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FURNITURE

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Fig. 3.

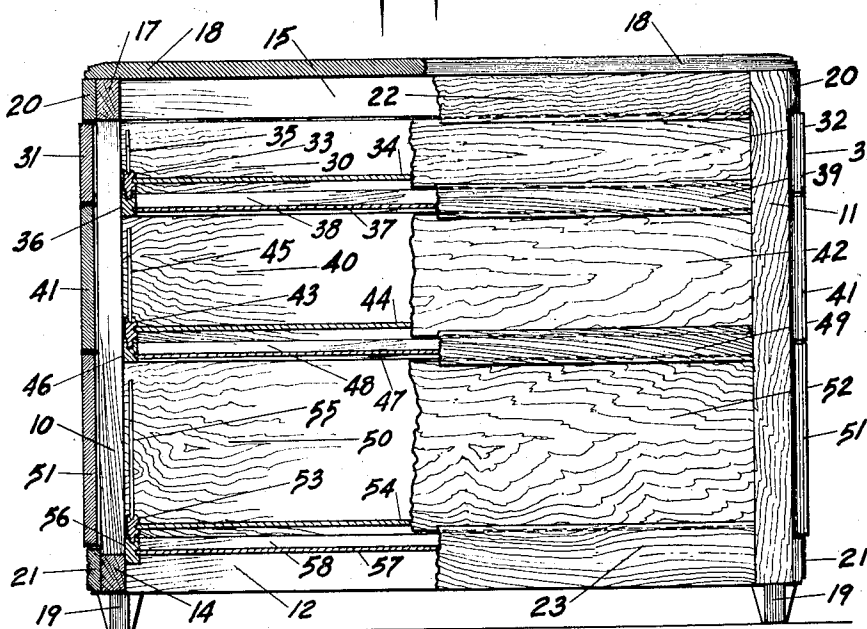
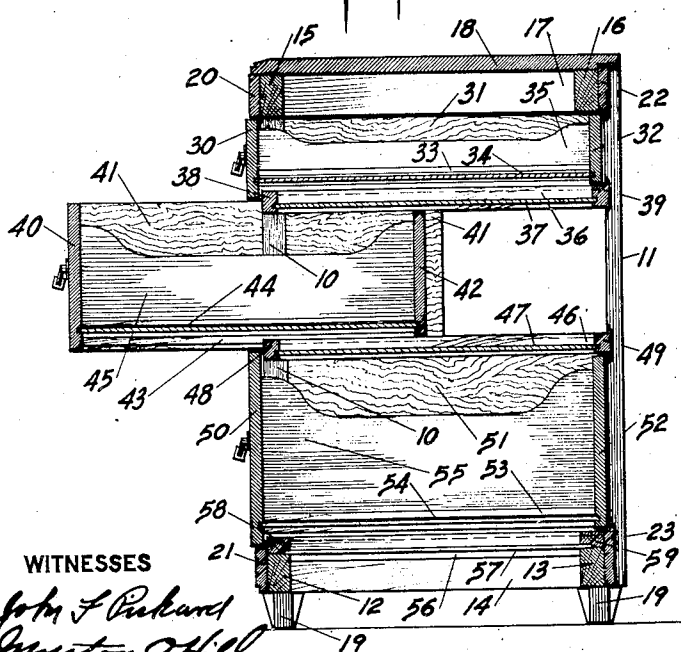


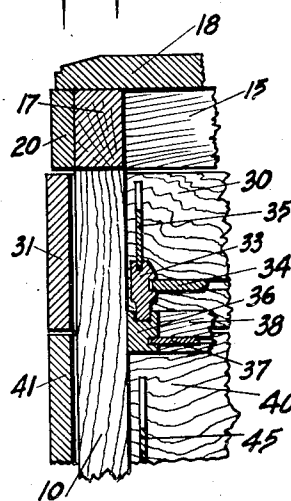
Fig. 4.



WITNESSES

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Fig. 5.



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## UNITED STATES PATENT OFFICE

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## FURNITURE

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This invention relates to furniture construction; particularly to that class of furniture familiarly known to those skilled in the art, as case goods furniture, such as bureaus, chests, buffets, desks, cabinets, and the like.

