

Description

[0001] The present invention relates to hanging labels to be mounted on the necks of bottles and similarly necked articles.

[0002] Hanging labels for necked articles are well known. One such label is disclosed in U.S. Patent 5,489,456 to Instance and includes a printed sheet that is folded to form a sandwich of panels. Further, the label is folded or bent to form adjacent body and tag portions. The tag portion includes a hole that fits over the neck of a bottle, and the body portion of sandwiched panels lies against the bottle. A weakened tear line extends through the printed sheet between the body and tag portions so that the body portion may be torn from the tag portion and unfolded to view information on the printed sheet. A releasable adhesive on the body portion releasably attaches the bottle affixes the body portion to the bottle to prevent loss of the printed sheet once it is torn open.

[0003] The prior art hanging label has its shortcomings. The labels are subject to tearing and subsequent accidental removal during extensive handling. When liquids are dispensed from the bottle on which the label is used, the printed sheets may be ruined and/or the hangers may become permanently disconnected from the bottle due to deactivation of the releasable adhesive by the liquid. In some applications, it is preferred to completely remove the hanging label, but because of the adhesive retained on the bottle to hold the hanger in place, removal can be difficult. For example, fabric softener washing balls that are placed in clothing washing machines to dispense the fabric softeners during a wash cycle, must have label hangers removed therefrom prior to use.

[0004] Additionally, in manufacturing the hanging labels of the prior art, the printed sheets must be folded multiple times in a precise fashion to create an aesthetically pleasing hanger. This process is difficult and time-consuming and adds complexity and cost to the manufacturing process. The foldable printed sheets of the prior art are also difficult to refold, much like roadmaps, and present needless frustration for the consumer.

[0005] The aforementioned problems are overcome by the present invention wherein a hanging label includes a separate expanded content device, such as a leaflet or booklet, to enhance the information content at a reduced cost. The present invention includes a hanger or tag for attachment to the neck of a bottle. The hanger includes a tag portion and a body portion, and may optionally include a secondary body portion for additional advertising or product information. Both the tag portion and the body portion have upper and lower surfaces, both of which may have printed material thereon. The tag portion includes a hole for receiving the neck of the container, such as a bottle. The expanded content device is secured to the body portion of the hanger. Preferably attachment is accomplished using an overlamine that overlaps the edges of the leaflet and adheres

to the body portion of the hanger.

[0006] The consumer can tear the overlamine layer to access the leaflet. To facilitate removal of the leaflet, the overlamine may be perforated along an edge where it overlaps the leaflet. The use of a leaflet rather than a folded-up printed sheet greatly facilitates access of useful information associated with the tag and eliminates the stress typically associated with properly refolding printed sheets. The absence of an adhesive to hold printed sheets against the bottle in the prior art, allows the consumer to easily remove the hanger from the bottle to use the bottle in its intended application.

[0007] The invention also includes a method of manufacturing hangers that include fixed information sheets. With this method, both the cost of manufacture and requisite construction materials are greatly reduced over those of the prior art. A web of tag or hanger stock having a top and bottom surface is fed through a printing press where images are printed on the surfaces as desired. Leaflets are placed on the web, and an adhesive overlamine layer is placed over the leaflets and the associated surface of the web to affix the leaflets to the web. A first die cutter cuts an aperture through the tag stock of the web, corresponding to the neck of a bottle, and that cut portion is removed. A second die cutter then cuts the tag stock to form individual hangers.

[0008] In a preferred embodiment, the die cutter cuts the outer peripheries of the individual hangers, and consequently, a waste matrix is formed.

[0009] In an alternative embodiment, rather than die cutting the individual labels from the web and creating a waste matrix, the labels may be straight cut from the web whereby each completed label is immediately adjacent to other labels such that there is no waste material.

[0010] These and other objects, advantages and features of the invention will be more readily understood and appreciated by reference to the detailed description of the preferred embodiments and the drawings. In the drawings:

Fig. 1 is a perspective of label on article.

Fig. 2 is a perspective of flat label with expanded content device and overlamine exploded.

