

[54] **SEALING ASSEMBLY FOR RAILWAY
CAR JOURNAL BOX LID**

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[22] Filed: **Feb. 16, 1971**

[21] Appl. No.: **115,531**

[52] U.S. Cl. **277/189**, 220/46 R, 308/47 R

[51] Int. Cl. **F16j 15/06**

[58] Field of Search 220/24 J, 46 R; 308/47 R, 47 A;
277/10, 189

[56] **References Cited**

UNITED STATES PATENTS

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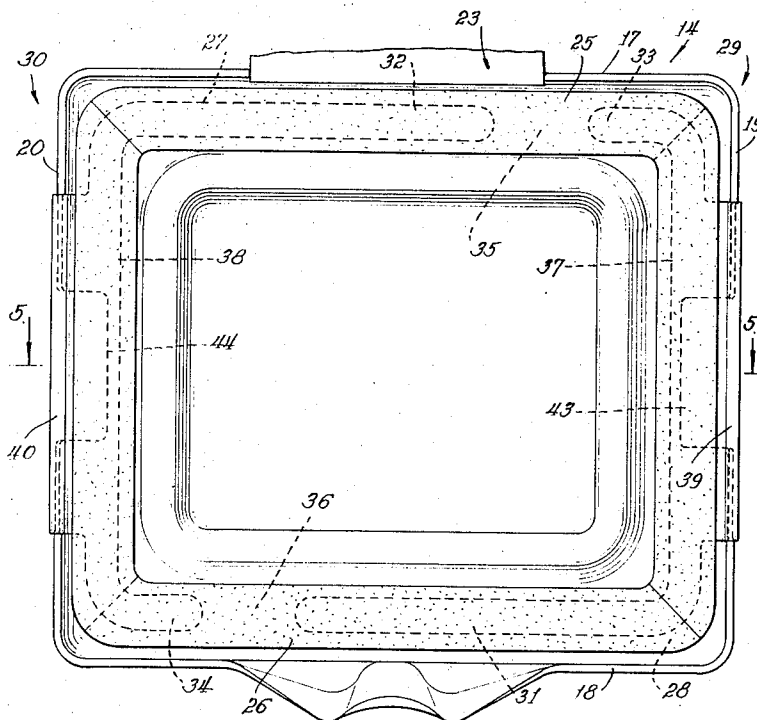
Primary Examiner—Robert I. Smith

