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(54) **Label for luggage**

(57) The present invention relates to a label for luggage formed by an elongated strip of material which comprises an adhesive coating of the pressure tag type over at least part of the surface area of the label, wherein the width of the strip at the location of a bending portion of the length of the strip is smaller than the width of the strip side said bending portion, wherein the strip is provided

with a neutralised adhesive of the pressure tag type at the location of said bending portion and with a non-neutralised adhesive of the pressure tag type between the respective ends of the strip and the bending portion, wherein the colour of the neutralised adhesive is different from the colour of the non-neutralised adhesive, as well as to a method for manufacturing a web of such - interconnected - labels.

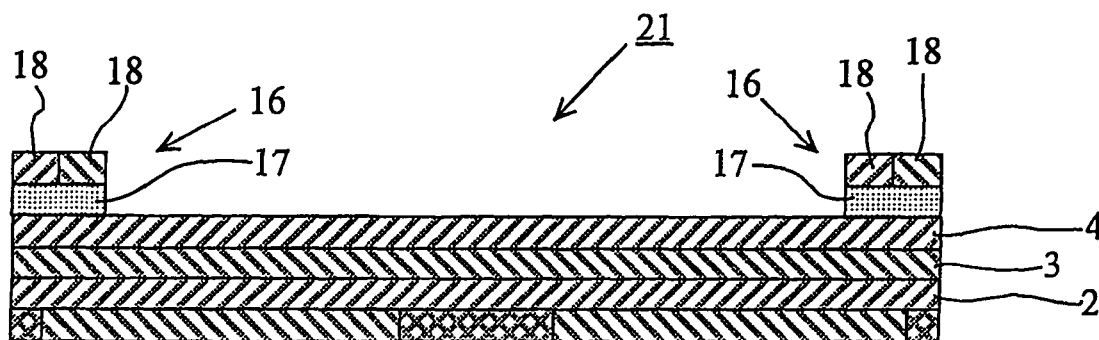


Fig 4

Description

[0001] The present invention relates to a label for luggage. More specifically, the invention relates to a label for luggage which is excellently suitable for use at so-called self-service drop-off points, where passengers can check in themselves as well as their luggage, in principle without any help from airport staff. Part of the procedure in that case is the delivery of a luggage label to the passenger, who is subsequently expected to attach said label correctly to his/her luggage.

[0002] Conventional labels for luggage, as generally used at the time of the present invention by airport staff at manned check-in counters, appear to be unsuitable in practice for use also at unmanned self-service drop-off points. With such conventional labels, use is made of a release sheet on an adhesive coating, which release sheet is usually made of silicone paper and which needs to be removed in order to be able to attach the label to a handle or the like of a piece of luggage. An important drawback of the use of release sheets is that it leads to a considerable amount of waste, which (may) lead to an untidy working environment. In addition, the release sheets are usually comparatively smooth, so that there is a real danger of people slipping on said release sheets when the release sheets are lying on the ground. Such a conventional label is known from International patent application WO-A1- 8802903.

[0003] From European patent application EP 600622 A1 it is furthermore known to use labels provided with a pressure sensitive adhesive. Adhesion is obtained as soon as the adhesive is pressed against another part of the label with some force, so that a loop can be formed around a handle or the like. The label in question is configured as a strip of material which has a constant width along its entire length and which is provided with an adhesive coating over approximately half its length. To form the loop, two ends of the label are to be pressed against each other at the bottom side of the label, where the adhesive is provided, so that the label will have a drop shape, seen in side elevation. In practice it has been found, however, that such a label is unsuitable for use by non-professional users, such as passengers, since such users will generally tend to form the label into a ring-shaped loop rather than into a desired drop-shaped loop. Apart from the fact that no adhesion, or at least a significantly less strong adhesion, will be obtained in that case, another drawback of the use of a ring-shaped loop is the fact that information present on the loop, for example in the form of a bar code, is more difficult to read in an automated manner, which will/may lead to problems in the subsequent handling of the luggage.

[0004] To help users form a loop in a correct manner, the known label is provided with a fold line halfway its length. The provision of such a fold line requires an additional step during the production process of the labels, of course, whilst in addition the part in question of the label where the fold line is provided in principle does not

comprise any sharp fold lines in the form in which it is used, i.e. as a drop-shaped loop, but extends spherically.

