

March 17, 1953

W. HIERSTEINER

2,631,772

CONTAINER

Filed April 6, 1949

3 Sheets-Sheet 1

Fig. 1.

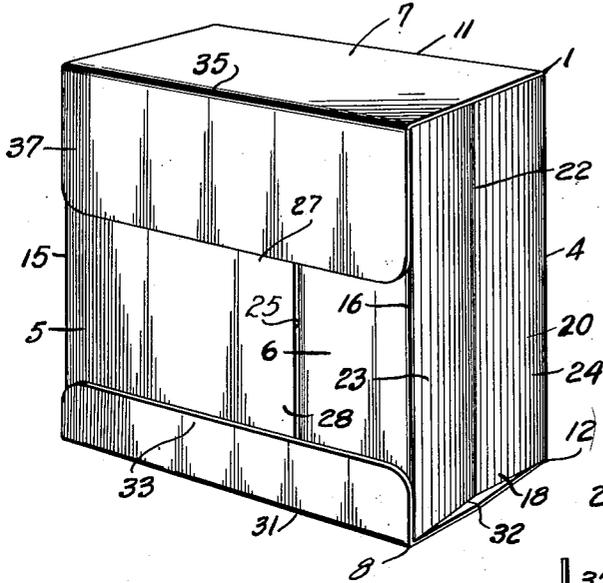


Fig. 4.

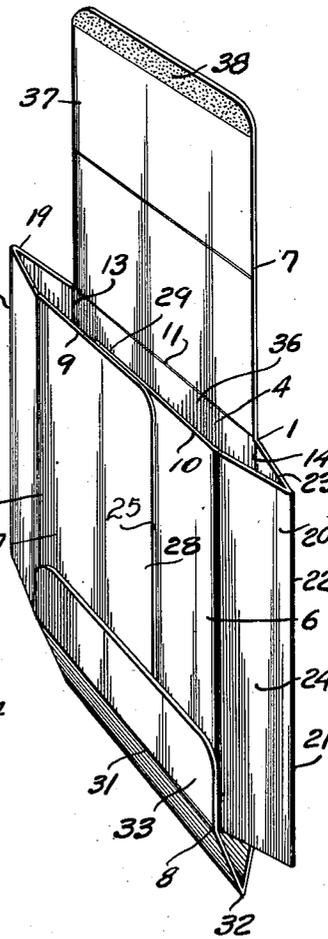


Fig. 2.

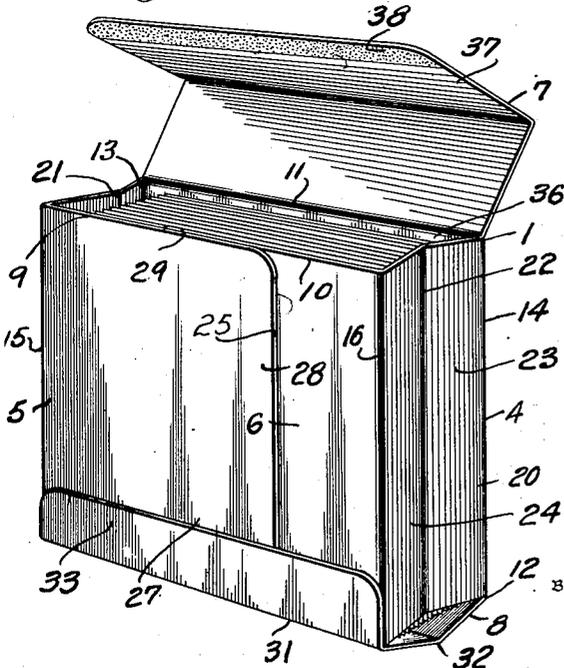
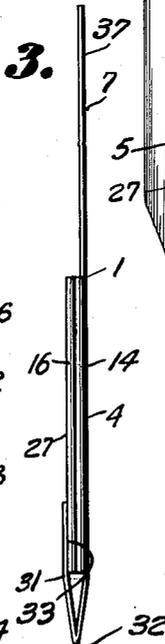


Fig. 3.



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Fig. 5.

