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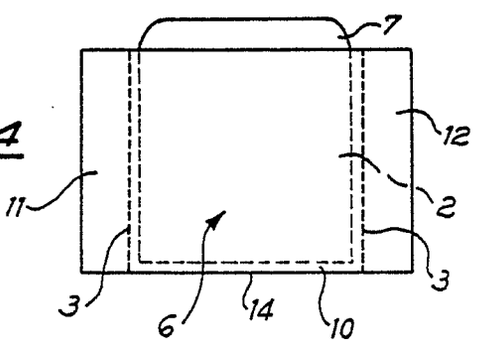
(54) A partially detachable self-adhesive label.

(57) A label for packages, specially of drugs, is divided by means of pre-set breaking lines into at least two parts of which one die-cut piece is detachable from said package, while the other part(s) remains permanently applied to the package itself.

The detachable part presents on its lower side (not printed) a layer of siliconated paper; said layer can be detachable together with the die-cut piece or can adhere to the package.

Fig.4



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The present invention concerns a label-die-cut piece of the self-adhesive partially detachable type, applicable to external wrappings of packages, in particular, even if not exclusively, to packages for medicinal products.

As it is known, in some European countries current laws for national health service provide that the packages of drugs, the cost of which is wholly or partially covered by the relevant National Health Service, show a series of identification data, generally grouped into two spaces; the portion of package corresponding to one of these two spaces must be removable to provide, together with the doctor's prescription, the proof that the drug has been sold in order that it can be reimbursed by the relevant National Health Service.

This "transfer" of the drug identification data has been performed for a long time (and it is partly performed like that even now) by removing the piece of box carring said data (die-cut piece). Though the package is adequately die-cut, such an operation results to be relatively complicated, mainly in that this die-cut piece must be glued or otherwise fixed to the doctor's prescription. There was later provided a label-die-cut piece constituted by an adhesive base adhering to the package, a layer of siliconated paper and an external self-adhesive label, separated from the base by means of said layer of siliconated paper to allow its detachment. The external label presents a cut or a pre-set breaking line extending between two of the label sides, which is thus divided into two parts.

One of these parts (die-cut piece) is removed and applied to the prescription; being self-adhesive, it allows to save the time necessary for gluing or otherwise fixing it to the prescription.

The main drawback of this label-die-cut consists in that both pieces of the label, namely, the one which is removed and the one which remains on the package, are coupled with said layer of siliconated paper which therefore separates it from the package itself.

It occurs that the adhesive layer between label and siliconated paper tends with time to undergo oxidation processes which reduce its hold on the siliconated paper itself, finally causing the almost complete loss of adherence and the detachment of the whole label from the siliconated paper and therefore from the package. This fact does not only create problems for the possible loss of the label, but it can also serve to cover eventual frauds to the prejudice of the different health services, frauds where labels are detached from the package and considered as lost, while they are on the contrary used as normal labels on prescriptions prepared for this purpose.

There is still therefore the need for a self-adhesive label-die-cut piece which cannot come off from the package by accident or cannot be purposely detached from it in order to simulate a fortuitous detachment.

The object of the present invention is to solve the above said problems, providing a self-adhesive label consisting of at least two pieces, one of which tear detachable from the remaining piece, or pieces, which must remain permanently stuck to said package.

Another object of the present invention is to propose a method to obtain said label.

More in particular, the present invention concerns a self-adhesive label for packages in general and specially for packages of medicinal products or foodstuff, of the type having an upper printed surface and a lower adhesive surface characterized in that it is divided by pre-set breaking lines in a portion detachable from the package (die-cut piece) and in one or more portions holding the die-cut piece, the lower adhesive surface of which is directly applied to the package, the lower adhesive surface of the die-cut piece only being protected by a layer of siliconated paper.

