April 17, 1945. W. O. FISLER 2,374,005

INTERLOCKING CONTAINER

Filed May 31, 1943 2 Sheets-Sheet 1

FIG. 1.

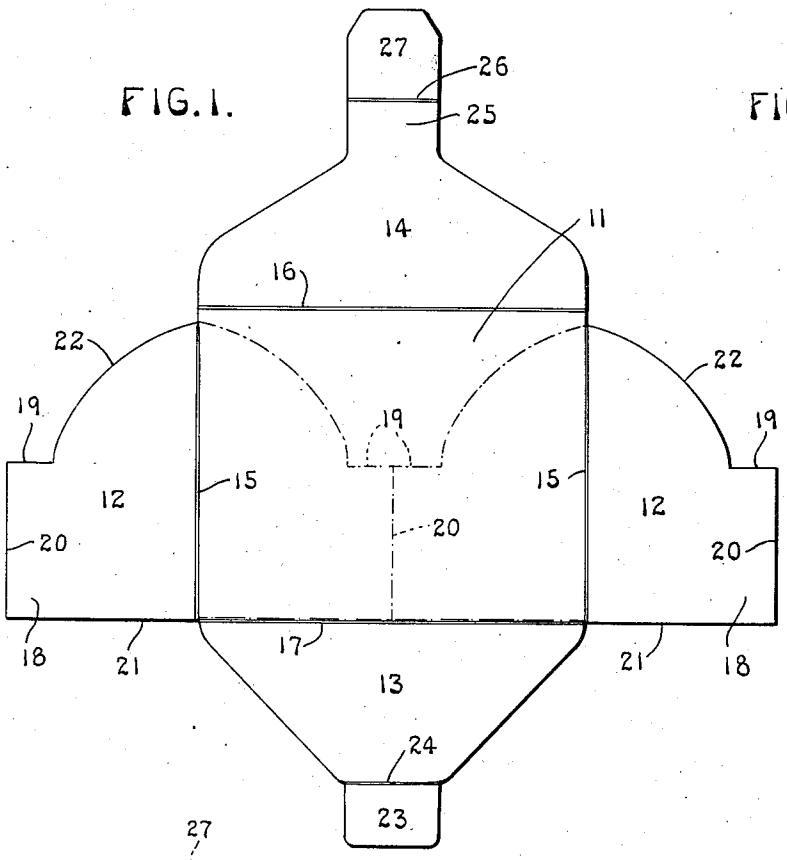


FIG. 2.

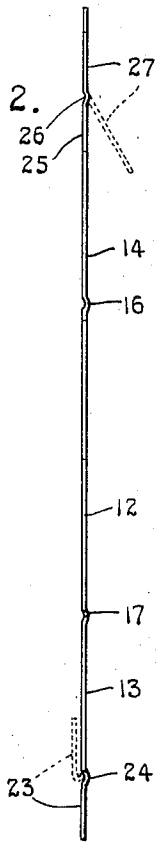


FIG. 3.

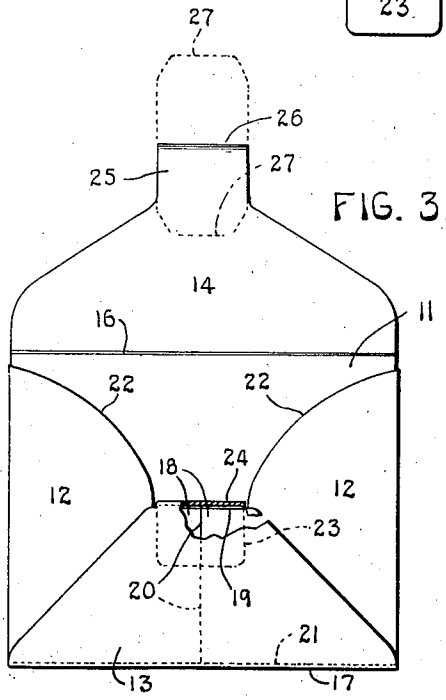
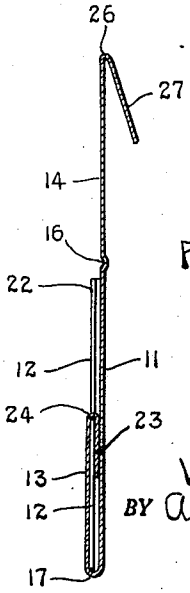


FIG. 4.



