Aug. 21, 1956 D. LEVI 2,759,192

INTERLOCKING SEAMS REVERSIBLE GARMENTS AND METHOD FOR MAKING THE SAME

Filed Dec. 18, 1953 4 Sheets-Sheet 1

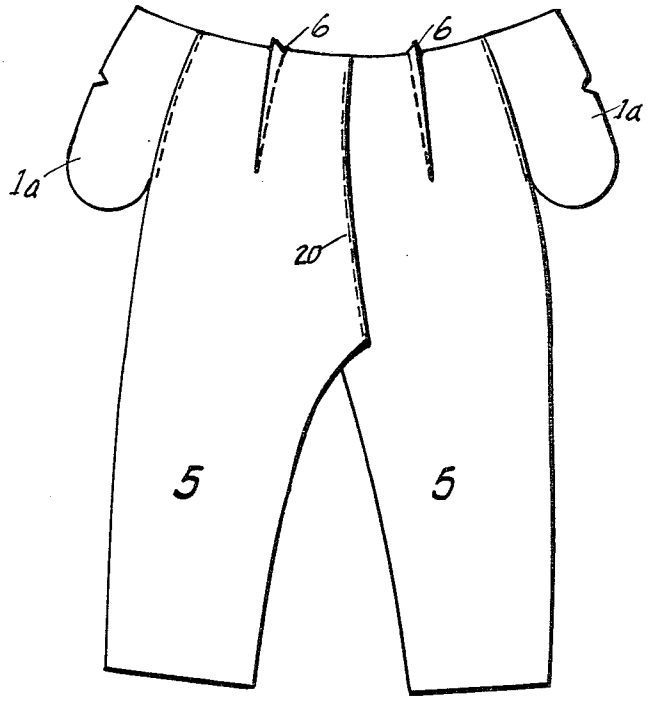


Fig 1

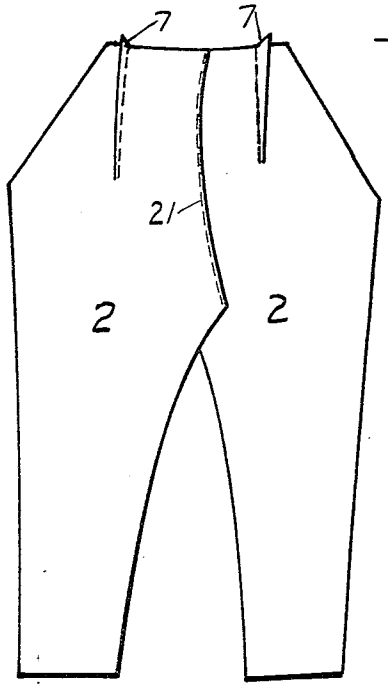


Fig 2

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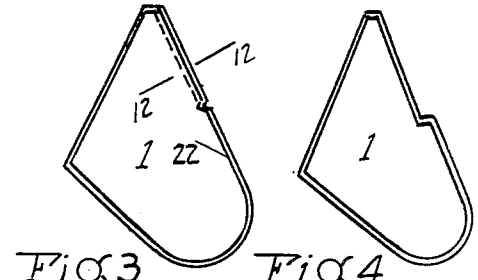


