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Schafer

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[54] **CONTINUOUS WEB AND AFFIXED ENVELOPES WITH SELECTIVE SPACING**

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[52] **U.S. Cl.** **229/69,** 229/82

[51] **Int. Cl.** **B65d 27/10**

[58] **Field of Search** ..... 229/69, 82, 68 R, 229/84

[56] **References Cited**

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Assistant Examiner—Stephen P. Garbe
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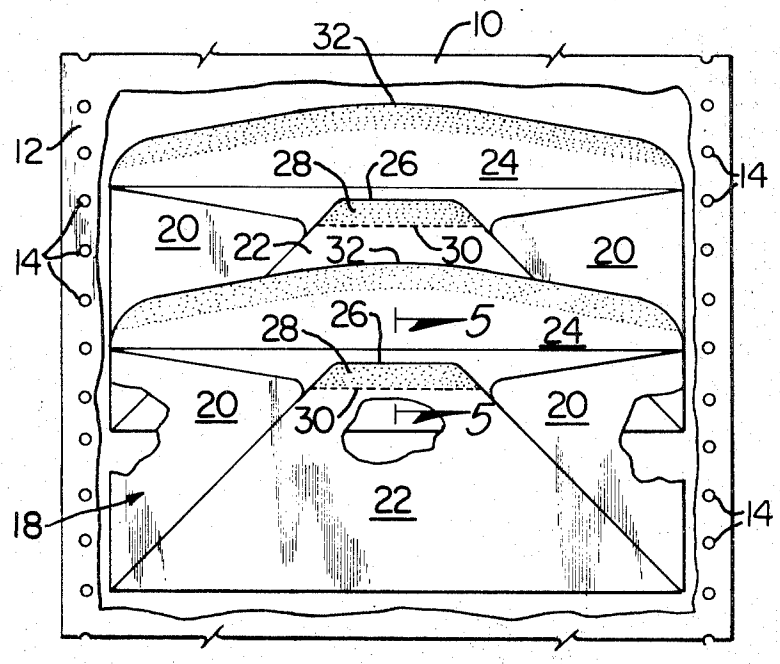
[57] **ABSTRACT**

Envelopes of otherwise conventional construction, each characterized by a gummed tongue or tab affixed to the upper edge of the lower flap of the envelope rear panel along a weakening line therebetween, forming an extension of the lower flap which enables affixation of the tongues to a carrier web in various configurations of envelope overlap or shingling or in spaced relation on the web. When the envelopes are torn or burst along the weakening lines, the tongues remain affixed to the carrier web. The web is preferably provided with pin wheel perforations adjacent its longitudinal edges to enable rapid and automatic processing of the assembly through printing apparatus.