Fig. 3 is a top plan view of the hangers in web form;

Fig. 4 is a side plan view of the machine used to manufacture the present hanger;

Fig. 5 is a sectional view of an individual hanger; and

Fig. 6 is a top plan view of the hangers in the web form of an alternative embodiment.

[0011] A tab attachment system, or label hanger, ac-

cording to the preferred embodiment of the present invention is depicted in Fig. 1 as applied to a necked article and generally designated 10. The hanger 10 defines aperture 21 through which the neck 5 of the bottle fits. Expanded content device or expanded content label (ECL) 30 is mounted to the body portion 60 of the hanger. Perforations 80 facilitate removal of the hanger from the necked article.

[0012] An exploded view of the preferred embodiment of the label hanger 10 is depicted in Fig. 2. The hanger 10 includes first 61 and second 60 body portions attached to tag portion 70. Printed layer 31 is disposed on the tag 70 and body portions 60, 61 as desired. Optional hanger tabs 6 help affix the hanger 10 to the neck of the bottle. Other configurations of hanger tabs will be readily appreciated by those skilled in the art. ECL 30 is affixed to first body portion 60 by overlamine layer 40. In operation, the overlamine layer over body portion 60 may be removed by the consumer so that the ECL 30 may be folded out as depicted in Fig. 2. Many other types of ECLs, as discussed below, may be used as desired.

[0013] A continuous web of hangers, according to a preferred embodiment of the present invention is illustrated in Fig. 3 and generally designated 11. On the web, individual labels 20, 22, 24 have holes 21, 23, 25 cut through tag portions 70, 72, 74. Leaflets 30, 32, 34 are attached to the surfaces of the individual labels by an overlamine layer. Fig. 5 depicts the overlamine layer 40 and construction of the individual layers in more detail, and will be discussed further below.

[0014] The machine for manufacturing the saddle bag style expanded content label hangers is depicted in Fig. 4 and generally designated 100. A web 111 is pulled through the machine by matrix rewind 170. The web has individual labels printed thereon at print stations 130, 131. ECLs 30 are deposited on each of the individual labels, and an adhesive coated overlamine 40 is pressed over the ECLs 30 to secure those ECLs to each of the individual labels. Die-cutter 150 punches out a hole through the individual labels to create a hanger hole corresponding to the neck of a necked bottle (not shown). A vacuum source 156 optionally may be placed after die cutter 150 to remove by suction force the cut-out portions of the hangers. The web then passes through a second die-cutter 160 which cuts from the web completed individual hangers 20. These completed hangers are deposited onto a shingling conveyer 180 for transport to a bottle neck application station (not shown). The leftover waste matrix 90 from the hangers is pull-wound onto matrix rewind 170, which, as noted above, pulls web 111, and leftover waste matrix 90, through the manufacturing machine 100.

[0015] In the preferred embodiment of the label hanger web depicted in Fig. 3, perforation fold lines 50-55 are transversely disposed on the web to facilitate folding and/or removal of the body portions 60, 62, 64 and/or secondary body portions 61, 63, 65 from the tag portion 70, 72, 74. Sets of tear lines 80, 82, 84 are disposed

around holes 21, 23, 25 and continue from the circumference of the holes 21, 23, 25, to the outer boundaries of the individual hangers 20, 22, 24. Waste matrix 90 outlines the individual labels present on the web.

[0016] As seen in Fig. 5, individual hanger 20 includes a tag stock or base label 28 which is constructed of paper as shown but may be also constructed of plastic or other known materials. Printed layers 31 and 33 are disposed on the upper and lower surfaces of the tag stock. These printed layers may be applied to the tag stock by conventional methods including lithographic printing, etching, and the like. The top and/or bottom surfaces of the tag stock may or may not have printing thereon as desired for the application in which the hangers are used. An overlamine layer 40 having adhesive layer 41 on the bottom surface thereof is adhered to the top surface of the tag stock 28 and consequently the printed layer 31.

[0017] Booklet 30 is disposed between the overlamine layer 40 and the printed layer 31, and consequently the tag stock 28. The booklet 30, is generally rectangular and formed as a number of pages or panels of paper or plastic stacked in an overlying relationship. Any type of expanded content label (ECL) may be used in place of the booklet 30. Examples of ECLs that may be used include labels having sheets that may be opened like the pages of a book, folded open like a map, or any configuration that makes viewing of the information convenient. In the preferred embodiment, the booklet 30 is secured to the tag stock on the body portion 60 of the hanger 20.

