

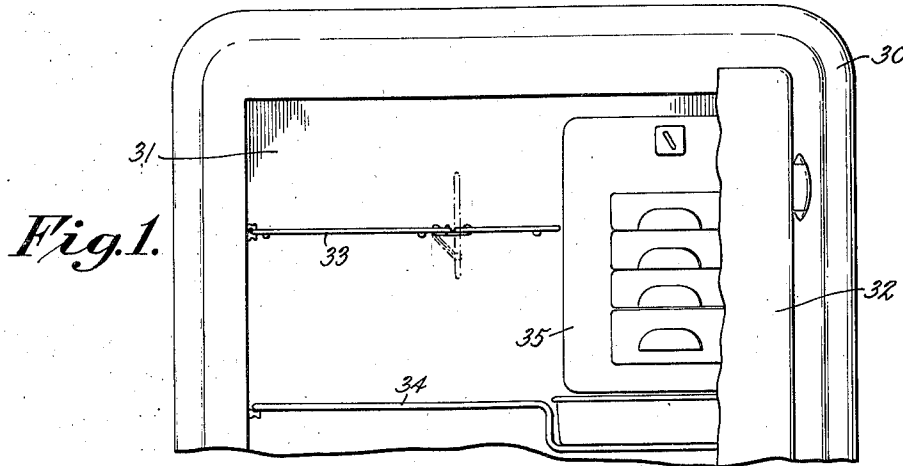
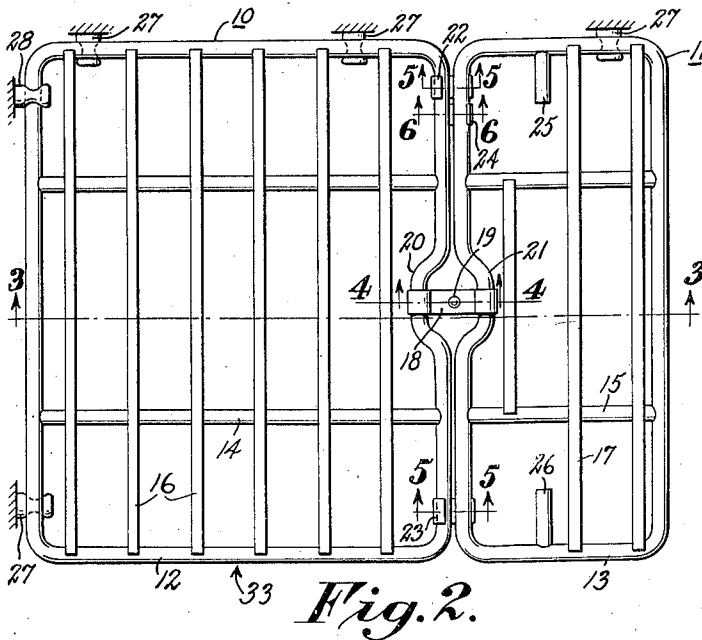
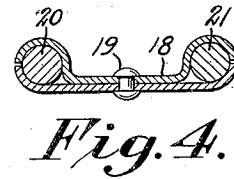
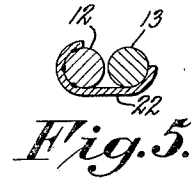
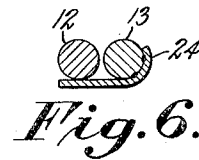
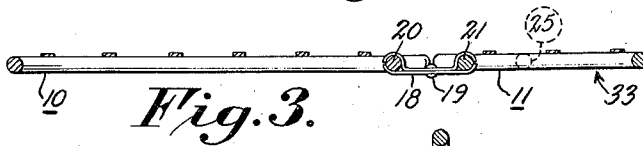
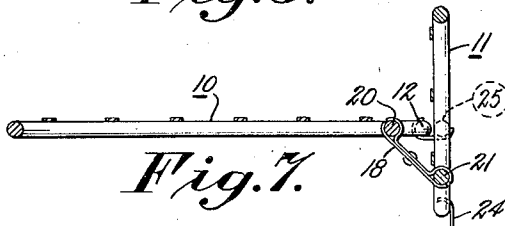
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2,091,607

