

[54] DATA MAILING SET

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[51] Int. Cl. B65d 27/06, B65d 27/10

[58] Field of Search 229/73, 69

[56] **References Cited**

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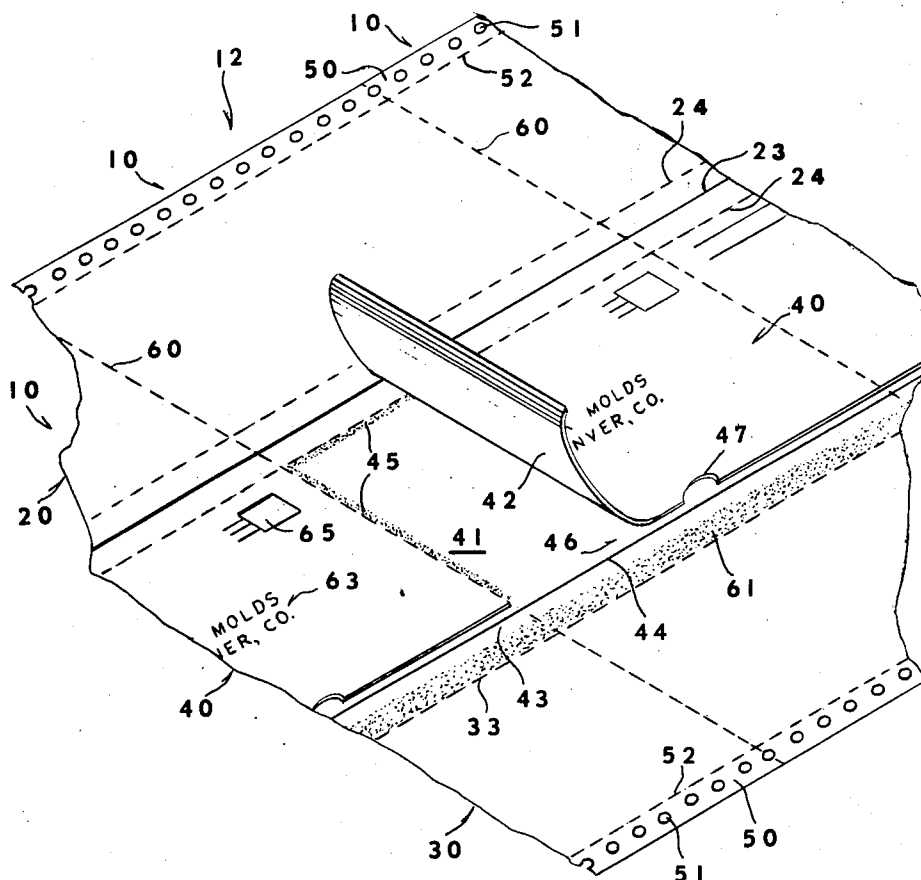
Attorney, Agent, or Firm—Wheeler, Morsell, House & Fuller

