

Feb. 23, 1926.

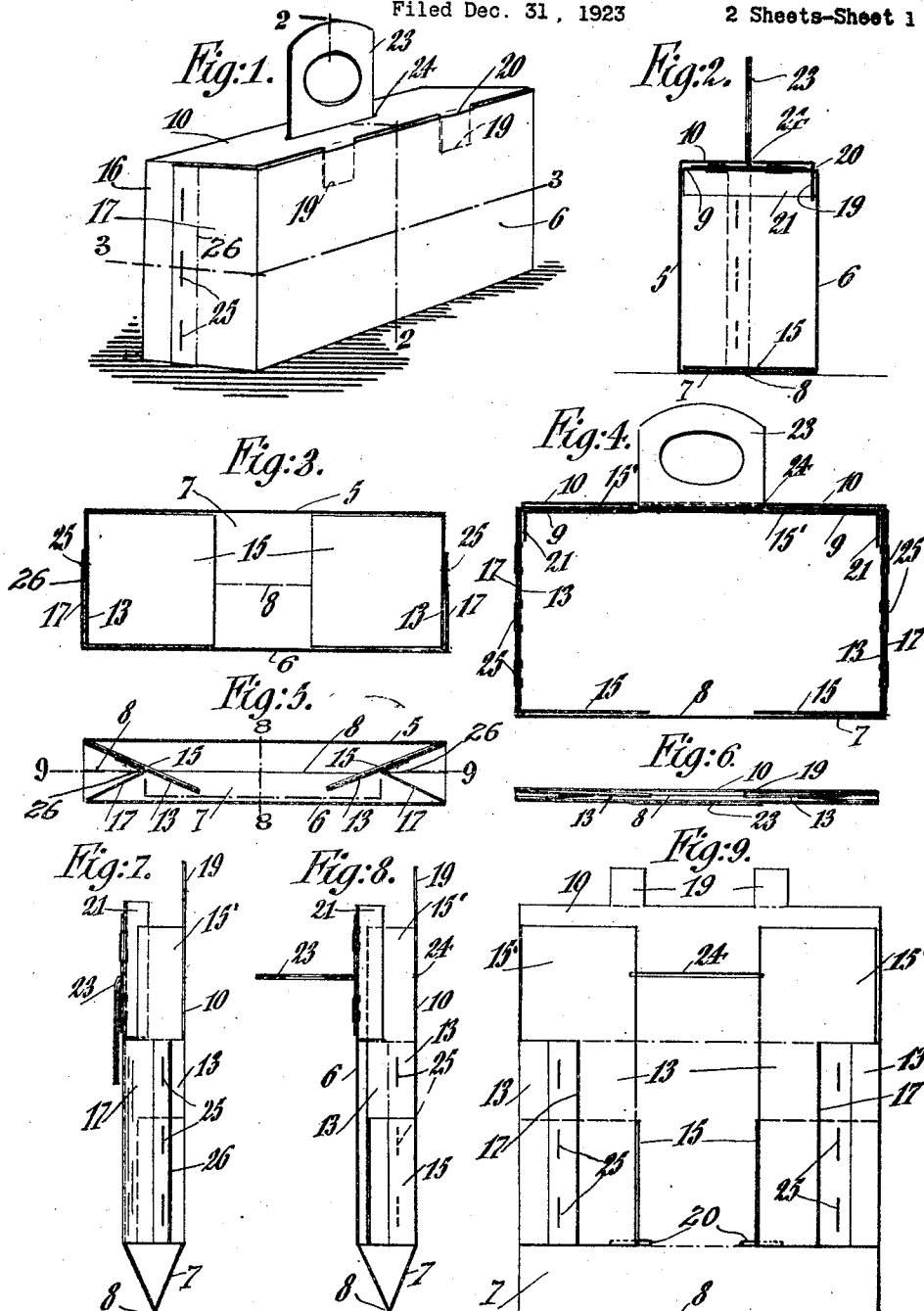
J. B. SINGER

1,574,520

COLLAPSIBLE CASE

Filed Dec. 31, 1923

2 Sheets-Sheet 1



INVENTOR

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2 Sheets-Sheet 2

Fig. 10.