As is well known to those skilled in the art of furniture manufacture, conventional case goods furniture has been constructed prior to this invention, of the usual rigid exposed frame structure supporting individual drawers inserted therein, and usually comprises exposed vertical corner frame elements supporting the usual side panels, back panel, and the like; forming in such conventional case goods construction, a rigid exposed frame inclosing individual drawers. These drawers however, provided with the usual side members and back member, etc., after insertion within their supporting frame structure, combine therewith to form double sides, and back construction; that is, the sides of the drawers form a side of the case, and the side panels of the frame form an additional side covering these drawer sides, likewise the back of the drawers form a back of the case, and the back panel of the frame forms an additional back to cover the back of the drawers; requiring by conventional methods of construction, double the amount of material at the back and sides of such case goods construction thereby. If a new method of frame and drawer construction for case goods furniture could be so devised as to eliminate this double construction, and yet fulfill all practical requirements of conventional furniture; such a construction would be directly contrary to conventional methods of case goods construction, would offer distinct benefit to that art, and would contribute substantially to the economical manufacture of such case goods furniture thereby.

Additionally, considering the conventional methods of case goods construction, it is readily apparent that the design possibilities of such furniture is limited, with respect to the exposed vertical frame elements, forming a part of the exterior design, as to require the design to be conceived with that limitation initially established.

An important feature of the invention is to devise a novel method of case goods furniture construction that will require a materially reduced amount of material for its construction, by eliminating the usual double side and back construction commonly found in conventional case goods furniture; materially reducing the ultimate cost of manufacturing such furniture thereby.

Another feature of the invention is to devise a case goods furniture construction offering sub-

stantially reduced weight comparatively with respect to similar conventional furniture of like dimensions, facilitating the handling thereof, and affording more economical shipment thereby.

Another feature of the invention is to provide a practical case goods furniture construction with concealed frame elements, for the purpose of eliminating any limitations governing the design possibilities thereof.

An additional feature of the invention is to provide case goods furniture with inseparable drawer construction, to prevent the possibility of the drawers becoming displaced from the frame structure and upsetting their contents thereby.

Another feature comprises the provision of a practical case goods furniture construction that is dust proof, has a limited drawer movement, of comparative light weight, and offers a rigid concealed frame structure for the support of the drawers.

Additional features of the invention are to provide case goods furniture with novel drawer construction, so arranged and devised as to form the exterior front panel, exterior side panels, and the exterior rear panel of the case goods structure itself.

Other novel features of the invention will become apparent from the detailed description hereinafter given, which is illustrated in the accompanying drawings forming a part of this application. It is to be clearly understood however that the case goods furniture construction shown and described constitutes but one embodiment of my invention or inventions, and is not to be taken as definite or for any other purpose than that of illustration. It is obvious that my invention and its various features may be embodied in various forms and constructions, and my invention is to be understood as limited only to such features and constructions as are clearly defined in the appended claims.

In the drawings similar reference characters refer to similar parts in all of the views of which:

Figure 1 is a front view of the invention which is the subject matter of this application, and hereinafter referred to as a chest, with a fragmentary portion of the front face removed to illustrate the internal construction and assembly thereof.

Figure 2 is a sectional plan view taken on the line 2—2 of Figure 1, with a fragmentary portion of the center drawer removed to clarify the illustration.

Figure 3 is a rear view of the chest with a frag-

mentary portion of the back face removed to illustrate the relationship of the various parts.

Figure 4 is a cross sectional view taken on the line 4—4 of Figure 2, illustrating the center drawer in partial extended position.

Figure 5 is a fragmentary detail sectional view taken on the line 5—5 of Figure 2, illustrating the relationship of the vertical frame element and its adjacent parts.