6 Claims, 5 Drawing Figures



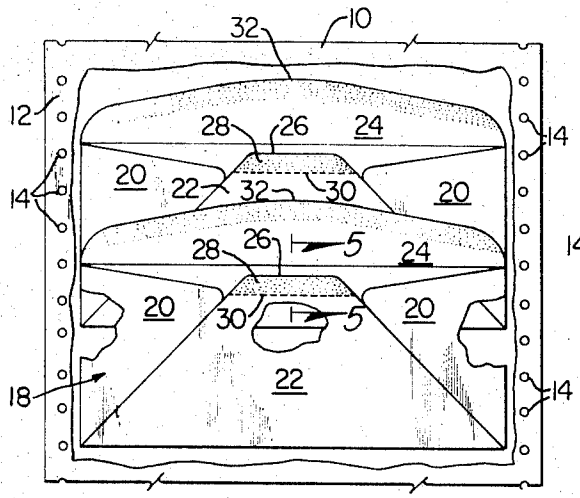


FIG. 1

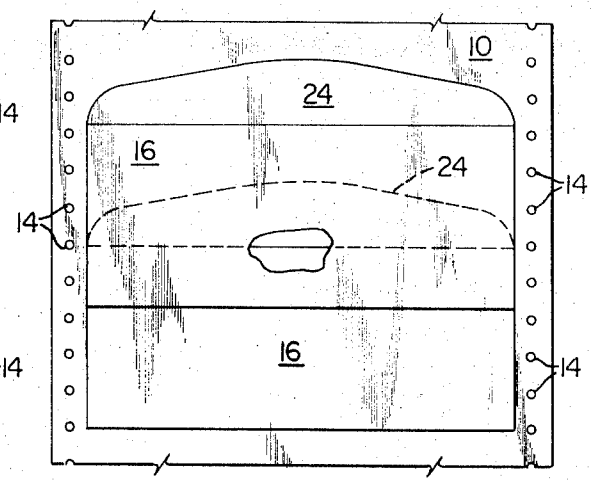


FIG. 2

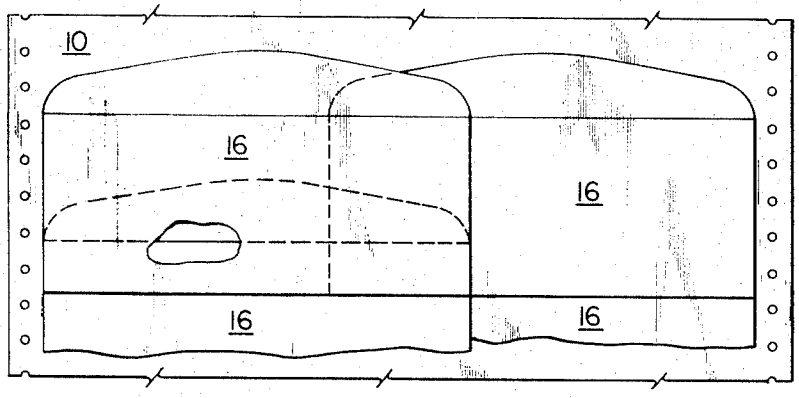


FIG. 3

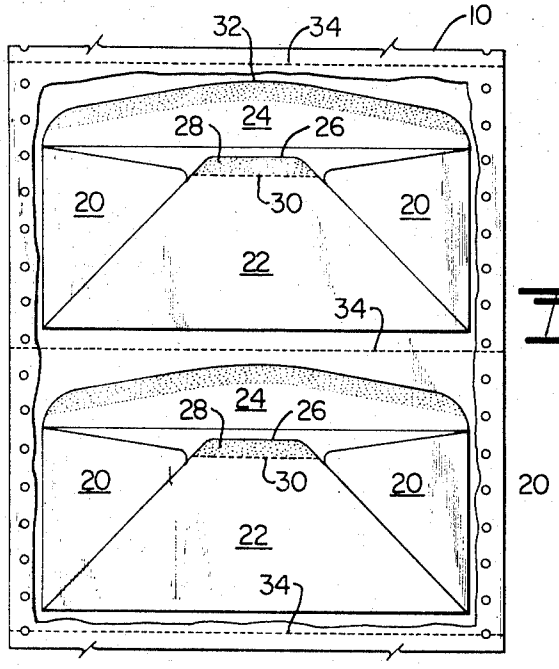


FIG. 4

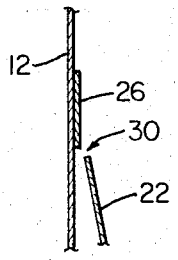


FIG. 5

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CONTINUOUS WEB AND AFFIXED ENVELOPES WITH SELECTIVE SPACING

BACKGROUND OF THE INVENTION

In the art of imprinting envelopes with an address or other information it has long been the practice to temporarily secure them together as a continuous assembly to facilitate more rapid application of the printed matter, such as by a manually operable typewriter. U.S. Pat. No. 1,710,603 to Benenato is exemplary of such technique wherein the amount of overlap or shingling is predetermined, rather than variable. As the art developed, computer out-printers were devised which automatically applied the printed matter from information stored on a tape or the like. In the latter technique it has been common practice to temporarily secure the envelopes to a carrier web having edge perforations which time the movement of the web in synchronism with the printing apparatus. This has resulted in greatly increased rate of imprinting, in contrast to the former manual imprinting, but has created problems due to the rapid rate of movement of the carrier web and its attached envelopes. Moreover, maximum speed of movement is essential due to the considerable cost of such apparatus and its "down-time" or intervals between actual successive printing of the envelopes. It is essential, accordingly, that the envelopes advance through such apparatus in proper alignment with the carrier web and without twist or float as is understood in the art. Also, it is highly desirable that the mode of affixation of the envelopes to the carrier web be such that various configurations of envelope patterns are possible so that the apparatus be as versatile as possible and not require specifically designed apparatus for the various configurations.

SUMMARY OF THE INVENTION

Envelope construction and method of attaching same to a carrier web, characterized by a tab extension to the upper edge of the lower flap of the rear panel of the envelope, having a gummed surface for securing it to a carrier web and having a weakened line between same and the lower flap, permitting the envelope to be torn from the gummed tab, the latter remaining affixed to the carrier web. The construction enables the shingling or overlap of a row of envelopes between considerable limits to expose a desired area of the front panel for imprinting and in which construction of the web and its attached envelopes they may enter and exit the printing apparatus in roll form. When it is desired to process the material in zig-zag or fan-fold form the envelopes in a row may be spaced to provide fold lines