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(54) A HOOK AND EYE FASTENER

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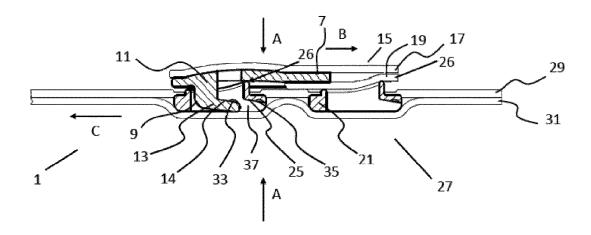
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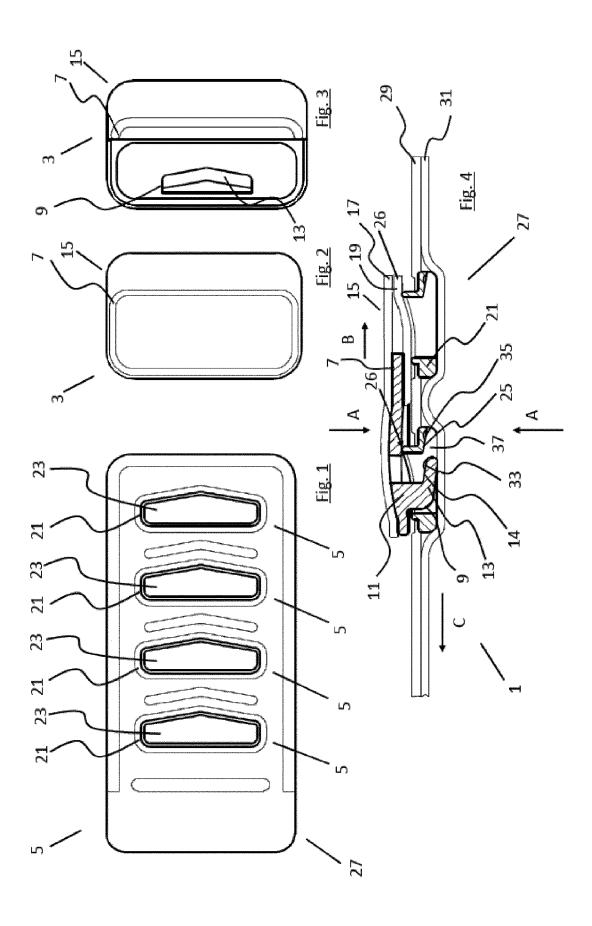
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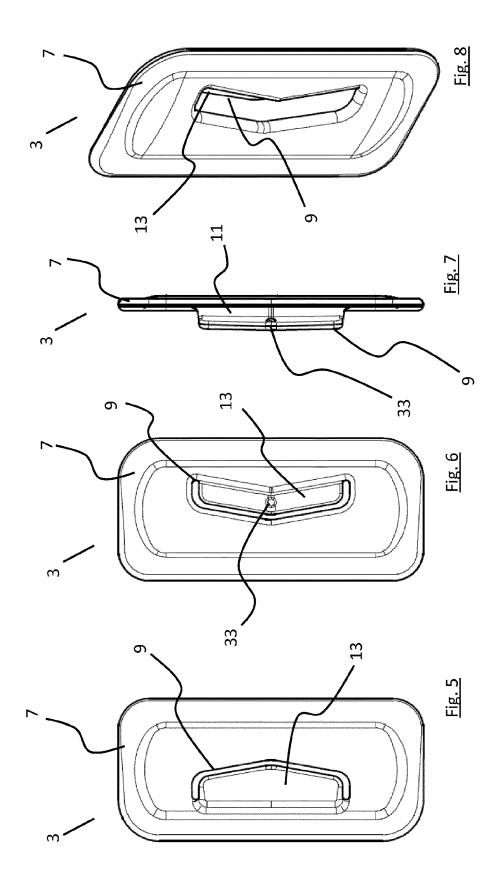
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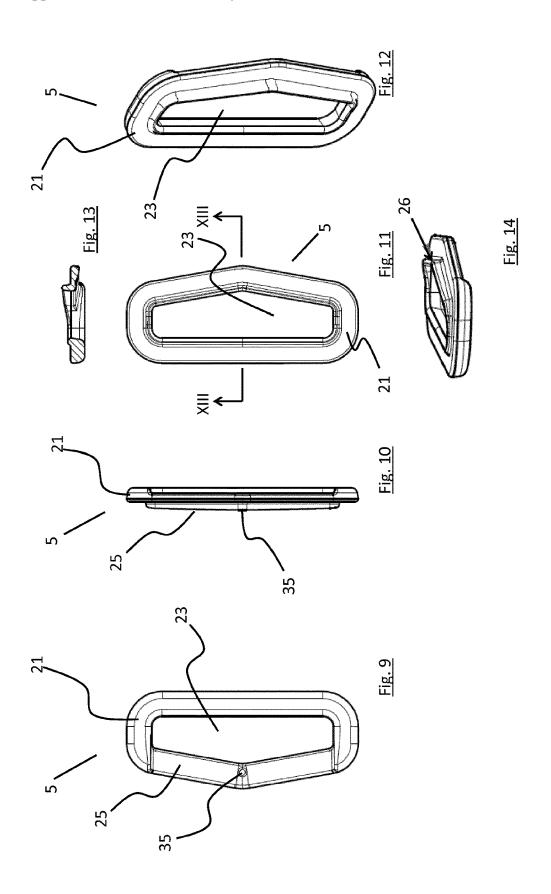
(57)**ABSTRACT**

