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1,970,213

CABINET AND SHELF STRUCTURE

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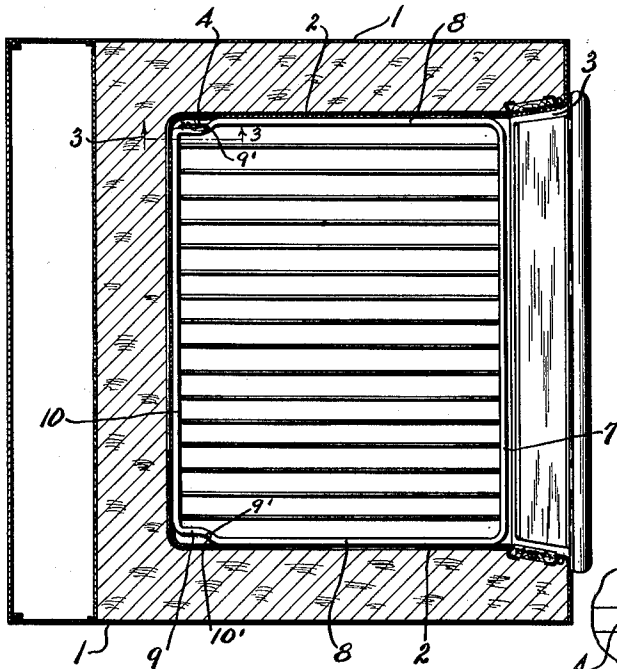


Fig. 1

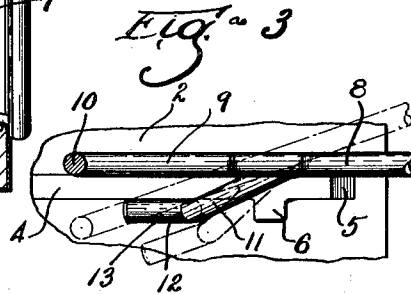


Fig. 3

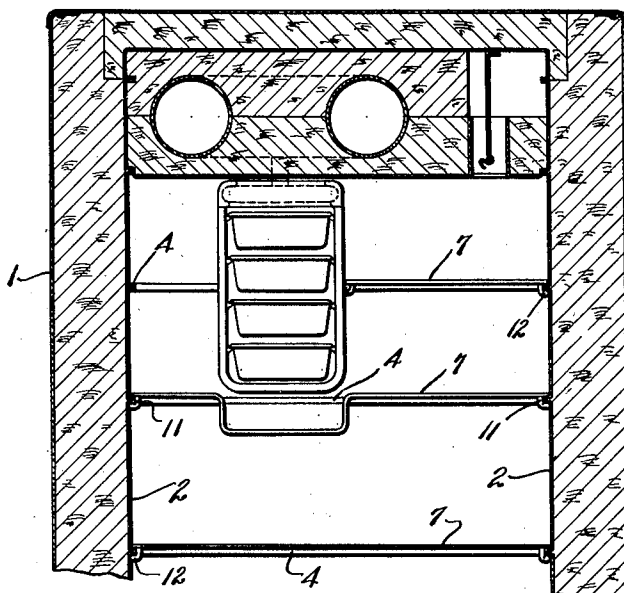


Fig. 2

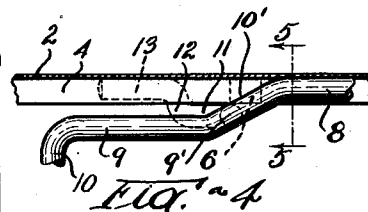


Fig. 4

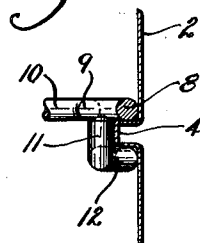


Fig. 5

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CABINET AND SHELF STRUCTURE

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Application July 21, 1931, Serial No. 552,146

1 Claim. (Cl. 312—188)

The invention disclosed in this application relates to cabinet and shelf structures, and is particularly useful in refrigerators.

In many types of cabinets having shelves, it is important that the latter be arranged to be slid in and out, and at the same time that they be held locked at the rear against vertical movement or displacement and prevented from being unintentionally pulled out too far so that the rear end drops and spills the articles arranged upon it.

With the foregoing purpose in mind, the invention comprises a cabinet having a chamber, the side walls of which are provided with suitable continuous rails, cleats or shelf supports, one side portion at least of which, but preferably each, has a stop shoulder lug, preferably downwardly extending, for engaging a suitable retaining lug arrangement carried by the shelf for preventing complete removal except by special tilting of the shelf, such as an upward inclination toward the front, which must be intentionally produced by the operator.