Fig 3

Fig 4

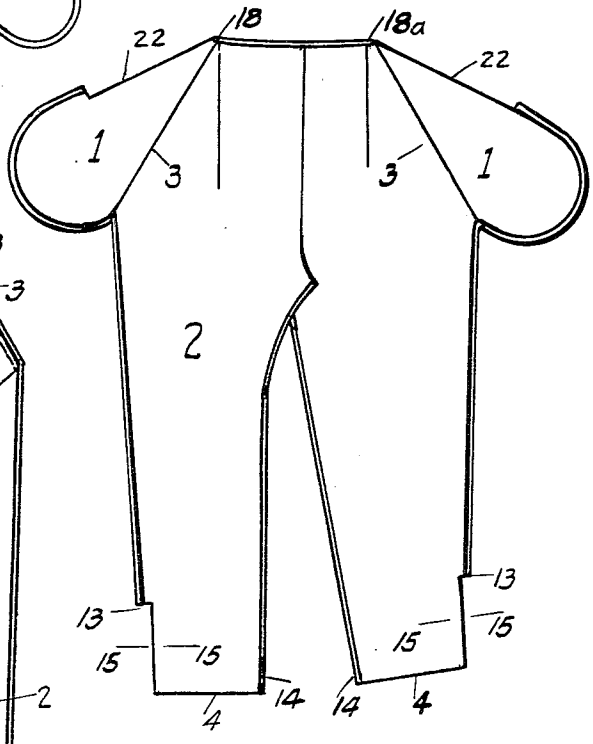


Fig 8

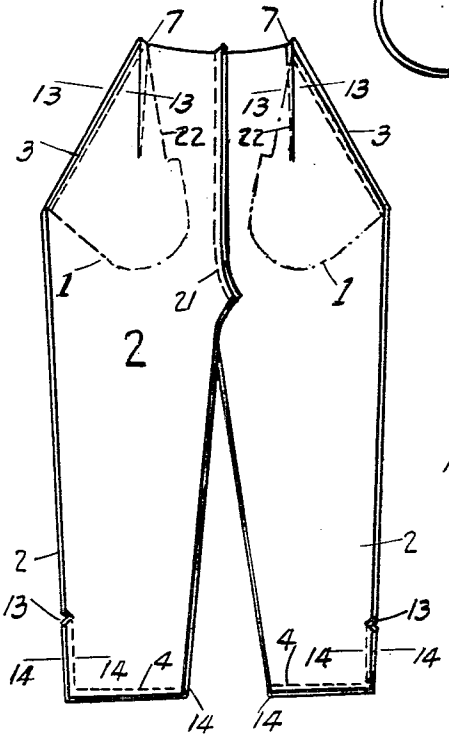


Fig 5

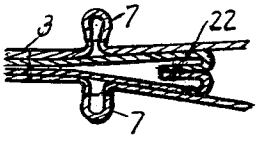


Fig 13

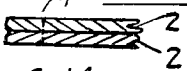


Fig 14

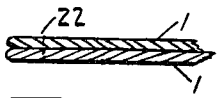


Fig 12

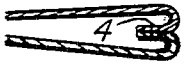


Fig 15

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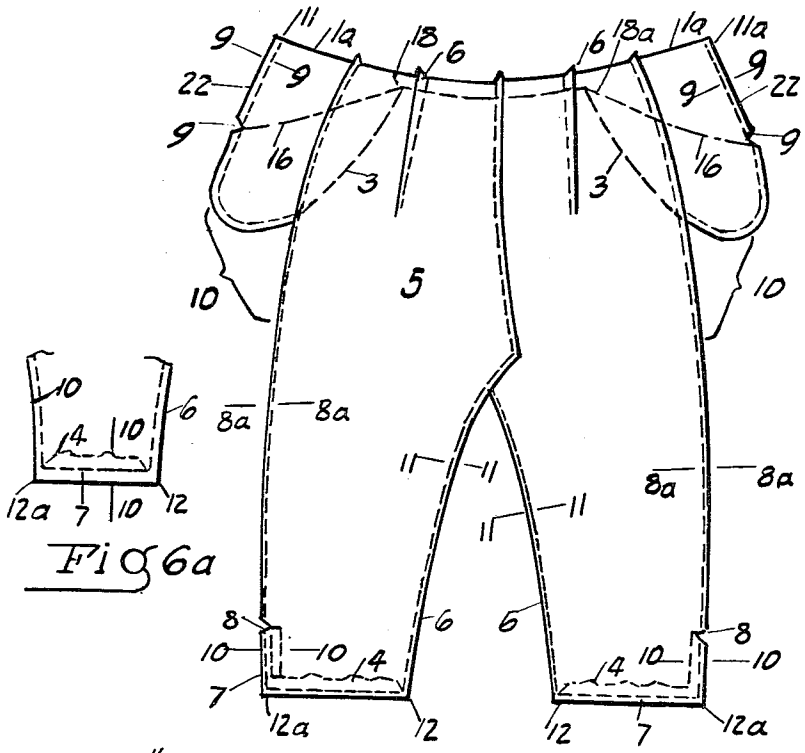