Furthermore, the present invention concerns a method for obtaining self-adhesive labels of the above described type, characterized in that a support of siliconated paper bearing the labels is cut in correspondence with the die-cut piece, and in that each label is detached from the support together with the portion of the latter which is cut in correspondence to the die-cut piece, and is directly applied to the package. The invention will be now described more in detail with reference to the accompanying drawings with illustrative and not limiting purpose, where:

- figure 1 is a view from the top only of a possible embodiment of the present invention;
- figure 2 is a view from the top only of the holding parts of the embodiment shown in figure 1;
- figure 3 is a view from the top of the detachable part or die-cut piece of the embodiment shown in figure 1;
- figure 4 is a view from the top of a second embodiment according to the invention;
- figure 5 is a view from the top only of the holding parts of the embodiment of figure 4;
- figure 6 is a view from the top of the detachable part or die-cut piece of the embodiment shown in figure 4;
- figure 7 is a view from the top of another embodiment according to the invention;
- figure 8 is a view from the top of the holding parts of the embodiment of figure 7;
- figure 9 is a view from the top of the detachable part or die-cut piece of the embodiment shown in figure 7;
- figure 10 is a perspective view of a production step obtaining the embodiment of figure 7; and

- figure 11 is a perspective view of another production step as of figure 10.

With reference to figures from 1 to 3, the label-die-cut piece is formed by a self-adhesive label 1, part of which is coupled to a layer of siliconated paper 2. The label 1 is die-cut by a discontinuous cut with pre-set breaking 3 and cutting lines 4 and 5 perpendicular to one another; the lines 3 and 5 define a detachable die-cut piece 6. The layer 2 has shape and size substantially similar to those of the die-cut piece 6 and is provided with a flap 7 extending along the cut 4, under the adhesive pieces 8, 8', and coming out from them. The adhesive pieces 8, 8' and the adhesive part 9, once applied to the package, result to be integral to it and undetachable; the cuts 4 and 5 allow therefore to remove the flap 7 from under the pieces 8, 8' and to start to lift the die-cut piece 6 until it is finally detached by tearing the pre-set breaking line 3.

The adhesive part of the die-cut piece 6 is not completely protected by the siliconated paper 2, but it has a reduced area 10 free from said paper and therefore adhesive; through this area 10 the die-cut piece 6 can be temporarily fixed to any surface before being finally applied to the prescription.

The die-cut piece 6 presents the necessary directions, such as bar code, price, eventual cost to be covered by the patient, name of the product, firm and the like; the adhesive parts 8, 8' and 9 allow the printing of similar data, which presently are printed outside of the die-cut piece, because they must remain on the package, and which, for instance, show the price, the date of preparation, the lot number etc.

The siliconated paper 2 is not adhesive and is therefore detached together with the die-cut piece 6 from the parts 8, 8' and 9 by pulling the flap 7 and tearing along the pre-set breaking line 3. Said line 3 itself ensures that a casual detachment of the die-cut piece 6 from the package does not occur, in that, even in case of loss of adherence of the die-cut piece 6 to the layer of siliconated paper 2, the part 9 remains glued to the package, requiring said breaking along the discontinuous breaking line 3, breaking which requires a certain force and which cannot therefore take place by chance.

To have at last only the self-adhesive die-cut piece, it is enough to detach the die-cut piece 6 from the siliconated paper 2, so as to allow the die-cut piece fixing by gluing, for example on the prescription.

The embodiment shown in figures from 4 to 6 is similar to that previously described, differing from the preceding embodiment only for the absence of cutting lines 4 and 5 and for a different position of the flap 7.

In fact, as it can be noticed in figures 4, 5 and 6, the label 14 in this case has two discontinuous lines 3, with pre-set breaking, which define a die-cut piece 6 and two parts 11 and 12 integral to the package. As in the previous case, the die-cut piece is coupled with a layer of siliconated paper 2 presenting a flap 7 and having size smaller than that of the die-cut piece 6 so as to define a reduced area 10 for temporary fixing of the die-cut piece 6, as previously described.

