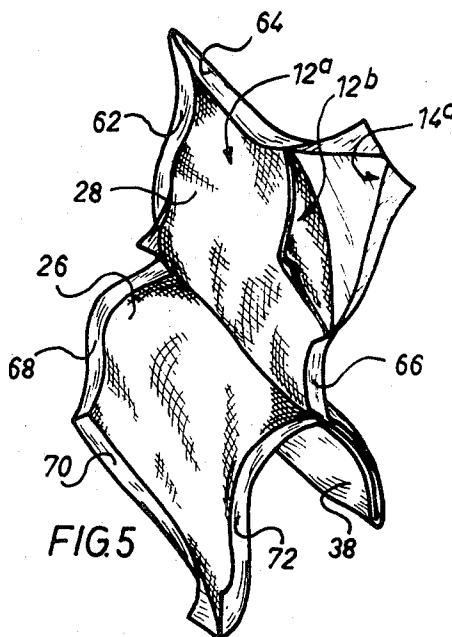
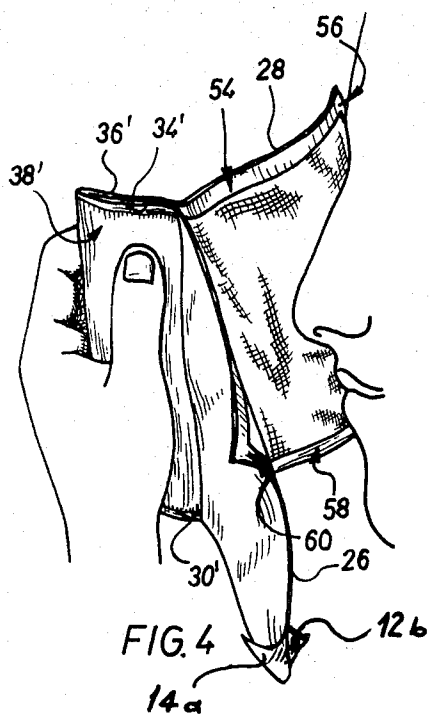
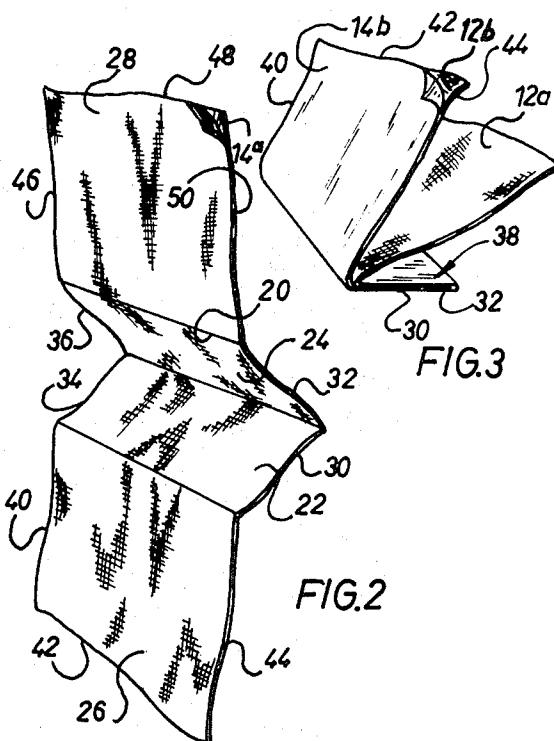
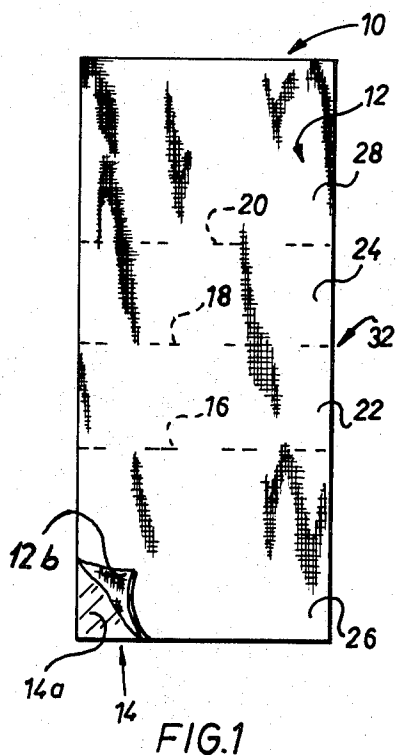


