

## A GARMENT CARRIER



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### Background and Field of the Invention

5 This invention relates to a garment carrier suitable for a collared shirt.

Collared shirts, particularly for business wear, are prone to creasing particularly when packed for travelling or shipping. Conventionally, such shirts are folded in a particular way which allows for easy transportation and, in the case of  
10 merchandising, display. The conventional folding method requires the shirt to be buttoned, the arms to be placed flat along the back of the shirt, both sides folded in a certain amount towards the middle of the back of the shirt and the shirt then folded in half. Particularly for merchandising and professional laundry use, the shirt is supported in this folded form with paper or plastic  
15 supports for the back and under the collar to reduce creasing, with the shirt then finally being protected by an outer container which may be in the form of a paper or plastics bag for a laundry establishment or made from stiffer transparent plastics for merchandising use.

20 It is a disadvantage of this folding method that the shirt is required to be folded on front and back on both sides and half way up the front of the shirt which leads to noticeable creases. Furthermore, the supports used in packaging the shirt are not generally reusable and also make the final packaged shirt quite bulky.

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A packaging case for a folded shirt has been proposed in GB 2291797 which has been sold under the trademark "Stuffed Shirt" and provides support and protection for a shirt folded in a similar manner to that described above, but which can be reused. This proposal, however still has the disadvantage of requiring the shirt to be folded as described, leading to creases and the case needs to be robust and is thus bulky and expensive.

A garment bag in the name of the present applicant is disclosed in WO 2007/06152 A1. The publication discloses an alternative method of folding a shirt to reduce creases, as well as a garment bag to protect and receive a shirt including a relatively rigid pocket to protect the collar of the shirt. The applicant has found that the pocket has some disadvantages in that the pocket tends to add to the manufacturing cost of the product, it can be difficult to introduce and retain the collar in the pocket when packing a shirt and the pocket can be quite bulky.

It is an object to the invention to provide a garment carrier for a collared shirt which alleviates at least one of the disadvantages of the prior art and/or provides the general public with a useful choice.

### **Summary of the Invention**

According to the invention in the first aspect there is provided a garment carrier for a collared shirt, the carrier comprising collar protecting means arranged to  
5 be movable between an open position in which a collar of a said shirt may be introduced and a closed position in which the collar protecting means forms a collar protecting region, the collar protecting means forming, when in a closed position, a former around which the remainder of the said shirt is able to be rolled and a cover arranged to receive at least said remainder of the shirt.

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The cover may be arranged to receive the whole or a part of the shirt and is preferably received by the collar protecting means or connected to it.

The collar protecting means preferably comprise a sheet of material  
15 connected to the cover directly or indirectly, for example by being received in a pocket connected to the cover.

The collar protecting means is preferably arranged to be folded to form the collar protecting region and may comprise first and second opposed  
20 portions connected by a spine portion. The free end of at least one of the opposed portions may be arcuate or have an arcuate cover.

The collar protecting means may further in the open position adopt an open jaw-like configuration.

The collar protecting region may be of substantially triangular cross section.

- 5 The carrier preferably further comprises at least one support member arranged to be disposed in the collar protecting region when the collar protecting means is in the closed position and the collar protecting means may include at least one pocket in which the or each support member is received. The or at least one support member may be cylindrical.

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A separate bag may be provided which may be rolled up inside the cover and/or may be releasably connected to either the cover or the collar protecting means.

- 15 The width of the former may be equal to or greater than that of an A4 or foolscap sheet.

- Fastening means is preferably provided, arranged to hold the collar protecting means in the closed position and the fastening means may comprise first and  
20 second fastening portions arranged to engage each other at a position adjacent the collar protecting region to hold this closed, with the engaged fastening portions preferably providing padding adjacent the collar protecting region.

Padding may be provided disposed adjacent the collar protecting region and around which the remainder of the said shirt is able to be rolled initially.

The invention extends to a garment carrier with a shirt contained therein  
5 packaged for merchandising or after laundering or for any other purpose.

According to the invention in a second aspect, there is provided a carrier, container, packaging or bag for a garment, the carrier, container, packaging or bag comprising a former arranged to be movable between an open position in  
10 which a portion of a said garment may be introduced and a closed position in which the remainder of the said garment is able to be rolled around the former.

