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REFRIGERATOR CABINET ASSEMBLY

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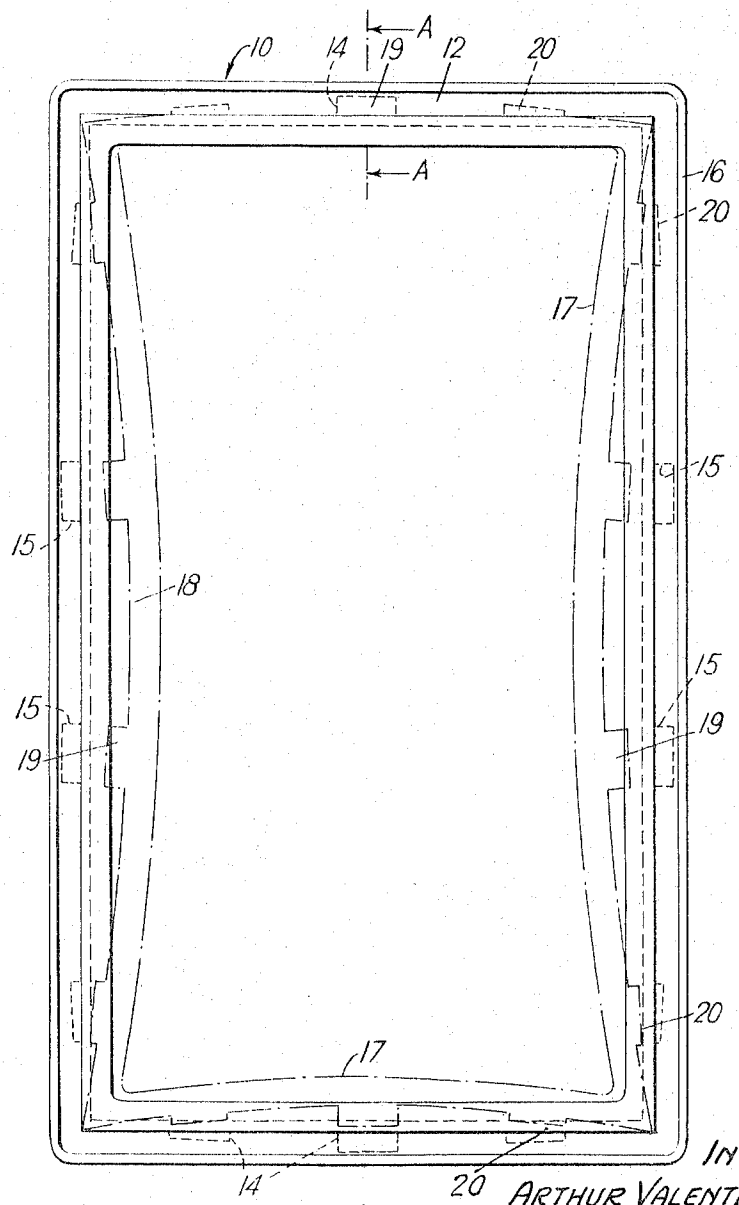


Fig. 1.

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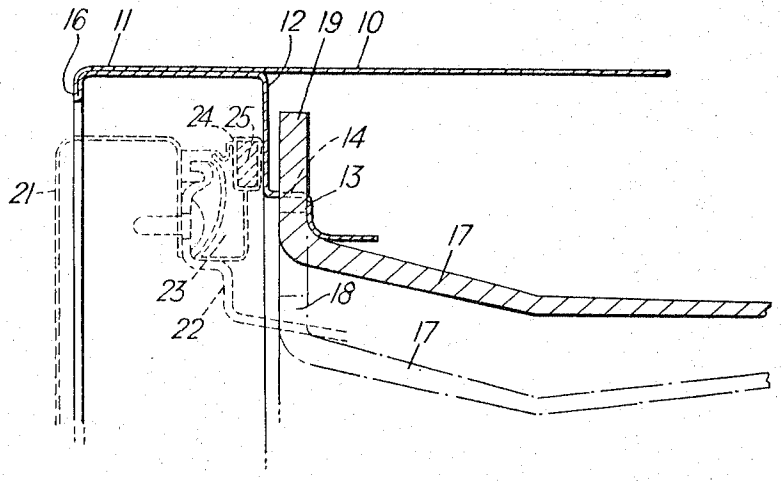


Fig. 2.

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REFRIGERATOR CABINET ASSEMBLY

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4 Claims. (Cl. 220—9)

This invention relates to refrigerators and particularly to the cabinet construction thereof.

