

May 28, 1929.

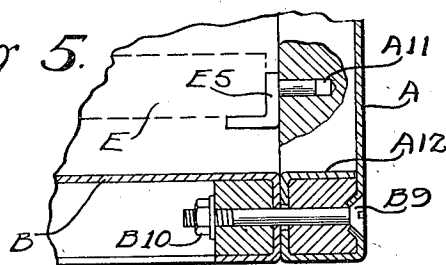
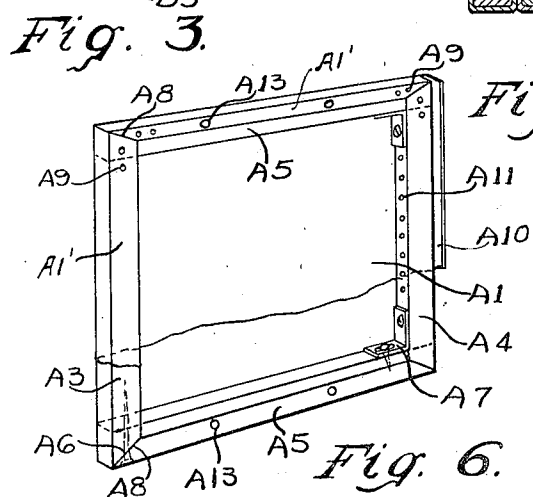
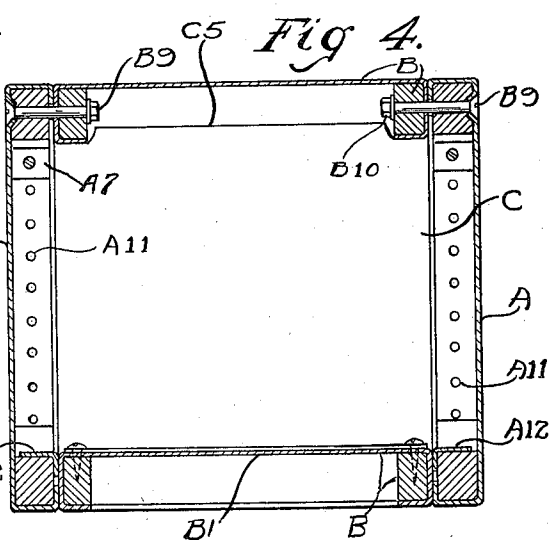
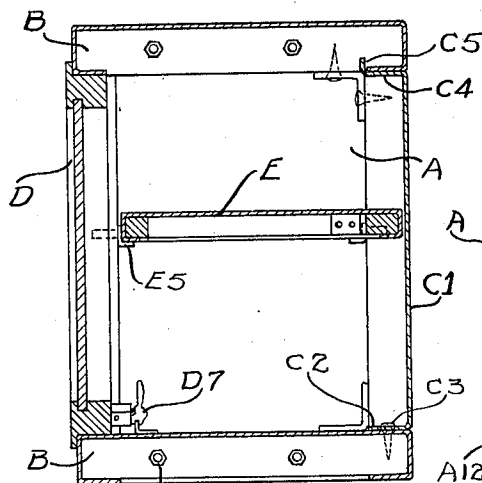
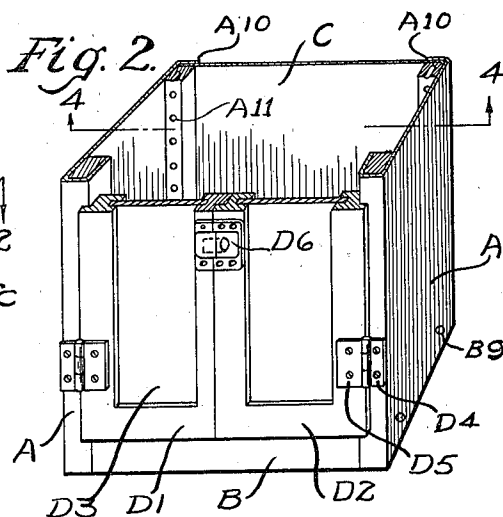
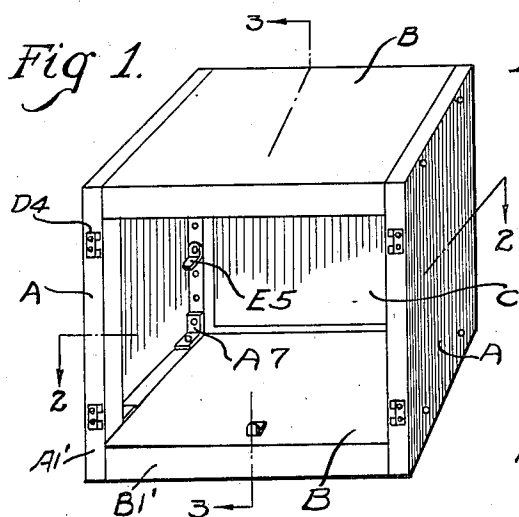
L. ILLMER