Similarly to the above described configuration, the fixed parts 11 and 12 are applied directly on the package to be labelled, while the die-cut piece 6 can be detached from said package together with the layer 2 of siliconated paper, by pulling the flap 7 towards the side opposite to it and breaking along the two lines 3.

In this case, too, therefore, a casual detachment of the label 14 from the relevant package is absolutely impossible.

The embodiment shown in figures from 7 to 9 features only one fixed holding part, separated from a detachable part 17 by the pre-set breaking line 3. The detachable part or die-cut piece 17 is coupled with a layer of siliconated paper 15; similarly to the two preceding configurations said layer 15 has substantially equal size as that of the die-cut piece 17, but, contrary to the latter, it is provided with an adhesive layer on the side lying on the package, and it therefore results to be integral to the package itself. Consequently it is not removable together with the relevant die-cut piece 14 and therefore the flap 7 is not present. In this case, therefore, the parts fixed to the package are the piece of label 13 and the layer of siliconated and adhesive paper 15, while the only detachable part is the die-cut piece 17 (see figures 8 and 9).

The method to obtaine the above described labels coupled with a siliconated layer essentially consists in die-cutting a tape of siliconated paper on which the labels with their relevant adhesive parts are placed; said tape is cut in correspondence to the detachable part of the label, then label and siliconated and die-cut layer are taken off from the tape (obviously leaving some empty spaces corresponding to the die-cut parts) and applied on the package.

hus the portions have to remain fixed to the package, namely the portions previously indicated by reference numbers 8, 8', 9, 11, 12 and 13, are directly applied on the package where they remain fixed thanks to the adhesive layer.

Figures 10 and 11 illustrate two steps of the production of the last configuration described, that is, the one shown in figures 7, 8 and 9. In this case two supports of siliconated paper 15, 16 will be necessary, the first one consisting in a siliconated layer 15 in direct contact with the adhesive label 17

and made adhesive on the opposite side, while the second one 16 is a mere siliconated layer to which the first one adheres and which constitutes the base of the structure.

Cutting is carried out from two opposite directions: on one side, the one opposite to the side where the label 17 is placed, a cut of both layers 15, 16 is performed in correspondence to the line or lines of pre-set breaking, while on the other side, die-cutting is performed on the whole siliconated adhesive support 15 in order that it takes the same shape as the die-cut piece. The siliconated base layer 16 is thus cut only once, while the partially adhesive layer 15 is then cut twice, from opposite sides. At this stage, the situation is the one shown in figure 9, where part of a label is lifted to show the way in which the layer 15 is placed on the lower side of the die-cut piece 17.

The layer 15 is therefore die-cut along the line 18 and along the borders of the die-cut piece 17 and can therefore be partly removed, thus obtaining what shown in figure 11. In this case, the siliconated support 16 bears a strip of siliconated-adhesive layer 15, the width of which is equal to the distance between the border of the support strip and the die-cut line 18.

Labels 14 are placed at regular intervals on the tape 16 and, through their part 13, on the remaining tape 15; the pre-set breaking line 3 therefore finds itself exactly above the die-cutting line 18 which, as previously mentioned, is carried-out from the lower side of the support tape 16.

On the lower side (made adhesive) of the die-cut piece 17 there is the above mentioned die-cut layer 15 and said layer is removed together with the label 14 when the latter is taken off.

Claims

1. A self-adhesive label (1, 14) for packages in general and specially for packages of medicinal products or foodstuff, of the type having a printed upper surface and an adhesive lower surface, characterized in that it is divided by pre-set breaking lines (3) in a part detachable from the package (die-cut piece) (6,17) and in one or more parts (8, 8', 9, 11, 12, 13) holding the die-cut piece, the lower adhesive surface of which is directly applied to the package, the lower adhesive surface of the die-cut piece only (6, 17) being protected by a layer of siliconated paper (2).

