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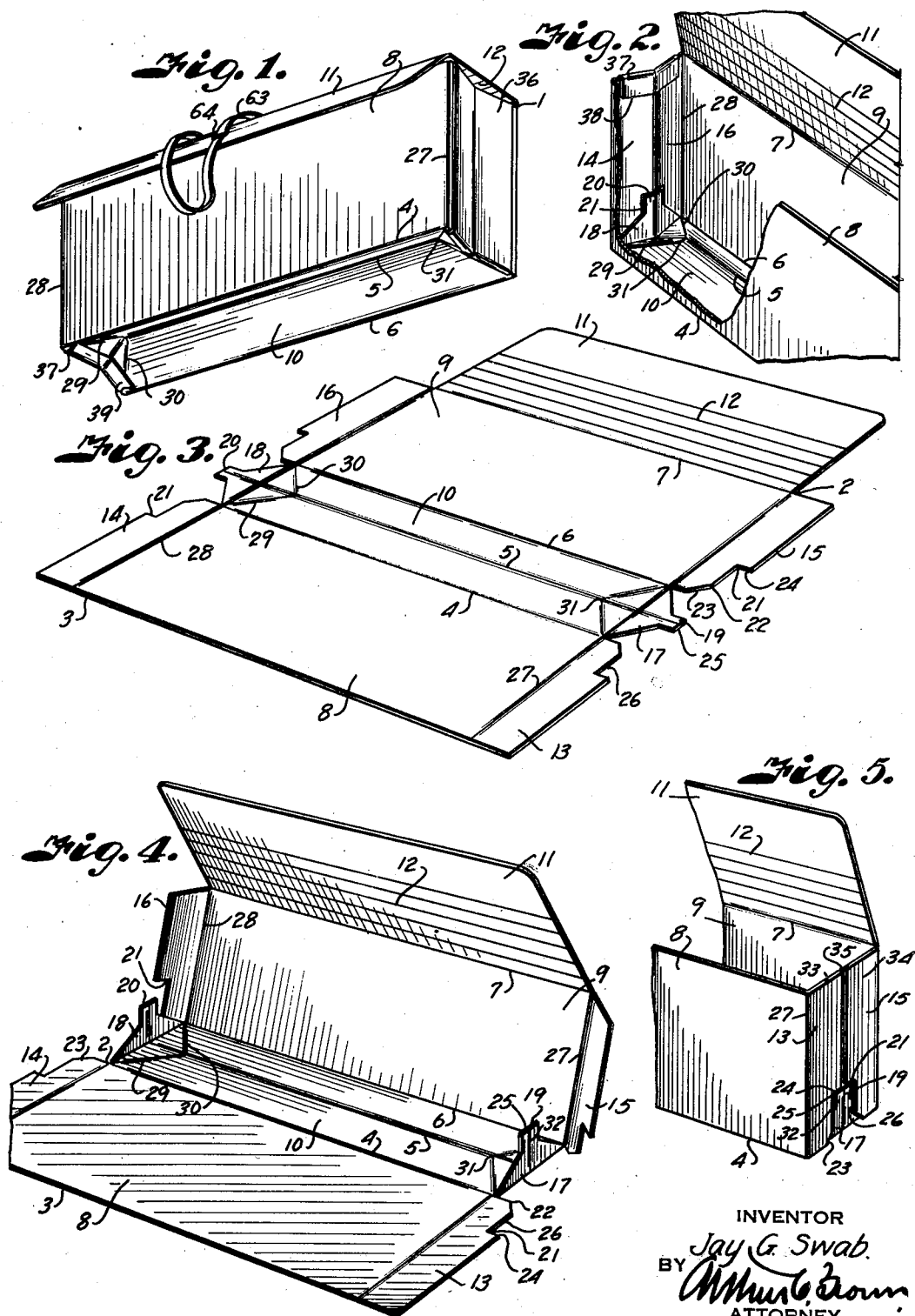
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EXPANSION ENVELOPE

