

June 29, 1937.

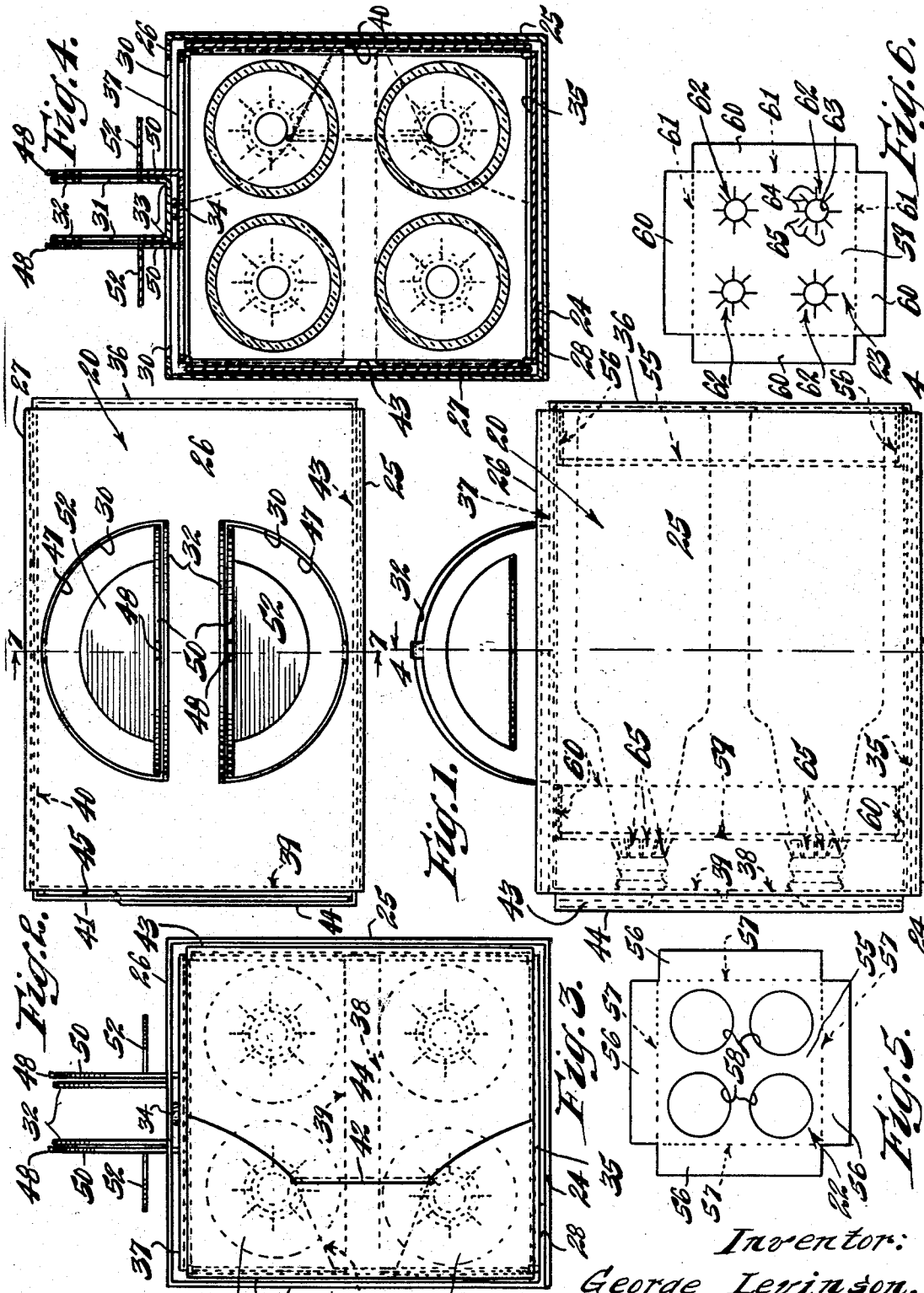
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2,085,104

