

Sept. 29, 1953

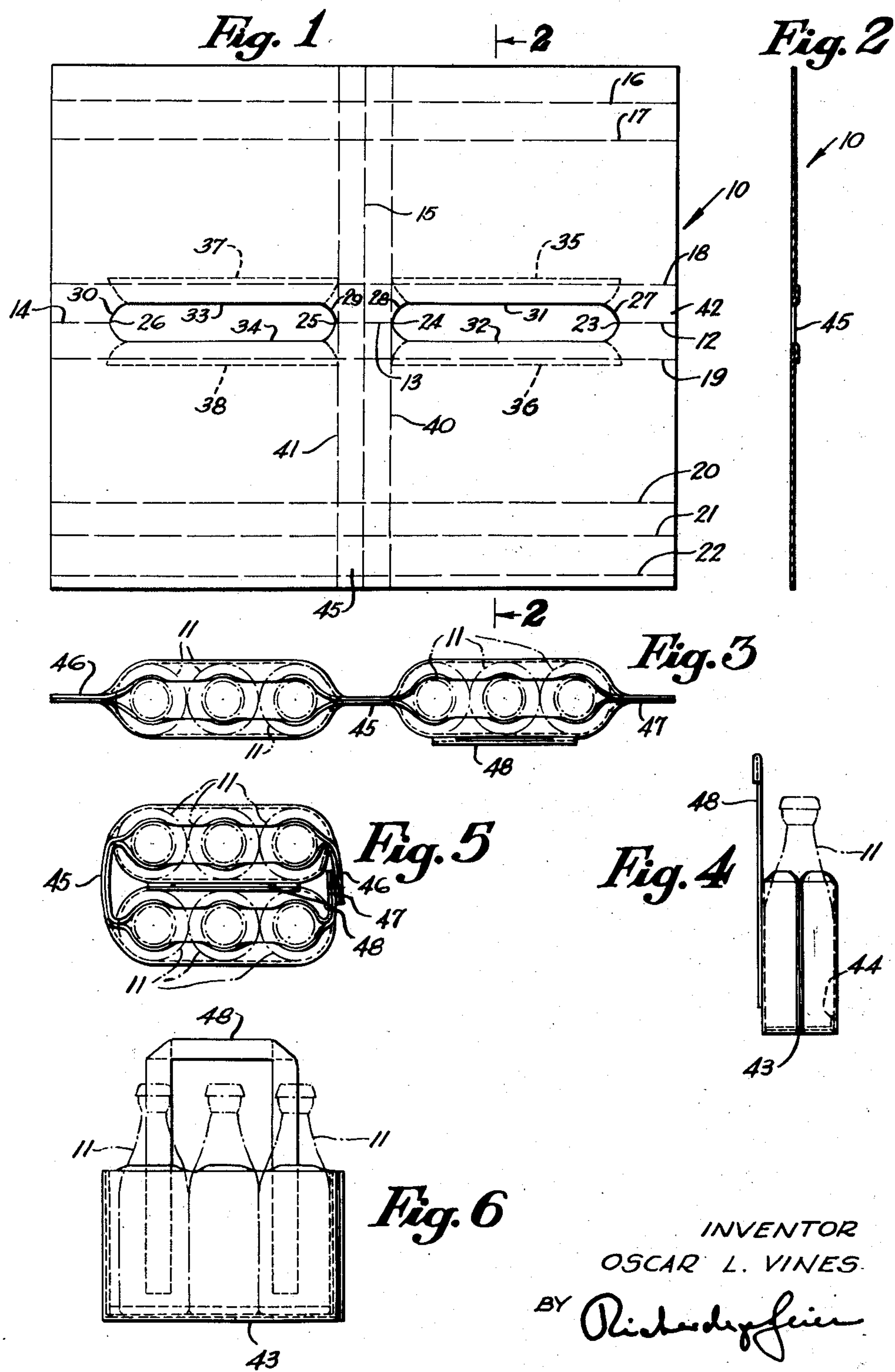
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CARRIER FOR BOTTLES AND THE LIKE