[0005] A label as referred to in the introduction is known from International application WO-A1-0 055 832. The label disclosed in said document is provided with a so-called cold-seal adhesive, whose adhesive properties are similar to those of pressure tag adhesive. Pressure tag adhesive is, among other companies, marketed by the company Sihl and is characterised in that the adhesive must be applied to both sides to be attached together and that adhesion is only obtained if the sides to be attached together are brought into contact with each other. An adhesive joint is not obtained if one side provided with the adhesive is brought into contact with a surface that is not provided with adhesive. The adhesive only bonds to itself, as it were. The label as disclosed in WO-A1-0055832 exhibits the same problem as the label disclosed in EP 600622 A1, i.e. users tend to form a ring-shaped loop rather than a drop-shaped loop.

[0006] The object of the invention is to provide a label which is suitable in particular for use by passengers at self-service drop-off points, without excluding the possibility of such labels being used advantageously at manned check-in counters, whilst the drawbacks of the prior art labels as described above do not apply, or at least to a reduced extent. In order to accomplish that object, the label for luggage is according to the invention characterised in that the width of the strip at the location of a bending portion of the length of the strip is smaller than the width of the strip side said bending portion, wherein the strip is provided with a neutralised adhesive of the pressure tag type at the location of said bending portion and with a non-neutralised adhesive of the pressure tag type between the respective ends of the strip and the bending portion, wherein the colour of the neutralised adhesive is different from the colour of the non-neutralised adhesive. The invention is based on the inventive perception that as a result of the use of a combination of a bending portion, at the location of which the width of the strip is smaller than the width of the strip outside the bending portion, and the difference in colour between the neutralised adhesive and the non-neutralised adhesive, even inexperienced persons, such as passengers at a self-service drop-off point at an airport, will be more easily inclined to intuitively provide the label around a handle of a piece of luggage in the correct manner, forming a loop having a drop shape, so that the label is pressed onto itself at the ends thereof with the side provided with the pressure-sensitive adhesive. On account of the difference in colour between the neutralised adhesive and non-neutralised adhesive, visually perceptible zones of areas of the adhesive which are neutralised and areas of the adhesive which are not neutralised are obtained. The user will intuitively realise that non-neutralised portions having a colour different from that of neutralised adhesive must be pressed together so as to obtain the desired adhesion. Because of the aspect that the strip is provided with an adhesive of the pressure tag

type at the location of the bending portion, which adhesive is locally neutralised, no adhesion will take place between the piece of luggage in question and the label and, in addition, a loop can be formed which can be passed over a handle or the like of a piece of luggage with some clearance. The aspect that the strip is provided with an adhesive of the pressure tag type between the respective ends of the strip and the bending portion on the other hand provides a possibility of creating a very strong loop, so that the risk of the label becoming detached from the piece of luggage is quite small, which is advantageous also from a viewpoint of fraud prevention. Moreover, in this way it is practically ensured that the strip will be formed into a drop-shaped loop, because there will be no adhesion if it is attempted to form the strip into a ring-shaped loop.

[0007] Further it is very advantageous in practice if the strip is provided with a neutralised adhesive of the pressure tag type at the location of portions of the strip adjacent to the ends of the strip. The fact is that in this way the label is prevented from undesirably adhering to guide rollers forming part of the device that delivers the labels or to other parts with which the label might come into contact. This risk appears to play a part in particular if such a device is not used for some time (for example one or more days). It has been found that when such a device is put into service again, adhesion frequently occurs between a label and the guide rollers, which may lead to disadvantageous malfunction situations.

[0008] The ease of use is further increased if the strip is provided with a neutralised adhesive of the pressure tag type at the location of portions of the strip adjacent to the longitudinal sides of the strip. As a result, islands of non-neutralised pressure tag adhesive are formed on either side of the bending portion when combined with the use of a neutralised adhesive at the location of portions of the strip adjacent to the ends of the strip. This is a strong stimulant for the user to form the label into a drop-shaped loop in the optimal manner once the label has been passed over a handle or the like of a piece of luggage.

[0009] The ease of use for the user, and thus the possibility that the labels are correctly affixed, is increased even further if the adhesive of the pressure tag type has been neutralised mirror-symmetrically relative to the bending portion.

[0010] The neutralised adhesive of the pressure tag type has advantageously been neutralised by local irradiation of the adhesive, for example with UV rays or electron rays.

[0011] Alternatively, and usually more economically, in particular because of the lower production costs, the neutralised glue of the pressure tag type is neutralised by locally printing it with a neutralising ink. Said printing with a neutralising ink could take place simultaneously with the printing of information on the label.