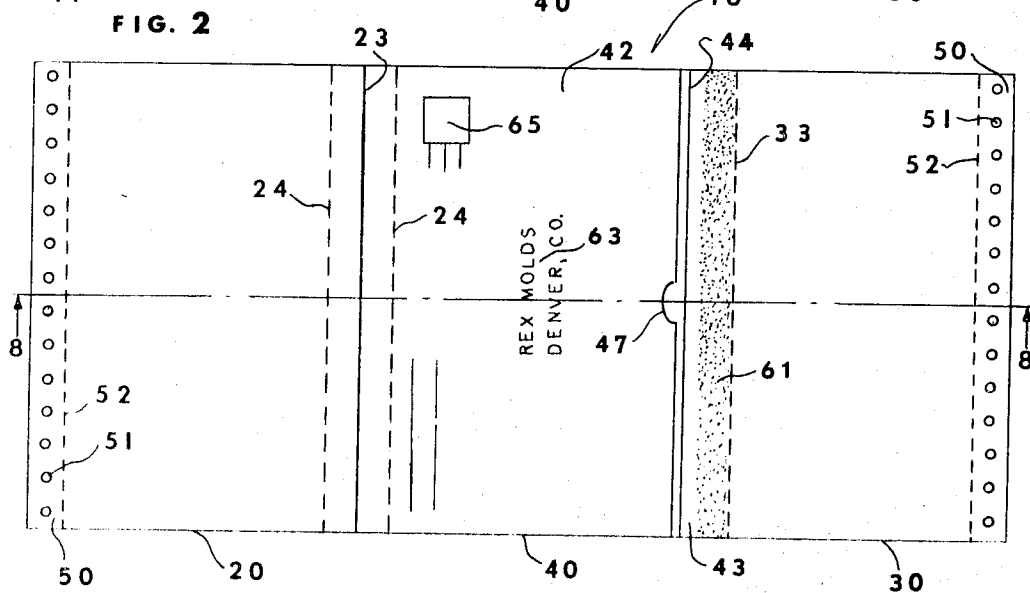
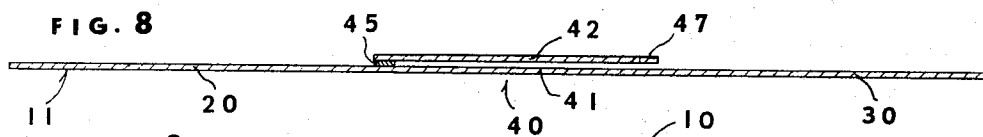
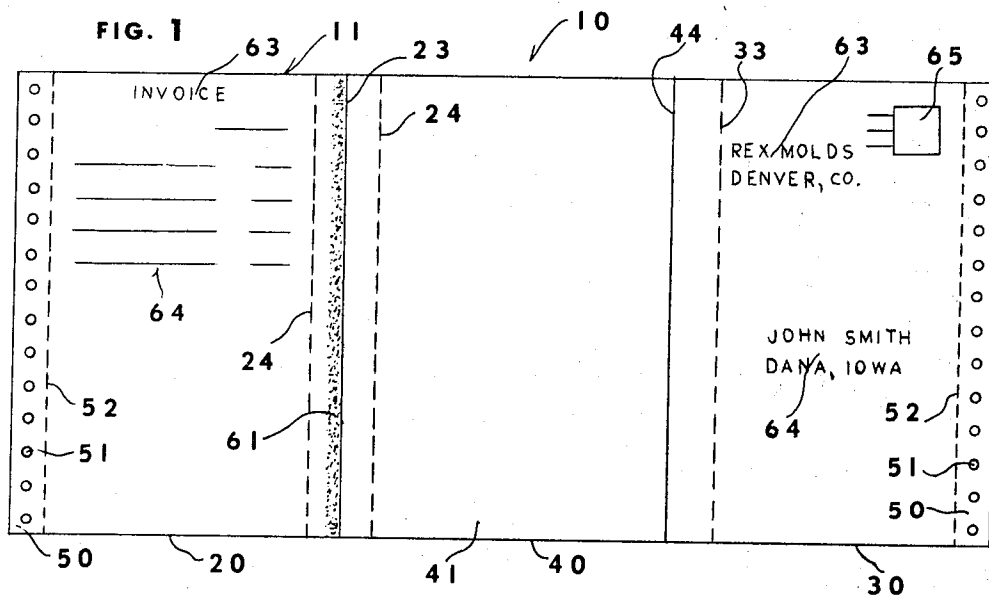
[57]

ABSTRACT

A data mailing set integrally comprising a message panel, address panel, and return envelope panel assembled in marginally punched continuous form stationery for precision feeding and imprinting in computer line printers and office machines without the use of carbon imprints, envelope windows, or address labels. Fixed data and postal indicia may be preprinted during the manufacture of the form and variable data may be imprinted during data processing operations. The folded and sealed set is opened by the recipient by detaching a tear strip along one edge of the sealed set.

