

June 15, 1943.

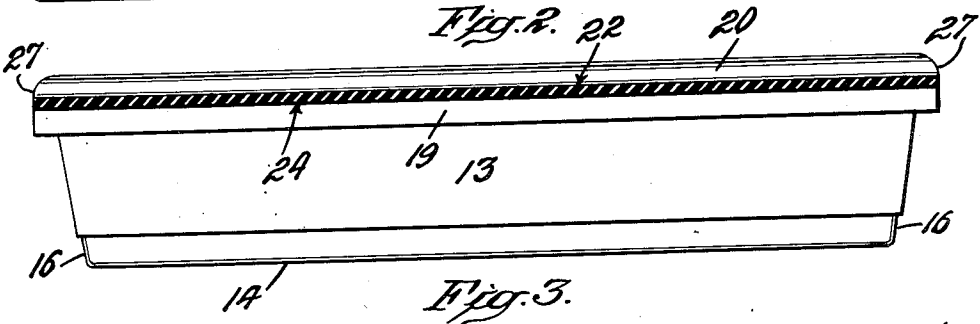
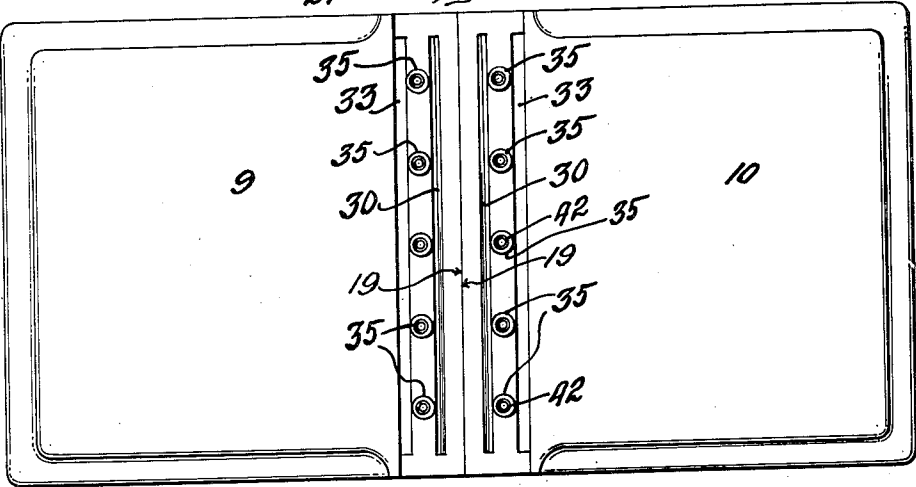
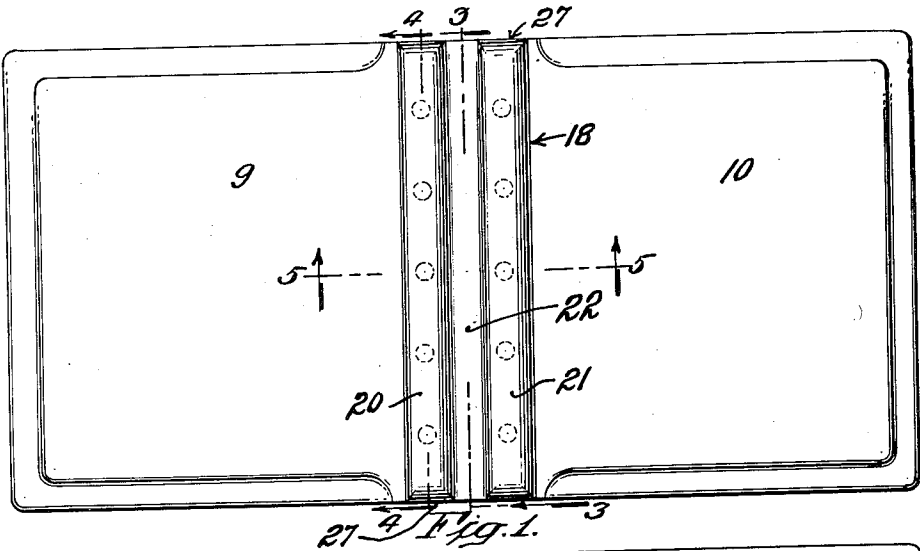
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COVER FOR COOLER CABINETS