REFRIGERATOR SHELF

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## UNITED STATES PATENT OFFICE

2,091,607

## REFRIGERATOR SHELF

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10 Claims. (Cl. 211-153)

My invention relates to a shelf for refrigerator cabinets and it is an object of the invention to provide a shelf structure which may be easily and quickly altered to permit storage of tall bottles and the like as will appear from the following description taken in conjunction with the accompanying drawing, forming a part of this specification, and of which:

Fig. 1 shows the upper interior of a refrigerator cabinet embodying the invention;

Fig. 2 is a top plan view of a shelf shown in Fig. 1;

Fig. 3 is a vertical section of the shelf on the line 3-3 in Fig. 2;

Fig. 4 is a detail section on the line 4-4 in Fig. 2;

Fig. 5 is a detail section on the line 5-5 in Fig. 2;

Fig. 6 is a detail section on the line 6-6 in Fig. 2; and

Fig. 7 is a vertical section of the shelf in an altered position.

In Fig. 1 is shown the upper part of a refrigerator cabinet 30 having a thermally insulated storage compartment 31 accessible by means of a door 32. Shelves 33 and 34 are located in this portion of the refrigerator and are spaced so as to provide the best efficiency in normal loading of the shelves. This spacing may not permit the storage of unusually tall bottles in a vertical position. The raising of the shelf 33 to a level which would allow the storage of tall bottles on shelf 34 would result in an inefficient arrangement, since, in general, only a few tall bottles are stored. The major part of the shelf area is ordinarily utilized for articles of considerably less height than the bottles, and the space between these articles and the shelf above would be wasted. The same considerations would apply if the shelf 33 were lowered so that tall bottles might be stored thereon.

I have provided an improved shelf structure which may be located to give the most efficient storage arrangement, and which at the same time may be easily and quickly altered to permit the storage of tall bottles on the shelf below.

Referring to Fig. 2, which is a plan view of the shelf 33, the shelf is constructed in two sections designated generally as 10 and 11, each of which comprises a frame 12 and 13 having cross members 14 and 15, and parallel bars or rods 16 and 17 which are supported by the frames. The adjacent sides of the frames 12 and 13 are pivotally joined by a hinge 18 which comprises two strips appropriately curved at their ends to revolvably

engage the frames and fastened together in the center by a rivet 19 or other securing means. The frames 10 and 11 are oppositely offset at 20 and 21 to provide sufficient radius for the hinge 18.

Two projecting members 22 and 23 are secured, as by welding, on the frame 12 and normally serve to support the hinged edge of the shelf section 11 as shown in Figs. 2 and 5. A projecting member 24 is secured to the frame 13 and normally engages beneath the frame 12 of the shelf section 10 as shown in Figs. 2 and 6.

In Figs. 1, 2, and 3, the shelf 33 is shown in what may be called its normal position with the two sections 10 and 11 in the same horizontal plane. The shelf is supported in the refrigerator cabinet storage compartment by means of suitable wall hooks or pegs 27 on which rest the frames 12 and 13 of the shelf sections 10 and 11. In the embodiment illustrated, only two sides of the shelf are supported, so a wall peg 28 (see Fig. 2) is provided to engage above the frame 12 of the shelf section 10 adjacent the corner opposite the unsupported corner of the shelf to prevent tipping.

When it is desired to store tall bottles on the shelf 34 of the refrigerator, the section 11 of the shelf 33 may be relegated to a vertical position as shown in dotted outline in Fig. 1. This is accomplished by turning the hinged shelf section 11 to a substantially vertical position. This causes the hinge 18 to move above the normal plane of the shelf, whereupon, the edge of the shelf section 11 may be disengaged from the projecting members 22 and 23, and the shelf section 11 lowered to the position shown in Fig. 7 and in dotted outline in Fig. 1. In this altered position, the shelf section 11 is supported by pins 25 and 26 which extend inwardly from the frame 13 and rest on the projecting members 22 and 23. With the section 11 in this altered position, tall bottles may be stored adjacent the evaporator or cooling element 35 of the refrigerator on the shelf 34 and may extend above the level of the shelf 33.

It will be understood that various changes may be made within the scope of my invention as indicated by the following claims.