According to the invention in a third aspect, there is provided a collar protector for a shirt, the collar protector being movable between an open position in which  
15 the collar of a said shirt may be received and a closed position in which the protector forms a crush resistant zone around the collar.

According to the invention in a fourth aspect, there is provided a collar protector arranged to receive the collar of a shirt, the collar protector comprising a  
20 stiffening member in sheet form configurable to form a collar-receiving, crush resistant zone.

According to the invention in a fifth aspect, there is provided a collar protector for a collared shirt arranged to be movable between an open

position in which a collar of a said shirt may be introduced and a closed position in which the collar protector forms a collar protecting region around a said collar, the collar protector forming, when in a closed position, a former around which the remainder of the said shirt  
5 is able to be rolled.

According to the invention in a seventh aspect, there is provided a carrier, container, packaging or bag for a collared shirt, comprising a collar protector as claimed in any or all of the previous three aspects, and a cover.

### **Brief Description Of The Drawings**

Embodiments of the invention will now be described, by way of example, with reference to the accompanying drawings, in which:

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Fig. 1 is a perspective view of an embodiment of a garment carrier of the invention illustrating how a shirt may be placed therein;

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Figs. 2 - 4 are views of the garment carrier shown in Fig. 1 at various stages of packing;

Fig. 5 is a cross section across A-A of Fig. 2 showing part of the garment carrier;

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Figs. 6a-e illustrate assembly of the garment carrier of Figs 1 to 5;

Fig. 7 is a view similar to Fig. 2 illustrating a second embodiment of the invention;

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Fig. 8 is a view similar to Fig. 5 being a cross sectional view through B - B of Fig. 7 showing the collar protector in an alternative position.

Fig. 9 and 10 are perspective views similar to Fig. 2 of a third embodiment of the invention, (with the opposed portions of the collar protector open at a

different angle from Fig. 2) and showing two components of the third embodiment detached and engaged, respectively; and

Fig. 11 is a view similar to Fig. 5 of the third embodiment with the two  
5 components engaged.

### **Detailed Description Of The Preferred Embodiments**

With reference to Figs. 1 to 6, an embodiment of the garment carrier  
10 according to the invention is illustrated. The garment carrier is arranged to protect a shirt for travel or other purposes, The garment carrier comprises two main portions, a cover 10 and a collar protector 20. The carrier is arranged to receive a shirt 30 as shown by phantom lines in Fig. 1. The shirt 30 is folded in accordance with the method disclosed with  
15 reference to Figs. 1 to 7 and 10 of applicant's application WO 2007/06152, the contents of which are incorporated herein by reference, and is placed in the carrier such that a portion of the shirt including the collar 32 is received by the collar protector 20 and the remainder of the shirt is received by the cover 10.

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The shirt has been shown only in Fig. 1 and not the remaining figures, for ease of explanation of the structure of the carrier in those figures.

The cover 10 is formed from sheets of plastics material connected together. For resistance to tearing and to allow stitching, a woven plastics sheet is preferred, for example formed from polypropylene or polyethylene, although other sheet materials of different plastics, thickness, weight and/or of non-woven form may also be used.

The plastics sheet material may also be spray coated on its inside faces (those faces facing the shirt when packed) with a polyurethane, latex, rubberised or elastomeric film, which can lightly grip the shirt, holding this in place when packing. This film may advantageously be white in colour, to provide confidence to the user that the shirt engaging surfaces of the garment carrier are clean and will not mark the shirt when placed in the carrier, whatever the colour of the plastics material.

The cover 10 includes a back sheet 100 connected to two side flaps 102, 104 each of which is provided with the complementary half 106a, 106b of a zip fastener 106. The sheet 100 extends beyond the flaps 102, 104 in both directions to form in one direction part of the collar protector 20 as best shown in Fig. 5 and in the other direction to form a 100mm overlap 160. The collar protector 20 is further provided with an additional sheet of plastics material 110 which is stitched to sheet 100 and extends parallel to sheet 100 to form a pocket 120. The pocket 120 is sealed at the base by transverse seams stitched at end 122 and at a position 121 spaced from end 122 but is open at end 124. The open end 124 is provided with a Velcro closure 126a, 126b, one

piece of Velcro 126a being attached to sheet 110 and another complementary piece 126b being attached to sheet 100, this piece being wider to provide some tolerance in the assembled carrier.