Fig 6a

Fig 6

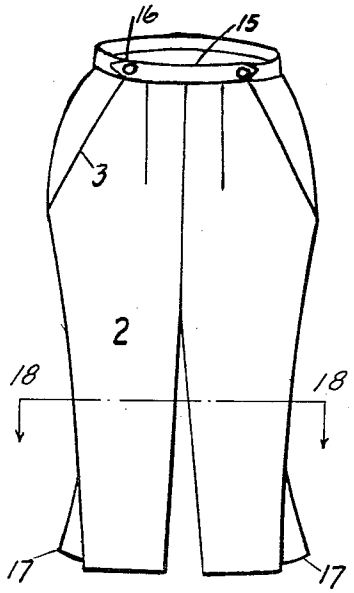


Fig 7

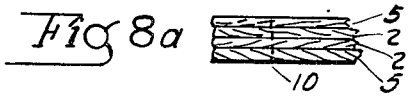


Fig 8a

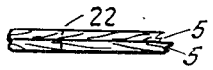


Fig 9

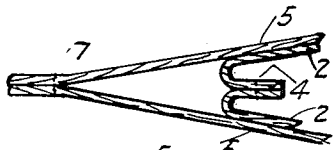


Fig 10

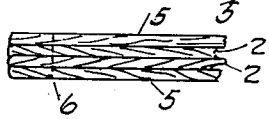


Fig 11

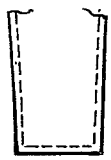


Fig 7a

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INTERLOCKING SEAMS REVERSIBLE GARMENTS AND METHOD FOR MAKING THE SAME

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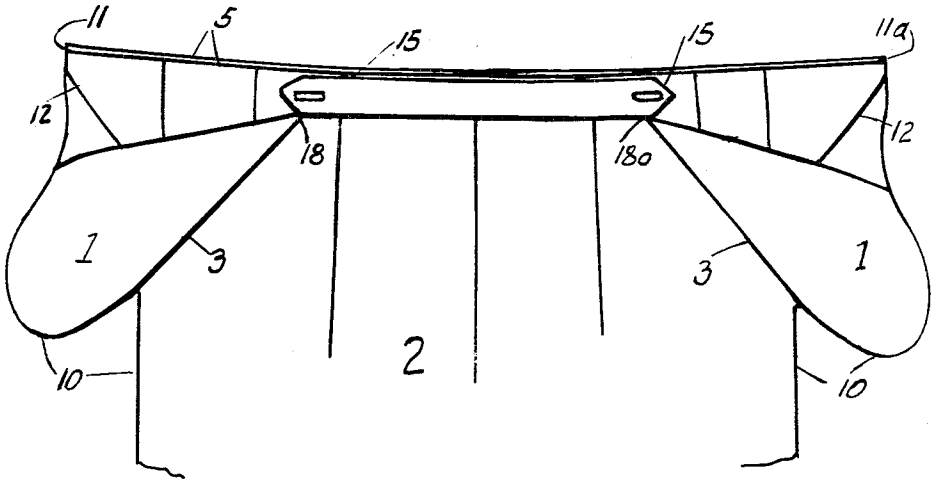


