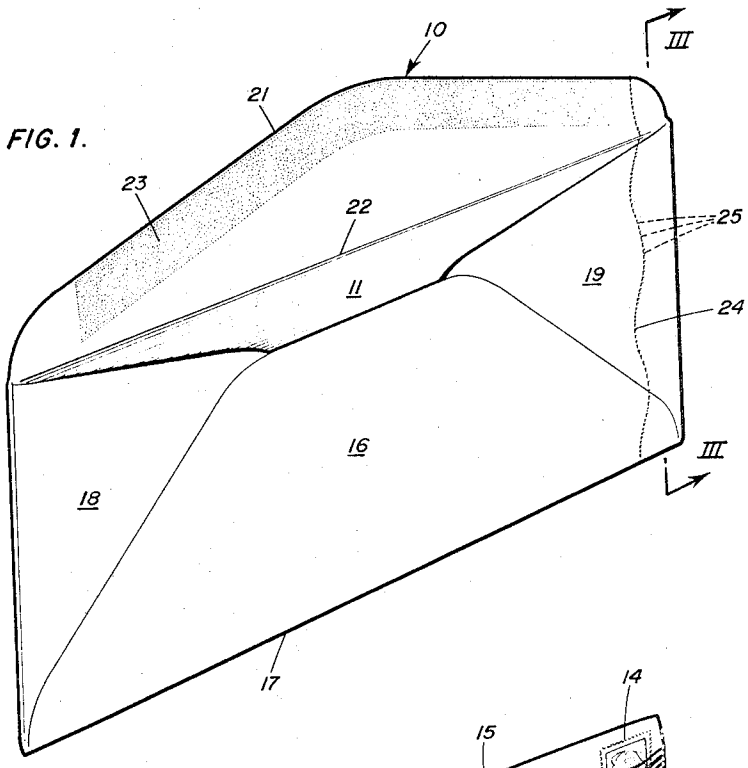
Dec. 27, 1966 J. L. SPAULDING 3,294,313

ENVELOPE

Original Filed Aug. 13, 1964

FIG. 1.



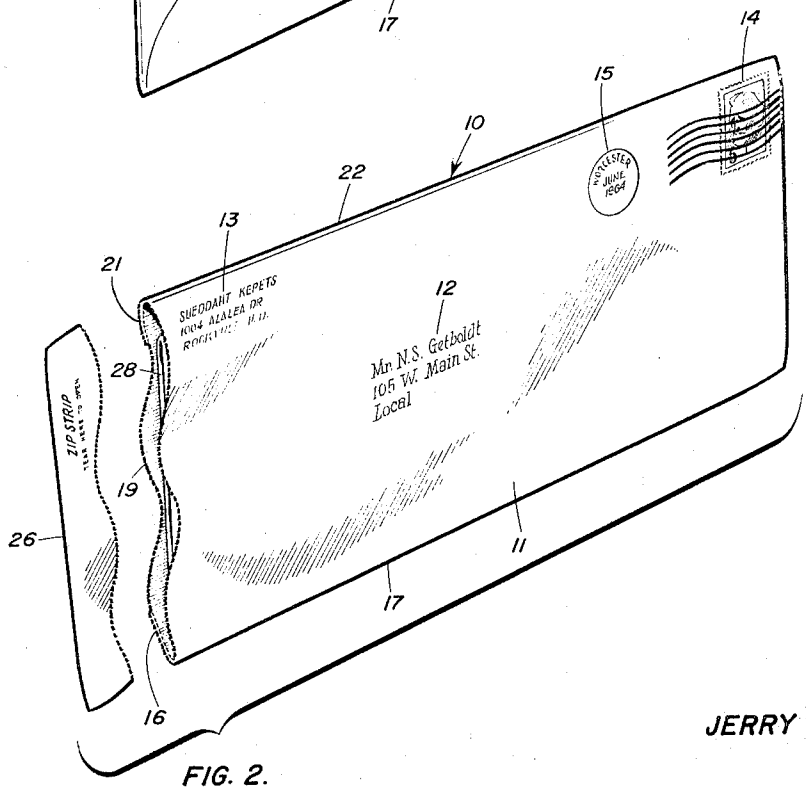


FIG. 2.