[0018] As depicted in Figs. 3 and 5, folding perforations 50-55 intermittently and transversely penetrate portions of the overlamine layer 40, the printed layers 31, 33 and the tag stock 28. Effectively, these transverse folding perforations 50-55 separate the tag portion from both the body portion 60 which carries the leaflet 30, and the secondary body portion 61. Hole 21 is defined by the inner portion of the tag portion 70. The set tear of lines 80 traverse the hanger from hole 21 and intermittently penetrate portions of the overlamine layer 40, printed layers 31, 33 and the tag stock 28, to the outer boundary of the individual hanger 20.

[0019] The preferred embodiment for manufacturing saddle bag style expanded content label hangers will now be described with reference to Fig 4. A manufacturing machine 100 includes carrier web unwinder 110 which holds a carrier web or roll 111 of hanger tag stock. The web of tag stock 111 is pulled onto the print press roller 120 which rotates and consequently carries the web 111 past various print stations 130 which print images on a first surface of the web 111. Guides 132 and 134 ensure that the web is held against the print press roller 120 for precision printing. A variety of different printing configurations for the print press may be used, as will be readily appreciated by those skilled in the art.

[0020] After one side of the web 111 has been appropriately printed, web 111 passes over a conventional

turn bar 136 to reverse the surfaces of the web so that material may be printed on the other surface of the web at print stations 131. The web 111 then passes by a leaflet feeder 140. A single leaflet 30 is dispensed on the body portion of each printed label hanger. Multiple leaflets may be placed simultaneously on multiple printed label hangers as desired. Thereafter, an overlamine layer 40, fed from an overlamine feeder 140 is pressed onto the web 111 by laminating roller 144 so that the individual leaflets 30 are secured to each individual label hanger on the web 111.

[0021] Once the overlamine layer 40 has been applied to secure leaflet 30 to the individual hangers, a die-cutter 150 punches a hole in each of the individual hangers 20 through the tag portions. A vacuum 155 optionally disposed proximal to the die-cutter 160 provides a suction force to remove the cut-out portion from the web 111.

[0022] The web 111 then progresses to a second die-cutter 160 which cuts the outer peripheries of each individual hanger as well as transverse perforations 50-55 and sets of tear lines 80, 82, 84. In the preferred embodiment, the outer periphery of the individual hangers does not correspond to the edges of the web. Accordingly, a waste matrix 90 is created. This waste matrix 90 is wound upon matrix rewind 170 for collection. When the waste matrix 90 is pulled toward the matrix rewind 170, the completed individual hangers 20 are separated from the matrix and deposited onto a shingling conveyer 180, where they may be transported to a station for application of the individual hangers 20 to the necks of bottle or similarly necked articles (not shown). The winding of the waste matrix 90 onto the matrix rewind pulls the web 111 through the hanger manufacturing machine 100.

[0023] In an alternative embodiment as depicted in Fig. 4, no waste matrix is generated from the manufacture of the individual hangers. Rather, each label hanger is straight-cut, or butt-cut, from the adjacent label hanger along traverse lines 260, 262, 264, as well as longitudinal line 268. These straight cuts may be performed at die cutter 160 as depicted in Fig. 2. A known web puller (not shown) may also be included with the manufacturing machine to mechanically pull the web of the alternative embodiment 210 through the machine 100.

[0024] The above descriptions are those of the preferred embodiments of the invention. Any references to claim elements in the singular, for example, using the articles "a," "an," "the," or "said," is not to be construed as limiting the element to the singular.

Claims

1. A method of manufacturing a container neck hanger comprising the steps of:

providing a continuous web of hangers;

securing an expanded content device to each of the hangers;

die cutting a hole in each hanger whereby the hanger may be placed over a neck of a container;

cutting individual hangers from the web.

2. A method as claimed in Claim 1, **characterised by** the further step of removing a cut out material produced in the die cutting step.

