June 8, 1965 O. A. ROSE 3,187,975

PACKING CASE

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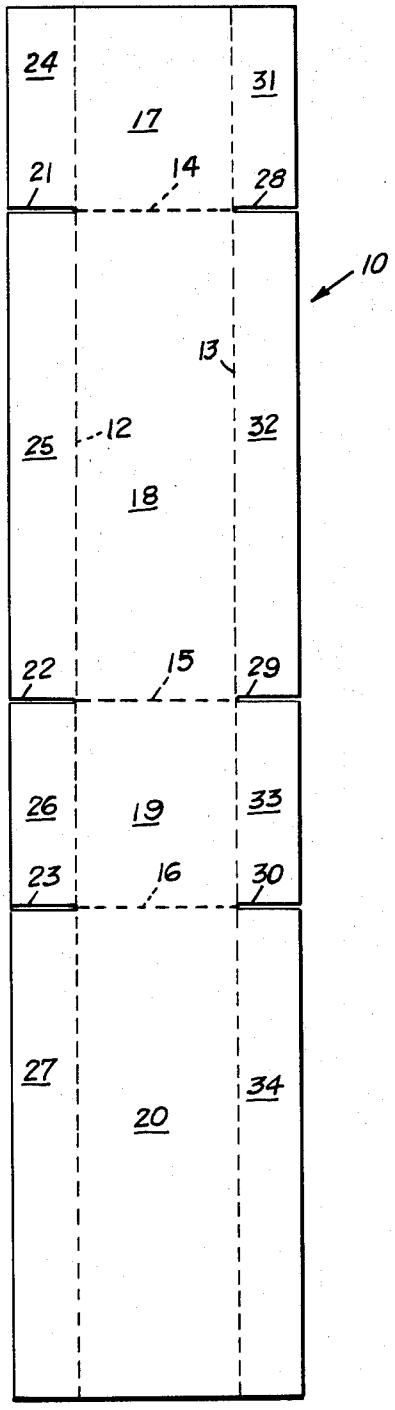


Fig. 1

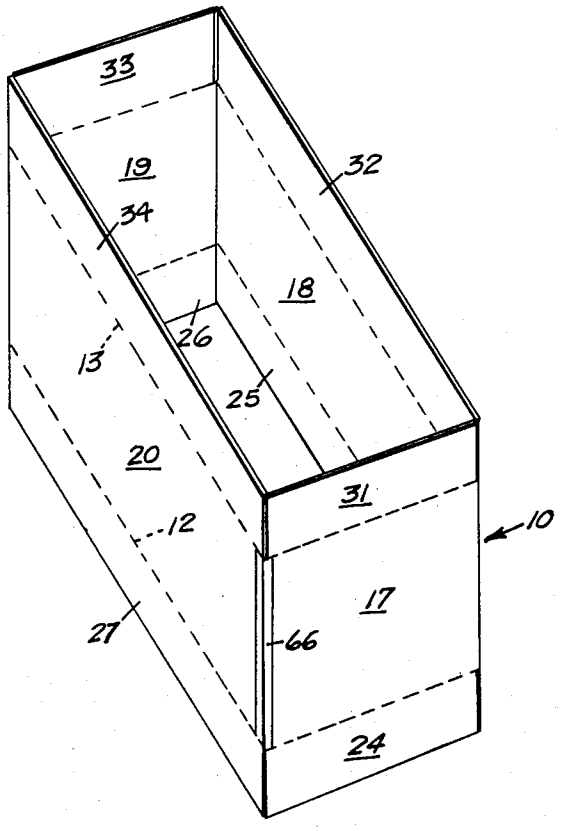


Fig. 2

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Filed Nov. 6, 1963 4 Sheets-Sheet 2