- 5 Inside the pocket 120, a sheet of stiff plastics material 130 is received. The sheet of plastics material 130 is preferably formed from 1.2mm thick polypropylene and is creased at fold lines 132 and 134 to form first and second opposed portions 136, 138 joined by a spine portion 140. The sheet 130 is preferably formed into this configuration by making score lines at positions 132,  
10 134 and then bending the sheet until it naturally adopts a steady state "open jaw" position as shown in Fig. 5 where the opposed portions 136, 138 are opened one to the other at an angle of about 30 degrees.

- Complementary Velcro portions 150, 152 a,b are provided, portion 150  
15 extending transversely across and stitched to sheet 100 and disposed between seams 121 and 122 of sheet 100. Portions 152a and 152b are stitched respectively to flaps 102 and 104.

- A transverse piece of Velcro 180 is stitched to the bottom end of the back sheet  
20 100 and, when the carrier is rolled up, mates with three complementary pieces of Velcro 182 on the back of the cover (see Fig. 6). The extended portion 160 of the back sheet to which the Velcro 180 is attached ensures that the flaps 102, 104 do not foul the Velcro portion 180 when the carrier is rolled up. The Velcro portions 182 extend for a certain distance to allow some tolerance in

engaging with the portion 180, depending on the thickness of the shirt contained within the carrier.

In use, the shirt 30 is placed in the carrier as shown in Fig. 1 with the collar 32 of the shirt introduced within the collar protector 20 in a similar manner to Fig. 7 of WO 2007/06152A and the remainder of the shirt lying on the sheet 100. The flaps 102, 104 are then folded over and the zip portions 106A, 106B connected by means of zipper 107 which is then zipped up to the top of the zip 106 as shown in Fig. 2, with the shirt then held between the sheet 100 and flaps 102, 104. The opposed portion 138 of the collar protector 20 is then pushed down in the direction of arrow F of Fig. 5 so that Velcro portion 150 engages Velcro portions 152a,b thus closing the collar protector around the collar 32 of the shirt.

With the collar protector 20 in the thus closed position, this forms a stiff collar protecting region of greater rigidity than the cover 10 and provides a crush-resistant zone to protect the collar against crushing. With the Velcro portions 150, 152a,b connected, the sheet 130 held in the pocket 120 forms a triangular cross-sectional structure to provide physical rigidity and to create a void so that the folded part of the collar is not creased. This configuration is shown in Fig. 3.

After the collar protector has been closed, the cover 10 is rolled up around the collar protector with the first fold being around Velcro portions 150, 152a,b

which are bent back on each other as the collar protector is rotated to provide some protective padding, matching the support provided by the spine 140. The rolling continues until the whole cover 10 has been rolled up around the collar protector 20 which provides a structural former around which the remainder of the carrier and shirt are rolled to form a rolled-up package as shown in Fig. 4. To seal the package, Velcro portion 180 is connected to Velcro portions 182.

Fig. 6 illustrates how the shirt carrier is assembled. The portions of the cover, that is to say, back sheet 100, flaps 102, 104 and pocket forming portion 110 are all stitched together along their connected edges and at seam 121. Sheet 130 is formed from flat sheet plastics material and two score lines are cut at the positions of the fold lines 132, 134 as shown in Fig 6a. The sheet is then pre-bent along those score lines to a steady state shape of Fig. 5 as shown in Fig. 6b and is then opened out again to be flat as shown in Fig. 6c and slipped into the pocket 120 through opening 124 following arrow C as shown in Fig 6d. The Velcro connector 126a,b is then closed holding the sheet 130 firmly inside. The pre-bent sheet 130 is then allowed to return to its steady state shape as shown in Fig. 6e.

A second embodiment of the invention is disclosed in Figs. 7 and 8. This embodiment of the invention is substantially similar to that shown in Figs. 1 to 6 except that, additionally, two transverse pockets 200, 210 are formed from additional sheet portions of plastics material 202, 212 stitched at their edges to sheet 100 as best illustrated in Fig. 8. Two supports in the form of

pieces of plastics tubing 220, 230 are placed in respective pockets 200, 210 which are then stitched or otherwise closed. The tubing 220, 230 provides additional rigid support for the collar protecting region. Whereas the sheet 130 of the collar protecting region in the embodiment of Figs 1 to 6 provides support against crushing of the collar, tubing 220, 230 provides additional support, and can resist higher forces. The second embodiment also shows the collar protector open at a steady state position with portions 136, 138 at an obtuse angle rather than the acute angle of the first embodiment.

