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(54) **FASTENER**

(57) A fastener (100) which has first and second fastening parts (101, 201) inter-engageable for fastening two side parts of a brassiere (200) or similar article of clothing, the first and second fastening parts including co-operable fastening members for detachable fasten-

ing. The fastening members, at least when attached, are concealable by a concealing member (103), the concealing member is movable between an operating position to conceal the fastening members and a non-operating position to expose the fastening members.

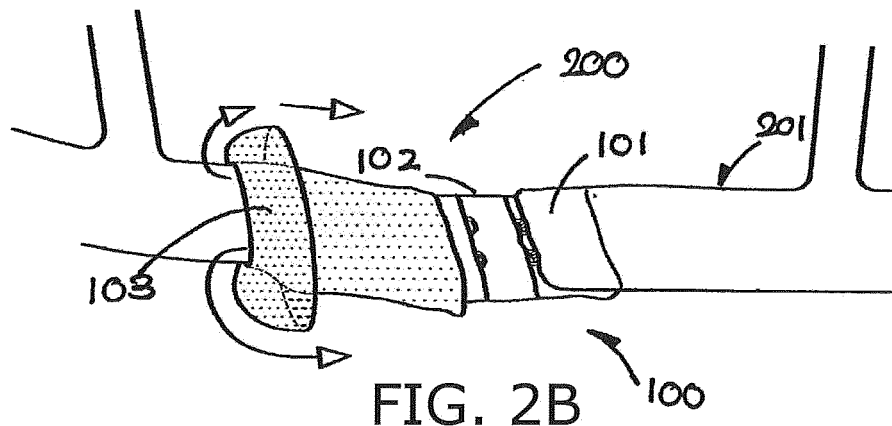


FIG. 2B

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Description

[0001] The present invention relates to a fastener, for example particularly, but not exclusively a fastener for use in a Brassiere.

BACKGROUND OF THE INVENTION

[0002] Brassieres are specialized garment designed to support a woman's breasts and this may date back to ancient Greece. Conventionally they were considered as undergarments but now they have evolved into fashion items.

[0003] The changing trend, the complexity of the available design and material allow brassieres to become outerwear for different purposes such as dance and athletics while providing the support and coverage required. The concept of lingerie as outerwear is not new and is more popular.

[0004] One-piece sport bras, for example are common outerwear but well known to be uncomfortable to wear as they are usually very tight. Also, the size of a sport bra is not adjustable as because they come in one-piece. The band is an elastic strip permitting no adjustment in band size other than relying on its elasticity. Not all brassieres are suitable as outerwear. Conventional brassieres permit adjustment in band size by the use of an adjustable fastener. The mere presence of an adjustable fastener on a brassier creates the impression that the piece of garment is an underwear which ought to be covered by an outer garment.

[0005] The invention seeks to eliminate or at least to mitigate such shortcomings by providing a new or otherwise improved fastener for brassieres.

SUMMARY OF THE INVENTION

[0006] According to the invention, there is provided a fastener comprising first and second fastening parts inter-engageable for fastening two side parts of a brassiere or similar article of clothing, the first and second fastening parts including co-operable fastening members for detachable fastening, wherein the fastening members, at least when attached, are concealable by a concealing member, the concealing member is moveable between an operating position to conceal the fastening members and a non-operating position to expose the fastening members.

[0007] Preferably, the concealing member is removably fixed to one of the first and second fastening parts and remains movable between the operating and non-operating positions.

[0008] More preferably, the concealing member has a side portion sewed onto one of the first and second fastening parts and remains operable between the operating and non-operating positions.

[0009] Yet more preferably, the concealing member is co-operable with a retainer to releasably retain the con-

cealing member at the operating position.

[0010] Advantageously, the retainer is a two-part retainer inter-engageable for retaining the concealing member at the operating position.

5 [0011] More advantageously, the concealing member is in the form of a detachable pad attachable to the fastening parts by the two-part retainer.

[0012] Yet more advantageously, the concealing member is in the form of a sleeve unraveled to operate at the operating position where it wraps around the first and second fastening parts for concealing the same.

[0013] It is preferable that the sleeve is pre-formed.

10 [0014] It is advantageous that the concealing member has outer and inner opposite surfaces, the outer surface is exposed when the concealing member is at the operating position.

[0015] Preferably, the inner surface is exposed when the concealing member is at the non-operating position and is distinguishable from the first surface for indication purpose.

20 [0016] More preferably, the concealing member is dimensioned to conceal both fastening members to their entirety when it is moved to the operating position.

[0017] In another aspect of the invention, there is provided a brassiere comprising a band with two side parts and the fastener as mentioned above provided with the two side parts, wherein the concealing member is made of a material indistinguishable from that of the band.

25 [0018] In a further aspect of the invention, there is provided a brassiere with two side parts comprising a fastener having first and second fastening parts inter-engageable for fastening the two side parts, the first and second fastening parts including co-operable fastening members for detachable fastening; and a concealing member, wherein, the fastening members, at least when attached, are concealable by a concealing member, the concealing member being moveable between an operating position to conceal the fastening members and a non-operating position to expose the fastening members.

30 [0019] Preferably, the concealing member is made of a material indistinguishable from that of the band.

[0020] In another aspect of the invention, there is provided a method of manufacturing a brassiere or an article of clothing having a fastener as mentioned above comprising the steps of: providing inter-engageable first and second fastening parts with co-operable fastening members for detachable fastening; attaching the first and second fastening parts to respective side parts of the brassiere or similar article of clothing; and providing a concealing member with at least one of the side parts, wherein the concealing member is moveable between an operating position to conceal the fastening members and a non-operating position to expose the fastening members.

35 [0021] Preferably, the concealing member is pre-formed before it is provided with the at least one of the side parts.

40 [0022] More preferably, the concealing member is fixed to one of the first and second fastening parts and

remains movable between the operating and non-operating positions.

[0023] Advantageously, the concealing member is in the form of a sleeve unraveled to operate at the operating position for concealing the fastening members.

[0024] It is preferable that the method further includes the step of providing a retainer which co-operable with the concealing member to releasably retain the concealing member at the operating position.

BRIEF DESCRIPTION OF DRAWINGS

[0025] The invention will now be more particularly described, by way of example only, with reference to the accompanying drawings, in which:

Figures **1A** and **1D** are illustrative drawings of a conventional brassiere with adjustable band;

Figures 2A to 2C are illustrative drawings of a fastener in accordance with the invention, which has a concealing member sewed onto an eye tape;

Figures 3A to 3F are schematic illustrative drawings of the use of a brassier with the fastener in Figures 2A to 2C;

Figures 3G and 3H are schematic illustrative drawings of a brassier with an embodiment of the fastener in accordance with the invention;

Figure 4 is an enlarged illustration of the use of the fastener in Figures 2A to 2C;

Figures 5A to 5E are illustrative drawings of another embodiment of a fastener in accordance with the invention;

Figures 6A to 6C are illustrative drawings of a further embodiment of a fastener in accordance with the invention;

Figures 7A to 7F are illustrative drawings of the use of a brassier with an embodiment of the fastener in Figures 2A to 2C;

Figures 8A to 8D are illustrative drawings of the use of a brassier with an embodiment of the fastener in Figures 5A to 5E; and

Figures 9A to 9G are illustrative drawings of a brasserie with an embodiment of the fastener in Figures 6A to 6C.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENT

[0026] Referring to Figures **1A** to **1D**, there is shown

two types of conventional brassier. Those in Figures **1A** and **1B** are brassieres with adjustable fastener for adjusting an overall length of a band 201 of the brassier. The band usually has two side parts. This type of brassieres is generally considered as undergarments. Those in Figures 1C and 1D are bra tops without adjustable fastener, commonly used as sportswear or outerwear.

[0027] As shown in Figures 2A to 2C, the fastener 100 in accordance with the invention is preferably a two part inter-engageable fastener in the form of hook and eye tapes. The hook tape 101 is connected to one side part of a band 201 of a brassier 200. The eye tape 102 is connected to the other corresponding side part of the band 201 of the brassier 200. Generally, the hook and eye tapes 101 and 102 are pre-formed by conventional means and then sewed onto the respective side parts of the band 201. In the preferred embodiment, a concealing member 103 is provided with the fastener 100. Alternatively, the concealing member 103 is securely attached to or sewed onto one side part of the bands 201 of the brassier 200 instead of on the fastener 100. This concealing member 103 is moveable between the operating position to conceal the hook and eye tapes 101 and 102 and it can be moved to a non-operating position exposing the hook and eye tape 101 and 102 to permit access by the user. The fastener 100 may be used with an article of clothing similar to a brassier 200 such as all types of lingerie e.g. girdle.

[0028] Referring to Figures 3A to 3F and 4, in a preferred embodiment, the concealing member 103 is in the form of a sleeve with one end sewed onto the eye tape 102. In the non-operating position, the sleeve 103 is pulled up or turned inside out away from the eye tape 102 to the non-operating position for exposing the eye. The hook on the hook tape 101 may then hooked onto the eye to form an inter-engagement connecting the side parts of the band 201. Thereafter, the sleeve 103 can be rolled / pulled down or flipped over to the operating position for concealing the hook and eye tapes 101 and 102. The sleeve 103 is unraveled to wrap around the hook and eye fastener 101 and 102. At least the outside of the sleeve 103 or the whole of the sleeve 103 is preferably made of the same material as the band 201. Once the sleeve 103 is moved to the operating position, the band 201 and the sleeve 103 is basically indistinguishable at least from afar. The sleeve 103 is retained at the operating position by friction or its own elasticity. When the user would like to remove the brassier 100, the sleeve 103 can be pulled up or turned inside out away from the hook and eye tapes 101 and 102 to the non-operating position again. Access to the hook and eye tapes 101 and 102 is permitted.

[0029] In another embodiment, the sleeve 103 does not have to be sewed to the eye tape 102. Instead it may be sleeved onto the relevant side part of the band 201 and be pulled to the operating position for concealing the hook and eye tapes 101 and 102 when in use.

[0030] In a further embodiment as shown in Figures

3G and 3H, the sleeve 103 is sewed onto the hook tape 101. Alternatively, the sleeve 103 may be sewed onto a side part of the band 201 on which the hook tape or eye tape 101 or 102 is provided.

[0031] Turning to Figures 5A to 5E. There is shown another embodiment of the fastener 100. The concealing member 103 is a separate pad. The pad 103 is retained in the operating position by a retainer 104. The retainer 104 is a two-part inter-engageable retainer. Preferably a Velcro®. One part of the Velcro® 104A is fixed to the pad 103 while the other part 104B is fixed to the back of the hook tape 101. The pad 103 may include a pair of connectors 105 for detachably connecting the pad 103 to the back of the eye tape 102 yet remains operable between the operating and non-operating positions as shown in Figure 5D. The pad 103 can be flipped or pivoted between the operating and non-operating positions.

[0032] In a further embodiment of the fastener 100 as shown in Figures 6A to 6C, the concealing member 103 is again in the form of a separate pad 103. A part 104A of the retainer 104 is fixed onto one side of the pad 103. The other part 104B of the retainer 104 has two parts or pieces. One part is fixed onto the front side of the eye tape 102 adjacent the end where the eye tape 102 is sewed onto the band 201. The other is fixed onto the back and adjacent the free end of the hook tape 101. Once the hook and eye tapes 101 and 102 are fastened, the pad 103 may be placed over them to conceal the tapes 101 and 102. The pad 103 is detachably retained in this operating position by the retainer 104. The pad 103 can be readily removed by pulling it back and rip it off the hook and eye tapes 101 and 102. Of course, it is possible for one part of the retainer 104 to be fixed onto one side parts of the bands 201 and the other piece fixed onto the back of the hook tape 101 or the band on which the hook tape 101 is sewed.

[0033] The pad 103 in both embodiments is preferably made of the same material as the bands 201 or the rest of the brassier 200 such that when the pad 103 is in the operating position, it cannot be distinguished from the bands or the rest of the brassier 200 at least from afar. The brassier 200 would be more like an outerwear yet permitting some adjustments on the band size to enhance comfort.

[0034] Figures 7A to 9G shows an embodiment of a brassier 200 with the fastener 100. This brassier 200 is more like a sports bra yet with an adjustable fastener 100 to permit adjustment on the band 201 size.

[0035] The fastener 100 is basically the same as that as discussed above except that it has more hooks and eyes on the hook and eye tapes 101 and 102.

[0036] A brassier 100 is a personal article of clothing. The user may try the brassier 200 on and select the preferred band size by fastening the hooks on the hook tape 101 to a preferred row of eyes on the eye tape 102. Once that is decided, the concealing member 103 may then be moved to its operating position. The concealing member 103 may be retained at the operating position when the

brassier 200 is in use or not e.g. in the laundry. There is no need to move the concealing member 103 to and from the operating and non-operating positions every time the brassier 200 is used.

[0037] Preferably, the concealing member 103 is dimensioned to conceal the hook and eye tapes 101 and 102 to their entirety.

[0038] The invention also relates to a method of manufacturing a brassiere or an article of clothing having a fastener as detailed above. The method includes the steps of providing the fastener 100 which includes hook and eye tapes 101 and 102 and a concealing member 103, and sewing the hook and eye tapes 101 and 102 to respective side parts of the band 201. The concealing member 103 may be provided separately from the hook and eye tapes 101 and 102 or is pre-sewed onto the eye tape 102 or the hook tape 101 or any side part of the bands 201. A retainer 104 as described above may be provided on the hook tape 101 or eye tape 102 or the band 201 to retain the concealing member 103 at the operating position.

