March 8, 1938. O. E. HARVEY 2,110,726

METAL SHELF FOR REFRIGERATORS, OVENS, AND THE LIKE

Filed Aug. 17, 1936

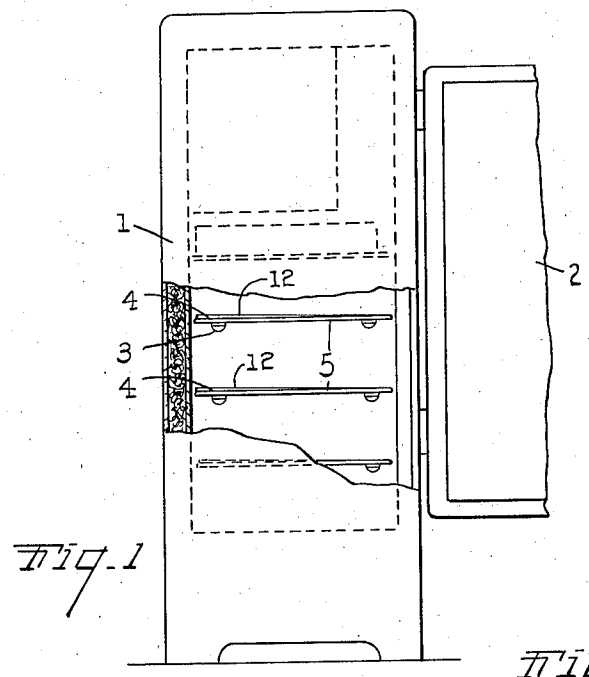

Fig. 1

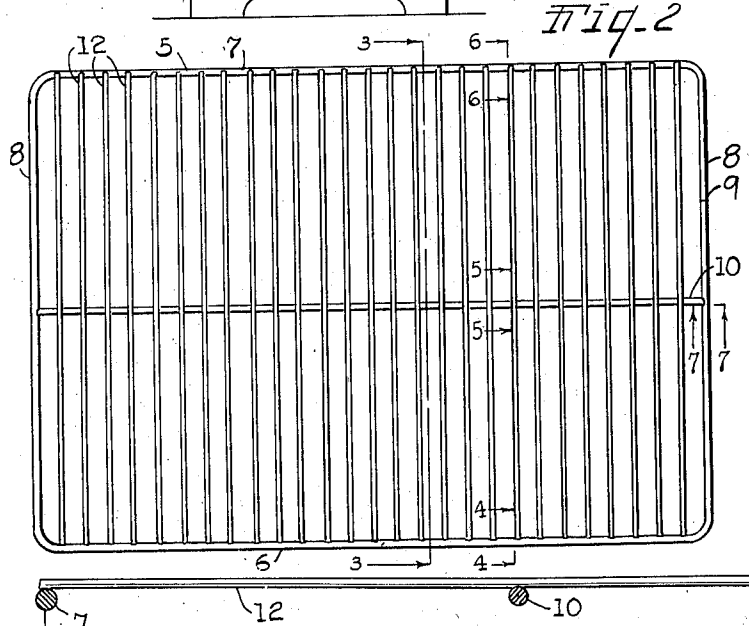

Fig. 2

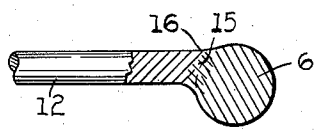

Fig. 4

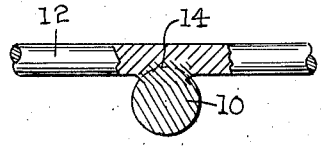

Fig. 5

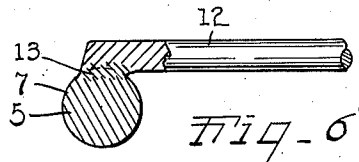

Fig. 6

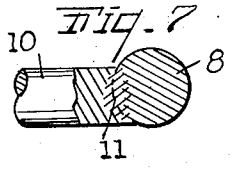

Fig. 7

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METAL SHELF FOR REFRIGERATORS, OVENS, AND THE LIKE

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Application August 17, 1936, Serial No. 96,389

5 Claims. (Cl. 211—153)

The main object of this invention is to provide a metal or a so-called wire shelf for refrigerators, ovens, and like purposes which presents a smooth surface at its front end so that objects may be slid upon or placed upon the shelf without catching and without injury to such objects, as cartons, bags, paper wrappers, and the like.

A further object is to provide a structure having these advantages which is very strong and rigid and at the same time one which is economically produced.

Objects relating to details and economies of my invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is illustrated in the accompanying drawing, in which:

Fig. 1 is a fragmentary side elevation of a refrigerator with the wall partially broken away and sectioned and the door open showing my improved shelves in a position for use therein, the parts being mainly shown in conventional form.

Fig. 2 is a plan view of my improved shelf.

Fig. 3 is a sectional view from front to rear on a line corresponding to line 3—3 of Fig. 2.

Fig. 4 is an enlarged detail view partially in section on line 4—4 of Fig. 2.

Fig. 5 is an enlarged detail view partially in section on line 5—5 of Fig. 2.

Fig. 6 is an enlarged detail view partially in section on line 6—6 of Fig. 2.

Fig. 7 is a fragmentary view partially in section on line 7—7 of Fig. 2.