5 Claims, 8 Drawing Figures





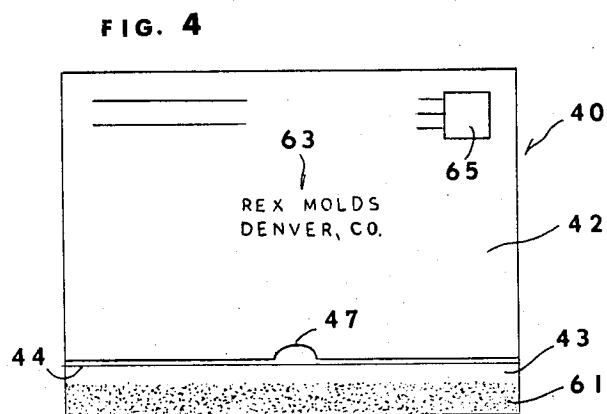
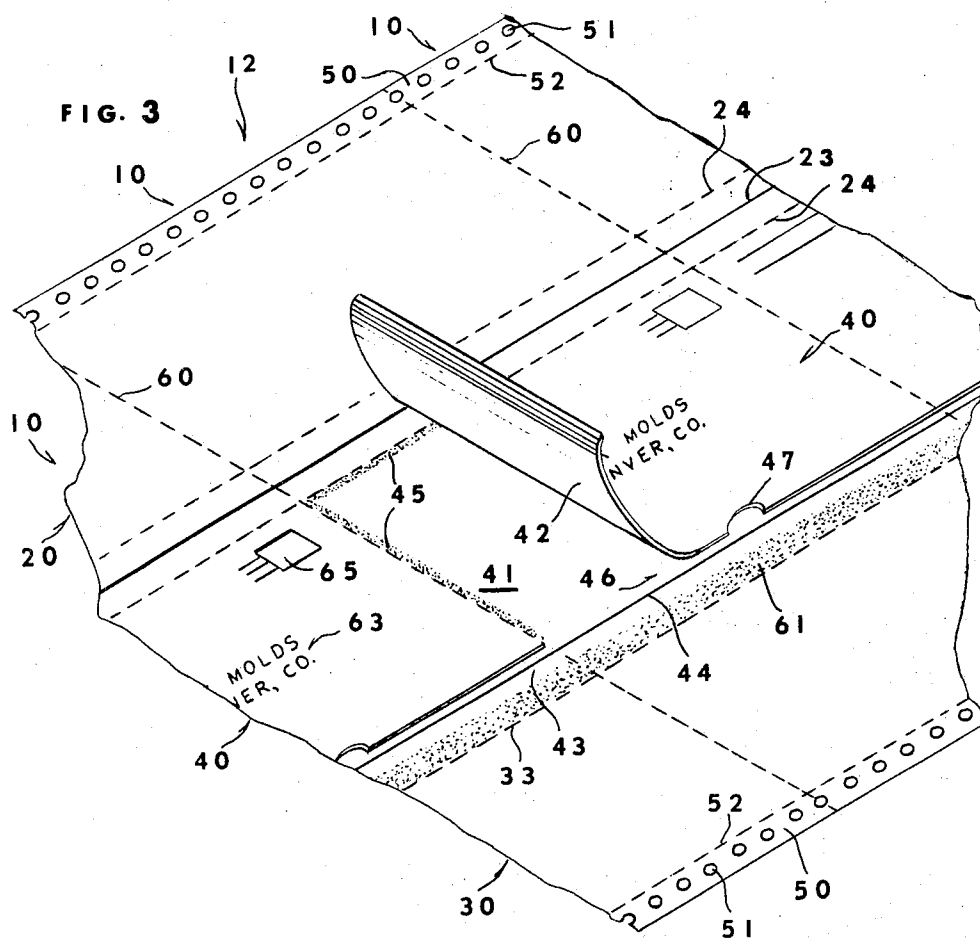