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FIG. 5.

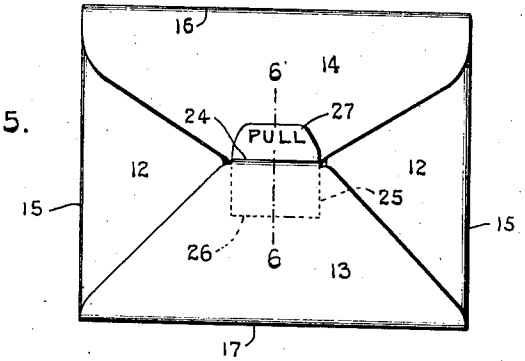


FIG. 6.

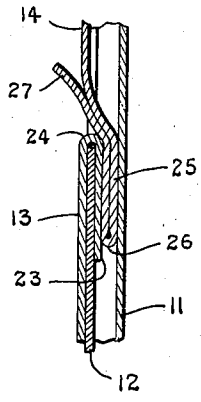


FIG. 7.

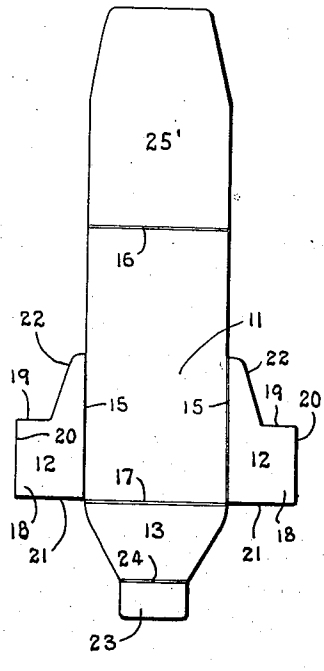


FIG. 8.

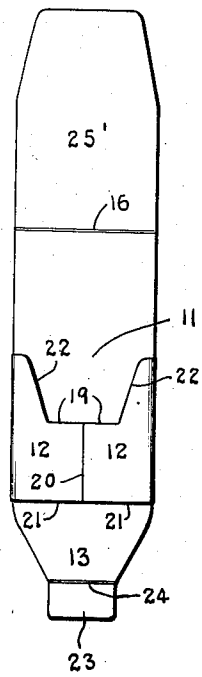


FIG. 9.

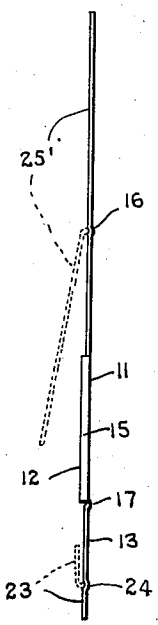
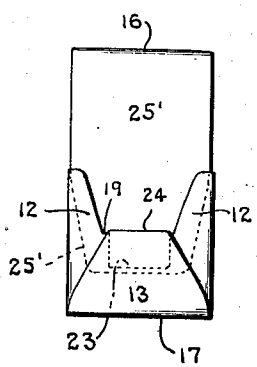


FIG. 10.



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UNITED STATES PATENT OFFICE

2,374,005

INTERLOCKING CONTAINER

William O. Fisler, St. Louis, Mo.

Application May 31, 1943, Serial No. 489,230

1 Claim. (Cl. 229—84)

This invention relates to interlocking containers, and more particularly to to container made of foldable sheet material having a cooperative arrangement of interlocking members which eliminates the necessity of using adhesive material, or mechanical fasteners, in uniting the several elements of the container.

An object of the invention is to produce an extremely simple and inexpensive container of this kind having a neat and attractive appearance, as well as strong and durable interlocking connections not likely to be disturbed under the usual service conditions.

More specifically stated, the container has a hinged closure, and further objects are to provide a very simple means for detachably securing the closure in its closed position, as well as conditions which enable the user to very readily open and close the container.

At first glance, the new article may resemble an ordinary envelope. However, it is preferably made of relatively heavy sheet material, and further study of the specific details will show that its merits depend upon cooperative conditions not found in the usual envelope construction. For example, when made of relatively heavy paper, the interlocking details result in a strong container for prolonged use in handling a family group of war ration books, while allowing the closure to be very readily secured and released in closing and opening the container.