Filed Feb. 26, 1949

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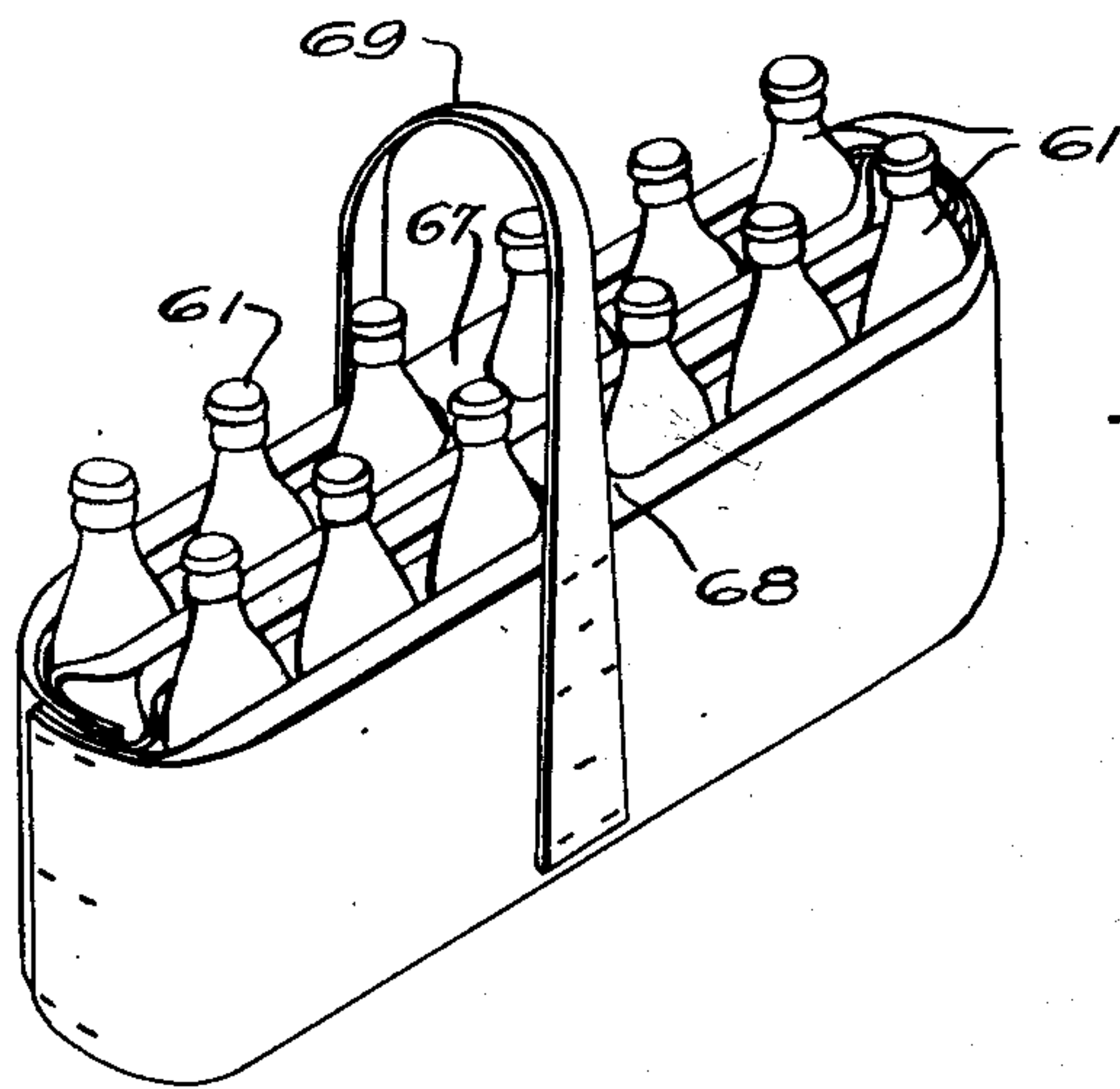
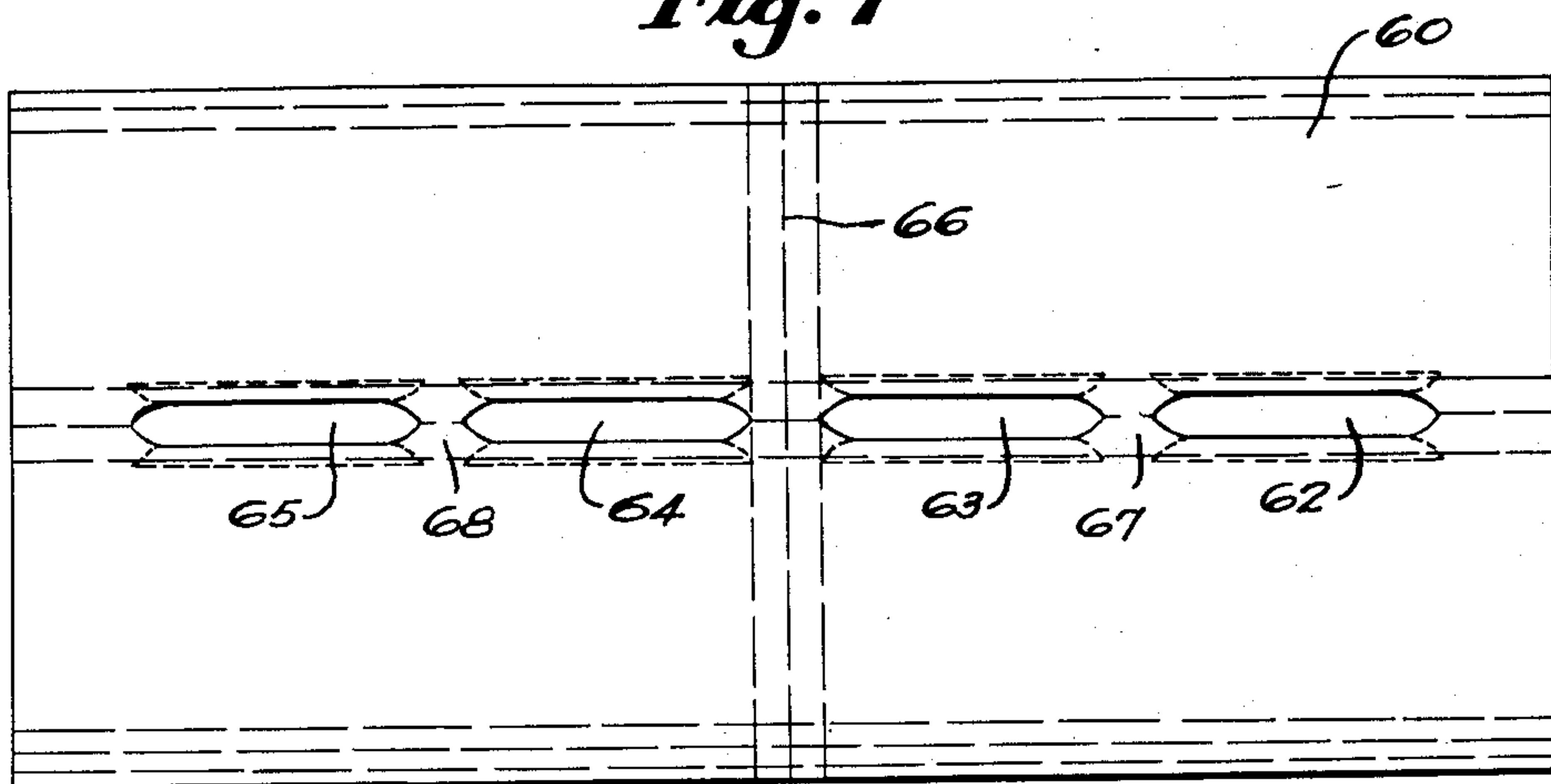
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*Fig. 7*