Filed Sept. 14, 1938

2 Sheets-Sheet 1



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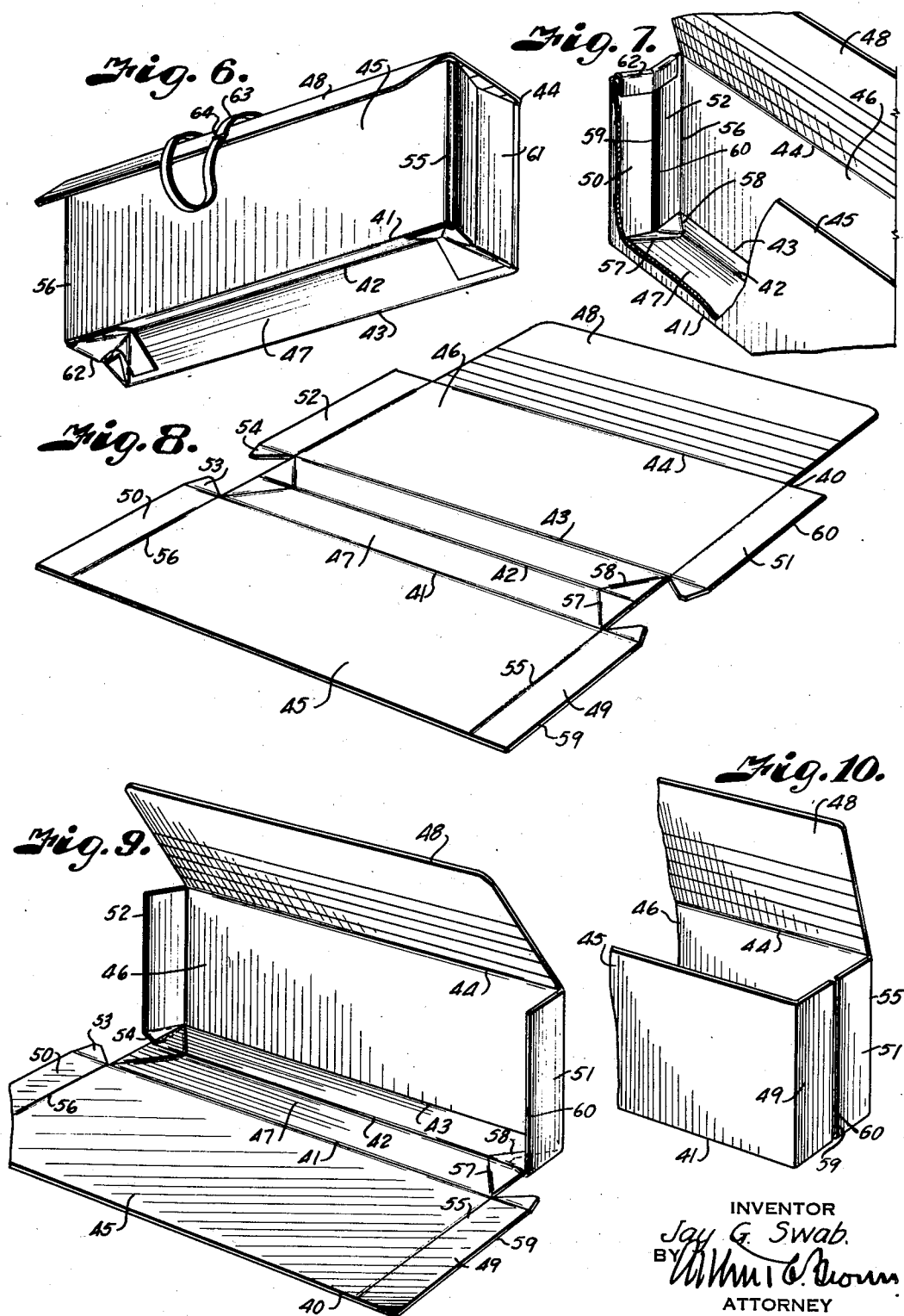
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2 Sheets-Sheet 2



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EXPANSION ENVELOPE

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Application September 14, 1938, Serial No. 229,886

13 Claims. (Cl. 229—68)

This invention relates to envelopes, particularly to those of the expansion type, and has for its principal object to provide an envelope structure of this character capable of machine manufacture.