1,714,909

COMPOSITE CABINET

Filed May 26, 1928

2 Sheets-Sheet 1



INVENTOR

Louis Illmer.

May 28, 1929.

L. ILLMER

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COMPOSITE CABINET

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2 Sheets-Sheet 2

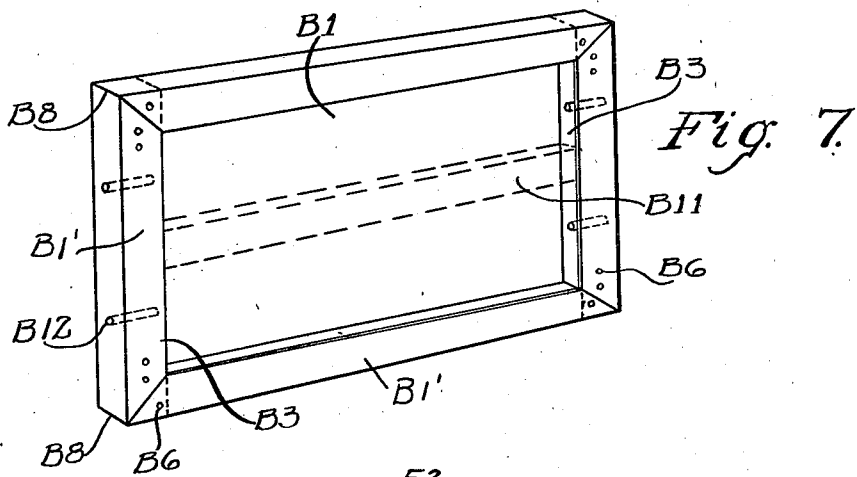


Fig. 7.

Fig. 8.

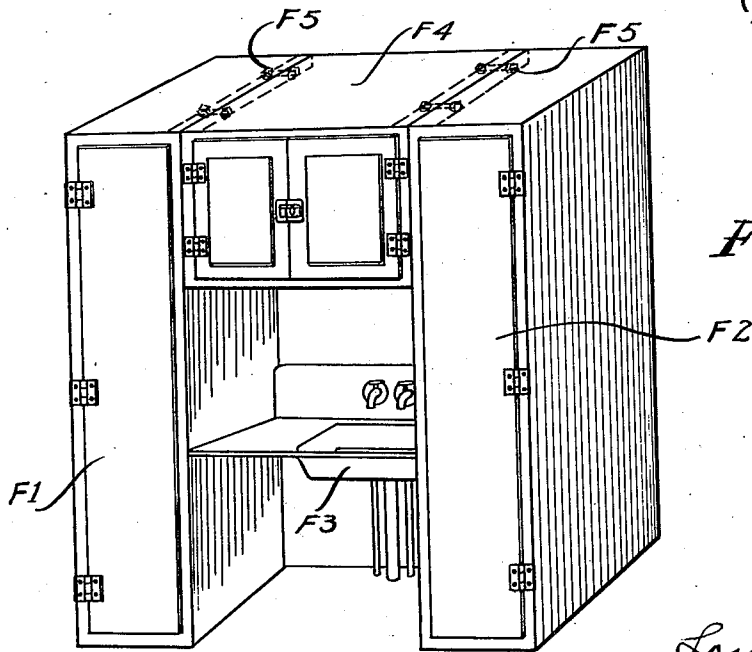
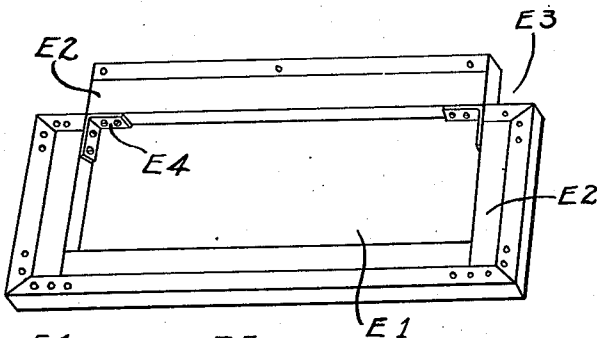


Fig. 9.