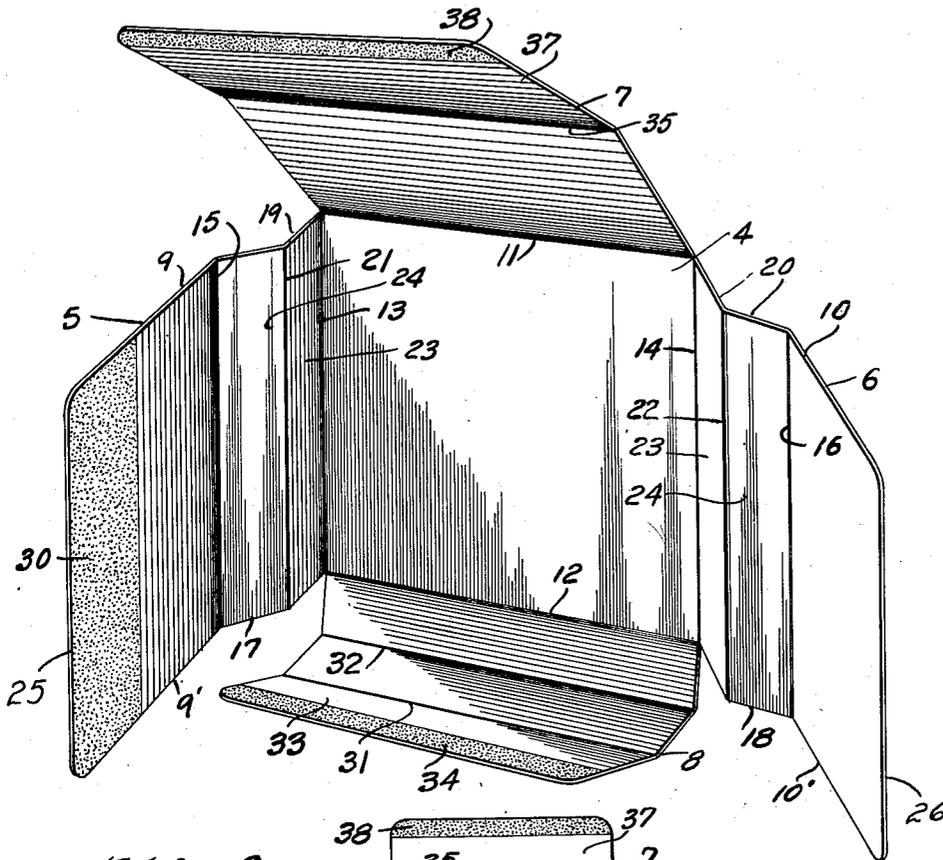


Fig. 6.

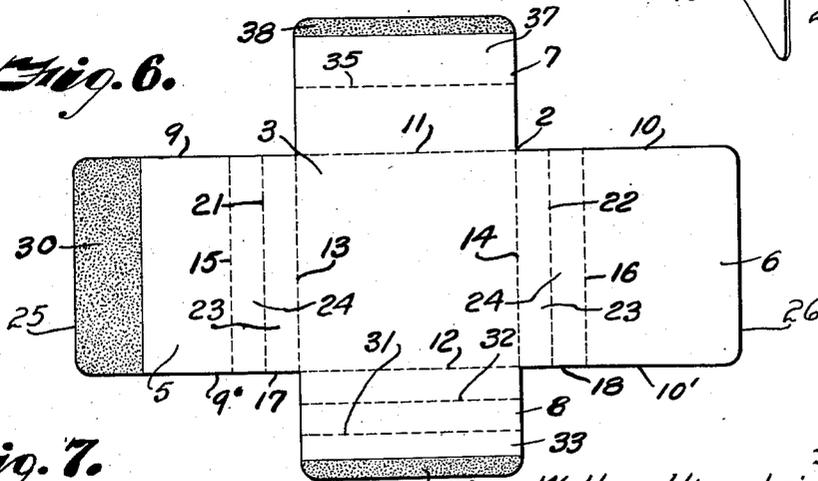


Fig. 7.



Fig. 8.