Filed June 7, 1941

2 Sheets-Sheet 1



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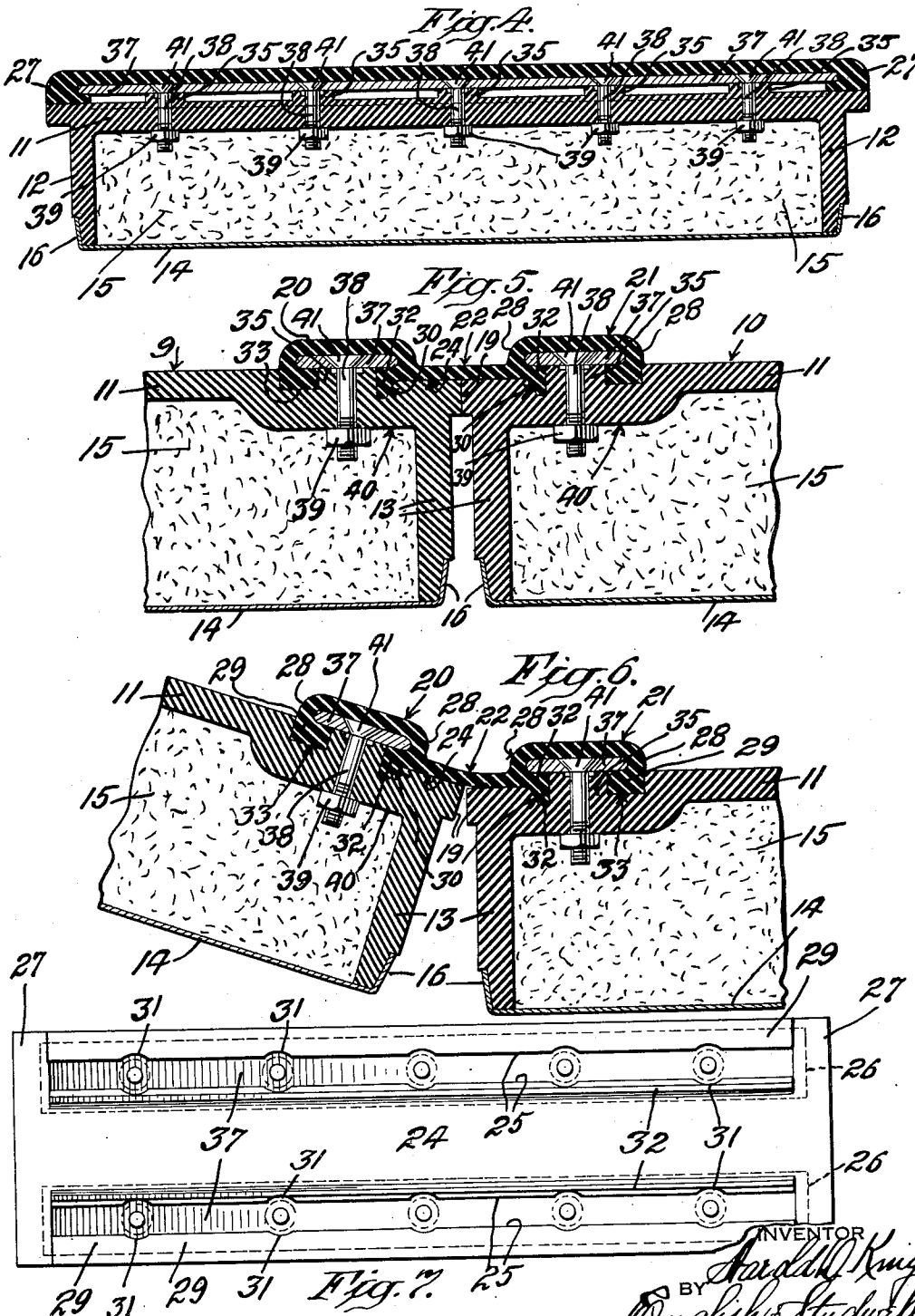
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COVER FOR COOLER CABINETS