CONTAINER

Filed Aug. 3, 1933

2 Sheets-Sheet 1



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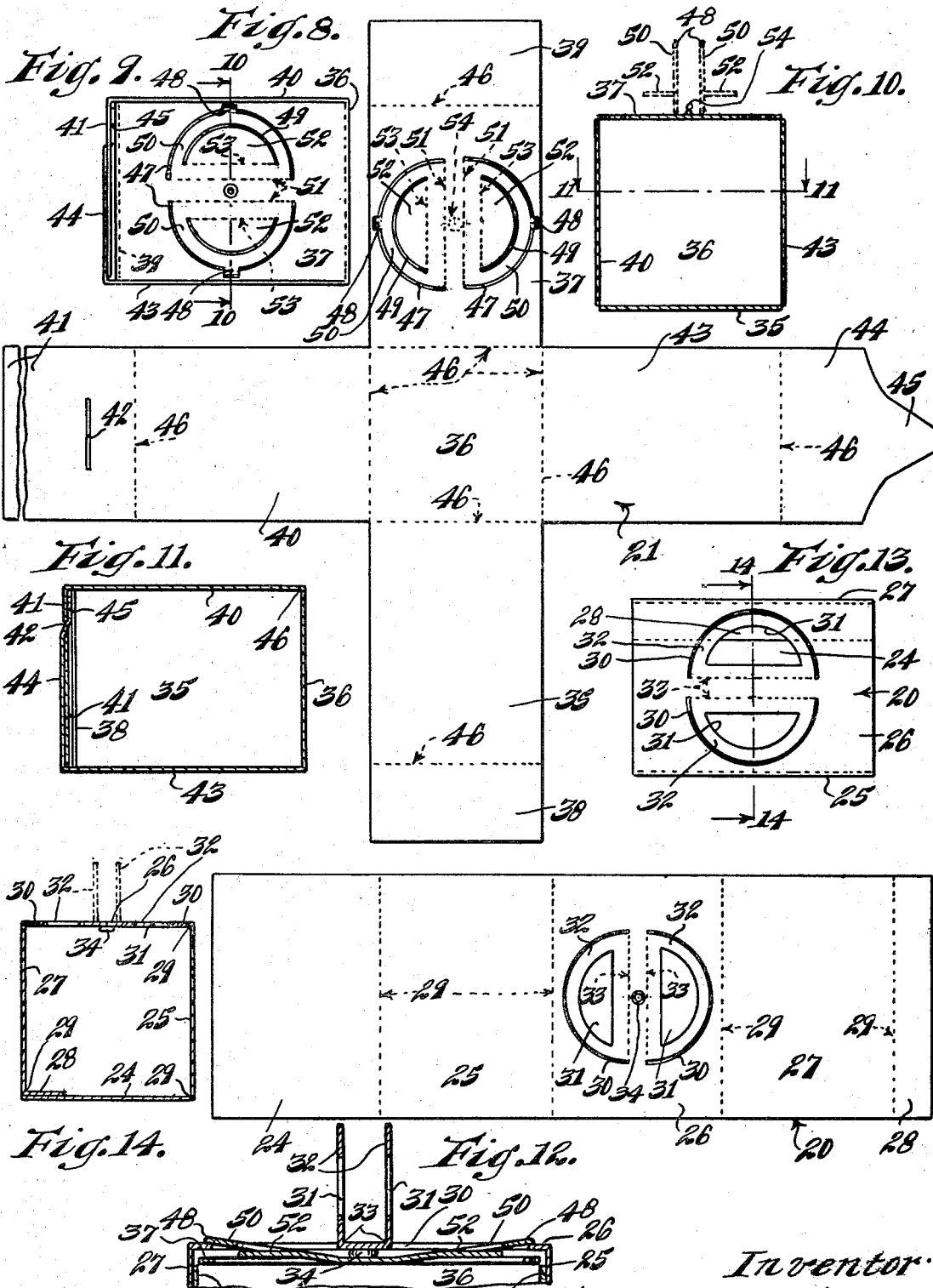
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2 Sheets-Sheet 2



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Fig. 7. 43
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UNITED STATES PATENT OFFICE

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CONTAINER

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Application August 3, 1933, Serial No. 683,436

7 Claims. (Cl. 229—52)

This invention relates to improvements in containers, and an object of the invention is the provision of a simple collapsible container which may be collapsed and shipped inexpensively by permitting the storage of a large number of the collapsed containers in a unit of space, and which may readily be assembled.