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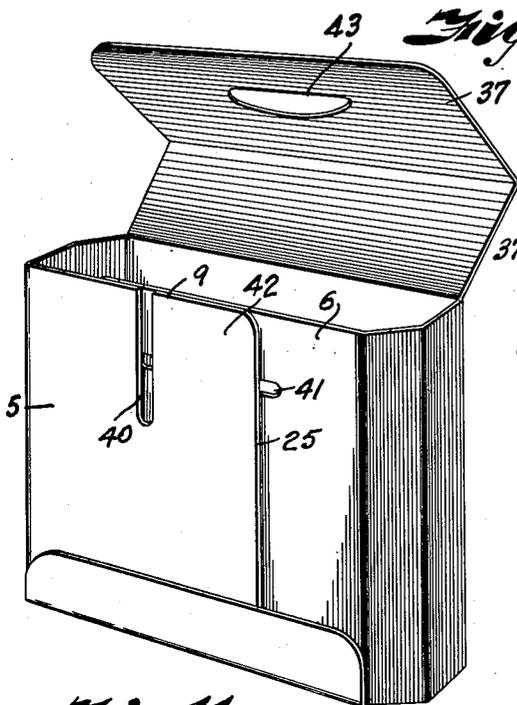


Fig. 9.

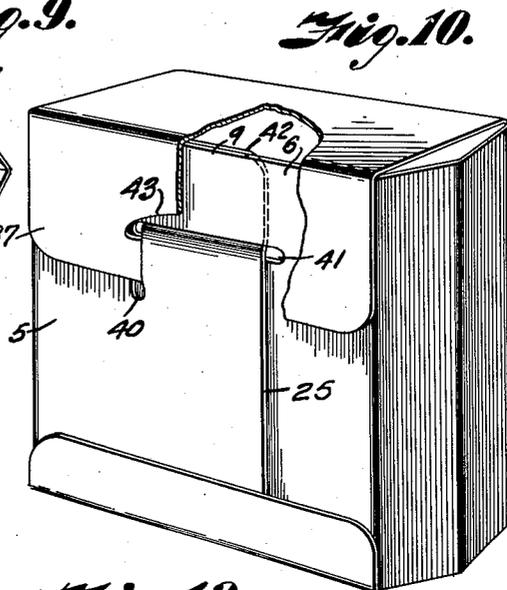


Fig. 10.

Fig. 11.

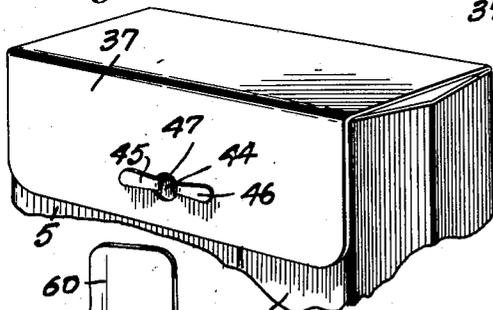


Fig. 12.

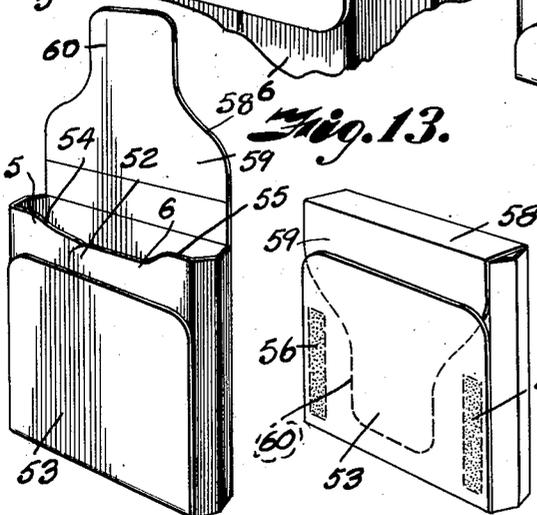
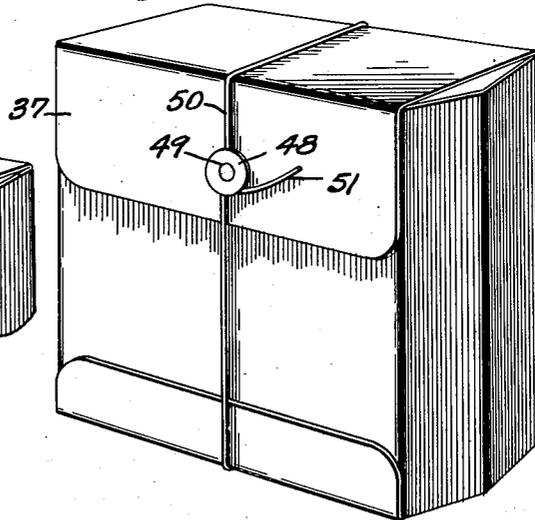


Fig. 13.