By referring to the drawings it will be seen that the chest comprises the two front vertical frame elements or corner posts 10 and the two rear vertical frame elements or corner posts 11, each disposed vertically and secured at the bottoms longitudinally by the front frame member 12 and the rear frame member 13 respectively, and at the top longitudinally by the front frame member 15 and the rear frame member 16 respectively, with the bottom side frame members 14 and the top side frame members 17 securing these vertical frame elements 10 and 11 and the longitudinal frame members 12, 13, 15, and 16 laterally; the junctures of these respective vertical, longitudinal, and lateral frame elements secured in a rigid manner by the usual conventional fastening means, such as joinery, glue, and the like, to form in assembled relation a rigid frame structure. This frame structure is supported by the four attachable pedestal legs 19, which may be of any selected design, and may be dowelled into the juncture of the bottom frame elements, or secured by other equally adaptable fastening means as required, permitting by this method of construction, substitution of various alternate designs that may be required. The top of the frame structure is inclosed and stiffened so as to resist any torsional strains, by the chest top 18, secured thereon in the usual conventional manner by glue blocks, screw securing means or the like, and has a cover molding 20 carried around the front and sides and the chest on the top frame members 15 and 17 to inclose these members in a finished workmanlike manner. Likewise the cover molding 21 is carried around the front and sides of the chest on the bottom frame members 12 and 14 to inclose these members in a similar fashion. These cover moldings 20 and 21, secured by the usual conventional fastening means to their respective supporting frame elements, are for the purpose of forming a finished face plate thereto, and to enhance the design of the chest itself. Within the frame structure are inserted the grooved drawer guides 36 for the top drawer, the grooved drawer guides 46 for the center drawer, and the grooved drawer guides 56 for the bottom drawer, each secured in a rigid manner at their forward ends to the inside faces of the front frame elements 10, and at their rearward ends to the inside faces of the rear frame elements 11 by the usual conventional fastening means, such as joinery, glue, and the like. The inside faces of the drawer guides 36, 46, and 56 are rabbeted to receive the dust shields 37, 47, and 57 respectively, likewise the inside faces of the front drawer rails 38, 48, and 58 at the front of the chest, and the inside faces of the rear drawer rails 39, 49, and 59 at the rear of the chest are similarly rabbeted to engage therewith, for supporting and securing the dust shields 37, 47, and 57 in their proper positions relatively with respect to their respective drawer guides 36, 46, and 56, thus completing in assembled relation the various respective elements comprising the rigid frame structure of the chest in the preferred form of the invention described.

Supported upon this rigid frame structure are the irremovable top, center, and bottom drawers of the chest, which comprise the drawer fronts 30, 40, and 50 respectively, each provided with the usual furniture hardware, such as drawer pulls, drawer locks or catches, and the like, and the sides of the drawers, formed by the drawer sides 31, 41, and 51 respectively, each rigidly secured to its respective drawer front 30, 40, and 50 by the usual tongue and groove, or dovetailed joinery, dowelled joinery, glue and the like, or other conventional fastening means as required, and which are provided of sufficient length to extend rearwardly from the drawer fronts to the rear faces of the vertical frame elements 11, so as to conceal these frame elements 11 thereby. Within the drawer fronts 30, 40, and 50, a pair of drawer runners 33, 43, and 53 are positioned, which are secured to the fronts 30, 40, and 50 at each side of their respective drawer sides 31, 41, and 51 and so disposed as to leave an open slot or space between the outer sides of the runs 33, 43, and 53 and the inner sides of the drawer sides 31, 41, and 51 sufficient to permit unobstructed movement of the vertical frame elements 10 therein, as illustrated in Figure 2 of the drawings. The inside faces of the drawer runners 33, 43, and 53 and the inside faces of the drawer fronts 30, 40, and 50 are rabbeted to receive the drawer bottoms 34, 44, and 54 respectively, which are securely fastened therein by conventional securing means, such as glue or the like. Likewise the drawer shields 35, 45, and 55 are inserted into rabbets provided on the top faces of their respective drawer runners 33, 43, and 53, and in similar vertical rabbets provided on the inside faces of their respective drawer fronts 30, 40, and 50, and secured thereto in a similar manner. The drawer backs 32, 42, and 52 are provided with the necessary slots, grooves and the like, for receiving the rear ends of their respective drawer runners 33, 43, and 53, fastened thereto by the usual conventional joinery and securing means, and in addition, these drawer backs are mortised into the inside faces of their respective drawer sides 31, 41, and 51. Likewise these drawer backs 32, 42, and 52 are provided with grooves rabbeted into their inside faces for receiving the rear ends of their respective drawer bottoms 34, 44, and 54, which are secured thereto in the usual manner, also provided with vertical grooves rabbeted on the inside face thereof for receiving the rear ends of the drawer shields 35, 45, and 55, completing in assembled relation, the various elements of the top, center, and bottom drawers, and permitting limited slidable movement laterally thereof on their respective drawer guides 36, 46, and 56 contained within the supporting frame structure.

