Aug. 25, 1942. E. H. BODDY 2,294,155

REFRIGERATOR SHELF

Filed July 16, 1940 2 Sheets-Sheet 1

Fig. 1

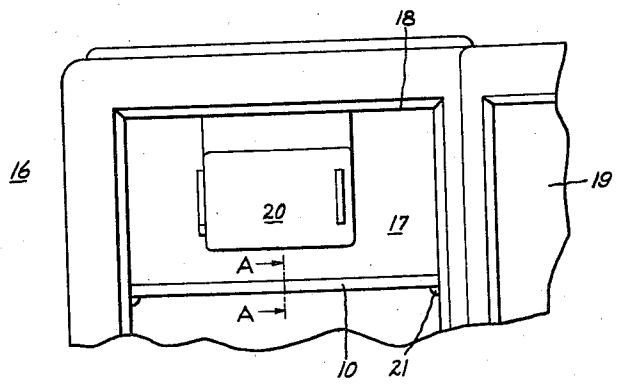
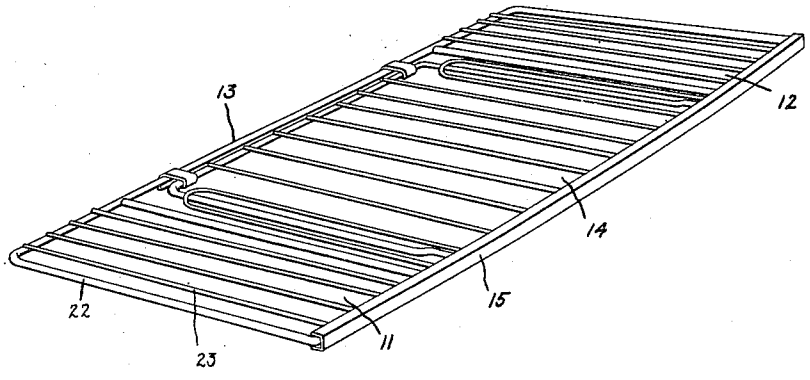


Fig. 2



Inventor:
Edwin H. Boddy,
by Harry C. Dunham
His Attorney.