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Patented May 28, 1929.

1,714,909

UNITED STATES PATENT OFFICE.

LOUIS ILLMER, OF CORTLAND, NEW YORK.

COMPOSITE CABINET.

Application filed May 26, 1928. Serial No. 280,735.

My invention generically relates to a comparatively light and improved style of storage compartment or closet structure adapted to many utilitarian purposes such as sectional cabinet units, wardrobes, cupboards, lockers, or the like which, when desired, may also be provided with shelving and a door closure. This novel cabinet is especially designed to simplify the problem of economical fabrication under productive methods, and to comprise but comparatively few largely interchangeable parts for any one size and style of cabinet. Furthermore, these elements are adapted to be knocked down and thus afford the lowest factory handling costs and also shipping rates; at the same time said elements can readily be built up into a sturdy unitary cabinet neat in finished appearance, and all without needing any special assembly tools or intricate installation directions.

The present cabinet is characterized by the use of a plurality of demountable slab-like component parts fashioned from comparatively thin sheet-metal wall closure elements, each individually adapted to sheath and partially conceal therebehind, a relatively light reinforcing skeleton frame, preferably made up from supplemental wood-like filler slats or strips adapted to impart augmental lateral stiffness to said single sheath, the intent being to shape up a cabinet out of what may herein be termed "metal-lumber". The unitary filler elements of such composite side, top and bottom panels may readily be bolted or otherwise removably interconnected to constitute a rigid hollow open box-like structure serving to conveniently mount a metal back closure and also to hang thereon front doors of either wood or metal.

As intimated, an important object of the present invention is to combine certain recognized advantages of the all-metal style of cabinet with those heretofore afforded only by the more conventional all-wood cabinet. The adaption of the aforesaid metal-lumber panels into a box-like structure provides for the maximum of closet space at the minimum of fabrication cost and the respective encased filler strips thereof are herein utilized to hold together my composite panels without having to resort to any welding whatsoever for metal sheath securement purposes. The use of such separate filler reinforcing frames also facilitates the mounting of my closure members such as swinging or sliding doors, and these latter are preferably fabricated wholly

from wood since they otherwise prove more difficult to hang properly; when stamped wholly out of metal by die and press means such doors would constitute a far larger portion of the total cost of manufacture. In addition, metallic doors do not prove sufficiently noiseless for the purposes herein contemplated and likely to feel unpleasantly cold to the touch of the user.

A further purpose is to obviate the need for high fabrication die charges and to largely restrict all my sheet metal forming operations to simple rectangular bending about flat filler frames which permits of more readily varying my sectional units through a wide range of styles and sizes without demanding a heavy die and other equipment investment. This advantage is especially marked when my improved method of closet manufacture is applied to combination cabinets designed on the sectional unit system, such for instance as are now largely being used in connection with modern kitchen cabinets which generally require the offering of a large variety of individual models to meet present-day demands. Combination cabinets of this kind find an especially wide application when built into alcoved room walls of apartment houses or the like, and in this field in particular, afford a perfectly sanitary, compact, and attractive utensil space admirably suited to the layout of any given confined floor space. My cabinet improvements are likewise applicable to bathroom or bedroom models, also cabinets intended for storage of linens or similar household supplies.

Other improved features of structure and organization will hereinafter be disclosed which further facilitate economical cabinet manufacture of the kind indicated. For a more detailed description of my invention, reference is had to the accompanying two sheets of drawings which are illustrative of a concrete exemplification intended to set forth the paramount features of my invention; like characters of reference indicate like parts in the several views, and in which drawings:

Fig. 1 represents a perspective view of a knock-down type of cabinet incorporating my improvements in which the shelf and swinging doors are demounted.

Fig. 2 is a partial perspective as seen along the section line 2—2 of Fig. 1 but provided with doors mounted.

Fig. 3 is transverse vertical section of my

completely assembled cabinet including doors and shelving as taken along line 3—3 of Fig. 1 while Fig. 4 represents a similar view taken normal thereto along the line 4—4 of Fig. 2.

Fig. 5 shows in section an enlarged lower corner portion of Fig. 4 to illustrate a preferred style of screw fastening detail.

