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C. A. BETTS

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MEANS FOR JOINING ELEMENTS OF SECTIONAL CABINETS

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Fig. 1.

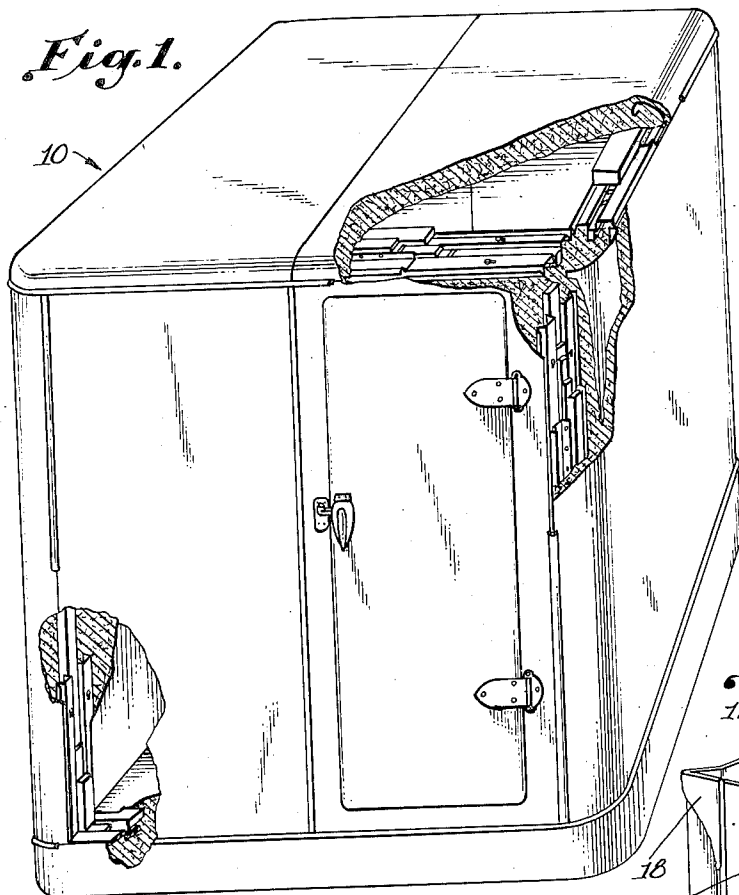


Fig. 5.



Fig. 4.

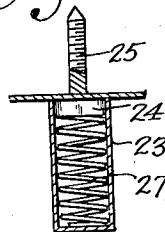


Fig. 6.



Fig. 2.

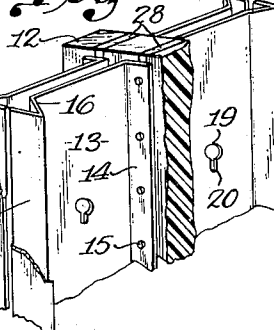


Fig. 7.

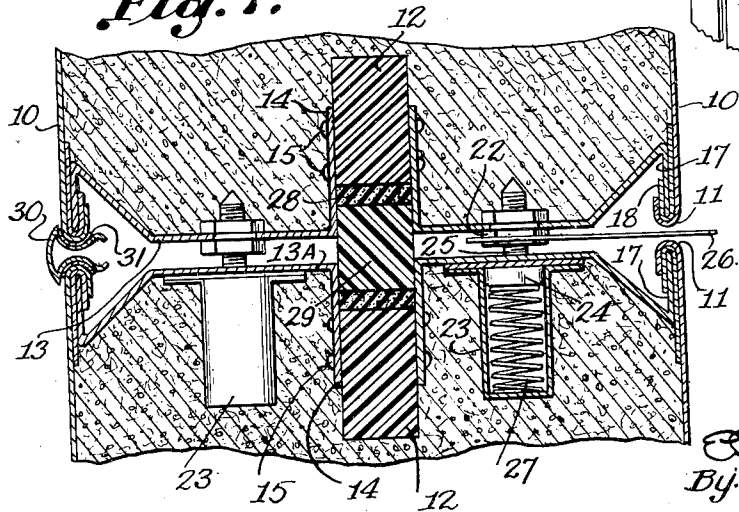
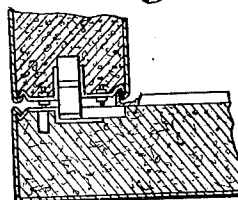


Fig. 3.



Inventor.
C. A. BETTS,
By *E. J. Pinkham*,
Attorney.

UNITED STATES PATENT OFFICE

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MEANS FOR JOINING ELEMENTS OF
SECTIONAL CABINETS

Chester A. Betts, Portland, Oreg.

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4 Claims. (Cl. 189—36)

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This invention relates generally to refrigeration cabinets and particularly to a means for joining the elements of a sectional cabinet.

The main object of this invention is to provide a special form of frame work or skeleton for refrigerator boxes, coolers, and quick-freeze units which will be easy to construct, easy to assemble and efficient in operation.

The second object is to construct a joint for cabinets whereby those portions of the joints subjected to stress will not be made of materials which can easily deteriorate.

The third object of this invention is to construct a device of the class described in a manner that the assembling can be performed with a minimum amount of effort and with the expenditure of the least portion of time.

The fourth object is to provide an appreciable amount of resistance within the joint itself in order that inequalities of manufacture may be rendered unobjectionable.

The fifth object is to so construct the joint that the assembling elements may be restored in a restricted position and released for extension purposes when the related parts are in position.

These and other objects are accomplished in the manner set forth in the following specification, as illustrated in the accompanying drawings, in which:

Fig. 1 is a perspective view of a representative form of cabinet showing a portion broken away to disclose the construction.