*Fig. 8*

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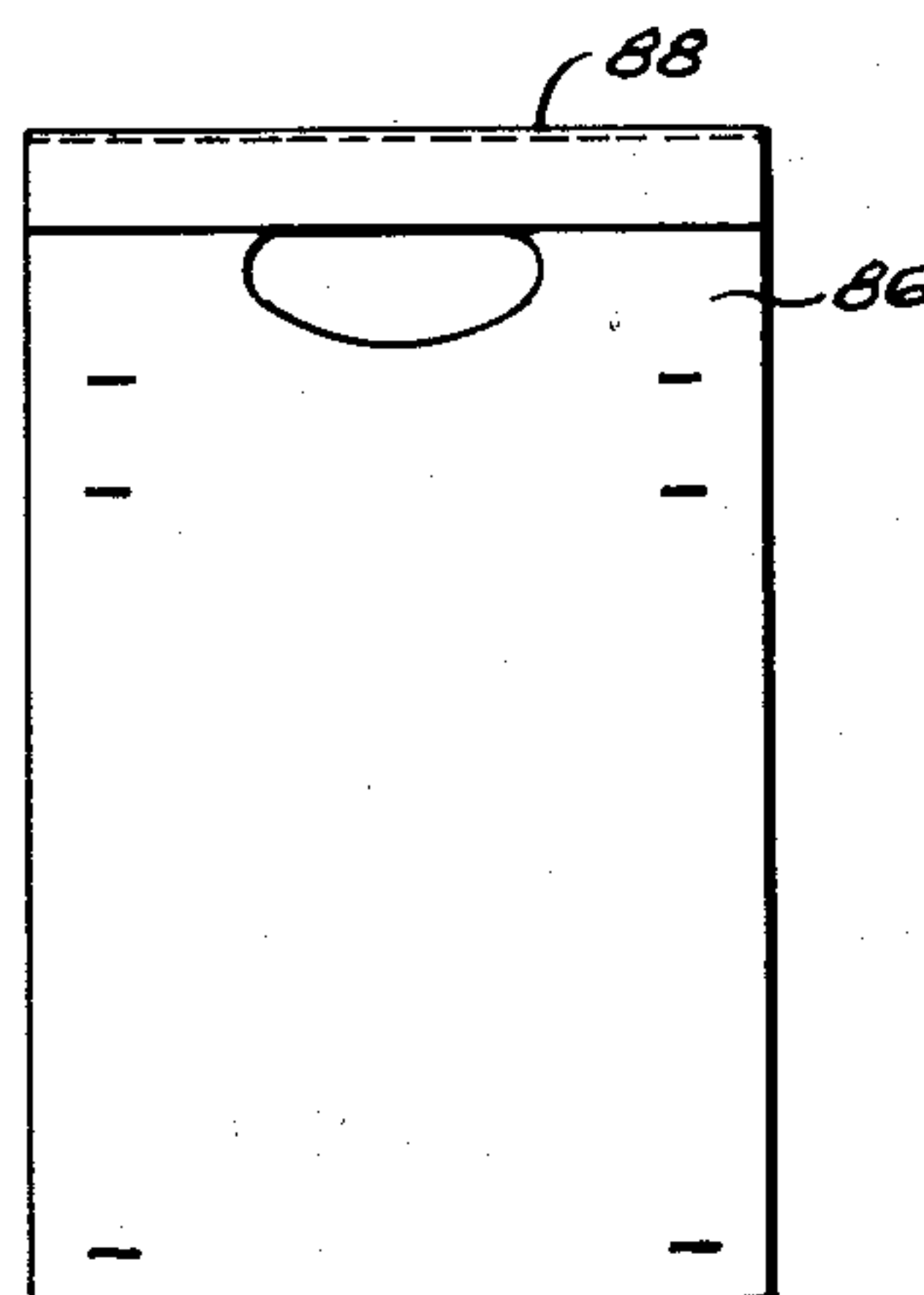