Fig. 6 is a perspective view of one of the knocked down or unassembled side slabs of my cabinet with a lower sheath portion cut away to better show the underlying filler frame structure, while Fig. 7 represents a similar view of one of the top or bottom slabs of my cabinet.

Fig. 8 shows in perspective a bottom view detail of my improved shelf structure as provided with filler strips.

Fig. 9 is illustrative of the manner in which a plurality of different styles of my cabinet may be employed to advantage as a sectional unit in making up a combination kitchen cabinet or like closet compartment.

Referring more specifically to Figs. 1 and 2 of said drawings, the letter A refers in its entirety to either complementary side wall of my cabinet, which Fig. 1 shows assembled in parallel relation; these spaced side walls may in turn be bridged by a set of similar or interchangeable top and bottom wall members designated as B. As shown in Fig. 2, this described box-like assembly may be provided with a separable back closure member C and also with one or more front doors such as D. When desired the interior of my cabinet may readily be equipt with one or more shelves such as E.

Taking up a more precise description of the structural characteristics of my slab or component side wall elements, reference is now had to Fig. 6. It will be seen that this comprises a metal finishing sheath A_1 which may be kept relatively thin because of the use of a rectangular skeleton frame in the manner indicated, it being pointed out that a separate and distinct filler frame is utilized for each such side panel. Said sheath closely embraces the exterior of this frame and is made to cooperate therewith for reinforcing purposes. Said hollow frame generally comprises a plurality of permanently interconnected strips such as the front upright A_3 , rear upright A_4 , and the complementary cross strips A_5 , each such strip being preferably cut and rough finished from comparatively cheap wood-like or similar ingrained fibrous filler material. The flat strips of each such frame may be interconnectedly mounted and made endless in any suitable manner, for instance said top and bottom strips A_5 may extend under and be directly secured to the respective ends of the front upright A_3 by means of nails A_6 or the like. In the case of the side slab frame, it is preferred to have the respective ends of the rear upright A

fastened to the top and bottom strips through the medium of an adjustable corner brace such as A_7 .

Referring further to said sheath A_1 , this is designed to cover and be snugly stretched over the outer face of the endless flat frame structure. Certain of the adjoining sheath edges may be sharply bent around the outermost square edges of any one set of such adjoining wood strips in trough-like formation so as to form a neatly trimmed sheath corner structure for my demountable panels in the fashion indicated at A_8 . Here it will be observed, the respective inturned wing edges A_2' of the sheath are cut on the bias and snugly held in abutment without need of welding because of being secured to the underlying filler members by means of countersunk brads or tacks A_9 , or the like. These tacks are so located as to become concealed with respect to the exterior panel faces when my cabinet is assembled. As will be understood, the lower front corner of said sheath A_1 is constructed in a manner identical with that described for the upper corner. The rear sheath wing need only be partially inturned over the upright A_4 and is purposely kept slightly spaced from this particular filler as at A_{10} . Said complementary braces A_7 may be provided with slotted screw holes to permit of taking up said clearance gap A_{10} for reasons that will appear presently. In addition, the inmost or exposed face in both of said upright strips may be similarly equipt with a series of more or less evenly spaced and aligned holes such as A_{11} , each adapted to receive the shank of conventional shelf rests E_1 in the manner detailed in Fig. 5.

Attention will now be directed to my interchangeable top and bottom box panels such as B of Fig. 1. As shown in Fig. 7, each of these comprises a metal lumber slab substantially similar to the side members just described except in the present instance, all four wing edges such as B_1' of the sheath B_1 may be fully inturned and cut on the bias to likewise form a relatively sharp but unwelded corner structure B_2 . Furthermore, as applied to said top and bottom panels, it is not essential to wholly complete the inserted filler frame, instead it may here comprise only two separated wooden end strips such as B_3 without necessarily providing connecting fillers for the forward and rear inturned cross edge channels formed in the sheath B. Such spaced filler strips may be independently held in place by means of countersunk brads B_4 or the like, and both inturned sheath edges adjacent to their abutting bias may again be secured to their respective filler blocks in the manner illustrated.

In the event it is desired to build up any composite slabs of exceptionally large size where its sheath is likely to become loose or

otherwise prove insufficiently rigid as regards lateral give, this may be remedied by resort to one or more supplementary filler strips B_{11} as indicated by dotted lines in Fig. 7, to which the center region of the sheath B_1 may be attached by any suitable means (not shown).