What is claimed is:

1. A shelf for a refrigerator cabinet including two sections and a hinge member connecting said sections, said member being hinged to a shelf section at a point inset from the edge thereof so that said section may be moved into a plane substantially perpendicular to that of the other section and extend above and below said other section.

2. A shelf for a refrigerator cabinet including two sections and a hinge member connecting said sections, said member being hinged to the sections at points inset from the adjacent edges thereof, and the edges of said shelf sections being indented in the vicinity of said hinge member to permit relative motion of said edges when one of said sections is moved to a vertical position.

3. A shelf for a refrigerator cabinet including two sections and a hinge member connecting said sections, said member being hinged to a shelf section at a point inset from an edge thereof, and the edge of said shelf section being indented in the vicinity of said hinge member to permit relative motion of said edges when one of said sections is moved to a vertical position.

4. A shelf for a refrigerator cabinet including two sections comprising generally rectangular wire frames having cross bars supported thereon and a hinge member connecting said sections, said member being hinged to the frames at points inset from the adjacent edges thereof, and the edges of said frames being indented in the vicinity of said hinge member to permit relative motion of said edges when one of said sections is moved to a vertical position.

5. A shelf for a refrigerator cabinet including two sections comprising generally rectangular wire frames having cross bars supported thereon and a hinge member connecting said sections, said member being hinged to the frames at points inset from the adjacent edges thereof, the edges of said frames being indented in the vicinity of said hinge member to permit relative motion of said edges when one of said sections is moved to a vertical position, and tabs at the edge of one of said sections for normally supporting the adjacent edge of the other section and adapted to further engage and stabilize said other section when the latter is moved to a vertical position.

6. A shelf for a refrigerator cabinet comprising two substantially rectangular-shaped frames, means for connecting said frames to move said frames in the same plane or in planes perpendicular to each other, spaced tabs fixed to an edge of one of said frames, and projecting members fixed to said second frame, an edge of said second frame being supported on the spaced tabs of said first frame when said frames are disposed in the same plane, and the projecting members of said second frame being supported on the spaced tabs of said first frame when said frames are disposed in planes perpendicular to each other.

7. A shelf for a refrigerator cabinet comprising two substantially rectangular-shaped frames, means for connecting said frames to move said frames in the same plane or in planes perpendicular

to each other, spaced tabs fixed to an edge of one of said frames, at least one tab fixed to an edge of said second frame, and projecting members fixed to said second frame, the edge of said second frame having the projecting tab being supported on the spaced tabs of said first frame when said frames are disposed in the same plane, the projecting tab on said second frame extending beneath the edge of said first frame when said frames are in the same plane, and the projecting members of said second frame being supported on the spaced tabs of said first frame when said frames are disposed in planes perpendicular to each other.

8. In a refrigerator having a plurality of shelves disposed one above the other, the spacing of said shelves being adapted for articles of a given maximum height, a shelf comprising two portions arranged to be supported alongside each other, one of said portions being movable from a horizontal position alongside said other portion to a vertical position extending from the front to the rear of said other portion, and means on said shelf for supporting said one portion in a stable vertical position on said other portion, said one portion when in a horizontal position permitting articles to be placed on the entire shelf and when in a vertical position providing unobstructed access to permit placing on said other portion articles of said given maximum height and also permitting placing on the shelf below articles of a height greater than said maximum.

9. In a refrigerator having a plurality of shelves disposed one above the other, a shelf comprising two portions, means providing a hinged connection between said portions to move said portions in the same horizontal plane or in planes perpendicular to each other with one portion in a vertical plane extending from the front to the rear of said other portion, and means on said shelf for supporting said one portion in a stable vertical position on said other horizontal portion.

10. In a refrigerator having a plurality of shelves disposed one above the other, the spacing of said shelves being adapted for articles of a given maximum height, a shelf comprising two portions, means for connecting said portions to move said portions in the same horizontal plane or in planes perpendicular to each other with one portion in a vertical plane to permit placing on the shelf below articles of a height greater than said maximum, and means on said shelf for automatically supporting said vertical portion in a stable position on said horizontal portion when it is moved to the vertical position it is adapted to assume.

ALFRED E. NAVE.