3. The method as claimed in Claim 1 or Claim 2, **characterised in that** the securing step includes adhering a plastic layer over the expanded content device.

4. A method as claimed in any preceding Claim, **characterised by** the further step of printing images on the top and bottom surfaces of the web.

5. A method as claimed in any preceding Claim, **characterised in that** the cutting step includes die cutting the hangers from the web and further producing a waste matrix.

6. A method as claimed in Claim 5, **characterised in that** the waste matrix is removed from the cut hangers by winding the waste matrix around a mandrel.

7. A method as claimed in any of Claims 1 to 4, **characterised in that** the cutting step includes butt cutting the individual hangers from the web.

8. A method of producing an expanded content label hanger, comprising the steps of:

providing a plurality of printed hangers, each hanger having a tag portion and a body portion;
securing a leaflet to each body portion;
forming an aperture through the tag portion whereby the tag portion may be placed about the neck of a bottle; and
separating the individual hangers.

9. A method as claimed in Claim 8, **characterised in that** the securing step includes applying a lamination layer over the leaflets such that the lamination layer overlaps the leaflets, contacts the body portion, and holds the leaflets against the body portion.

10. A method as claimed in Claim 8 or Claim 9, **characterised by** the further step of perforating the tag portion of each of the printed sheets to facilitate removal of the hanger from the neck of a bottle.

11. A method as claimed in any of Claims 8 to 10, **characterised by** a punching step which produces a cut-out.

12. A method as claimed in Claim 11, **characterised by** the further step of removing the cut out with a vacuum force.
13. A method of producing a succession of labels for application to necked items comprising the steps of:
- providing a web having a plurality of labels each including a tag portion and a body portion;
 - associating a booklet with each of the labels;
 - securing the booklet to each of the labels with an adhesive overlamine placed over the booklet;
 - die cutting through each of the labels to form an aperture through each tag portion whereby the tag portion may be attached to a neck of a bottle; and
 - forming a weakened tear line between the body and tag portions to divide the body and tag portions.
14. A method as claimed in Claim 13, **characterised by** the step of printing images on the labels.
15. A method as claimed in Claim 13 or Claim 14, **characterised by** the step of cutting the plurality of labels into independent label tags and collecting the independent label tags on conveying means.
16. An expanded content label hanger comprising:
- a tag portion defining a hole and having a side;
 - a body portion integral with and adjacent to said tag portion, said body portion and said tag portion separated by a fold line;
 - a removable overlamine layer adhered to said body portion; and
 - an expanded content portion overlying said side of said body portion; and
 - an overlamine overlying said expanded content portion and said side of said tag portion and said body portion.
17. A hanger as claimed in Claim 16, **characterised by** a printed layer over the tag portion and the body portion.
18. A hanger as claimed in Claim 16 or Claim 17, **characterised by** tear lines extending radially from said hole whereby said tag portion may be easily removed from a necked item.
19. A hanger as claimed in any of Claims 16 to 18, **characterised in that** the overlamine is transparent.
20. A hanger as claimed in any of Claims 16 to 19, **characterised by** perforations which define a boundary between the tag portion and the body portion, and which facilitate removal of the body portion from the tag portion.
21. An expanded content label hanger comprising:
- a tag portion defining a hole;
 - a body portion coupled to the tag portion; and
 - an expanded content label mounted on the body portion.