It will be noticed that the top surface of the top drawer back 32 slidably contacts with the bottom surfaces of the lateral frame elements 17 to hold the top drawer in horizontal alignment irrespective of its extended position, likewise the top surface of the center drawer back 42 slidably contacts with the bottom surfaces of the drawer guides 36 to hold the center drawer in horizontal alignment irrespective of its extended position, and the top surface of the bottom drawer back 52 slidably contacts with the bottom surfaces of drawer guides 46 to hold the bottom drawer in horizontal alignment irrespective of its extended position. However it will be seen that the drawer

backs 32, 42, and 52 of the top, center, and bottom drawers respectively, when extended to the limit of their horizontal movement, engage with the front vertical frame elements 10 to arrest further extended movement of their respective drawers, and thereby prevent removal thereof from the frame structure. Likewise the rear vertical frame elements 11 engage with the drawer backs 32, 42, and 52 to arrest inward movement thereof, and thereby position their respective drawers in correct alignment when in a closed position.

It will be seen that the drawer fronts 30, 40, and 50 co-operate to form the front of the chest, the drawer sides 31, 41, and 51 at each side co-operate to form the two sides of the chest, and the drawer backs 32, 42, and 52 together with the rear vertical frame elements 11 and the drawer rails 39 and 49 co-operate to form the rear of the chest, eliminating by this method of construction, a considerable amount of material comparatively.

Although the preferred form of the invention illustrated and described is provided with the cover mouldings 20 and 21 carried around the front and side faces of the chest, it is obvious to those skilled in the art; that they may both be eliminated and the top drawer front 30 together with its drawer sides 31 may extend upward to the underside of the chest top 18 in substitution for the cover moulding 20, likewise the bottom drawer front 50 together with its drawer sides 51 may extend downward to the pedestal legs 19 in substitution for the cover moulding 21, if a chest or other case goods furniture of this character is desired.

It will be seen that the top rail 22 and the bottom rail 23 at the back of the chest serve as finish plates to cover the frame elements 16 and 13, but it is readily apparent that these plates 22 and 23 may be omitted, and the frame elements 16 and 13 substituted therefor by suitable finishing operations as required. Also the projecting lips provided on the rails 22, 39, 49, and 23 are for the express purpose of preventing dust accumulations entering the respective drawers adjacent thereto, and may comprise any form desired for that particular purpose.

The assembly of case goods furniture in the form of the invention described requires the assembly and securement of the complete frame in the usual assembly mold, or similar conventional procedure, but however requires the partial assembly of the drawers separately, with dummy backs substituted for the actual backs until the drawer elements with the exception of their actual backs, are secured in the required manner, whereupon these dummy backs are removed and the drawers are inserted in their respective positions, but partially extended upon the drawer guides within the completed frame structure. The actual drawer backs are then inserted within the frame in their respective positions, and the drawer sides are sprung outwardly sufficient to allow the actual backs to be inserted therein, and correctly positioned and secured thereto in the usual manner. The chest is then in a completely assembled condition comprising a single unit and thereby facilitates materially the expedient application of any of the various conventional finishing operations required for the mass production of such furniture.

It is evident that the corner arrangement at vertical frame elements 10 illustrated and described in the preferred form of the invention

anticipates but one mode of construction thereof, but it is readily apparent to those skilled in the art that various modifications of the corner construction shown may be utilized to secure alternate design motifs for the particular furniture design required; for example the front vertical frame elements may comprise members quarter round in section and the drawer fronts together with their respective drawer sides may join to form round corners outwardly adjacent to the modified front vertical frame elements, and the usual veneers may be applied to these drawer fronts and sides to form a continuous wood finish treatment carried completely around the sides and the front of the chest itself. Likewise the front vertical frame elements may comprise members provided with chamfered corners in section, and the drawer fronts, together with their respective drawer sides may join to form chamfered corners outwardly adjacent to these modified front vertical frame elements, and various veneers, finishes, and the like may be applied thereto as required, for the particular design conceived; or various other equally adaptable alternate forms of vertical frame element construction may be employed, performing like functions and effecting similar results as those heretofore described, in a manner that will be readily apparent to those skilled in the art, without necessitating a detailed description thereof.