An immediate object of the invention is to meet the present demand for substantial advantages in a container for war ration books, including the advantage of very low manufacturing cost, combined with strength and durability, in addition to convenience in securing and releasing the books. I will show how all of these results can be very effectively obtained by merely employing a single sheet of paper which may be distributed as a printed advertising medium, either in the form of a flat sheet or in a folded condition.

However, the invention is not limited to such use. Numerous other articles may be secured in the container, and it can be sold as a flat sheet or in the folded condition.

With the foregoing and other objects in view, the invention comprises the novel construction, combination and arrangement of cooperative details hereinafter described and shown in the accompanying drawings to illustrate suitable embodiments of the invention. However, it is to be understood that the patent extends to variations and modifications within the scope of terms employed in the claim hereunto appended.

Fig. 1 is a detail view of a flat blank sheet foldable to produce a container embodying features of this invention, the folded positions of side flaps being shown by dot and dash lines.

Fig. 2 is an edge view of the sheet shown in Fig. 1.

Fig. 3 is a rear view of the container with the top flap in its open position, portions of the lower flap being broken away.

Fig. 4 is a vertical section taken through the vertical center line of Fig. 3.

Fig. 5 is a rear view showing the closure flap in its closed position.

Fig. 6 is an enlarged section on the line 6—6 in Fig. 5.

Fig. 7 is a view similar to Fig. 1 illustrating another form of the invention.

Fig. 8 shows the side flaps of Fig. 7 in their folded positions.

Fig. 9 is an edge view of the structure shown in Fig. 8.

Fig. 10 is a rear view of this form of container in its closed condition.

Fig. 1 illustrates a single sheet of paper, or other foldable material, comprising a rectangular front wall member 11, and rear wall members including side flaps 12 extending from opposite sides of said front wall member, a bottom flap 13 extending from the bottom of said front wall member, and a top closure flap 14 extending from the top of the front wall member. The sheet material may be scored at 15 to provide hinges for the side flaps 12, and also at 16 and 17 to form hinges for the top and bottom flaps.

The lower portion of each side flap 12 is preferably provided with an extended side marginal portion 18 having a shoulder 19 at the top and a side edge 20 extending downwardly from said shoulder. The side flaps 12 are foldable on the score lines 15 to locate their projecting shoulders 19 adjacent to each other near the vertical center of the front wall member 11, as suggested by dot and dash lines in Fig. 1. In this specific form of the invention, the shoulders 19 are horizontal while the side edges 20 are vertical, and each side flap 12 has a horizontal bottom edge 21 approximately flush with the bottom of the front wall member 11, so as to lie at the bottom of the container. When these side flaps 12 are folded onto the front wall member 11, the vertical edges 20 are in abutting relationship at the vertical center line, while the companion shoulders 19 are alined with each other at opposite sides of said center line, and the horizontal bottom edges 21 are located at the fold line 17 where they will eventually

form continuous abutments to prevent downward displacement of the side flaps.

The folded side flaps 12, shown by broken lines in Fig. 1 and full lines in Fig. 3, have upper edges 22 diverging from their shoulders 19 to form an open recess immediately above said shoulders.

Attention is now directed to a locking tongue 23 extending from a score line 24 on the bottom flap 13. This tongue 23 is foldable toward the body portion of the flap 13 to form a hook, as suggested by dotted lines in Fig. 2. After the side flaps 12 have been folded to locate their extended margins 18 adjacent to each other, the bottom flap 13 is folded onto said margins 18, the locking tongue 23 being inserted through the open recess above the shoulders 19 and forced downwardly between the front wall 11 and the side flaps 12. As shown in Figures 3 and 4, the flap 13 then lies outside of the flaps 12, while the locking tongue 23 is located inside of said flaps 12.