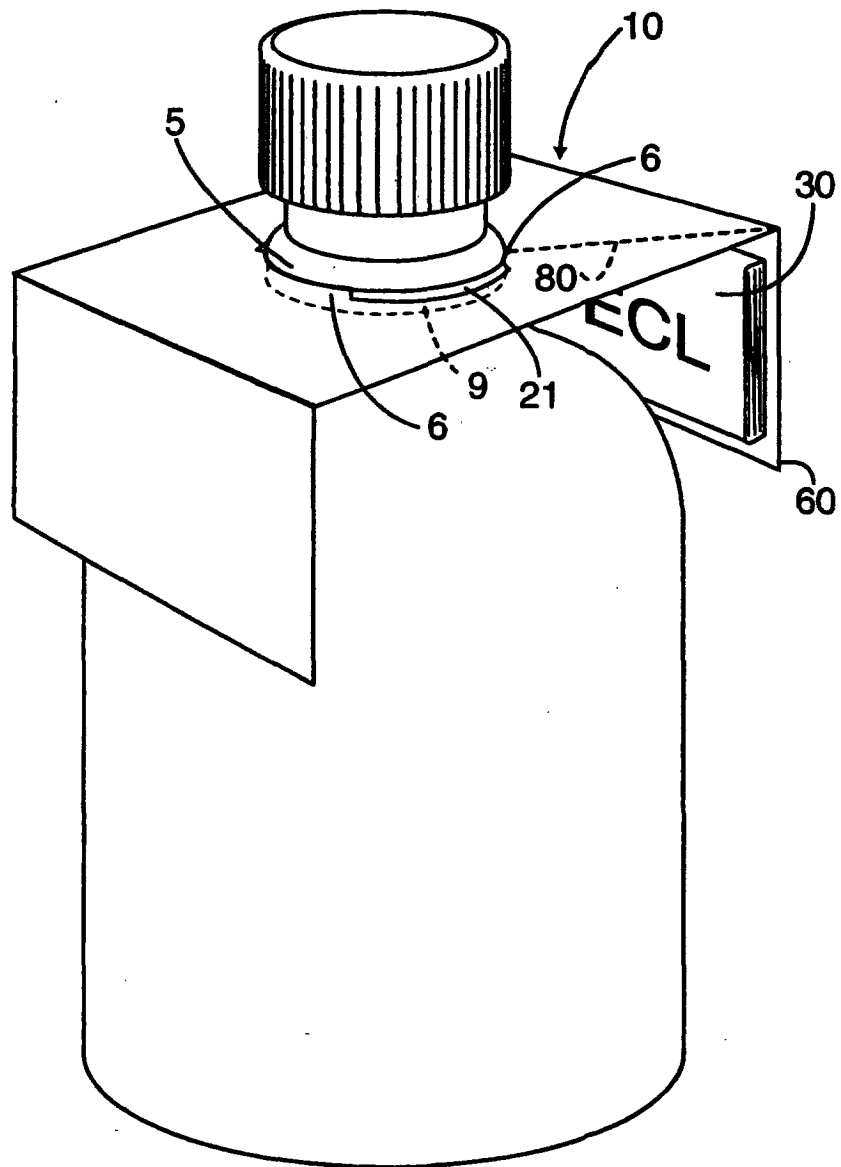


Fig. 1

