

[54] CONTINUOUS STRIP ENVELOPES

[75] Inventor: Pierre Malenge, Raches, France

[73] Assignee: S.A. Dite Societe D'Exploitation Des
Etablissements Malenge, Raches,
France

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[58] Field of Search 229/69; 93/63 M

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Primary Examiner—William T. Dixon, Jr.

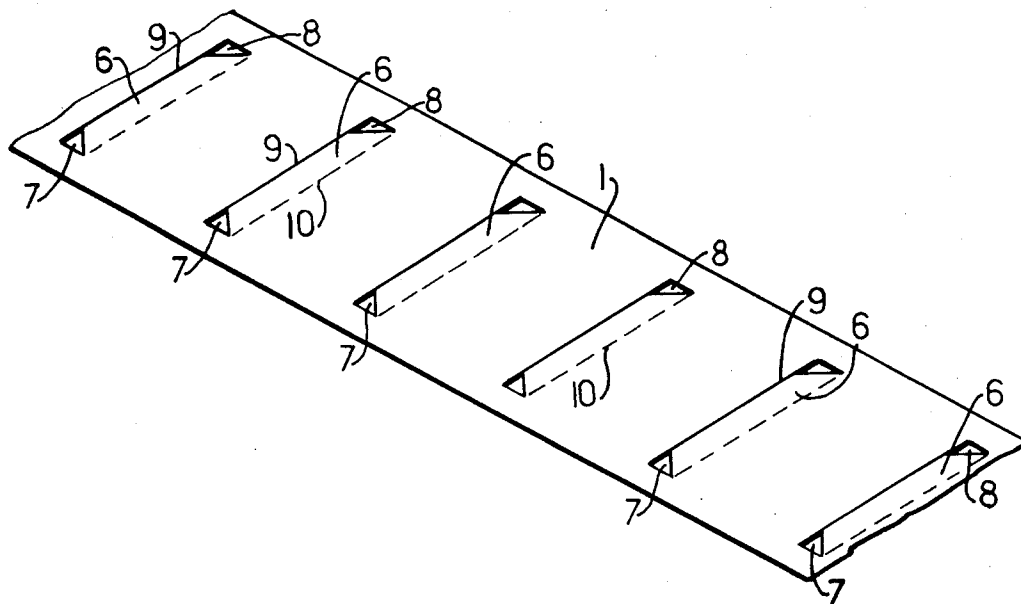
Assistant Examiner—Stephen P. Garbe

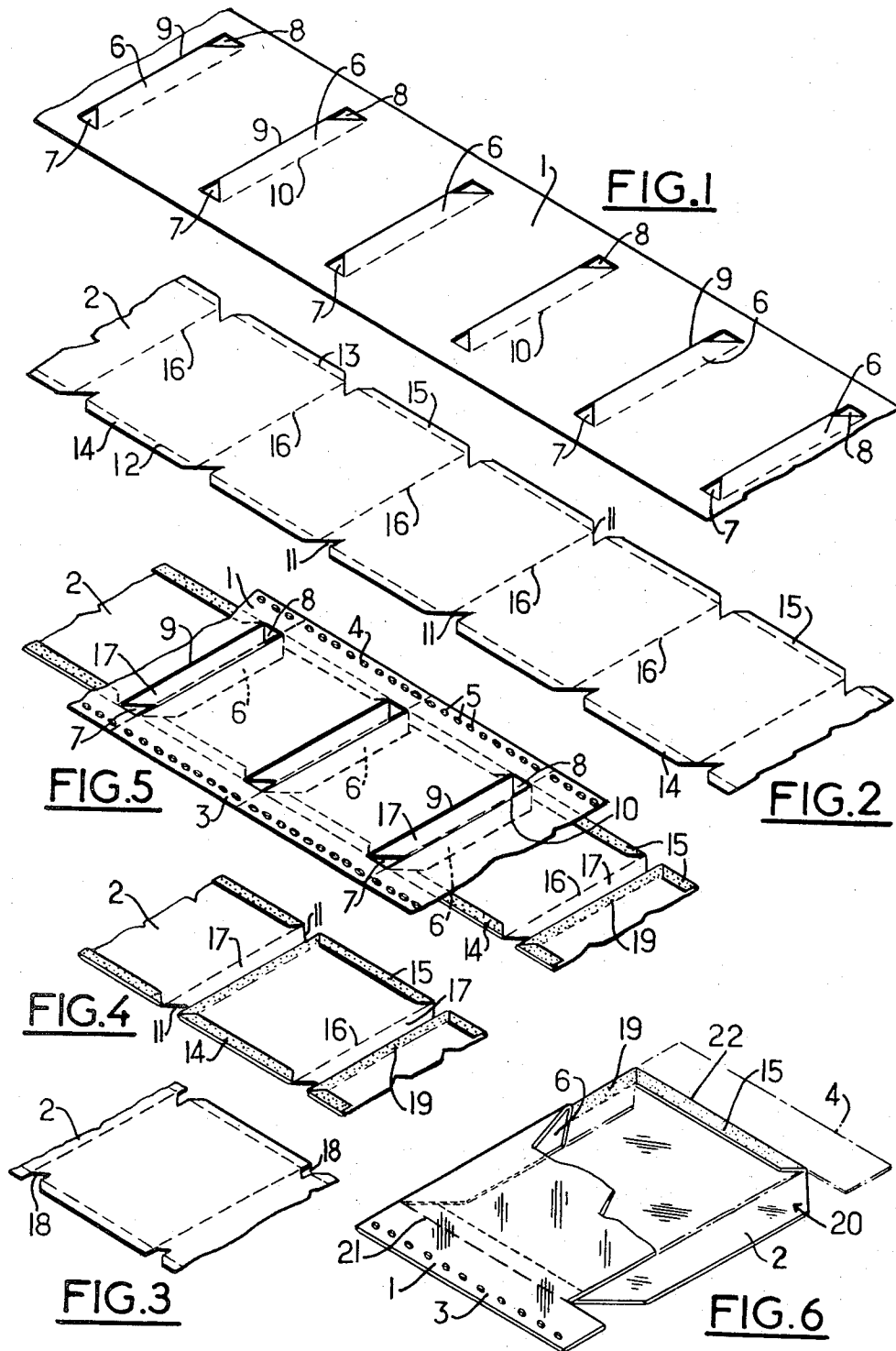
Attorney, Agent, or Firm—Ernest G. Montague