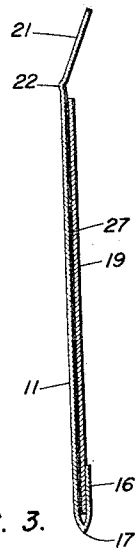


FIG. 3.

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3,294,313

ENVELOPE

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Continuation of application Ser. No. 389,355, Aug. 13, 1964. This application May 18, 1966, Ser. No. 560,030

1 Claim. (Cl. 229—85)

This is a continuation of patent application Serial Number 389,355, filed August 13, 1964, now abandoned. The invention relates to an envelope and, more particularly, to a paper container arranged to convey letters and the like through the mails, which container may be easily opened by the receiver.

Over the years, many attempts have been made to design an envelope which could be readily opened by the receiver. Not only is this desirable because of the fact that the receiver of the envelope would prefer not to have to spend time finding an instrument, such as a letter opener, knife, or scissors, to open the envelope, but also because quite often in the rush of opening a letter (through exasperation at the time-consuming operation of opening it and so forth) the receiver of the letter is apt to destroy or injure the contents. Many attempts have been made to solve this problem; some of the proposed constructions have made use of tapes or strings which are pulled to open the envelope; others have weakened the paper by perforating and otherwise in order to make it easier to tear the envelope. However, each of these constructions has suffered from a number of difficulties. Perforated envelopes, for instance, have the disability that the envelope gets bent and torn during mailing so that the contents can be lost. Furthermore, in tearing an envelope along a perforated line, it is possible sometimes to destroy or damage the contents. Other types of readily-opened envelopes are very expensive to manufacture and, therefore, are not economically feasible. These and other difficulties experienced with the prior art devices have been obviated in a novel manner by the present invention.

It is, therefore, an outstanding object of the invention to provide an envelope which may be readily opened by the receiver without the use of a letter opener or the like.

Another object of this invention is the provision of a readily-openable envelope in which there is no danger of the contents being destroyed or damaged.

A further object of the present invention is the provision of an envelope which can be manufactured on standard envelope-manufacturing machinery and which requires no extraneous papers, strings, tapes, or the like.

It is another object of the instant invention to provide a readily-openable envelope which is inexpensive to manufacture and which, nevertheless, cannot become accidentally opened during mailing or, when opened by the receiver, cannot have its contents damaged.

It is a further object of the invention to provide an envelope which is readily opened and which, when opened, provides easy access to the contents for the removal thereof.

A still further object of this invention is the provision of a readily-openable envelope in which there is no danger of the contents being damaged by the opening operation but which provides for the contents being exposed for ease in removal.

With these and other objects in view, as will be apparent to those skilled in the art, the invention resides in the combination of parts set forth in the specification and covered by the claims appended hereto.

The character of the invention, however, may be best understood by reference to one of its structural forms as illustrated by the accompanying drawings in which:

FIG. 1 is a perspective view of an envelope embodying the principles of the present invention,

FIG. 2 is a perspective view of the envelope showing it in the process of being opened, and

FIG. 3 is a sectional view of the envelope taken on the line III—III of FIG. 1.

Referring first to FIG. 1, which best shows the general features of the invention, it can be seen that the envelope, indicated generally by the reference numeral **10**, is formed from a single paper blank and is provided with a rectangular front panel **11** which is adapted to carry the address **12**, the return address **13**, the stamp **14**, and the cancellation **15**. Also provided is a back panel **16** which is hingedly connected to the front panel along a fold line **17**. Connected by gluing to the back panel **16** are end flaps **18** and **19**. Finally, a flap **21** is hingedly attached to the upper edge of the front panel **11** along a fold line **22**, this flap being provided with a layer of remoistenable or pressure-sensitive adhesive, such as gum **23**.