2. A label according to claim 1, characterized in that it presents two parts (11, 12) holding the die-cut piece (6), in correspondence to opposite sides of same.

3. A label according to claim 1 or 2, characterized in that the layer of siliconated paper (2) under the die-cut piece (6) presents a protruding flap (7) allowing to seize and manually detach the die-cut piece.

4. A label according to claim 3, characterized in that the flap (7) protrudes from one of the sides of the die-cut piece (6) which are without pre-set breaking lines (3).

5. A label according to claim 4, characterized in that said flap or flaps (7) extend under portions (8, 8') of the parts holding the label, fixed to the package, and in that the part holding the label, covering each flap (7) presents a cut essentially longitudinal (4) to the flap, extending as far as one of the cut lines or pre-set breaking lines (5) defining the die-cut piece (6), said longitudinal cut (4) allowing the flap (7) removal from under the corresponding portion of label.

6. A label according to claim 1, characterized in that the die-cut piece (6) coupled to the layer of siliconated paper presents one or more adhesive areas having reduced size (10) not protected by said siliconated paper (2) for temporary fixing of the die-cut piece itself.

7. A self-adhesive label according to claims 1, 3 or 6, characterized in that the layer of siliconated paper (15) under the die-cut piece (17) presents in its turn an adhesive surface directly applied to the package.

8. A self-adhesive label according to claim 7, characterized in that it only has one holding part (13) on one side of the die-cut piece (17).

9. A method to obtain self-adhesive labels as per claim 1, characterized in that a support of siliconated paper bearing the labels is cut in correspondence to the die-cut piece (6, 17) and in that each label is detached from the support together with the portion of the latter cut in correspondence to the die-cut piece (6, 17) and directly applied to the package.

10. A method according to claim 9, characterized in that the support is a continuous strip of siliconated paper.

11. A method according to claim 9, to obtain labels as per claim 7 or 8, characterized in that the support of siliconated paper has substantially the same extension as the label, said support being in its turn applied on a continuous strip of siliconated paper.

12. A method according to claim 11, characterized in that the continuous strip and the support of siliconated paper are cut on the side opposite to the label, in correspondence to the pre-set breaking line or lines (3) of the die-cut piece.

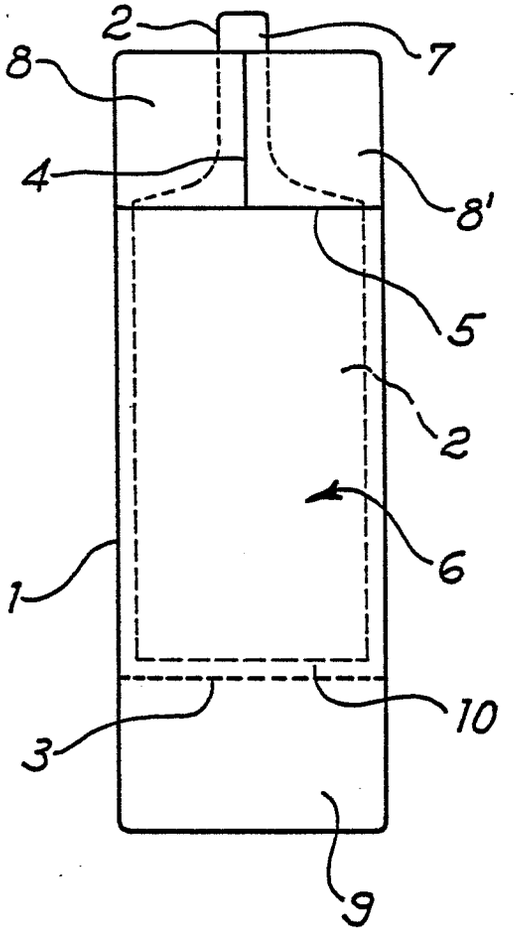
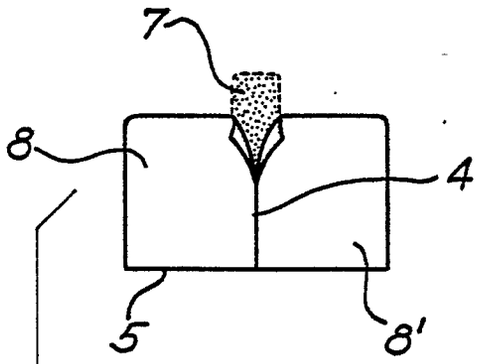


