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R. H. MONEY

2,215,931

REFRIGERATOR SHELF

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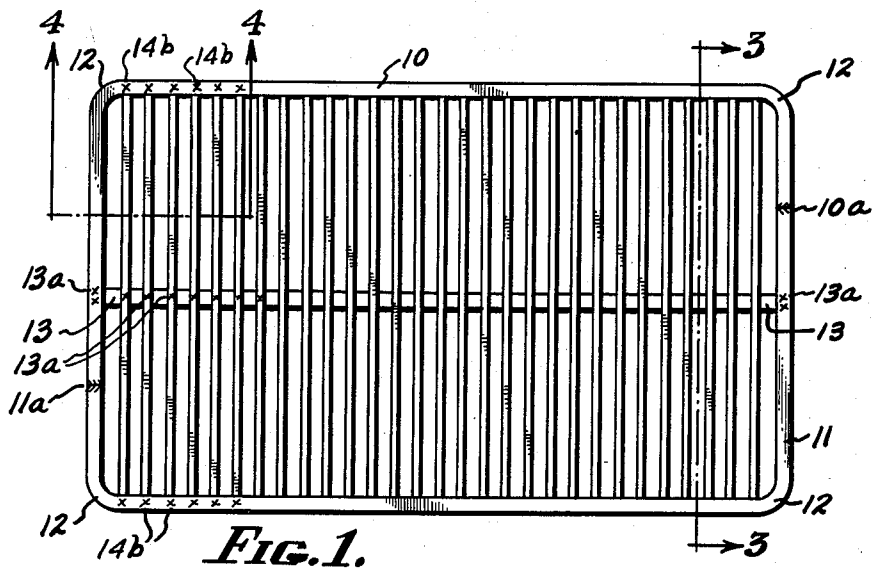


FIG. 2.

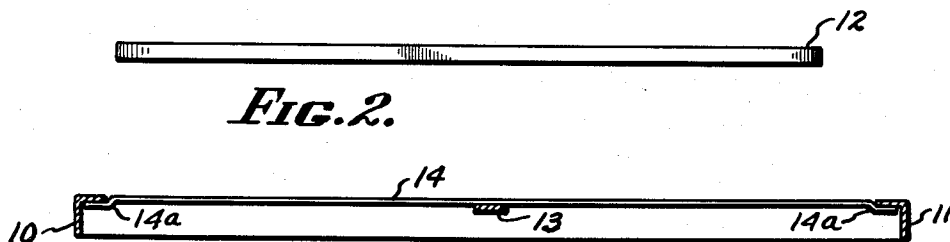


FIG. 3.

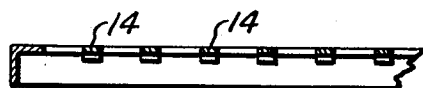


FIG. 4.

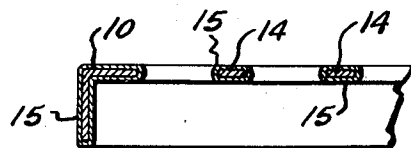


FIG. 5.

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UNITED STATES PATENT OFFICE

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REFRIGERATOR SHELF

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1 Claim. (Cl. 211-153)

This invention relates to a refrigerator shelf or the like. Shelves made according to this invention are, of course, adaptable to many uses, but I have chosen specifically to describe a shelf which is suitable for use in a modern refrigerator.

In the past such shelves have generally been made from round wire which was hot dipped in tin. This construction was subject to several disadvantages among which were the fact that the round wires did not make a steady base for receptacles which were placed on the shelf, and furthermore in round wires there is only line contact between the shelf members and the vessels resting thereupon, so that greater wear ensues.

It is an object of my invention to provide a refrigerator or other shelf made from members of rectangular cross section so as to provide not only for more evenly distributed wear but also for a better supporting surface for vessels to be placed thereupon. Another object of my invention includes provision for finishing such an article whereby the finish achieved is very durable under the conditions of cold and moisture which are encountered in refrigerators.

A still further object is to provide an article which is exceedingly simple and inexpensive.

These and other objects of my invention which will be pointed out in more detail hereinafter, or which will be apparent to one skilled in the art upon reading these specifications I accomplish by that certain construction and arrangement of parts and by that series of method steps of which I shall now describe exemplary embodiments.

Reference is now made to the drawing forming a part hereof and in which:

Figure 1 is a plan view of a shelf according to my invention.

Fig. 2 is a side elevation thereof.

Fig. 3 is an enlarged section taken on the line 3-3 of Fig. 1.

Fig. 4 is a partial enlarged section taken on the line 4-4 of Fig. 1.

Fig. 5 is a greatly enlarged partial section on the line 4-4 of Fig. 1, showing the enameled and baked article.

Briefly, in the practice of my invention I provide a framework of generally rectangular shape. Although this could be made from a single piece of metal, I prefer to make it of two pieces indicated respectively at 10 and 11 and welded together at 10a and 11a. As clearly shown in Fig. 3, the members 10 and 11 are of angle cross

section. Preferably also the corners are rounded as indicated at 12.

Centrally of the shelf I provide a bracing member 13 of rectangular cross section. This member is spot welded as indicated at 13a to opposed sides of the frame approximately centrally thereof. The ends of the member 13 fit underneath the angle members 10 and 11 for spot welding.

Transversely of the bracing member 13 I provide a plurality of grid members 14. These elements are downwardly offset as indicated at 14a so as to fit under the angles 10 and 11, and they are spot welded to said angles as indicated at 14b. They are also spot welded to the bracing member 13 as indicated at 13a. It will thus be seen that I have provided a very strong and rigid shelf member the top surface of which is made up of a plurality of members whose top surfaces are all in the same plane so that a steady supporting surface of relatively large bearing area is provided.

In finishing this tray I adopt the following procedure. First, I plate thereon, preferably electrically, a very thin coating of zinc of the order of .0005 inch. Generally I have found a coating of a thickness between .0005 and .0007 inch preferable. It should be understood that these dimensional units are not critical but serve to indicate the order of the thickness of the coating. I then subject the tray to a bonderizing operation which involves chemically cleaning with hot water, chromic acid etc. This bonderizing operation in and of itself forms no part of my invention. Thereupon a prime coat of enamel is applied all over to every exposed surface of the tray, and the tray is then baked at a temperature and for a time ranging respectively from 400 degrees F. to 380 degrees F. and from thirty minutes to forty-five minutes. Here again, it should be understood that these times and temperatures are intended to be indicative of the order of times and temperatures rather than to be limitations.

I then apply a finished coat of enamel, preferably an enamel known in the trade as white Dulux, although it should be understood that any enamel will serve. I then again bake the article at a temperature of the order of 295 degrees F. for a time of the order of sixty minutes. As shown in Fig. 5, the various structural parts will be covered on all sides with a coating of enamel indicated at 15, and the resulting tray has a very pleasing appearance and has great durability.

It should be understood that various modifications may be made without departing from the spirit of my invention, and that I do not intend to limit myself otherwise than as pointed out in the claim which follows.

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

10 A shelf for refrigerators and the like comprising a frame member of angular cross section formed into generally rectangular shape, a bracing member of rectangular cross section extending substantially centrally across said frame and

secured underneath the angle at opposed sides of said frame, and grid members of a thickness equal to the web thickness of said frame member extending across said frame in a direction substantially normal to said bracing member passing thereover and secured thereto, said grid members being downwardly offset at their ends to fit under said angles and being secured thereby to whereby the upper surfaces of said grid members and said frame member are in the same plane.

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