As represented in the drawings, it is preferred to make the thickness of both horizontally disposed panels B somewhat deeper than the thickness of the cooperating side panels A and have the latter overlap the end faces of the first named panels. In accordance with Fig. 6, the respective inturned wing edges of the sheath A_1 need not wholly overlap the inmost edge of the correspondingly enlarged filler strip A_5 , and in order to obviate exposing any wood on part of the respective lower strips A_5 after being assembled into a cabinet, they may each be covered by a separately formed metal plate trim angle A_{12} of which one leg thereof is made to lie flush with the top face of the bottom sheath plate B_1 as is cross-sectionally indicated in Fig. 4.

Assuming a set of each of the described panels A and B to have been fabricated as described, these may now be built-up in the erected fashion indicated in Fig. 1. It will be observed that the two side members are preferably made so as to be interchangeable and this likewise applies to the top and bottom panel slabs. In the latter slabs, their respective sheath sides may each be turned face uppermost so as to present a smooth finished metal surface for the bottom of the box interior and also for the top of the box exterior. These component wall members may now be fastened together in any suitable manner, but preferably by the use of flat headed tie bolts B^o such as shown in Fig. 5. Each of the rearwardly extending filler members in both the composite panels A and B respectively, may be apertured in the fashion indicated in Figs. 6 and 7 so that these holes will fall into alignment and allow of entering said bolts therethrough, whereupon the nut B_{10} together with a washer may be used to draw together said component wall panels into a demountable but substantially rigid open-box structure. The only portion of such bolts not concealed is the flat head thereof, and this is preferably countersunk into the surrounding sheath and made to lie flush therewith as shown.

Prior to the drawing up of said tie bolts, it is intended that the metal back plate C_1 be inserted. As may be seen from Fig. 2, the outwardly projecting complementary vertical edges of this cover plate are entered into the aforesaid clearance gaps A_{10} of the respective side walls, whereupon the various corner braces such as A_7 , may be drawn up so as to tightly clamp said back plate in place. As shown in Fig. 3, the bottom edge of said plate C_1 is preferably but not necessarily turned up into a forwardly projecting leg C_2 and this

may if desired, be attached to the bottom panel B by the use of screws C_3 or the like as entered through slotted leg apertures. The uppermost horizontal edge of the back plate may be offset as at C_4 with an upstanding lip C_5 adapted to extend underneath the rear filler of the top panel B to form a reasonably tight joint therewith, it being understood that the corner regions of said back plate are intended to be cut away to permit of forming a snugly fitted rear closure for my cabinet. It is emphasized that the slip type of joint afforded by the described sheath gap A_{10} is such that the opposite side panels may be freely pulled apart and directed away from their respective overlapping rear plate margins after the various tie-bolts B_9 are released.

Referring now to the manipulative closure means for the remaining open front of my cabinet, the vertically disposed front edges of the spaced side panels A may each be equipt with a set of fixedly located hinge butts such as D_4 to allow of mounting thereon a pair of complementary wooden doors D_1 and D_2 as represented in Fig. 2. Said fixed butt may be screwed through holes formed in the adjacent inturned sheath A_7 and sunk into the front upright filler A_3 thereof which serves as a backing means. This improved mode of hinge attachment greatly facilitates the hanging of said doors as compared to an all-metal cabinet since the latter ordinarily requires the riveting or welding of said butt to its adjoining wall sheath. The complementary movable butt member D_5 of any such hinge is carried by doors of any suitable type but which latter swinging members are preferably fabricated wholly from wood rather than metal. The wooden doors are not only much lighter and cheaper to make but possess other outstanding advantages such as comparatively noiseless operation, also ease with which transparent panes can be substituted for an inserted panel such as D_3 . Said doors may be provided with the usual hardware including the latch D_6 , also top or bottom door catches D_7 or the like.

It now remains to briefly describe a novel style of shelving that is especially suited to present purposes. Such a shelf is shown in Fig. 8 where the under side thereof is turned upside down for illustrative purposes. There is again provided a smooth faced metal sheath E_1 having its edges inturned about the filler frame blocks E_2 which latter are here set in offset rectangular relation and secured by the corner braces E_4 to provide for two rear corner gaps E_3 designed to afford clearance about the complementary rear frame uprights A_4 when said shelf is placed in operative position as shown in Fig. 3. Said shelves may be carried upon four rest lugs E_5 of the conventional furniture type, and the shanks thereof are intended to be snugly entered into any aligned set of the rather

closely spaced rest holes A_1 , respectively provided in all four of the frame uprights A_2 and A_4 . One or more of such shelves can be placed in a single cabinet and the spacing thereof adjusted to suit the user's needs.

