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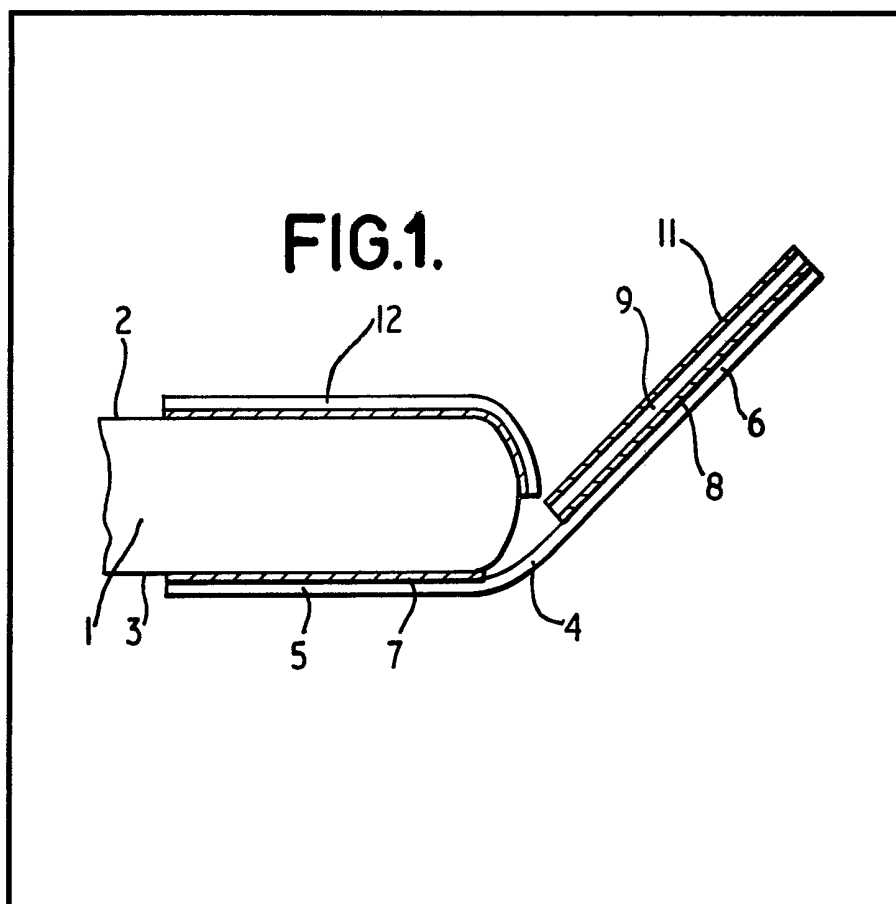
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(54) Disposable nappy, and tape fastener therefor

tape piece 9.

(57) A tape fastener for a disposable nappy having a back face and a front face, which fastener comprises a first pressure-sensitive tape piece 4 having one end portion 5 to be fixed to the back face 3 so that the other end portion 6 extends away from the nappy so that it can be folded back over the front face, and a second pressure-sensitive tape piece 9, one surface of which is peelably attached to and overlies said other end portion of the first tape piece and which has fixing means 11 on its other surface, wherein the bond between the back face 3 of the nappy and the first pressure-sensitive tape piece 4 is stronger than the bond between the first pressure-sensitive tape piece 4 and the second pressure-sensitive



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FIG.1.

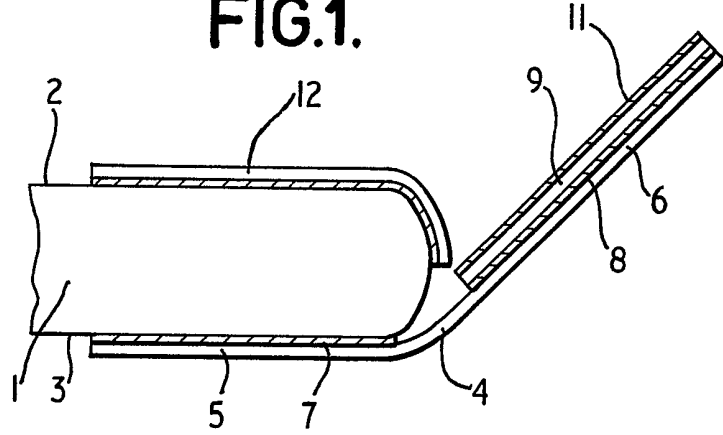


FIG.2.

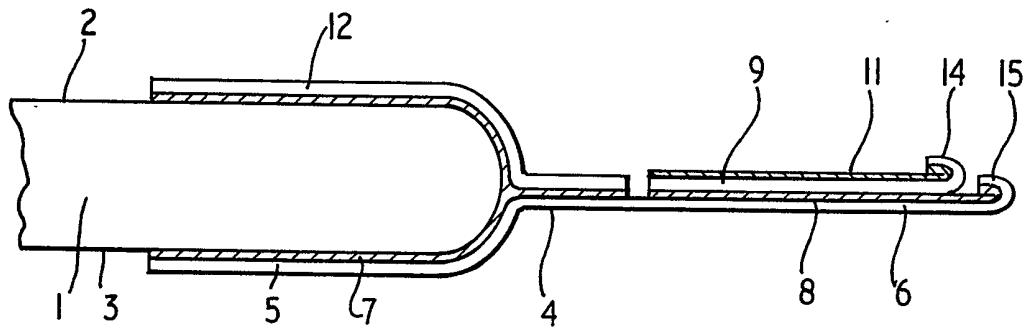


FIG.3.