[57] ABSTRACT

A continuous strip of successive detachable envelopes in the form of continuous stationery for use in printing mechanism of calculators or computers is produced from superimposed punched webs one of which has folded edge portions forming tabs which are coated with adhesive and bonded to an opposed web, the webs being also bonded along a transverse line between the terminal ends of the side tabs to form successive envelope elements having internal dimensions substantially equal to the external dimensions. In a preferred construction a tab formed in the opposed web is bonded to a transverse adhesive line applied to the first web to form the bottom of the envelope and said first web is shaped so that on detachment of each successive envelope element a tuck-in flap is left for the envelope next to be detached. Preferably the opposed web is extended laterally to provide a marginal portion bearing sprocket feed holes, said marginal portions being capable of being detached after detachment of successive envelopes from the strip.

8 Claims, 13 Drawing Figures





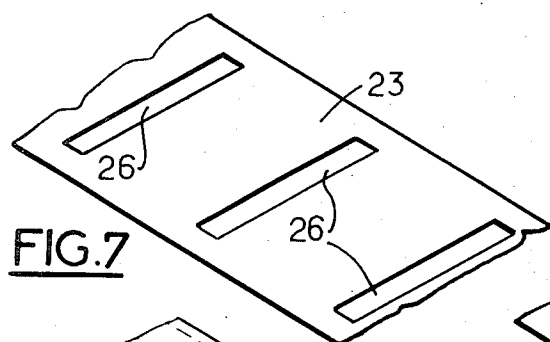


FIG. 7

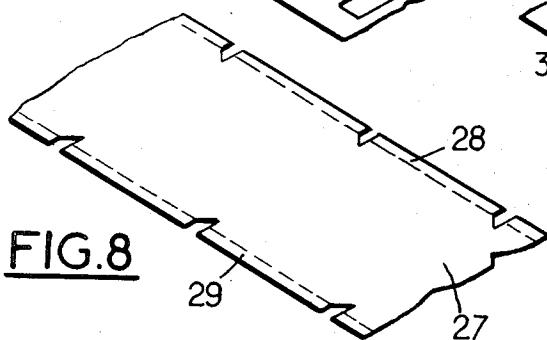


FIG. 8

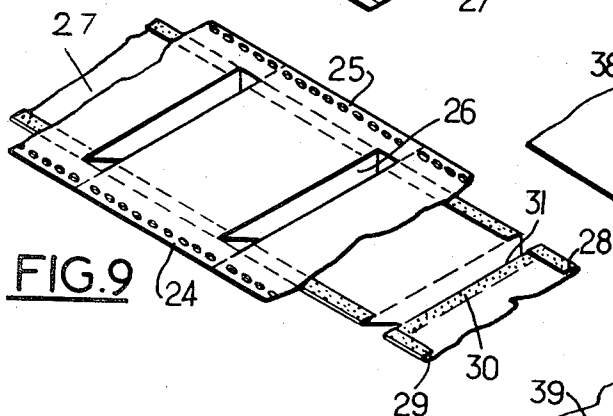


FIG. 9

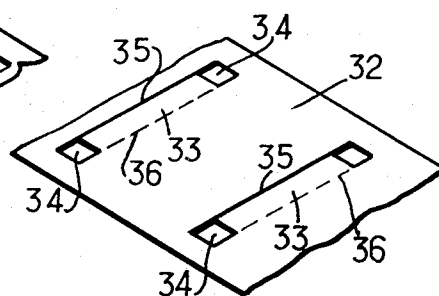


FIG. 10

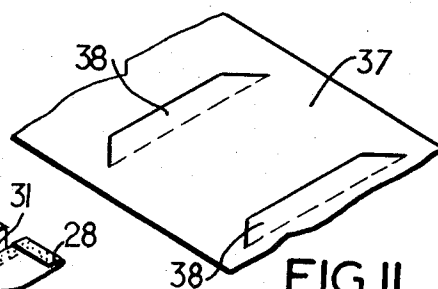


FIG. 11

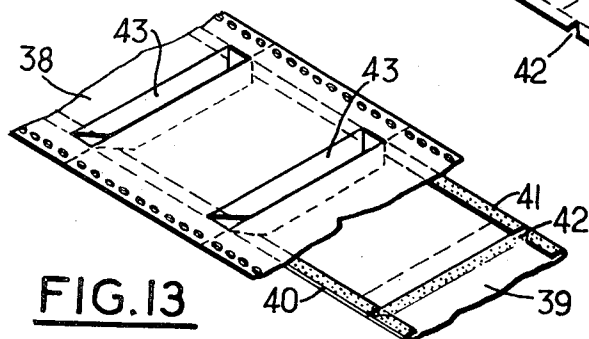


FIG. 13

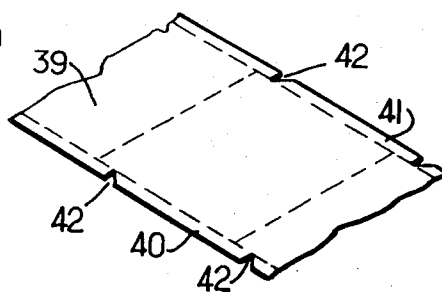


FIG. 12

CONTINUOUS STRIP ENVELOPES

The present invention relates to continuous strip envelopes supplied scored ready for removal of surplus material, and intended for use on a printing mechanism of an electric accounting machine, being produced by means of two continuous webs which are cut, glued, brought together for assembly, then perforated and folded. Such continuous strip envelopes are frequently used in accounting machines and should therefore include two perforated edges with regularly spaced holes sometimes