Fig. 2 is a fragmentary perspective view showing a portion of a joint.

Fig. 3 is a fragmentary vertical section through a corner joint.

Fig. 4 is an enlarged detail of the spring loaded bolt.

Fig. 5 is a side elevation of a special nut.

Fig. 6 is a side elevation of the wrench used for operating the special nut.

Fig. 7 is an enlarged horizontal section through a joint showing two sections assembled. Similar numerals refer to similar parts throughout the several views.

Referring in detail to the drawing there is shown in Fig. 1 a cabinet composed of a plurality of sections or panels 10 consisting of plain metal sheets having the inturned edges 11. Between the sheets 10 are disposed the joining members which form the base of this invention. They will be seen to consist of a breaker strip 12 of any non-metallic material which is a poor conductor of heat and not absorbent of water or susceptible to damage by termites. If wood is employed it must be suitably treated and I

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prefer the use of a fiber board or other material better adapted for the purpose than is wood.

To each of the opposite sides of the breaker strip 12 is attached a metallic channel 13 whose legs 14 is secured to the breaker strip 12 by means of the screws 15. The legs 16 are provided with oppositely turned flanges 17 which are preferably shrouded with masking tape 18 or other suitable insulating material.

The channels 13 are provided with keyhole slots 19 whose smaller end 20 is large enough to receive the grooved portion 21 of the nut 22 while the larger portion of the slot 19 is large enough to permit the entire nut to pass there-through.

On the inner side of one pair of channels 13—A is mounted a square housing 23 within which is disposed a square headed bolt 24 whose threaded portion 25 can slidably pass through the channel 13—A and enter the nut 22 when the parts are brought together and the nut 22 can be turned by means of the wrench 26 as shown in Fig. 7.

It is desirable to provide a spring 27 within the housing 23 to normally urge the bolt 24 outwardly. The bolt 24 is held in retracted position prior to assembling by means of a piece of masking tape or other contrivance until it is desired to have it engage the nut 22.

It will be noted in Fig. 7 that the breaker strips 12 do not extend to the outer face of the members 13 and 13—A and a portion of the space therebetween is occupied by a gasket 28 of rubber or other suitable material, preferably resilient, and between which is placed the spacer strip 29. The spacer strip 29 may be made of the same material as are the strips 12. It will be noted that the edges 11 engage the masked flanges 17 when the parts are assembled and leave enough room therebetween for the operation of the wrench 26 in order that the nuts 22 may be turned and the elements 28 be held in compression—that is, the sections held closely together. When the tightening of the nuts 22 is completed, an ornamental molding 30 is placed between the edges 11, thereby preventing passage of air therebetween. An insulator 31 is preferably placed between the members 30 and 11 to prevent the conduction of heat therethrough.

It will be understood that a suitable insulating material 32 occupies the space between the panels 10.

The manner of assembling the structure is as follows:

Each section is first assembled by itself, preferably, at the manufacturing plant, and consists

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of the two wall sheets 10, as well as the two walls 13 and 13-A which are in the form of channels and are separated by breaker strips 12.

When placed on the job, the sections are assembled by inserting nuts 22, in the slots 19 and by inserting the gasket 28 and spacer 29, and then engaging the bolts 24, with the nuts 22, to fasten the two pairs of members 13 and 13-A together.

The nuts 22, are actuated by the wrench 26, through the slot 19 between the members 11, which is afterwards closed by means of the molding 30.

I claim:

1. A joint for refrigeration cabinet sections consisting of a longitudinal spacer strip, gaskets disposed along opposite edges of said strip, a breaker strip against each gasket, said breaker strips and spacer strip occupying the same plane, channels having their innermost legs secured to said breaker strips, and extending along said spacer strip, the outermost leg of each of said channels turning in the opposite direction than does said innermost leg, panels of metal forming the interior and exterior covering for the sections, each panel having an inturned edge adapted to engage the outermost leg of each of said channels, bolts passing through adjacent channels and nuts on said bolts engaging a pair of said channels and projecting into a space between adjacent panels so that said nuts are adapted to be turned through the space between adjacent edges of said channels and a molding occupying the space between the edges of said channels.

2. The device as described in claim 1 together with a spring means for urging said bolts through both of said walls when said walls are in a predetermined alinement.

3. A joint for panels consisting of a pair of breaker strips, an interposed spacer strip with resilient packing between said breaker and spacer strips, each of said breaker strips having channels secured to opposite sides thereof and slidably engaging the spacer strip, said channels having their sides turned in the opposite direction from their inner sides, metallic coverings having inturned edges engaging the peripheries of the outermost sides of the channels, the sides of said spacer strip serving to hold the bodies of the

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channels apart, bolts extending through said separated channel members and a nut mounted in each of a pair of said channel members whereby said bolts may draw the panel sections together, and moldings disposed between the outermost edges of the metallic coverings, together with means for urging said bolts through a pair of said channel members into the other pair of said members.

4. A joint for refrigeration cabinet sections consisting of an elongated wooden spacer strip, wooden breaker strips disposed alongside of said spacer strip, resilient gaskets disposed between said spacer and breaker strips, channels having their innermost legs disposed on opposite sides of said spacer and breaker strips, the outermost leg of each of said channels turning in the opposite direction than does said innermost leg to form an outwardly turned hook on said channel, metal panels forming the interior and exterior coverings for the cabinet sections, each panel having an inturned edge adapted to engage the outwardly turned hooks of said channels, bolts passing through said adjacent channels, nuts on said bolts engaging a pair of said channels, one of said nuts extending into the space between adjacent panels so that the nuts may be turned through the space between the adjacent hook edges of said channels and a molding removably occupying the space between the edges of said channel hooks.

CHESTER A. BETTS.

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