10 A third embodiment of the invention is illustrated in Figs. 9-11 in which similar elements have the same reference numerals to the first embodiment with the addition of 200. The third embodiment has four main differences from the first embodiment.

15 The first difference is that the length L (Fig. 11) of the opposed portion 336 of sheet 330 is longer than the corresponding opposed portion 136 of the first embodiment, by about 41%, with opposed portion 338 being of increased dimension accordingly. Spine portion 340 is of the same dimension as spine portion 140 of the first embodiment. Extending the length of the opposed portions 336, 338 allows more room for the collar to be placed in the collar protector and also means that when rolling the shirt up around the collar protector once closed, potentially fewer turns are needed, so the rolled up configuration of the shirt carrier is slimmer and wider. The dimension L may be chosen depending upon the use of the product, but for example if used in

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conjunction with a laptop bag or briefcase, which products are usually dimensioned to accept documents of the width of at least A4 or Foolscap sheets, with a bit to spare, a dimension L of the same or a bit in excess of that width would allow the garment carrier to be placed in such bags easily with a reduced thickness relative to the first embodiment. The preferred dimension L is 222mm, slightly over the width of an A4 sheet.

The second difference is that, as shown in Fig. 11, the free ends 337, 339 of portions 336, 338 are each provided with an elongate cover member 436, 438 extending from one side to the other so as to cover the whole of each end and having opposed limbs joined by a spine of arcuate cross-section. The limbs engage each side of the portions 336, 338 in an interference fit which holds the cover member on to its respective portion with the arcuate spine presenting a more rounded cross section than the end when the shirt protector is closed and the cover rolled up, thus reducing any creasing effect the ends 337, 339 may have when pressed against the shirt 30 when being rolled up. The ends 337, 339 may alternatively be shaped by bending, with reinforcement if needed to provide the desired arcuate shape.

The third difference is that a separate inner bag 400 is provided. The inner bag is formed from woven polypropylene sheet and comprises a backing sheet 410 to which three separate sheets 412, 414, 416 are stitched along two edges and one side to form pockets each having an opening 413, 415, 417 on the one remaining side. The pockets are of differing depths to

accommodate different soft or conformable articles, such as underwear and socks. Openings 413, 415 do not have any closure means, although they may be stitched inwardly a limited amount so that the openings are not as wide as the inner bag itself. Opening 417, of the smallest of the pockets, is  
5 provided with a zip 420.

The fourth difference is that extended portion 360 is substantially increased, so that when rolled up the garment carrier closes in the correct position with the Velcro strip 380 engaging the equivalent of strips 182, taking into account  
10 the new width of the collar protector and the additional bulk of the inner bag.

A centrally located fabric hook 428, for hanging up the inner bag 400 if desired, is stitched to the reverse side of the sheet 410 as best shown in Fig.  
11.

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The inner bag is provided on the reverse side of sheet 410 with a transverse strip 430 of Velcro disposed at the top end of the sheet 410 adjacent the hook 430 and which extends across the width of the inner bag. The strip 430 mates with two complementary Velcro strips 432a, 432b provided respectively  
20 on flaps 302, 304 of cover 10, to attach the inner bag to the cover 10. The Velcro strip portions 432a, 432b are positioned just below Velcro strips 352a, 352b, which form part of the collar protector closure. The width of the hook 428 is similar to the width of the zip 306 so that this does not interfere with the Velcro portions 352a, 352b.

In use, after a shirt 40 is folded and zipped up in the cover 20 and before the collar protector 30 is closed, the inner bag 400, with underwear and other items packed as flat as possible, is connected to the cover 20 by means of the Velcro portions 430, 432a, 432b. The collar protector is then closed and the cover 20 and inner bag 400 are rolled up together around the collar protector 30 in the same manner as the first embodiment. Since the inner bag is only attached by means of the single Velcro strip 430, this will conform to the shape of the roll as it is rolled, reducing rucking.