Fig. 14.

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UNITED STATES PATENT OFFICE

2,631,772

CONTAINER

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Application April 6, 1949, Serial No. 85,761

1 Claim. (Cl. 229—68)

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This invention relates to a container for packaging various articles of merchandise that are ordinarily packaged in cartons, the principal object being to provide a container having the characteristics of an envelope in that it is completely formed in flat condition with side and bottom flaps sealed together and an open closure flap ready for insertion of goods without first having to be erected in the form of a box but which fills out and forms a box-like enclosure fitting the contents when placed therein.

Other objects of the invention are to provide a container of this character that is adapted to be manufactured on envelope making machinery; to provide a container that remains flat and is supplied to the user in the manner of envelopes; to provide a container that expands with the thickness of the contents to be placed therein and which contracts to embrace and retain the inserted articles in closely associated orderly arrangement; and to provide a container substitute for cartons that is inexpensive, readily stored prior to use and which is more satisfactory for packaging various articles, for example, articles in packs such as greeting cards and their envelopes.

In accomplishing these and other objects of the invention, I have provided improved structure, the preferred form of which is illustrated in the accompanying drawing wherein:

Fig. 1 is a perspective view of a container constructed in accordance with the present invention, the container being filled out to shape and the closure flap in closed position.

Fig. 2 is a perspective view of the container with the enclosure having been inserted therein and with the closure flap being moved to closed position.

Fig. 3 is an end view of the container in flat condition as it appears after manufacture is completed.

Fig. 4 is a perspective view of a modified form of container partly open.

Fig. 5 is a partly folded view of the blank from which the container is constructed to illustrate the direction of folds when making a container of the type shown in Fig. 1.

Fig. 6 is a plan view of the blank from which the containers are constructed.

Figs. 7 and 8 are enlarged sections through a portion of the blank illustrating arrangement and direction of fold relative to the scores.

Fig. 9 is a perspective view of a container embodying features of the invention and equipped with a locking tab, the closure flap being in open position.

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Fig. 10 is a similar view with the closure flap closed and secured by the lock flap.

Fig. 11 is a perspective view of a container constructed according to the present invention and wherein the closure flap is secured by a metal fastener.

Fig. 12 is a view of a container embodying the invention and showing the closure flap secured by a button and string.

Fig. 13 is a perspective view of another form of the invention with a tuck style of closure flap, the flap being shown in open position.

Fig. 14 is a similar view, showing the closure flap covering the insert opening with the tuck tab inserted under the bottom flap.

Referring more in detail to the drawings:

1 designates a container constructed in accordance with the present invention and which is formed from a blank 2 as illustrated in Fig. 6, and died from paper or similar stock. The blank 2 includes a rectangular body portion 3 adapted to form one side of the container, preferably the back 4 and projecting from opposite marginal edges are side flaps 5—6, a closure flap 7, and a bottom flap 8. The side flaps 5 and 6 have upper and lower edges 9—10 and 9'—10' in registry with scores 11 and 12 defining the upper and lower edges of the body portion 3. The connecting point of the flaps 5 and 6 with the body 3 are provided with transverse scores 13 and 14 defining the sides of the body portion 3 and which form hinges on which the flaps are adapted to bend with respect thereto. Spaced from the scores 13 and 14 are substantially parallel scores 15 and 16 that define side portions 17 and 18 therebetween adapted to form the sides 19 and 20 of the container. The side portions 17 and 18 are provided with intermediate parallel scores 21 and 22 whereby the portion 23 on one side of the intermediate score is adapted to be folded over the portion 24 on the opposite side of the score when the blank is folded and in collapsed condition. The portions of the flaps 5 and 6 between the outer edges 25 and 26 and the scores 15 and 16 are adapted to constitute the other side member 27 of the container corresponding to the member 4. The flaps are, therefore, of sufficient length to provide overlapping ends 28 and 29 as shown in Fig. 2 which are sealed together by an adhesive as indicated at 30 in Fig. 6. The bottom flap 8 also has a transverse score 31 spaced from the score 12 a distance slightly less than the distance between the corresponding scores of the side flaps. The bottom flap is also provided with an intermediate score 32 located midway be-