[0012] If a neutralising ink is used, it is preferable if the colour of said neutralising ink is different from the colour

of the adhesive of the pressure tag type. In this way it is achieved in one process step not only that the adhesive is locally neutralised but also that the neutralised and the non-neutralised areas can be visually distinguished from each other.

[0013] Preferably, the strip of material comprises a layer of paper, a layer of a thermally printable material and a layer of plastic material therebetween. The layer of thermally printable material allows the thermal printing of information on the label. The layer of plastic material can prevent tearing of the label, whilst the layer of paper can show whether the label has been torn loose.

[0014] The strip is furthermore preferably provided with sticker material on the side remote from the adhesive coating. Such stickers (stubs) can be affixed to a traveller's pieces of luggage and/or documents, such as a passport.

[0015] The present invention further relates to a method for manufacturing a length of interconnected labels, comprising the steps of

- A providing an elongated strip of material, wherein an adhesive coating of the pressure tag type has been applied to one side of the strip for each label, which coating extends over the entire surface area of the label,
- B locally removing material from the strip for reducing the width of the labels of part of the length of said labels in a bending portion of the labels at or at least near a point halfway the length of the labels,
- C neutralising the adhesive of the pressure tag type at least at the location of the bending portions of the respective labels.

[0016] After completion of step B it is possible within the framework of the present invention to carry out step B first and then step C or to carry out step C first and subsequently step B.

[0017] Preferably, the method comprises the step of neutralising the adhesive of the pressure tag type at the location of portions of the strip adjacent to the ends of the labels.

[0018] Furthermore preferably, the method also comprises the step of neutralising the adhesive of the pressure tag type at the location of portions of the strip adjacent to the longitudinal sides of the labels.

[0019] Even further preferably, the method also comprises the step, to be carried out after step C, of dividing the strip into lengths whose width corresponds to the widest part of a label.

[0020] With reference to the following schematic figures:

Figures 1, 2a, 2b and 4 are longitudinal sectional views of successive situations during the production of labels according to the invention; and Figure 3 is a bottom view of a situation as occurs between the situations shown in figure 2b and figure

4.

[0021] Figure 1 shows in longitudinal sectional view the structure of a web 1 of substrate material which functions as a starting material in carrying out a preferred embodiment of a method according to the invention for producing the label for luggage according to the invention. Figure 1, as well as figures 2a, 2b and 4, show only that portion of the web 1 in longitudinal section which will eventually form a label. In actual fact the web 1 is much larger and the eventual labels are positioned both beside each other and behind each other on the web 1, as shown in figure 4.

[0022] The starting material of the web 1 comprises, from bottom to top, a layer 2 of paper, a layer 3 of plastic material and a layer 4 of thermal paper. As the skilled person knows, thermal paper can be printed by briefly heating the paper locally, as a result of which the paper will locally turn black. Such a method does not require any ink or toner. This technique is generally used for "printing" luggage labels. The three-layer material of the web 1 is known per se and is marketed by the company Sihl, for example.

[0023] Figure 2a shows how an adhesive coating 5 of the pressure tag type is applied on the entire surface area of the paper layer 2. An adhesive of this type typically bonds only to another coating of the same adhesive. Such types of adhesive are also sold by the company Sihl, for example.

[0024] In the figure 2b we furthermore see that in a next step certain areas of the adhesive coating 5 have been neutralised at the location of the ends 6, 7 of the adhesive coating 5 and in the centre 8 thereof, which areas are shown as the cross-hatched portions in the figure. Said neutralising, which results in the action of the adhesive of the adhesive coating 5 being lost, is preferably carried out by irradiating the areas in question, for example with UV rays or electron rays, or by printing the areas in question with a neutralising ink. Such ink might be white, for example, or in any case have a colour different from that of the adhesive in the adhesive coating 5 itself. In this way two visually distinguishable islands 9 of active adhesive are obtained for each eventual label. The fact that said islands 9 are visually distinguishable will come in useful when attaching the label in question to a piece of luggage.