Fig 16

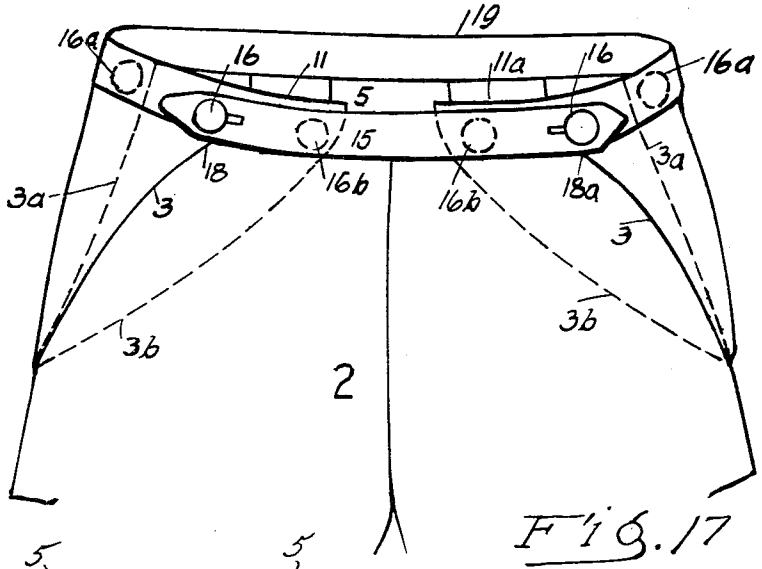


Fig. 17

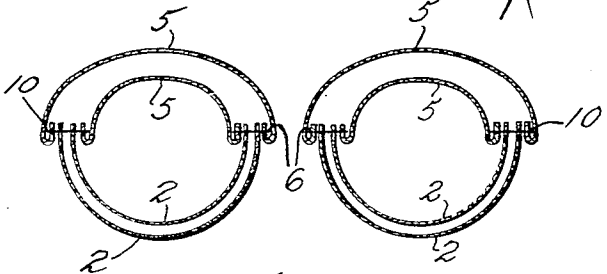


Fig. 18

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United States Patent Office

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INTERLOCKING SEAMS REVERSIBLE GARMENTS AND METHOD FOR MAKING THE SAME

Daisy Levi, Miami, Fla.

Application December 18, 1953, Serial No. 399,006

4 Claims. (Cl. 2—227)

This invention relates to reversible type clothing particularly slacks, shorts, pedal pushers, and trousers for men, women and children, as well as bathing suits, in other words all crotch type clothing.

One of the objects of the present invention is to provide reversible clothing particularly slacks, which will be attractive in appearance and ornamental in design but will in addition be wearable on both sides, with a different appearance on each side if desired.

A further object of the present invention is to provide reversible slacks which may be worn with either side out since both sides are finished sides and on whichever side the slacks are worn the pockets remain in the same relative position and the seams appear with their right or finished side out.

A further object of the present invention is to provide reversible slacks having interlocking seams and a waist that may be adjusted by moving the button on the belt which will automatically adjust both waist and hip size without further alteration.

The further object of the present invention is to produce reversible slacks in which the seams cannot unravel and a finished side of the garment is always out regardless of which side of the garment is out.

Another object of the present invention is to produce a reversible garment in one series of operations.

Reversible clothing has been well known in the art and is generally made up by making two garments and putting them together one inside of the other by tacking at different points. The result of such a procedure is to have a garment which although it can be worn on either side is bulky in weight with a tendency for the the inner part to slide out of relative position and to bunch up in the wrong places when being worn. I have overcome such difficulties with the prior art garments and produced a garment which is much simpler and easier to make than the old type reversible garments since it does not involve the construction of two separate garments and sewing them together but the making of one single garment in one series of operations and is therefore much cheaper to make. My garment will not give a shifting or bunching of the material when worn regardless of which side is out due to the interlocking seams.

My garment has the feel of one garment when being worn. My invention broadly comprises one reversible garment having certain characteristics as herein set forth, particularly interlocking seams and a method of making this garment.

My invention consists essentially of a reversible type garment having a crotch construction, that is having legs, such as slacks or trousers, in which the garment consists of four layers of material being two front sections and two rear sections, and at the openings of the said garment, that is, the body opening and the leg openings the two front sections are joined to each other by a two ply seam, the two back sections are joined to each other by another two ply seam, the two front sections and two back sections being unattached to each other at these openings; in the

remainder of the garment, that is the crotch portions and the side portions of the garment, all four sections are joined continuously by a four ply interlocking seam. At the body opening the two front sections are joined to each other and attached to a front belt, and the two back sections are attached to each other and attached to a rear belt. The front belt and rear belt are fastened to each other by means of separable fasteners such as buttons and buttonholes. Snap fasteners or hooks and eyes or slide fasteners could be used in place of buttons and buttonholes which are preferred.

For purposes of illustrating my invention I am using the example of a pair of ladies' slacks having a slit on the side of the leg but the principle can be applied to other types of garments. The slit in the side of the leg is not necessary to the invention since the same principle applies to any trouser type garment. My invention may be applied to any garment having a crotch.

In order to understand my invention reference is made to the accompanying drawings in which

Figure 1 is a plan view of the back section of a pair of slacks. There are two back sections normally both made in different color and design.