[0039] Instead of sewing the concealing member 103 to the tapes 101 or 102 or the band 201, in an alternative method where the concealing member 103 is a separate pad as described above, one of a pair of the connectors 105 is pre-sewed onto the pad 103 and another of the pair of the connectors 105 is sewed to the back of the eye tape 102. It further includes the step of connecting the pad 103 to the back of the eye tape 102. The pad 103 remains operable between the operating and non-operating positions as shown in Figure 5D. The pad 103 can be flipped or pivoted between the operating and non-operating positions. A retainer 104 as described above may be provided on the hook tape 101 or the band 201 to retain the concealing member 103 at the operating position.

[0040] The invention has been given by way of example only, and various other modifications of and/or alterations to the described embodiment may be made by persons skilled in the art without departing from the scope of the invention as specified in the appended claims.

Claims

1. A fastener comprising first and second fastening parts inter-engageable for fastening two side parts of a brassiere or similar article of clothing, the first and second fastening parts including co-operable fastening members for detachable fastening, wherein the fastening members, at least when attached, are concealable by a concealing member, the concealing member being moveable between an operating position to conceal the fastening members and a non-operating position to expose the fastening members.
2. The fastener as claimed in claim 1, wherein the con-

cealing member is removably fixed to one of the first and second fastening parts and remains movable between the operating and non-operating positions.

3. The fastener as claimed in claim 1, wherein the concealing member has a side portion sewed onto one of the first and second fastening parts and remains movable between the operating and non-operating positions. 5
4. The fastener as claimed in any one of claims 1 to 3, wherein the concealing member is co-operable with a retainer to releasably retain the concealing member at the operating position. 10
5. The fastener as claimed in claim 4, wherein the retainer is a two-part retainer inter-engageable for retaining the concealing member at the operating position. 15
6. The fastener as claimed in claim 5, wherein the concealing member is in the form of a detachable pad attachable to the fastening parts by the two-part retainer. 20
7. The fastener as claimed in any one of claims 1 to 5, wherein the concealing member is in the form of a sleeve unraveled to operate at the operating position where it wraps around the first and second fastening parts for concealing the same. 25
8. The fastener as claimed in claim 7, wherein the sleeve is pre-formed. 30
9. The fastener as claimed in any one of claims 1 to 8, wherein the concealing member has outer and inner opposite surfaces, the outer surface is exposed when the concealing member is at the operating position. 35
10. The fastener as claimed in claim 9, wherein the inner surface is exposed when the concealing member is at the non-operating position and is distinguishable from the first surface for indication purpose. 40
11. The fastener as claimed in any one of claims 1 to 10, wherein the concealing member is dimensioned to conceal both fastening members to their entirety when it is moved to the operating position. 45
12. A brassiere comprising a band with two side parts and the fastener as claimed in any one of claims 1 to 11 provided with the two side parts, wherein the concealing member is made of a material indistinguishable from that of the band. 50
13. A brassiere with two side parts comprising: 55

a fastener having first and second fastening parts inter-engageable for fastening the two side parts, the first and second fastening parts including co-operable fastening members for detachable fastening; and

a concealing member, wherein, the fastening members, at least when attached, are concealable by a concealing member, the concealing member being moveable between an operating position to conceal the fastening members and a non-operating position to expose the fastening members.

14. The brassiere as claimed in claim 13, wherein the concealing member is made of a material indistinguishable from that of the band.

15. A method of manufacturing a brassiere or an article of clothing having a fastener as claimed in any one of claims 1 to 11 comprising the steps of:

providing inter-engageable first and second fastening parts with co-operable fastening members for detachable fastening;

attaching the first and second fastening parts to respective side parts of the brassiere or similar article of clothing; and

providing a concealing member with at least one of the side parts,

wherein the concealing member is movable between an operating position to conceal the fastening members and a non-operating position to expose the fastening members;

optionally, the concealing member is pre-formed before it is provided with the at least one of the side parts;

optionally, the concealing member is fixed to one of the first and second fastening parts and remains movable between the operating and non-operating positions;

optionally, the concealing member is in the form of a sleeve unraveled to operate at the operating position for concealing the fastening members; and

optionally, the method further including the step of providing a retainer which is co-operable with the concealing member to releasably retain the concealing member at the operating position.