Extending across the end of the envelope opposite the end to which the stamp **14** is normally applied is a weakening line **24** which, for the purposes of illustration, is shown as consisting of a series of perforations **25**. The line **24** is in the general form of a sine wave and consists of several extreme changes of direction across the width of the envelope. This line **24** not only extends through the end flap **19** and the back panel **16** (as shown in FIG. 1) but also through part of the front panel **11** (as shown in FIG. 2). The small portion **26** of the envelope between the weakening line **24** and the adjacent end is inaccessible to the contents of the envelope because of a layer of adhesive **27** which has been inserted between the end flap **19** and the front panel **11**, as is evident in FIG. 3.

The operation of the apparatus will now be readily understood in view of the above description. First of all, with regard to the envelope after it has been manufactured and before being used as shown in FIG. 1, a letter **28** (evident in FIG. 2) may be inserted in the envelope and the remoistenable adhesive in the gummed strip **23** may be activated, so that the flap **21** is used to seal the envelope. During its passage through the mail, the curved nature of the weakening line **24** assures that it cannot be folded and thus become weakened in transit. This makes certain that the portion **26** will not break or tear off by accident and thereby expose the contents and make them liable to be lost.

When the envelope reaches the receiver, indicated by the address **12**, he may remove the portion **26** by tearing along the weakening line **24**. Because of the presence of the adhesive **27** between the two sides of the portion **26**, it has been impossible during transit for the contents **28** to shift into that portion. Therefore, when the receiver removes the end of the envelope, the contents **28** lie well within the main portion of the envelope and do not extend out into the line of weakening where the contents would be damaged by the tearing. Once the portion **26** has been removed, the contents may be moved outwardly by a slight tapping of the main portion of the envelope and then may be grasped in the concave indentations formed by the weakening line **24**.

An examination of the construction used by the applicant shows that the entire envelope blank is of a commonly-used shape which may be made in the usual cutting apparatus, that the perforations **25** forming the weakening line **24** may be added at a time, for instance, when the return address **13** is printed, or by a separate operation. When the envelope is used, it does not present any problem, so far as post office cancelling machines are con-

cerned, and the envelope cannot be bent easily about the weakening line **24** because of the wave shape of its configuration. Nevertheless, it is a relatively simple matter to remove the end of the envelope by making use of the perforations **25**. At that time, however, the contents **28** do not extend into the portion **26** which is to be torn off. Furthermore, the wave form of the torn-off portion makes it much easier to remove the contents, since a thumb notch is provided by this curved form. It will be understood that the weakening line **24** may be formed by other means than perforations, such as deep scoring, thinning of the paper material, or the like, as is well known in this art. Furthermore, the exact configuration of the weakening line may vary to suit the user and it need not, necessarily, consist of the exact sine wave shape shown in the drawings, but may consist of any continuous or discontinuous line whose direction changes from time to time sufficiently to prevent bending of the envelope about a straight hinge line and to give indentations for ready access to the contents of the envelope.

It is obvious that minor changes may be made in the form and construction of the invention without departing from the material spirit thereof. It is not, however, desired to confine the invention to the exact form herein shown and described, but it is desired to include all such as properly come within the scope claimed.

The invention having been thus described, what is claimed as new and desired to secure by Letters Patent is:

An envelope, comprising

(a) a rectangular front panel,

(b) a rectangular back panel connected along two end edges and one side edge to the corresponding edges of the front panel,

(c) a gummed flap hingedly connected to the other side edge of the front panel and adapted to overlie and be connected to the back panel,

(d) weakening lines formed by a series of perforations extending across both panels adjacent one end edge, each line being curved in a sine wave form and changing direction from time to time to discourage unintentional bending of the envelope about the lines and to permit the contents of the envelope to be readily grasped, a weakening line extending over the flap in position to match a similar line on the back panel, and

(e) means consisting of adhesive fastening the panels together in the portion of the envelope lying between the lines and the said one end edge to assure that the contents of the envelope do not occupy the said portion of the envelope.

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