An object of the invention also is the provision of a box of the character described composed of two parts, one insertable within the other, with handles for each part whereby not only is double strength provided in the handle means and double insurance provided against damage, but also the very handle means serves to constitute locking means between the two parts of the container.

Another object has been to provide a simple collapsible container of the character described which will have greater strength and more support for the articles than anything of the kind heretofore provided. Not only has it been an object to provide novel locking means and novel handle means, but it has also been an object to provide a container which will be simple of manufacture and relatively inexpensive. Specifically, it has been an object to provide a container which requires only one corner to be stapled; to considerably reduce the expense and time of manufacture. It has not only been an object to provide a container which is more advantageous than anything heretofore produced by virtue of the absence of a multiplicity of parts, but it has also been an object to provide handle means which may or may not constitute locking means, and handle means made integrally from the container blanks and at the same time provide a closure for the container, even though the handles are in use. Another object has been to provide novel partitioning means for positioning articles to be carried.

The invention also has for an object the provision of means for accomplishing the said results which will be simple of assembly.

These and other objects and advantages of my invention will appear from the specification hereinafter set forth.

The invention consists in the combinations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings, forming a part of this specification, and in which:

Fig. 1 is a side elevation of the assembled container;

Fig. 2 is a plan view of the same;

Fig. 3 is an end view looking from the left-hand side towards Fig. 1;

Fig. 4 is a section taken on the line 4—4 of Fig. 1, illustrating the handles of both the inner and outer cartons;

Fig. 5 is a plan view of the partitioning ele-

ment for the bottoms of the articles to be carried by the container;

Fig. 6 is a plan view of the partitioning element for the upper portions of the articles to be carried by the container;

Fig. 7 is a sectional view, taken on the line 7—7 of Fig. 2, illustrating in detail the arrangement of the handles with particular reference to the functioning of the lip for the lower handles;

Fig. 8 is a plan view of the blank of the inner insertable element;

Fig. 9 is a plan view of the inner insertable element;

Fig. 10 is a section taken on the line 10—10 of Fig. 9, illustrating the line of bend of the carton;

Fig. 11 is a section taken on the line 11—11 of Fig. 10;

Fig. 12 is a plan view of the outer element;

Fig. 13 is a plan view of the element illustrated in Fig. 12 folded together; and

Fig. 14 is a section taken on the line 14—14 of Fig. 13.

The preferred form of construction as illustrated in the drawings comprises a box which may include, generally speaking, four component elements, to-wit, an outer collapsible element 20, an inner collapsible element 21 which is insertable in the outer collapsible element, a partitioning element 22 for the bottoms of the articles to be carried by the box, and a second partitioning element 23 for the upper portions of the articles to be contained or carried in the box. It should be understood that it is not necessary to use the partitioning elements with the box, and one or both of them may be dispensed with if desired.

The outer element 20, which is particularly shown as a blank in Fig. 12, is there shown to include a base section 24, a side section 25, a top section 26, another side section 27, and an overlapping base section 28. A blank, which is in one piece as shown in Fig. 12, is bent along the dotted lines 29 to form the base, top, and sides of the outer element 20, with the section 28 overlapping the base 24 and being secured thereto by means of staples or glue, et cetera. The element so formed is illustrated in its formed condition in Figs. 13 and 14 particularly. The outer element 20 after the section 28 has been secured to the base 24 may be collapsed from the condition shown in Fig. 4 to a perfectly flat condition by pressing any two adjacent sides against the opposite sides.

The top section 26 of the element 20 has a pair of semi-circular cuts 30 made therein, and also has a pair of cut-out portions 31. By means of the cuts 30 and the cut-out portions 31 the top section 26 is provided with a pair of handles 32 which may be moved from the plane of the section 26 by bending the same along the dotted lines 33. The top section is also provided with

a female part 34 of a snap fastener. The inner insertable collapsible element 21 is particularly illustrated as an integral blank in Fig. 8. It comprises a base section 35 upon which the articles to be contained in the box may be supported, an end section 36, and a top section 37. The base section 35 has a flap section 38 integrally attached thereto, and the top section 37 has a flap section 39 also integrally attached thereto, and these sections together when the box is in condition for use form the end section of the element 21, which opposes the end section 36.