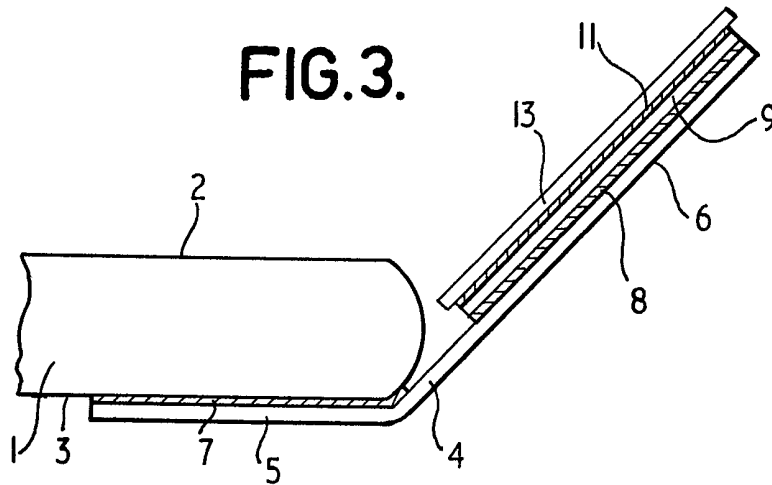


FIG.4.

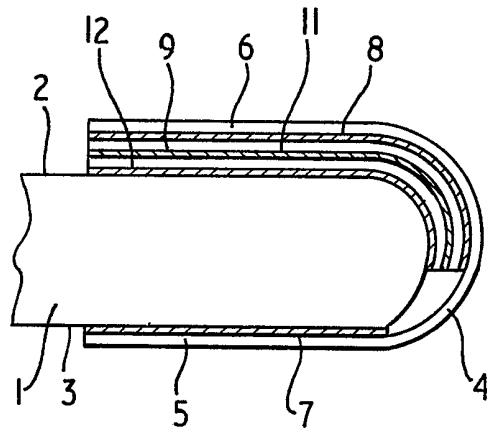
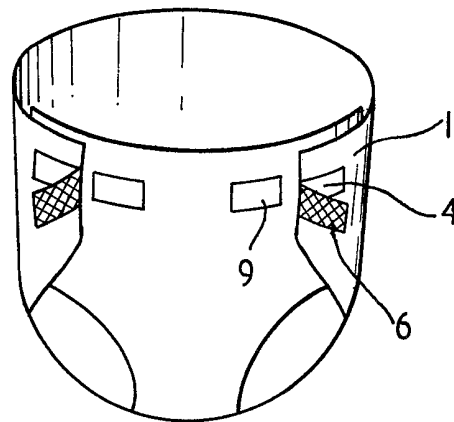


FIG.5.



SPECIFICATION

Disposable nappy, and tap fastener therefor

5 The present invention relates to a tape fastener for fixing a child's disposable nappy around the body, and also to a disposable nappy provided with such a fastener.

10 Fastening means for fixing the corners of a nappy by means of pressure-sensitive tape are known.

15 In conventional tape-type fastening means, since a length of pressure-sensitive tape is directly press-fixed to a back face sheet of the nappy when a nappy is fixed around the child, the back face sheet which is composed of a relatively weak material is easily broken, or fluff from the back face sheet becomes picked by the adhesive tape if the nappy is undone and then done up again (for example, in order to check the presence or absence of urine). Accordingly, it is very difficult repeatedly to separate and re-attach the nappy.

20 We have carried out research with a view to overcoming this defect and to providing a tape fastener having improved properties. As a result, in accordance with the present invention, there is provided a tape fastener for a disposable nappy having a back face and a front face, which fastener comprises a first pressure-sensitive tape piece having one end portion to be fixed to the back face so that the other end portion extends away from the nappy so that it can be folded back over the front face, and a second pressure-sensitive tape piece, one surface of which is peelably attached to and overlies said other end portion of the first tape piece and which has fixing means on its other surface, wherein the bond between the back face of the nappy and the first pressure-sensitive tape piece is stronger than the bond between the first pressure-sensitive tape piece and the second pressure-sensitive tape piece.

45 We also provide a disposable nappy provided with such a fastener. Nappies embodying the invention are described below by way of example and with reference to the accompanying drawings, in which:

50 *Figures 1 to 3* are sectional views showing different embodiments of the tape fastener according to the present invention.

55 *Figure 4* is a sectional view showing the state of the tape fastener of the present invention when the nappy is folded.

Figure 5 is a perspective view showing the configuration of the tape fastener of the present invention during use.