[0025] Figure 3 shows a larger part of the web 1 in bottom view. As the figure shows, a neck or narrowed portion is formed for each label 21 halfway the length thereof by cutting/punching out the hexagonal areas 12, as a result of which openings are formed at that location. Subsequently, the web 1 is divided into elongated strips 14 by cutting the web 1 into the strips along the cutting lines 13 indicated in chain-dotted lines. Dashed lines 15 indicate the eventual length of the labels 21. Prior to said cutting along the lines 13, perforations may be punched at the location of said dashed lines 15 to make it easier to tear the labels from each other at a later stage. Alter-

natively it is also conceivable if the device which delivers the labels 21 from the roll of strips 14 in the form in which it is eventually used with pieces of luggage, cuts through the strips 14 at the lines 15. To detect the correct position, it may be useful in that regard to provide certain markings that can be detected by the device in question for each label, such as a printed marking or a punched hole to which the device can orient itself. When perforations are used, it is also possible not to provide the perforations according to the line 15 until after so-called stubs (further refer to figure 5 and the description thereof) have been affixed to the label 21, so that also said stubs 21, which, after all, are provided around the line 15, will be perforated.

[0026] Figure 4, to conclude, indicates (for one label that originally formed part of a long strip 14 of interconnected labels) how so-called stubs 16 are fixed to the ends of the label. Each stub 16 consists of a release layer 17 and two stickers 18 for each release layer, which stickers 18 for each label 21 are in principle identically printed and comprise unique information by means of which pieces of luggage can be identified. The stickers 18 are for example to be affixed to a piece of luggage at a check-in counter, with the release layer remaining behind on the label 21.

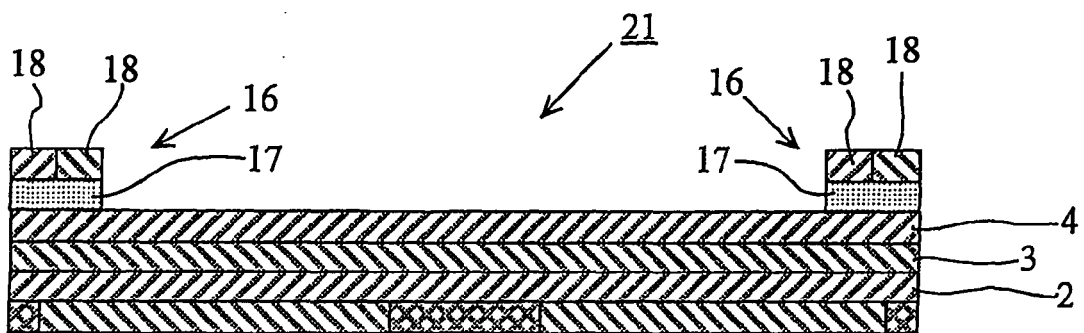
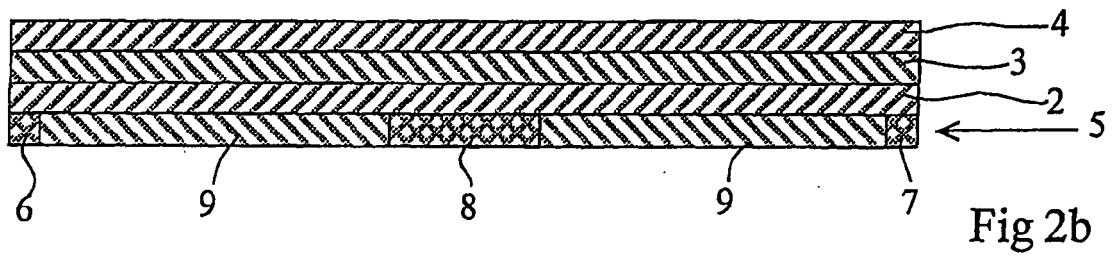
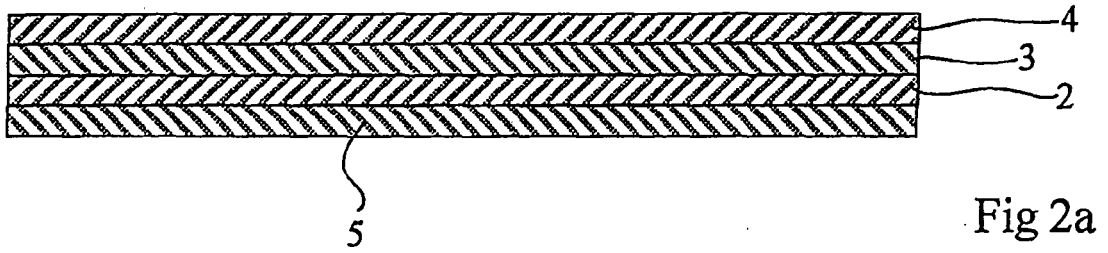
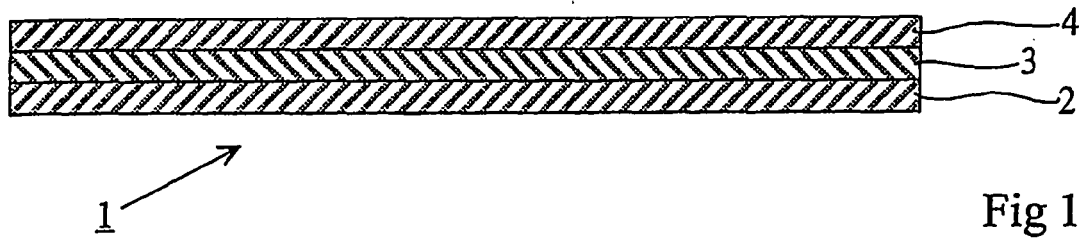
[0027] After the stubs 16 have been provided and possibly another perforation has been formed at the location of the lines 15, the strips 14 are rolled up. In rolled-up condition the strips 14 are ready to be handled by devices known per se for printing the strips on the side of the thermal paper 4 and delivering labels. As a result of the presence of the neutralised areas 6, 7, the risk of the labels sticking to the device on account of the presence of the adhesive coating 5 because the areas 6, 7 in question being pressed against a part of the device in question for a relatively long period of time is eliminated or at least significantly reduced, even if the device in question should not be used for a comparatively long period of time,