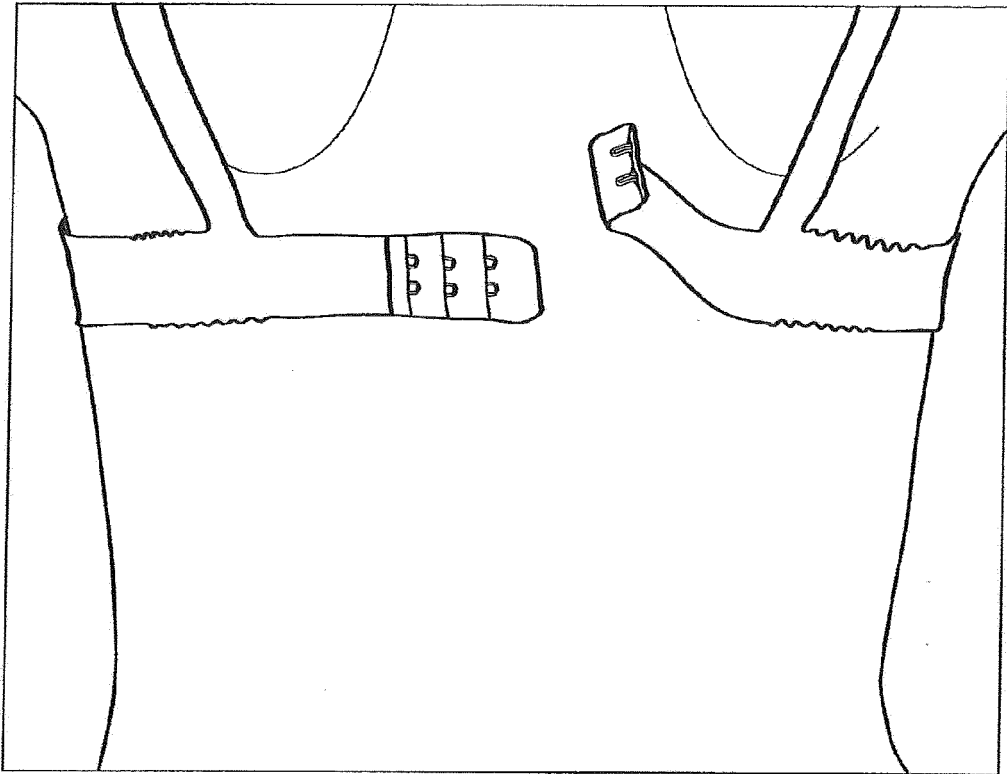


FIG. 1A

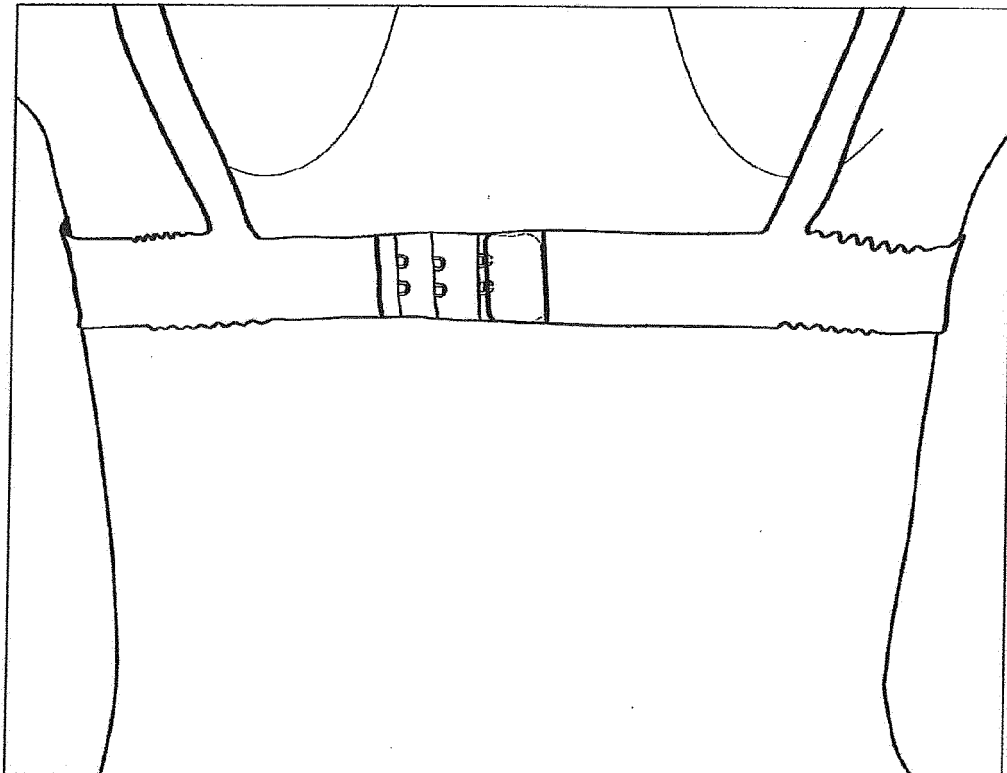


FIG. 1B

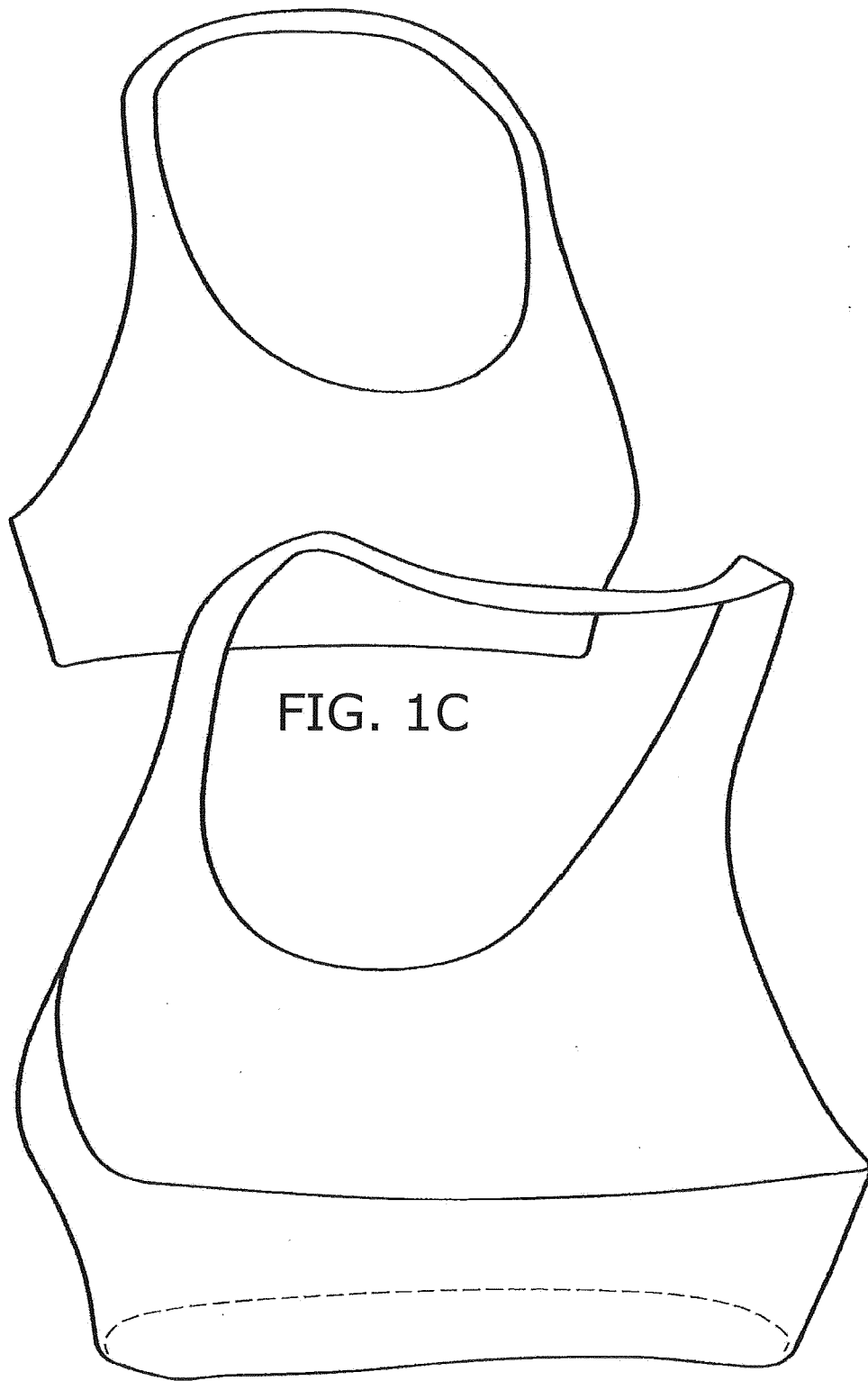
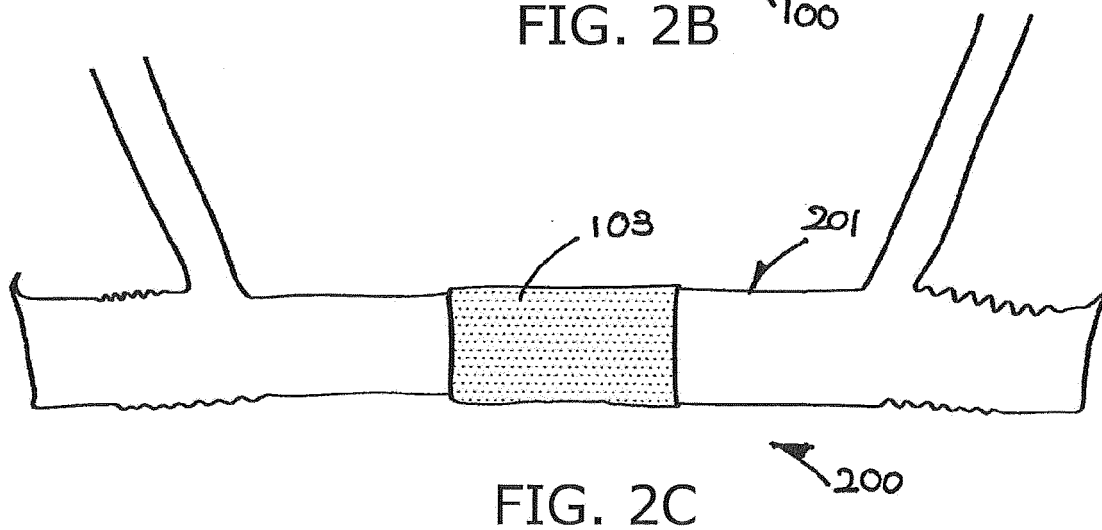
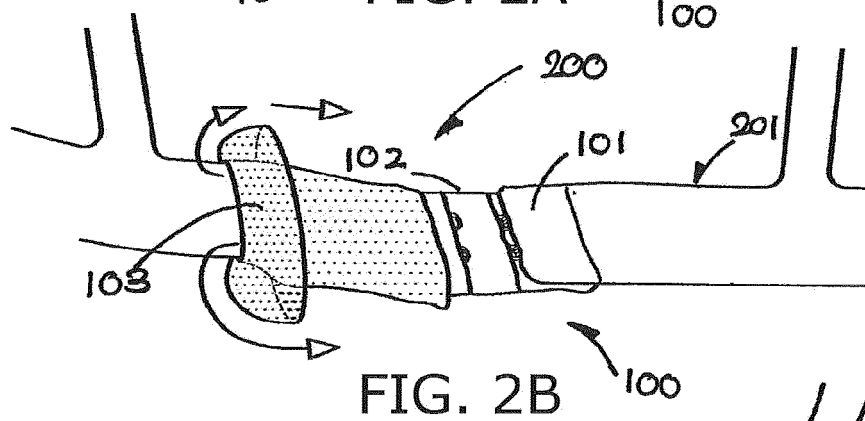
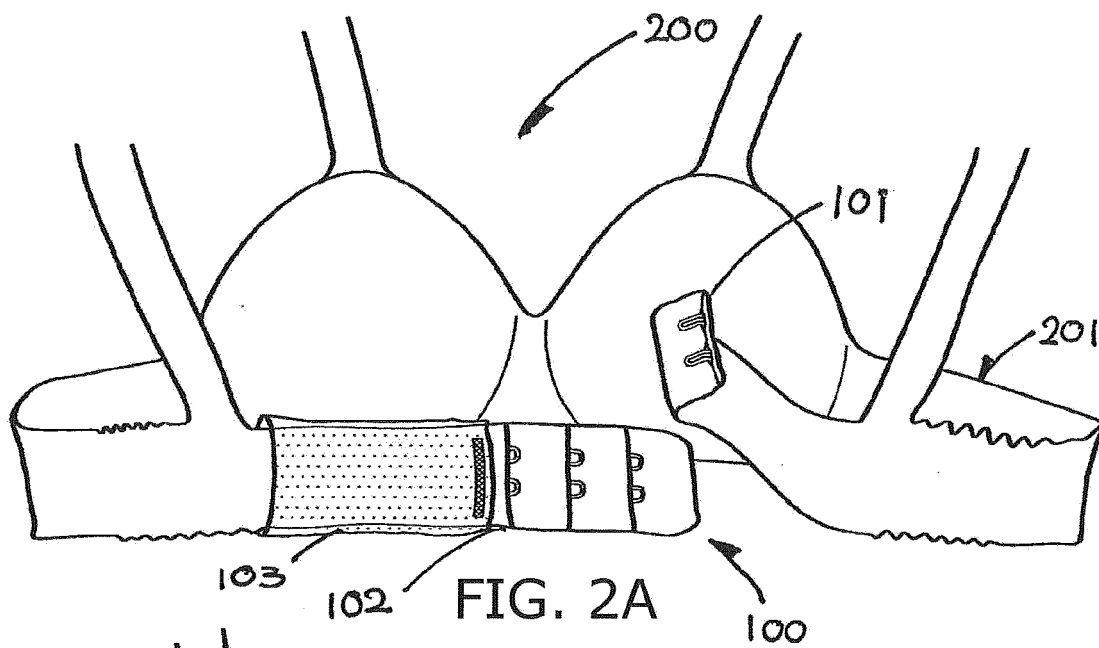


