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[54] **ENVELOPE FOR MUTILATED CHECKS**

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[52] **U.S. Cl.** .... **235/61.12 R**, 235/61.12 M, 283/57, 283/58

[51] **Int. Cl.** **B42d 15/00**, G06k 19/04

[58] **Field of Search** 235/61.12 R, 61.12 M, 61.12 N; 283/57, 58; 229/68, 72; 40/158 R

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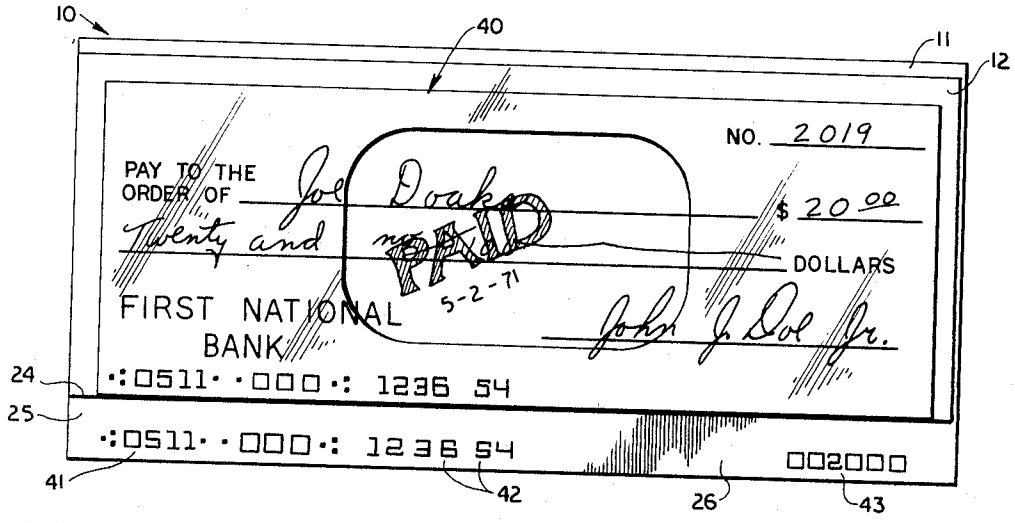
[57] **ABSTRACT**

An envelope for mutilated checks fabricated from two sheets of transparent thermoplastic material and including an opaque bottom margin for receiving magnetic ink characters or optical characters, and with each panel defining an opening therein. Checks are placed in the envelope above the bottom margin and passed through automated check microfilming, sorting and cancelling equipment.