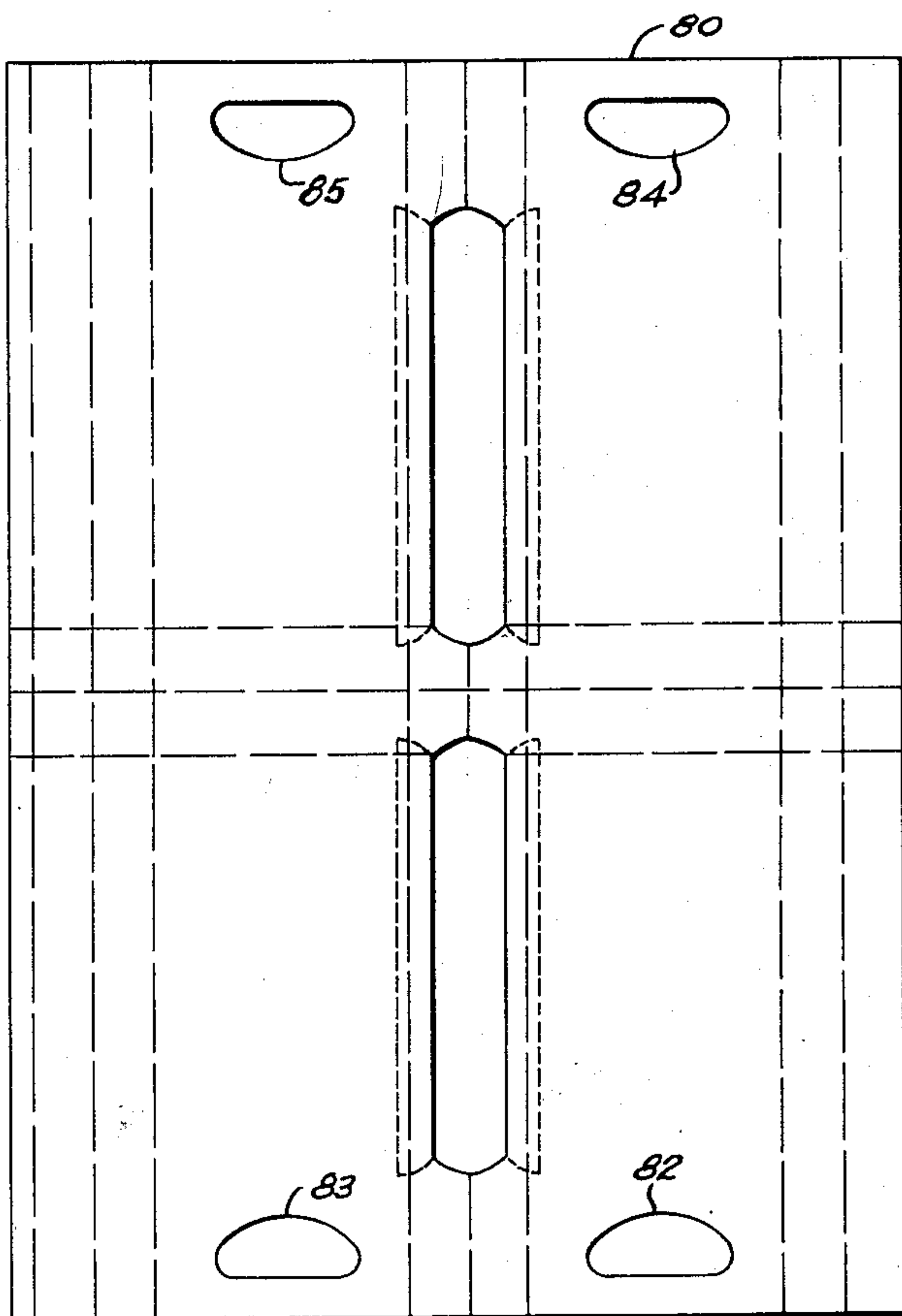
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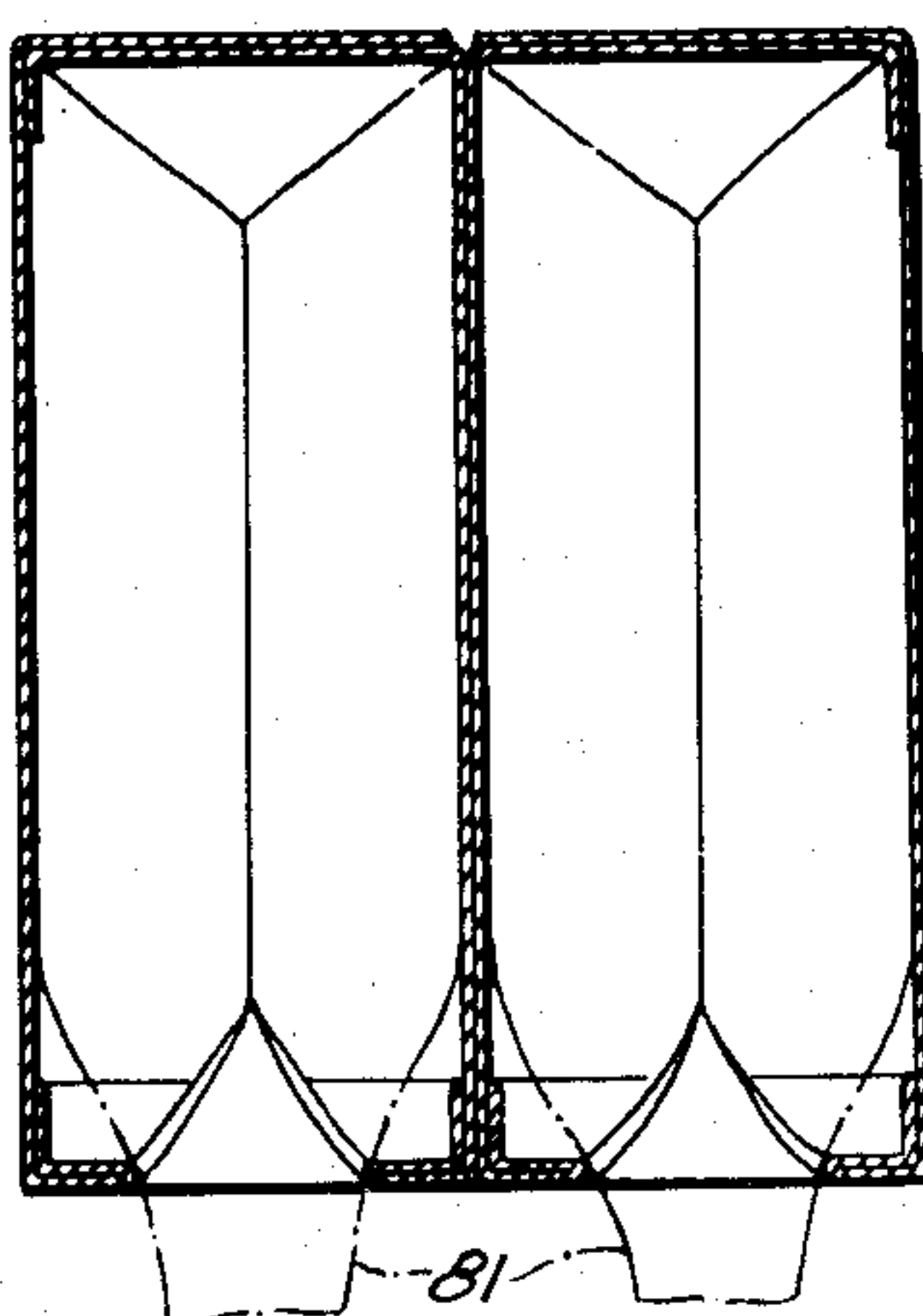
