

PATENT SPECIFICATION

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(54) A WATERPROOF FOLDING GARMENT

(71) I, LEO REVERBERI, a French citizen, of 5, passage de la Main d'Or, 75001 Paris, France, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The purpose of this invention is to make available to the user a means of bad weather protection which is not cumbersome to carry when not in use.

A telescopic umbrella, a concertina-pleated rainhat, a pocket raincoat and a raincoat stored in a belt case are already known, but the first has the disadvantages that it occupies a pocket when not in use and that it encumbers a hand when in use, the second has the disadvantage of protecting only the head, the third has the disadvantage of making a pocket bulge or of making an ungraceful bulge on the body, and the fourth has the disadvantage of thickening the waistline; in addition, the second, third and fourth examples should preferably be made of thin material in order to reduce their bulk, which then results in reduced effectiveness against the rain, wind and cold.

According to the invention, a waterproof folding garment has a plurality of pre-formed parallel pleats extending from top to bottom of the garment forming a plurality of parallel bands so that the folded garment forms a belt, wherein one of the pleats is central along which central pleat the garment may be folded symmetrically, the other pleats being disposed symmetrically each side of the central pleat with all the pleats equally spaced so that all of the bands will be of equal width, or with the two pleats nearest the central pleat on each side thereof spaced to form bands of greater width than the other bands. When not in use, the garment can be worn around the body of a user folded in the longitudinal direction of the coat to form the belt by means of permanent concertina-pleating or by folding it over and over. In this manner, the garment will be evenly distributed over

the whole trunk of the user, thus eliminating the disadvantages of the means of protection against rain which are already known.

Various waterproof folding garments in accordance with the invention will now be described by way of example with reference to the accompanying drawings in which:—

Figure 1 shows a water proof coat viewed from the front, shown opened out,

Figure 2 shows the same waterproof coat viewed from the back, also opened out,

Figure 3 shows the coat of Figures 1 and 2 folded in "concertina" manner,

Figure 4 shows the coat of Figures 1 and 2 folded in an alternative manner,

Figure 5 is a view of the folded coats shown in Figures 3 and 4 looking from one side,

Figures 6 and 7 show the coat of Figures 1 to 5 being worn respectively when folded and opened out,

Figure 8 shows a waterproof cape shown opened out,

Figure 9 shows opened out waterproof trousers viewed from one side, and

Figure 10 shows an alternative kind of waterproof coat.

The front and back parts of a waterproof coat are welded or sewn together at their edges 1 with or without an intermediate gusset. They both have a coinciding central longitudinal pleat 2 which forms the axis of the garment, and on both sides of this pleat there are other pleats 3 arranged symmetrically to it.

All these pleats together form the bands 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 on both the front and back parts; each of the bands 4, 5, 6, 7 that is, each of the two bands immediately on either side of the central pleat 2 on each part, is wider than each of the bands 8, 9, 10, 11, 12, 13.

The front part has rows of press studs 15, 14 respectively fitted onto bands 6, 7 adjacent the entire length of their pleats adjacent bands 4, 5.

The front part also has press studs 17 fitted adjacent one end of the band 4 and

further press studs 16 on the opposite end of the band 5. The front part is fitted with a zip fastener 18 attached to the band 5.

The back part has a fold-back hood 19 which has pleats exactly like the rest of the garment.

The waterproof coat according to the invention is used in the following way:

With the raincoat laid flat viewed from the back part as shown in Figure 2, it is folded up concertina-fashion separately in two halves by folding band 12 onto band 10, then onto band 8, then onto band 6 and finally onto band 4 on one side, and by folding band 13 onto band 11, then onto band 9, then onto band 7 and finally onto band 5 on the other side, thus reducing the coat to two adjacent piles of bands, as shown in Figure 3.

There is a choice between this method of folding, which is known as "concertina", and that of folding over, which consists of folding the bands over and over one on top of the other, always starting with the outside bands 12, 13 and working towards the central pleat, which results in the narrower bands being covered by bands 6, 7 as shown in Figure 4, which cannot be achieved by folding the bands in a zig-zag one on top of the other as in concertina folding.

