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W. H. DOBSON & W. GALLAGHER.

SAFETY ENVELOP AND BOX.

APPLICATION FILED JAN. 12, 1906.

Fig. 1.

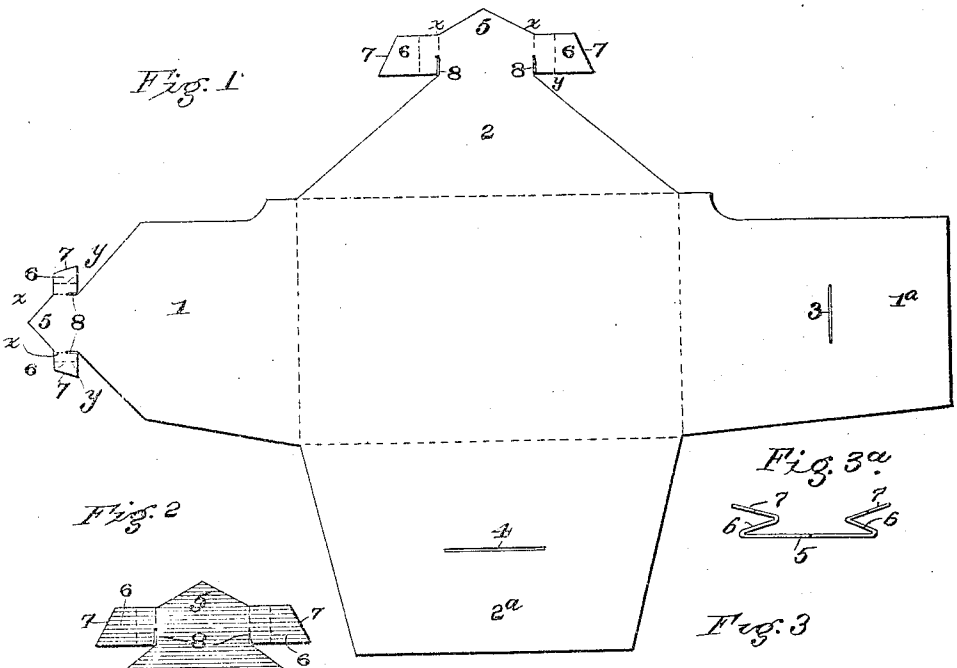


Fig. 2

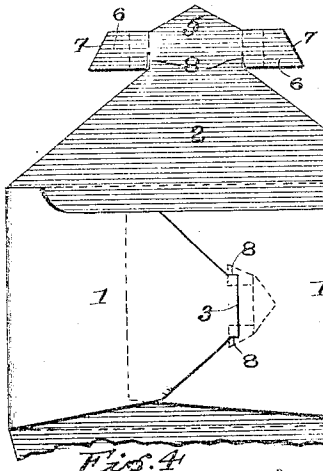


Fig. 3a

Fig. 3

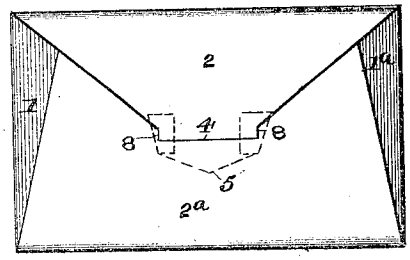


Fig. 4

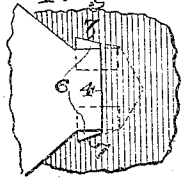


Fig. 5

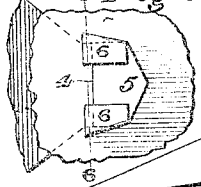


Fig. 6

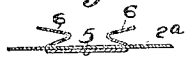


Fig. 7

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SAFETY ENVELOP AND BOX.

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Application filed January 12, 1906. Serial No. 296,751.

To all whom it may concern:

Be it known that we, WILLIAM H. DOBSON, a resident of Harrison, in the county of Hudson, and WILLIAM GALLAGHER, a resident of Elizabeth, in the county of Union, State of New Jersey, citizens of the United States, have made certain new and useful Improvements in Safety Envelops and Boxes, of which the following is a specification.

Our invention is embodied in the improved construction whereby an envelop or box may be closed by engagement of the flaps or opposite folding portions thereof, the engagement being such that the envelop or box cannot be opened without breaking it or rupturing a portion of the same.