Attached to the end section 36 is a long side section 40, to which in turn is integrally attached another end section 41 provided with a slit 42. The end section 36 also has integrally attached thereto another long side section 43 having a flap section 44 integrally attached thereto with a tongue 45. The sections of the inner collapsible element 21 are folded along the dotted lines 46 to set up the element 21 for use as shown in Figs. 9 and 10.

To set up the element 21 for use, as shown in said Figs. 9 and 10, the section 44 may be lapped over upon the section 41 and maintained in lapped folded condition by inserting the tongue 45 in the slit 42. The section 38 of the base section 35 may then be folded inside the element 21 in such a manner that it will lie adjacent the section 41. The articles to be contained in the container may then be inserted therein, and then section 37 may be bent along the dotted line 46 to cover the element 21, and the section 39 may be folded and inserted into the interior of the element 21 in such a manner that the section 39 lies adjacent the section 41.

The top section 37 is provided with a pair of cuts 47, which are semi-circular in form except that at the center of each of said cuts 47 the cut is so made as to form a tab 48. The top section 37 is also provided with another pair of semi-circular cuts 49, and there is thereby provided a pair of handles 50 for said top sections. Said handles may be raised from the plane of section 37 by bending the same upon the dotted lines 51. There is also provided by this arrangement a pair of closure portions 52 which may be bent upon the dotted lines 53. By this arrangement when the handles 50 are in the same plane with the section 37, and when the closure portions 52 are in the same plane with the section 37 a complete cover is provided in the inner insertable element 21 for the articles contained therein. The element 21 is also provided with a male portion 54 of the snap fastener which is adapted to snap with the female portion 34 to lock the elements 20 and 21 together.

After the outer element 20 has been set up for use as shown in Figs. 13 and 14, for example, and after the inner element 21 has been set up in condition for use, as shown in Figs. 9 and 10 for example, the inner element 21 with the articles contained therein may be inserted through one of the open ends of the outer element 20, when the pair of handles 50 of the inner element 21 will be positioned beneath the pair of handles 32 of the outer element 20. The female portion 34 of the snap fastener may then be pressed down upon the male portion 54 to lock the two elements 20 and 21 together. The finger may then be inserted through one of the cut-out portions 31 to raise up one of the handles 32, to the position shown for example in Figs. 3, 4, and 7, particularly, and in dotted lines in Fig. 14. The fin-

ger may then be inserted into the other cut-out portion of the top section 26 to lift up the other of the pair of handles 32 to the position shown in the last-mentioned figures. The finger may then be pressed against one of the closure portions 52 to raise up one of the handles 50 and its tab 48 out of the plane of section 37 and upwardly through the portion formerly occupied by the handle 32 of section 26, as particularly illustrated in Figs. 2 and 4, and indicated in Fig. 10. The same process may be followed with respect to the other handle 50 of the section 37. Fig. 7 shows the pair of handles 50 after the same have been raised through section 26, with the tabs 48 resting upon the section 26, the tabs functioning to retain the handles 50 in the position shown in Fig. 7. The handles 50 may be left in this position, or they may be raised to the position shown in Fig. 10 in dotted lines, and particularly shown in Figs. 2 and 4, or, in addition, they may be left in the same plane with section 37. Thus the handles 50 of section 37 may be drawn up adjacent the handles 32, in which case all four handles may be utilized to carry the box in one hand. In the alternative the handles 50 may be left in the condition shown in Fig. 7, or they may be left as shown in Fig. 10.

It will be seen from the foregoing that when the handles 50 have been drawn through the section 26 in the manner shown in Fig. 7, or to the position shown in Figs. 3 and 4, it will be impossible to remove the insertable element 21 from the outer element 20, the extension of the handles 50 through the section 26 serving to lock the two elements 20 and 21 together. It will also be apparent that it is not necessary to have the snap fastener, as the handles will serve to lock the two elements together.

In Fig. 5 there is shown the positioning element 22 for the bottoms of bottles, for example, to be contained and positioned in the container. The element 22 comprises a main section 55 which may be positioned for example in the manner shown in Fig. 1. The section 55 has attached thereto a plurality of sections 56 which may be folded down on the dotted lines 57 so as to support the element 22 a short distance from any wall of the container. The main section has a plurality of cut-out portions 58 which are adapted to accommodate the articles and position the same.