known as sprocket holes. They are made with a bellows fold, the folds of which correspond to the size of the envelope. This folding permits easy feeding into an accounting or printing machine through which they are fed by means of sprocket wheels which supply them to the printing device which in general prints the address. After leaving the printing or accounting machine the waste is removed from the envelopes in such manner that they have an appearance which is as similar as possible to that of normal envelopes.

To produce this type of envelope two continuous webs are used which are printed, cut, glued and brought together in such a way that the assembly is effected before shaping and final folding.

These envelopes are available in the form of pockets or sachets which are open on one side which is parallel to the webs. The assembly of the two webs is effected merely by gluing the two strips and by merely bringing them together without any folding. Cutting is effected mainly to form the envelope flap. Fine perforations to permit the envelopes to be separated from the continuous strip are cut mainly in the glued zones and along the two lateral edges which are perforated with circular sprocket holes.

The difficulties which result with these envelopes are first of all that they have the appearance of a packet since the flap is located on the side of the strip and the arrangement of the flap requires the writing, typing or printing of the address in the direction of the length of the envelope. Another disadvantage of these envelopes resides in the fact that the useful internal section is substantially less than the outer dimensions of the envelope because of the lap-glued margin on three sides of about one cm width. This margin which is moreover subject to opening stresses, and thus the joint, tends to open. Because of this fact it is difficult to operate with close tolerances which are moreover reduced by creeping of the glue.