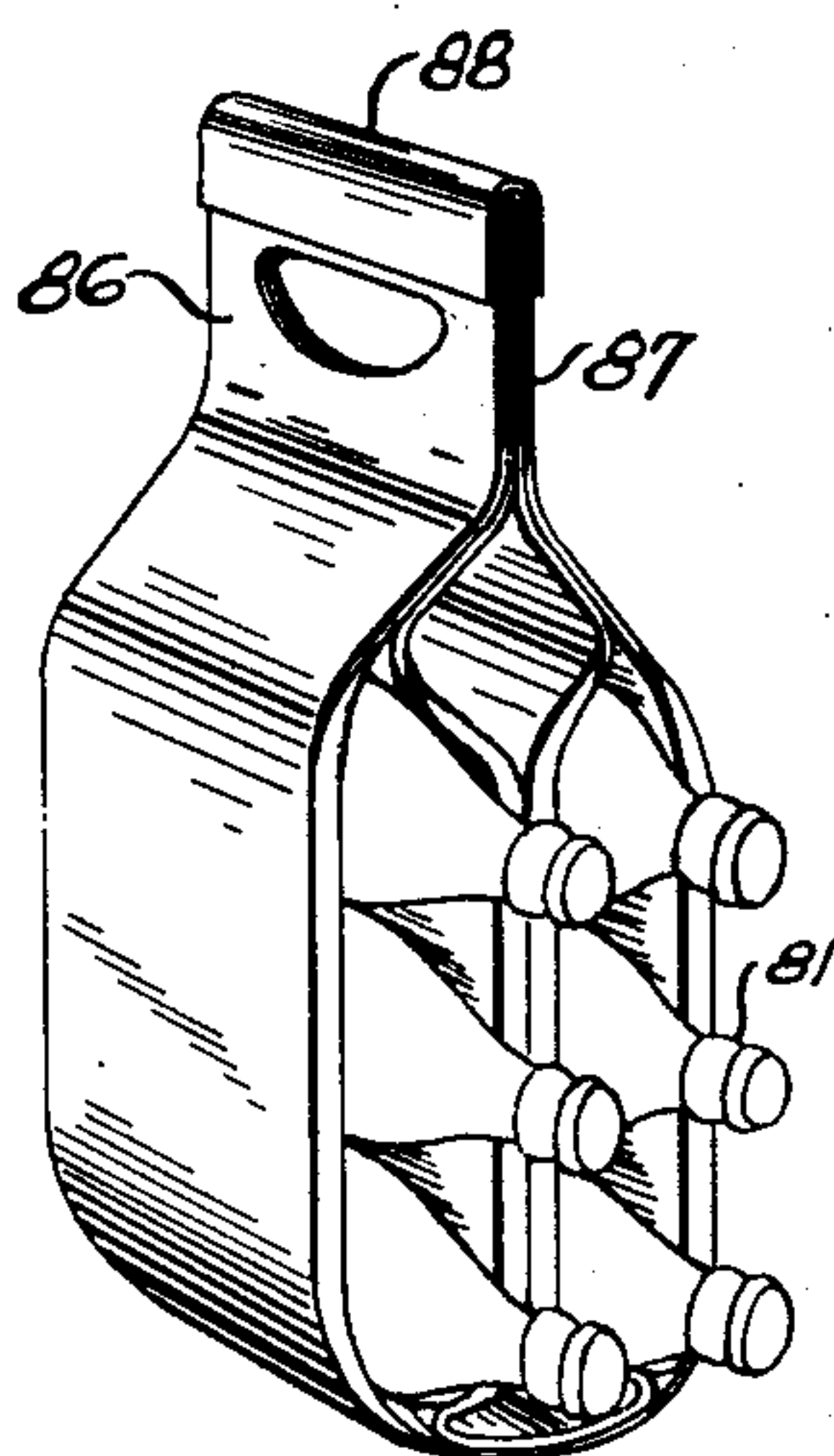
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*Fig. 10*

