. 1 and 2, the flanges on bottom frame 107 extend upwardly and each flange contains three holes 132. The top frame 106 is positioned with its outer flanges extending downwardly with each flange containing three holes 133. Each intermediate

crossbar contains three holes in its downwardly extending flange 115.

The framework thus formed is the heart of the present invention. It can be used to form all articles of furniture desired for inclusion in a patient's room in a hospital, as well as elsewhere.

In FIGS. 4 and 5 we have shown a three-drawer cabinet which might be used in a patient's room in a hospital as well as elsewhere. The metal legs 119 of the framework are covered by turned wooden legs 131. Each wooden leg 131 contains a central hole of size to receive the metal legs 119. The legs 131 are pushed over the legs 119 until ears 120 are engaged. As will be seen in FIGS. 1 and 9, each leg 119 is equipped with four ears 120. The legs 131 are driven and ears 120 bite into the wood to position the legs 131 and to hold them on the legs 119.

Preferably, side panels 125 made of wood are secured on the framework by nine screws, three extending through the holes 133 in the upper frame 106, three extending through the holes 132 in the bottom frame 107, and three through the holes in an intermediate crossbar 113.

The horizontal portions of the top frame 106 contains two holes. The top 127 is attached to the framework by screws extending through these holes.

The cabinet is completed by adding drawers 128, 129 and 130. It will be noted that drawer 128 is smaller than the others.

In a semi-private hospital room in which two patients occupy the room, it is advantageous to have a double cabinet in the room instead of two single cabinets. A double cabinet can be made as follows. As will appear in FIGS. 9, 10, 11 and 12, two of the main frameworks are joined together by brackets 135 which are welded to the adjacent back legs 104 and 102', two such brackets being employed.

Two other brackets 135 are attached to posts 103 and 101' to connect the frameworks together at the front of the framework. It will be noted that brackets 135 are equipped with a hole through which a screw may be extended to attach a strip of finished wood 147 to the double framework.

To form either a single or double cabinet, the drawer structure is mounted upon a drawer front. In FIGS. 16, 17 and 18, we show how this is accomplished.

Mounted on the back surface of the drawer front 141 is an L-shaped bracket 144. The top end of this bracket is spaced away from the drawer front a distance sufficient to let the downwardly extending portion of the plastic drawer 142 slip between the bracket and the drawer front.

Depending from the bottom edge of the plastic drawer 142 is a boss 145 and a mounting screw 146 extends through the bracket 144 and into the boss 145 to secure the drawer and drawer front together.

The double cabinet is completed by attaching side wood panels 137, a top panel 147 and pairs of drawers 139 and 140.

Plastic drawer guides, best seen in FIGS. 6, 7 and 8, consist of a web section 150 which is attached to the upwardly extending flange 116 of an intermediate crossbar 113. Flanges 151 project from the opposite edges of the web 150. A stop 152 depends from the upper flange 151 to limit outward movement of the drawer. As will be seen best in FIG. 18, the outwardly extending flange of the drawer 142 engages the lower

flange 151 to support the drawer upon the drawer slide. The drawer thus described are useable in either the three-drawer, single cabinet, or the six-drawer, double cabinet.

In FIGS. 19, 20, 21 and 22, we have shown a new innovation in bedside cabinets.

The cabinet is built upon a framework such as is shown in FIG. 1. Located at the top of the framework is a tray 162 preferably made of plastic and having an open front enabling a patient to place items in the tray. The back of the tray is closed to render objects in the tray inaccessible from the back of the cabinet.

Below the tray is a drawer 163 accessible only to the patient in the bed. The drawer 163 is to the type shown in FIGS. 16, 17 and 18, and the front of the drawer is made of wood.

The lower part of the cabinet contains a compartment containing a shelf 166 and available to the patient through bottom hinged door 164 and to the nurse through door 165 located on the backside of the cabinet. In the bottom compartment such utensils as are required at bedside, namely, a wash basin and a dental basin, are stored upon the shelf 166, and in the bottom of the compartment, a bedpan and a urinal are located. Mounted upon the opposite ends of the cabinet are towel rods 169 adapted to receive towels and the like.