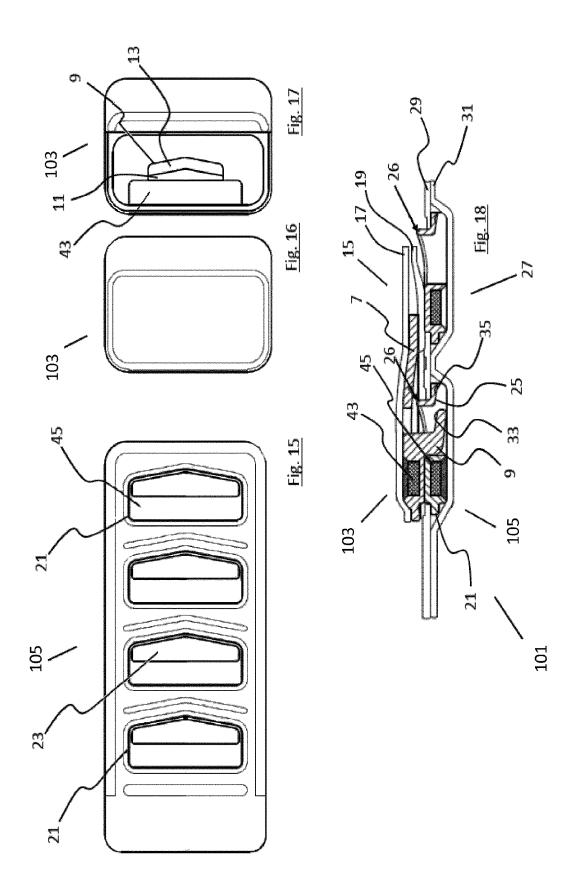
This invention relates to a hook and eye fastener (1, 101, 201) for securing two straps (15, 27) of an item of clothing such as a brassiere together. The hook part (3, 103, 203) is a substantially flat body (7) mounted on the face of one strap (15) and the eye part (5, 105, 205) is a substantially flat frame (21) mounted on the face of the other strap (27). The hook part comprises an arm (9) extending outwardly therefrom and the frame defines an open mouth (23) dimensioned to receive the arm of the hook part. The hook part and the eye part are configured to provide a fastener having a thickness of between 4 mm and 5 mm in total and that is relatively simple to engage and positively disengage.