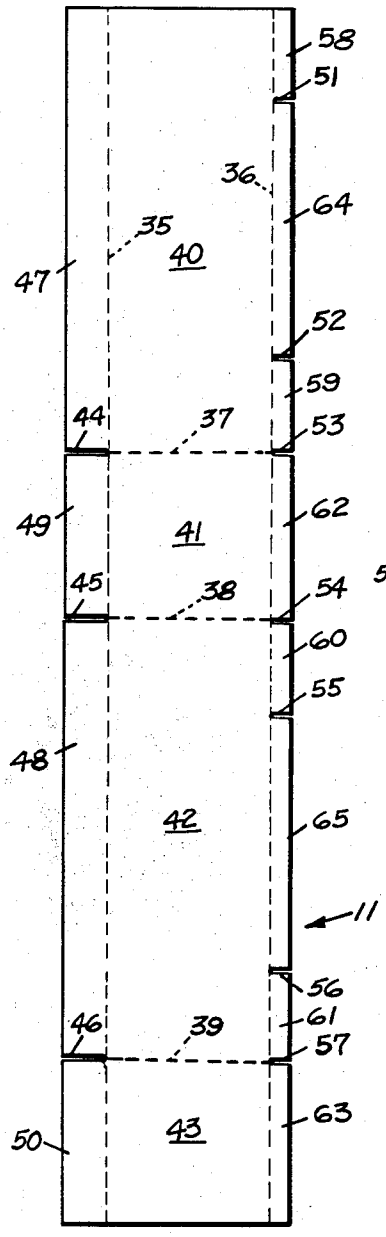


Fig. 3

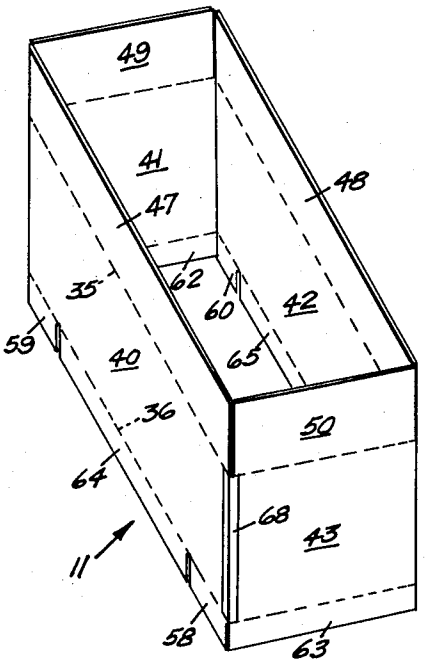


Fig. 4

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June 8, 1965 O. A. ROSE 3,187,975