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In a variation of this embodiment, instead of providing the Velcro strips 430, 432a, 432b and hook 428, a double-sided Velcro strip extending across the width of the inner bag is stitched to the top of the inner bag and projecting from the inner bag like an elongate tongue. In the centre of the double-sided strip, where the hook 428 would have been, a reinforced opening is provided to hang the bag up, instead of the hook. The double sided strip is then attached to the carrier by being sandwiched between strips 350, 352a, 352b of the collar protector closure when this is closed. The double sided strip of Velcro is chosen so that each side presents a complementary Velcro portion to the Velcro strips 350 and 352a/b respectively.

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The embodiments described have particular application in packing a shirt for travel to reduce creasing. Other applications include packaging shirts for sale and packaging shirts after dry cleaning or laundry. For such applications, the garment carrier may be made from disposable materials. For example, the

5 cover may be made from paper with the collar protecting region strengthened using a sheet of cardboard which could be stuck directly to the paper back sheet rather than being placed in a pocket. In such an application adhesive rather than stitching could be used to connect the sheets of the cover and pieces of sticky tape could be used to hold the cardboard sheet in a closed

10 position rather than Velcro and to replace the zip.

The embodiments described are not to be construed as limitative. For example, although the fastening means has been shown as Velcro, this could be any other suitable fastening means such as press studs, zips or such like.

15 Similarly, the zip between the flaps could be any other suitable fastening means. The cover need not be formed from plastics material. As noted above, this could be formed from a paper material or other natural fibre. In an eco-friendly embodiment this could be formed from woven cotton or canvas which may be proofed if water resistant is required. Although it is preferred to form

20 the cover protector with a plastics sheet 130 having two folds formed therein, this could be formed with an arcuate spine portion or with more folds, for example to form a collar protecting region of polygonal, such as rectangular cross-section.

The cover has been shown enclosing the shirt, but this could extend only to where Velcro portions 152a, 152b / 352a, 352b are disposed. In the second embodiment only a single support 220 or 230 may be used.

- 5 In a further variation, the collar protector may be formed separately. In such a case, the plastics sheet 130 could be formed with the angles shown in Fig. 5 with a separate fastening means, for example complementary engageable press studs provided at each end corner on the sheet itself. The shirt collar would be inserted between the opposed portions as before after which the
- 10 press studs would then be clicked together. The shirt would be rolled up around the sheet 130 directly and then placed completely in the cover which would be in the form of a small sack having a draw string. This embodiment while being part of the invention will provide less protection against creasing, since the cover of the first embodiment has a tendency to act in a similar
- 15 manner as placing tissue paper between the folds of a folded shirt which reduces and inhibits additional creasing. However, in this simplified form, the embodiment of the invention would be less expensive to manufacture whilst still providing some crease resistance.
- 20 In a further variant of the invention, the collar protector is provided and/or sold separately and without the cover, with the shirt being rolled directly on the closed collar protector and then placed in a container, suit case or travelling bag of the user, without a special cover being provided.

Where the embodiments of the invention are used for packaging and display, one additional preferred feature of such a packaging technique is that the garment carrier could be re-useable by the purchaser for subsequent packing of the shirt for travel. The packaging would thus have a use beyond mere transport  
5 and display.

The carrier may be used to carry more than one shirt if dimensioned accordingly, for example if the collar protector is so sized to accommodate two collars when closed, the cover has sufficient internal volume for the remainder of the shirts  
10 and the Velcro fasteners 182 have enough tolerance to fasten when rolled up with the additional bulk of two shirts. When carrying more than one shirt, each shirt is folded as described in WO 2007/06152 A1 and laid one on top of the other with the collar protector being closed and the carrier rolled up as before. In a similar way, the garment carrier may carry other garments such as  
15 underwear and socks at the same time, laid flat and distributed in the cover on top of the folded shirt.

The carrier is suitable for carrying other garments such as trousers, T shirts or collar-less ladies blouses, if the carrier is sized during manufacture  
20 appropriately. In such uses, the collar protecting function of the collar protecting means is not used, although this is still used as a former around which the garment is rolled.

This invention is applicable to any kind of carrier, container, packaging or bag for a garment and "garment carrier" is to be construed accordingly.

Having now fully described the invention, it should be apparent to one of  
5 ordinary skill in the art that many modifications can be made hereto without departing from the scope as claimed.