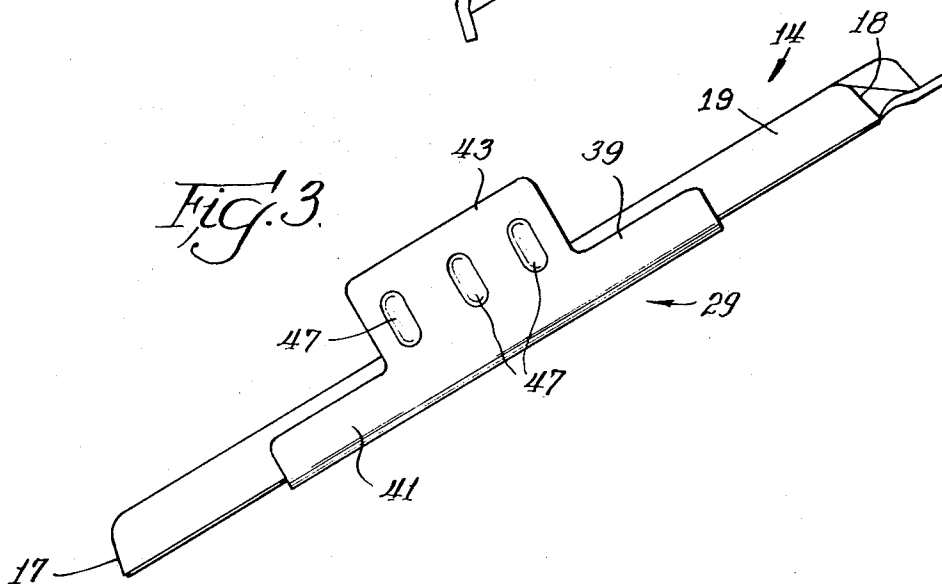
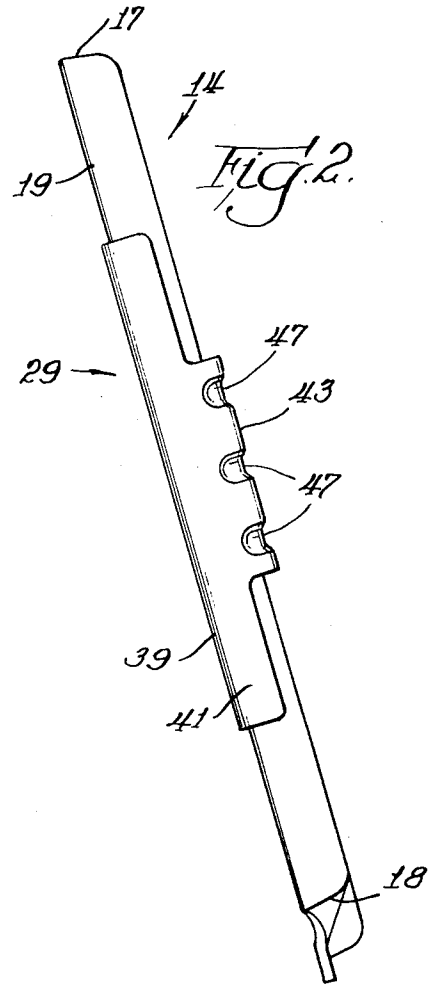
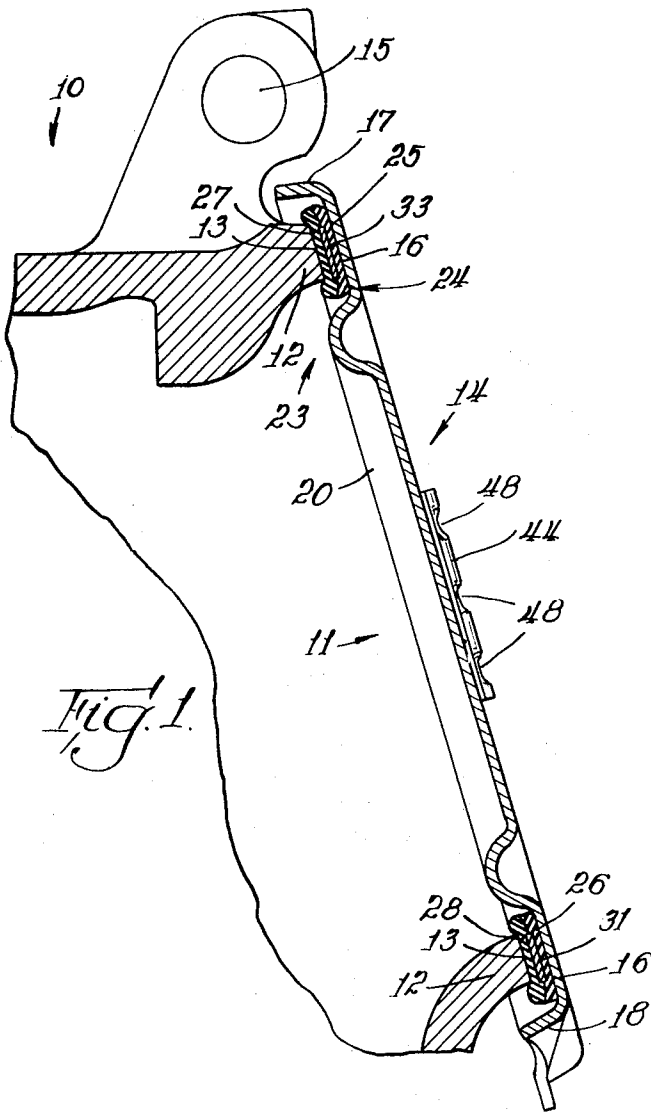
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