Fig.1



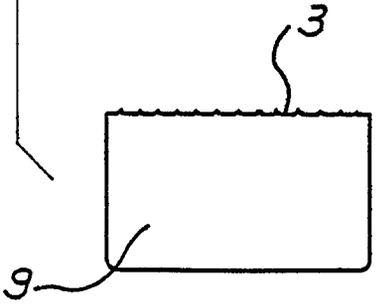


Fig.2

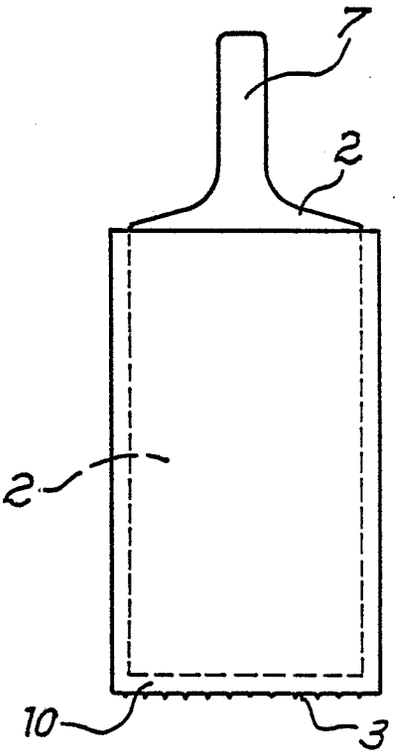


Fig.3

Fig.4

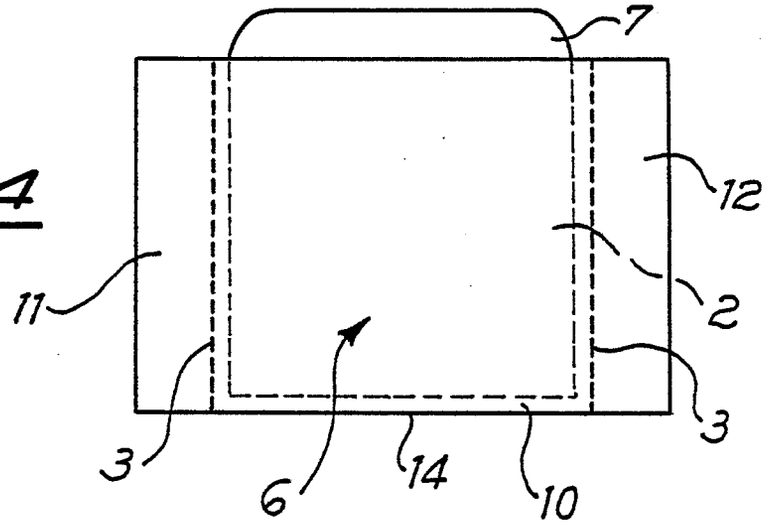
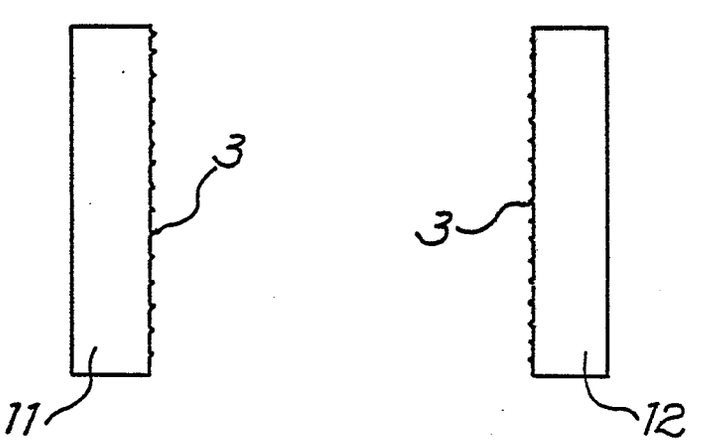