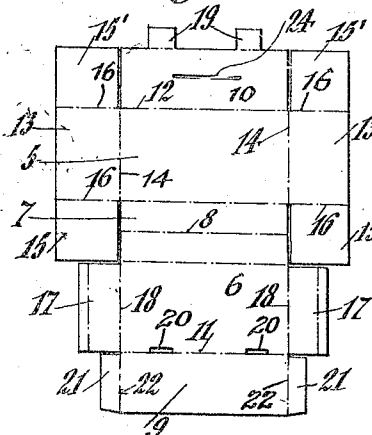


Fig. 11.

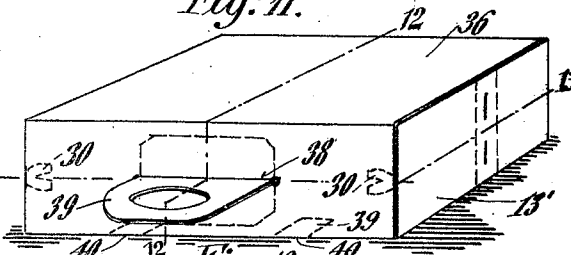


Fig. 13.

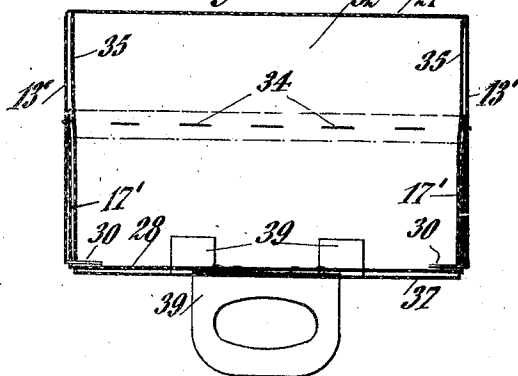


Fig. 12.

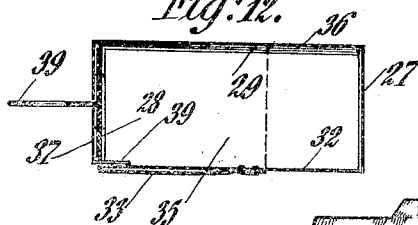


Fig. 14.

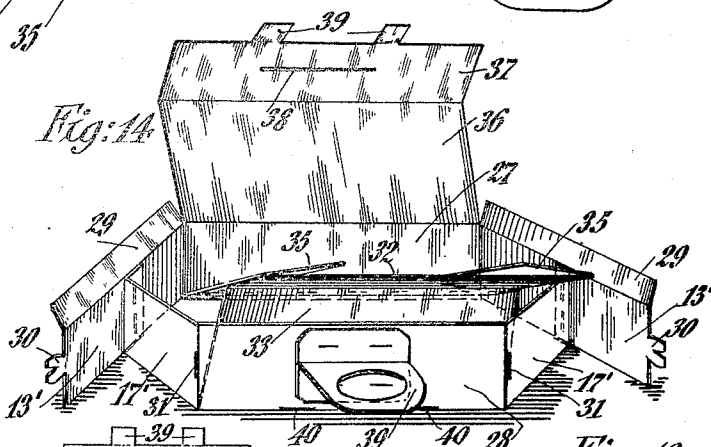


Fig. 15.

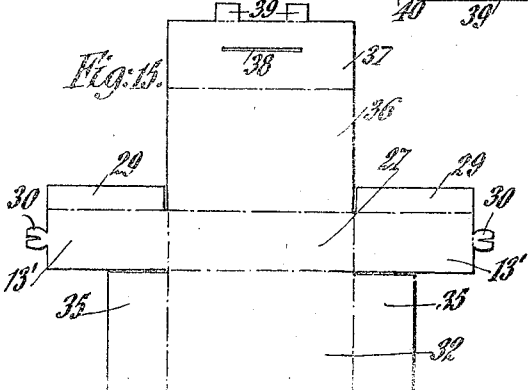
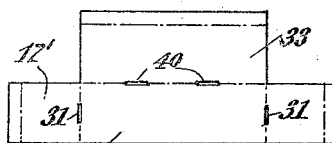


Fig. 16.



