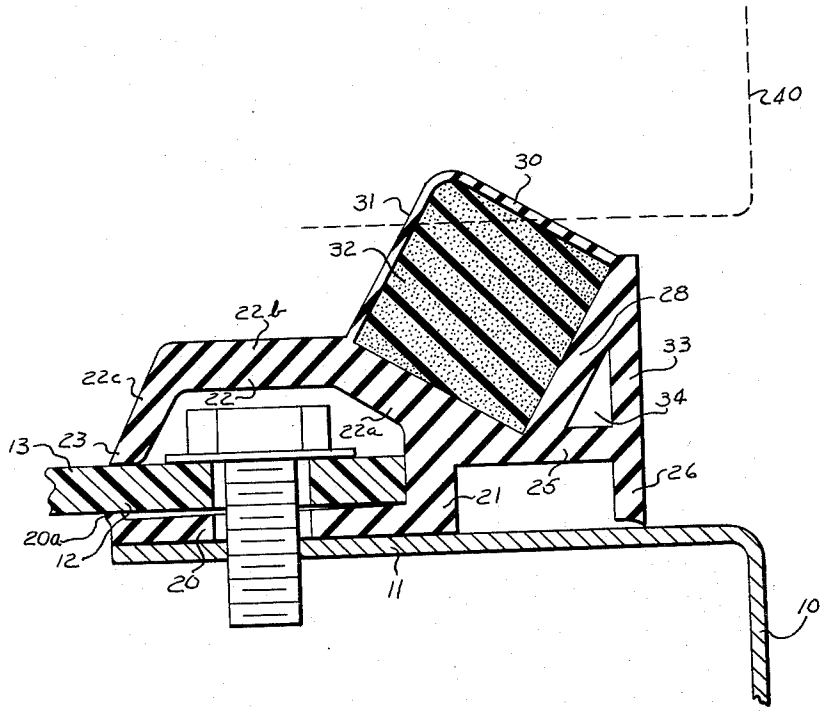
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WEDGE TYPE DOOR GASKET

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INVENTOR.
LESLIE M. JOHNSON
BY J. U. Dougherty
His atty

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WEDGE TYPE DOOR GASKET

Leslie M. Johnson, Galesburg, Ill., assignor to Midwest Manufacturing Corporation, Galesburg, Ill.

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1 Claim. (Cl. 20—69)

This invention relates to refrigerators and more particularly to a refrigerator door gasket construction.

One of the more serious problems in connection with refrigerators is the provision of sealing means between the door and the cabinet to prevent the ingress of heat when the door is closed. Since the cabinet and door are usually fabricated of sheet metal it is not uncommon for relatively large variations in spacing to occur between the door and the cabinet, with the result that a suitable gasket must be provided, which is compressible or distortable to conform to the variations and thus provide an effective seal.

The compression of the gasket causes a problem because the length of the gasket is substantially equal to or greater than the perimeter of the door opening. In a six foot high refrigerator this could result in 18 feet of gasket. It should be borne in mind that it takes a certain amount of pressure per foot to compress this gasket and if it required three pounds per foot this would require 54 pounds of pressure on the holding latch. Therefore, it can be appreciated that the easier a gasket can be deformed to conform to the irregularities of the door the less strain is placed upon the latch.

In the construction of such a gasket as previously described and since the gasket extends throughout the periphery of the door, it will be appreciated that a rubbing action occurs particularly on the hinge side of the cabinet. Therefore, the gasket must be capable of permitting this rubbing action without permanent deformation thereof and that it have the ability to slide over the cabinet upon the door closing and still retain an effective seal. By the present invention I have provided a gasket which requires less effort to deform and therefore enables an easier operating door latch to be used and at the same time it resists the type of deformation that would affect its sealing properties as it rubs against the cabinet.

Still other advantages of the invention and the invention itself will become more apparent from the following description of an embodiment thereof which is illustrated in the accompanying drawing and forms a part of this specification.

In the drawing, the figure of the drawing illustrates a horizontal section through a refrigerator door and gasket, the position of the gasket relative to the cabinet being shown by dashed lines.

In the drawing the door is illustrated at **10** having an internal flange **11** which is disposed in overlapping relation to the margin **12** of a door liner **13**. The gasket is provided with a flat base **20** having a toe portion **20***a* arranged to seat against the door liner, the remainder of the base resting against the flange **11**. The gasket is provided with an upwardly extending portion **21** which may curve over the base **11**, as indicated at **22**, and provided with a downwardly extending toe **23** which engages with the inner face of the liner. Preferably this bowed portion is made in the form of discrete angular portions **22***a*, **22***b* and **22***c*, although it may be continuously curved.

Extending laterally from the edge **21** of the body is an arm **25** spaced upwardly from the base **20** and extending over the flange **11** adjacent the edge of the door where it is provided with a downwardly extending toe **26**. At approximately the center of the arm **25** there is provided an obliquely extending portion **28** which extends at a right angle to the part **22***a*. The arm **28** extends slightly beyond the level of the part **22***b* and at its end is connected by a thin resilient web **30—31** which engages with the part **22***a* at its juncture with the part **22***b* to provide therein a square or rectangular duct **32**. From the top of the arm **28** there is provided a downwardly extending arm **33** which merges with the base **25** to provide a triangular opening **34** therebetween.

The rectangular space **32** is adapted to receive therein a stuffing of sponge rubber which may be square in cross section and substantially fills the space **32**. This material, as stated, may be sponge rubber or any other highly resilient deformable compressible material.

As will be appreciated from viewing the dotted line **40**, which represents the front of the cabinet adjacent the hinge, when the door is moved to a closed position the portion **30—31** is dragged across the face in a clockwise direction and because it slants in the direction as shown, it drags easily across the face and does not have the tendency to wrinkle up or provide kinks or bulges that would interfere with its sealing operation, and once the dragging movement stops, as when the door is closed, the tendency of the web and spongy material is to straighten itself out and provide an even more effective seal. The support for the outer base of the web, which may be considered as the portion **25**, **28** and **33**, also provides stiffness for the support at this point. Because the juncture of the web **30—31** is substantially a point, it provides a line contact which enables it to be compressed easily and provides a good seal with the cabinet.

Although the base **25** is shown with a toe **26** which engages with the flange **11**, this flange may be removed to provide a clearance space for a trim strip on the flange should it be desired.

Having thus described my invention I am aware that numerous and extensive departures may be made therefrom without departing from the spirit of the invention as defined in the appended claim.

I claim:

A gasket for sealing a door member when said door member is in closed position with respect to a door frame member, said gasket being arranged for attachment to one of said members and for engagement with the other of said members, said door member being mounted for pivotal movement with respect to said door frame member whereby said gasket may be subjected to sliding movement with respect to the other of said members during final relative closing movement of said members, said gasket comprising a base portion arranged for attachment to one of said members and a sealing portion of generally rectangular cross-section arranged to engage a face on the other of said members when said members are in substantially closed relative positions, said sealing portion being integral with said base portion and so oriented with respect thereto that a single edge thereof is arranged for engagement with said face of said other member, said sealing portion being substantially filled with flexible, resilient material, the two inner sides of said sealing portion adjacent said base portion being relatively stiff and firmly oriented with respect to said base portion, and the two outer sides of said sealing portion adjacent said single edge being relatively flexible and resilient, whereby distortion of said gasket accompanying final closing movement of said door member is substantially confined to distortion of said filling material and of said two outer sides of said sealing portion, the outer side of said sealing portion which faces generally in the direction of sliding movement of said gasket with respect to said other member during final relative closing movement of said members being disposed at a smaller angle

relative to said face of said other member than the other of said two outer sides.

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