9 Claims, 3 Drawing Figures



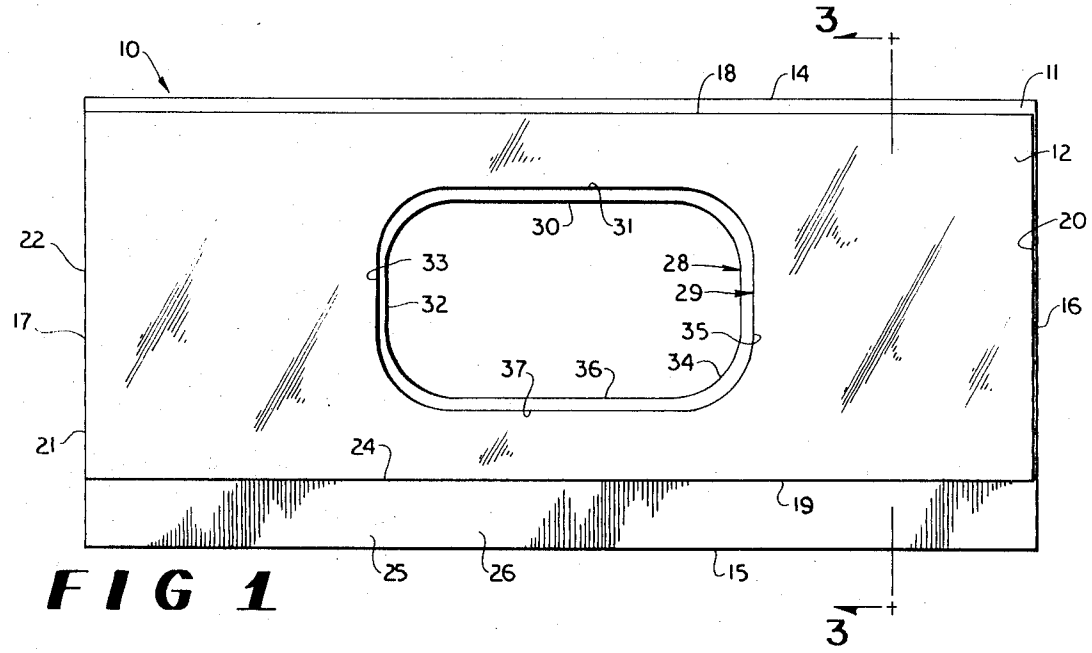


FIG 1

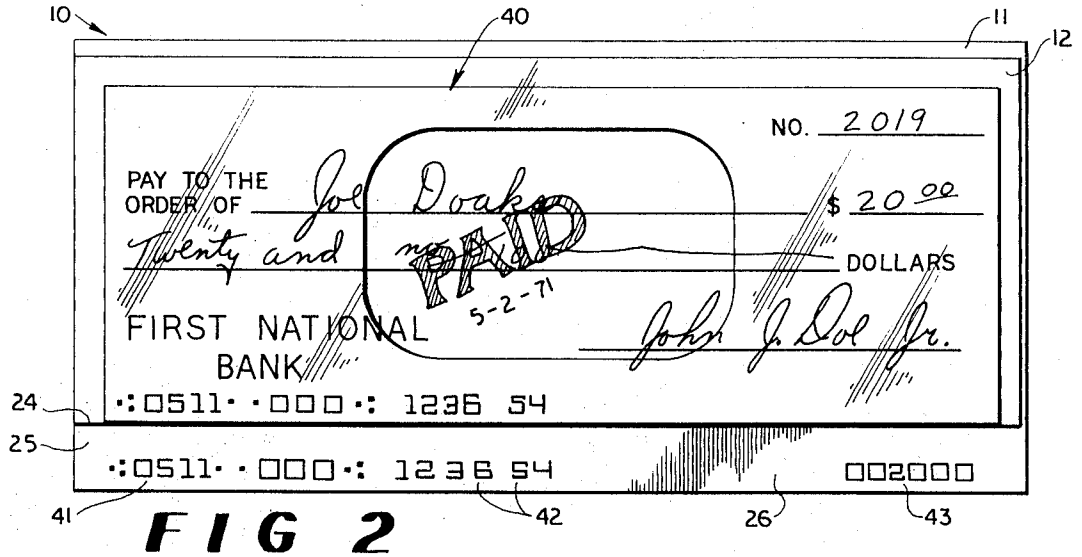


FIG 2

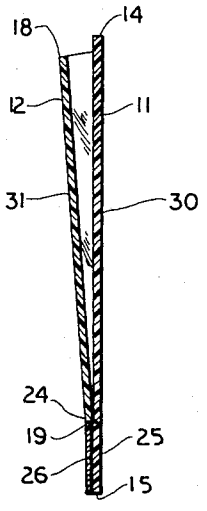


FIG 3

ENVELOPE FOR MUTILATED CHECKS

BACKGROUND OF THE INVENTION

Bank checks are automatically processed through systems which are capable of automatically microfilming, cancelling and sorting checks in response to magnetic ink characters imposed along the bottom edges of the checks. The characters along the bottom margins of the checks usually identify the bank, the account at the bank, and the amount written on the check.

While the automated systems function to process properly coded checks which are not torn, crushed or otherwise mutilated, the automated systems cannot process mutilated checks or checks which have improper or insufficient magnetic ink characters printed thereon. In the past, the mutilated checks have been placed in envelopes having an opaque back panel and a transparent front panel. The identity of the bank, account and the amount of the check was imposed in magnetic ink or similar readable characters of the bottom margin of the envelope, and the mutilated check was carried by the envelope through the automatic check processing system. In order to microfilm both the front and back surfaces of the check, the check has to be removed from the envelope, turned over, and reinserted in the envelope, and passed back through the microfilming portion of the system. Also, if the check was to be cancelled, it had to be stamped with the cancelling indicia either before being inserted in or after being removed from the envelope. In addition, the particular material from which the check carrying envelopes have been fabricated in the past has caused some difficulty in the photographing step of the automated check processing procedure in that the photographs made of the checks through the supposedly transparent panels of the envelopes were frequently blurred or too dark to read.

SUMMARY OF THE INVENTION

Briefly described, the present invention obviates the foregoing problems and comprises an envelope for carrying checks through automated bank check processing equipment and includes a pair of clear thermoplastic panels connected together in overlying relationship, with each panel defining an opening therein and a margin along its lower edge which is capable of carrying detectable characters such as magnetic ink or optically detectable characters. The checks carried by the envelopes can be photographed from both sides through the transparent panels and cancelled or otherwise stamped on both sides through the openings in the panels of the envelope. The check does not have to be removed from its envelope and can be forwarded to the bank customer in its envelope along with the other non-mutilated checks.

Thus, it is an object of the present invention to provide envelopes for carrying checks or the like through automated bank processing equipment, the envelopes being inexpensive to manufacture, expedient to use and which enable checks to be automatically processed through the microfilming, sorting and cancelling steps without being removed from the envelope even though the checks are mutilated or otherwise unsuitable for automated processing.