Finally, it is pointed out that my cabinet provides for an exceptionally low cost per unit of volume because relatively light but reinforced sheet metal may be utilized in my closet wall members. In combination therewith, there have been provided means for cheaply and securely hanging wooden doors which further serves to bring down the cost of fabrication and as a whole, allows of producing a unitary cabinet possessing the advantages of the conventional all-metal cabinets but at relatively lower weights and costs which by the present invention, are made comparable with those prevailing in an all-wood cabinet of equal grade. In my demountable cabinet structure, each panel is kept as a distinct entity except as they may be interconnected by the described fastening means, and the complementary jambs for my door or doors are embodied in portions of different filler frames rather than in one and the same door circumscribing frame.

The described mode of composite cabinet fabrication may be embodied in a large variety of styles and types of closets, and as an instance, Fig. 9 discloses the embodiment of a sectional kitchen cabinet in which two similar elongated end or broom closets F_1 and F_2 , each provided with but a single door, are disposed to each side of a sink or ice box F_3 , while across the upper extremities of said broom closets there extends a utensil closet F_4 which is substantially identical with that already described. Said sectional cabinets are intended to be fastened together by suitable bolt-like means such as F_5 , and these are preferably disposed so as to tie together the respective cabinet filler blocks in the fashion similar to that detailed in Fig. 6 in order to constitute a unitary sectional closet structure. As will have been made obvious, any one of such cabinets can readily be dismantled into its flat panel parts which are adapted to stack closely one upon another, whereupon they can be conveniently crated for shipment or storage purposes. Such compact crating is found to be of considerable importance because the prevailing freight rates on knocked-down cabinets are materially lower than those that apply to corresponding non-demountable kitchen cabinets of the conventional type that must be shipped in erected condition.

Furthermore, owing to the smooth sheathing that is provided for the exterior of my cabinet walls, all such exposed metal surface may readily be given any desired color in japan finish by dipping and baking these knock-down parts individually prior to assembly, or if preferred, the assembled cabi-

net may also be sprayed as a unit. As an outstanding feature, the design of the individual parts of my cabinet are purposely kept as simple as possible so that each may readily be fabricated by means of inexpensive equipment capable of being operated by comparatively low waged workmen and without requiring any unusually high degree of skill in the wood or metal crafts.

It is further emphasized that the described metal-lumber slabs in themselves each comprise a component unitary structure adapted to be conveniently assembled as panels for various purposes and as such, find application in composite furniture generally other than the knock-down style of cabinet herein cited as an example. In my improved panel embodiment, the filler strips are first built up into a unitary flat frame and the sheath margins bent therearound in a snugly embraced cooperative relation in such fashion that a high degree of lateral stiffness is imparted to each individual panel, and owing to the firm interconnecting means provided between my various panel frames, this bracing effect is made mutually cumulative when such separate panels are assembled and bolted into a box or other like structure. Cabinet side-sway and lack of rigidity is substantially eliminated as compared with a knock-down style of cabinet that is merely built up of single relatively thin metal walls alone without recourse to said reinforcing filler media in substantially all of the component panels. As a result, I attain sufficient lateral rigidity on part of my single-sheathed side-wall members to respectively mount thereon complementary door hinges and still hold said doors in proper alignment; while being closed, neither of the abutting door edges sag unduly nor is the box structure allowed to become otherwise distorted as to interfere with the desired smooth door action. The use of the described composite single sheathed panel further obviates the need for resorting to spaced inner and outer walls in order to provide for ample lateral rigidity on part of the metal sheath, and because my filler reinforcement is relatively light in comparison to the extra sheathing weight required, I am enabled to effect a considerable reduction in the cost of material and labor over chambered or double sheathed cabinet walls.

It will be obvious that the various elements of my composite cabinet need not be formed in the precise fashion set forth, also that the same underlying principles are applicable to sectional units provided with sliding drawers or the like, nor need my cabinet necessarily be restricted to the knock-down type since said disclosed metal-lumber might readily be incorporated into a cabinet in which its composite panels or their equivalent are permanently united into a box-like closet structure, and that various other changes

in the details of my disclosure may be re-
 5 scribed to without departing from the spirit
 and scope of my invention, heretofore de-
 scribed and more particularly set forth in
 the appended claims.