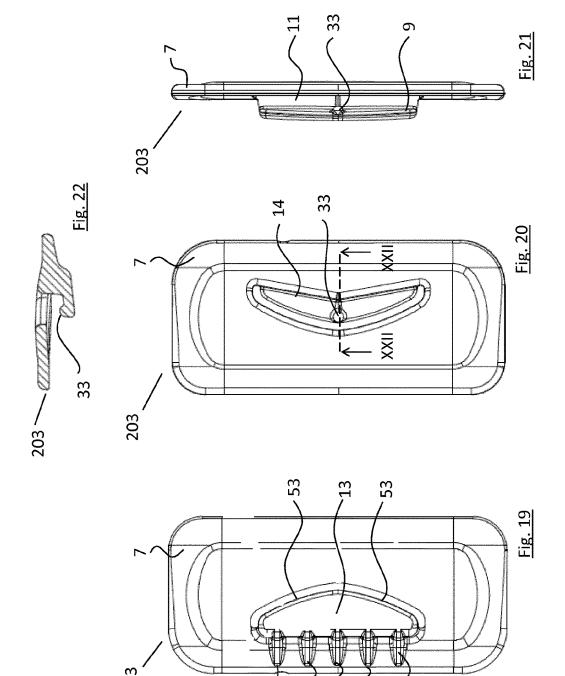












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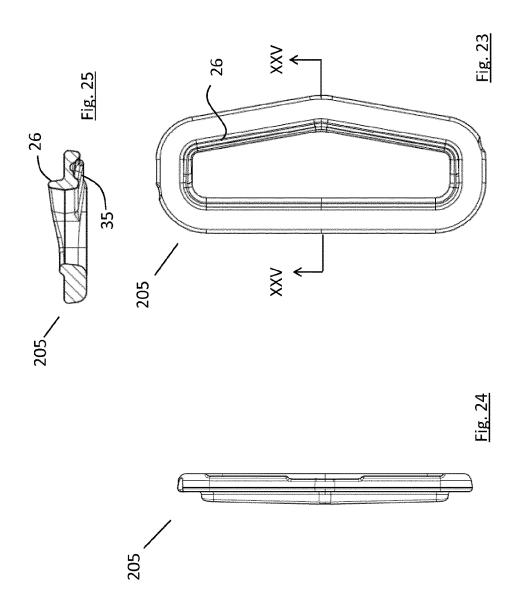
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A HOOK AND EYE FASTENER

TECHNICAL FIELD

[0001] This invention relates to a fastener for a garment and more specifically to a fastener for items of lingerie such as a brassiere.

BACKGROUND ART

[0002] Although there are many types of fasteners for brassieres perhaps the most commonly used is the hook and eye fastener where one or more hooks engage in complementary eyes to secure the straps of the brassiere in a closed configuration around the wearer's torso. However, as brassieres with such fasteners typically fasten behind the wearer's back, it can prove relatively difficult for the wearer to line up and engage the hooks with the corresponding eyes. They can also prove difficult to fasten for wearers who are elderly or suffering from conditions such as arthritis that affect the dexterity or mobility of the wearer. Additionally, a number of rows of eyes can be provided according to the size of the garment, the amount of support required or to allow the brassiere to be adjusted to the size of the wearer and this can make it increasingly difficult for the wearer to correctly engage the hooks with the corresponding eyes.

[0003] Another significant problem with the known hook and eye fasteners is that they tend to protrude noticeably from the wearer's body and can be visible through an outer garment causing an unsightly appearance, particularly if the hooks and eyes have not been aligned correctly. Typically, the known hook and eye fasteners when closed have a thickness of the order of between 0.005 m (5.0 mm) and 0.0065 m (6.5 mm) which makes them clearly noticeable beneath many garments. Furthermore, hook and eye fasteners can make the straps of the brassiere quite rigid, causing irritation by rubbing against the skin and discomfort for the wearer.

[0004] Typically hook and eye fasteners comprise metal hooks and eyes however a number of alternative hook and eye fasteners are also known. One such alternative hook and eye fastener is that described in the applicant's own U.S. Pat. No. 8,230,559. Advantageously, the hook and eye fastener described in U.S. Pat. No. 8,230,559 is relatively easy to fasten and overcomes many of the problems with the known hook and eye fasteners in that regard however the fastener is not substantially thinner than the alternative arrangements of hook and eye fasteners and may be noticeable beneath many garments.

[0005] It is an object of the present invention to provide a fastener that overcomes at least some of the above-identified problems and provides a useful choice to the consumer.

SUMMARY OF INVENTION

[0006] According to the invention there is provided a hook and eye fastener for securing two pieces of a garment together, the hook part being mounted on a face of one of the pieces and the eye part being mounted on a face of the other of the pieces, in which:

[0007] the hook part comprising a substantially planar body laid flat on the face of the piece and having an arm extending outwardly therefrom, the arm comprising an inner portion connected at one end to the body and extending outwardly substantially perpendicular to the body and an outer portion connected to the other end of

the inner portion and extending substantially parallel to the planar body, the side of the outer portion facing the planar body defining an abutment surface; and

[0008] the eye part comprising a substantially planar frame laid flat on the face of the other of the pieces; the frame defining an open mouth dimensioned to receive the outer portion of the hook arm and having a complementary abutment surface on the underside of the frame for engagement of the abutment surface of the hook, and, with the faces closely juxtaposed, slidably engageable in a direction parallel to the faces with the hook to fasten the two pieces of the garment together.

[0009] By having such a fastener, the fastener will have a thinner profile than the previously known fasteners. The fastener according to the invention will have a closed thickness of the order of between 4.0 mm and 5.0 mm and therefore will be less noticeable under many garments. This is a substantial improvement on many of the existing fasteners. Advantageously, the fastener will be relatively simple to fasten as the outer portion and the open mouth are dimensioned to promote engagement between the hook and the eye into an intermediate finder position before the hook and eye are secured together.

[0010] In one embodiment of the invention there is provided a hook and eye fastener in which there is provided a boss on one of the abutment surfaces and a complementary dimple on the other of the abutment surfaces. The boss and dimple will co-operate with each other to more securely fasten the hook and eye parts together and prevent inadvertent release of the fastener. These are relatively simple to manufacture and can be moulded into the hook and eye components.

[0011] In one embodiment of the invention there is provided a hook and eye fastener in which the boss is mounted on the abutment surface of the hook part.