With either method of folding is only necessary to fold the raincoat along the central pleat 2, thus folding the two piles of bands together, in order to engage the press studs 14, 15 which correspond to each other, and thus to obtain a band with smooth, continuous outer surfaces, closed on both its longitudinal sides, as shown in Figure 5, where only the zip fastener 18 and the press studs 16, 17 are visible, since all the bands other than 4 and 5 are on the inside.

The band thus obtained is intended to be secured round the trunk, as shown in Figure 6, by engaging press studs 16 with the corresponding press studs 17.

To use the garment in inclement weather it is only necessary to undo the band and to open it out in order to put on the coat as shown in Figure 7.

To conclude the description of this embodiment of the invention, we would specify that the longitudinal pleats are permanent, and are obtained either by thermo-pleating or by cutting out the front and back parts in longitudinal bands which are then welded or sewn to each other along their long sides to form gusseted pleats, with the front and back parts coinciding with each other.

The garment described above is not the only one possible, since the term garment signifies not only a coat, but also a cape, tunic, cloak, windcheater, overalls, jacket, trousers, etc., which may be folded according to the invention.

Thus Figure 8 shows, a cape with an

unfolded hood for a cyclist and Figure 9 shows trousers, the two legs of which may be laid flat one on top of the other and folded together to form a band.

Figure 10 shows a coat without the press studs 14, 15, which is fitted with a small buckle 16a and a tab 17a fitted in the place of press studs 16, 17 respectively, and all the bands of this coat are of the same width since there are no closing devices along the fold lines as the buckle 16a and tab 17a should be sufficient to hold the band closed whilst holding it around the trunk.

There are various production methods for the folding waterproof garment; the number of narrower bands may also be varied, since the more numerous they are, the less wide the final band will be, although it will be thicker.

Instead of using press studs 14, 15 a zip fastener may be used which has its two elements located in the place of the two rows of press studs 14, 15 respectively. Touch and close strips, etc, may also be substituted.

Instead of press studs 16, 17 a buckle 16a and tab 17a or buttons and a button tab, etc. may be fitted.

The press studs 14, 15, 16, 17 may be fitted equally well on either the front or the back part, just as the hood may be folded to the back or to the front, or even omitted.

The garment may include accessories, in particular pockets or slits for the hands; it may have two lateral holes in the hood to allow the ears to emerge to facilitate hearing.

This invention makes constantly available an effective means of protection against the rain, with the minimum of encumbrance.

This invention would be suitable for anyone who, at work or in their leisure, may be caught in bad weather out of doors, and it eliminates the need to be burdened with umbrellas or conventional raincoats.

WHAT I CLAIM IS:—

1. A waterproof folding garment having a plurality of pre-formed parallel pleats extending from top to bottom of the garment forming a plurality of parallel bands so that the folded garment forms a belt, wherein one of the pleats is central along which central pleat the garment may be folded symmetrically, the other pleats being disposed symmetrically each side of the central pleat with all the pleats equally spaced so that all the bands will be of equal width, or with the two pleats nearest the central pleat on each side thereof spaced to form bands of greater width than the other bands.

2. A waterproof folding garment according to Claim 1 and having a hood which can be folded onto the main part of the



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further press studs 16 on the opposite end of the band 5. The front part is fitted with a zip fastener 18 attached to the band 5.

5 The back part has a fold-back hood 19 which has pleats exactly like the rest of the garment.

The waterproof coat according to the invention is used in the following way:

10 With the raincoat laid flat viewed from the back part as shown in Figure 2, it is folded up concertina-fashion separately in two halves by folding band 12 onto band 10, then onto band 8, then onto band 6 and finally onto band 4 on one side, and by
15 folding band 13 onto band 11, then onto band 9, then onto band 7 and finally onto band 5 on the other side, thus reducing the coat to two adjacent piles of bands, as shown in Figure 3.