PACKING CASE

Filed Nov. 6, 1963 4 Sheets-Sheet 3

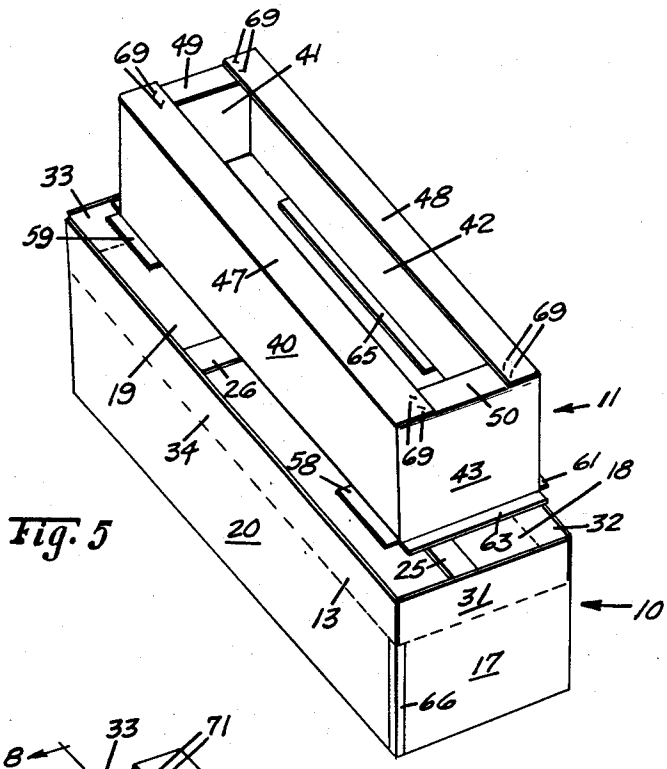


Fig. 5

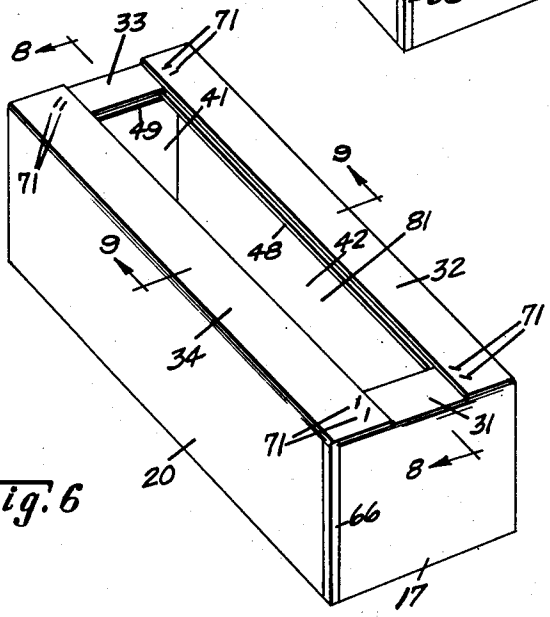


Fig. 6

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June 8, 1965 O. A. ROSE 3,187,975

PACKING CASE

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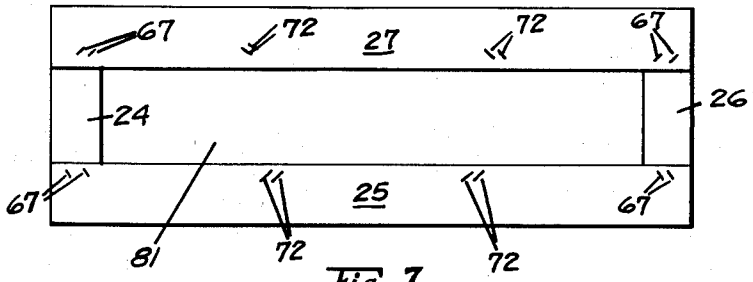


Fig. 7

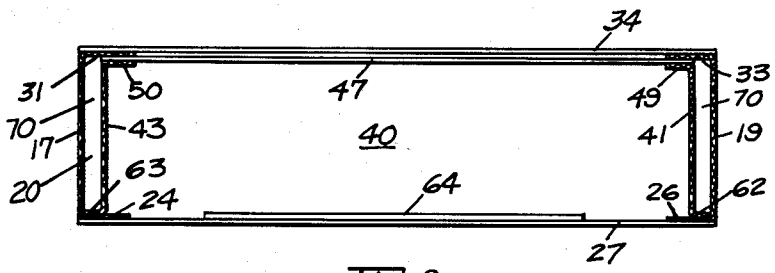


Fig. 8

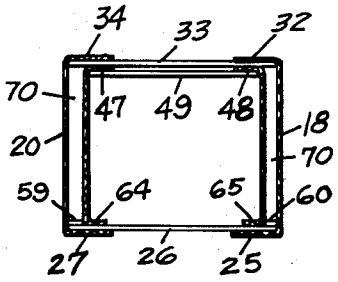


Fig. 9

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United States Patent Office 3,187,975 Patented June 8, 1965

3,187,975

PACKING CASE

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Filed Nov. 6, 1963, Ser. No. 321,861
7 Claims. (Cl. 229—14)

The present invention relates to a packing case for gaskets and the like.

Generally, there is provided a packing case or container for the shipment of extruded plastic and rubber gaskets such as those used on refrigerator and freezer doors or for like materials. The container or packing case consists of two specially slotted flanged tubes which, when properly assembled one tube within the other, forms a narrow fully enclosed channel therebetween in which the gaskets or the like may be placed. One of the features of the invention is that the upper flanges of the inner tube structure are folded inwardly upon one another and fastened together as by glue or stapling and thus form a base or bed to which the upper flaps of the outer tube may be glued or fastened with ease, the flaps of the inner tube member forming a substantial base whereby such operation may be performed without the necessity of providing a support beneath the flaps of the inner tube during such process, thus affording a great saving in time. Another feature of the invention is the provision of open top and bottom portions in the assembled device, thus affording a saving in material in the construction thereof.

It is accordingly an object of the invention to provide a device of the character set forth which is simple in construction, inexpensive to manufacture and yet effective and efficient in use.

Another object of the invention is to provide a novel packing case for gaskets and the like which may be manufactured at a minimum of cost due to waste material in the blanks, the blanks in the instant invention being substantially rectangular and lending themselves to simple and efficient manufacture.