*Fig. 9*



*Fig. 12*

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## UNITED STATES PATENT OFFICE

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## CARRIER FOR BOTTLES AND THE LIKE

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Application February 26, 1949, Serial No. 78,498

6 Claims. (Cl. 229—28)

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This invention relates to a collapsible carrier for bottles and the like.

In applicant's co-pending application Serial No. 778,191, filed October 6, 1947, there was described a "Carrier for Bottles" made from a single rectangular blank of flexible material. Apertures were provided in the end of the folded blank for the necks of the bottles which were inserted through a slot in the side of the carrier, the bottles being carried in a horizontal position. It was subsequently found that it was difficult to insert the bottles in the carrier through the slot in the side and that the user was likely to tear out the end through which the necks protruded when removing the bottles, which rendered the carrier useless as a receiver of used bottles and ill suited to retain the remaining filled bottles.

It is an object of the instant invention to provide a carrier for bottles and the like which so retains the bottles that removal and insertion may be made without undue harm to the carrier.

A further object is to provide a carrier in which the outside edge most likely to be damaged is reinforced.

Still another object is to provide a carrier so reinforced as to support any reasonable weight to which it may be subjected.

It is also an object of the instant invention to provide a carrier that can be more quickly loaded than heretofore possible.

An additional object is to provide a carrier which can readily be adapted to transport the bottles in either a vertical or horizontal position.

Other objects of the instant invention will become apparent in the course of the following specification.

In the accomplishment of these objectives, the carrier is formed in three embodiments from a single rectangular blank which may be formed from a continuous roll of flexible material without waste. In the first embodiment, the carrier is designed to transport six bottles in an upright or vertical position. In the second embodiment, the carrier is similar to the carrier of the first embodiment except for certain modifications designed to accommodate a larger number of bottles. In the third embodiment, the carrier is also similar to that of the first except for the necessary modifications required to transport the bottles in a horizontal position. In all three embodiments, a substantial carrier from inexpensive raw materials without waste has been provided.

The invention will appear more clearly when taken in connection with the accompanying drawings showing by way of example preferred embodiments of the inventive idea.