More specifically stated, the fold, or hinge, 24 of said tongue 23 lies adjacent to but above the projecting shoulders 19 at the meeting margins of the side flaps 12, and these meeting margins are confined between the tongue 23 and the body portion of the flap 13. The upper portion of the flap 13 is thus securely interlocked with meeting margins of the side flaps. The fold 24 provides an abutment to prevent or limit upward displacement of the shoulders 19 on the side flaps 12, while the elongated bottom edges 21 of the side flaps cooperate with the fold at 17 to prevent or limit downward displacement of these side flaps. Attention is directed to the strength or reinforcing value of these cooperative conditions, wherein the simple tongue 23 may be employed as the sole means for uniting the side and bottom flaps. Furthermore, if the edges 20 are in abutting relationship at the vertical center, while the bottom edges 21 of the side flaps are in abutting relationship with the bottom fold 17, the rear wall of the container will have a reasonably smooth inner face formed by the side flaps 12.

The top flap 14 is hinged at 16 and it has an extended attaching tongue 25 foldable at a score line 26 to produce a free tab 27 extending from the fold. This fold at 26 is movable into and out of the lower portion of the recess above the shoulders 19 (Figures 1 and 3), and slidable between the tongue 23 and the front wall member 11, as shown in Fig. 6, to detachably secure the top closure flap in its closed position. The free tab 27 provides a handle for moving this closure flap to and from its closed position. Figures 5 and 6 show conditions which exist when the folded tongue 25 is positioned to frictionally secure the flap 14. The free tab 27 is then exposed, and it can be very readily grasped to release and open the closure.

In Figures 1 to 6, inclusive, the top closure flap 14 is wider than the large recess above the shoulders 19 of the side flaps, but the extended attaching tongue 25 is narrower than the lower portion of said recess, so as to provide for free insertion of the tongue through the bottom of the recess, and thence to the attaching position shown in Figures 5 and 6.

Figures 7 to 10 illustrate a special form of the invention suitable for gasoline ration books. This refers to a relatively narrow, or elongated container, having many details corresponding to the previous description, so the same reference numerals will be found at these corresponding details. Fig. 7 illustrates the flat blank sheet, and its lower portion has details conforming substantially to the middle and lower portion of Fig. 1. Fig. 8 shows the side flaps 12 folded onto the front wall member. Fig. 9 shows how the bottom tongue 23 may be folded on the score line 24 to form a hook. Fig. 10 illustrates a condition appearing when the bottom flap 13 is folded on the line 17 and interlocked with the side flaps, the locking tongue 23 being located inside of the container as shown by dotted lines in Fig. 10.

However, in Fig. 1, the score line 16 forming the top of the front wall member 11, is only slightly above the upper extremities of the side flaps 12, while in Figures 7 to 10 this score line 16 is widely separated from the side flaps, and the tongue 25' extending above said score line 16 is wider than the recess above the shoulders 19 of the side flaps 12. This relatively wide tongue 25' can be folded on the score line 16, as suggested by dotted lines in Fig. 9, and its lower portion can then be inserted into the container, as indicated by dotted lines in Fig. 10. The locking tongue 25' will then be frictionally secured between the tongue 23 and the front wall of the container.

I claim:

A container made of foldable sheet material comprising a front wall member, rear wall members including side flaps extending from opposite sides of said front wall member, a bottom flap extending from the bottom of said front wall member, and a top closure flap extending from the top of said front wall member, the lower portion of each side flap being provided with an extended side marginal portion having an approximately horizontal projecting shoulder at the top and an approximately vertical terminal side edge extending downwardly from said shoulder to the bottom extremity of the side flap, said side flaps being foldable to locate the approximately vertical side edges in abutting relationship to each other near the vertical center of said front wall member, the projecting shoulders being approximately alined with each other at opposite sides of said vertical center, the bottom edges of said side flaps being approximately horizontal and approximately flush with the bottom of said front wall member so as to lie within the bottom edge of the container, the folded side flaps having upper edges diverging from said approximately horizontal projecting shoulders to form an open recess immediately above said shoulders, a locking tongue extending from said bottom flap and foldable toward the body portion of said bottom flap to form a hook, said bottom flap being foldable onto the extended side marginal portions of said side flaps to locate the fold of said extended tongue adjacent to but above said projecting shoulders, and the extended side marginal portions of said side flaps being confined between said tongue and the body of said bottom flap, so as to interlock the upper portions of the folded bottom flap with said extended marginal portions of the side flaps.

WILLIAM O. FISLER.