The details of construction and arrangement of parts are as hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the blank from which a letter-envelop is formed. Fig. 2 is a plan view showing the end flaps folded and engaged. Fig. 3 is a plan view of the envelop completely folded and closed. Fig. 3ª is an end view of the tongue and wings of the foldable flap, showing the position the wings occupy when folded. Figs. 4, 5, and 6 are detail views which will be hereinafter specifically referred to, the sectional view, Fig. 6, being on the line 6 6 of Fig. 5. Fig. 7 is a perspective view of an oblong rectangular box having its flaps constructed and engaged according to our invention.

Referring more particularly to Fig. 1, 1 and 1ª indicate the folding end flaps, and 2 2ª the folding side flaps, of the envelop. The dotted lines (shown in Figs. 1 and 2) indicate lines of fold for the respective flaps. The end flaps 1ª and 2ª are provided, respectively, with the slots 3 and 4, the same being arranged parallel to the ends of such flaps. The flaps 1 2 are provided with end portions constructed and adapted to enter the slots 3 4, respectively, and to engage or lock therewith—that is to say, each of the flaps 1 2 is tapered toward its outer end, which is preferably pointed, as indicated at 5, and provided with side extensions or wings 6. The outer ends 7 of these wings are inclined, as shown, for a purpose hereinafter stated. When the envelop is made up ready for use, the wings 6 are folded inward on the lines *x y*, so that they assume the position indicated in Figs. 4, 5, and 6—that is to say, each of the extensions or wings 6 is folded inward on the lines *x* and then bent or folded outward on the lines *y*, thus forming reverse curves, or practically an S shape, as will be seen by reference to Fig. 6. The width of the terminal or pointed portions 5 of the flaps 1 2 is about the same as the width of the slots 3 4 which are to receive them, but, as indicated in Figs. 4, 5, the inclined ends 7 of the wings 6 extend laterally to a greater distance. Thus when the flaps 1 2 are to be engaged with the opposing flaps 1ª 2ª the operation is as follows: Referring to the flaps 2 2ª for convenience of description, let it be supposed that these flaps have been folded on the dotted lines indicated, so that 2 overlies 2ª, and the wings or extensions 6 have been folded twice on the lines *x y*, as before described, so that they are in the position indicated in Figs. 4, 5, and 6. Then the pointed or reduced ends of the flap are inserted in the slot 4 of flap 2ª and pushed completely through the same, so that the wings 6 will lie on the under side of the flap 2ª and engage the edges of the slot.

In Fig. 4 the reduced and pointed end 5 is shown introduced part way into the slot 4, the inclined ends 7 of the wings being in contact with the end portions of the slot 4, and since they extend laterally farther than the width of the slot it is apparent that the wings must yield inwardly in order to pass through the slot, which is permitted by the elasticity of the folds *x y*. The same elasticity instantly throws the wings outward again as soon as they shall have passed through the slot, so that a locking engagement is formed, as indicated in Fig. 5, which shows the inner sides of the flaps 2 2ª; while Fig. 4 shows the outer sides of the same before the engagement is fully effected.

It is necessary that the wings should have due elasticity at the inner fold *x*, or, in other words, be adapted to yield inward when the inclined ends 7 pass in contact with the ends of the slot 4, and for this purpose slits 8 are formed in alinement with the lines of fold *x* and on the inner side of the wings, as shown in Figs. 1 and 2. In folding the envelop, the end flaps 1 1ª are folded first, as indicated in Fig. 2, and then the side flaps 2 2ª are folded over them and engaged, as shown in Fig. 3.

It will be perceived that by the construction and connection of the engaging portions

as above described we form a closure which is effected the instant the terminal portion of one flap is inserted in the slot of the other and that the engagement is such that it cannot be broken without rupturing the envelop to a greater or less extent. In other words, we form a perfect closure and lock by the simple insertion of one flap in the slot of the other. It is apparent that the flaps of paper boxes may be constructed and adapted to engage in the same manner as in the case of the envelop, and in Fig. 7 we illustrate a box having flaps thus folded and engaged.

What we claim is—

The improved paper envelop having opposing foldable flaps, one provided with a slot and the other with a tongue having laterally-projecting wings 6, whose upper and lower edges are parallel, and whose ends are inclined or sloped from the outer edge inward their entire width and provided with transverse slits 8 located adjacently to the body of said tongue, the said wings having also two parallel transverse lines of fold, *x* and *y*, the lines *x* being in alinement with the aforesaid slits, whereby the wings may be folded transversely into S shape, the acute-angled corners of the wings projecting laterally to an extent greater than the width of the slot in the opposite flap, as and for the purpose specified.

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