FIG. 1D



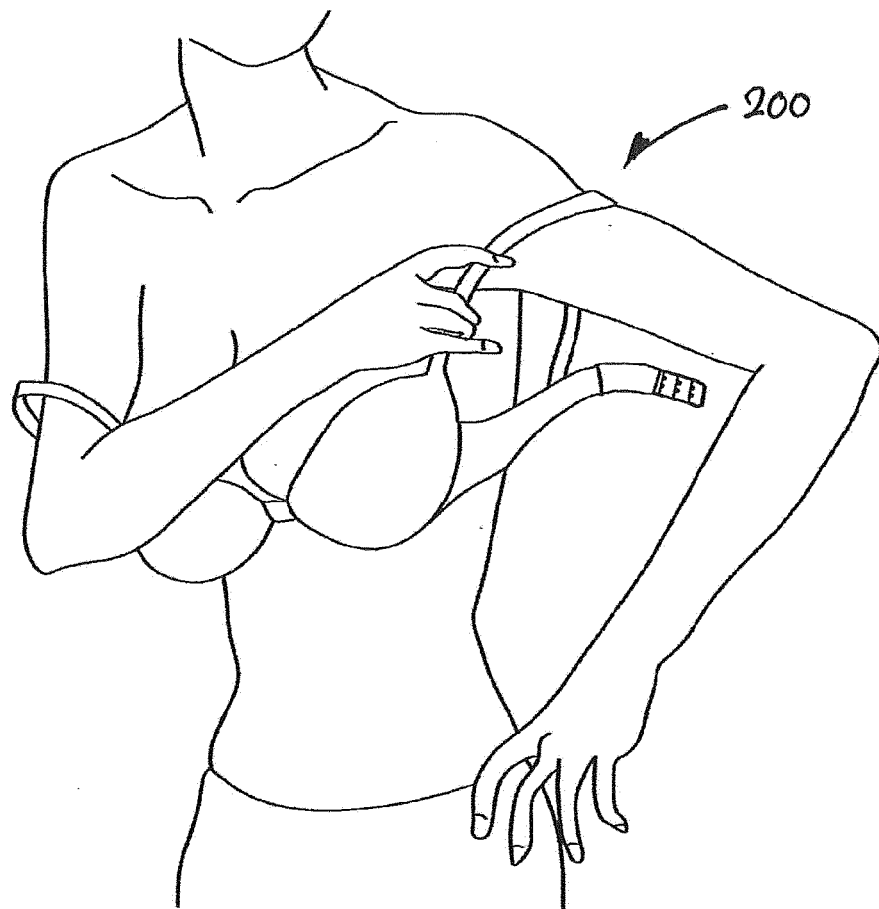


FIG. 3A

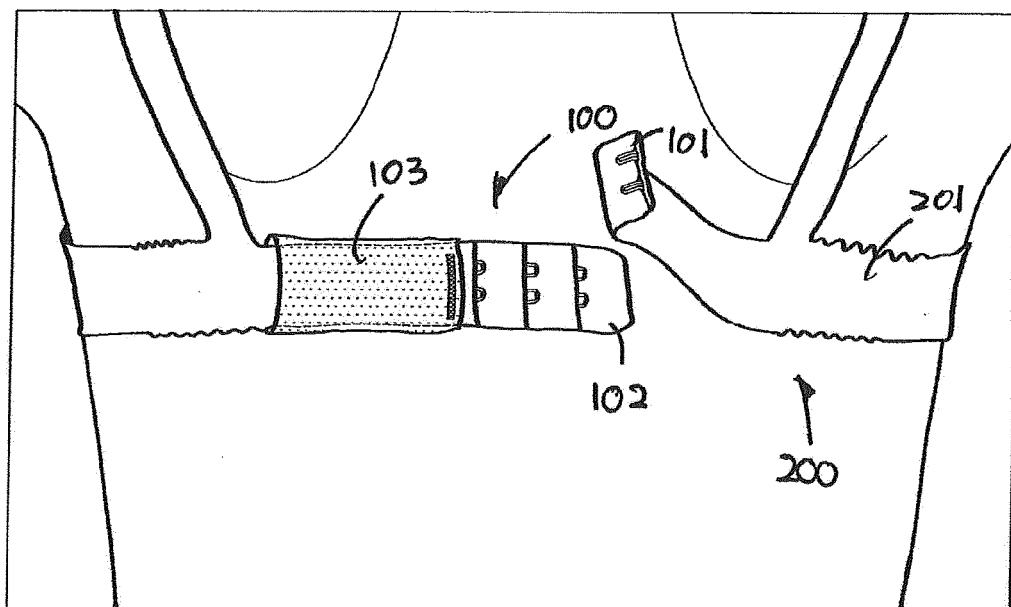


FIG. 3B

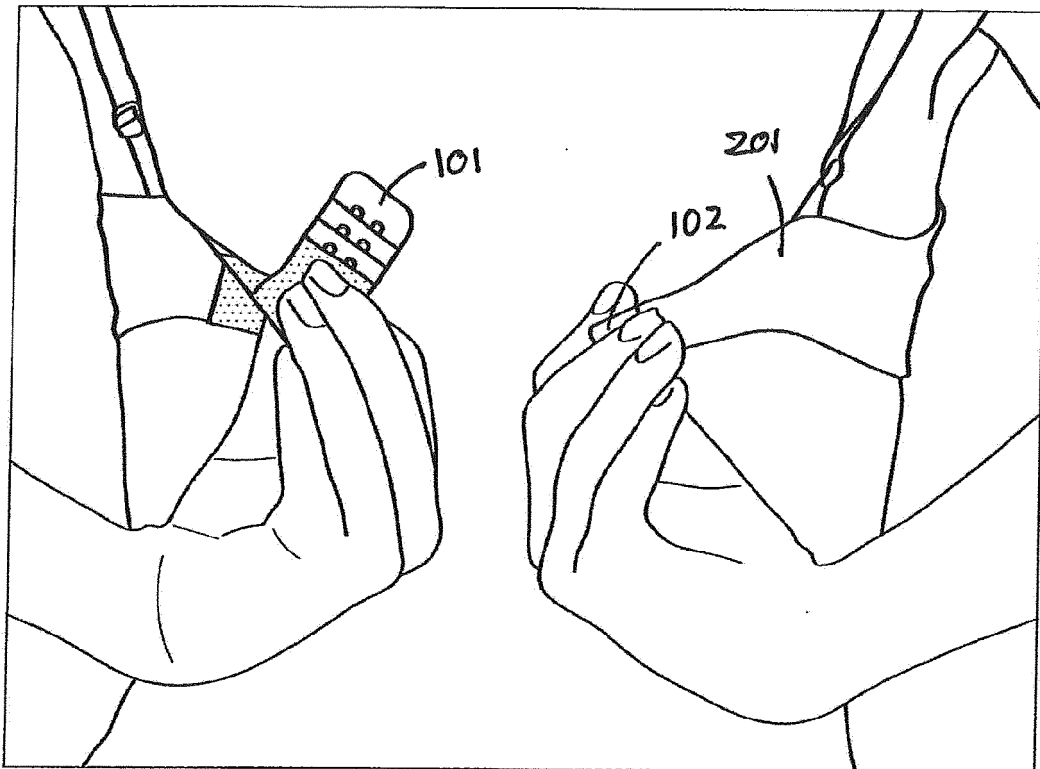


FIG. 3C

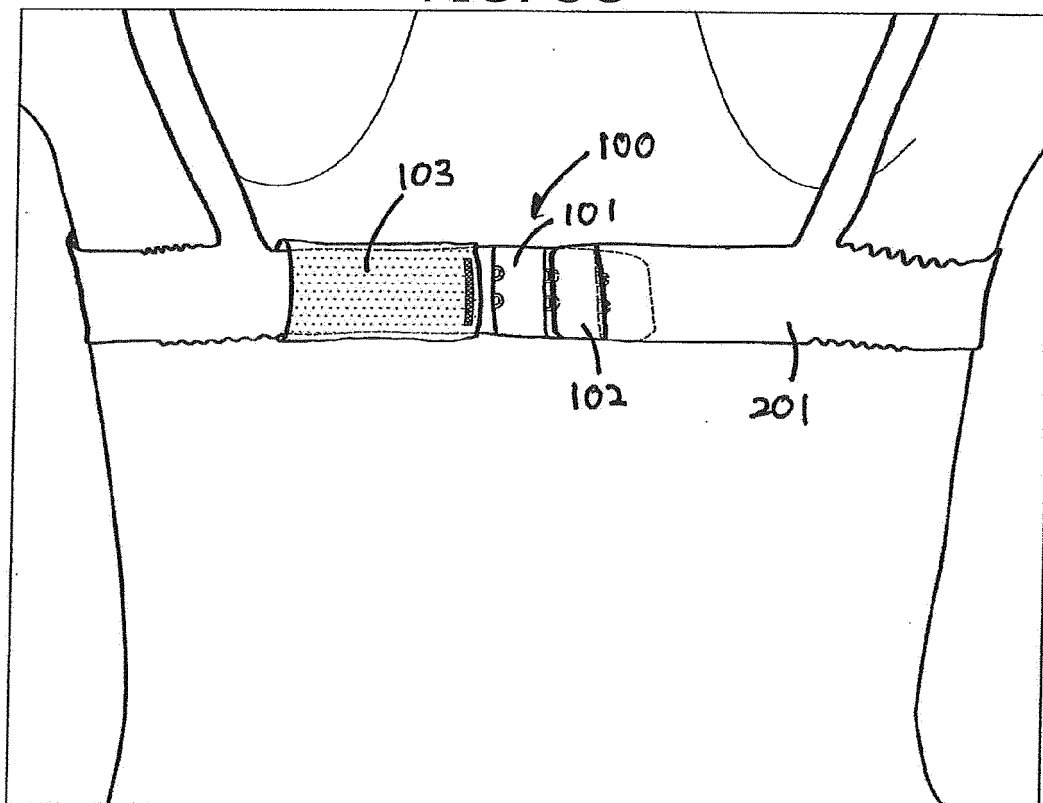


FIG. 3D

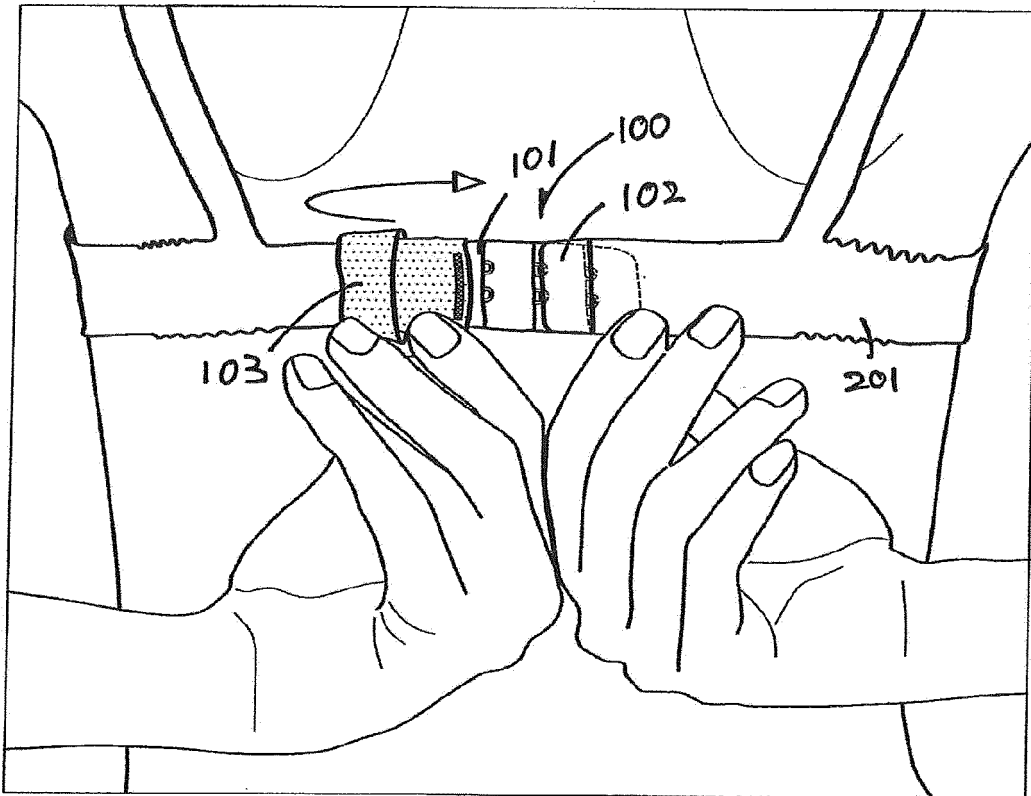


FIG. 3E

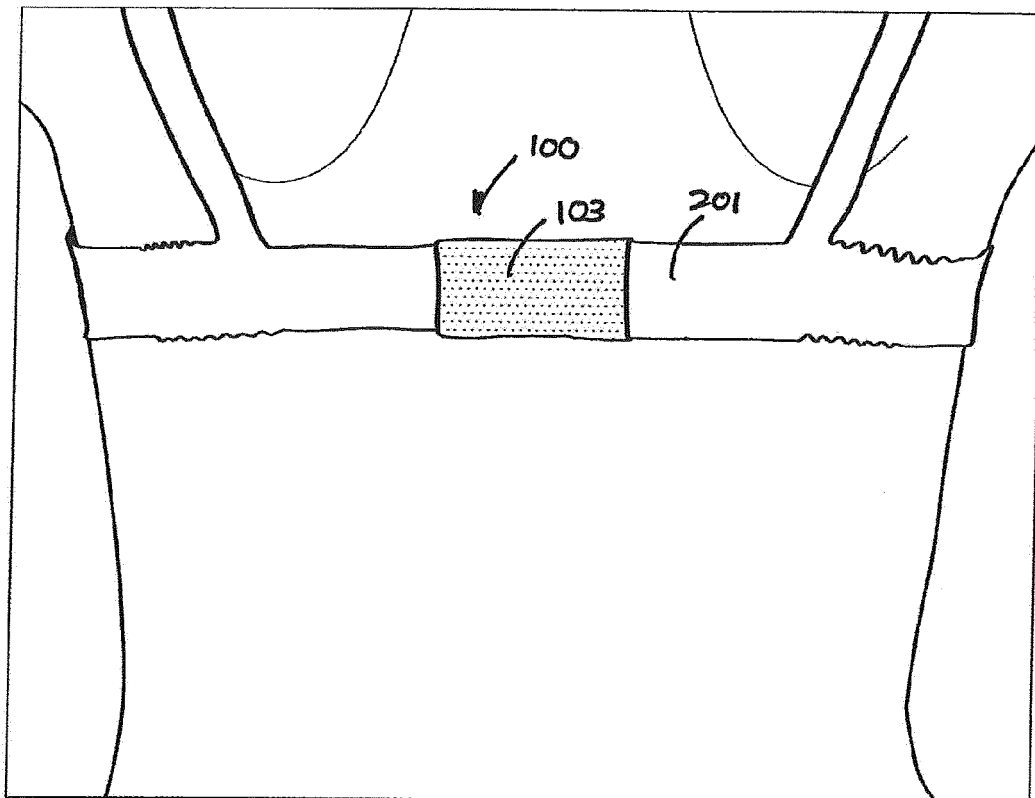