Although the preferred form of the invention, as illustrated and described anticipates the manufacture of case goods furniture utilizing wood, it is evident that this invention is equally adaptable to other forms of furniture manufacture; such as a combination of wood and metal case goods furniture construction, or an all metal case goods furniture construction; for example, the vertical frame elements 10 and 11, and the horizontal frame elements 12, 13, 15, and 16, and the lateral frame elements 14 and 17 may all comprise sheet metal, or tubular metal frame elements shaped to the required form and secured at their respective junctures by conventional spot welding means, plate connection means, angle and rivet means, or other equally adaptable securing means, to form in assembled relation, a rigid frame structure, and the balance of portions forming the invention may comprise wood elements substantially as disclosed in the preferred form of the invention described. Likewise the drawer fronts 30, 40, and 50, the drawer sides 31, 41 and 51, the chest top 18 together with the mouldings 20, 21, and the rails 22, 23, may all, or any portion thereof comprise sheet metal construction shaped to the required forms, or the chest in its entirety may comprise sheet metal and angle frame construction of the required form, or sheet metal construction exclusively, or other equally adaptable materials may be employed performing like functions and effecting similar results as those of the initial form of the invention illustrated and described, in a manner that will be readily apparent to those skilled in the art, without necessitating a detailed description thereof.

The usual mirror frame supporting a glass mirror and supported by the usual conventional mirror posts, securing means and the like, may be applied directly to the back of the chest, and secured in a rigid manner thereto, to form an integral part of the chest; or a mirror, if required in the preferred form of the invention illustrated and described, may comprise an individual unit complete in itself, and of independent support relatively with respect to its companion chest; or

other equally adaptable mirror frames and methods of supports may be utilized in a manner that will be readily apparent to those skilled in the art, without necessitating a detailed description thereof.

The term concealed frame elements, or concealed vertical frame elements, as used in this specification, will be understood to mean the frame elements that are concealed from view in a room, when the chest comprising one embodiment of the invention is placed in its natural position therein, that is, with its back positioned adjacent to one wall thereof.

The term exposed frame structure, as described in this specification with reference to conventional case goods will be understood to mean the portions of the frame structure, rather they be corner posts, side panels and the like, or any adaptation thereof that supports such furniture, and which are exposed to view in a room, when such furniture is placed in its natural position therein.

As there are numerous variations and modifications of the invention described, it is understood that the description given, is of the preferred form of the invention, I therefore do not wish to be limited to the construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims:

What is claimed is:

1. Case goods furniture comprising a skeleton frame having a closed top, drawer elements, means slidably supporting said drawer elements in said frame, said drawer elements having front and side vertical faces outwardly covering the front and sides of said frame and rear vertical faces arranged in front of the rear of said frame.

2. Case goods furniture comprising a skeleton frame having a closed top with corner posts connecting the top and bottom members of said frame, a series of drawers, means slidably securing said drawers in said frame, each drawer having front and side vertical faces outwardly disposed relative to the front and sides of the front corner posts of said frame and a rear vertical face inwardly disposed relative to the rear corner posts of said frame.

3. Case goods furniture comprising a skeleton frame having a closed top with corner posts connecting the top and bottom members of said frame, a series of drawers, means slidably supporting said drawers in said frame, said drawers having front and side vertical faces outwardly disposed relative to the front and sides of the front corner posts of said frame, rear vertical faces inwardly disposed relative to the rear corner posts of said frame, and bottom walls having their ends spaced from the side vertical faces of said drawers to provide slots to accommodate the front corner posts of said frame whereby said drawers are capable of limited outward movement relatively with respect to said frame.

4. A drawer for case goods furniture comprising front, side and rear vertical panels secured in assembled relation, drawer runners for said drawer secured to said front and rear vertical panels and spaced inwardly relative to said side vertical panels whereby there are spaces intermediate said drawer runners and side vertical panels, and a horizontal panel secured to said front and rear vertical panels and said drawer runners.

5. A drawer for case goods furniture comprising front, side and rear vertical panels secured

in assembled relation, drawer runners secured to said front and rear vertical panels and spaced inwardly relative to said side vertical panels whereby there are slots intermediate said drawer runners and side vertical panels, a horizontal panel secured to said front and rear vertical panels and said drawer runners, and means vertically disposed and secured to said front and rear vertical panels and drawer runners for inwardly shielding said slots.