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4 Claims. (Cl. 220—30)

The invention relates to an improvement in covers for cooler cabinets and more particularly to an improved hinge for such covers. Certain types of cooler cabinets are provided with two covers, of substantially the same size and shape having straight inner edges adjacent to each other, substantially parallelly arranged and usually in contact with each other. It has heretofore been proposed to provide such covers with a flexible hinge of liquid-impervious material connected with the inner adjacent edges or ends of the covers and overlying the joint between them so as to prevent liquid from dropping into the container sealed by the covers. The covers and the hinge are so arranged that each cover may be folded back upon the other. Each cover thus in turn constitutes a support to which the other cover is hinged.

In the prior constructions in which the hinges are composed of flexible liquid-impervious material the fastening means for securing the hinge to the cover sections are exposed at one point or another, and since the fastening means are frequently metallic, they are liable to deterioration from constant exposure to liquids. The object of the present invention is to produce a hinge structure in which the fastening means are entirely hidden, so that moisture is positively prevented from having access to the fastening means. Although the invention has been developed in connection with the problem of providing double-cover structures for cooler cabinets with hinges so constructed and arranged as to prevent liquid from passing into the container sealed by the covers, it will be understood that the improved hinge of the present invention may be applied to any structure in which a movable part is hinged on a support. The invention is more fully described hereinafter and is more particularly pointed out in the appended claims.

In the accompanying drawings illustrating the preferred form of the invention, Fig. 1 is a top plan view of two cooler cabinet covers connected together at their inner adjacent ends by means of the improved hinge of the present invention; Fig. 2 is a view similar to Fig. 1, but with the hinge removed; Fig. 3 is a transverse section, on an enlarged scale, taken on the line 3—3 of Fig. 1; Fig. 4 is a transverse section taken on the line 4—4 of Fig. 1; Fig. 5 is a longitudinal section taken on the line 5—5 of Fig. 1; Fig. 6 is a view similar to Fig. 5, but showing one of the covers partly lifted with respect to the other; and Fig. 7 is a bottom plan view of the improved hinge.

The improved hinge construction of the pres-

ent invention may be applied to and used in connection with any general type of two-section cooler cabinet cover and it also may be applied to any member which in like manner is connected with and adapted to be folded back upon a support. In Figs. 1 and 2 are shown two cooler cabinet covers of conventional design designated by the reference numerals 9 and 10, and which are of substantially the same size and shape, being rectangular in plan view. Each cover consists of a horizontally disposed top wall 11, vertically disposed side walls 12, a vertical inner end wall 13, an outer end wall (not shown), and a bottom wall 14. Each cover section thus constitutes a hollow structure adapted to be filled with an insulating material 15. The top, side and end walls are preferably composed of hard rubber or a similar substance, whereas the bottom wall 14 is conveniently composed of metal and its up-turned side edges 16 fit into chamfers formed on the lower ends of the side and end walls. The inner walls 13 of the cover sections are parallelly arranged and abut each other at their top inner edges 19.