FIG. 3F

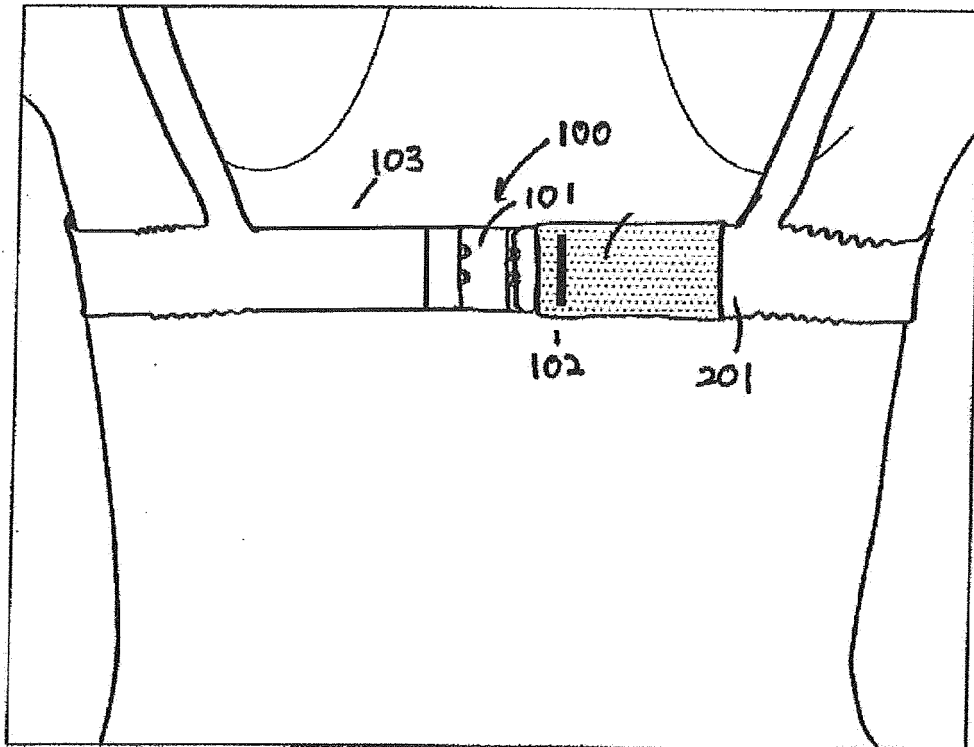


FIG. 3G

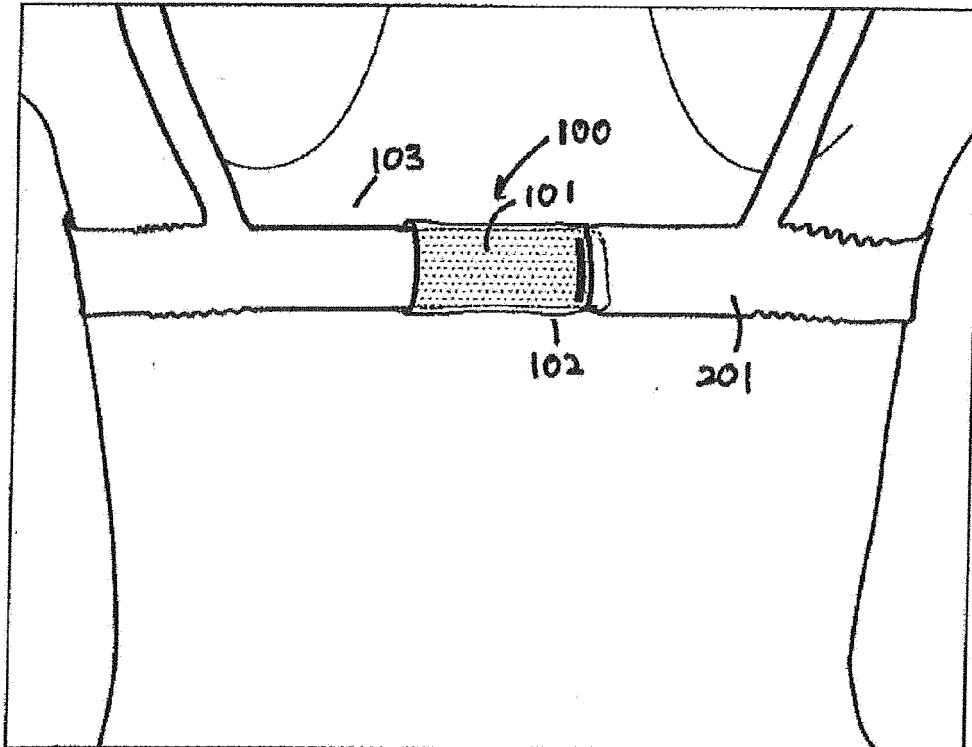


FIG. 3H

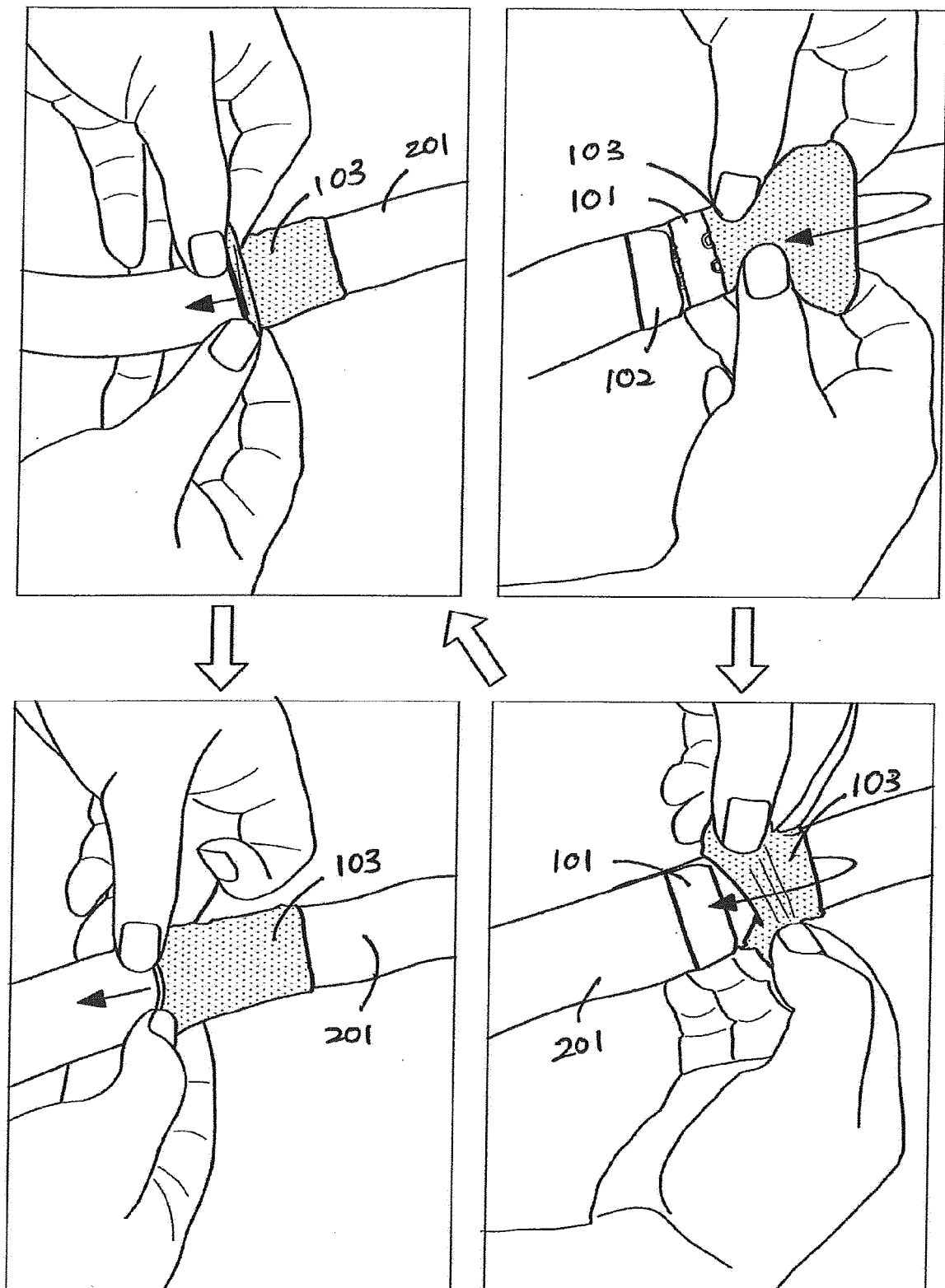


FIG. 4

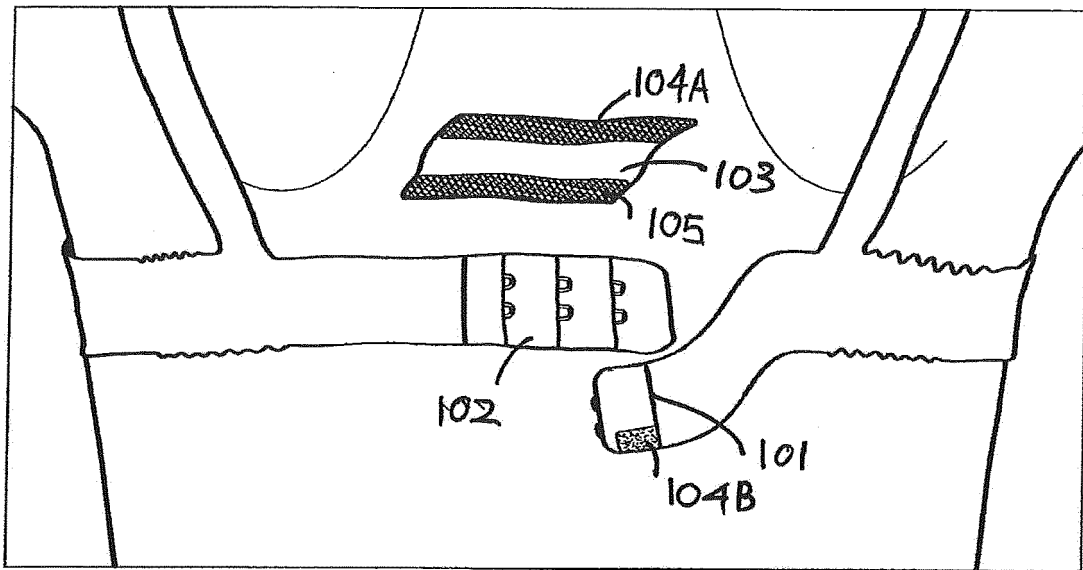


FIG. 5A

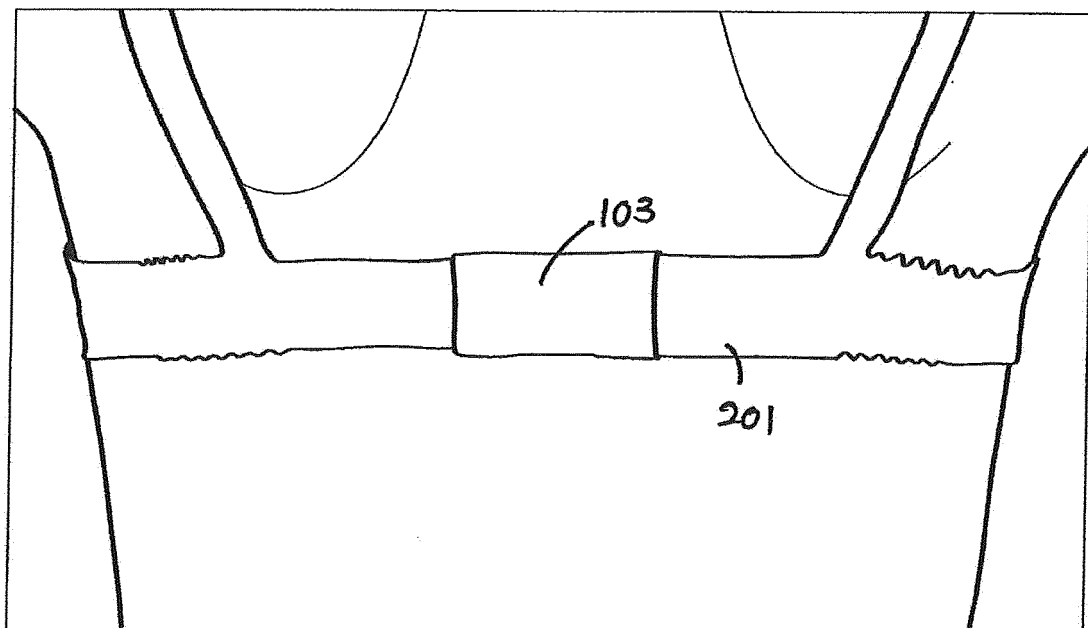


FIG. 5B

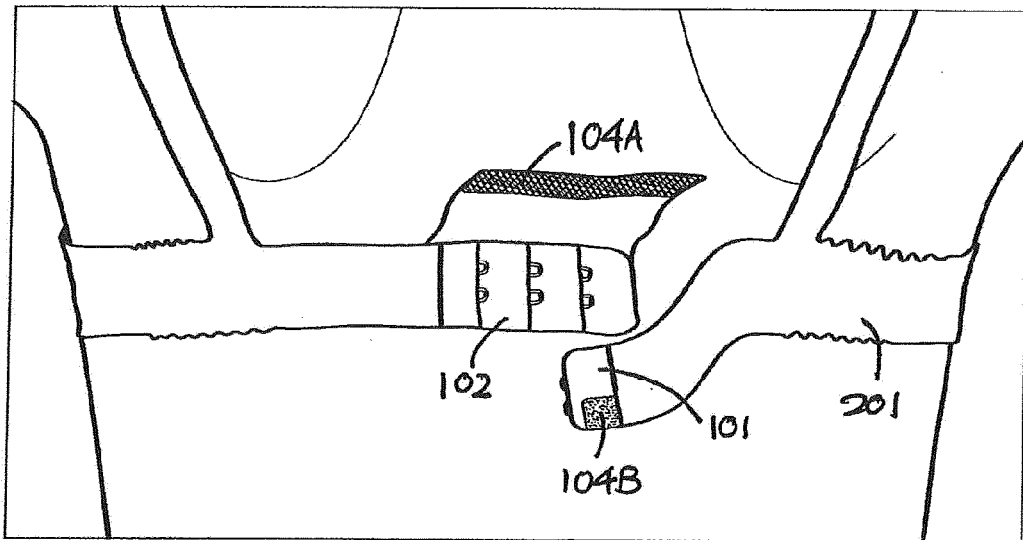