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tween the scores 12 and 31. The bottom flap is also of sufficient length to provide a seal flap 33 adapted to overlap and seal against the outer faces of the overlapping portions 23 and 29 of the front member 27 of the container and which is sealed thereto by adhesive indicated at 34 as shown in Figs. 6 and 7.

The closure flap 7 has a transverse score 35 that is spaced from the score 11 a distance substantially corresponding to the depth of the sides so as to cover the insert opening 36 formed between the front and back members. The closure flap also has an extension 37 that is adapted to overlap the front side of the container and which may be suitably attached thereto, for example, as by an adhesive indicated at 33 or other suitable fastening means.

The blank thus described is adapted to be folded and gummed in an ordinary envelope making machine so that the blanks may be inexpensively manufactured and in large quantity to supply the packagers of various items of merchandise. When the blank is folded, the side flaps may be folded inwardly on the scores 13 and 14 so that the portions 23 overlie the inner face of the body portion of the blank. The flaps may then be bent outwardly on the scores 21 so that the portions 24 of the webs overlie the portions 23. The flaps are then bent on the scores 15 and 16 to provide corners of the container and to seal the overlapping ends 28 and 29 thereof together by means of the applied adhesive 30. The bottom flap 3 is then bent on the intermediate score 32 to bring the sealing gum thereon into sealing contact with the overlapping flaps to complete formation of the container with the portions forming the bottom projecting outwardly. When thus completed, the container is in completely flat condition and may be packaged in the same manner as envelopes are usually supplied to a user. If desired, the side flaps may be folded on the intermediate scores 21 and 22 as shown in Fig. 4 so that the folded web portions extend outwardly from the body portion when the container is in collapsed position.

In order that the folds may retain the container in completely collapsed and flat condition, the concave sides 39 of the scores can be formed in the faces of the blank opposite to the direction on which the blank is folded as shown in Figs. 7 and 8.

In using the container, the contents, for example, a pack of greeting cards, is readily inserted through the insert opening 33, the container expanding sufficiently to permit entrance thereof. The articles such as the greeting cards then spring apart sufficiently to extend the container as shown in Fig. 1 or the folds of the container give sufficient resistance to draw the front and back members of the container into contact with the goods as shown in Fig. 2. After insertion, the closure flap is folded over the insert opening and the gum thereon may be sealed to the fold of the container.

The form of invention illustrated in Fig. 4 is used in a similar manner, however, upon insertion of the goods, the intermediate scores move inwardly toward the sides in the same manner as the bottom in the first described form of the invention. This form is perhaps more convenient to fill, particularly since the sides do not occupy space within the limits of the insert opening.

The forms of the invention shown in Figs. 9 and 10 are identical with the illustration in Fig.

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4 with the exception that the overlapping flap portions 5 and 6 which form the front side of the container are respectively provided with a slot-like notch 40 that extends downwardly from the upper edge 9 at a point spaced from the edge 25 of the flap portion 5 and a transverse slot 41 spaced downwardly from the upper edge 10 of the flap 6. A tongue 42 is thus provided in the flap portion 5 which is left unsealed with respect to the flap portion 6. The tongue normally overlaps the slot 41 but is adapted to be projected therethrough as later described. The portion 37 of the closure flap has a slot-like opening 43 which registers with the slot 41 when the closure flap is in closed position. After the container is filled and the closure flap folded over the insert opening, the flap portion 37 is passed between the tongue 42 and the underlying portion of the flap 6 with the flap portion 37 passing out through the notch-like slot 40 in overlying relation with the upper portion of the flap 5. In this position of the closure flap the opening 43 registers with the slot-like opening 41 and to complete locking of the closure flap, the upper edge of the tongue 42 is passed through the registering openings 41 and 43 so that it extends upwardly on the inner side of the flap portions 5 and 6 as shown in Fig. 10. In this position the closure flap is securely retained in closed position.