In Fig. 6 there is shown the positioning element 23 which may be used to position, for example, the neck portions of bottles. This element 23 comprises a main section 59 having a plurality of flap sections 60 which may be bent along the dotted lines 61 to coincide with the walls of the container. The main section 59 is provided with a plurality of devices 62 for receiving and positioning the necks of bottles. These devices include cut-out portions 63 and slits 64 which form impinging portions 65. It will be manifest that the element 59 may be moved inwardly upon the necks of the bottles, as shown in Fig. 1, in such a manner that the impinging portions will closely grip the necks of the bottles, and properly position the same, even though the necks be of different sizes. If the top of the bottle or the cap of the bottle be larger than the neck of the bottle, the cap or top of the bottle may be passed through one of the devices 62, which will permit the enlarged portion to pass through and the impinging sections 65 will nevertheless press back to grip the necks of the bottles and hold the same in place. In as-

sembling the container, if the positioning elements 22 and 23 are employed the bottom partitioning element 22 of course may be set in place first, as shown in Fig. 1 for example, and then after the articles have been inserted the positioning element 22 may be set in place and the assembly of the container as hereinbefore indicated may then be completed.

The operation will be manifest from the foregoing description. It will be seen that there has been provided a container which may be collapsed and shipped inexpensively in collapsed condition. It will also be seen that aside from the positioning elements which need not be used, the container is in two pieces, and it will further be seen that staples or the like need be used in only one case, for example in the preferred form to unite the section 28 to the section 24.

Not only has a collapsible container which is simpler than anything heretofore been produced, but there has also been provided a container which has the handles cut out of the container. In addition, there are two sets of handles which not only serve to increase the handle strength and insure against breakage, but also function to lock the inner and outer elements of the container to each other. It will further be seen that there has been provided a double base in this simple box for giving added strength to the container for supporting the articles to be carried. For example, in the preferred form shown the base portion 35 is superimposed upon the base portion 24.

I have illustrated and described a concrete exemplification of a preferred form of construction for carrying my invention into effect. This, however, is capable of variation and modification without departing from the spirit of the invention. The invention is therefore not limited to the details of construction set forth, but extends to such variations and modifications as come within the scope of the appended claims. It may be found advantageous to manufacture the inner element in two pieces to eliminate any loss due to corners, and this may be done.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A device of the kind described comprising an outer container having bottom, side, and top walls, an inner separate member insertable in said outer member and having bottom, side, and

top walls, said top walls each having a pair of handles formed integrally therein, one pair of said handles being positioned within the other.

2. A device of the kind described comprising an outer container having bottom, side, and top walls, an inner separate member insertable in said outer member and having bottom, side, and top walls, said top walls each having a pair of handles formed integrally therein, said handles being adapted to lock the two members.

3. A device of the kind described comprising a container having an outer element provided with bottom, side, and top walls adapted to be collapsible, said top wall having slots and handles formed therein, an inner collapsible element having bottom, side, and top walls, said inner element top walls having handles integrally formed therein, the handles of the inner element adapted to be drawn through the slots of the outer element whereby to interlock the two elements.

4. A device of the kind described comprising a container having inner and outer elements, each having bottom, side, and top walls, and snap means engaging the top walls adapted to interlock said elements.

5. In a container, an outer collapsible element comprising one piece adapted to be folded to form bottom, side, and top walls, and securing means therefor along an edge of said bottom, an inner collapsible one-piece element adapted to be folded to form bottom, side, and top walls insertable in the outer element, and releasable means engaging said top walls adapted to lock the inner element to the outer element.

6. In a container, an outer element having a base portion, side and top walls, said top wall having a slot, and an inner element having bottom, side, and top walls insertable in said outer element, said inner element having a handle adapted to be drawn through said slot, said handle being adapted for the carrying of both elements and having a tab adapted to position the handle along an upper edge of said slot.

7. A container comprising an outer element, and an inner element, said elements having collapsible side and top walls, means for detachably securing said elements together in the uncollapsed condition, said means including cooperating handles integrally formed in adjacent walls of the respective elements.

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