Figure 2 is a plan view of the front sections of the slacks. There are normally two such front sections in different color and design. Normally the two different colors of the front sections correspond to the two different colors of the back sections. In order to avoid confusion no colors are shown on the drawing.

Figure 3 is a plan view of one of the front pockets.

Figure 4 is a view of the same pocket turned right side out.

Figure 5 is a plan view showing the pockets positioned between two front sections.

Figure 6 is a plan view showing the two back sections sewed together with the pockets in position and with two front sections in between the two back sections.

Figure 6*a* is a plan view of a portion of Figure 6 showing a variation in structure.

Figure 7 is a front plan view showing the overall appearance of the finished garment.

Figure 8 is a plan view of the two front sections of Figure 5 turned inside out with respect to Figure 5.

Figure 8*a* is a cross sectional view taken along the lines 8*a*—8*a* of Figure 6.

Figure 9 is a cross sectional view taken along the lines 9—9 of Figure 6.

Figure 10 is a cross sectional view taken along the lines 10—10 of Figure 6 and Figure 6*a*.

Figure 11 is a cross section taken along the lines 11—11 of Figure 6.

Figure 12 is a cross sectional view taken along line 12—12 of Figure 3.

Figure 13 is a cross sectional view taken along line 13—13 of Figure 5.

Figure 14 is a cross sectional view taken along lines 14—14 of Figure 5.

Figure 15 is a cross sectional view taken along lines 15—15 of Figure 8.

Figure 16 is a partial perspective view of the partly finished garment.

Figure 17 is a partial perspective view of the finished garment.

Fig. 18 is a cross-sectional view taken along the line 18—18 in Fig. 7, the garment being shown in final form.

In order to clarify terminology in this case, the word panel is used to mean a half which sewed together with another half along a center seam of the garment forms a section one layer in thickness. Like sections which are joined together form a garment portion two layers in thickness. This terminology will be used throughout the specification and claims.

Since the method of putting the garment together is particularly important this will be discussed in detail as illustrated by the ladies' slacks as shown in the drawings. This method is as follows:

In making the reversible ladies' slacks the two panels which are halves of back sections **5** are cut out, sewed together along center seam **20** to make a full back section **5**. Darts **6** are sewed in, and back pocket forming sections **1***a* are sewed to the back section **5** as shown in Figure 1. The same process is repeated using a different color or design of material to complete a second back section.

The halves of front sections **2** are cut out, sewed together along center seam **21** and darts **7** are sewed in to make a full front section **2**, as shown in Figure 2. The same process is repeated using a different color or design of material to complete a second front section. The front pocket forming portion **1** is made of two sections of material one of each different color or design.

The pocket forming portions **1** are sewed together by seam **22** in an inside out position as shown in Figure 3 and then reversed to the right side out as shown in Figure 4.

The front pockets forming portions **1** are then placed between the two front sections **2** as shown in Figure 5. The front pocket forming portions **1** appear dotted in Figure 5 since they are in between two front sections **2**.

In Figures 3, 4, 5, and 8 there are two sections of material each of the same size in registry with each other, but to clarify the invention in these figures, a double line is shown all around to indicate the two layers forming a garment portion.

The principal part of the sewing operation then begins and is preferably done in the following order:

First seams **4** in Figure 5 are sewn from notches **13** to corners **14** giving a two ply seam as shown in Figure 14 with a raw edge out. Then seams **3** are sewed joining the pocket forming portions and two front sections as shown in Figure 13. Then the two front sections **2** of Figure 5 are turned inside out since they are unconnected at the top so that they appear as shown in Figure 8. The two front sections **2** are now joined only by seams **3** and seams **4**. Seams **4** now appear as in Figure 15. The entire garment portion as shown in Figure 8 is then placed in between two back sections **5** as shown in Figure 6.

Second, the seams **22** are sewn running from the top corners **11** and **11***a* of the pocket forming portions **1***a* to the notches **9**. The seams **22** from corners **11** and **11***a* to notches **9** join together only the two back pocket forming portions **1***a* which are attached to back sections **5** giving a two ply seam as illustrated in Figure 9.

Third, seams **10** are sewn extending from notches **9** to notches **8**. Seams **10** join together side edge of two back sections **5** and two front sections **2** in between the two back sections **5** giving a four ply seam as illustrated in Figure 8*a*.