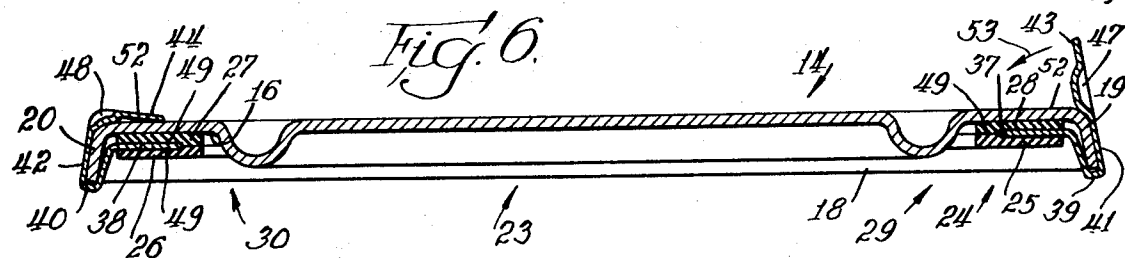
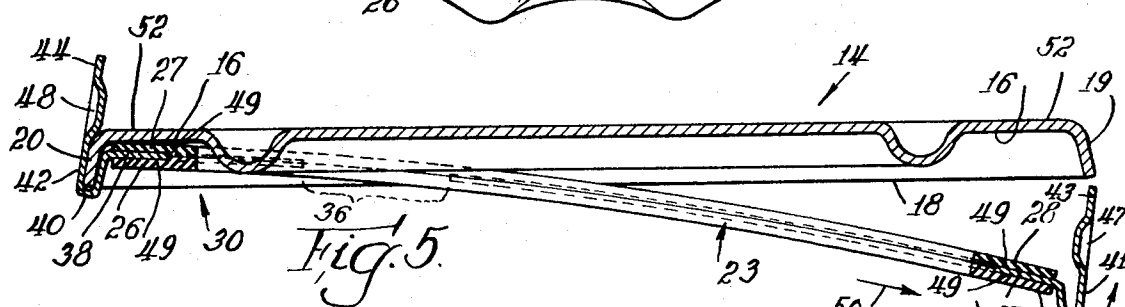
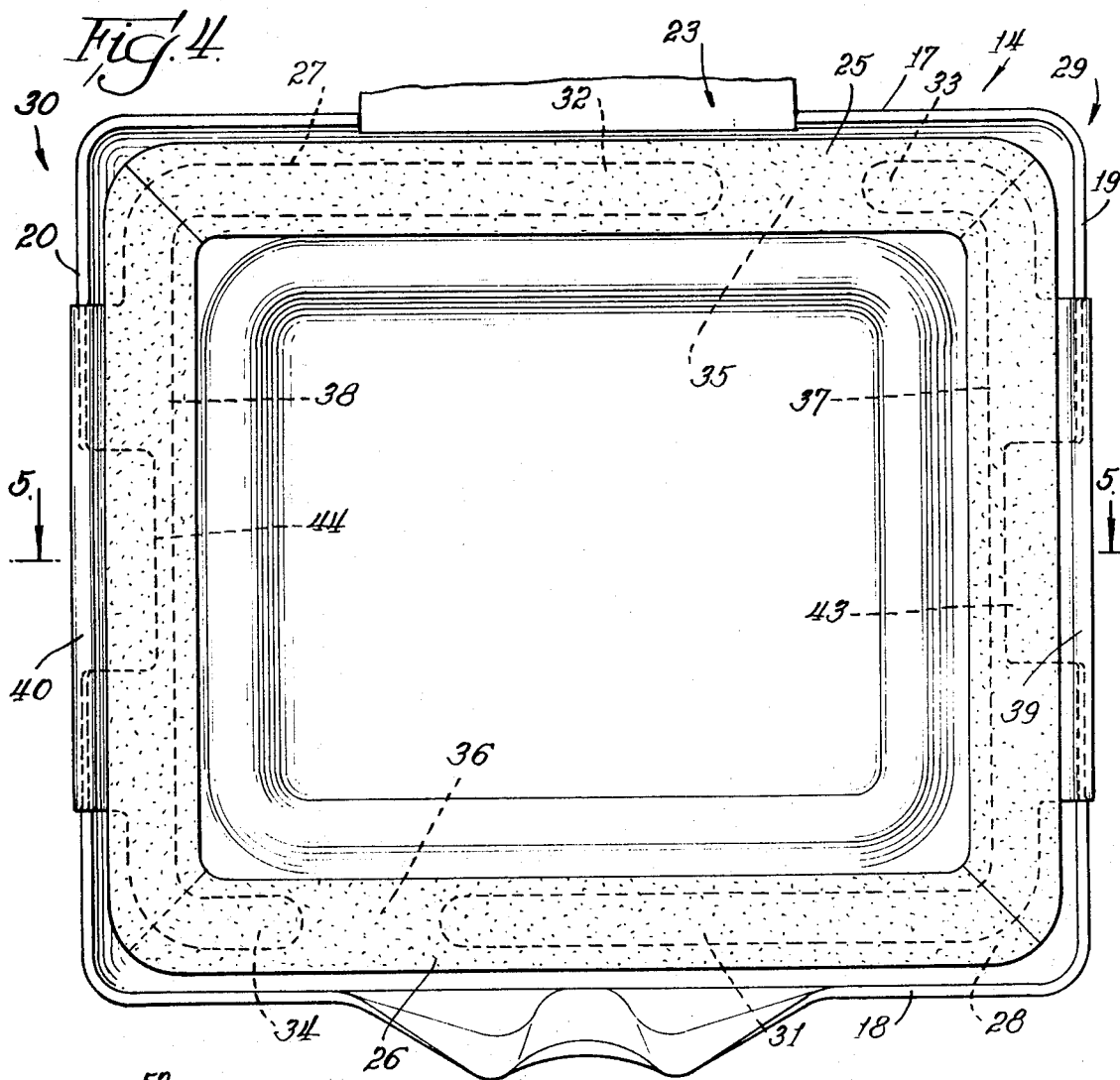
[57] **ABSTRACT**