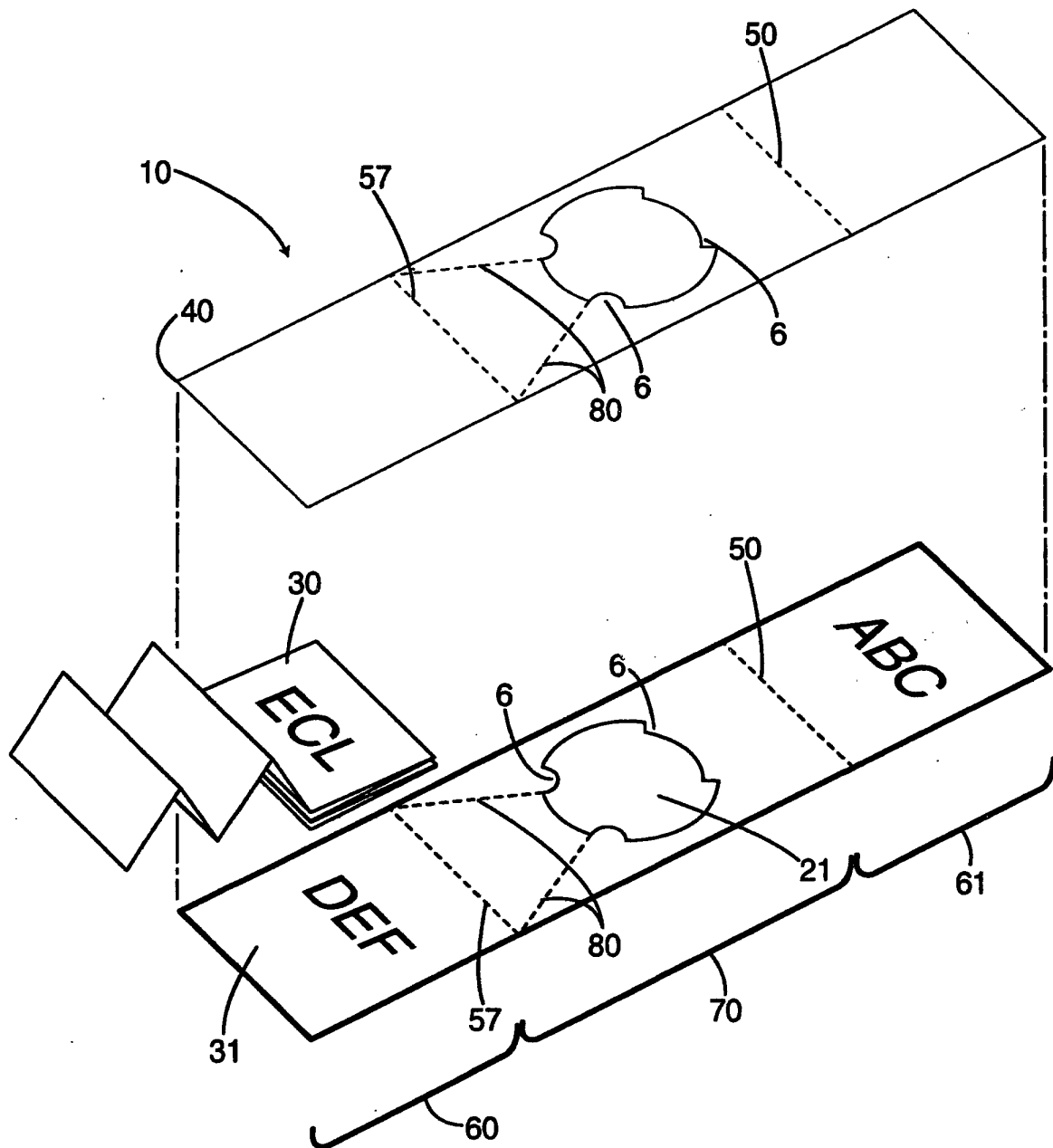


Fig. 2

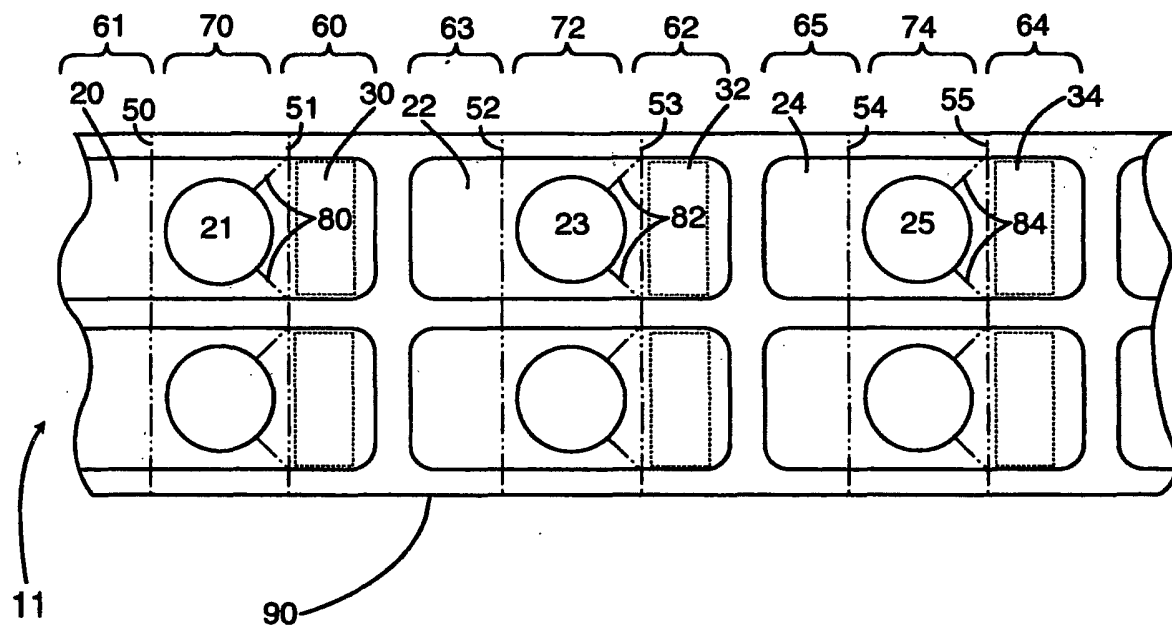