20 There is a choice between this method of folding, which is known as "concertina", and that of folding over, which consists of folding the bands over and over one on top of the other, always starting with the outside
25 bands 12, 13 and working towards the central pleat, which results in the narrower bands being covered by bands 6, 7 as shown in Figure 4, which cannot be achieved by folding the bands in a zig-zag one on top of the other as in concertina folding.

30 With either method of folding is only necessary to fold the raincoat along the central pleat 2, thus folding the two piles of bands together, in order to engage the press studs 14, 15 which correspond to each other, and thus to obtain a band with smooth,
35 continuous outer surfaces, closed on both its longitudinal sides, as shown in Figure 5, where only the zip fastener 18 and the press studs 16, 17 are visible, since all the bands other than 4 and 5 are on the inside.

40 The band thus obtained is intended to be secured round the trunk, as shown in Figure 6, by engaging press studs 16 with the corresponding press studs 17.

45 To use the garment in inclement weather it is only necessary to undo the band and to open it out in order to put on the coat as shown in Figure 7.

50 To conclude the description of this embodiment of the invention, we would specify that the longitudinal pleats are permanent, and are obtained either by thermo-pleating or by cutting out the front and back parts in longitudinal bands which are then welded or
55 sewn to each other along their long sides to form gusseted pleats, with the front and back parts coinciding with each other.

60 The garment described above is not the only one possible, since the term garment signifies not only a coat, but also a cape, tunic, cloak, windcheater, overalls, jacket, trousers, etc., which may be folded according to the invention.

65 Thus Figure 8 shows, a cape with an

unfolded hood for a cyclist and Figure 9 shows trousers, the two legs of which may be laid flat one on top of the other and folded together to form a band.

Figure 10 shows a coat without the press studs 14, 15, which is fitted with a small buckle 16a and a tab 17a fitted in the place of press studs 16, 17 respectively, and all the bands of this coat are of the same width since there are no closing devices along the fold lines as the buckle 16a and tab 17a should be sufficient to hold the band closed whilst holding it around the trunk.

There are various production methods for the folding waterproof garment; the number of narrower bands may also be varied, since the more numerous they are, the less wide the final band will be, although it will be thicker.

Instead of using press studs 14, 15 a zip fastener may be used which has its two elements located in the place of the two rows of press studs 14, 15 respectively. Touch and close strips, etc, may also be substituted.

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The press studs 14, 15, 16, 17 may be fitted equally well on either the front or the back part, just as the hood may be folded to the back or to the front, or even omitted.

The garment may include accessories, in particular pockets or slits for the hands; it may have two lateral holes in the hood to allow the ears to emerge to facilitate hearing.

This invention makes constantly available an effective means of protection against the rain, with the minimum of encumbrance.

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2. A waterproof folding garment according to Claim 1 and having a hood which can be folded onto the main part of the



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garment and which has pleats which align with the pleats on the main part of the garment.

5 3. A waterproof folding garment according to Claim 1 or Claim 2 which inter-engaging closing means are provided for the garment along the bands immediately adjacent the bands nearest to and on both sides of the central pleat, thus allowing the
10 closing devices to engage when said pleats are brought together.

4. A waterproof folding garment according to Claim 1 or Claim 2 wherein the opposite ends of the bands immediately adjacent the central pleat and on both sides
15 thereof are fitted with interengaging fasteners in such a way that, when the garment has been folded to form a belt, these fasteners can be used to fasten the belt
20 around the body of a user.

5. A waterproof garment according to Claim 1 or Claim 2 wherein all the pleats are equally spaced and fasteners are provided for securing the belt around the
25 body.

6. A waterproof folding garment constructed and arranged substantially as herein described with reference to and as illustrated in Figures 1 to 7 of the accompanying drawings.

7. A waterproof folding garment constructed and arranged substantially as herein described with reference to and as illustrated in Figure 8 of the accompanying drawings.

8. A waterproof folding garment constructed and arranged substantially as herein described with reference to and as illustrated in Figure 9 of the accompanying drawings.

9. A waterproof folding garment constructed and arranged substantially as herein described with reference to and as illustrated in Figure 10 of the accompanying drawings.

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