In the accompanying drawing, 1 represents a refrigerator cabinet, 2 the door thereof, and 3 the shelf supporting members. My improved shelf is especially designed by me for use in refrigerators, ovens and the like where it is necessary to frequently place articles upon or remove them from the rack. These articles are inserted from the front of the refrigerator or oven and commonly placed upon the rack with a sliding or horizontal movement and frequently are slid upon the rack.

My improved rack designated generally by the numeral 4, comprises a rectangular border frame designated generally by the numeral 5 formed of rod material or stock preferably of cylindrical cross section as illustrated. This frame comprises a front member 6, a rear member 7, and end members 8, and it is preferably endless; that is, formed of a piece of rod bent into proper shape with the ends butt-welded together as indicated at 9.

The intermediate bar 10, also formed of round rod or heavy wire stock, is disposed with its ends abutting the inner sides of the border frame end members and butt-welded thereto as best shown in Fig. 7. It will be noted that the tops of this transverse cross rod or intermediate rod or bar is substantially below the plane of the tops of the end members 8 of the border frame. The butt or T-weld for this transverse or intermediate bar to the end members is indicated at 11.

The slats 12 are formed of wire and are disposed with their rear ends in superimposed relation to the rear border frame member and welded thereto, as indicated at 13. They are also disposed in crossing superimposed relation to the bar 10 and welded thereto, as indicated at 14. Their front ends are disposed in abutting relation to the inner side of the front frame member 6 and are butt or T-welded thereto as indicated at 15.

It will be noted by reference to Fig. 4 that the front ends 16 of the slats are in a plane slightly below the plane of the top of the front frame member so that the front frame member provides a rounded guiding surface over which articles may be slid onto the slats. The positioning of the cross member 10 below the planes of the tops of the end members of the frame permits this arrangement of the slats with their rear ends superimposed upon and welded to the rear member of the frame and their being superimposed upon and welded to the intermediate frame member without bowing the slats, which would be objectionable, as it would provide an unstable support for the articles placed thereon, and a teetering movement such as would result from curved or bowed slats would be very objectionable in a refrigerator or oven.

A further advantage of providing a guard and rounded guiding surface for the front ends of the slats is that cartons and bags or paper wrappers are not likely to be torn and opened, as is likely to result when the slats are arranged at the front end of the rack, as are the rear ends of the slats of applicant's structure, so that they project, as clearly indicated in Fig. 6.

I have shown the slats as being of round wire or of cylindrical section, but flat wire or slats of flat section may be used and for some purposes may be preferred. My improved rack has the advantages of being strong and rigid and very economical to produce, attractive in appearance, and there are no projections at the front of the

rack which interfere with the convenient placing of objects thereon.

I have illustrated my improvements as embodied in a refrigerator rack and an oven rack would be substantially the same. I have not attempted to illustrate or describe other embodiments or adaptations such as showcases or other shelving, as it is believed that this disclosure will enable those skilled in the art to embody my improvements as may be desired.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A metal shelf of the class described comprising an endless rectangular border frame formed of rod material of cylindrical cross section and comprising integral front, rear and end members, an intermediate bar having its ends butt-welded to the inner sides of the end members of said frame with the top of said intermediate bar in a plane below the plane of the top sides of the end members, and parallel wire slats having their rear ends disposed upon and welded to the top of the rear frame member and their front ends butt-welded to the inner side of the front frame member with the tops of the slats at the front ends below the top of the front frame member and so that the front frame member constitutes a rounded guiding surface leading to the slats, the slats being superimposed upon and welded to the intermediate bar and being substantially straight and sloping slightly downwardly from rear to front.

2. A metal shelf of the class described comprising a rectangular border frame formed of rod material of cylindrical cross section, an intermediate bar having its ends butt-welded to the inner sides of the end members of said frame with the top of said intermediate bar in a plane below the plane of the top sides of the end members, and parallel wire slats having their rear ends disposed upon and welded to the top of the rear frame member and their front ends butt-welded to the inner side of the front frame member and positioned so that the front frame member constitutes a rounded guiding surface leading to the slats, the slats being superimposed upon and welded to the intermediate bar and being substantially straight.

3. A metal shelf of the class described comprising a rectangular border frame formed of rod material of cylindrical cross section, and parallel wire slats having their rear ends disposed upon and welded to the top of the rear frame member and their front ends butt-welded to the inner side of the front frame member with the tops of the slats at the front ends below the top of the front frame member and so that the front frame member constitutes a rounded guiding surface leading to the slats, the slats sloping slightly downwardly from rear to front.

4. A metal shelf of the class described comprising a border frame of rod material, an intermediate bar welded to the inner sides of the end members of the frame with its top in a plane below the plane of the top sides of the end members, and parallel wire slats disposed upon and welded to the top side of the rear frame member and intermediate bar with their front ends abutting the inner side of the front frame member and welded thereto so that the front ends of the slats are in a plane below the top of the front frame member which constitutes a guide for objects to be placed upon the rack.

5. A metal shelf of the class described comprising a border frame of rod material, and parallel wire slats disposed upon and welded to the top side of the rear frame member with their front ends abutting the inner side of the front frame member and welded thereto so that the top sides of the slats at the front frame member are below the top of the front frame member which constitutes a guide for objects to be placed upon the rack.

OLIN E. HARVEY.