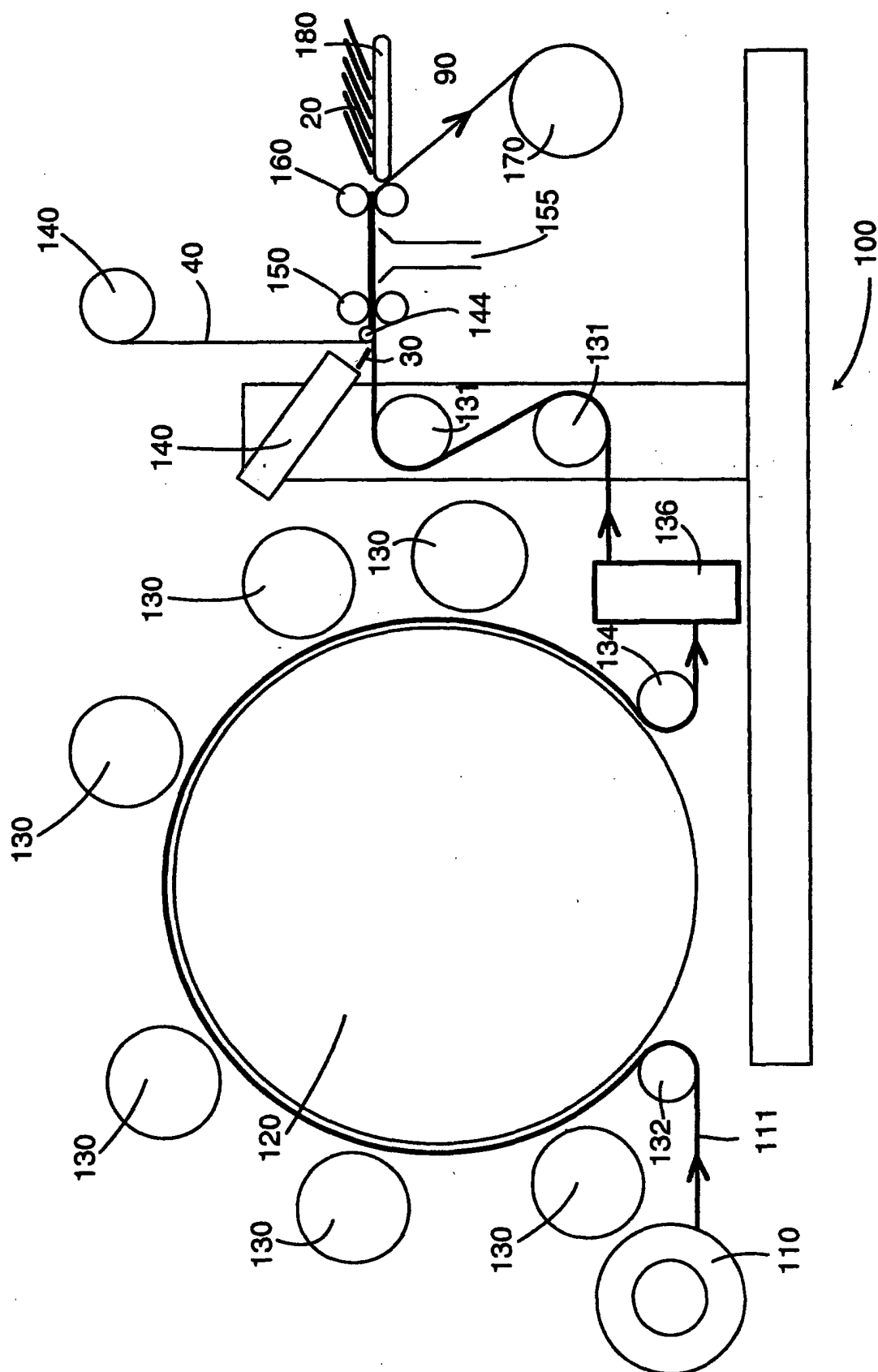