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In the drawings:

Figures 1 through 6 illustrate the carrier of the first embodiment in which the bottles are transported vertically, and in which:

5 Figure 1 is a plan view of the blank.

Figure 2 is a sectional view along the line 2—2 of Figure 1.

10 Figure 3 is a top plan view of the carrier after being folded, the bottles being shown in dot and dash line.

Figure 4 is an end view of Figure 3.

15 Figure 5 is a top plan view of the carrier shown in Figure 3 after one section of the carrier has been folded over and fastened around the other section.

Figure 6 is a side elevational view of the carrier shown in Figure 5.

Figures 7 through 8 show the second embodiment of the carrier and in which:

20 Figure 7 is a plan view of the blank for a twelve bottle carrier.

Figure 8 is a view in perspective of the blank shown in Figure 7 after being folded and with the bottles inserted.

25 Figures 9 through 13 show the third embodiment of the carrier and in which:

Figure 9 is a plan view of the blank.

30 Figure 10 is a side elevational view of the blank shown in Figure 9 after being folded but prior to the insertion of the bottles.

Figure 11 is an end elevational view of the carrier shown in Figure 10 after the bottles have been inserted.

35 Figure 12 is a sectional view along the line 12—12 of Figure 11 but on an enlarged scale.

Figure 13 is a view in perspective of the carrier shown in Figure 11.

Referring now in greater detail to the first embodiment of the carrier shown in Figures 1 through 6 where like reference numerals indicate like parts, reference numeral 10 indicates the blank, and 11 the bottles.

40 The blank 10 may be cut from a continuous roll (not shown) of flexible material in accordance with the dimensions of the bottles to be accommodated. After being cut from the continuous roll or at the same time, the blank 10 is scored along the horizontal center line 12 and the vertical center line 15; and along the horizontal lines 16, 17, 18, 19, 20, 21, and 22. The blank 10 is further horizontally slit between the points 23 and 24, and 25 and 26; transversely slit along the lines 27, 28, 29, and 30; and scored along the lines 31, 32, 33, and 34. In this way, the partially severed surface portions 35, 36, 37, and 38 may be 55 turned backwardly as shown in Figure 1 and fas-



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tened to the contiguous surface of the blank 10 by any known means. The vertical lines 40 and 41 may be scored or imprinted or the like since the same serve to indicate the limitations of that part of the central portion of the carrier 10 which is to be fastened together by gluing or other known means as later shown.

The blank 10 is folded downwardly along the scored lines 18 and 19 at an angle of 90° to the plane of the top member 42 to form the sides 10 of the carrier. The ends of the blank 10 are then turned inwardly along the scored lines 16 and 17 and 20 and 21 to form the overlapping double bottom member 43 (Figs. 4 and 6) and thence upwardly along the scored line 22 to form a reinforcement 44 (Fig. 4). Both the overlapping bottom member 43 and the reinforcement 44 may be fastened by any suitable means.

With the blank 10 thus partially formed into the carrier and with the bottles 11 (Fig. 3) inserted or even before insertion, the members of the central portion 45 are brought together along the lines 40 and 41 (Fig. 1) if provided or around the opposed sides of the nearest bottle in each receptacle. The various members comprising the central portion 45 are fastened as desired to form a single member as shown in Figures 3 and 5 whereby one of the receptacles may be rotated adjacent the corresponding side of the other as shown in Figure 5. The free ends 46 and 47 of the folded blank extending beyond the points 23 and 26 (Fig. 1) are also fastened together.

The handle member 48, formed from a strip or several superposed strips or the like of any suitable material as shown in Figure 6, is attached by any known means to what will be when one receptacle or section is rotated adjacent the other (Fig. 5) an inside side member of one of the receptacles as shown in Figures 3, 4, 5, and 6.

By overlapping the ends 46 and 47 and securing the same by any suitable fastener 48 a rugged carrier for six bottles is obtained.

Of course, by using either half of the blank 10 as divided by the vertical center line 15, a three bottle carrier is readily provided. Since the known wooden cases are usually designed for twenty-four bottles, carriers for six, eight, and twelve bottles are desirable. Obviously the carrier is equally adaptable to other columnar objects, such as cans, jars, and even fruits, vegetables, plant bulbs, etc. Superposed sides of the two section carriers may be glued together and where it is desired to completely cover the bottles, the side and end members may be extended.

The operation with the carrier of the first embodiment is as follows:

Assume that the six bottle carrier has been formed as shown in Figure 5, the two end bottles for each side of the carrier are first inserted and then the center bottles so that the same may provide a slight wedging action which retains all the bottles in position. When withdrawing a bottle, the best practice would be to withdraw the center bottle first although anyone may be withdrawn from either or both sides without injury to the integrally formed reinforced opening through which the necks protrude. When a bottle is empty, it is readily reinserted in the carrier and when all the bottles are empty and replaced in the carrier a convenient means for returning the same to the dealer has been created. When a carrier is empty, it is readily collapsed along the scored lines 16, 21, 15, and the partially scored line 12.