[0012] In one embodiment of the invention there is provided a hook and eye fastener in which the outer portion is chevron shaped. This is seen as a particularly preferred embodiment of the present invention as the chevron shape will help guide the hook into a central location in the eye, ensuring correct alignment and engagement of the hook and eye.

[0013] In one embodiment of the invention there is provided a hook and eye fastener in which the complementary abutment surface on the underside of the frame for engagement of the abutment surface of the hook part is chevron-shaped. Again, this will promote correct location of the hook in the eye and a secure engagement therebetween.

[0014] In one embodiment of the invention there is provided a hook and eye fastener in which the open mouth is pentagonally shaped. By having a pentagonally shaped open mouth, the outer portion of the hook will be able to slot into the open mouth with ease.

[0015] In one embodiment of the invention there is provided a hook and eye fastener in which the hook part and eye part each comprise a magnet for location of the hook part outer portion in the open mouth of the eye part. This is seen as advantageous as the magnets will further simplify the engagement of the hook and eye into the finder position thereby simplifying the closure of the fastener. Alternatively, one of the hook part and the eye part is provided with a magnet and the other of the hook part and the eye part is provided with a ferromagnetic member.

[0016] In one embodiment of the invention there is provided a hook and eye fastener in which the magnet on the hook part is located on the body rearward of the arm and the magnet on the eye part is located in the frame rearward and remote from the abutment surface. By placing the magnets in these areas, the dimensions of the hook and eye can be kept relatively narrow to ensure that the overall thickness of the fastener is not increased. Furthermore, a ferromagnetic member may be provided instead of one of the magnets to good effect.

[0017] In one embodiment of the invention there is provided a hook and eye fastener in which there are provided a plurality of eye parts mounted in a row along the piece of garment.

[0018] In one embodiment of the invention there is provided a hook and eye fastener in which the piece of the garment comprises a pair of sheets of fabric and the eye part is sandwiched between the pair of sheets of fabric. Preferably, the fabric sheet positioned above the eye part will be clear of the open mouth thereby permitting insertion of portion of the hook part therethrough.

[0019] In one embodiment of the invention there is provided a hook and eye fastener in which a pocket is formed between the abutment surface on the underside of the frame and the face of the piece on which it is mounted.

[0020] In one embodiment of the invention there is provided a hook and eye fastener in which there is provided only one hook. This is advantageous as it will facilitate the closure of the fastener about the wearer. This is made possible in part due to the structural integrity of the configuration of hook.

[0021] In one embodiment of the invention there is provided a hook and eye fastener in which the eye further comprises an upstanding lip adjacent the complementary abutment surface. By having such an upstanding lip, the lip will further facilitate location of the hook portion in the eye portion. Preferably, the upstanding lip will protrude of the order of 0.001 m (1 mm) upwardly from the surface of the substantially planar frame.

[0022] In one embodiment of the invention there is provided a hook and eye fastener in which at least one of the pieces is elasticated.

[0023] In one embodiment of the invention there is provided a hook and eye fastener in which the fastener has a maximum thickness of less than 0.0055 m (5.5 mm).

[0024] In one embodiment of the invention there is provided a hook and eye fastener in which the fastener has a maximum thickness of less than 0.005 m (5.0 mm).

[0025] In one embodiment of the invention there is provided a hook and eye fastener in which the inner portion of the hook part has at least one rib extending upwardly from the body to the outer portion along a rear face of the inner portion. Preferably, there are a plurality of spaced apart ribs along the rear face of the inner portion.

[0026] In one embodiment of the invention there is provided a hook and eye fastener in which the maximum width of the open mouth of the eye part is no less than 1.5 times the maximum width of the outer portion of the hook part.

[0027] In one embodiment of the invention there is provided a hook and eye fastener in which the fastener has a maximum tensile strength of greater than or equal to 11.36 kgs

BRIEF DESCRIPTION OF THE DRAWINGS

[0028] The invention will now be more clearly understood from the following description of some embodiments thereof given by way of example only with reference to the accompanying drawings, in which:—

[0029] FIG. 1 is a rear view of one embodiment of an eye part of a fastener according to the invention;

[0030] FIG. 2 is a rear view of a hook part of a fastener according to the invention;

[0031] FIG. 3 is a front view of the hook part of FIG. 2; [0032] FIG. 4 is a cross-sectional view of the hook part and another embodiment of an eye part of the fastener according to the invention in a finding position prior to full engagement;

[0033] FIG. 5 is a front view of the hook part without a piece connected thereto;

[0034] FIG. 6 is a rear view of the hook part of FIG. 5;

[0035] FIG. 7 is a left hand side view of the hook part of FIG. 6;

[0036] FIG. 8 is a perspective view of the hook part of FIG. 6;

[0037] FIG. 9 is a front view of the eye part without a piece connected thereto;