Fig. 3



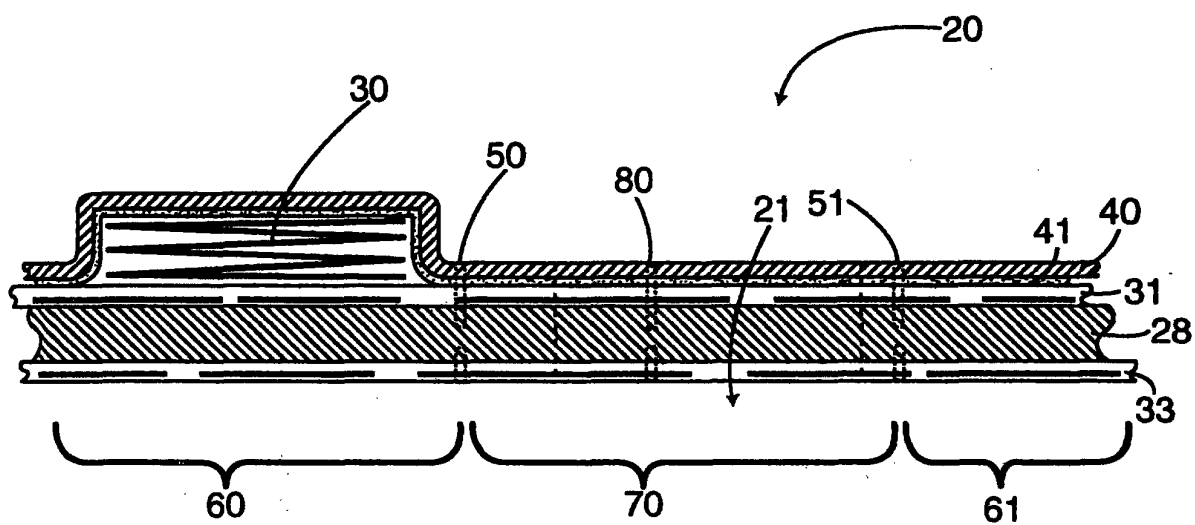


Fig. 5

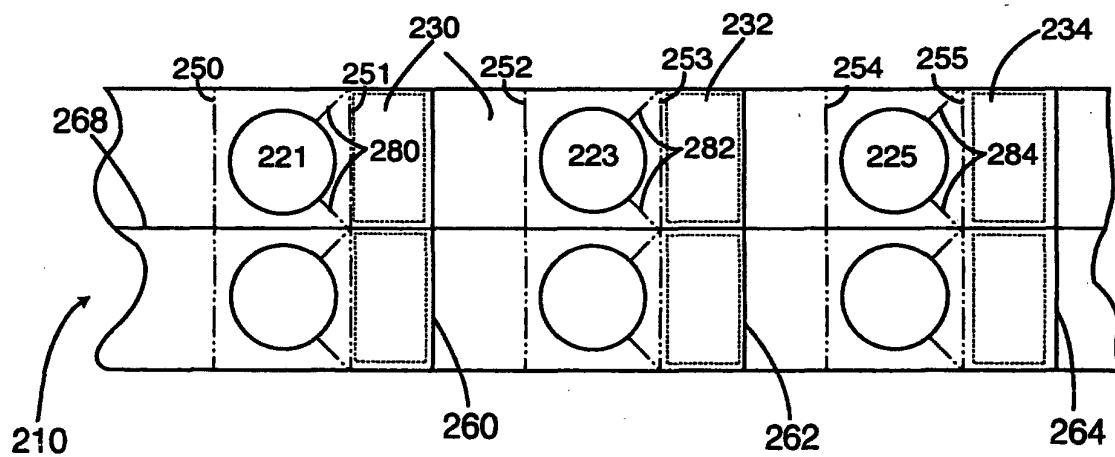


Fig. 6