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UNITED STATES PATENT OFFICE.

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COLLAPSIBLE CASE.

Application filed December 31, 1923. Serial No. 683,568.

To all whom it may concern:

Be it known that I, JOSEPH B. SINGER, a citizen of the United States, and a resident of the city of New York, county of Bronx, and State of New York, have invented certain new and useful Improvements in Collapsible Cases, of which the following is a specification.

This invention relates to collapsible cases, and more particularly to a foldable or collapsible case of simple and inexpensive construction and which provides a very convenient and serviceable shopping bag or carrier.

It is the primary object of my present invention to provide a collapsible case of the above character which may be stamped in the form of a single blank from heavy cardboard and the parts thereof easily and quickly arranged in proper relative position and connected to provide a container preferably in the shape or form of a suit-case which will be strong and substantial and not liable to accidental collapse under the weight of its contents.

More particularly, in one embodiment of the invention, I provide a cardboard blank with portions forming the opposite sides of the container having flaps or extensions adapted to be connected to provide foldable ends, said side walls also being connected by a foldable section constituting the bottom of the container. The foldable end flaps are so connected that when the container is in its expanded condition, the opposite side walls will be firmly braced and held in separated relation.

It is another object of the invention to provide a handle or carrying member, and means whereby said carrying member may be connected to the top or cover flap of the container and securely held against disconnection therefrom.

With the above and other objects in view, the invention consists in the improved collapsible case and in the form, construction and relative arrangement of its several parts as will be hereinafter more fully described, illustrated in the accompanying drawing,

and subsequently incorporated in the sub-joined claims.

In the drawings wherein I have illustrated several satisfactory embodiments of my invention and in which similar reference characters designate corresponding parts throughout the several views:

Figure 1 is a perspective view of one form of the improved container;

Figure 2 is a transverse sectional view taken on the line 2—2 of Figure 1;

Figure 3 is a horizontal section taken on the line 3—3 of Figure 1;

Figure 4 is a longitudinal sectional view;

Figure 5 is a horizontal section showing the container partially collapsed;

Figure 6 is a similar view showing the container fully collapsed;

Figure 7 is an end elevation, the container being partially collapsed as in Figure 5;

Figure 8 is a transverse sectional view taken on the line 8—8 of Figure 5;

Figure 9 is a longitudinal section taken on the line 9—9 of Figure 5;

Figure 10 is a plan view of the blank from which the container is constructed;

Figure 11 is a perspective view illustrating a slightly modified form of the invention;

Figure 12 is a sectional view thereof taken on the line 12—12 of Figure 11;

Figure 13 is a section taken on the line 13—13 of Figure 11;

Figure 14 is a perspective view of the modified form of container partially collapsed; and

Figures 15 and 16 are plan views of the blank of the modified container on a reduced scale.

The container structure shown in Figures 1 to 9 of the drawings is produced from a single blank form as seen in Figure 10. This blank which is preferably cut from a heavy sheet of cardboard, includes side wall sections 5 and 6 respectively, said side wall sections being connected by a bottom section 7 having a medial longitudinally extending fold line 8. Along the other longitudinal edges of the side wall sections 5 and 6, the top or cover sections 9 and 10, respectively,

extend and are foldable with relation to the side walls along the fold lines 11 and 12 respectively.

At the opposite ends of the side wall section 5, the extensions 13 are provided, foldable with respect to said side wall along the lines 14, each of said extensions being provided at its opposite ends with flaps 15 and 15' foldable along the lines 16.

The other side wall 6 is also provided with the extensions 17 at its opposite ends foldable along the lines 18. It will be noted that the extensions 13 are of a width substantially equal to the width of the bottom section 7 of the blank, while the extensions 17 are appreciably narrower than the extensions 13 approximately one-half.