FIG. 5

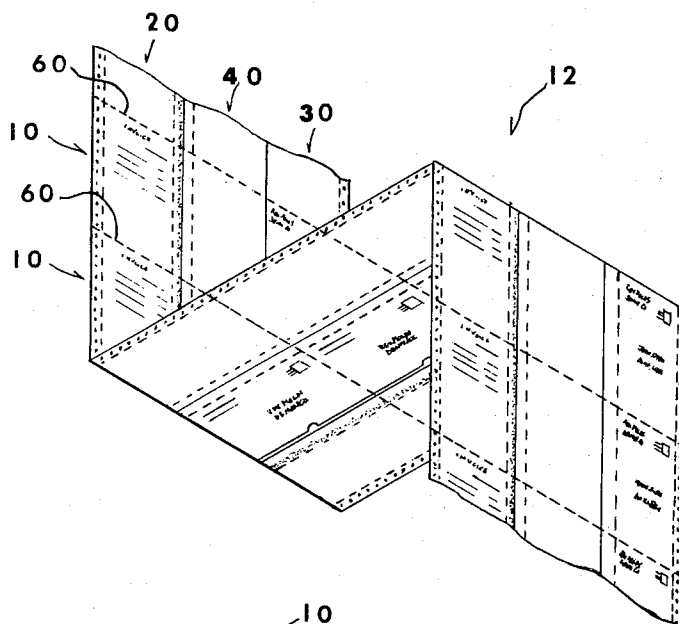


FIG. 6

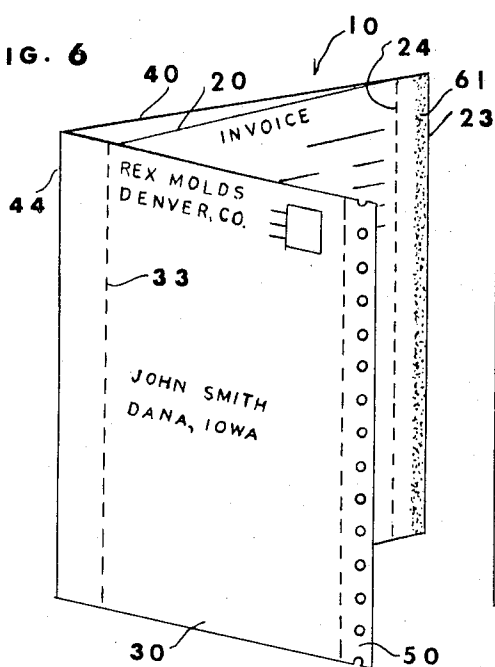
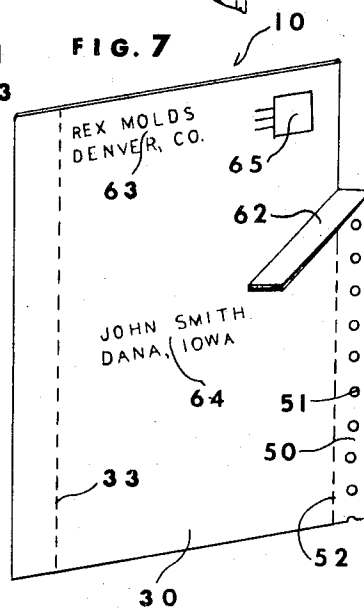


FIG. 7



DATA MAILING SET

BACKGROUND OF THE INVENTION

The widespread use of data processing equipment for rapidly printing out variable messages, lists, invoices, addresses, etc., has expanded the use of computer and business machine imprinted address labels for envelopes and mailing covers. The disjunctive use of discrete letters, envelopes, and labels, however, entails many mechanical steps in subsequent operations in sequencing, matching, label affixing, envelope stuffing, sealing, and stamping for mail delivery purposes. As a consequence, unavoidable errors occur in the manual and mechanical coupling of record units. The problem is compounded by the one-plane, face-up imposition characteristic of forms imprinted by computer line printers and business machines. Only the face side of a form is accessible as it passes through a data processing operation. As exemplified in this invention, improvements in the functional design of continuous form stationery possessing all essential parts of a mailing set can reduce superfluous paper handling in the data processing center to bring about a lower total unit cost. It is frequently said that the costs involved in the origination and handling of forms is twenty to thirty times the cost of the form itself.

SUMMARY OF THE INVENTION

The data mailing set of this invention is related to marginally punched continuous fanfold stationery suitable for feeding and imprinting in computer line printers and other business and office machines equipped with pinfeed (sprocket feed). Longitudinal and lateral lines of weakening for folding and tearing purposes separate the continuous stationery of this invention into individual data mailing sets. Two marginal feed bands bounded by longitudinal lines of weakening in the form of perforations or intermittent slits provide exact registration for the series of identical data mailing sets in their continuous stationery format as they pass over the sprocket feed mechanism of both manufacturing equipment and office imprinting machines. The data mailing set is comprised of a message or invoice panel portion, an address panel portion, and a double ply return envelope panel portion which is also a part of the mailing cover. The address side or ply of the return envelope is attached and sealed along three of its edges to the back side or ply of the set's address panel during manufacture of the continuous stationery. Fixed data and postal indicia may be preprinted on the return envelope portion and other parts of the data mailing set during its manufacture. Variable data may be imprinted by suitable computer line printers and business machines on the faceside of the data mailing set. After imprinting, the continuous stationery format is burst along lines of weakening into individual mailing sets subsequently to be folded and sealed for postal delivery. The sealed mailing set is thereafter opened by pulling off a tear stub along one edge of the address panel cover.