The invention is well illustrated in the embodiment shown in the following description, drawing and claim.

Referring to the drawing, Fig. 1 is a horizontal section through a refrigerator cabinet, showing the inner shell with the shelf applied thereto; Fig. 2 is a vertical section showing the shelves in place; Fig. 3 is an enlarged section looking toward the side wall of the cabinet upon the lines 3—3 of Fig. 1; Fig. 4 is an enlarged plan view of the side of the rear portion of the shelf and the forward upper portion of the cleat or support; and Fig. 5 is a section through the cleat or support and through a part of the rear portion of the shelf substantially upon the line 5—5, Fig. 4.

In the embodiment shown in the drawing, 1 represents the outer shell of a refrigerating cabinet, for example, and 2 the inner shell. This shell extends to a suitable door opening, indicated at 3. The sides and the rear wall of the shell are transversely beaded to provide supporting cleats or rails 4 extending continuously along the sides and the back. At the front these beads taper off into the sides, as shown at 5, Fig. 3. Just to the rear of the front ends of these cleats are downwardly projecting stop lugs 6, preferably arranged in pairs on the side ends of the cleats or supports. These lugs are used to prevent complete removal of the shelves, as will appear.

The beading of the inner shell to form the shelf cleats or supports is of great utility in many cabinets, such as refrigerators, in that it gives

strength and rigidity and prevents the inward bulging of the side and back walls.

Engaging the cleats or supports are suitable shelves generally of any desired construction, but in the refrigerator art being of the wire mesh type. This type comprises a wire edge frame consisting of a front edge portion 7, major side edge portions 8 and minor side portions 9 formed by bending the side wires so that a small rear portion of each shelf is slightly less in width than the overall distance between the cleats or shelf supports. The two sides are connected by a back wire edge member portion 10. It will be seen from the arrangement of the shelf, with the major and a relatively small minor portion connected by shoulders or offsets so to speak, that the offsets or shoulders, as at 10', will provide a means whereby the shelf may be tilted by these shoulders engaging with the upper edges of the cleats or supports. This tilting of the shelf is utilized for complete removal, as will appear.

Projecting inwardly and downwardly from each of the shoulders or offsets, indicated at 9', Fig. 1, is a downwardly inclined lug portion 11. This inclined lug portion is connected to the shoulder or offset at a point inside of the inner edge of the cleat or support. Extending laterally from the end of this inclined lug portion is a short transverse portion 12 extending under the corresponding side cleat or bead 4 and thence it turns in a rearwardly extending longitudinal portion 13 under the cleat or support, as shown clearly in Figs. 3, 4 and 5. Suitable clearances are allowed between the parts so that the shelf may slide freely upon the supports. The construction of the retaining lug arrangement is such that by tilting the shelf and engaging the shoulders or offsets with the upper edge of the cleats or supports, it may be slid in from the front past the forward stop lugs 6. After the retaining lugs have passed the stop lugs, then the shelf may be lowered into horizontal position and slid back to final position. When in place in horizontal position, it is obvious that the rear end of the shelf may not be moved upward to disturb the things on the shelf and further that it may be withdrawn to various positions and projected to almost the maximum extent out in front of the cabinet without danger of tilting forward. As long as it is maintained horizontal it cannot be entirely removed.

What I claim is:

In combination, a cabinet having vertical side walls, parallel horizontal shelf supporting beads projecting inwardly from said walls, a shelf having a major front portion of a width substantially

equal to that from wall to wall, and a minor rear portion no greater in width than that between the inner edges of said rails, said shelf portions being connected by offsets adapted to ride on the bead edges and form pivots when the shelf is tilted, a retaining lug extending rearwardly and laterally from one of said offsets with a portion of its body slidably held beneath one of the beads for permitting forward sliding adjustment of the shelf without depression of its front edge, the said retaining lug extending from said offset into the region of the minor rear shelf portion and including a downwardly and rearwardly inclined portion, a lateral projection therefrom, a longitudinal terminal portion on said lateral projection extending lengthwise of and beneath said bead, the said retaining lug being adapted upon elevation of the shelf front to move downwardly away from the beads, and an integral stop lug beneath one of the beads near its front end adapted to be engaged by the retaining lug and to prevent complete shelf removal when the shelf is horizontal, said stop lug extending downwardly from the bead to such amount and said retaining lug being spaced rearwardly from said offset by such amount that one will pass the other when the shelf front is elevated, to thereby release the shelf for complete removal when desired.

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15	terminal portion on said lateral projection extend-	90
20		95
25		100
30		105
35		110
40		115
		120
50		125
55		130
60		135
65		140
70		145
75		150