The form of invention shown in Fig. 11 is the same as the form shown in Fig. 4 with the exception that the overlying flaps 5 and 6 are provided with a metal fastener 44 having tongues 45 and 46 that are adapted to extend through a slot-like opening 47 in the closure flap portion 37, after which the tongues are bent laterally over the flap portion as illustrated in the drawing.

The form of the invention shown in Fig. 12 is of similar construction to the form shown in Figs. 4 and 11 with the exception that the closure flap portion 37 is provided with a button 48 secured by a fastening device 49 which also anchors one end of a string 50 that is extended completely around the container so that its free end 51 may be wrapped around the button to retain the closure flap in closed position.

In the form of the invention shown in Figs. 13 and 14 the width of the overlap portions 5 and 6 are substantially the same so as to form a central seam 52 and the bottom sealing flap 53 extends upwardly to close proximity to the upper edges 54 and 55 of the flap portions 5 and 6. In this form the bottom flap is secured to the overlapping flaps 5 and 6 by adhesive stripes 56 and 57 as shown in phantom in Fig. 13. This arrangement of the sealing flaps leaves the upper end of the bottom flap free and unattached to form a pocket between the adhesive stripes 56 and 57. The closure 58 has a flap portion 59 that is shaped to provide a central tongue 60 so that as the closure is folded over the insert opening, the tongue 60 is adapted to be extended between the overlapping portions 5 and 6 and into the pocket that is formed between the seals 56 and 57.

While I have illustrated a number of methods for securing the sealing flap, it is obvious that other securing means may be provided within the scope of the invention.

From the foregoing it is obvious that I have provided a container having the characteristics of an envelope in that it is completely formed in flat condition with side and bottom flaps

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sealed together with the closure flap open ready for insertion without first having to be erected in the form of a box. It is also obvious that the container is constructed so that the contents is closely contained in orderly arrangement and that the container is adapted to expand to accommodate packs of various depths within the size limits of a given container.

What I claim and desire to secure by Letters Patent is:

A preformed folded envelope of the type adapted to be folded and gummed in a conventional envelope making machine and adapted to assume a flat condition when not in use and to form a box-like enclosure for receiving the contents to be placed therein, said envelope comprising a rectangular face portion, substantially rectangular side portions integrally extending from opposite side edges of said face portion with scores at the side edges of the front portion providing hinge joints for said side portions, said side portions having rear edges parallel to the side edges of the front portion and each side portion having a single score line spaced from and parallel to the rear edge to provide a fold line dividing each side portion into sections adapted to lie flat, one section against the other, extensions of substantially rectangular form integrally extending from said rear edges with scores at said rear edges providing hinge joints thereat for said extensions with the latter substantially overlying one another and adhesively secured together at the overlapping portions to constitute a rear portion of an area substantially coextensive with the area of said front portion, a bottom extension integral with the front portion at the bottom edge thereof with a score at said bottom edge providing a hinge joint thereat, said bottom extension having a first score parallel to and spaced from said last mentioned hinge joint by an amount substantially corresponding to the spacing between said front and rear scores, the bottom extension having the portion thereof

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outwardly of said first score coextensive in width with the rear portion and overlying and adhesively secured to the lower area of the rear portion, said bottom extension having a second score intermediately of said first score and the score at the hinge joint for the bottom extension to provide a fold line dividing the bottom extension into sections adapted to lie flat, and a top extension integral with the front portion at the top edge thereof with a score at said top edge providing a hinge joint thereat, said top extension being coextensive in width with said front portion and having a single score parallel to and spaced from the hinge joint at the top edge by an amount substantially corresponding to the spacing between said first score and the hinge joint of said bottom extension with the bottom edge of the front portion, the portion of the top extension outwardly of said single score adapted to overlie a substantial top area of the rear portion and to be secured thereto so as to leave only a narrow margin between the top and bottom extensions, the portion of the top extension between the hinge joint at the top of the front portion and said single score being unscored so as to maintain the envelope in box-like form when the former portion is secured.

WALTER HIERSTEINER.

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