It is therefore one object of the present invention, to provide continuous strip envelopes, which avoid the mentioned disadvantages of known envelopes.

It is another object of the present invention to provide continuous strip envelopes, wherein the gluing between the two webs is effected by tabs on one of the cut webs, these tabs being folded through 180° and intended to be applied to the other web with the interposition of glue in such manner that the useful internal section of the envelope is practically equal to the external dimensions thereof, and the joint is effected between a folded tab of one web and the opposed face of the other web.

With these and other objects in view, which will become apparent in the following detailed description, the present invention, which is shown by example only,

will be clearly understood in connection with the accompanying drawings, in which:

FIGS. 1 and 2 are perspective top views of two webs intended to form the continuous strip of the present invention, after blanking out but before folding and before assembly;

FIG. 3 is a perspective top view indicating a modification of the blanking out of the web shown in FIG. 2;

FIG. 4 is a perspective view of the web shown in FIG. 2 after folding and gluing the tabs;

FIG. 5 is a perspective view showing the assembly of the two aforesaid webs,

FIG. 6 is a perspective view partly cut away showing an envelope produced by the two webs assembled according to FIG. 5;

FIG. 7 and 8 are perspective views showing modifications of the webs shown in FIGS. 1 and 2 respectively;

FIG. 9 is a perspective view of an assembly of two webs as shown in FIGS. 7 and 8 to form envelopes;

FIG. 10 is again a perspective view of another modification of the webs, such as those shown in FIGS. 1 or 7;

FIGS. 11 and 12 are perspective views of a pair of webs with a modification in the formation of the closure flap of the envelope; and

FIG. 13 is a perspective view of the assembly of the webs indicated in FIGS. 11 and 12.

Referring now to the drawings, and in particular to FIGS. 1 to 6, the envelope, according to the present invention is produced from two continuous webs or strips 1 and 2, respectively. The web 1 is wider than the web 2 since it comprises two margin parts 3 and 4 intended to be dis-carded and having regular spaced perforations 5 such as sprocket holes. The webs 1 and 2 may be preliminarily printed as required. The web 1 is punched out in a regular way at a pitch corresponding to the dimension of the envelopes to form tabs 6 of trapezoidal shape. For this purpose triangular apertures 7 and 8 are cut, a slit 9 is cut and a crease 10 is formed, the latter defining a bottom of the envelope to be produced.

The web 2 is in turn punched out to provide notches 11 and lateral creases or fold lines 12, 13 are formed so as to define tabs 14, 15, lines 12, 13 defining sides of the envelope to be produced. Other transverse creases 16 (defining a top of the envelope to be produced when it is closed), are formed to constitute the tuck flap 17 intended for later closure of the envelope. The notches 11 have a shape intended to provide a trapezoidal form for the tabs 14 and 15. This form is not essential and notches 18 can be provided, as shown in FIG. 3, in such manner that the tabs have rectangular margins at least at one end.

Before assembling the two webs 1 and 2, the tabs 6, 14 and 15 are folded over through 180° and the glue or other suitable adhesive is applied to the web 2 on the folded tabs 14 and 15 and in a zone 19 which is intended to receive the tab 6 of the web 1 on assembly. For this purpose the webs are fed between two rolls in such manner as to cause the crease 10 to coincide with the outer edge of the zone 19.

There is then obtained a continuous strip of pocketed elements each forming an envelope intended to be stripped off one by one and which are composed as shown in FIG. 6 of the envelope 20 itself and two margins 3 and 4 which can be severed at rows of fine perforations 21 and 22. It will be seen that the web 2 should

have a width corresponding to the width of the envelope plus the width of each of tabs 14 and 15.

Each envelope so produced has useful internal dimensions (pocket for holding items therein) of a length (from fold line 10 to fold line 16) as well as a width (from fold line 12 to fold line 13), which are the same as the corresponding outer dimensions of the envelope.

The production operations can be simplified if a known method of assembly can be utilized for one edge of the envelope. This arrangement is shown in FIGS. 7, 8 and 9, where the first web 23, the wider one, which comprises the two perforated margins 24, 25 includes essentially rectangular apertures 26. The first web 23 is placed over the second web 27 similarly to the web 2, but the tabs 28, 29 have a rectangular section to close the two sides of the envelope after gluing as referred to above. The bottoms of the envelopes are formed in each case by a glued zone 30 in the form of a strip of glue which joins the two webs 23 and 27. A perforation 31 is provided on the outer edge of the zone 30 to permit the separation of the two envelopes. The other parts of this modification are identical to those described above and illustrated in FIGS. 1 to 6.