The improved hinge, which is generally indicated at 18 in Fig. 1, is rectangular in plan and is substantially as long as the covers 9 and 10 are wide, as clearly indicated in Figs. 1 and 2. The width of the hinge is such that its sides overlap the inner adjacent edges or ends of the covers a substantial distance to accommodate means for fastening the lateral portions of the hinge to the top walls of the cover, as will be presently explained. When the improved hinge is used for connecting two cooler cabinet covers or the like together, the two lateral sides of the hinge are alike in construction and arrangement, but when the improved hinge is used for connecting only a single cover or similar part with a support, then only one half of the hinge need embody the features of the invention for connection with the cover, whereas the other side of the hinge may be fixed in any preferred manner to the support. Both the lateral sides of the hinge, however, may embody the features of the invention, even though one side is attached to the cover-like member and the other side is attached to a stationary support.

The improvements in hinge structures comprising the features of the present invention lie in the novel formation of the lateral sides 20 and 21 of the hinge which are identical. The two lateral hinge portions 20 and 21 are longitudinal enlargements connected by a flat relatively thin middle or web section 22, the under surface 24

of which rests on the top margins of the inner ends of the top walls 11 of the covers 9 and 10. By reference to Fig. 5 it will be seen that the median line of the middle web portion 22 of the hinge overlies the joint 19 between the top of the inner ends or edges of the covers 9 and 10. The top surface of the margins of the top walls 11 of the covers is depressed below the top surface of the covers 9 and 10 a distance equal to the thickness of the web portion 22 of the hinge, so that the top surface of the web portion 22 of the hinge is on the same plane as the top surface of the covers 9 and 10.

The longitudinally extending sides or lateral edges 20 and 21 of the hinge are each enlarged to accommodate a longitudinally extending recess 26 having parallel top and bottom walls which terminate at each end short of the ends 27 of the hinge sections 20 and 21, as clearly indicated in Figs. 4 and 7, and short of the side edges 28 of the hinge sections, as indicated in Figs. 5 and 6. The height of each recess 26 is small compared with its width and length, and is thus adapted to accommodate a lath-like or strip shaped member. Each recess 26 opens downwardly as a slot 25 through the bottom wall 29 of each side portion 20 and 21 of the hinge, and thus each recess 26 in cross section is of T shape. In order to assist in anchoring the hinge to the covers and also so that each side portion 20 and 21 of the hinge may not twist or be displaced laterally with respect to the cover section to which it is attached, each cover is provided parallel with and adjacent to its top inner edge 19 with a longitudinally extending slot 30 into which fits a downwardly projecting longitudinally extending wedge-shaped tongue 32 formed on the inner edge of the bottom wall 29 of the hinge portions 20 and 21. At their outer edges the bottom walls 29 of the hinge portions 20 and 21 are enlarged downwardly to fit within the slots 33 extending across the covers 9 and 10 parallelly with the slots 30. The enlargements of the bottom walls of the hinge portions 20 and 21 occupying the parallelly arranged slots 30 and 33 and the inner edges of which forms the slot 25 are grooved at 31 to embrace laterally a series of buttons 35 which extend upwardly from the top of the depressed inner ends of the top walls of the covers.

The means shown in the illustrated embodiment of the invention for fastening the lateral hinge portions 20 and 21 to the inner ends of the top walls of the covers 9 and 10 comprise a metal strip 37 which is of the same dimensions as the recesses 26 and when located in the recesses it is tightly embraced by the inner surfaces thereof. The buttons 35 and the underlying part of the top walls 11 of the cover sections 9 and 10 are provided with apertures for receiving shanks 38 of screw bolts, the head portions 41 of which are received within countersunk holes in the metal strip 37 corresponding to the holes in the buttons 35. The lower ends of the screw bolts receive nuts 39 which take up against the under surface 40 of the inner portions of the top walls 11 of the covers which are thickened at this point. The side portions 20 and 21 of the hinge are thus firmly anchored to the covers 9 and 10. In order that the point of junction between the heads 41 of the screw bolts and the shanks 38 thereof may not contact with the material of the top walls 9 and 10 the top ends of the bolt-receiving holes in the buttons 35 or top walls 11 of the covers are counterbored, as at 42,

