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MAIL SORTING

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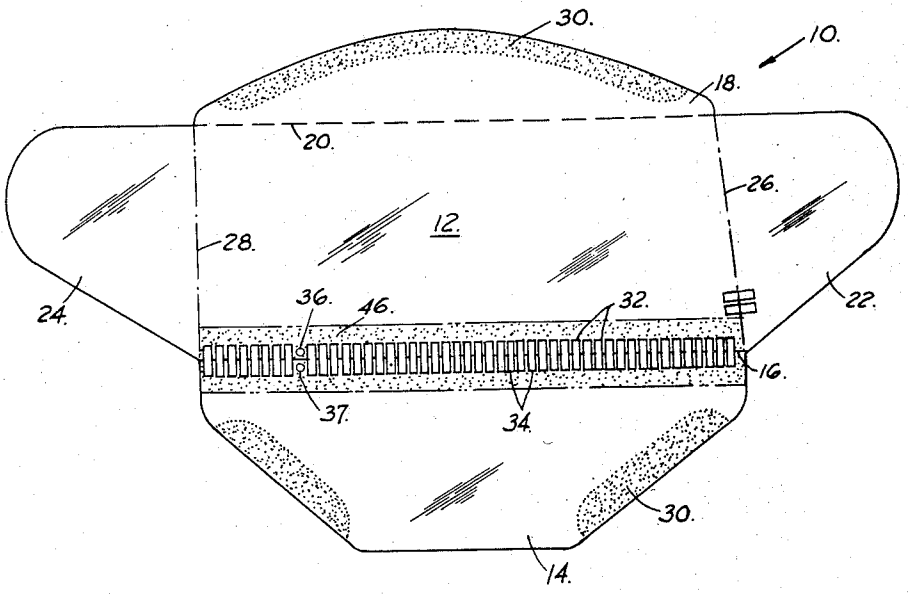


Fig. 1.

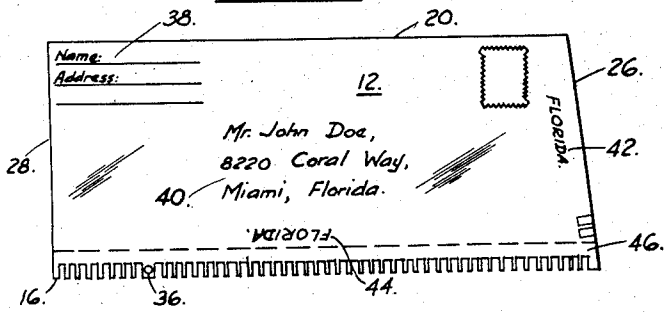


Fig. 2.

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MAIL SORTING

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5 Claims. (Cl. 229—68)

This invention relates to mailing envelopes, and more particularly, to envelopes of the type adapted to facilitate sorting thereof.

Daily mail received in post offices must first be sorted according to state and city for transmission and distribution to the addressees. The sorting of the mail is usually performed manually by skilled postal clerks who must handle each letter separately in order to read the address on each envelope for sorting and segregating the envelopes according to their proper destination for transmission thereto. This sorting operation, however, is time consuming, costly and inefficient in view of the ever increasing volume of mail received and handled every day.

The primary purpose of the present invention is to provide a mailing envelope of improved construction characterized by novel destination indicating means particularly adapted for facilitating automatic, manual or mechanical sorting of envelopes.

It is further the purpose of the present invention to provide an envelope having novel destination indicating means for facilitating the sorting of envelopes according to the parts of a country they are to be transmitted and thereby expediting the handling of large quantities of mail in the shortest possible time at a minimum of cost.

A mailing envelope constructed in accordance with the present invention is provided with destination indicating means formed along an edge thereof in the form of a plurality of slots or perforations having an open end in said edge, and with one of the slots having disposed adjacent to said edge and having closed ends for representing the particular state of the addressee for automatic sorting thereof.

These and other features of the instant invention are described in detail below in connection with the accompanying drawing, in which like numerals designate like parts, and in which:

Figure 1 is a rear view of an unfolded blank of an envelope embodying the present invention; and

Figure 2 is the face view of the folded blank of the envelope of Figure 1.