therebetween. It also enables attaching more than one row, such as two, to the carrier web in side shingled arrangement, that is, in a configuration in which the envelopes of one row are shingled in the longitudinal direction of the carrier web and also shingled in a direction transverse to such longitudinal direction, this arrangement placing the areas to be imprinted in a minimum overall area, thus reducing overall carrier web length and also utilizing the maximum out-printing capacity within the width of the carrier web.

The principal object of the invention is, accordingly, the provision of an envelope which may be temporarily attached to a carrier web by a gummed glap forming a detachable extension adjacent the upper edge of the lower flap of the envelope rear panel.

Another object is to provide an improved method of attaching envelopes to a carrier web in various configurations or patterns to more effectively utilize the capacity of out-printer apparatus.

A further object is to provide more versatile attachment of envelopes to a carrier web to enable processing of envelopes in either roll or fan-fold configuration of the carrier web.

Still further objects, advantages and salient features will become more apparent from the detailed description to follow, the appended claims, and the accompanying drawing, to now be briefly described.

BRIEF DESCRIPTION OF THE INVENTION

FIG. 1 is a broken away elevation of a carrier web and envelopes attached thereto, as viewed through the rear (or lower) face of the carrier web;

FIG. 2 is a front elevation as viewed toward the opposite (or top) face of the carrier web, illustrating the address faces in position for imprinting thereon;

FIG. 3 is an elevation like FIG. 2 illustrating envelopes in lateral lapped or shingled arrangement and also in longitudinal lapped relation, as in FIG. 2;

FIG. 4 is an elevation, like FIG. 1, differing in that the envelopes are longitudinally spaced on a carrier web rather than shingled thereon; and

FIG. 5 is a section taken on line 5—5, FIG. 1, during the bursting procedure.

DESCRIPTION OF PREFERRED EMBODIMENTS

Referring now to the drawing, and first to FIGS. 1 and 2, carrier web 10 is of conventional construction, formed of paper, for example, the longitudinally extending margins 12 each being provided with spaced pin wheel perforations 14 which facilitate moving the web through a printing machine in timed relation to effect printing on the envelopes affixed thereto in desired positions thereon, all as understood in the art.

Each envelope comprises a front or address panel 16 and a rear panel 18 formed by a pair of inwardly folded end flaps 20, an upwardly folded bottom flap 22 cemented along its edges to the end flaps and a top or downwardly folded closure flap 24 which is cemented, after closure, to the end and bottom flaps, all as is also conventional in the art.