Claims:

1. A knock-down cabinet made up of ad-
 15 jacent sections at least two of which respec-
 tively consist of a sheet-metal panel having
 10 certain marginal edges reenforced by a filler
 core means, and means passing through abut-
 ting cores to hold the adjacent sections to-
 gether.

2. A cabinet assembly comprising a plu-
 15 rality of separable composite wall slabs, each
 provided with an individual non-metallic
 supplementary endless framework that is
 20 armoured by a single metallic sheath having
 certain of its marginal wing portions in-
 turned upon and cooperatively fastened to
 said framework for sheath reenforcing pur-
 poses, and securing means interconnecting
 said several slabs into a unitary open box-
 like formation.

3. A cabinet assembly of the knock-down
 25 type including two independently formed
 and separable composite wall members each
 comprising a unitary non-metallic reenforc-
 ing core frame individually encased by a
 30 single metal sheath, and means for demount-
 ably holding said members in assembled
 erected relation.

4. A cabinet structure of hollow box-like
 35 shape having component walls made up of
 composite metal-lumber, each such wall in-
 cluding a substantially rectangular metal
 sheath interiorly reenforced by a wood-like
 40 endless core frame comprising complemen-
 tary pairs of spaced filler strips respectively
 disposed inwardly of opposite sheath edges
 and which edges are intumed upon their
 respective filler strips, and means for de-
 mountably holding said walls in box-like
 relation.

5. In a cabinet provided with component
 45 walls fashioned from separable composite
 metal-lumber slabs assembled into an open
 box-like structure, a reenforcing panel frame
 work for opposite side walls of said struc-
 50 ture each comprising pairs of wood filler
 strips disposed in substantially rectangular
 relation, means for adjusting the spacing
 between one pair of complementary frame
 strips, a single metallic sheath adapted to
 55 cover the exterior of the frame work, said
 sheath having marginal edge portions in-
 turned over certain of said filler strips, and
 securing means for holding said one pair of
 strips in adjusted relation.

6. A cabinet provided with component
 60 walls built up of composite metal-lumber
 panels assembled into an open box-like struc-
 ture, in which one such wall comprises in
 combination a substantially rectangular re-
 65 reenforcing frame composed of wood-like filler

strips exteriorly covered by a single metallic
 sheathing having adjoining edges thereof cut
 on the bias with their respective marginal
 wing portions intumed to embrace the inter-
 70 rior frame face and which sheath edges abut
 each other to form a corner structure, means
 for attaching the aforesaid intumed wings
 to an underlying frame strip and means in-
 terconnecting said component walls into box-
 like formation.

7. In a cabinet having component walls
 built up of composite metal-lumber panels
 assembled into an open box-like structure,
 a reenforcing frame comprising pairs of
 75 wood-like filler strips for one such wall, said
 strips being disposed in substantially rectan-
 gular relation, a single metallic sheath adapt-
 ed to cover the exterior face of said frame,
 said sheath having opposite edges respec-
 tively intumed over one pair of said strips
 85 with the wing portion of one such sheath
 edge intumed over its adjacent filler strip
 and kept spaced therefrom to provide for a
 clearance gap, and a closure plate having a
 marginal edge entered into the clearance gap.

8. A cabinet having component walls built
 up of composite metal-lumber panels assem-
 bled into an open box-like structure, of which
 opposite walls are each provided with an
 95 exteriorly sheathed rectangular and rela-
 tively flat reenforcing frame comprising
 spaced complementary wood-like filler strips
 each provided with a shelf rest hole, a shelf,
 and shelf support means including adjust-
 100 able rest lugs respectively entered into said
 complementary strip holes.

9. In a cabinet of the knock-down type
 having component side and cross walls built
 up of composite metal-lumber panels adapt-
 ed to be assembled into an open box-like
 105 structure, a separate substantially rectangu-
 lar reenforcing frame for the side walls each
 comprising wood-like filler strips of which
 the exterior face is covered by a single met-
 allyc sheath having the marginal wings there-
 110 of intumed upon certain of said strips,
 spaced end filler strips for one of the cross
 walls, said strips being exteriorly encased by
 a separate sheath and respectively adapted to
 lie lengthwise of and in cooperative adjacent
 115 relation to a filler strip associated with their
 respective adjoining side wall frames, and
 tie bolt means serving to interlock one pair
 of such adjacent filler strips.