**CLAIMS**

1. A garment carrier for a collared shirt, the carrier comprising collar protecting means arranged to be movable between an open position in which a collar of a said shirt may be introduced and a closed position in which the collar protecting means forms a collar protecting region, the collar protecting means forming, when in a closed position, a former around which the remainder of the said shirt is able to be rolled and a cover arranged to receive at least said remainder of the shirt.
2. A garment carrier as claimed in claim 1 wherein the cover is arranged to receive the whole of the shirt.
3. A garment carrier as claimed in claim 1 or claim 2 wherein the collar protecting means is received by the cover.
4. A garment carrier as claimed in claim 1 or claim 2 wherein the collar protecting means is connected to the cover.
5. A garment carrier as claimed in and one of the preceding claims wherein the collar protecting means comprises a sheet of material.
6. A garment carrier as claimed in claim 5 wherein the collar protecting means further comprises a pocket in which the sheet is received.

7. A garment carrier as claimed in any one of the preceding claims wherein the collar protecting means is arranged to be folded to form the collar protecting region.

5 8. A garment carrier as claimed in any one of the preceding claims wherein the collar protecting means comprises first and second opposed portions connected by a spine portion.

9. A garment carrier as claimed in claim 8 wherein the free end of  
10 at least one of the opposed portions is arcuate or is provided with an arcuate cover.

10. A garment carrier as claimed in and one of the preceding claims wherein the collar protecting means has in the open position  
15 an open jaw-like configuration.

11. A garment carrier as claimed in anyone of the preceding claims wherein the collar protecting region is of substantially triangular cross section.

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12. A garment carrier as claimed in any one of the preceding claims further comprising at least one support member arranged to be disposed in the collar protecting region when the collar protecting means is in the closed position.

13. A garment carrier as claimed in claim 12 wherein collar protecting means further comprises at least one pocket in which the or each support member is received.

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14. A garment carrier as claimed in claim 12 or claim 13 wherein the or at least one support member is cylindrical.

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15. A garment carrier as claimed in any one of the preceding claims further comprising fastening means arranged to hold the collar protecting means in the closed position.

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16. A garment carrier as claimed in claim 15 wherein the fastening means comprises first and second fastening portions arranged to engage each other at a position adjacent the collar protecting region to hold this closed.

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17. A garment carrier as claimed in claim 16 wherein the engaged fastening portion provides padding adjacent the collar protecting region.

18. A garment carrier as claimed in any one of claims 1 to 16 further comprising padding disposed adjacent the collar protecting region and around which the remainder of the said shirt is able to be rolled initially.

19. A garment carrier as claimed in any one of the preceding claims further comprising a bag arranged to be rolled up around the former.
20. A garment carrier as claimed in 19 wherein the bag is arranged to  
5 be rolled up inside the cover.
21. A garment carrier as claimed in 19 or claim 20 wherein the bag is releasably connected to the cover.
- 10 22. A garment bag as claimed in claim 19 or claim 20 wherein the bag is releasably connected to the collar protecting means.
23. A garment bag as claimed in any one of the preceding claims wherein the former has a width equal to or greater than that of a piece  
15 of A4 paper or a piece of foolscap paper
24. A garment carrier according to any one of the preceding claims further comprising a shirt contained therein.
- 20 25. A shirt packaged for merchandising in a garment carrier as claimed in any of claims 1 to 23.
26. A shirt packaged after laundering in a garment carrier as claimed in any of claims 1 to 23.

27. A carrier, container, packaging or bag for a garment, comprising a former arranged to be movable between an open position in which a portion of a said garment may be introduced and a closed position in which the remainder of the said garment is able to be rolled around the former.

28. A collar protector for a shirt, the collar protector being movable between an open position in which the collar of a said shirt may be received and a closed position in which the protector forms a crush resistant zone around the collar.

29. A collar protector arranged to receive the collar of a shirt, the collar protector comprising a stiffening member in sheet form configurable to form a collar-receiving crush resistant zone.

30. A collar protector for a collared shirt arranged to be movable between an open position in which a collar of a said shirt may be introduced and a closed position in which the collar protector forms a collar protecting region around a said collar, the collar protector forming, when in a closed position, a former around which the remainder of the said shirt is able to be rolled.

31. A carrier, container, packaging or bag for a collared shirt, comprising a collar protector as claimed in any one of claims 28 to 30 and a cover.