A refrigerator cabinet assembly according to this invention comprises an outer sheet metal shell and an inner liner of synthetic plastic material, wherein the liner is resilient to enable it to be deformed during assembly with the shell and the shell and liner are provided with corresponding projections and recesses which cooperate to secure the liner in the shell when the liner returns to normal position after deformation.

A refrigerator cabinet assembly, according to the invention, comprises an outer sheet metal shell and an inner liner of synthetic plastic material.

In a preferred construction the shell edges are bent inwardly to form a door jamb and a flange, and the flange has slots to receive lugs formed on the resilient liner, which is deformed during assembly with the shell so that the lugs are sprung into, and retained in the slots.

Thus, to make up the assembly, the liner sides and ends are compressed inwardly and then, when in position, are allowed to spring back to normal shape as the lugs enter the flange slots.

Preferably, the ends of the lugs adjacent the corners of the liner are slightly inclined to facilitate their entry into the slots during assembly.

The scope of the monopoly is defined by the appended claims; and how the invention can be performed is hereinafter particularly described with reference to the accompanying drawings in which:

FIGURE 1 is a front elevation of a refrigerator cabinet according to the invention with the liner partially inserted; and

FIGURE 2 is a section on the line A—A of FIGURE 1 on an enlarged scale showing in dotted lines the position of the cabinet door and seal assembly in relation to the shell.

As will be seen from FIGURE 2 the front edges of the outer sheet-metal 10 of the cabinet shown in FIGURE 1, are bent back to form top and side front margins of double thickness as indicated at 11, and are bent inwardly at right angles at the top, bottom and sides to form a door jamb 12. The shell is further bent rearwardly at top, bottom and sides to form an inwardly-facing flange 13 which at top and bottom has three slots 14 and at each side has four slots 15. The front double-thickness margins 11 extend forwardly of the door jamb 12 so as to conceal the door seal gasket. The margins 11 are also bent inwardly to form front-facing, inwardly-directed flanges 16, which thus surround the door.

The liner 17 is made of resilient synthetic plastic material preferably vacuum-formed to shape, from a sheet of uniform thickness. The liner is formed with an outwardly extending, front-facing flange 18 along the top, bottom and sides of its access opening. The flange is cut away so as to leave lugs 19, three at top and bottom and four at each side. The ends of the lugs adjacent

the corners of the liner, that is, the outer lugs in each group of three or each group of four are inclined towards the adjacent corner of the liner as indicated at 20.

When the liner is to be fitted into the shell, it is first deformed by inward pressing at the top and bottom and sides, and then is brought into position in the shell and then is released so that it springs back to its normal shape as the lugs are guided into the slots in the flange of the shell as indicated in FIGURE 1 which shows the bottom and sides deformed and the top sprung into position. The inclined ends of the lugs adjacent the corners of the liner facilitate the entry of those lugs into their respective slots. The resilience of the synthetic plastic material of which the liner is made permits the initial deformation of the liner and causes it to assume its normal shape on release, so that the liner is retained in position in the shell under some slight resilient stress. In FIGURE 2 the liner is shown in its deformed position in dotted lines.

The number, disposition and shape of the lugs 19 can be varied to suit practical requirements and the slots 14 are disposed to fit the lugs. As a modification, the slots may be formed in the liner and the lugs provided on the outer shell.

The refrigerator door preferably comprises an outer sheet metal panel 21 and an inner liner 22 of synthetic plastic material. The seal gasket on the door comprises a resilient bellows 23 carrying a rectangular-section bulb 24 within which there is a flexible strip magnet 25, all of lower construction. The attraction between the magnet and the door jamb holds the gasket bulb tight against the jamb when the door is closed.

We claim:

1. A refrigerator cabinet assembly comprising an outer sheet metal shell and an inner liner of synthetic plastic material wherein the shell edges are bent inwardly to form a door jamb and a flange and wherein the flange is provided with slots to receive lugs formed on the liner, the said liner being resilient to enable it to be deformed during assembly with the shell so that the lugs are sprung into and retained in the slots.

2. A refrigerator cabinet assembly according to claim 1 wherein the liner is provided with an outwardly extending peripheral flange which is cut away at intervals to provide said lugs along the top bottom and sides of said liner.

3. A refrigerator cabinet assembly according to claim 1 wherein the ends of the lugs adjacent the corners of the liner are each inclined towards the adjacent corner to facilitate their entry into the slots during assembly.

4. A refrigerator cabinet assembly according to claim 1 wherein the outer sheet metal shell extends forwardly of the door jamb so as to conceal the door seal gasket.

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