In this bedside cabinet the metal legs 119 of the frame are encased in a metal tube 168 which is spaced from the foot 119 by spacers 167 located at the top and bottom of the leg 119. Casters are provided to give desired mobility to the cabinet.

In this cabinet an electronic unit 161 is mounted upon the top framework 106. The side panels 125' are longer than side panels 125 and extend to the top of the electronic unit 161. A top 127 completes the enclosure of the electronic unit. A wooden rail 160 separates the tray and electronic unit.

From the foregoing it will be apparent that the metal-wood furniture is definitely more homelike than the metal furniture that it replaces. The metal core of the furniture is rigid and comparatively light-weight. The wooden panels on the sides and top of the article of furniture and the drawer fronts can be any one of a number of kinds of wood, can be plain or ornamental, and can have less thickness than would be required if the metal framework was not used.

While we have described the metal-wood articles as being suitable for use in the patient's room of a hospital, we do not wish to be limited to such use. The articles of furniture thus described can be used anywhere, including a home.

Having thus described our invention, what we consider new and desirable to have patented is pointed out in the appended claims.

What is claimed is:

1. A cabinet construction including,
 - a. a metallic framework comprising
 1. four generally vertical corner posts
 2. upper and lower generally rectangular frames connected to said corner posts adjacent the upper and lower ends thereof
 3. at least two intermediate crossbars connected between opposing pairs of said corner posts
 4. said intermediate crossbars each including a first flange disposed adjacent the exterior of said framework and a second flange disposed interiorly thereof

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- b. wall defining panels secured to said framework to define the exterior of said cabinet
 1. one of said panels being secured to said upper and lower frames and said first flange of one of said intermediate crossbars
 2. another of said panels being secured to said upper and lower frames and the first flange of the other of said intermediate crossbar
- c. a pair of drawer slides each one of which is secured to said second flange of one of said intermediate crossbars
- d. and a drawer slidably supported within said cabinet upon said slides.
2. A cabinet construction as claimed in claim 1 wherein each said intermediate crossbar includes a generally horizontally disposed web extending between the associated corner posts said first flange extends generally vertically therefrom in one direction and said second flange extends generally vertically therefrom in the opposite direction.
3. A cabinet construction as claimed in claim 1 wherein said panels secured to said intermediate crossbars are made of wood.
4. A cabinet construction as claimed in claim 3 wherein one of said wall defining panels is a perforate metal panel secured to said upper and lower frames said panel extending between said panels secured to said intermediate crossbars.
5. A cabinet construction as claimed in claim 1 wherein said framework includes metal support legs depending from said corner posts and adapted to support said cabinet upon the floor and wherein said cabinet further includes decorative leg defining means secured to said metal support legs in overlying concealing relation.
6. A cabinet construction as claimed in claim 5 wherein said decorative leg defining means secured to said metal legs are made of wood.

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7. A cabinet construction including
 - a. a pair of metallic frameworks connected together in closely spaced side-by-side relation, each said framework including
 1. four generally vertical corner posts
 2. upper and lower generally rectangular frames connected to said corner posts adjacent the upper and lower ends thereof
 3. at least two intermediate crossbars connected between pairs of said corner posts in opposite operative relation
 4. said intermediate crossbars each including a first flange disposed adjacent the exterior of said framework and a second flange disposed interiorly thereof
 - b. wall defining panels secured to said framework to define the exterior of said cabinet
 1. one of said panels being secured to said upper and lower frames and said first flange of one of said intermediate crossbars of one of said frameworks
 2. another of said panels being secured to said upper and lower frames and the first flange of one of said intermediate crossbars of the other of said frameworks
 - c. a drawer slide secured to said second flange of each said intermediate crossbar of each framework
 - d. and a drawer slidably supported within each said framework upon said slides.
8. An article of furniture as specified in claim 1 in which a tray, a drawer and compartment are available from the front face of the cabinet, and in which the compartment is available from the back of the cabinet and in which an electronic unit is mounted on the top of the cabinet framework and covered by extensions of the side and back panels and a top attached to said extensions.

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