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3,674,613

COMPOSITE MOISTURE-TIGHT STRUCTURE OF ABSORBENT TISSUE
BONDED TO AN IMPERMEABLE THERMOPLASTIC MATERIAL
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1

2

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COMPOSITE MOISTURE-TIGHT STRUCTURE OF ABSORBENT TISSUE BONDED TO AN IM- PERMEABLE THERMOPLASTIC MATERIAL

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8 Claims

ABSTRACT OF THE DISCLOSURE

The disclosure herein describes a moisture-tight handkerchief consisting of a first layer of soft absorbent tissue material, such as paper or cloth, and of a second layer of impermeable flexible material, preferably a thermoplastic material, such as polyethylene or polyvinylchloride; both layers are bonded together and, in one embodiment of the invention, the layers are then folded to form an impermeable moisture-containing pocket.

This invention relates to an improved handkerchief or like article.

Presently, the wiping of the nose is carried out with the aid of a piece of cloth which is normally returned in the user's pocket or purse after usage, or with the aid of a cleansing tissue which is usually disposed of after usage. However, in the latter case, the user is not always in a position or location to easily dispose of the used tissue which must therefore be kept in the user's pocket or purse for future disposal. In addition to being unpleasant and repellent, such cleansing tissue, once used, is also an unsanitary and polluting article.

It is an object of this invention to provide a handkerchief or similar article which overcomes the above-noted disadvantages of present-day handkerchief fabrics and which may be considered as an anti-polluting article.

The invention consists in bonding a first layer of soft absorbent tissue material to a second layer of impermeable flexible material so that, after use, both layers may be folded to form a moisture-tight article.

In a particularly advantageous embodiment of the invention, the two bonded layers are partially folded and sealed along the folded edges to form an impermeable moisture-containing pocket. After use, the handkerchief may be further folded or completely sealed by applying pressure on the remaining edges on which has been applied a pressure sensitive adhesive. In both cases, the moisture-tight handkerchief may be returned in the user's pocket or purse for future disposal.

In order that the invention may be readily understood, preferred embodiments thereof will now be described, by way of examples, with reference to the accompanying drawings in which:

FIG. 1 is a top plan view of one embodiment of the invention showing the improved handkerchief;

FIG. 2 is a side perspective view of the handkerchief shown in FIG. 1, partially folded;

FIG. 3 is a side perspective view of the handkerchief shown in FIG. 1 with a pocket being formed;

FIG. 4 is a side perspective view showing another embodiment of the present invention; and

FIG. 5 is a side perspective view of a further embodiment of the invention showing the two layers partially separated at one corner.

Referring generally to the drawings wherein like reference characters designate like or corresponding parts throughout, there is shown a handkerchief generally denoted by numeral 10 comprising a first layer of soft absorbent tissue material 12, having a front face 12a and

a rear face 12b, and of a second layer of impermeable flexible material 14 having a front face 14a and a rear face 14b. The material of layer 12 may consist of any suitable fabric, such as cloth or tissue paper, which is pleasing or agreeable to the human skin and which has a certain capacity to absorb moisture; numerous fabrics are available to suit the characteristics of this first layer and it is envisaged that persons skilled in the art will be aware of their existence. As it will become evident from the following description, it is preferable to have layer 14 made of thermoplastic material and satisfactory results are obtained if this second layer 14 is polyethylene or polyvinyl chloride. Both layers 12 and 14 are bonded together; any conventional laminating method may be used, such as, for example, compressing both layers under heat.

In a first embodiment, shown in FIGS. 1-3, the area of layer 12 shown is substantially equal to the area of layer 14 so that, when the handkerchief is used, the only surface which is capable of being touched by the user is face 14b of the outer layer 14. It is, however, envisaged that the outer layer 14 may be made a little smaller than the inner layer 12 provided a sufficiently large area of impermeable material is still maintained to satisfy the purpose of the present invention: that is to provide a moisture-tight handkerchief or fabric which may then be folded and stored away in the user's pocket or purse for future disposal. Although not shown in the drawings, a pressure sensitive adhesive may be applied on the peripheral edges of the front face 12a of layer 12 for sealing the interior of the used handkerchief.