Aug. 25, 1942. E. H. BODDY 2,294,155

REFRIGERATOR SHELF

Filed July 16, 1940 2 Sheets-Sheet 2

Fig. 3

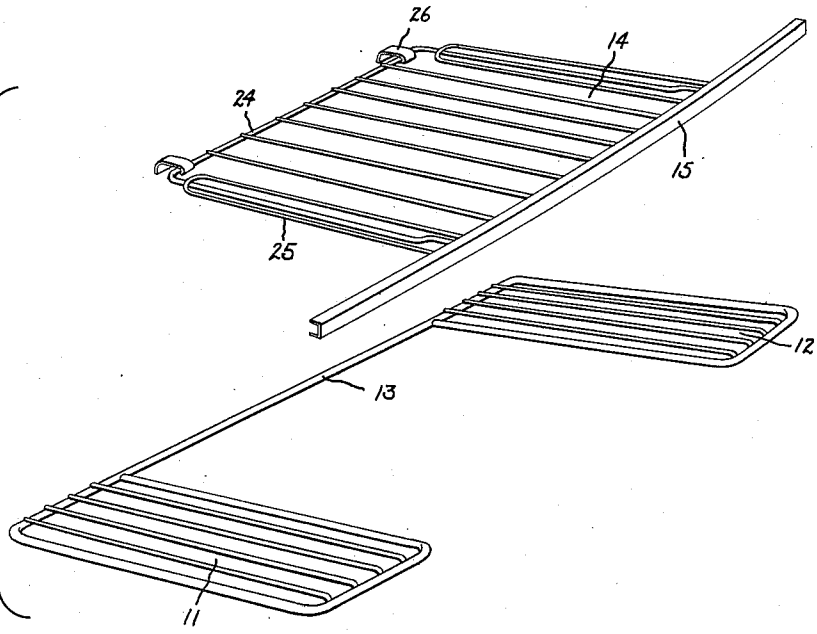


Fig. 4

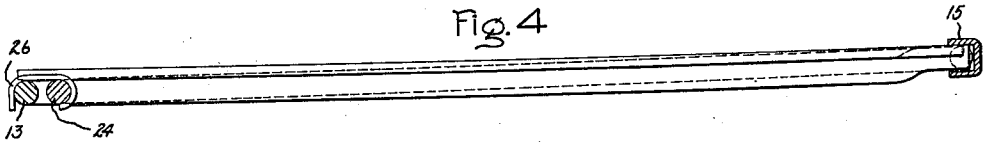


Fig. 5

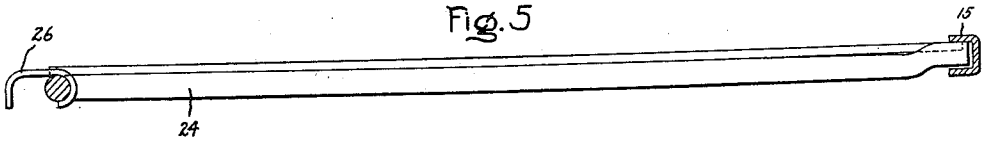
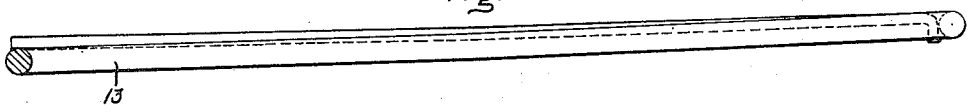


Fig. 6



Inventor:
Edwin H. Boddy,
by Harry E. Dunham
His Attorney.

Patented Aug. 25, 1942 2,294,155

UNITED STATES PATENT OFFICE

2,294,155

REFRIGERATOR SHELF

Edwin H. Boddy, Erie, Pa., assignor to General Electric Company, a corporation of New York

Application July 16, 1940, Serial No. 345,746

8 Claims. (Cl. 211—153)

My invention relates to shelves and more particularly to shelves adapted for use in cabinets such as refrigerators and the like.

Objects and advantages of my invention will become apparent as the following description proceeds and the features of novelty which characterize my invention will be pointed out with particularity in the claims annexed to and forming a part of this specification.

For a better understanding of my invention reference may be had to the accompanying drawings in which Fig. 1 is a partial front elevational view of a domestic refrigerator provided with a shelf embodying the principles of my invention; Fig. 2 is an enlarged perspective view of the shelf shown in Fig. 1; Fig. 3 is an enlarged perspective view of the shelf shown in Fig. 1 with the parts thereof displaced; Fig. 4 is a cross sectional view of the shelf shown in Fig. 1 taken along the lines A—A of Fig. 1; Fig. 5 is a cross sectional view of the removable center section of the shelf taken along the line A—A of Fig. 1; and Fig. 6 is a sectional view of the interconnected end portions of the shelf taken along the line A—A of Fig. 1.

Referring to the drawings, I have provided a shelf 10 comprising a pair of spaced-apart shelf sections 11 and 12 joined or interconnected at the rear by a member 13. There is also provided a removable center section 14. In the illustrative form of my invention there is provided along the front edge of section 14 a member 15 extending the full width of the shelf 10 and constructed and arranged for supporting engagement with substantial portions of the front edges of sections 11 and 12. Thus, if it is desired to accommodate tall or bulky articles below the shelf 10 without loss of the entire shelf area, as would occur if it were necessary to remove the entire shelf, it is only necessary to remove the center section, the spaced-apart or end sections 11 and 12 remaining available for storage purposes. However, when the entire shelf is in use, that is, when the center section is in place, the member 15 provides additional strength for the shelf 10. The member 15 may take the form of a decorative front strip for the shelf.

I have illustrated my invention as it might be adapted for use in a refrigerator. Thus, I have shown a household refrigerator 16 provided with a heat-insulated refrigerated compartment 17 having an opening 18 in the front wall thereof and a heat-insulated door 19 for the opening 18. The cabinet is cooled by a refrigerating machine including a refrigerant evaporator 20 arranged in the upper portion of the compartment 17 and connected to a suitable refrigerant liquefying unit, not shown. The shelf 10 is supported below the evaporator 20 by suitable supports or brackets 21 carried on the side walls of the refrigerated compartment 17.

The relatively fixed part of the shelf comprising the interconnected end sections is supported on the brackets 21 and includes a marginal or border frame 22 of relatively heavy wire or other suitable material bent to provide the spaced-apart sections 11 and 12 interconnected by a portion 13, the latter means serving to support or brace the shelf at the rear thereof. While the frame is illustrated as being formed from a single wire, the ends being suitably secured at the rear of the shelf as by welding, if desired, the sections could be made separately and joined at the rear by a member suitably secured to the sections. In order to provide article supporting surfaces, each of the end sections is provided with a plurality of longitudinally extending spaced-apart bars 23 suitably joined at the ends thereof to the frame member 22 as by welding, for example.

The removable center section 14 comprises the channel-shaped member 15 at the front edge thereof and a border frame 24 of relatively heavy wire or other suitable material bent to form the side and rear portions of the section and suitably joined at the ends thereof to the member 15. In order to provide an article supporting surface the center section is provided with a plurality of spaced-apart longitudinally extending bars joined as by welding at the rear end to the frame 24 and at the front end to the member 15. At each side of the removable section 14 additional food supporting surface is provided in the form of generally U-shaped members 25 joined at the open ends thereof to the member 15 and at the base or closed end thereof to the frame member 24.