Referring now in detail to the drawing, the mailing envelope illustrated in the drawing as an embodiment of the present invention, comprises a sheet of flexible material, such as paper and the like, in the form of an unfolded blank, indicated generally at **10**, having a substantially rectangular front sheet or side **12**, and a bottom flap **14** having the same length as the front sheet **10** and extending from the bottom marginal edge, indicated by the line **16**, for folding thereover to form the back sheet or side of the envelope. The front sheet **10** is further formed with a sealing flap **18** extending from a top marginal edge, indicated by a dotted line **20**, for folding thereover, and with side or end flaps **22**, **24** extending oppositely from the respective side or end marginal edges, indicated by the dotted lines **26** and **28**, for folding thereover. The top and bottom flaps **14** and **18** are formed with gummed edge portion, as indicated at

30, by an adhesive placed thereon for attaching or cementing to side flaps **22** and **24**, respectively, when folded thereover in accordance with conventional practice in the construction of envelopes. Of course, it is understood that the sealing flap **18** will not be sealed to the side and bottom flaps **22**, **24** and **14** until the contents have been inserted in the envelope. Also the front sheet **12** may be formed with the bottom marginal edge **16** having a greater length than the top marginal edge **20**, and with the side marginal edge **26** at the right hand side of the envelope, as shown in Figure 1, being inclined downwardly outwardly so that when the envelopes are stacked together, they will be placed with their corresponding four marginal edges in proper alignment.

Now, in accordance with the specific teachings of the invention, the front sheet **12** is provided with a plurality of open ended slots or perforations **32** of substantially rectangular shape disposed laterally vertically to the bottom marginal edge **16** and spaced at regular intervals close to each other along the full length of the bottom marginal edge **16**. The slots **32** disposed on the front sheet **12** are adapted to extend through the bottom marginal edge **16** into the back flap or sheet **14** to form a plurality of complemental or mating slot portions **34** extending symmetrically from the bottom marginal edge **16**. Hence, when the back flap **14** is folded over the front sheet **12**, along the bottom marginal edge **16**, each of the slots **32** in the front sheet **12** will overlie and register with its corresponding slot portion **34** in the back sheet **14**. The slots **32** are thus adapted to be open at their lower ends coinciding with the bottom marginal edge **16** of the envelope thereby forming notches therein. The number of slots **32** provided in the envelope is determined by the number of states, the District of Columbia, and any territories belonging to United States, which the slots **32** represent. For example, the first of the slots **32** designates Alabama, the second slot Arizona and so on. Also, the slots **32** and **34** may be formed in the vertical or end edges **26**, **28** if the bottom edge **16** or the length of the envelope does not provide sufficient spaces for required number of slots. The front and back sheets **12** and **14** are further each formed with a perforated unslotted portion by having one of the slots **32** formed with a closed bottom end by extending short of the edge **16**, thereby being formed as an aperture or hole, as indicated at **36** in the front sheet **12** and at **37** in the back sheet **14**. The perforation or aperture **36** with its corresponding aperture **37** in the back sheet **14** is positioned or located longitudinally of or along the bottom marginal edge **16** in accordance with the alphabetical order of the states. In other words, if the enclosed slot or hole **36** represents the state of Alabama, it will be first in the series and if it represents the state of Florida, it will be the ninth one as shown in Figure 1.

In operation of the sorting of the mail, a bunch of envelopes are stacked together in a vertical position and with the slotted bottom edges **16** disposed at the top so that the open ends of the slots **32** are directed upwardly. All the envelopes having the closed ended slot or hole **36** in the same location intended for the same state may be automatically pulled by the insertion of a relatively stiff wire or the like through the laterally aligned closed slots **36**, while the remaining envelopes having an open ended slot in the same location will remain in the bunch. The operation is repeated until all the envelopes have been sorted. It should be understood that during the sorting operation, the postal clerk or operator is not required to read the address written on each envelope but merely to insert the wire through each of the slots **32** and by raising the wire upwardly, the envelopes having the same destination will be automatically picked and separated from the rest. Thus, with one move, a number of en-

velopes may be picked up at the same time and be segregated in different groups according to the state that they are destined.