Each envelope differs from the prior art, however, in that its bottom flap 22 is provided with an extension tongue or flap 26, having a gummed surface 28, the extension flap being joined to the bottom flap along a weakened line 30, along which the envelope may be separated or bursted from the extension flap.

In the assembly of the envelopes to the web, the extension flaps 26 are wetted (or wet cement applied thereto) and applied to the carrier web at desired longitudinally spaced position therealong. As shown in FIGS. 1 and 2, the envelopes are in overlapped or shingled relationship with the uppermost portion 32 of a closure flap closely adjacent weakened line 30. In this position, the envelopes are disposed on the web with the maximum amount of overlap or shingling. As will be apparent, the spacing between point 32 and the weakened line 30 may be increased, as desired, to reduce the overlap distance. When the overlap distance is reduced to zero (not shown) the bottom edge of an envelope lies directly over the crease or fold line of the closure flap on an envelope therebelow. As will be apparent, the entire front panel of each envelope is now

exposed so that printing may be applied to all parts thereof. Also, the envelopes may be fan-folded along the closure flap crease lines.

In the event a spacing of the envelopes along the web is desired, extension flaps **26** may be cemented to the web as illustrated in FIG. **4.** Weakening lines **34** are preferably formed across the web and between the spaced envelopes which more readily permit the web to be folded along such lines.

FIG. **3** illustrates an alternative form of the invention in which the envelopes are shingled, as in FIGS. **1** and **2,** but at least two adjacent rows are provided, the rows also being shingled in the lateral direction of the web. This is of particular utility when it is desired to utilize the full capacity of the printing apparatus. Thus, two or more laterally shingled envelopes may be simultaneously printed, rather than only one, as in the construction of FIGS. **1** and **2** which, of course, reduces "down-time" (intervals between printing) of the printing apparatus.

FIG. **5** illustrates the manner of separation of the envelopes from the web wherein bottom flap **22** is burst from extension flap **26** along weakened or burst line **30.**

Each tongue **26** is preferably formed as an integral part of the envelope blank by well known paper blanking techniques and the weakening lines **30** formed in like manner. The application of gummed material to desired areas, and folding of the blanks to envelope form are also well known in the art. While the tongue is preferably an integral part of the blank it will be apparent that it may be formed as a separate tongue having a portion cemented to the upper portion of the lower rear flap, preferably to the inside surface thereof. The envelope blank is also preferably proportioned so that the top closure flap covers or overlies the slightly ragged edge along weakened line **30** after separation of the envelope from the tongue and closure of the top closure flap.

I claim:

1. In an envelope of the type having a front panel and a rear panel formed by a pair of inwardly folded side flaps, said side flaps being formed as integral lateral extensions of the front panel, an upwardly folded bottom flap having edges adhesively secured to the side flaps said bottom flap being attached to the bottom edge of said front panel by a first fold line, and a top open closure flap adapted to be folded to closed position over the side and bottom flaps and to be adhesively secured thereto, said closure flap being attached to the top edge of said front panel by a second fold line, the improvements, in combination, comprising:

a. a tongue secured to the upper edge of said bottom flap by a line of weakening and forming a detachable extension thereof, and

b. adhesive means for securing said tongue to a carrier web.

2. An envelope in accordance with claim **1** wherein said tongue forms an integral part of said bottom flap.

3. An envelope in accordance with claim **1** wherein said line of weakning is disposed adjacent the juncture of said tongue and the upper edge of said bottom flap.

4. An envelope in accordance with claim **1** in combination with said carrier web.

5. A carrier web and a plurality of envelopes in accordance with claim **4** wherein the envelopes are overlapped on the carrier web transversely to its longitudinal direction.

6. A carrier web and a plurality of envelopes in accordance with claim **5** wherein the envelopes are also overlapped on the carrier web in its longitudinal direction.

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