[0028] In use, the label 21 is quite suitable for being provided by passengers, i.e. by non-professionals. The islands 9 of each label are intended to be pressed together, which the passenger will intuitively understand and correctly carry out. The use of a neck 11 emphasizes the mirror-symmetric shape of the label 21 and is a further indication to the passenger of the position where the label 21 is to be bent. Precisely because an (active) adhesive coating is absent in the area 8, halfway the length of the label 11, there will be no adhesion at that location.

Claims

1. A label for luggage formed by an elongated strip of material which comprises an adhesive coating of the pressure tag type over at least part of the surface area of the label, **characterised in that** the width of the strip at the location of a bending portion of the

- length of the strip is smaller than the width of the strip side said bending portion, wherein the strip is provided with a neutralised adhesive of the pressure tag type at the location of said bending portion and with a non-neutralised adhesive of the pressure tag type between the respective ends of the strip and the bending portion, wherein the colour of the neutralised adhesive is different from the colour of the non-neutralised adhesive. 5
2. A label according to claim 1, wherein the strip is provided with a neutralised adhesive of the pressure tag type at the location of portions of the strip adjacent to the ends of the strip. 10
3. A label according to claim 1 or 2, wherein the strip is provided with a neutralised adhesive of the pressure tag type at the location of portions of the strip adjacent to the longitudinal sides of the strip. 15
4. A label according to claim 2 or 3, wherein the neutralised adhesive of the pressure tag type is neutralised by local irradiation of the adhesive. 20
5. A label according to claim 2, 3 or 4, wherein the neutralised adhesive of the pressure tag type is neutralised by locally printing it with a neutralising ink. 25
6. A label according to claim 5, wherein the colour of the neutralising ink is different from the colour of the adhesive of the pressure tag type. 30
7. A label according to any one of the preceding claims, wherein the adhesive of the pressure tag type is neutralised mirror-symmetrically relative to the bending portion. 35
8. A label according to any one of the preceding claims, **characterised in that** the strip of material comprises a layer of paper, a layer of a thermally printable material and a layer of plastic material therebetween. 40
9. A label according to any one of the preceding claims, **characterised in that** the strip is provided with sticker material on the side remote from the adhesive coating. 45
10. A method for manufacturing a length of interconnected labels according to claim 1 or a dependent claim thereof, comprising the steps of 50
- a providing an elongated strip of material, wherein an adhesive coating of the pressure tag type has been applied to one side of the strip for each label, which coating extends over the entire surface area of the label, 55
- B locally removing material from the strip for reducing the width of the labels of part of the length of said labels in a bending portion of the labels at or at least near a point halfway the length of the labels,
- C neutralising the adhesive of the pressure tag type at least at the location of the bending portions of the respective labels.
11. A method according to claim 10, comprising the step of neutralising the adhesive of the pressure tag type at the location of portions of the strip adjacent to the ends of the labels.
12. A method according to claim 10 or 11, comprising the step of neutralising the adhesive of the pressure tag type at the location of portions of the strip adjacent to the longitudinal sides of the labels.
13. A method according to claim 10, 11 or 12, comprising the step, to be carried out after step C, of dividing the strip into lengths whose width corresponds to the widest part of a label.