Fourth, seams **7** extending from notches **8** to corners **12** are sewn in which only the two back sections are joined together giving a two ply seam as illustrated in Figure 10. The seams **4** joining front sections **2** remain loose in between the two back sections **5** and unattached to the bottoms of the back sections **5** as shown in Figure 6 and Figure 10. In Figures 6 and 6*a* seam **4** is illustrated by a wavy dotted line because it is under back section **5** and is wrinkled during the sewing operation to keep it from being caught in seam **7**.

In case no slot in the side of the leg is desired then seam **7***a* corresponding to seam **7** extends only from corner **12***a* to corner **12** and notch **8** is eliminated as shown in Figure 6*a*. The resultant seam structure is still as shown in Figure 10, but the leg then appears with a normal opening as in Figures 6*a* and 7*a* having no side slit. Seams **4** between two back sections **5** remain loose and unattached to bottom of back section **5** for the distance of the opening.

Fifth, crotch seams **6** extending around the crotch from corner **12** on one side to corner **12** on the other side are sewed, sewing the two back and front sections together producing a four ply interlocking seam as illustrated in Figure 11. The garment then appears as shown in Figure 6.

The only variation that can be made in this series of operations would be that the crotch seams **6** could be sewed first followed by seams **12**, seams **10** and seams **7** in order as above.

The front belt **15** is added by sewing belt **15** to top of two front sections **2** from corner **13** to corner **13***a*.

Sixth, the garment is then turned inside out by reaching down the legs between a front section **2** and a back section **5** and pulling seams **4** out so that it then appears as shown in Figure 16 it will be noted that presence of belt **15** prevents reaching in between two front sections. This facilitates manufacture by inexperienced operators but belt **15** could otherwise be added later in the operation. Back belt **19** is sewed on from corner **11** to corner **11***a*. The two front sections **2** are together and the two back sections **5** are together as shown in Figure 17 two buttons **16** back to back in pairs at each end of belt **15** as shown in Figures 7 and 17 are added.

The final form of the slacks in wearing position is as shown in Figure 7 it will be noted that after addition of belts **15** and **19** or joint sections it is impossible to return garment to form shown in Figure 6. The garment can now be turned inside out at will of the wearer. Due to the nature of the construction the garment appears substantially the same regardless of which side it is worn on, the seams all have their finished side out and there are no raw seams to unravel. The pockets also appear in the same relative position regardless of which side is worn out.

The belt is made with buttons as fasteners and due to the construction of the slacks, changing the position of the buttons in one direction or the other to adjust the waist will also serve to adjust the hip size so that one size can be used to cover several different body sizes.

This is illustrated in Figure 17 where an alternate position of the top edge of pocket which is normally seam 3 is shown. When in wearing position seam 3 becomes a diagonal side seam with respect to the vertical center line of the garment. The alternate positions of button 16 are shown at **16***a* and **16***b*. In these positions seam 3 shifts to positions **3***a* and **3***b* respectively, thus automatically changing the hip size when the waist size is changed. In position **3***a* the hip size is larger and the pocket shallower than in position 3. In position **3***b* the hip size is smaller and the pocket deeper than in position 3. Thus by simply moving the position of button **16** several different body sizes can be readily fitted.

A slot **17** in the side legs is shown in Figure 7 as produced by the construction of Figure 6. If the structure shown in Figure 6*a* is used a standard leg without a slot is produced as shown in Figure 7*a*.

Other methods of practicing my invention will be obvious to those skilled in the art.

Both slacks, as illustrated, and shorts and bathing suits can be made in this manner and when so made will not unravel or change shape. When slacks or shorts are made in this manner the cuffs can be turned up to give a different appearance to the garment without revealing raw seams since a finished seam will always be visible regardless of which side is out. Due to the four ply interlocking seam the garment will never slide or bunch in the wrong places but will look and feel like a single garment.