An object of this invention is to permit volume print-outs of computer-generated invoices, billings, proxies, subscription notices, statements, and various messages without the use of separately prepared address labels, stickers, or envelopes for enclosing such print-outs; to broaden the use of the integrally combined imprinted message, mailing cover, and return envelope in one continuous data processing operation.

Another object is to eliminate the sequencing and matching of separately imprinted envelopes or address labels with their related messages and return envelopes, including the envelope stuffing operation, by combining all components into one integral mailing set.

An important object is to provide a direct and return postal communication stationery set that does not require the use of carbons, carbon imprinting, or envelope windows, and is equipped for easy opening of the sealed mailing cover and the removal of its enclosures.

The aforesaid objects and further objects, advantages, and details of this invention will be more clearly perceived from the following specifications of preferred embodiments of the invention and related drawings.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a plan view of the face side of a data mailing set of the present invention.

FIG. 2 is a plan view of the back side of the data mailing set depicted in FIG. 1.

FIG. 3 is a fragmentary perspective view of a continuous assembly of serially connected data mailing sets with the return envelope shown in FIG. 2 but with a part of the envelope's address side or ply folded back to show its construction detail.

FIG. 4 is a plan view of the return envelope shown in FIGS. 2 and 3, after it has been detached from its continuous form assembly.

FIG. 5 is a fragmentary perspective view of a continuous assembly of serially connected data mailing sets of the type shown in FIGS. 1 and 2, in a continuous fanfold format.

FIG. 6 is a perspective view of a data mailing set detached from its continuous format and partly folded in preparation for mailing.

FIG. 7 is a perspective view similar to FIG. 6, but showing a completely folded and sealed data mailing set with its pull-off stub partly detached for opening purposes.

FIG. 8 is a cross section along the line 8—8 of FIG. 2.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Although the disclosure hereof is detailed and exact to enable those skilled in the art to practice the invention, the physical embodiments herein disclosed merely exemplify the invention which may be embodied in other specific structure. The scope of the invention is defined in the claims appended hereto.

Like parts are given the same reference characters in the several views.

The front and back sides of a data mailing set 10 are shown, respectively, in FIGS. 1 and 2. The data mailing set 10 comprises a laterally elongated paper strip 11 which forms a base ply for the mailing set and which is divided by longitudinal weakening or crease lines 23, 44 into three substantially equal parts, namely, a message or invoice panel 20, an address panel 30, and a return envelope double ply panel 40. Double ply envelope panel 40 comprises an address ply 42 and a back ply 41. These plies are united along three of their corresponding edges by marginal bands of adhesive 45 (FIG. 3). The margins of the fourth side of the double ply envelope panel 40 are left open, at 46 (FIG. 3), and ad-

dress ply 42 is provided with a marginal notch 47 to facilitate entry into the envelope. Thus the set 10 comprises a single continuous strip 11 having its middle panel 41 covered with a ply 42 to form the return envelope 40. When the return envelope 40 is detached from the mailing set 10, it will be seen that what was the faceside 41 (FIG. 1) of the middle panel 40 of the data mailing set 10 is now the back side of the return envelope 40.

The closure flap 43 (FIG. 4) of the return envelope 40 is shown set off, in FIG. 3, by a line of weakening perforations or slits 33 by which the return envelope 40 is detachable from the mailing set 10. A crease line 44, to permit the return envelope closure flap 43 to be folded down, also serves as a means for initially folding the data mailing set 10 for mailing. The return envelope closure flap 43 is coated with an adhesive 61, desirably a dry adhesive, suitable for sealing the envelope 40.

As illustrated in FIGS. 3 and 5, the data mailing set 10 is desirably initially fabricated as a portion of an elongated strip of continuous form stationery 12, the sets 10 being serially connected in the stationery strip 12 on transverse lines 60 of weakening perforations or slits, to facilitate bursting the sets 10 one from another, after the stationery strip 12 is imprinted on computer line printers or office machines. Thereafter the discrete sets 10 are folded and sealed for mailing.