A rectangular neoprene foam gasket for application to the inside of a journal box lid has generally U-shaped aluminum frame members embedded therein with the arms spaced apart and intermediate sections along the sides having channel shaped extensions for overlying the respective inturned edge portions of the lid. The arms of the frame members are of different lengths with the shorter arms spaced from the longer arms. The gasket comprises two pairs of generally L-shaped oppositely disposed sections overlying each other and adhesively secured to opposite sides of the frame members. Tabs extend from the outer flange of each channel section and they have lengthwise extending ribs to facilitate retention in bent over position on the outer surface of the lid.

8 Claims, 6 Drawing Figures







SEALING ASSEMBLY FOR RAILWAY CAR JOURNAL BOX LID

The journal box lid sealing assembly disclosed herein is an improvement over the constructions disclosed in Hennessy, Jr. U. S. Pats. No. 3,161,444, issued Dec. 15, 1964, and No. 3,384,381, issued May 21, 1968.

Among the objects of this invention are: To provide for positively sealing a railway car journal box lid to the periphery of the opening of a journal box; to embed generally U-shaped metallic frame members in endwise relation in a rectangular gasket with channel shaped extensions from the intermediate sections for overlying the intumed edge portions of the lid on stretching of the gasket; to provide arms of different lengths for the frame members with the shorter arms spaced from the longer arms; to form a gasket of two pairs of generally L-shaped oppositely disposed sections overlying each other and opposite sides of the frame members; to provide a tab extending from the outer flange of each channel to be bent over the outer surface of the lid; to insure that the tabs will remain in the fully bent over positions by providing lengthwise extending ribs on each tab; and to adhesively secure the gasket sections to the opposite sides of the frame members.

In the drawings:

FIG. 1 is a sectional view of a portion of a conventional railway car journal box and a conventional lid therefor to close the opening to the journal box which permits access to the journal for application of lubricant, waste and for inspection.

FIG. 2 is a view in side elevation of the journal box lid shown in FIG. 1 with the sealing assembly of the present invention mounted thereon.

FIG. 3 is a side elevation showing the sealing assembly in place before the tabs are bent.

FIG. 4 is a bottom view of the lid with the sealing assembly of the present invention applied thereto.

FIG. 5 is a sectional view taken generally along line 5—5 of FIG. 4 and shows how the sealing assembly of the present invention is applied to the lid.

FIG. 6 is a view, similar to FIG. 5, and shows further steps in the application of the sealing assembly to the lid.

In FIG. 1 a portion of a conventional railway car journal box is indicated, generally, at 10. It has a rectangular opening 11 surrounded by edges 12 having faces 13 looking toward the inside of a journal box lid that is indicated, generally, at 14. The faces 13 are disposed in coplanar relation. The lid 14 is hinged at 15 on the journal box 10 and a conventional spring (not shown) is provided for biasing it to the closed position. The lid 14 has an inner surface 16 opposite the faces 13. As shown more clearly in FIG. 4 the lid 14 has intumed top and bottom edge portions 17 and 18 and intumed edge portions at the sides 19 and 20.