Other objects of the invention are to provide an expansion envelope of simplified construction and adapted to be manufactured at low cost.

It is also an object of the invention to provide an expansion envelope formed of a single piece and having its end gussets reinforced with flexible connecting members.

A further object of the invention is to provide an expansion envelope of strong construction, of long wearing qualities and better capable of securely retaining important enclosures such as court records, documents, and the like.

In accomplishing these and other objects of the invention, as hereinafter pointed out, I have provided improved details of structure, the preferred forms of which are illustrated in the accompanying drawings, wherein:

Fig. 1 is a perspective view of an expansion envelope constructed in accordance with the present invention.

Fig. 2 is a fragmentary perspective view of a portion of the envelope, a part of the front wall being broken away to better illustrate the inner side of the gusset.

Fig. 3 is a perspective view of the blank from which the envelope is formed.

Fig. 4 is a similar view of the blank partly folded.

Fig. 5 is a fragmentary perspective view of one end of the envelope showing the exterior side of the end gusset prior to the application of the connecting strip.

Fig. 6 is a perspective view of an expansion envelope showing a modified form of construction.

Fig. 7 is a fragmentary perspective view of the envelope illustrated in Fig. 6, a part of the front wall being broken away to illustrate the inner faces of the gussets.

Fig. 8 is a perspective view of the blank forming the envelope illustrated in Fig. 6.

Fig. 9 is a perspective view of the blank partly folded.

Fig. 10 is an end view of the envelope prior to application of the connecting strip to the end gusset.

Referring more in detail to the drawings:

1 designates an expansion envelope constructed in accordance with the present invention and formed from a blank 2. The blank 2 is die-

from sheet fibre or other suitable material and includes a substantially rectangular shaped body section 3 scored transversely as at 4, 5, 6 and 7 to form a front portion 8 between the edge and the score line 4, a back portion 9 between the score lines 6 and 7, a connecting bottom gusset 10 between the score lines 4 and 6, and a closure flap 11 between the score line 7 and the other edge of the blank.

The cover flap 11 also has a series of parallel scores 12 for a purpose later described. Extending outwardly from the ends of the front and back portions 8 and 9 are side flaps 13—14 and 15—16 having the same length as the depth of the front and back portions and widths corresponding to the spacing between the score lines 4—5 and 5—6 to form the side gussets of the envelope when the blank is folded as later described.

Also extending outwardly from the bottom gusset are substantially triangular shaped flaps 17 and 18 adapted to overlie the inner faces of the end flaps 13—15 and 14—16 respectively. The apical portions of the flaps 17 and 18 terminate in tongues 19 and 20 that are received within notches 21 formed in the adjacent outer corners of the respective side flaps when the blank is folded. The corners 22 of the notches are cut off, as at 23, to provide greater sealing contact of the side flaps with the connecting member later described. The depths of the notches are such that when the blank is folded, the sides 24 thereof closely engage the end edges 25 of the tabs and the sides 26 closely engage the side edges of the tabs as shown in Figs. 2 and 5.

The score line 5 continues across the flaps 17 and 18 including the tabs 19 and 20, and the side flaps are separated from the front and back portions by score lines 27 and 28 continuing across the triangular shaped flaps 17 and 18, as clearly shown in Fig. 3. The gusset portion 10 also has score lines 29 and 30 converging inwardly from the juncture points of the score lines 4 and 6 with the score lines 28 and 27 to intersect at common converging points 31 with the transverse score 5, as shown in Fig. 3.