FIG. 5C

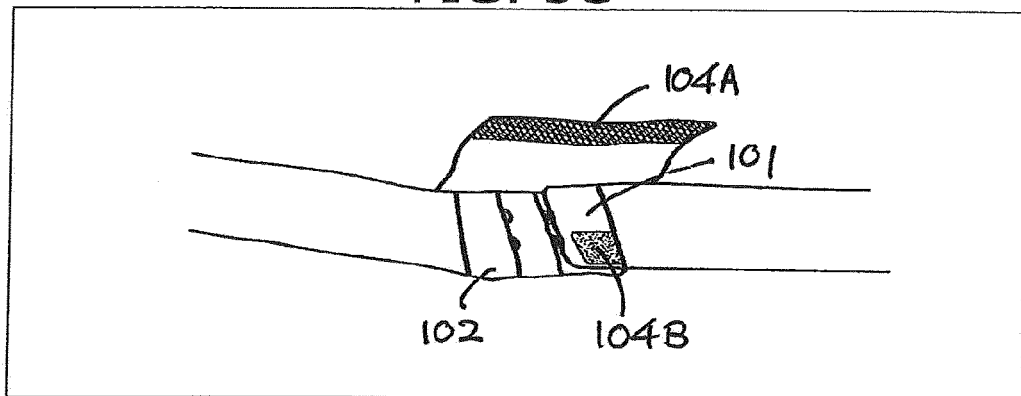


FIG. 5D

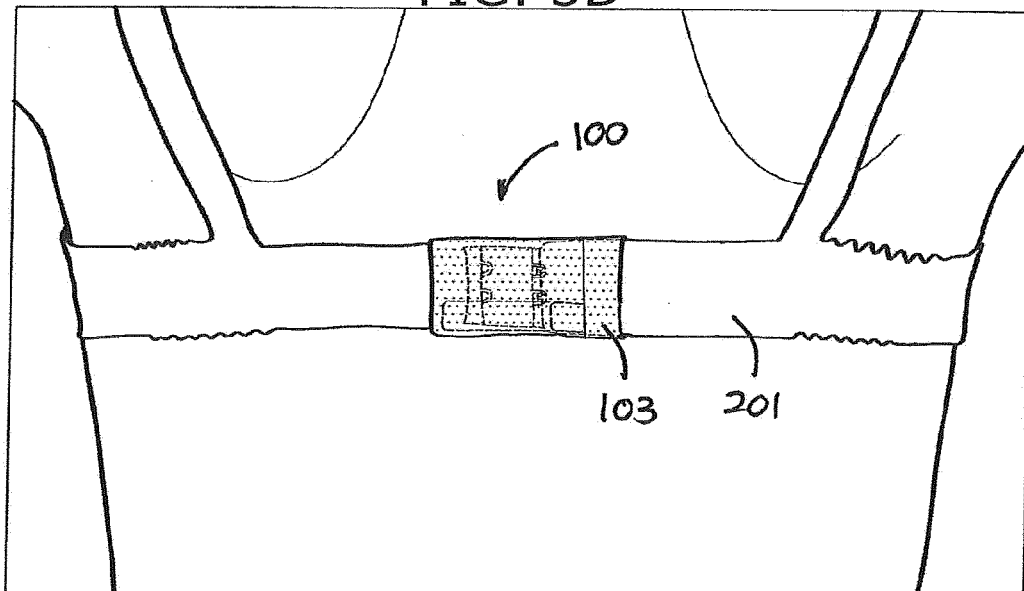


FIG. 5E

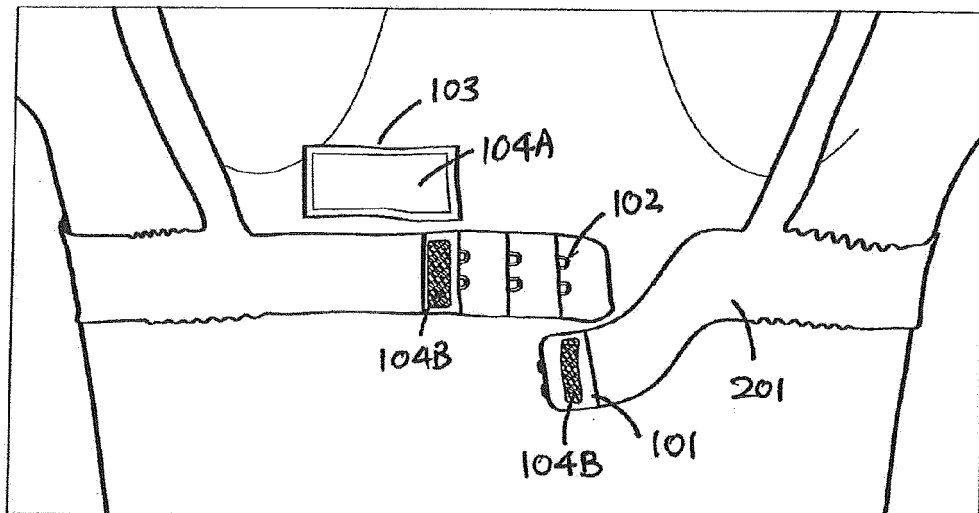


FIG. 6A

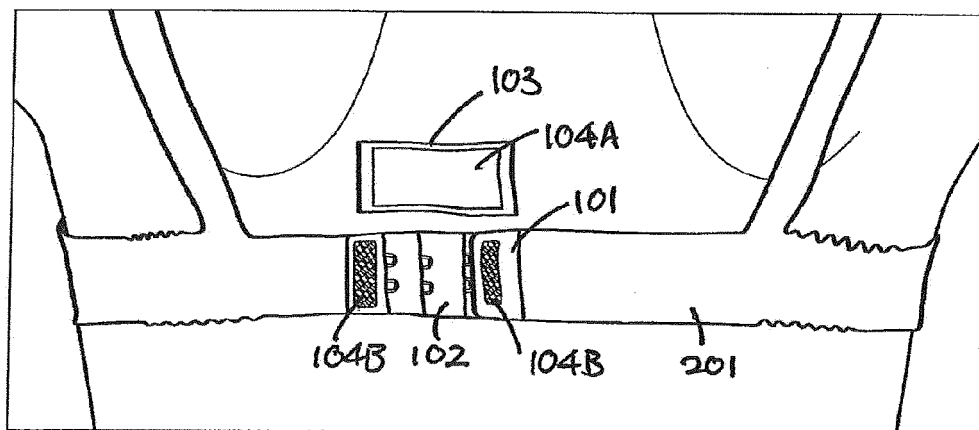


FIG. 6B

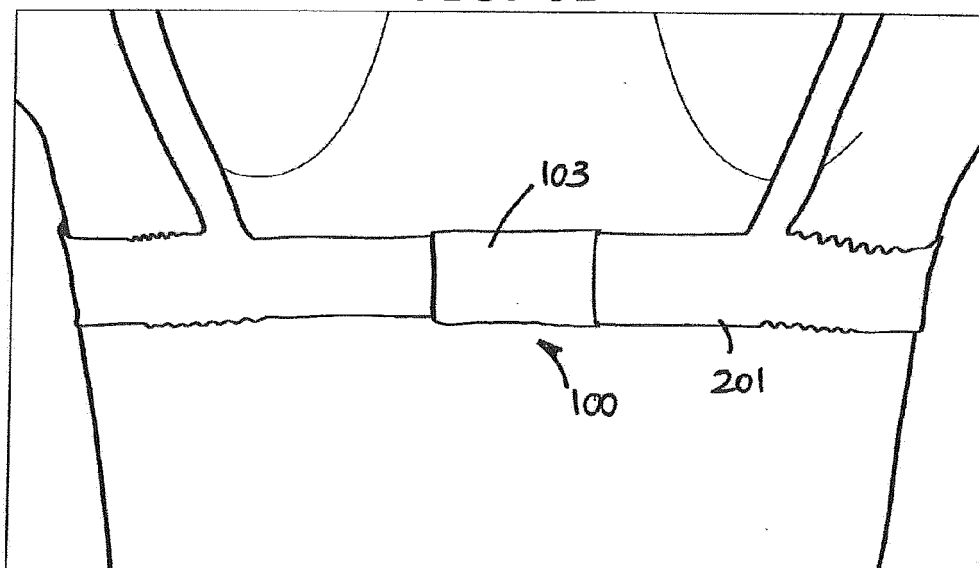
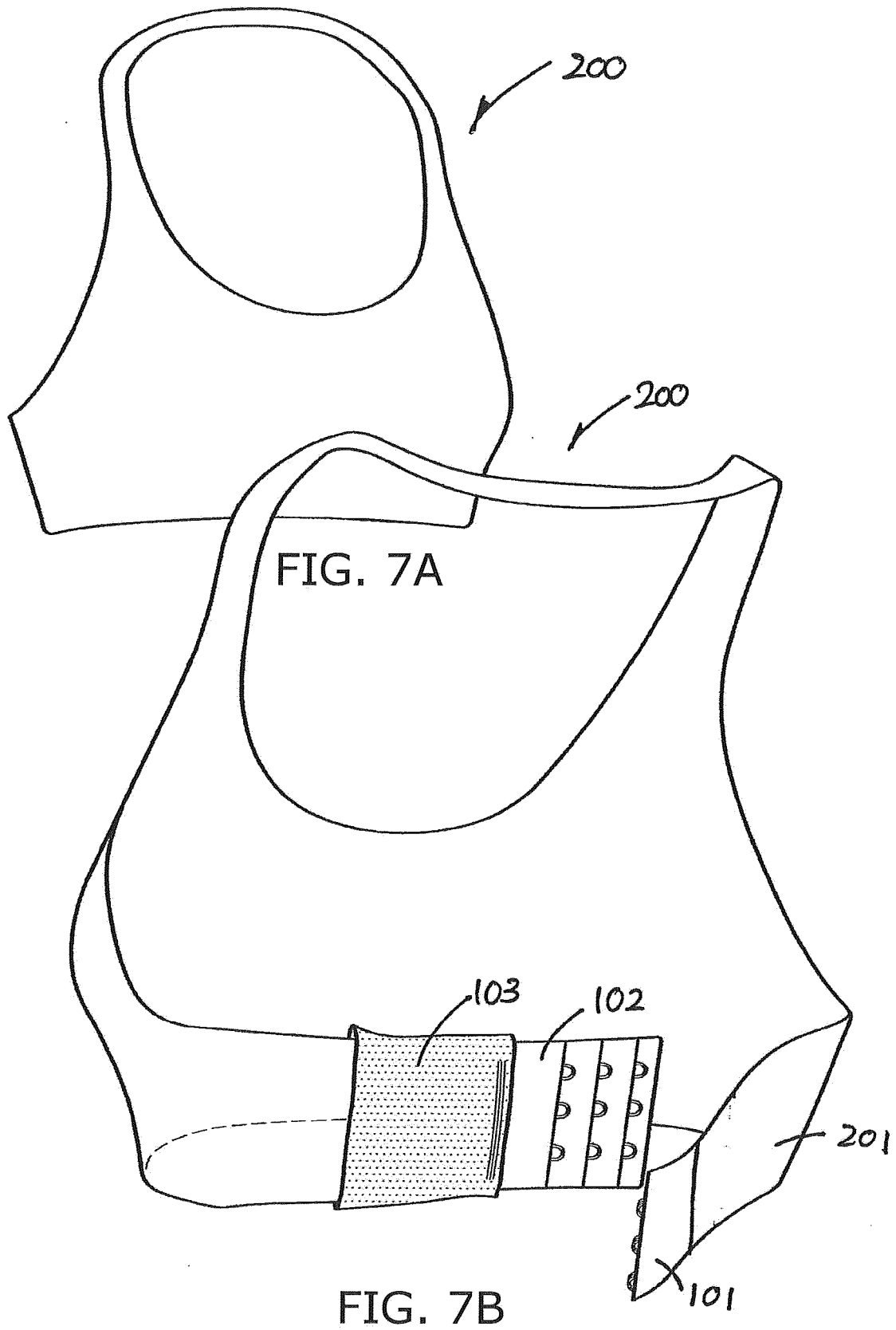