The marginal feed bands 50 on each side of the continuous stationery strip 12 are perforated with sprocket holes 51 for meshing with the standard dimensions and spacing of the sprocket feed mechanism of both the stationery manufacturing equipment and the office imprinting machines. The marginal feed bands 50 are also bounded by longitudinal lines of weakening 52 in the form of perforations or slits to permit the easy detachment of the narrow bands 50. As practiced in the art, the pinfeed bands 50 provide proper and exact registration for a continuous series of identical data mailing sets 10 as they pass over the sprocket feed mechanism of manufacturing equipment or imprinting equipment while conjoined in their continuous stationery format. The data mailing sets 10 may be made in any size desired commensurate with the size capacity of the imprinting office machines to be used.

Fixed data 63 such as return address, originator's name and address, and panel headings may be preprinted during the manufacture of the continuous form stationery 12. Postal indicia 65 may also be preferably preprinted during manufacture. All variable data 64, however, is selectively imprinted in computer line printers and office machines as the data mailing set is fed or threaded through such imprinting equipment.

After the data mailing sets are imprinted and burst into individual form sets 10, they are folded along crease lines 23 and 44, as shown in FIGS. 1, 2 and 6. As further shown in FIGS. 1, 2 and 3, crease line 23 is bounded by two parallel lines of weakening 24, in the form of perforations or slits, which overlap with the feed band 50 as the set is folded as shown in FIG. 6. Adhesive 61 seals the set for processing through the mail, or the like. For easier folding, it is desirable that the marginal feed band 50 contiguous with the message panel 20 be removed after imprinting and previous to folding.

To open the data mailing set 10 after it is sealed, mailed, etc., the multiply tear strip or pull-off stub 62 is severed along tear line 52, as shown in FIG. 7. This

action simultaneously opens the sealed mailing set, detaches the message panel portion 20 from the set, and frees the bottom edge 24 of the return envelope 40 from the message panel 20 to which it had been attached. The complete removal of the return envelope 40 from the mailing set 10 is then completed by detaching the closure flap 43 from the address panel 30 along perforation line 33. The completely detached return envelope 40, as shown in FIG. 4, may generally be of a rectangular shape.

Various modifications are within the scope of the invention. For example, the return envelope closure flap 43 may be excluded from the address panel 30 portion of the mailing set 10 and retained within the return envelope panel 40 itself. The net effect of this arrangement would be to reduce the width of the return envelope, including its closure flap 43 and increase the address panel 30 width. The message or invoice panel 20 could be doubled in width, leaving the other two panels unchanged. This arrangement would require an extra longitudinal fold in closing and sealing the data mailing set. Moreover, the data mailing set 10 may be made in discrete separate sets, as shown in FIGS. 1 and 2, omitting the pinfeed bands 50, for use in typewriters not equipped with sprocket feed, and not in continuous stationery form as shown in FIGS. 3 and 5 hereof.

I claim:

1. A data mailing set comprising a base ply divided by longitudinal lines of weakening into three laterally adjacent panels comprising a message panel, a return envelope panel and an address panel, a subply overlying the return envelope panel and constituting one side of a double ply envelope, said subply being limited in width to the width of the panel which it overlies, said envelope being bounded by lines of weakening in the base ply for use in separating the envelope from said data mailing set, said subply being secured to the base ply along a coextensive periphery continuous with three sides of said envelope, said address panel having an additional longitudinal line of weakening to permit an envelope closure flap to be formed, said closure flap being further coated with adhesive on one side.

2. The invention of claim 1 in which said data mailing set further comprises marginally perforated feed bands on two opposing sides of said base ply for feeding or threading said base ply through data processing equipment in imprinting the ply, there being a plurality of data mailing sets joined together to form a continuous stationery series by transverse lines of weakening crossing the entire data mailing set.

3. The data mailing set of claim 2 wherein the marginally perforated feed bands on opposing sides of the base ply are joined to the base ply along longitudinal lines of weakening to permit them to be detached from the base ply.

4. The data mailing set of claim 1 wherein a first longitudinal line of weakening defining a first panel has two additional lines of weakening extending parallel and coextensive with said first longitudinal line of weakening, for providing a tear strip to the sealed data mailing set and by which means the sealed data mailing set may be opened.

5. The data mailing set of claim 1 wherein the base ply panel forming a side of said envelope is positioned between the other two base ply panels.

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