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W. K. NELSON

2,910,209

SEALER STRIPS

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FIG. 1

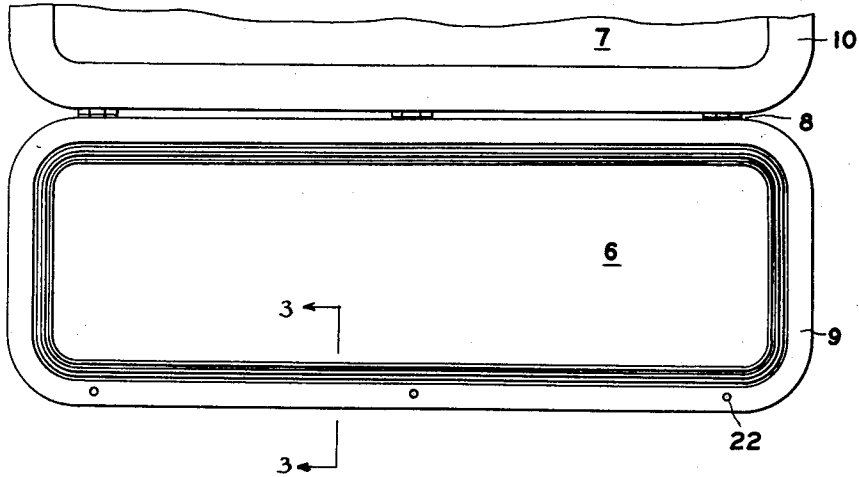


FIG. 2

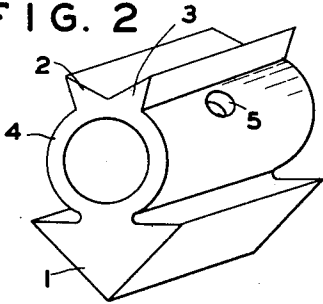


FIG. 3

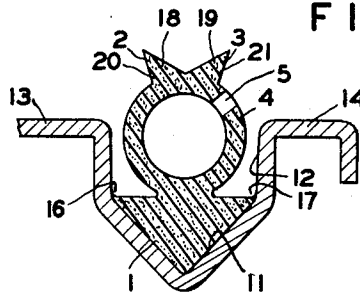


FIG. 4

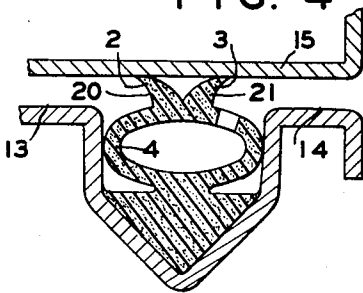


FIG. 5

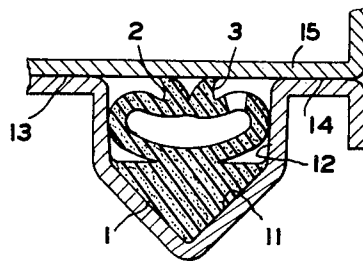


FIG. 6

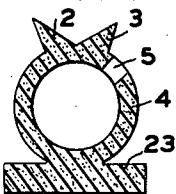


FIG. 7

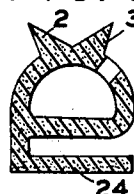
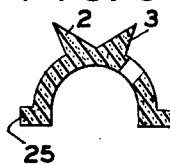


FIG. 8



INVENTOR.

Walter K. Nelson

BY

William B. Jaspert

ATTORNEY

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2,910,209

SEALER STRIPS

Walter K. Nelson, Pittsburgh, Pa.

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1 Claim. (Cl. 220—46)

This invention relates to new and useful improvements in sealer strips, more particularly to resilient strips for sealing burial caskets, and it is among the objects thereof to provide a sealer strip that will hermetically seal the cover panel or any other sectional portion of a casket body.

Sealing strips of rubber and the like are in common use for sealing refrigerator doors, storm windows, and the like, and effect their sealing function by constituting a resilient abutment for the surface that they contact, such surfaces being generally smooth, and the seal is obtained by compressing the resilient strip against the smooth surface. The sealing of burial caskets presents a different problem in that the casket parts desired to be sealed must themselves be in abutting engagement so that the casket may be locked, and on this account a sealing strip suitable for hermetically sealing the burial casket should maintain a sealing function while it is completely enclosed by the sealed parts.

This is accomplished by the present invention in providing a strip of a design that will permit its displacement into a receptacle groove without interference with its ability to seal the joints, and to this end the strip itself is of a shape to assert the necessary forces on the sealing faces of the strip to maintain constant sealing pressure for the life of the sealing material which, because of the availability of indestructible synthetic rubber and plastic products, will be indefinite.

The invention will become more apparent from a consideration of the accompanying drawing, constituting a part hereof, in which like reference characters designate like parts, and in which—

Fig. 1 is a top plan view of a burial casket and cover panel partially cut away illustrating the application of a sealer strip;

Fig. 2 is an isometric view of a portion of a sealer strip embodying the principles of this invention;

Fig. 3 is a cross-sectional view of a sealer strip and receptacle groove of a casket body taken along the line 3—3, Fig. 2;

Fig. 4 is a cross-sectional view of a sealer strip in its relation to a receptacle groove and cover;

Fig. 5 is a similar view with the cover closed; and

Figs. 6, 7 and 8 are cross-sectional views of modified forms of sealer strips embodying the principles of this invention.