Other objects, features and advantages of the present invention will become apparent upon reading the following specification, when taken in conjunction with the accompanying drawing.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a side view of the envelope.

FIG. 2 is a side view of the envelope with a check enclosed in the envelope and with the identifying characters imposed on the bottom margin of the envelope.

FIG. 3 is an end cross-sectional view of the envelope, taken along the lines 3—3 of FIG. 1.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now in more detail to the drawing, in which like numerals indicate like parts throughout the several views, FIG. 1 discloses envelope **10** which comprises rear panel **11** and front panel **12.** Panels **11** and **12** are fabricated of clear thermoplastic material, and can be fabricated from cellulose esters, vinyl materials, polyester or polycarbonates. The preferred embodiments would include the cellulose esters of cellulose acetate, cellulose nitrate, cellulose acetate butyrate, or cellulose acetate propionate. More particularly, the preferred form of the invention is fabricated from cellulose acetate which is chosen because of its particular strength characteristics when the panels are fabricated in thicknesses from 3 to 6 mils. The panels of this thickness together with a typical bank check inserted thereinbetween can be processed through all known bank processing equipment without causing any binding or other malfunction of the equipment. Of course, other materials and material thicknesses can be utilized, as may be appropriate for the particular equipment through which the checks are to be processed.

Rear panel **11** is substantially rectangular and includes top edge **14,** bottom edge **15,** and end edges **16** and **17.** Front panel **12** is also substantially rectangular and includes top edge **18,** bottom edge **19,** and end edges **20** and **21.** The distance between end edges **16** and **17** of rear panel **11** is larger than the distance between top and bottom edges **14** and **15.** The distance between end edges **20** and **21** of front panel **12** is substantially the same as the distance between end edges **16** and **17** of rear panel **11,** while the distance between top and bottom edges **18** and **19** of front panel **12** is smaller than the distance between top and bottom edges **14** and **15** of rear panel **11.** End edges **17** and **21** of rear and front panels **11** and **12** are connected together by heat fusion of the thermoplastic material so as to form a mutual edge **22.** Bottom edge **19** of front panel **12** is connected to rear panel **11** by heat fusion along a line of connection **24** which is parallel to and spaced from bottom edge **15** of rear panel **11.** The envelope is open along upper edges **14** and **18** of rear and front panels **11** and **12** and along end edges **16** and **20** of rear and front panels **11** and **12,** leaving two edges open and two edges closed. The connection **24** at the bottom edge of front panel **12** forms a margin **25** along the bottom of the envelope structure. The margin is closed and inaccessible from inside the envelope. Margin **25** has applied thereto a coating **26** (FIG. **3**) of opaque material, so that only the margin **25** is opaque, leaving the rest of the envelope structure transparent.

Openings **28** and **29** are formed in rear and front panels **11** and **12** respectfully. Openings **28** and **29** are in alignment with each other and are spaced intermediate

the ends of their respective panels. Openings **28** and **29** are approximately rectangular with rounded corners and having inwardly facing top edges **30** and **31**, end edges **32** and **33** at one end and **34** and **35** at the other end, and bottom edges **36** and **37**. Opening **28** in rear panel **11** is smaller than opening **29** to facilitate the insertion of checks into the envelope.

Top edge **18** of front panel **12** is foreshortened and not in alignment with top edge **14** of rear panel **11**, so that the upper edge portion of rear panel **11** forms a lip or overhang which facilitates the opening apart of rear and front panels **11** and **12**.

As is illustrated in FIG. **2**, a check **40** can be placed in envelope **10**. The line connection **24** along the bottom of the envelope keeps the check **40** from moving down into the margin **25** of the envelope so that the check is completely visible through the transparent rear and front panels **11** and **12**. Also, the check is physically accessible through both the rear and front openings **30** and **31** in the panels **11** and **12**, and any stamps or other indicia which are to be applied directly on the surface of the check can be applied through the openings **30** and **31** from both sides of the envelope.

When envelopes of the type disclosed herein are to be used in an automated bank check processing system, a supply of the envelopes are imprinted with bank identifying characters such as characters **41** along the opaque margin **25** of the envelope. When a mutilated check is to be processed through the equipment, one of the envelopes **10** is further marked with the account number **42** of the check and with the amount **43** for which the check is written. The check is then placed in the envelope and passed through the automatic check processing equipement. The equipment — which normally reads the characters imposed along the bottom edge of a non-mutilated or otherwise readable check — reads the characters imposed along the bottom margin **25** of envelope **10**. The equipment functions to sort the checks by bank identification **41** and by account identification **42**, and the sum of the check is identified at **43** is recorded in the system. Also, each check is photographed or microfilmed as it passes through the system, and the checks carried by the envelopes **10** can be photographed from both sides of the check. Also, when the check **40** and its envelope **10** reach the portion of the system where the check is to be cancelled or stamped with indicia indicating that the check has been processed, the check can be directly stamped through openings **30** and **31** in rear and front panels **11** and **12** without having to remove the check from the envelope. The check can continue through the automatic process and be forwarded to the customer along with the other cancelled check while still in its envelope, if desired.