60 As shown in Figs. 1 to 3, the tape fastener of the present invention comprises a first pressure-sensitive tape piece 4 having one end portion 5 fixed by means of a layer of pressure-sensitive adhesive 7 to a back face 3 of a nappy 1 having a front face 2 which is to contact the skin of a child who is wearing the

nappy. The back face 3 and the other end portion 6 of the tape piece 4 extending in such a direction that the portion 6 can be folded back over the surface 2 of the nappy

70 1. A second pressure-sensitive tape piece 9 is peelably fixed over the other end portion 6 of the first pressure-sensitive tape piece 4 by means of a layer of pressure-sensitive adhesive 8. This tape piece 9 also has a layer of pressure-sensitive adhesive 11 on its top face. The various layers of pressure-sensitive adhesive may be continuous or discontinuous, as shown in Figs. 1 to 3. It is important that adhesion between the second pressure-sensitive tape piece 9 and the end portion 6 of the first pressure-sensitive tape piece 4 should not be too strong to prevent these pieces from being peeled apart. Thus, the bonding between the end 5 of the first pressure-sensitive tape piece 4 and the back face 3 of the nappy 1 must be stronger than the bonding between the end 6 of the first pressure-sensitive tape piece 4 and the second pressure-sensitive tape piece 9. When the nappy 1 is folded during storage and prior to use, it is preferred that the tape fastener be folded back over the surface 2 of the nappy 1 as shown in Fig. 4, because no projection is formed. For this purpose, it is preferred that the surface 2 be provided with a releasing layer so that the second pressure-sensitive tape piece 9 does not become prematurely fixed to the surface 2. For example, another tape 12 may be provided on the surface 2 as shown in Figs. 1, 2 and 4. Furthermore, release paper 13 may be placed over the adhesive 11 on the top face of the second pressure-sensitive tape piece 9, as shown in Fig. 3.

105 When the tape fastener of the present invention is actually used, the first pressure-sensitive tape piece 4 and second pressure-sensitive tape piece 9 are peeled off from the surface 2 of the nappy 1, and the nappy is placed around a user such as a child and the second pressure-sensitive tape piece 9 is attached to the back face of a corresponding portion beyond the crotch portion of the nappy 1 by means of the pressure-sensitive adhesive 11 on the top face of the second pressure-sensitive tape piece 9. If the free end of the tape piece 9 has a portion to which no pressure-sensitive adhesive has been applied, as shown in Fig. 2, the tape piece 9 can be peeled off the surface 2 of the nappy very easily. When the nappy is temporarily undone in order to check the presence or absence of urine and it is subsequently to be refastened, this can easily be accomplished by peeling the end portion 6 of the first pressure-sensitive tape piece 4 from the second pressure-sensitive tape piece 9 and refixing the nappy by means of the end 6. This operation can be facilitated if a portion 15 to which the pressure-sensitive adhesive has not been applied is formed on the free end of the portion 6, as

shown in Fig. 2.

In the tape fastener of the present invention, since fixing and peeling are performed between the first pressure-sensitive tape piece and the second pressure-sensitive tape piece, even if removal and re-fixing are repeated, the back face sheet is not broken or damaged, and re-fixing can be performed without difficulty.

herein described, with reference to the accompanying drawings.

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CLAIMS

1. A tape fastener for a disposable nappy having a back face and a front face, which fastener comprises a first pressure-sensitive tape piece having one end portion to be fixed to the back face so that the other end portion extends away from the nappy so that it can be folded back over the front face, and a second pressure-sensitive tape piece, one surface of which is peelably attached to and overlies said other end portion of the first tape piece and which has fixing means on its other surface, wherein the bond between the back face of the nappy and the first pressure-sensitive tape piece is stronger than the bond between the first pressure-sensitive tape piece and the second pressure-sensitive tape piece.

2. A tape fastener as claimed in Claim 1 wherein the fixing means on the other surface of the second tape piece comprises a pressure-sensitive adhesive, which adhesive is overlaid by a release sheet.

3. A tape fastener as claimed in Claim 2 wherein the free end of the second pressure-sensitive tape piece has a portion which carries no adhesive on said other surface.

4. A tape fastener as claimed in any preceding claim wherein the other end portion of the first tape piece has, on its surface which is overlaid by the second tape piece, a portion which carries no adhesive.

5. A disposable nappy having a back face and a front face and a tape fastener comprising a first pressure-sensitive tape piece having one end portion fixed to the back face so that the other end portion extends away from the nappy so that it can be folded back over the front face, and a second pressure-sensitive tape piece, one surface of which is peelably attached to and overlies said other end portion of the first tape piece and which has fixing means on its other surface, wherein the bond between the back face of the nappy and the first pressure-sensitive tape piece is stronger than the bond between the first pressure-sensitive tape piece and the second pressure-sensitive tape piece.

6. A disposable nappy according to Claim 5, including means on its front face for preventing permanent fixing of the second tape piece thereto during storage.

7. A tape fastener for a disposable nappy, substantially as herein described, with reference to the accompanying drawings.

8. A disposable nappy, substantially as