6. Case goods furniture comprising a case top and a skeleton frame structure having a base with corner posts connecting said base to said case top, moldings secured to the outer edges of the top and bottom members of said frame structure, a series of drawers, means slidably supporting said drawers in said frame structure, said drawers having front and side vertical faces outwardly disposed relative to the front and sides of the front corner posts and rear vertical faces inwardly disposed relative to the rear corner posts whereby the front and side vertical faces of said drawers co-operate with said moldings to form the front and side vertical surfaces of said furniture.

7. Case goods furniture comprising a case top and a skeleton frame structure having a base with corner posts connecting said base to said case top, drawer guides including drawer rails disposed intermediate the top and base, a series of drawers slidably supported on said drawer guides, said drawers having front and side vertical faces outwardly disposed relative to the front and sides of the front corner posts and rear vertical faces inwardly disposed relative to the rear corner posts, said drawers having bottoms with slots provided in said bottoms, said slots receiving said front corner posts whereby said drawers are capable of limited outward movement relatively with respect to said frame structure.

8. Case goods furniture comprising a skeleton frame having spaced top and bottom longitudinal and lateral frame members with vertical corner members connecting the same, a case top secured to said frame, drawer elements, fixed drawer guides secured to said frame and slidably supporting said drawer elements, said drawer elements having front and side vertical faces outwardly disposed adjacent the front and sides of the front corner members and rear vertical faces inwardly disposed adjacent the rear corner members, said drawer elements having bottoms with slots provided in said bottoms, said slots receiving the front corner members.

9. Case goods furniture comprising a skeleton frame having spaced top and bottom longitudinal and lateral frame members with vertical corner members connecting the same, a case top secured to said frame, drawer elements, means slidably supporting said drawer elements in said frame, said drawer elements having front and side vertical faces outwardly disposed adjacent the front and sides of said frame and rear vertical faces inwardly disposed adjacent the rear of said frame, said drawer elements having bottoms provided with slots, said slots receiving the front corner members, and means for inwardly shielding said slots.

10. Case goods furniture comprising a skeleton frame having spaced top and bottom longitudinal and lateral frame members with vertical corner members connecting the same, a case top secured to said frame, drawer guides including drawer rails secured to said frame intermediate said top and bottom longitudinal and lateral frame mem-

bers, dust panels secured to said guides and rails, a series of drawers having front and side vertical faces outwardly disposed adjacent the front and sides of said frame and rear vertical faces inwardly disposed adjacent the rear of said frame, 5 said drawers having drawer runners supported on said guides and secured to said front and rear vertical panels, said runners spaced inwardly relative to said side vertical panels whereby there are spaces intermediate said drawer runners and 10 side vertical panels, said spaces receiving the front vertical corner members of said skeleton frame.

11. Case goods furniture comprising a skeleton frame having spaced top and bottom longitudinal and lateral frame members with vertical corner members connecting the same, a case top 15 secured to said frame, moldings secured to the outer edges of the top and bottom longitudinal and lateral frame members, drawer guides including drawer rails horizontally secured to said frame 20 intermediate said moldings, a series of drawers, each drawer comprising front, side and rear vertical panels secured in assembled relation with front and side vertical panels outwardly disposed 25 adjacent the front and sides of the front corner members and intermediate said top and bottom moldings, and rear vertical panels in-

wardly disposed adjacent the rear corner members, drawer runners carried by said guides, attached to said drawer front and rear vertical panels and spaced inwardly relative to said side vertical panels, whereby there are slots intermediate said runners and side vertical panels, said 5 slots receiving the front corner members, horizontal panels secured to said front and rear vertical panels and drawer runners, and vertical slot shields secured to said front and rear vertical 10 panels and said drawer runners.

12. A drawer having front and side vertical faces adapted to be positioned on the outside of a skeleton frame support having corner posts, said drawer having a vertical drawer back adapted 15 to be positioned in front of the rear corner posts, and a bottom having slots adapted to receive the front corner posts of the frame.

13. A drawer having front and side vertical faces adapted to be positioned on the outside of 20 a corner post type of skeleton frame upon which the drawer is adapted to slide, said drawer having a bottom and back, the elements of said drawer being assembled to leave slots at the sides inside of said vertical side faces which are adapted 25 to receive the front corner posts of the frame.

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