In folding the blank, the side flaps 13—14 and 15—16 including the triangular shaped flaps 17 and 18, are bent on the scores 27 and 28 so that they lie at right-angles to the body portion of the envelope, and the front and back portions are similarly folded on the scores 4 and 6 so that the notched ends of the side flaps overlie the outer faces of the triangular shaped flaps and the edges 24 and 25 formed by the respective notches

cooperate to receive the tabs 19 and 20, as shown in Fig. 2. When thus folded the tabs 19 and 20 are adapted to lie within the planes of the side flaps so that the outer faces 32 are flush with the outer faces 33 and 34 of the side flaps as shown in Fig. 5, with the edges of the end flaps in abutting relation, as at 35, and registering with the central score 5 of the bottom gusset. Strips of flexible material 36 and 37 are then applied to the faces 33 and 34 of the flaps by means of a suitable adhesive which also connects the tabs 19 and 20 and the portions of the triangular flaps 17 and 18 that are exposed through the notches 21. The strips substantially correspond in width to the maximum width of the gussets but are of longer length so that the upper projecting ends thereof may be folded over the upper edges of the end flaps and sealed to the inner faces thereof as shown at 38 in Fig. 2. The projecting bottom ends are folded inwardly and sealed against the outer face of the bottom gusset to reinforce the folds of the triangular shaped flaps at the ends of the gusset as shown at 39 in Fig. 1.

To collapse the envelope the side gussets are broken inwardly with the portions of the flexible strips bridging the abutting edges of the side flaps forming hinges cooperating with the end of the score 5 that extends across the flaps 17 and 18. At the same time the bottom is broken upwardly on the central score 5 and on the converging angular folds 29 and 30 as shown in Fig. 1, to provide for expansion and collapse of the envelope in accommodating the enclosures placed therein.

While I have illustrated and described only a single gusset, it is obvious that the invention may be carried out employing a plurality of gussets or accordion folds should envelopes of greater width and expandibility be required.

The form of the invention illustrated in Figs. 6 to 10 inclusive includes a blank 40 provided with transverse parallel scores 41—42 and 43—44 to form the front and back portions 45—46 and the bottom gussets 47 and a closure flap 48. Extending outwardly from the ends of the front and back portions are side flaps 49—50 and 51—52 coextensive with the depth of the front and back portion and terminating adjacent the score lines 41 and 43 are substantially triangular shaped extensions of the tabs 53 and 54, which, when the end flaps are folded on scores 55 and 56 and on the scores 41 and 43, are adapted to underlie the outer face of the bottom gusset. The scores 41 and 43 extend completely across the side flaps so that the tabs 53 and 54 may be readily turned under the ends of the bottom gusset. The bottom gusset also has angular scores or folds 57 and 58 converging inwardly from the juncture points of the scores 55 and 56 with the scores 41 and 43 corresponding to the scores 29 and 30 referred to in the preferred form of the invention. The blank 40 is folded so that the side flaps are turned inwardly with the outer edges 59 and 60 located in abutting relation, as shown in Fig. 10, when the front and back portions are folded on the score lines 41 and 42. The triangular shaped tabs 53 and 54 are then folded inwardly to underlie the ends of the bottom gusset as shown in Fig. 9. When thus folded flexible strips 61 and 62 are glued or otherwise attached to the outer faces of the side flaps as shown in Fig. 6. The strips may be of sufficient length so that the upper ends project over the top edges of the side flaps so

that they may be bent inwardly to seal against the inner faces thereof for reinforcement of the upper edges. The lower ends of the strips are bent inwardly to seal over the folded tabs 53 and 54 and against the bottom gusset as shown in Fig. 6, the bottom folds of the strips being of sufficient length to cover the angular scores 57 and 58 so that when the envelope is bent on the gusset folds the folds are reinforced by the flexible strip.

The flaps of the envelopes as shown in Figs. 1 and 6 may be provided with suitable ties 63 that are stapled thereto, as at 64, and adapted to be extended around the envelope and tied together to retain the closure flaps in covering relation with the open mouths of the pockets.