I claim:

1. A method of making reversible garments having leg and crotch seams comprising cutting out panels, sewing pairs of said panels together to form two front and two back sections, each section having two legs, attaching pocket forming portions to each of said back sections, placing two of said front sections together with two pocket forming portions which have previously been sewed together between them, sewing said two front sections and

said two pocket forming portions together along the outer line of said pockets and sewing said two front sections together at the bottom of said legs making a two ply seam at said leg bottoms, turning said two front sections inside out and placing said two front sections between two back sections, sewing said two back pocket forming portions which had been attached to said back sections together in a two ply seam for a minor portion of their length to form pocket openings, sewing said two front pocket portions and said two back pocket portions and said two front sections and said two back sections together by a four ply interlocking seam around remainder of said pocket openings and down the outside of the legs extending to bottom of said legs sewing said two back sections only in a two ply seam around bottom of said legs to form leg openings leaving said front section two ply seams unattached inside said back sections at said leg openings, sewing said two front sections and said two back sections together in a four ply interlocking seam from the inside corner of said leg opening around the crotch and down to the other inside corner of said leg opening, turning the work inside out by reaching down each leg between said front section and said back sections and pulling out said unattached two ply seams of said front sections, joining said two front sections across their tops by a front belt, joining said two back sections across their tops by a back belt, said front and back belts being attached to each other by separable fasteners so as to secure the body opening around the waist of the wearer, the raw marginal edges of said four ply interlocking seams being sandwiched between said sections and lying to one side of the line of stitching.

2. A method of making reversible garments having leg and crotch seams comprising cutting out panels, sewing pairs of said panels together to form two front and two back sections, each section having two legs, attaching pocket forming portions to each of said back sections, placing two of said front sections together with two pocket forming portions which have previously been sewed together between them, sewing said two front sections and said two pocket forming portions together along the outer line of said pockets and sewing said two front sections together at the bottom of said legs making a two ply seam at said leg bottoms, turning said two front sections inside out and placing said two front sections between two back sections, sewing said two back pocket forming portions which had been attached to said back sections together in a two ply seam for a minor portion of their length to form pocket openings, sewing said two front pocket portions and said two back pocket portions and said two front sections and said two back sections together by a four ply interlocking seam around remainder of said pocket openings and down the outside of the legs extending to bottom of said legs sewing the said two back sections only in a two ply seam around bottom of said legs to form leg openings leaving said front section two ply seams unattached inside said back sections at said leg openings, sewing said two front sections and said two back sections together in a four ply interlocking seam from the inside corner of said leg opening around the crotch and down to the other inside corner of said leg opening, turning the work inside out by reaching down each leg between said front section and said back sections

and pulling out said unattached two ply seams of said front sections, joining said two front sections across their tops by a front belt, joining said two back sections across their tops by a back belt, said front and back belts being attached to each other by separable fasteners so as to secure the body opening around the waist of the wearer, positioning the side seams of the pockets at a diagonal angle so that a change in position of said separable fasteners not only adjusts the waist size but also automatically adjusts the hip size of said garment, the raw marginal edges of said four ply interlocking seams being sandwiched between said sections and lying to one side of the line of stitching.

3. As an article of manufacture a reversible garment having a body opening and leg openings and consisting of two garment members identical as to shape and arranged one within the other with corresponding portions in registry, each of said garment members including a front section and a rear section with each section comprising a body portion, a crotch portion and two leg portions, a four ply interlocking seam joining the outer side edges of the leg and body portions of said two garment members, a four ply interlocking seam joining the inner side edges of the leg portions of said garment members and a like seam joining the crotch portions of said two members, the raw marginal edges of said four ply interlocking seams being sandwiched between the said two garment members and lying to one side of the line of stitching.

4. As an article of manufacture, a reversible garment having a body opening and leg openings and consisting of two garment members identical as to shape and arranged one within the other with corresponding portions in registry, each of said garment members including a front section and a rear section with each section comprising a body portion, a crotch portion and two leg portions, an inwardly turned two ply seam joining the front sections of said garment members along the bottom edges of their leg portions, a like seam joining said rear sections along the bottom edges of their leg portions, means joining the top edges of the body portions of said rear sections, the said means providing a body encircling finished top for the garment, a four ply interlocking seam joining the outer side edges of said front and rear sections, a four ply seam joining the inner side edges of the leg portions of said front and rear sections, and a four ply interlocking seam joining the crotch portions of said front and rear sections, the raw edges of said four ply interlocking seams being sandwiched between the said two garment members and lying, in each instance, to one side of the line of stitching.

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