With further reference to the particular construction of the handkerchief shown in FIGS. 1-3, the layers 12 and 14 are folded about fold lines 16, 18 and 20 which divide the handkerchief in two equal intermediate portions 22 and 24 and two opposite end portions 26 and 28. Referring more particularly to FIG. 2, the intermediate portions 22 and 24 are brought into a face-to-face relationship where their respective opposite edges 30 and 32, 34 and 36 are bonded (for example, by compressing them under heat) to form a moisture-containing pocket 38 which is closed on three sides. Again, this handkerchief could have the edges 40, 42, 44 of end portion 26 of layer 12 and the edges 46, 48, 50 of opposite end portion 28 of layer 12 coated with a pressure sensitive adhesive (not shown).

FIG. 4 of the drawings shows another way of making an impermeable pocket 38'; layer 14 is made substantially larger than layer 12 on all four sides so as to display four marginal edges 54, 56, 58 and 60. Again, intermediate portions of the handkerchief are folded and the opposite edges 30', 32' (not in view) and 34', 36' are bonded or heat sealed to form an impermeable pocket. Here again, the edges 54, 56, 58 and 60, of opposite end portions 26 and 28 of outer impermeable layer 14 may be coated with a pressure sensitive adhesive.

FIG. 5 shows a further construction of a handkerchief made in accordance with the present invention; the outer layer 14 has a surface larger than that of the inner layer 12 except for the intermediate portions where the area of the outer layer is equal to the area of the inner layer, thereby defining on one end portion marginal edges 62, 64 and 66 which are folded over to overlap the corresponding edges of the end portion 28 of layer 12 and defining on the other end portion marginal edges 68, 70 and 72 which are folded over to overlap the corresponding edges of the end portion 26 of layer 12. The intermediate portions are folded over in a face-to-face relationship and their opposite edges are laminated thereby forming a pocket 38 identical to the pocket of the handkerchief shown in FIGS. 1-3; also laminated are the edges 62, 64, 66, 68, 70 and 72 with the corresponding

3

edges of layer 12. As above, a pressure sensitive adhesive may be applied on edges 62, 64, 66, 68, 70 and 72 of impermeable outer layer 14 to seal the interior of the handkerchief.

While the invention has been discussed above in relation to three specific forms of the invention, persons skilled in the art will be aware that it may be refined and modified in various ways without departing from its scope. For example, it is envisaged to have a third layer of soft tissue absorbent material bonded to the outer impermeable layer; such a handkerchief would, in addition to strengthening the article, obviate the glossy effect of the thermoplastic material. Furthermore, a pocket could be formed by simply sealing one edge thereof instead of two. It is therefore wished to have it understood that this invention is not limited in interpretation except by the terms of the following claims.

What I claim is:

1. A handkerchief comprising: a first layer of soft absorbent tissue material having front and rear faces; a second layer of impermeable flexible thermoplastic material having front and rear faces; said first and second layers being bonded together; and a pressure sensitive adhesive covering the front face of said first layer of soft absorbent tissue material completely along the peripheral edges thereof; said bonded layers being foldable to bring said peripheral edges in contacting engagement, and in sealing engagement when pressure is applied against said edges when in contacting engagement so as to form a moisture-tight folded article after use.

2. A handkerchief, comprising a first layer of soft absorbent tissue material having front and rear faces and a second layer of impermeable flexible thermoplastic material having front and rear faces; said first and second layers being bonded together and being foldable so as to form a moisture-tight article after use, and wherein the second layer has a face area at least equal to the face area of the first layer, and wherein the layers include

4

folded intermediate portions with opposite edges bonded together so as to form an impermeable moisture-containing pocket.

3. A handkerchief as defined in claim 2 wherein the second layer has a face area greater than that of the first layer to thereby define marginal edges extending along the periphery of the first layer.

4. A handkerchief as defined in claim 3 wherein the marginal edges of the second layer are coated with a pressure sensitive adhesive.

5. A handkerchief as defined in claim 2 wherein said thermoplastic material is polyethylene.

6. A handkerchief as defined in claim 2 wherein the second layer has a face area greater than that of the first layer to thereby define marginal edges extending along the periphery of opposite end portions of the first layer, the marginal edges of the second layer overlapping adjacent edges of the first layer.

7. A handkerchief as defined in claim 6 wherein the overlapping marginal edges of the second layer are coated with a pressure sensitive adhesive.

8. A handkerchief as defined in claim 2 wherein said thermoplastic material is polyvinylchloride.

References Cited

UNITED STATES PATENTS

3,505,083	4/1970	Schelhorn	161—250 X
2,560,332	7/1951	Crane	161—44 X
2,502,749	4/1950	Reid	161—39 UX

FOREIGN PATENTS

748,628	5/1956	Great Britain	161—44
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