In another modification shown in FIG. 10 it is possible to provide again a first web 32 assembled with a second web, not shown, similar to the web 27 (FIG. 8) and having lateral tabs of rectangular section. In cutting the web 32 tabs 33 are provided pertaining to the bottom of the envelope, said tabs being of rectangular form and having a length corresponding to that of the envelope less the width of the lateral tabs 28, 29 in such manner that the tab 33 can be placed exactly between the lateral tabs. This type of cutting includes rectangular openings 34, a slit 35 and a crease 36.

According to another modification shown in FIGS. 11, 12 and 13 a first web 37 is provided with cut outs similar to those produced in the web 1 to form tabs 38 intended for closing the bottom of the envelope and a second web 39 with tabs 40 and 41 as well as notches 42 arranged in such a way as to obtain a rectangular flap 43 the free ends of which are subsequently cut to trapezoidal shape.

The envelopes according to the present invention eliminate the disadvantage referred to above and have the advantage of envelopes having a wide opening on the larger side.

While I have disclosed several embodiments of the present invention, it is to be understood that these embodiments are given by example only and not in a limiting sense.

I claim:

1. A continuous stationary envelope strip, comprising superimposed punched webs, at least one of said punched webs having folded edge tabs defining part of the perimeter of each envelope, adhesive means joining said tabs to an opposed of said webs, to form an envelope having an internal dimension substantially equal to the corresponding external dimension, said tabs formed on the side edges of said one web are bonded to the opposed of said webs, and a tab formed on the opposed of said webs is adhesively bonded to said one web, to provide a string of envelopes adapted to be severed to form individual envelopes closed on three sides and with an opening on the fourth side.

2. A continuous envelope strip from which successive envelopes can be severed, said strip being intended to be used on a calculator printer, wherein

said strip including two superimposed continuous punched webs,

flaps on at least one of said webs folded through 180° defining two opposite sides of the perimeter of each envelope and each of said flaps being glued to an opposite of said webs to form envelopes such that the internal dimensions within each envelope is equal to the external dimensions thereof,

one of said webs being cut away and formed with creases to define a folded closing tuck flap for each of said envelopes, and

at least one of said webs being laterally perforated such that complete envelopes can be severed from the others in the strip.

3. The continuous envelope strip from which successive envelopes can be severed, said strip being intended to be used on a calculator printer, wherein

said strip including two continuous webs which have been punched out, glued, brought together, then perforated and folded,

flaps on one of said webs cut and folded through 180°, for effecting the gluing between said two webs, said flaps being intended to be applied to the other of said webs with the interposition of glue in such manner that the useful section within the envelope is substantially equal to the external dimensions thereof,

one of said webs has the width of the finished web and comprises tabs for the bottom of the envelope transverse to said one of said webs which tabs are folded through 180° before assembly,

while the other of said webs has a width corresponding to the width of the finished envelope increased by the size of tabs which are cut and folded through 180° before coating with glue on the required parts and assembly of said webs, and

a closure flap of the envelope being cut from the other of said webs.

4. The continuous envelope strip, as set forth in claim 3, wherein

said one of said webs has a width equal to the finished web width plus the width of a detachable margin incorporating sprocket feed holes,

said margin being detachable to leave a finished envelope having internal dimensions only slightly less than the external dimensions thereof.

5. The continuous envelope strip, as set forth in claim 3, wherein,

one of said webs has the width of the finished web and said closure flaps which are cut away,

while the other of said webs has a width corresponding to the length of the finished envelope increased by the size of said tabs which are cut and folded through 180° before coating with glue on the desired portions followed by assembly of the webs, and

said closure of the bottom of the envelope being effected by a strip of glue and by simple joining of said two webs at the gluing stage.

6. The continuous envelope strip, as set forth in claim 3, wherein,

said tabs and said closure flaps are cut to trapezoidal shape and creased at the base.

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7. The continuous envelope strip, as set forth in claim 3, wherein, said tabs are cut to rectangular form, and said tab pertaining to the bottom of the envelope has a length corresponding to that of the envelope less the width of the lateral of said tabs in such manner as to be placed exactly between them.

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8. The continuous envelope strip, as set forth in claim 3, wherein said webs are assembled in such a way as to obtain a rectangular closure flap which is shaped to trapezoidal form after assembly.

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