Another object of the invention is to provide, in a device of the character set forth, novel spacing means forming a part of the invention.

Another object of the invention is the provision, in a device of the character set forth, of open top and bottom portions effecting a saving of material in the completed device.

Still another object of the invention is the provision, in a device of the character set forth, of novel provisions for fastening certain flaps forming parts of the invention.

Other and further objects of the invention will become apparent from a reading of the following specification taken in conjunction with the drawings, in which:

FIGURE 1 is a plan view of a blank of an outer tube forming a part of the invention;

FIGURE 2 is a perspective view of the blank of FIGURE 1 showing the same in partially assembled condition;

FIGURE 3 is a plan view of an inner tube forming a part of the invention;

FIGURE 4 is a perspective view of the device of FIGURE 3 showing the same in partially assembled condition;

FIGURE 5 is an exploded perspective view of the two tubular members illustrating the same in their condition immediately prior to final assembly;

FIGURE 6 is a perspective view of the completely assembled device of the present invention;

FIGURE 7 is a bottom plan view of the device illustrated in FIGURE 6;

FIGURE 8 is a sectional view taken along line 8—8 of FIGURE 6; and,

FIGURE 9 is a sectional view taken along line 9—9 of FIGURE 6.

Referring to the drawings, there is shown therein a blank of an outer tube generally indicated at 10, and, in FIGURES 3 and 4 particularly, an inner tube generally indicated at 11. The blank of the outer tube 10, best shown in FIGURE 1, is provided with a pair of longitudinally extending fold lines 12 and 13 which are interconnected by transversely extending fold lines 14, 15 and 16 thus providing an end panel 17 bounded by the fold lines 12, 13 and 14; a side panel 18 bounded by the fold lines 12, 13, 14 and 15; an end panel 19 bounded by fold lines 12, 13, 15 and 16; and a side panel 20 bounded by fold lines 12, 13 and 16.

Slits 21, 22 and 23 extend outwardly from fold line 12 to the adjacent longitudinal end of the tube 10 providing bottom end flaps 24 and 26 and bottom side flaps 25 and 27.

Slits 28, 29 and 30 extend laterally from fold line 13 to the adjacent longitudinal edge of blank 10 forming top end flaps 31 and 33 and top side flaps 32 and 34.

Referring to the inner tube 11, the bank thereof is best shown in FIGURE 3 and it will be seen that it is an elongated rectangular single piece structure having a pair of spaced parallel fold lines 35 and 36 extending longitudinally thereof which fold lines are interconnected by transverse fold lines 37, 38 and 39. A side panel 40 is bounded by fold lines 35, 36 and 37; an end panel 41 is formed by fold lines 35, 36, 37 and 38; a side panel 42 is formed by fold lines 35, 38, 36 and 39; and an end panel 43 is formed by fold lines 35, 39 and 36.

Slits 44, 45 and 46 extend laterally from fold line 35 to the adjacent longitudinal edge of blank 11 thereby forming top side flaps 47 and 48 and top end flaps 49 and 50.

Slits 51, 52, 53, 54, 55, 56 and 57 extend transversely from fold line 36 to the adjacent longitudinal edge of blank 11 forming, with fold line 36, side spacer members 58, 59, 60 and 61; end spacer members 62 and 63; and bottom side flaps 64 and 65.

In assembling the outer tube, blank 10 is folded along fold lines 14, 15 and 16 and the ends brought together and secured by, for example, a tape 66 as shown in FIGURE 2. The bottom end flaps 24 and 26 are then bent inwardly after which the bottom side flaps 25 and 27 are bent inwardly and stapled to the bottom end flaps 24 and 26 as shown at 67 in FIGURE 7. This leaves the outer tube 10 in the condition shown in FIGURE 5.

The inner tube is then folded along fold lines 37, 38 and 39 and the free ends thereof interconnected by a tape 68 or the like, as shown in FIGURE 4, whereupon the spacer members 58, 59, 62, 60, 61 and 63 are bent outwardly and the bottom flap members 64 and 65 are bent inwardly along fold line 36 as shown in FIGURE 5. Thereafter, top end flaps 49 and 50 are bent inwardly and top side flaps 47 and 48 are then bent inwardly over the end flaps 49 and 50 and secured thereto by staples 69 or the like, again as shown in FIGURE 5.