For the purpose of providing a seal between the faces 13 and the inner surface 16 a rectangular sealing assembly, indicated generally at 23, is employed. The details of construction are shown more clearly in FIGS. 4, 5 and 6. The sealing assembly 23 comprises a rectangular stretchable gasket that is indicated, generally, at 24 and may be formed of neoprene foam. It will be understood, however, that other suitable stretchable gasket material can be employed. The gasket 24 is formed by two pairs of generally L-shaped gasket sections that are indicated at 25, 26, 27 and 28. They are oppositely disposed in overlapping relation so that the joints between one pair are not opposite the joints between the other pair.

The gasket sections are arranged to embed generally U-shaped frame members that are indicated, generally, at 29 and 30 and preferably are formed of aluminum or like material which is somewhat flexible. The U-shaped frame members 29

and 30 are provided with relatively long arms 31 and 32 and relatively short arms 33 and 34 which are spaced apart as indicated at 35 and 36 to provide stretchable sections to permit application of the sealing assembly 23 to the lid 14 in a manner to be described.

Intermediate sections 37 and 38 of the frame members 30 and 31 are provided with channel shaped extensions 39 and 40 which, as shown in FIG. 6, are arranged to overlie the sides 19 and 20 of the lid 14.

It will be observed that outer flanges 41 and 42 of the extensions 39 and 40 have laterally extending tabs 43 and 44 in which ribs 47 and 48 are formed by suitable indentations. The purpose of the ribs 47 and 48 is to facilitate retention of the tabs 43 and 44 in the bent over positions. If they were not employed, there is a tendency for the tabs 43 and 44 to spring up from the bent over positions.

The gasket sections 25—28 are secured to opposite surfaces of the frame members 29 and 30 by a suitable adhesive indicated at 49 in FIGS. 5 and 6. The adhesive 49 may be of the dry type that is activated by a suitable solvent to develop the adhesive characteristics.

As shown in FIG. 5 with the journal box lid in the open position, FIG. 3, one of the channel shaped extensions, for example the extension 40, is applied to the side 20 of the lid 14. Then the gasket 24 is stretched in a direction indicated by arrow 50 until the channel shaped extension 39 can be applied to the side 19 as shown in FIG. 6. The tension developed by the gasket sections 25—28 tends to keep the channel shaped extensions 39 and 40 engaged with the sides 19 and 20 of the lid 14. Finally the tabs 43 and 44 are bent over the outer surface 52 of the lid 14 as indicated by arrow 53 in FIG. 6. The bent over tabs 43 and 44 provide additional securement for the sealing assembly 23 to the lid 14.

We claim:

1. A sealing assembly for positioning on the lid of a railway car journal box and between it and the faces of the edges of said box defining the opening closed by the lid, said lid along its sides having intumed edge portions, said sealing assembly comprising: a rectangular stretchable gasket conforming to said faces and a pair of generally U-shaped frame members embedded in said gasket with the arms spaced from each other and the intermediate sections extending along the sides whereby said sides can be stretched apart, each of said intermediate sections having a channel shaped extension for overlying the respective side of said lid.

2. The sealing assembly according to claim 1 wherein the arms of each U-shaped frame member are of different lengths and the shorter arms are spaced from the longer arms.

3. The sealing assembly according to claim 1 wherein said gasket includes two pairs of generally L-shaped oppositely disposed gasket sections overlying each other and opposite sides of said frame members.

4. The sealing assembly according to claim 3 wherein adhesive on the surfaces of said gasket sections is arranged to secure them to the underlying surfaces of said frame members.

5. The sealing assembly according to claim 1 wherein said gasket is formed of neoprene foam.

6. The sealing assembly according to claim 1 wherein the outer flange of each channel shaped extension has a laterally extending tab to be bent over the outer face of said lid.

7. The sealing assembly according to claim 6 wherein each of said tabs has lengthwise extending ribs to facilitate retention thereof in bent over operating position.

8. The sealing assembly according to claim 1 wherein said frame members are formed of aluminum.

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