In order to support the center section from the relatively fixed part of the shelf I have provided hook-shaped members 26 for engagement with the aforementioned fixed part, shown as adjacent each end of the removable center section, and suitably secured to the frame 24 as by welding, for example. The members 26 are illustrated as partially encircling the portion 13 of the frame 22. The removable section 14 is supported at the front thereof by the member 15 which is substantially channel or U-shaped, the open side thereof being directed rearwardly to receive the frame constituting the front edges of the end sections. In this construction the members 26 cooperate with the removable section and member

13 to maintain the front edges of the end sections in the channel.

Thus there is provided means having supporting engagement only with the front portion of the removable section and the front portions of the end sections, thereby increasing the rigidity of the complete shelf when the removable section is used. In the illustrated form of my invention, when the shelf is supported in its assembled or complete form, the front cross piece or member 15 takes the load supported by the shelf and transmits the load to the supports 21. This construction, in addition to providing a pleasing appearance, permits a relatively light construction of the end sections which normally are not subjected to any substantial weight while providing a strengthening member when the removable section is in place and the shelf may be supporting a relatively heavy load.

Modifications will occur to those skilled in the art. For example, two article supporting sections may be employed instead of the three illustrated, one being removable.

While I have shown a particular embodiment of my invention, I do not desire my invention to be limited to the particular construction shown and described and I intend in the appended claims to cover all modifications within the spirit and scope of my invention.

What I claim as new and desire to secure by Letters Patent of the United States is:

1. A shelf comprising a first article supporting section and a second article supporting section, said second section being removable, means for supporting said second section in the article supporting position including means carried by said second section adjacent the front edge thereof, said means extending beyond the sides of said second section and substantially the full width of the shelf nad being constructed and arranged for engagement with the front edge of said first section when said second section is in place whereby strength is added to the shelf.

2. A shelf comprising a first article supporting section and a second article supporting section, said second section being removable, means for supporting said second section in the article supporting position including a channel-shaped member attached to the front edge of said removable section, the open side of said member being directed rearwardly, said member extending substantially the full width of the shelf, said first section and said member being so constructed and arranged that said channel receives the front edge of said first section when said second section is in place whereby strength is added to the shelf, and means cooperating with said sections for maintaining said front edge of said first section in said channel.

3. A shelf comprising spaced-apart article supporting end sections and a removable article supporting center section, means for supporting the removable section in the article supporting position including means carried by said removable section adjacent the front edge thereof, said means extending substantially the full width of the shelf and being constructed and arranged for supporting engagement with the front edge of said end sections when said removable section is in place whereby strength is added to the shelf.

4. A shelf comprising spaced-apart end sections and a removable center section, means for supporting said second section in the article supporting position including a channel-shaped member attached to the front edge of said removable section, the open side of said member being directed rearwardly, said member extending substantially the full width of said shelf, said end portions and said member being so constructed and arranged that the channel receives the front edges of said end sections when said removable section is in place whereby strength is added to the shelf, and means for maintaining said end sections in the channel.

5. A shelf comprising a pair of spaced-apart article supporting shelf sections having marginal frames and unsupported portions, means engaging each of said frames adjacent said unsupported portions for interconnecting said sections and maintaining said sections in spaced-apart relationship, said shelf also comprising a removable center section, means for supporting said removable section in the article supporting position including means having supporting engagement only with the front portion of said removable section and the front portions of said spaced-apart sections for increasnig the strength of said shelf when said removable section is in place.

6. A shelf comprising a first article supporting section having a front edge of substantial length and a second article supporting section, said second section being removable, means for supporting said second section in the article supporting position including means carried by said second section adjacent the front edge thereof, said means having supporting engagement with a substantial portion of said front edge of said first section when said second section is in place, whereby rigidity is added to the shelf when both sections are in the article supporting position.

7. A shelf comprising a pair of spaced-apart article supporting end sections having unsupported portions and a removable center section, and means for supporting said removable section in the article supporting position including means having supporting engagement only with substantial portions of the front portion of said removable section and the front portions of said unsupported portions of said end sections, thereby reenforcing said shelf when said center section is in place.

8. A shelf including spaced-apart article supporting portions, means engaging said portions for interconnecting said portions and maintaining said portions in spaced-apart relationship, a removable center section supported along the rear edge thereof by said interconnecting means, and a member carried by the front edge of said removable section and having supporting engagement only with substantial portions of the front edges of said spaced-apart portions for providing additional strength for said shelf when said center section is in place.

EDWIN H. BODDY.