The cover section 10 is provided along its free longitudinal edge with the spaced bendable tabs 19 and at the juncture of the cover section 9 with the side wall section 6 along the fold line 11, spaced slots 20 are cut to receive said tabs as clearly indicated in Figure 1 of the drawings. The cover section 9 is also provided at its opposite ends with extensions or flaps 21 foldable along the lines 22.

To one side of the cover section 9 a suitable handle member 23 is attached at one of its ends by means of staples or other suitable fastening devices. This handle member is also formed from a heavy piece of cardboard and when the box or container is set up is adapted to extend through a longitudinal slot 24 formed in the other cover section 10.

The several parts of the blank are folded relatively to each other along the fold lines above referred to, the side walls 5 and 6 being first positioned substantially at right angles to the bottom 7. The extensions 13 are then folded inwardly to extend between the side walls, the end flaps 15 and 15' on said extensions being folded to extend at right angles with respect to said extensions and in an inward direction towards the center of the box. The extensions 17 on the other side wall 6 are then folded inwardly upon the outer sides of the extensions 13 and their free ends connected by means of a plurality of staples or fasteners 25. Upon forcing these connected end sections inwardly a crease or fold line 26 is formed in the outer end wall extension 17 adjacent to the line of fastening staples 25. Thus it will be understood that these end walls may be folded inwardly between the side walls 5 and 6 in the manner illustrated in Figure 5 of the drawings. When the case or box is set up in condition for use, the end wall extensions 13 and 17 are in parallel relation with each other and the flaps 15 on one end of the extensions 13 project inwardly over the bottom 7 of the box between said side walls. Thus the side walls are firmly braced and held in

spaced apart relation so that they will not collapse by the possible accidental inward folding movement of the ends of the case.

After the box or container has been filled the cover section 9 having the handle member 23 thereon is first folded inwardly over the open top of the box, the flaps 21 being inserted between the side walls 5 and 6 along the inner sides of the end walls 13, and the flaps 15' at the upper ends of the extensions 13 are then folded inwardly and downwardly upon the cover section 9. The other cover section 10 is then folded inwardly and downwardly so that the handle member 23 will extend through the slot 24 thereof and the bendable tabs 19 are finally forced downwardly through the slots 20. It will thus be apparent that as the flaps 15' overlie the cover section 9, and extend from the opposite ends of the case or box substantially to the handle member 23 as seen in Figure 4 of the drawings, the cover member 9 is firmly held so that the weight of the contents of the box will be sustained without liability of the cover section 9 being pressed with such force against the other cover section 10 as to disengage the tab 19 from the slots 20. In this manner, I provide a very commodious case or container which may be conveniently used as a carrier for parcels in shopping. The container may be made to simulate a suit-case in form, and obviously can be constructed in various sizes. Since the body of the case is made from a single cardboard blank, it will be apparent that the device can be readily produced in large quantities at very small cost.

In Figures 11 to 15 of the drawings I have shown a slightly modified form of the device wherein the end walls of the case each consist of the two parts 13' and 17' respectively, which in this instance are extensions of the bottom and top walls 27 and 28 respectively. The end wall sections 13' are each provided along one longitudinal edge with a foldable flap 29 and the free end of each of said end wall sections is provided with a bendable tab 30. These tabs are adapted to be engaged through slots 31 provided at the juncture of the end wall 17' with the top wall 28. One of the side walls of the case also consists of two sections 32 and 33 respectively, the section 32 extending the full length and width of the case and being foldably connected with the bottom wall 27. The other side wall section 33 is relatively narrow and hingedly or foldably connected with one edge of the top wall 28. The section 33 extends upon the outer side of the section 32 and is secured at its free edge to the latter section by means of the spaced fasteners 34 in a similar manner to the end wall sections of the case. The side wall section 32 is also provided at its opposite ends with the foldable flaps 35 which

are of equal width to the end wall sections and are adapted to lie in close contact therewith when the case or box is set up.

The other side wall 36 of the case is foldably connected with the other edge of the bottom wall 27, said side wall at its free edge having the foldable top section 37 provided with a longitudinally extending slot 38 to receive the handle member 39 which is securely attached to the other top wall section 28. This foldable flap or section 37 is also provided at its free edge with the spaced bendable tabs 39 for engagement through the spaced slots 40 provided at the juncture of the top wall 28 with the side wall section 33.