[0038] FIG. 10 is a side view of the eye part of FIG. 9;

[0039] FIG. 11 is a rear view of the eye part of FIG. 9;

[0040] FIG. 12 is a perspective view of the eye part of FIG. 9;

[0041] FIG. 13 is a cross sectional view of the eye part along the lines XIII-XIII of FIG. 11;

[0042] FIG. 14 is a perspective view of the eye part of FIG. 9:

[0043] FIG. 15 is a rear view of an alternative construction of an eye part of a fastener according to the invention;

[0044] FIG. 16 is a rear view of an alternative construction of hook part of a fastener according to the invention for engagement of the eye part of FIG. 15;

[0045] FIG. 17 is a front view of the hook part of FIG. 16; [0046] FIG. 18 is a cross-sectional view of the hook part and eye part of FIGS. 15 to 17 in a finding position prior to full engagement;

[0047] FIG. 19 is a front view of an alternative embodiment of hook part according to the invention without a piece connected thereto;

[0048] FIG. 20 is a rear view of the hook part of FIG. 19; [0049] FIG. 21 is a left hand side view of the hook part of FIG. 20;

[0050] FIG. 22 is a cross sectional view of the hook part along the lines XXII-XXII of FIG. 20;

[0051] FIG. 23 is a rear view of an alternative configuration of eye part of a fastener according to the invention;

[0052] FIG. 24 is a side view of the eye part of FIG. 23; and

[0053] FIG. 25 is a cross sectional view of the eye part along the lines XXV-XXV of FIG. 11.

DETAILED DESCRIPTION OF THE DRAWINGS

[0054] Referring to FIGS. 1 to 14 inclusive, there is shown a hook and eye fastener, indicated generally by the reference numeral 1, comprising a hook part 3 and an eye part 5. Typically, the eye part will be mounted closest to the body of the wearer and the hook part will be mounted further from the body of the wearer. Furthermore, the fastener will typically be located to one side or more usually to the rear

of the wearer's torso. Therefore, throughout this specification the examples have been described in terms where the fastener is located at the back of a wearer with the eye part located adjacent the wearer's body and the hook part rearward of the eye part. It will be understood that front, back, forward and rearward and equivalent terms have been used with such an embodiment in mind. However, this embodiment is not limiting and indeed the fastener could be at the wearer's side or front of their torso and indeed the hook part could be mounted closest to the wearer's skin in which case the terms front, back, forwards, rearwards will be altered accordingly.

[0055] Referring specifically to FIGS. 2 to 8 inclusive, the hook part 3 comprises a substantially flat body 7 having an arm 9 extending outwardly therefrom. The arm comprises an inner portion 11 and an outer portion 13. The inner portion 11 is connected at one end to the planar body 7 and extends outwardly substantially perpendicular to the body and the outer portion 13 is connected to the other end of the inner portion 11 and extends substantially perpendicular to the inner part 11 and parallel to the remainder of the body 7. The side of the outer portion 13 facing towards the body 7 forms an abutment surface 14.

[0056] Referring specifically to FIGS. 2 to 4 inclusive, the hook part 3 is mounted flat on one of a pair of pieces 15 of a garment (not shown) to be secured together. The hook part 3 is laid flat on the face of the piece 15 and the piece overlaps the hook along the entire length of the hook part 3. The piece 15 in turn comprises a pair of sheets of fabric 17, 19 and the hook part 3 is partially sandwiched therebetween. The hook part 3 is joined to the pair of sheets of fabric by heat welding, pressing, bonding, a combination of the above or other method known in the art.

[0057] Referring now to FIGS. 9 to 14 inclusive, the eye part 5 comprises a substantially flat frame 21 defining an open mouth 23. In the embodiments shown, the open mouth 23 is pentagonal shaped and is dimensioned to receive the outer portion 13 of the hook part 3. The flat frame 21 has a complementary abutment surface 25 on the front of the frame 21 for engagement of the abutment surface 14 of the hook part 3. In addition to the foregoing, there is provided an upstanding lip 26 adjacent to the abutment surface 25. The upstanding lip acts as an end stop for the hook part when the hook and eye are brought into engagement with each other to assist location of the hook and eye into the finding position. In the embodiment shown, the upstanding lip 26 rises upwardly from the sides towards a central peak.