From the foregoing it is obvious that I have provided expansion envelopes which are of simple construction and which are readily fabricated without the use of forms and other molds usually required in producing the gusset folds. It is also obvious that the flexible strips not only secure the side flaps to form an envelope pocket, but they reinforce the hinging points of the gusset folds to provide an envelope having long wearing qualities.

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

1. An envelope of the character described including front and back portions connected by a bottom gusset, side flaps on the front and back portions, and flexible strips sealingly connecting the side flaps to form side gussets.
2. An envelope of the character described, including front and back portions connected by an integral bottom gusset, side flaps on the front and back portions, and flexible strips sealingly connecting the side flaps to form side gussets.
3. An envelope of the character described, including front and back portions connected by a bottom gusset, side flaps on the front and back portions, and flexible strips sealingly connecting the side flaps to form side gussets, said strips being foldingly sealed over the ends of the bottom gusset.
4. An envelope of the character described, including front and back portions connected by a bottom gusset, side flaps on the front and back portions, flexible strips sealingly connecting the side flaps to form side gussets, said strips being foldingly sealed over the upper ends of the side flaps to reinforce the upper edges of the side gussets.
5. An envelope of the character described including front and back portions connected by a bottom gusset, side flaps on the front and back portions, and flexible strips sealed to said side flaps to form side gussets and having ends respectively sealed to the ends of the bottom gusset and folded over the upper inner face of the side gussets.
6. An envelope of the character described including front and back portions connected by a bottom gusset, side flaps on the front and back portions, extension flaps on the ends of the bottom gusset, and engageable with the side flaps, and flexible strips sealed to the side flaps and engaging the extension flaps to form side gussets.
7. An envelope of the character described including front and back portions connected by a bottom gusset and having side portions, and means cooperating with said side portions to form side gussets connecting the front and back portions including flexible strips coextensive with

said side portions and having fixed connection therewith.

8. An envelope of the character described including front and back portions connected by an integral bottom gusset, side flaps on the front and back portions, extension flaps on the ends of the bottom gusset and engageable with the side flaps, and flexible strips sealed to the side flaps and engaging the extension flaps to form side gussets.

9. An envelope of the character described including front and back portions connected by an integral bottom gusset and having strip-attaching side portions, and means cooperating with said side portions to form side gussets connecting the front and back portions including flexible strips coextensive with said side portions and having fixed connection therewith, the ends of said strips being respectively extended over upper edges of said side portions and fixed to end portions of said bottom gusset.

10. An expansion envelope including front and back portions connected by a bottom gusset, substantially triangular shaped flap extensions at the ends of the bottom gusset and terminating at the apices in tabs, side flaps on the ends of the front and back portions and having notches to accommodate said tabs, and flexible strips sealed to said side flaps and having sealing engagement with said tabs to form side gussets.

11. An expansion envelope including front and back portions connected by a bottom gusset, substantially triangular shaped flap extensions at the ends of the bottom gusset and terminating at the apices in tabs, side flaps on the ends of the front and back portions and having notches to accommodate said tabs, and flexible strips sealed to said side flaps and having sealing engagement with said tabs to form side gussets, said flexible strips forming the central fold of the side gussets.

12. An expansion envelope including front and back portions connected by a bottom gusset, side flaps on the ends of the front and back portions, substantially triangular shaped flap extensions at the ends of the side flaps and engageable with the ends of the bottom gusset, and flexible strips sealed to said flaps and having sealing engagement with said flaps to form side gussets, said flexible strips forming central folds of the side gussets.

13. An envelope of the character described formed of a single blank shaped to form front and back portions and an interconnecting bottom gusset, side flaps on the front and back portions, extension flaps on the ends of the bottom gusset and engageable with the side flaps, and flexible strips sealed to the side flaps and engaging the extension flaps to form side gussets.

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