From the above description, it will be seen that in this modified construction, the case or container opens upon one side thereof instead of at its top. Thus the case may be very easily and quickly filled and since the handle member 39 is connected to the top wall 28 all liability of the case accidentally opening under the weight of the contents thereof is precluded. Also, it will be noted that the flaps 29 on the end wall sections 13' are foldable inwardly over the free edges of the flaps 35 on the side wall section. Thus the foldable parts of the structure mutually reinforce each other, thereby increasing rigidity and obviating the liability of buckling of the individual parts. In both constructions above described, it will be readily seen that when the case is empty and is not to be further used, it may be very quickly collapsed. In the first described construction, the foldable end walls are forced inwardly between the side walls, the parts lying in the relative positions shown in Figure 9 and from reference to Figure 6 it will be observed that these several parts are very closely and compactly arranged. In the construction shown in Figures 11 and 15 the hingedly connected side wall sections are forced inwardly between the top and bottom walls while the hingedly connected end wall sections move outwardly with relation thereto. While in this construction, in the collapsed condition of the container it will be of somewhat greater length, it will nevertheless also be seen that in this case likewise, the several elements of the structure may be very closely or compactly arranged. Thus in either construction a great number of the collapsed boxes or containers can be piled or stored in a relatively small space. It will therefore be apparent that shipment of the boxes or containers in large quantities is greatly facilitated.

The essential feature of my present improvements which provides a structure of maximum rigidity when in use and yet permits of its easy and quick collapse resides in the wall structure composed of two pieces or sections one of which extends substan-

tially the full length and width of the wall while the other is of approximately one-half the width of the wall and has a hinged foldable connection with the wider part whereby said parts mutually serve to brace each other when the structure is set up and will also easily fold upon one another when the structure is collapsed.

From the foregoing description considered in connection with the accompanying drawings the construction, manner of use and several advantages of the illustrated embodiments of the invention will be clearly understood. While I have referred to the case or container as being constructed of heavy cardboard, it will of course be apparent that if desired, other materials might be used where greater permanency is desired, or greater strength required in view of the use to which the case is to be put. Also, while I have herein shown and described several practical and desirable embodiments of the invention, it is nevertheless to be understood that the structural features might also be exemplified in various other alternative constructions and I, therefore, reserve the privilege of resorting to all such legitimate changes in the form, construction and relative arrangement of the several parts as may be fairly embodied within the spirit and scope of the invention as claimed.

I claim:

1. A collapsible case having a one-piece body consisting of a blank cut to provide side wall sections, end wall sections extending from each of the side wall sections and of relatively different widths, said end wall sections at the respective ends of the side wall sections being hingedly connected with each other and foldable inwardly between said side wall sections to collapse the container, a bottom wall section connecting the side wall sections with each other, the wider end wall sections having foldable flaps at their opposite ends of substantially the same width as the bottom wall section adapted to extend inwardly between the spaced side wall sections to prevent the inward folding of the hingedly connected end wall sections, and a foldable top wall section connected with each of the side wall sections.

2. A collapsible case having a one-piece body consisting of a blank cut to provide side wall sections, end wall sections extending from each of the side wall sections and of relatively different widths, said end wall sections at the respective ends of the side wall section being hingedly connected with each other and foldable inwardly between said side wall sections to collapse the container, a bottom wall section connecting the side wall sections with each other, the wider end wall sections having foldable flaps at their opposite ends of substantially the same width as the bottom wall section adapted

to extend inwardly between the spaced side wall sections to prevent the inward folding of the hingedly connected end wall sections, a cover section foldable in relation to one 5 of said side wall sections, a handle member fixed thereto, the said flaps at one end of each of said end wall sections adapted to overlie said cover section, and a second cover section foldable with relation to the other side wall section and adapted to overlie said flaps, said latter cover section having a slot therein to receive said handle member. 10

In testimony that I claim the foregoing as my invention, I have signed my name hereto.

JOSEPH B. SINGER.