[0058] Referring specifically to FIGS. 1 and 4, the eye parts 5 are mounted on the other piece 27 of the garment. The eye parts 5 are laid flat on the face of the piece 27 and the piece overlaps the eye part 5 along the entire length of the eye part 5. In the embodiment shown in FIG. 1, there are four eye parts 5 mounted on the other piece of the garment however in the embodiment shown in FIG. 4 there are only two eye parts 5 shown for clarity. It will be understood that more or less eye parts could be provided if desired. The other piece 27 comprises a pair of sheets 29, 31 and the eye parts 5 are sandwiched between the pair of sheets 29, 31. The fabric sheet 29 positioned above the eye part will be clear of the open mouth thereby permitting insertion of portion of the hook part therethrough. As mentioned above, a plurality of eye parts 5 are provided on the piece 27 shown in FIG. 1. The eye part 5 is joined to the pair of sheets of fabric by heat welding, pressing, bonding, a combination of the above or other method known in the art. It can be seen from FIG. 4 that the abutment surface 14 of the hook part 3 has a boss 33 and the abutment surface 25 on the front of the frame 21 of the eye part 5 has a complementary dimple 35 for reception of the boss therein.

[0059] In use, in order to engage the fastener parts, the hook part 3 is brought into juxtaposition with the eye part 5 by moving the hook part and the eye part towards each other in the direction of the nearest arrow A in FIG. 4. As the hook part and the eye part are brought into engagement, the outer portion 13 of the hook part 3 will pass through the open mouth of the eye part 5 until the outer portion is housed in a cavity 37 of the eye part. Once in the cavity 37, the hook part is slid in the direction of the arrow B and the eye part is slid in the direction of the arrow C, i.e. in a direction parallel to the faces of the pieces to fasten the two pieces of the garment together. By sliding the hook part and the eye part in this manner the boss 33 will form a friction fit in the dimple 35 which will be sufficient to prevent inadvertent release of the hook part 3 from the eye part 5. In order to release the hook part 3 from the eye part 5, the hook part is slid in the direction opposite to arrow B and the eye part 5 is slid in the direction opposite to arrow C in order to release the boss 33 from the dimple 35 and the hook part 3 and eye part 5 are then separated by moving them apart against the direction of the nearest arrow A. When the two parts 3, 5 of the fastener 1 are joined together, the fastener has a maximum thickness of the order of 0.0047 m (4.7 mm).

[0060] Referring now to FIGS. 1 and 5, the outer portion of the hook part 3 may be chevron shaped or indeed may be pentagonal shaped and the open mouth 23 of the eye part 5 is pentagonal shaped. The advantage of this is that it will be relatively simple to get the outer portion of the hook part 3 to engage with the open mouth 23 of the eye part 5.

[0061] Furthermore, once the outer portion 13 of the hook part 3 has passed through the open mouth and is slid in the direction of the arrow B, the pointed face of the outer part will have a centering effect.

[0062] Referring now to FIGS. 15 to 18 inclusive, there is shown an alternative embodiment of fastener according to the invention, indicated generally by the reference numeral 101, where like parts have been given the same reference numeral as before. The fastener 101 is similar to the embodiment shown in FIGS. 1 to 14 inclusive with the exception that there is provided a magnet 43 in the hook part 103 and a magnet 45 in the eye part 105. The magnet 43 in the hook part 103 is located rearward of the inner portion 11 of the arm 9 and the magnet 45 on the eye part 105 is located in the frame 21 rearward and remote from the abutment surface 25. The magnets 43, 45 are polarized so as to attract each other when brought into proximity with each other. In this way, when the hook part 103 and the eye part 105 are brought into juxtaposition with each other, the magnet 45 will attract the magnet 43 and the hook part and the eye part will be brought into engagement with each other. The magnets will have an aligning effect in that the magnets will centre the hook part and act to draw the outer portion of the hook part 103 into the open mouth 23 of the frame.

[0063] The force of the magnet when the parts of the fastener 101 are engaged will be less than the tension force on the brassiere straps and/or the frictional force of the boss in the dimple. The fastener 101 shown in FIGS. 15 to 18 inclusive will have a maximum thickness that is marginally thicker than the fastener shown in FIGS. 1 to 14 inclusive

due to the incorporation of the magnets. In the embodiment shown in FIGS. 15 to 18, when the two parts 103, 105 of the fastener 1 are joined together the fastener will have a maximum thickness of the order of 0.0052 m (5.2 mm).

[0064] It will be seen that the magnets 43 and 45 are sealed in pockets (i.e. are waterproof embedded) in their respective parts to prevent rusting. Furthermore, by positioning the magnets in the spaces identified, the magnets 43, 45 can be relatively thin and will not result in a thicker fastener.

[0065] Referring now to FIGS. 19 to 25 inclusive, there is shown the hook 203 and eye 205 components of an alternative embodiment of fastener 201 according to the invention, where like parts have been given the same reference numeral as before. The hook part 203, as illustrated in FIGS. 19 to 22 inclusive is provided with a plurality of ribs 51 which extend along the rear face of the inner portion 11. The ribs may be triangular in cross section. The ribs 51 provide additional rigidity to the hook portion obviating the likelihood of the hooks deflecting under load and the inadvertent release of the fastener. Furthermore, it can be seen from FIG. 19 in particular that the outer portion 13 has a more rounded front edge 53 than the previous embodiments. The outer portion 13 will preferably have a width from one side of the rounded edge to the other side of the rounded edge of the order of between 0.013 m (13 mm) to 0.016 m (16 mm) and in the embodiment shown, the outer portion has a width of the order of 0.01414 m (14.14 mm). Referring specifically to FIG. 22, the boss 33 is more pronounced than in the previous embodiments and protrudes upwards of the order of 0.0005 m (0.5 mm) from the abutment surface 14.