FIG. 6C



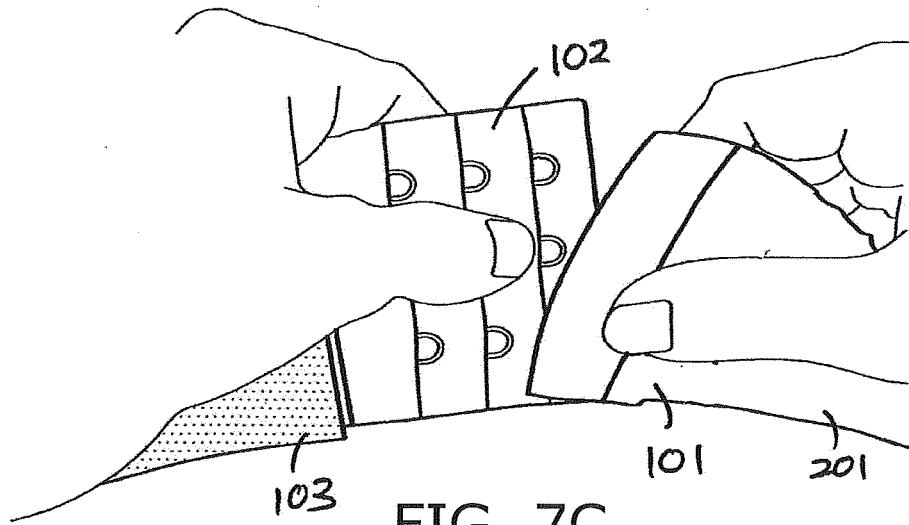


FIG. 7C

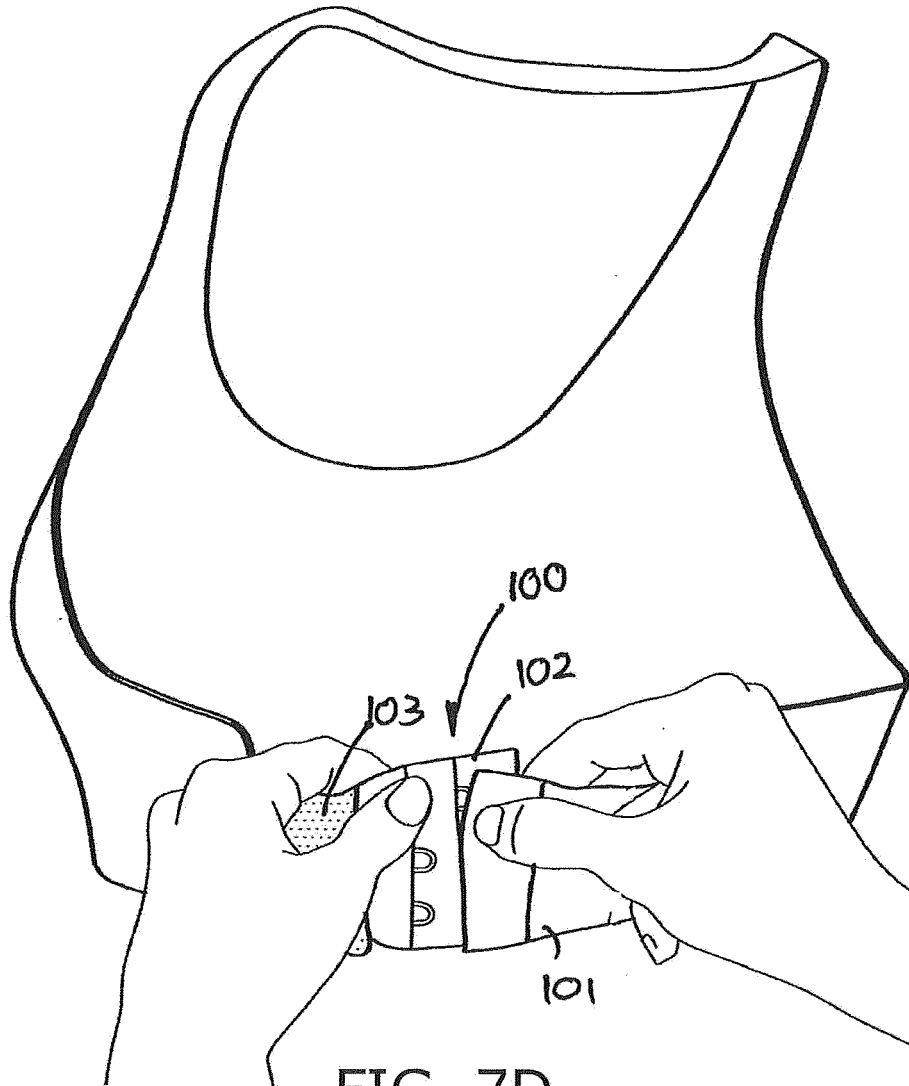


FIG. 7D

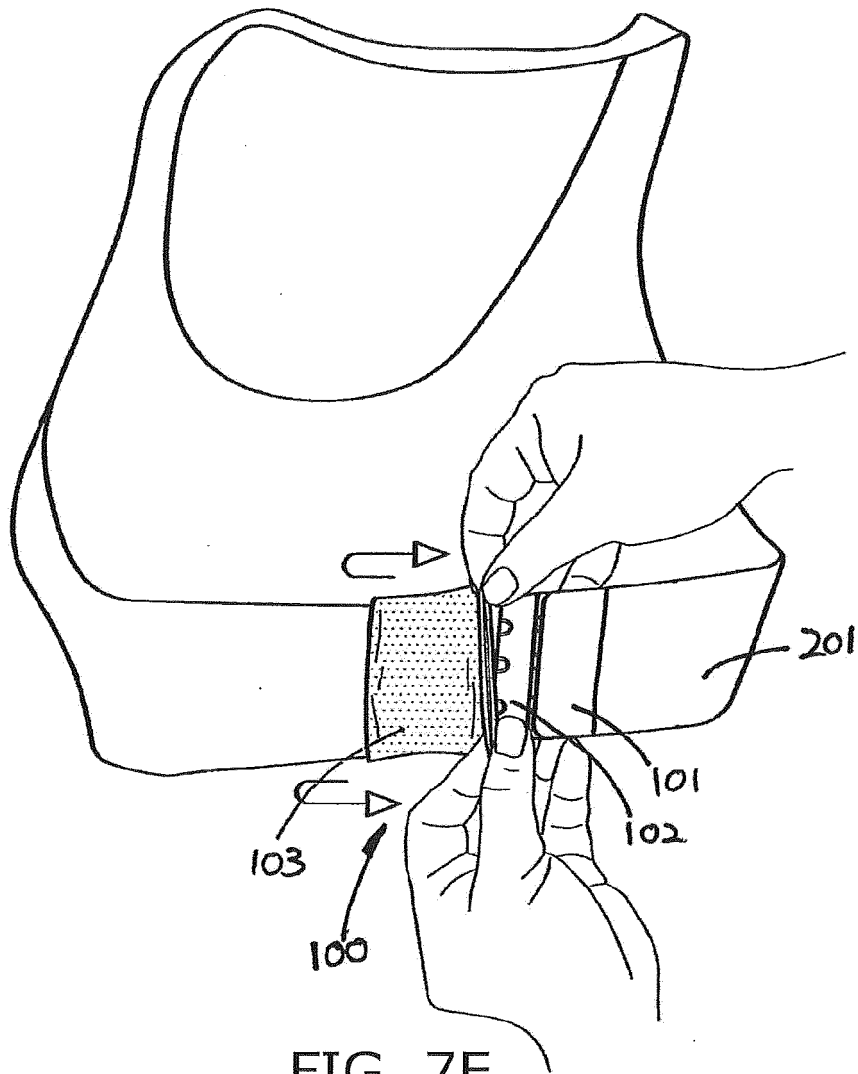


FIG. 7E

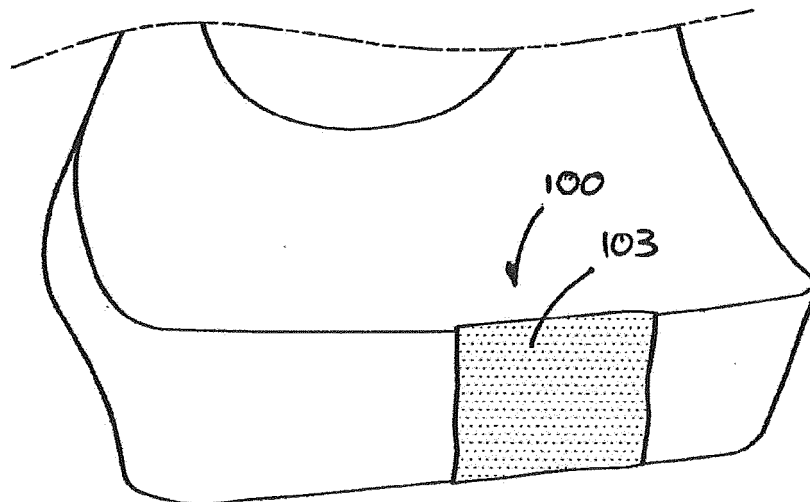


FIG. 7F

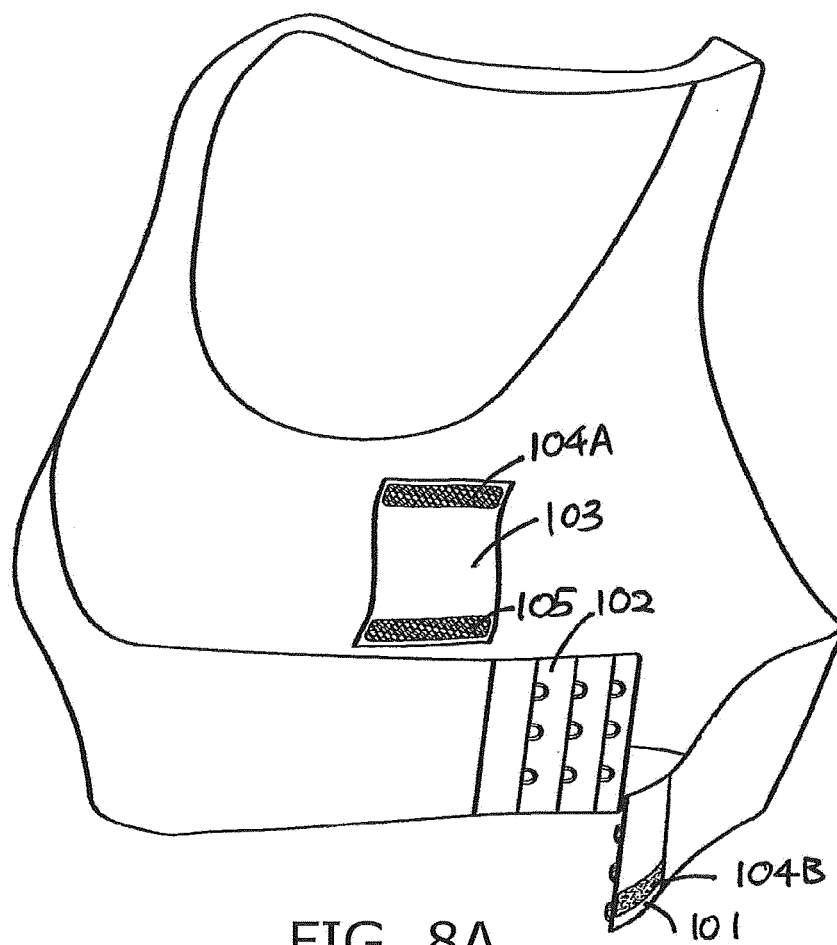


FIG. 8A

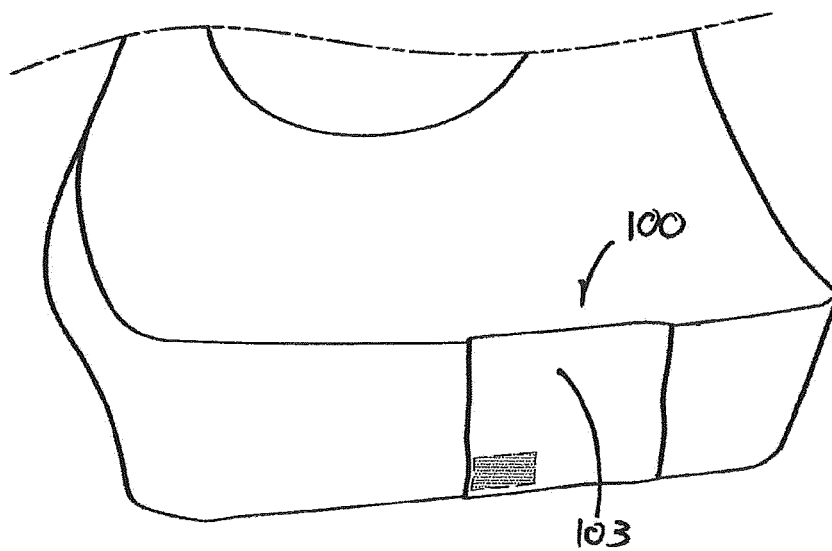


FIG. 8B

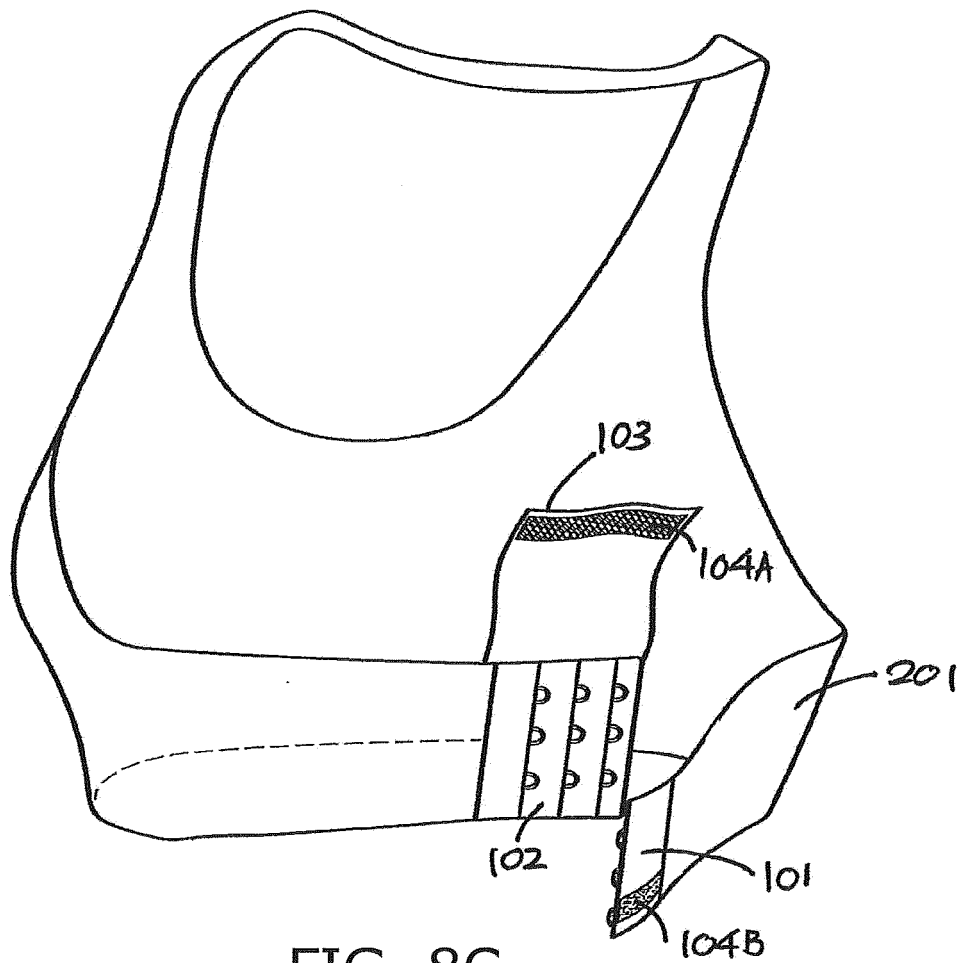


FIG. 8C

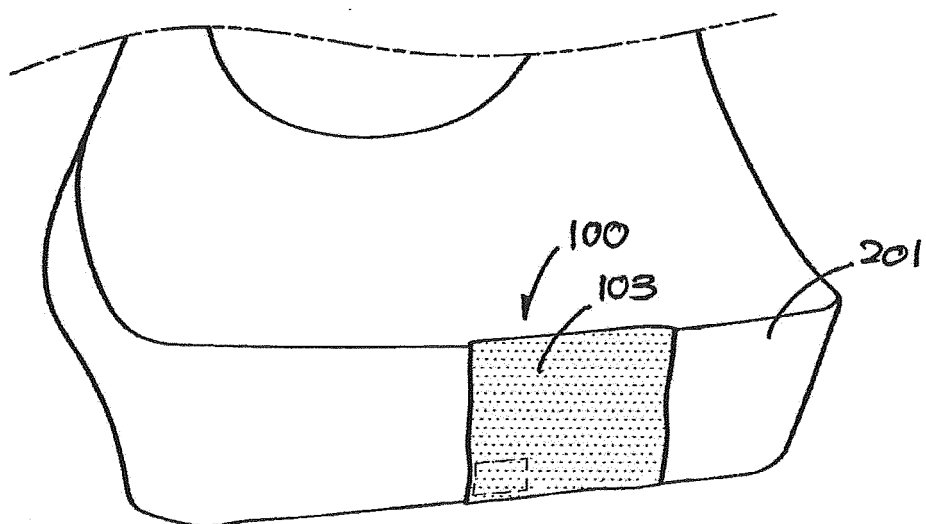