10. A cabinet of the knock-down type hav-
 120 ing component walls built up of composite
 metal-lumber panels assembled into an open
 box-like structure of which the complemen-
 tary oppositely disposed side members are
 each provided with a substantially rectangular
 125 reenforcing frame comprising wood-like
 filler strips, the exterior frame face being
 covered by a metallic sheath having margi-
 nal wings intumed upon the top and bottom
 frame strips and respectively provided with
 130

through tie-bolt apertures disposed in a transverse relation to the plane of the side walls, in combination with a pair of complementary sheathed cross-wall members respectively bridging the upper and the lower end portions of said side walls, said bridging walls each being provided with spaced end filler strips encased by separate metallic sheaths and each such strip having a similar tie-bolt aperture disposed longitudinally of the plane of the last named wall and respectively aligned with the aforesaid transverse apertures, and tie-bolt means for each such set of aligned apertures serving to hold said assembled box-structure in erected position.

11. A cabinet of the knock-down type having component walls built up of composite metal-lumber panels assembled into a box-like structure of which complementary spaced side-wall panels are made interchangeable and each such side wall member is provided with a reenforcing frame exteriorly covered by a cooperating metallic sheath, in combination with a pair of interchangeable cross-wall panels respectively adapted to bridge the upper and lower portions of said side-wall panels with the latter disposed in overlapping relation to the respective ends of the cross wall panels; said cross walls each being provided with a metal sheath having inturned edges respectively serving to encase end filler strips, and means for interlocking said box structure in erected positions with the metal sheaths in both said cross-wall panels being turned face uppermost.

12. A sectional unit cabinet comprising a plurality of demountable cabinets of the knock-down type of which each such component cabinet is individually assembled and secured into an open box-like structure comprising oppositely disposed pairs of walls each consisting of a single substantially rectangular sheath element that is reenforced by wood-like filler strips, said several component box-like structures being assembled in abutting relation and having certain of their respective sheathed filler strips disposed to lie in adjacency, and means for interlocking said adjacent filler strips respectively associated with different box structures to constitute a unitary combination cabinet.

13. A compartmental assembly having certain of the component walls thereof built up of composite metal-lumber panels and wherein each such component wall member consists of a single substantially rectangular sheath reenforced by wood-like strip means cooperatively disposed adjacent to certain of

the marginal edges of the last-named sheath, and means for demountably securing a longitudinal edge of said compartmental structure by interconnecting the respective adjacent sheath filler strips running therealong.

14. A cabinet of the knock-down type having component walls built up of composite metal-lumber panels adapted to be assembled into an open box-like structure of which each such wall member consists of a single substantially rectangular sheath that is separately reenforced by a cooperating endless frame comprising spaced wood-like strip means disposed adjacent to the respective marginal edges of said sheath, and means for demountably securing together the respective pairs of abutting sheath edges forming the corners of said structure by interconnecting the respective pairs of contiguous strips thereof and which panels when demounted, permit of compactly placing said panels one upon another to facilitate the shipping and storage thereof.

15. A cabinet having its component walls built up of composite metal-lumber panels assembled into an open box-like structure in which oppositely disposed side-panels each comprise a relatively flat frame of the skeleton type having wood-like filler strips disposed in a substantially rectangular relation with the width of one such strip made relatively wider than certain of the other frame strips, an exteriorly disposed metallic sheath for each of said frames, said sheath having adjoining marginal portions cut on the bias with the corresponding sheath wings respectively inturned to overlap the interior frame face, the wing disposition being such that an innermost portion of said wider strip face remains unsheathed, a pair of cross-wall panels serving to span and hold in spaced relation the respective upper and lower end portions of said side-panels, and an angle trim plate adapted to fill in the remaining unsheathed face of one such wide strip.

16. A unitary panel for use in the construction of furniture or similar objects, comprising a plurality of filler strips and a sheath spanning said strips with the sheath marginal portions inturned upon and engaging the respective strips, one of said inturned sheath portions being kept spaced from its filler strip to form a gap therebetween adapted to receive the edge of a closure wall and form a joint therewith.

In testimony whereof, I have herewith set my hand this 23rd day of May, 1928.

LOUIS ILLMER.