The inner tube 11 is now lowered into the outer tube 10 and it will be apparent that the spacer members will now have their outer edges in contact with the inner faces of the side and end walls, 17, 18, 19 and 20 of the outer tube 10, thus providing a continuous space 70 between the side and end walls of the outer and inner tubes, respectively. In this continuous space 70 there may be stored for shipment endless gaskets or the like after which the top end flaps 49 and 50 are bent inwardly and the top side flaps 47 and 48 bent inwardly thereover and secured thereto by staples 71 or the like, thus fully enclosing the continuous space 70.

It will be seen by reference, for example, to FIGURES 6 and 7, that a rectangular opening 81 extends vertically

through the thus assembled container, thus affording a saving in material.

It will be seen that when the inner tube 11 is placed within the outer tube 10 that the bottom flaps 64 and 65 of the inner tube may be fastened with staples 72 or the like to bottom side flaps 25 and 27 of the outer tube. It will also be apparent that when the staples 71 are administered to the container that they will connect with flaps 31 and 33 and that in this process the inner tube upper flap structure 47, 48, 49 and 50 will act as a stable base for the insertion of the staples 71 as aforesaid.

While but one form of the invention has been shown and described herein, it is obvious that other modifications and/or equivalents may be employed without departing from the scope of the invention, which is defined in the appended claims.

What is claimed is:

1. A container of the character described comprising outer tube having side and end walls, inwardly extending bottom side and end flaps, and inwardly extending top side and end flaps; and an inner tube having side and end walls, inwardly extending bottom side flaps affixed to the bottom side flaps of the outer tube, outwardly extending spacer flaps formed integrally with the lower edges of the side and end walls thereof and having their outer edges in contact with the inner faces of the walls of the outer tube, and inwardly directed top side and end flaps; said top flaps of said outer tube overlying and fastened to the top flaps of the inner tube.

2. A device as defined in claim 1 wherein each of said tubes is formed of a rectangular blank.

3. A container as defined in claim 1 wherein the inner walls of the inner tube, the inner edges of the bottom flaps of the outer tube, and the inner edges of the top flaps of both tubes define an opening extending through said container.

4. A container of the character described comprising an outer tube having side and end walls, inwardly extending bottom side and end flaps, and inwardly extending top side and end flaps; and an inner tube having side and end walls, inwardly extending bottom side flaps affixed to the bottom side flaps of the outer tube, outwardly extending spacer flaps formed integrally with the lower edges of the outer portions of the side walls thereof, spacer flaps formed integrally and extending outwardly from the bottoms of the end walls thereof, said spacer members having their outer edges in contact with the inner faces of the walls of the outer tube, and inwardly directed top side and end flaps; said top flaps of said outer tube overlying and fastened to the top flaps of the inner tube.

5. A container as defined in claim 4 wherein said bottom side flaps of said inner tube are integrally formed with the center portion of each of the side walls of said inner tube.

6. A container of the character described comprising an outer tube having side and end walls, inwardly extending bottom side and end flaps, and inwardly extending top side and end flaps; and an inner tube spaced from said outer tube to define a continuous peripheral channel and having side and end walls, inwardly extending bottom side flaps affixed to the bottom side flaps of the outer tube, outwardly extending spacer means formed integrally with said walls of the inner tube and having their outer edges in contact with the inner faces of the walls of the outer tube, and inwardly extending top side and end flaps; said top flaps of said outer tube overlying the top flaps of the inner tube and fastened thereto.

7. A container of the character described comprising an outer tube having side and end walls, inwardly extending bottom side and end flaps, and inwardly extending top side and end flaps; an inner tube having side and end walls spaced from the side and end walls of said outer tube and forming therewith a continuous peripheral receptacle for receiving articles to be stored therein, inwardly extending bottom side flaps, outwardly extending spacer flaps formed integrally with the lower edges of the side and end walls thereof and having their outer edges in contact with the inner faces of the walls of the outer tube, and inwardly extending top side and end flaps; and means for affixing the bottom side flaps of the inner tube to the bottom side flaps of the outer tube, said top flaps of said outer tube overlying and fastened to the top flaps of the inner tube.

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