From the foregoing description it will be recognized that the improved hinge of the present invention is of such construction and arrangement that no portions of the metallic fastening means are exposed, and hence cannot be attacked by the liquids which are always present in the use of cooler cabinets. Moreover by providing the hinge portions 20 and 21 with downwardly extending walls which are received within longitudinal slots within the top wall 11 of the covers 9 and 10 liquid is prevented from passing down through the joint between the surfaces 19 of the inner top edges of the covers. And by arranging the parts of the hinge in such manner that the lateral portions 20 and 21 thereof extend laterally over the top surface of the inner edges of the top wall of the covers and making the inner walls 13 of the covers integral with the top walls 11, moisture is positively prevented from leaking into the interior of the covers and attacking the insulating material 15. There is thus provided a hinge construction for cooler cabinets which is neat and attractive in appearance and efficient in operation.

Having thus described the invention what I claim as new is:

1. A cooler cabinet structure comprising two covers of substantially the same size and shape having inner straight edges arranged adjacent each other, and a hinge for connecting the covers at their inner edges consisting of flexible liquid-imperious material as long as the covers are wide and wide enough to extend laterally a substantial distance onto the covers from the inner edges thereof, the top surface of the inner ends of each cover being provided with a plurality of parallelly arranged slots, said hinge having two parallelly extending enlarged lateral sides with downwardly projecting portions received within the slots in the cover, the lateral enlargements of the hinge being connected by a relatively thin web the middle portion of which lies over the joint between the inner edges of the covers, each lateral enlargement of the hinge being provided with a longitudinally and laterally extending recess terminating short of the ends and side edges of the enlargement and having a slot opening downwardly from the bottom of the recess and bound laterally by the inner edges of the downwardly projecting parts of the enlargement, a metal strip received within the recess and means connected with the metal strip for securing the lateral enlargements of the hinge to the top walls of the covers.

2. A structure of the character described comprising a support, a cover, the support and the cover having substantially parallel adjacent edges, and a hinge for connecting the cover with the support and overlapping the joint between the cover and the support, said hinge being composed of flexible liquid-imperious material and having along the lateral side overlapping the cover a longitudinally extending recess formed wholly within the hinge and having in its lower side an opening leading downwardly to the cover, the recess and the opening forming a T in cross section, a strip of metal occupying the recess, fastening means connected with the strip of metal and the cover and passing through the opening for securing the hinge to the cover, means for securing the other side of the hinge to the support, said cover having parallel slots and said hinge having downwardly extending parallel projections received in said slots and fitting there-

in for preventing lateral displacement of the hinge and cover.

3. A cooler cabinet structure comprising two covers having inner straight edges arranged adjacent each other, each cover having a pair of parallel depressions formed in its upper surface adjacent the inner edges thereof, and having a metal strip secured thereto projecting laterally over said parallel depressions, and a hinge member of flexible, liquid impervious material dimensioned to extend to the ends of the inner edges of the covers, said hinge having a relatively thin middle portion adapted to overlie the meeting edges of the covers, and having laterally extending enlarged portions having longitudinal recesses therein adapted to receive said strips and slots communicating with said recesses and formed by the inner edges of downwardly extending projecting parts of said enlarged portions, said parts having portions extending into and seating in said parallel depressions whereby

twisting and lateral displacement of the hinge and covers are prevented.

4. A cooler cabinet structure comprising two covers having inner straight edges arranged adjacent each other, each cover having a T-shaped cover anchoring portion spaced from its inner edge and a hinge member of flexible, liquid impervious material dimensioned to cover the meeting edges of the cover and comprising a central portion and enlarged end portions, each end portion having a recess for receiving the upper end of the T-shaped anchoring portion and having lateral downwardly projecting side portions adapted to engage beneath said upper end of the anchoring portion, each cover having parallel slots or depressions and said downwardly projecting side portions fitting into said depressions and preventing twisting or lateral displacement of the hinge and covers.

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