In the second embodiment of the carrier shown

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in Figures 7 and 8, 60 indicates the blank, and 61 the bottles.

The blank 60 is similar to the previously described blank 10 except for the two openings 62 and 63, and 64 and 65 on either side of the vertical center line 66 which are formed in a manner similar to that of the first embodiment. The folding of the blank 60 and the fastening of the central and end portions is similar to the construction of the first embodiment. However, by separating the openings 62 and 63 and 64 and 65 there intervenes between the openings the reinforcing members 67 and 68 (Figs. 7 and 8) which has been found desirable in carriers designed for a relatively large number of bottles 61. The handle member 69 also differs from the handle member of the first embodiment in that it is attached on the outside surface portions of the carrier so that the pull on the handle 69 when the carrier is being transported will tend to hold the two sections of the carrier together. Another reinforcing member may be added by superposing the same over the members 67 and 68 and attaching the ends to the sides of the carrier.

The operation with the carrier of the second embodiment is similar to that previously described for the first embodiment.

In the third embodiment of the carrier shown in Figures 9 through 13, reference numeral 80 indicates the blank and 81 the bottles.

The blank 80 is similar to the blank of the first embodiment with the exception of the addition of the openings 82, 83, 84, and 85 which are formed for the purpose of providing the handle member and with the further exception that the slits are made along the vertical center line.

The folding of the blank 80 is the same as the folding of the blank of the first embodiment up to the last few steps when the end 86 is turned outwardly to be superposed against the similarly turned end 87 whereupon the openings 82, 83, 84, and 85 are aligned to form a convenient handle member which may be reinforced by the member 88. Moreover, in the third embodiment, the overlapping ends of the blank form one of the end members rather than the base.

The operation with the carrier of the third embodiment is substantially the same as in the first embodiment. However, it is to be noted that in the third embodiment, the wedging action of the center bottle 81 is important in maintaining the bottles of each side of the carrier so securely together that the danger from slipping out even though being transported in a horizontal position is remote.

It is apparent that the specific illustrations shown above have been given by way of illustration and not by way of limitation and that the structures above described are subject to wide variation and modification without departing from the scope or intent of the invention, all of which variations and modifications are to be included within the scope of the present invention.

What is claimed is:

1. A collapsible carrier for bottles and the like comprising a flat rectangular blank scored along one center line and along a second and third line equally spaced on opposite sides thereof; the blank being further scored along a fourth line perpendicular to the other center line and along a fifth and sixth line equally spaced on opposite sides of the fourth line, the fourth line having at least one slit formed therealong intermediate the second and third lines respec-



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tively and the corresponding edges of the blank, the slits bifurcating into two outwardly directed slits at each end, the blank further having two outer scored lines parallel to and on one side of the fourth and three outer scored lines on the opposite side thereof, the two innermost of the outer scored lines on each side being equally spaced from the fourth and the perpendicular distance between the fourth and the edge of the blank on the side of the two outer lines being equal to the perpendicular distance from the fourth line to the outermost of the outer lines on the side having the three lines; the blank being folded over the fifth and sixth lines, means securing together the superposed surface portions between the innermost of the outer lines and the edges of the blank and between the inner cords of the slits and the fifth and sixth lines and between the outer ends of the slits and the edges of the blank intermediate the fifth and sixth lines, the blank being folded intermediate the slits until the portion on one side of the first center line is adjacent the other portion, means securing together the superposed surface portions between the outer ends of the slits and corresponding edges of the blank intermediate the fifth and sixth lines, and handle means secured to the folded blank.

2. A collapsible carrier for bottles and the like according to claim 1 in which the handle means comprises an elongated strip, means securing the ends of the strip to the folded blank in spaced arrangement between the adjacent surfaces of the blank with the central portion of the strip protruding above the slits.

3. A collapsible carrier for bottles and the like according to claim 1 in which the fourth scored line is characterized by having a second slit spaced from the first on both sides of the first center line, the second slits having the same length as the first and being equally spaced therefrom.

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4. A collapsible carrier for bottles and the like according to claim 1 in which the handle means comprises an elongated strip, means securing one end of the strip to the outer surface of one side of the blank turned intermediate the slits and the other end of the strip to the outer surface of the other side of the blank and with the central portion of the strip protruding above the slits.

5. A collapsible carrier for bottles and the like according to claim 1 in which the blank is characterized by having two aligned openings in each end, the openings being equally spaced on each side of the first center line and intermediate the second and third scored lines and the corresponding innermost of the outer scored lines.

6. A carrier for a plurality of articles such as bottles, cans, small packages and the like, comprising an elongated paper tube length formed with scored lines at its sides, the tube having a slit at one side extending along a scored line, the tube also having a fold extending substantially along a transverse median line to position its two halves in overlying relation, means securing the opposed walls of the tube together at points spaced a short distance from each side of said transverse median line, and also at points spaced from the overlying tube ends, and means securing said tube end portions together, whereby two elongated side-by-side cavities for the articles are provided with openings along the slitted scored line.

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