[0066] Referring specifically to FIGS. 23 to 25, there is shown a number of views of the eye part 205 to complement the hook part of FIGS. 19 to 22. The eye part 205 differs in that the dimple 35 is more pronounced to facilitate reception of the larger boss 33. It is envisaged that the dimple will be of the order of up to 0.0006 m (0.6 mm) deep. The upstanding lip 26 protrudes upwardly from the substantially planar body by approximately 0.001 m (1 mm) and this is deemed advantageous as it provides an effective means for the wearer to locate the hook in the eye. It is envisaged that the open mouth 23 of the eye part 205 will have a maximum width of the order of between 0.0215 m (21.5 mm) and 0.0245 m (24.5 mm) and in the embodiment shown, the open mouth 23 of the eye part has a maximum width from one extreme side of the open mouth 23 to the other extreme side of the open mouth 23 of 0.02298 m (22.98 mm). In this way, the maximum width of the open mouth 23 of the eye part 205 is of the order of 1.6 times the width of the outer portion 13 of the hook part 203 and this will facilitate insertion of the hook part 203 into the eye part 205. Advantageously, the fastener of FIGS. 19 to 25 inclusive has a maximum tensile strength of 13.6 kg (approx. 30 lbs) which provides greater strength than comparable, thicker fasteners and peace of mind to the wearer.

[0067] It will be seen from the foregoing examples, that the hook and eye fasteners according to the embodiments shown have only a single hook as opposed to a plurality of hooks as is common in the known fasteners. This is seen as a highly advantageous aspect of the present invention. Generally speaking, the hook and eye fasteners known in the art comprise a column of two or more hooks and several columns of two or more corresponding eyes depending on the width of the back of the garment. In some cases, five or more hooks may be provided aligned in a vertical column.

These hooks have to be closed "one by one" which is difficult and cumbersome for the wearer and it is often difficult to align the hooks correctly with the corresponding eyes. As a consequence, the hooks and eyes are often misaligned or the hooks and eyes have to be located first into the outermost position before the hooks are thereafter adjusted and inserted into the desired correctly fitting position.

[0068] In this specification the terms "include, includes, included and including" and the terms "comprise, comprises, comprised and comprising" are all deemed totally interchangeable and should be afforded the widest possible interpretation.

[0069] The invention is in no way limited to the embodiment hereinbefore described but may be varied in both construction and detail within the scope of the claims.

1) A hook and eye fastener for securing two pieces of a garment together, the fastener having a hook part configured to be mounted on a face of one of the pieces and an eye part configured to be mounted on a face of the other of the pieces, the fastener comprising:

the hook part comprising a substantially planar body configured to be laid flat on the face of the piece and having an arm extending outwardly therefrom, the arm comprising an inner portion connected at one end to the body and extending outwardly substantially perpendicular to the body and an outer portion connected to an other end of the inner portion and extending substantially parallel to the planar body, a side of the outer portion facing the planar body and defining an abutment surface; and

the eye part comprising a substantially planar frame configured to be laid flat on the face of the other of the pieces, the frame defining an open mouth dimensioned to receive the outer portion of the hook part's arm and having a complementary abutment surface on an underside of the frame for engagement of the abutment surface of the hook part; and,

when the hook part is mounted on the piece and the eye part is mounted on the other of the pieces, and with the face of the piece and the face of the other of the pieces closely juxtaposed, the eye part slidably engageable with the hook part in a direction parallel to the faces to fasten the two pieces of the garment together.

- 2) The hook and eye fastener as claimed in claim 1 in which there is provided a boss on one of the abutment surfaces and a complementary dimple on the other of the abutment surfaces.
- 3) The hook and eye fastener as claimed in claim 2 in which the boss is mounted on the abutment surface of the hook part.
- 4) The hook and eye fastener as claimed in claim 1 in which the outer portion is chevron shaped.
- 5) The hook and eye fastener as claimed in claim 4 in which the complementary abutment surface on the underside of the frame for engagement of the abutment surface of the hook part is chevron-shaped.
- 6) The hook and eye fastener as claimed in claim 1 in which the open mouth is pentagonally shaped.
- 7) The hook and eye fastener as claimed in claim 1 in which the hook part and eye part each comprise a magnet for location of the hook part outer portion in the open mouth of the eye part.