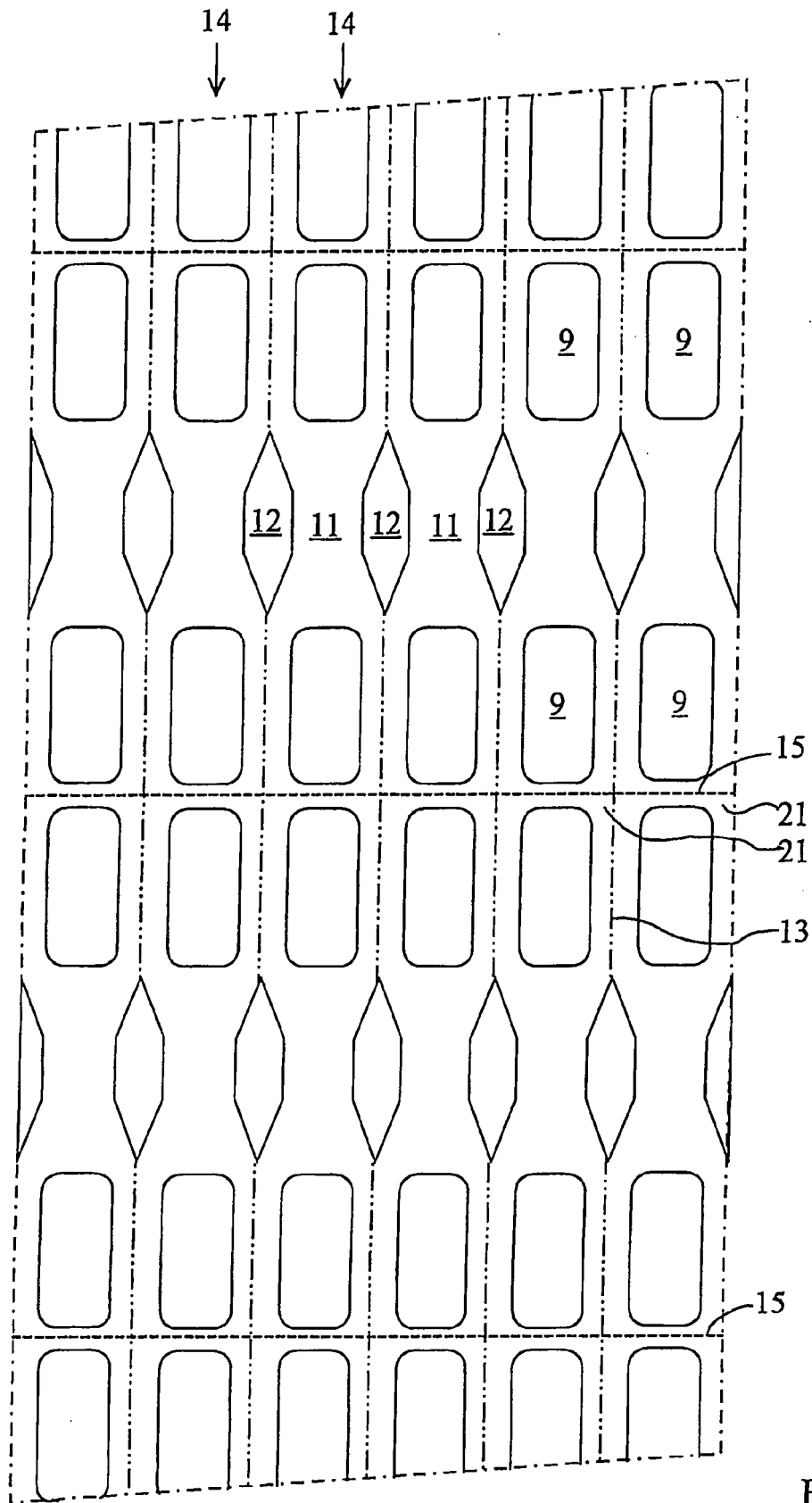


Fig 3

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- WO 8802903 A1 [0002]
- EP 600622 A1 [0003] [0005]
- WO 0055832 A1 [0005] [0005]