With reference to the several figures of the drawing, the sealer strip of Fig. 2 is of arrow shape having a base portion 1 and a dove-tail portion consisting of the lips or ears 2 and 3 with an intermediate tubular body portion 4 which may be provided with a vent 5. The sealer is designed especially for use in a casket, generally designated by the numeral 6, having a cover 7 hinged at 8 and having peripheral body and cover flanges 9 and 10, respectively. The casket body portion is provided with a receptacle groove of V-shape, as shown at 11, Fig. 3, having straight walls 12 and bearing surfaces 13 and 14

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on which the lid or cover 15, Fig. 4, rests in the closed position as shown in Fig. 5.

The sealer strip is inserted in the receptacle groove 11 in the manner shown in Fig. 3 by simply applying a slight pressure on the strip to extend the top edges of the arrow-shaped base in the manner shown at 16 and 17, Fig. 3. It is evident that while it is easy to insert the strip it will not readily become displaced because of the retarding action of the lips 16 and 17, so that once inserted it will maintain proper alignment of the tubular and tail portions as shown in Fig. 3. The proportioning of the arrow-shaped base 1 and the tubular mid-section is such that the sealer strip will extend a substantial distance above the faces 13 and 14 of the casket body, and the tubular portion 4 is of smaller outer dimension than the space between the straight walls 12 of the receptacle groove.

The sealer lips or ears 2 and 3 have sealing faces 18 and 19 that form an obtuse angle with the acute faces 20 and 21. This is important in obtaining proper sealing function, as will be explained in connection with Figs. 4 and 5 of the drawing.

When the lid or cover 15 is lowered on the ears 2 and 3, the pressure will tend to collapse the tubular section 4 and will cause the ears 2 and 3 to bend outwardly. Because of the tubular body portion 4, ears 2 and 3 will not flatten out but will retain their spaced contact with the cover member 15 even when the cover is completely lowered as shown in Fig. 5. This is so because the forces acting upon the tube portion 4 react against the ears 2 and 3 to prevent their collapse, and the tubular wall is supported by the walls 12 of the receptacle groove so that pressure acting upon the ears 2 and 3 that causes the tubular portion 4 to collapse, as it were, will react beneath the acute faces 20 and 21 of the ears. In the closed position of the cover 15 it will rest upon the faces 13 and 14 of the casket body, in which position it is fastened by screws or bolts extending through the cover flange tap holes 22, Fig. 1. It is thus seen that the sealing strip has been entirely displaced into the receptacle slot and any sealing action must be by virtue of the ears 2 and 3 engaging the cover member 15.

As shown in Fig. 5, the ears have effected substantial contact beneath the cover surface, and it has been found by tests that the seal is effectively maintained under pressure differentials ranging from a vacuum on one side of the strip to pressure in excess of atmospheric pressure on the other side of the strip, each of the ears functioning to maintain its sealing engagement independently of the other ear, whether the ears are both subjected to the same or differential pressures.

In the modifications shown in Figs. 6 to 8 of the drawing, the sealer strip bases are shaped to conform to other mounting means than the V-shaped receptacle channel shown in Figs. 3 to 5 of the drawing. For example, in Fig. 6 the base 23 is rectangular to fit a T-slot; in Fig. 7 the base 24 is L-shaped to overlap a flange or rib; and in Fig. 8 the base is provided with lugs 25 that fit parallel slots in the receptacle groove. However, in principle the sealing ears and tubular supporting section function in the same manner as described.

It has been found that sealer strips of the shape and manner of mounting hereinbefore described adapt themselves to the sealing of surfaces of irregular contour, such as a wavy or slightly corrugated surface, which is sometimes found in casket designs, because the sealer strip does not depend on its resiliency alone in the nature of the material employed, but the tubular section has a spring-like action which increases in resistance as pressure is applied to the ears 2 and 3, while the latter are readily conformable to the contour of the surface with

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which they are engaged. As previously stated, the sealer does not act as a buffer, as in refrigerator doors, but, to the contrary, must be completely displaced in its receptacle groove to allow for locking the casket lid to the casket body.

Although the sealer strip has been described as especially adapted for use in sealing burial caskets, it will be evident to those skilled in the art that its functional characteristics are such as to render it useful for other structures which must be hermetically sealed and in which the sealer strip does not have the function of a buffer.

I claim:

The combination with a receptacle groove having a V-shaped bottom and side walls, of a sealer strip having a base of V-shaped transverse cross-section adapted to seat in said groove and engage the side walls thereof said sealer strip having a tubular portion of circular cross-section lying above and with its axis extending longitudinally of said V-shaped base, said tubular portion having a diameter less than the distance between the said parallel walls of the groove, said tubular portion having a plurality of longitudinally extending ribs thereon, said ribs also extending above the top of the groove for engaging the surface of a cover member to be sealed,

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the overall height of the sealer strip from the base to the tops of the ribs being such that when the strip is completely displaced by pressure of the cover member the tubular portion will engage the parallel walls of the groove to form a structural shape capable of supporting the ribs in their sealing position.

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