- 8) The hook and eye fastener as claimed in claim 7 in which the magnet on the hook part is located on the body rearward of the arm and the magnet on the eye part is located in the frame rearward and remote from the abutment surface.
- 9) The garment as claimed in claim 22 in which there are provided a plurality of eye parts mounted in a row along the piece of garment.
- 10) The garment as claimed in claim 22 in which the other of the pieces of the garment comprises a pair of sheets of fabric and the eye part is sandwiched between the pair of sheets of fabric.
- 11) The garment as claimed in claim 22 in which a pocket is formed between the abutment surface on the underside of the frame and the face of the piece on which the eye part is mounted
- 12) The garment as claimed in claim 22 in which at least one of the pieces is elasticated.
- 13) The garment as claimed in claim 22 in which there is provided only one hook.
- 14) The hook and eye fastener as claimed in claim 1 in which the eye part further comprises an upstanding lip adjacent the complementary abutment surface.
- 15) The hook and eye fastener as claimed in claim 14 in which the upstanding lip has a height of the order of 0.001 m (1.0 mm).
- 16) The hook and eye fastener as claimed in claim 1 in which the fastener has a maximum thickness of less than 0.0055 m (5.5 mm).
- 17) The hook and eye fastener as claimed in claim 1 in which the fastener has a maximum thickness of less than $0.005~\mathrm{m}$ (5.0 mm).
- 18) The hook and eye fastener as claimed in claim 1 in which the inner portion of the hook part has at least one rib extending upwardly from the body to the outer portion along a rear face of the inner portion.
- 19) The hook and eye fastener as claimed in claim 1 in which the maximum width of the open mouth of the eye part is no less than 1.5 times the maximum width of the outer portion of the hook part.
- 20) The hook and eye fastener as claimed in claim 1 in which the fastener has a maximum tensile strength of greater than or equal to 11.36 kgs.
- 21) A hook and eye fastener for securing two pieces of a garment together, the fastener having a hook part configured to be mounted on a face of one of the pieces and the eye part configured to be mounted on a face of the other of the pieces, the fastener comprising:
 - the hook part comprising a substantially planar body configured to be laid flat on the face of the piece and having an arm extending outwardly therefrom, the arm comprising an inner portion connected at one end to the body and extending outwardly substantially perpendicular to the body and a chevron-shaped outer portion connected to the other end of the inner portion and extending substantially parallel to the planar body, a side of the outer portion facing the planar body and defining an abutment surface;

- the eye part comprising a substantially planar frame configured to be laid flat on the face of the other of the pieces, the frame defining a pentagonally-shaped open mouth dimensioned to receive the outer portion of the hook part's arm and having a chevron-shaped complementary abutment surface on an underside of the frame for engagement of the abutment surface of the hook part;
- when the hook part is mounted on the piece and the eye part is mounted on the other of the pieces, and with the face of the piece and the face of the other of the pieces closely juxtaposed, the eye part slidably engageable with the hook part in a direction parallel to the faces to fasten the two pieces of the garment together;
- in which there is provided a boss on one of the abutment surfaces and a complementary dimple on the other of the abutment surfaces; and,
- in which the fastener has a maximum thickness of less than 0.0055 m (5.5 mm) and a maximum tensile strength of greater than or equal to 11.36 kgs.
- 22) A garment comprising two pieces and a hook and eye fastener for securing the two pieces together, the fastener having a hook part being mounted on a face of one of the pieces and an eye part being mounted on a face of the other of the pieces, the fastener comprising:
 - the hook part comprising a substantially planar body laid flat on the face of the piece and having an arm extending outwardly therefrom, the arm comprising an inner portion connected at one end to the body and extending outwardly substantially perpendicular to the body and an outer portion connected to an other end of the inner portion and extending substantially parallel to the planar body, a side of the outer portion facing the planar body and defining an abutment surface; and
 - the eye part comprising a substantially planar frame laid flat on the face of the other of the pieces, the frame defining an open mouth dimensioned to receive the outer portion of the hook part's arm and having a complementary abutment surface on an underside of the frame for engagement of the abutment surface of the hook part; and,
 - with the face of the piece and the face of the other of the pieces closely juxtaposed, the eye part slidably engageable with the hook part in a direction parallel to the faces to fasten the two pieces of the garment together.
- 23) The garment as claimed in claim 22 in which there is provided a boss on one of the abutment surfaces and a complementary dimple on the other of the abutment surfaces.
- 24) The garment as claimed in claim 22 in which the hook part and the eye part each comprise a magnet for location of the hook part outer portion in the open mouth of the eye part.
- 25) The garment as claimed in claim 22 in which the inner portion of the hook part has at least one rib extending upwardly from the body to the outer portion along a rear face of the inner portion.

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