Fig.5



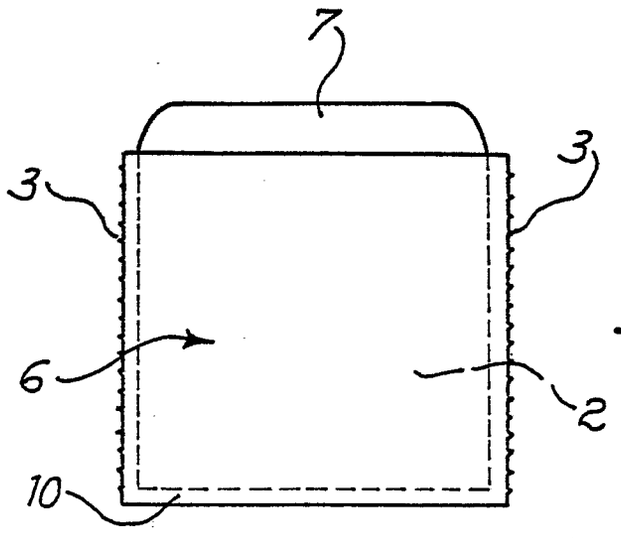


Fig.6

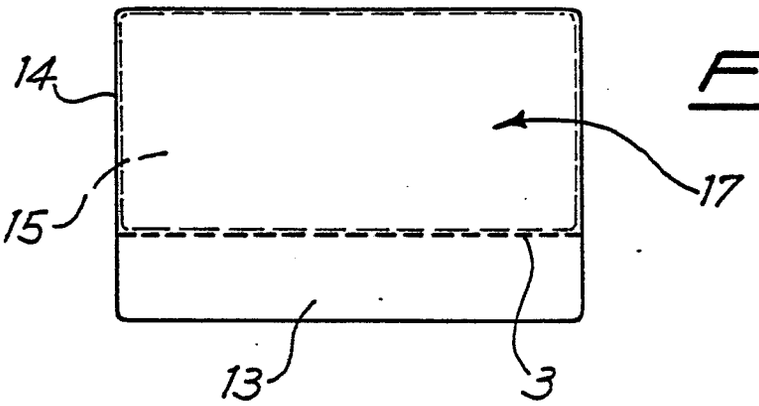


Fig.7

Fig.8

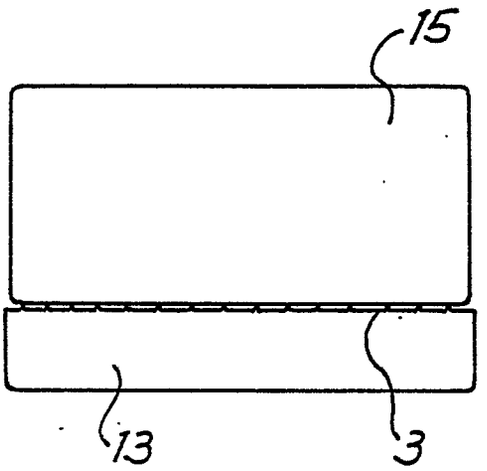


Fig.9

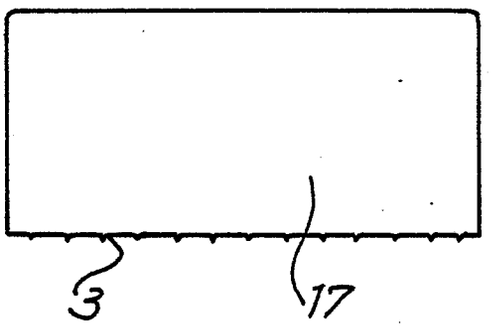


Fig.10

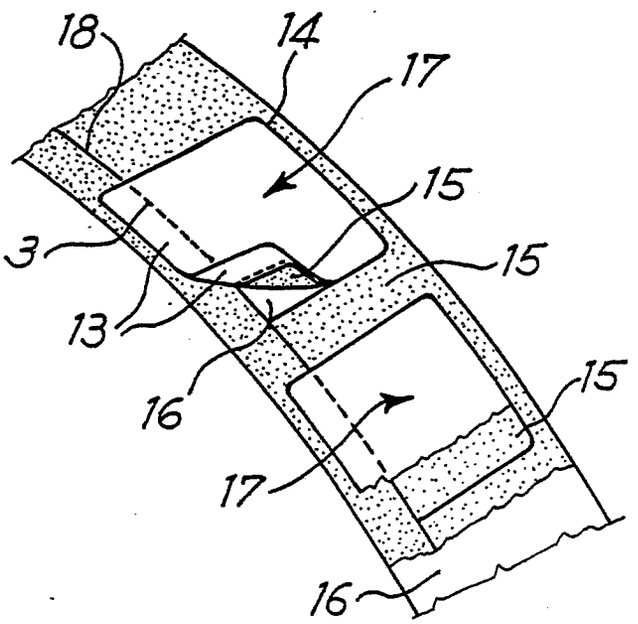
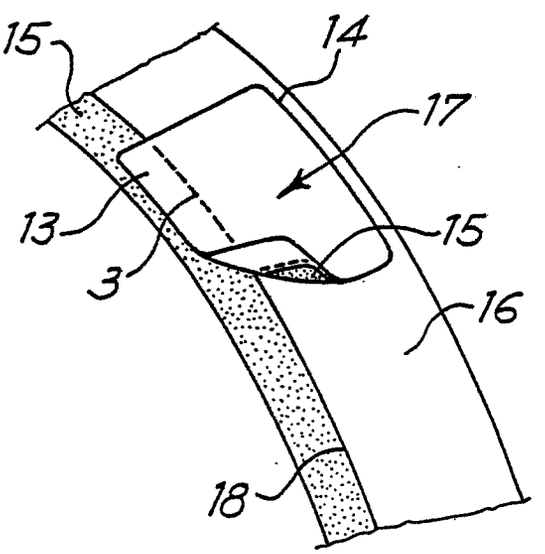


Fig.11



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EUROPEAN SEARCH REPORT

Application Number

EP 87 83 0259

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
X	GB-A-2 053 140 (ABBOTT LABORATORIES) * abstract; page 1, lines 40-114; claims 1-5; figures 1-3 *	1-4	G 09 F 3/02
X	EP-A-0 044 889 (LABEL-FORM) * page 5, line 13 - page 8, line 19; figures 1, 2 *	1,2,6,9	
X	EP-A-0 140 420 (BAARTMANS) * whole document *	1,9-11	
A		8	
X	US-A-4 519 631 (STONE et al.) * abstracts; column 3, line 1 - column 4, line 7; figures 1, 2 *	1-4	
A	GB-A-2 033 334 (NJM CORP.) * abstract; page 1, line 60 - page 2, line 38; figures 1-4; claim 1 *	1	
A	US-A-4 188 251 (GRASS) * abstract; column 5, line 32 - column 6, line 11; column 7, line 26 - column 8, line 7; figures 1-4, 8, 9 *	1,8,9, 10	TECHNICAL FIELDS SEARCHED (Int. Cl.4) G 09 F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
BERLIN	03-06-1988	BEITNER M.J.J.B.

CATEGORY OF CITED DOCUMENTS

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