In addition to the three vertically spaced parallel lines **38** usually imprinted at the upper left hand corner of the front sheet **12** to be filled in by the addressor with his name and address, and the name and address of the addressee usually written in the central portion of the front sheet, as indicated at **40**, the front sheet **12** may have imprinted thereon at the right-hand side portion and parallel to the edge **26** the name of the specific state that the envelope is intended, as indicated at **42**, for assisting the user when purchasing the same usually arranged in bunches to choose at a glance the envelopes for the particular state desired without having to determine the state from the location of the closed ended slot **36** along the edge **16**. Also, the name of the state corresponding to the position or location of the slot **36** along the bottom edge **16** may be imprinted in reverse and parallel to the bottom marginal edges **16**, as indicated at **44**, for easily checking the envelopes while being stacked with the bottom marginal edges **16** positioned upwardly for successively passing the wire through the slots **32**.

In order to prevent the letter or enclosure of the envelope from dropping between the slots **32**, **34**, **36** and **37** and thereby blocking the slots and preventing the wire from being inserted therethrough, the front and back sheets **12** and **14** may be cemented or secured together at their bottom marginal edge portions by a suitable adhesive, as indicated at **46**, applied on the inner sides thereof.

From the foregoing description, it will be appreciated that the envelope constructed in accordance with the present invention is provided with unique means for automatic sorting according to the destination either manually or mechanically. Also if sorted manually the improved envelope requires no particular skill on the part of the operator and any inexperienced person may be employed for sorting envelopes of this character thereby greatly facilitating and speeding up the sorting operation.

The present invention has been described in detail above for purposes of illustration only and is not intended to be limited by this description or otherwise, except as defined in the appended claims.

What I claim is:

1. A mailing envelope, comprising a sheet of flexible material folded to provide a substantially rectangular front side and a back side extending from a bottom edge thereof, said front side having a sealing flap at the top edge thereof and end flaps folded over to come upon gummed edge portions of said back side for attaching thereto, said front side having a plurality of elongated slots extending in said back side through a common edge thereof, the slots being disposed side by side for substantially the full length of said common edge, and said front and back sides having corresponding perforated unslotted portions along said common edge in lateral alignment with said slots.

2. A mailing envelope, comprising a substantially rectangular front sheet and a back sheet of flexible material, said front sheet having a sealing flap and oppositely extending side flaps folded over to come upon gummed edge portions of said back sheet for attaching thereto, said front sheet having an inclined end side and a bottom side of greater length than a top side thereof, one of said sheets having a gummed bottom edge portion for attaching to the other, said sheets having a common edge formed with a plurality of substantially rectangular slots extending laterally therefrom, and said sheets having corresponding perforated unslotted portions along said common edge.

3. A mailing envelope, comprising a sheet of flexible material folded to provide a substantially rectangular front side and a back side, said front side having a sealing flap and end flaps for folding over to come upon said back side having gummed edge portions for attaching thereto, said front and back sides formed with substantially rectangular slots in edge portions thereof adjoining each other and disposed side by side for substantially the full length of said edge portions, said front and back sides having the slots extending in a common edge thereof, said front and back sides each having a perforated unslotted portion along said common edge, and an adhesive layer on the slotted edge portion of one of said sides in the inner face thereof for securing to each other, whereby said sides remain separate above the edge portions with the slots therein for enclosing a letter therein.

4. A mailing envelope as defined in claim 3, and said front side having a sloping end edge adjoining one of said flaps and a bottom edge having a greater length than a top edge thereof for aligning the corresponding marginal edges of envelopes stacked together.

5. A mailing envelope, comprising a substantially rectangular front sheet of flexible material and an integral back sheet folded thereover, said front sheet having an upper sealing-flap and oppositely extending side flaps folded over to come upon gummed edge portions of said back sheet for attaching thereto, said front sheet having an inclined transverse side and a lower longitudinal edge of greater length than an upper longitudinal side, said sheets having a plurality of rectangular open slots at spaced intervals in the lower side portion thereof, the slots in said front sheet being in registering alignment with the slots in said back sheet, said front and back sheets each having a hole between a pair of the slots in registering alignment with each other for indicating the destination thereof, said front and back sheets having gummed inner sides at the lower edge portion with the slots therein for attaching to one another thereby preventing a letter enclosed therein from blocking the slots and the hole therein.

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