While margin **25** has been disclosed as including a coating **26** of opaque material, it will be understood that the coating **26** can be replaced by other substances, including a panel of paper which is adhesively connected to the lower edge of rear panel **11**, and with some envelope materials it is not necessary to coat the margin of the envelope and the characters to be read by the automated check processing system can be applied directly to the envelope material. Moreover, while front panel **12** has been disclosed as being connected along its bottom edge **19** to rear panel **15** at a line of connection spaced from the bottom edge of the rear panel, it will be understood that front panel **12** can be approximately the same size as rear panel **11** so that its bottom edge can be evenly disposed with bottom edge **15** of rear panel **11** and bottom margin **25** of the envelope will comprise two thicknesses. Moreover, the front panel **12** can extend down into margin **15** while the rear panel **11** can be foreshortened so that margin is formed from only front panel **12**.

While envelope **10** has been disclosed as having two open edges, one along its top edge and the other along one end edge, the reason for having two open edges is to facilitate opening the envelope and so the larger checks which might not fit inside envelope **10** can protrude from the end of the envelope and still be processed through the check processing equipment. Of course, it is desirable to utilize envelopes **10** that are slightly larger than the checks to be enclosed therein, and if this is so the envelope can be closed at both ends.

While the envelope **10** has been disclosed as being fabricated from two separate sheets or panels, it will be understood by those skilled in the art that a single sheet of material can be folded to form the envelope, with a fold being located along of the normally closed edges of the envelope, such as the bottom edge of the envelope.

While this invention has been described in detail with particular reference to preferred embodiments thereof, it will be understood that variations and modifications can be effected within the spirit and scope of the invention as described hereinbefore and as defined in the appended claims.

I claim:

1. An envelope for enclosing mutilated checks or the like and for carrying the checks to automated scanning, photographing and cancelling apparatus, said envelope comprising a rectangular rear panel of clear thermoplastic sheet material having four edges including top, bottom and two end edges with the distance between its end edges being greater than the distance between its top and bottom edges, a rectangular front panel of clear thermoplastic sheet material having four edges including top, bottom and two end edges with the distance between its end edges being approximately equal to the distance between the end edges of said rear panel and with the distance between its top and bottom edges being less than the distance between the top and bottom edges of said rear panel, said rear panel and said front panel each defining an opening therein intermediate their end edges, said opening of each panel being approximately aligned with the opening of the other panel, both of said openings being of a length at least one-third the distance between the end edges of said rear panel and front panel, and the lower portion of the opening of one of said panels being positioned lower than the lower portion of the opening of the other of said panels, and said front and rear panels being connected together along at least one of said end edges and along a line of connection spaced from the bottom edge of at least one of said rear panel or said front panel and leaving a bottom margin along said envelope, the top edge of said front panel being spaced lower than the top edge of said rear panel so that the top edge of said rear panel forms a lip to facilitate the opening apart of the rear and front panels, and said bottom margin of said envelope being fabricated from a material suitable for receiving identifiable characters.

2. An envelope for enclosing mutilated checks or the like as the checks are passed through an automated check processing system comprising transparent juxtaposed rectangular front and rear panels, each of said panels including a top edge, a bottom edge, and end edges, and said panels being connected together along a line of connection adjacent at least one of their mutual edges in overlying relationship, an opening defined in each of said panels away from the edges of said panels with the opening in said front panel being approximately aligned with the opening in said back panel, an opaque margin along one edge of said envelope inaccessible from inside said envelope and suitable for receiving identifiable characters so that a check can be inserted in said envelope and the check is visibly exposed on both of its sides through said panels and is physically exposed on both of its saids through said openings in each of said panels, and the check is maintained out of the margin of said envelope.

3. The envelope of claim 2 and wherein both of said front and rear panels are fabricated of clear thermoplastic material.

4. The envelope of claim 2 and wherein both of said front rear panels are fabricated of cellulose acetate and each panel is of a thickness between 2 and 6 mils.

5. The envelope of claim 2 and wherein said bottom margin includes a coating of opaque material.

6. The envelope of claim 2 and wherein said bottom margin includes an opaque panel adhesively connected thereto.

7. The envelope of claim 2 and wherein the opening of said front panel is in alignment with the opening of said rear panel, and said openings are of different sizes.

8. The envelope of claim 2 and wherein the openings of said front and rear panels generally are of rectangular shape with rounded corners.

9. The envelope of claim 2 and wherein the front and rear panels are fabricated from a thermoplastic material and are connected together by heat fusion of the thermoplastic material.

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