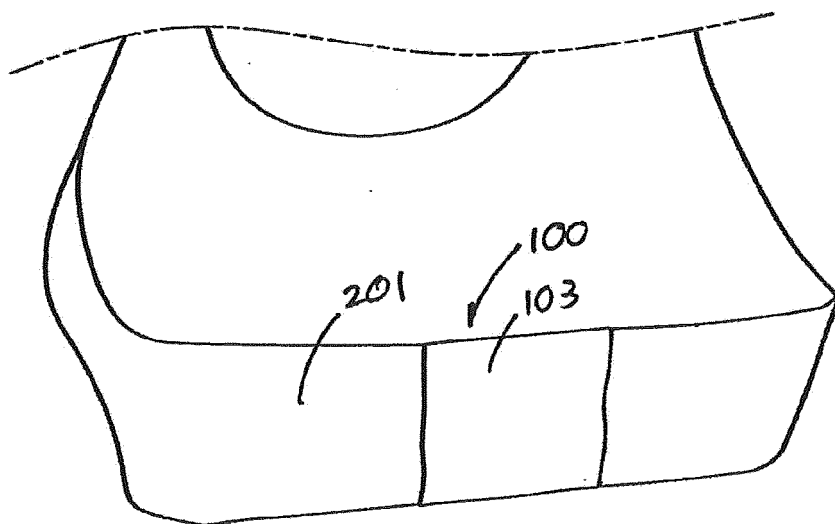
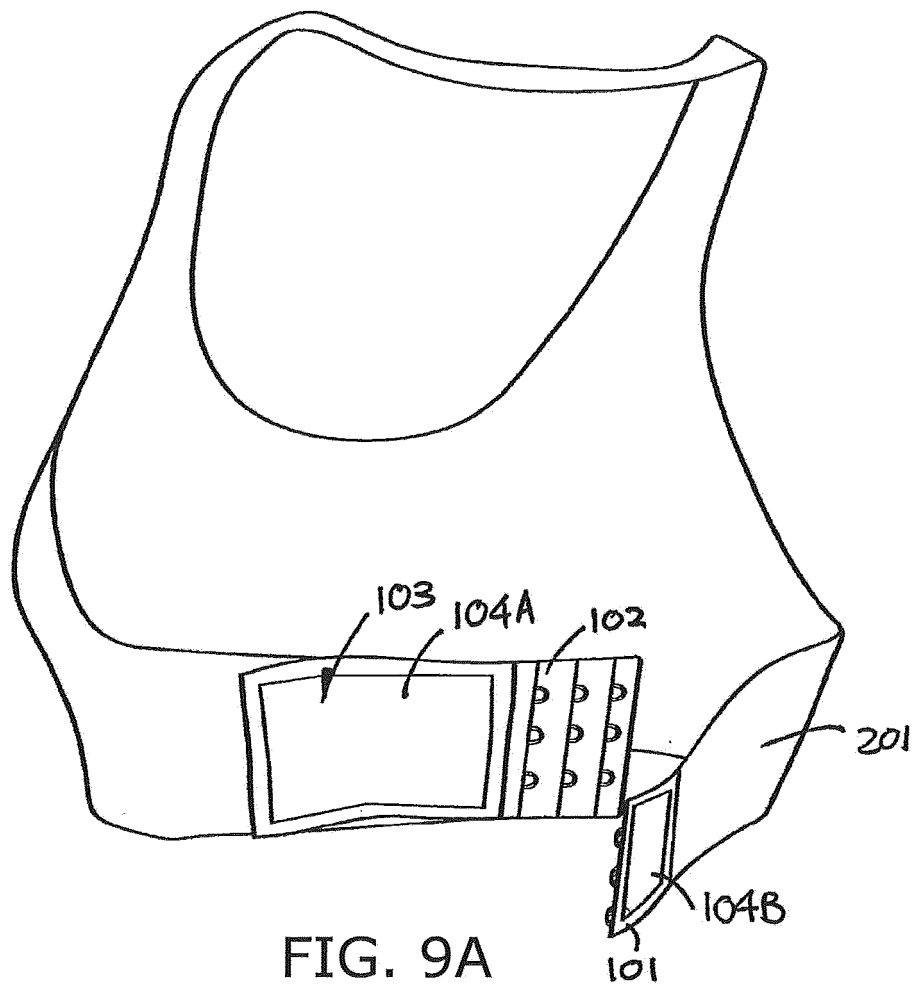
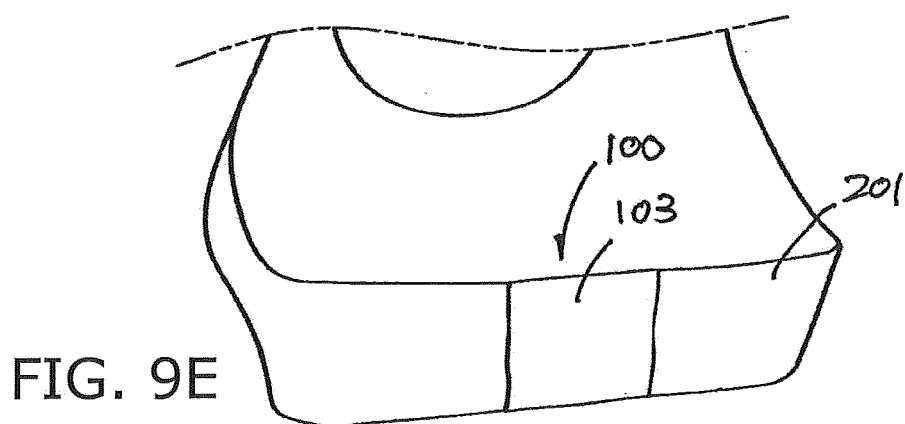
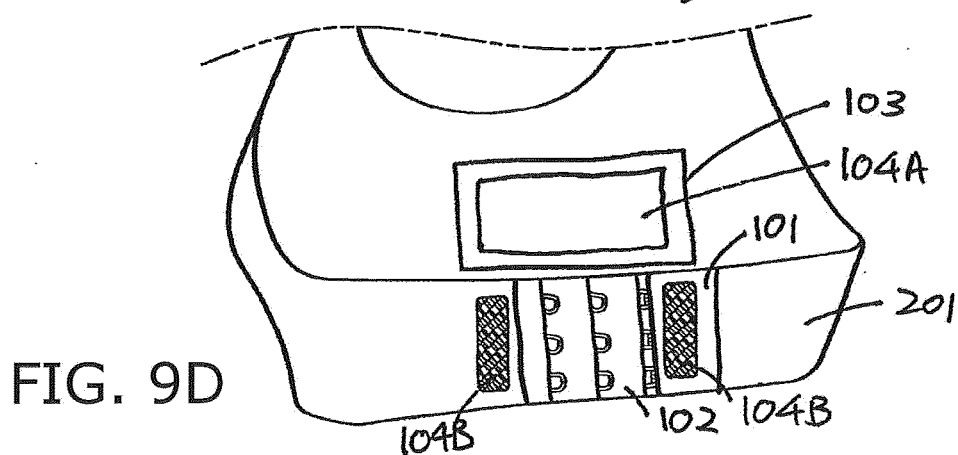
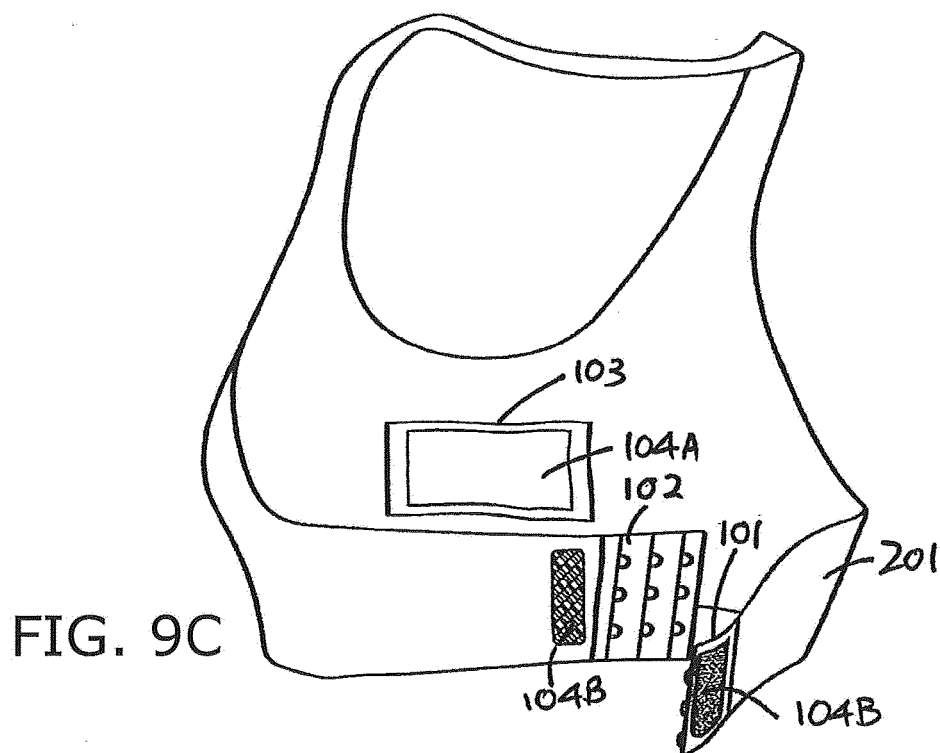


FIG. 8D





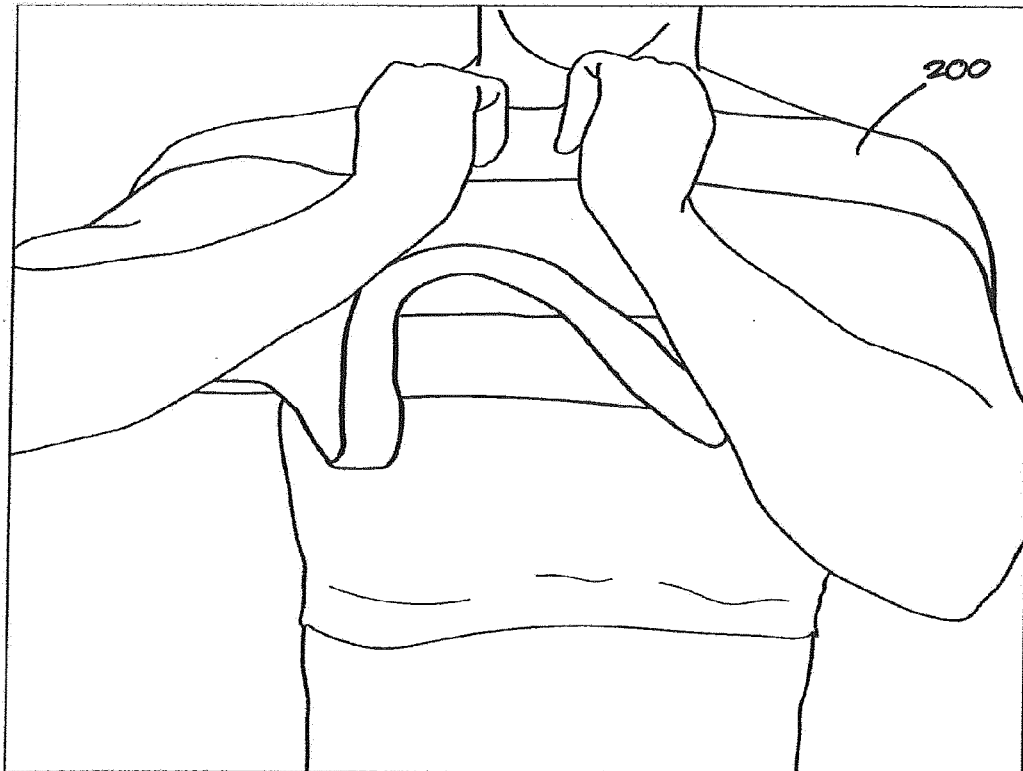


FIG. 9F

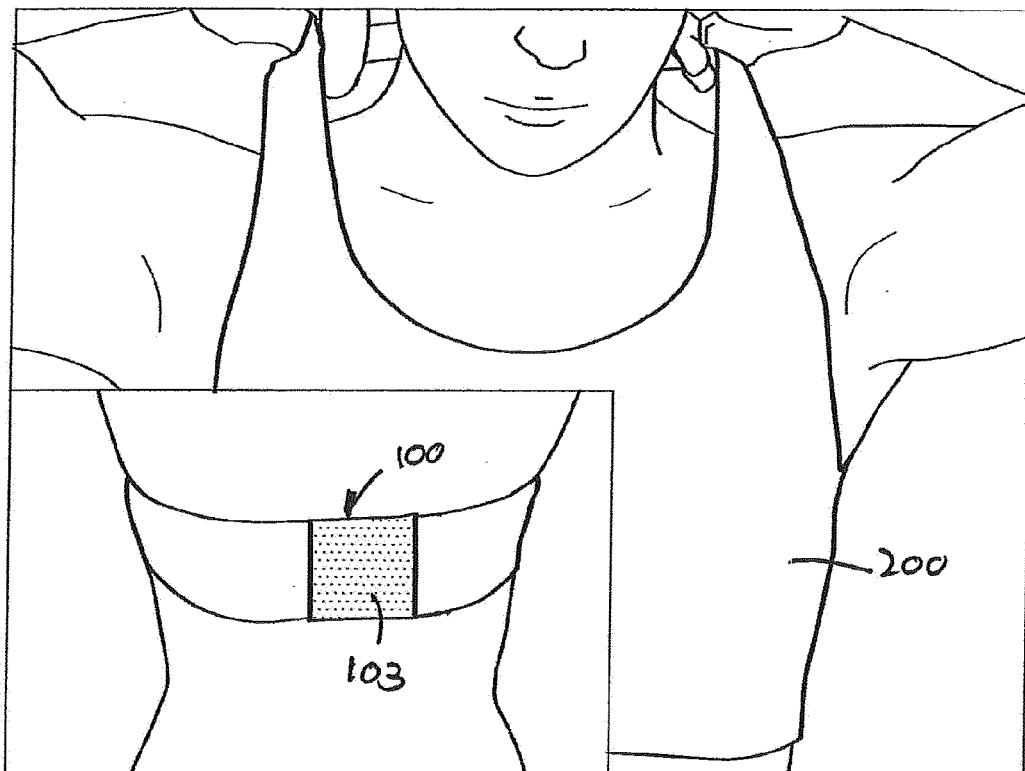


FIG. 9G



EUROPEAN SEARCH REPORT

Application Number
EP 15 15 9454

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