

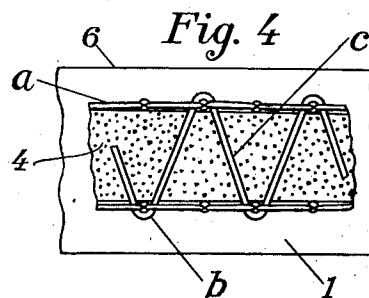
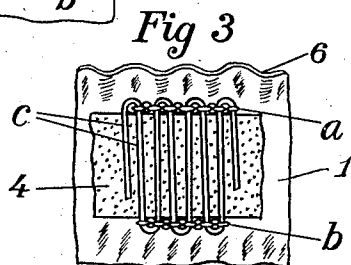
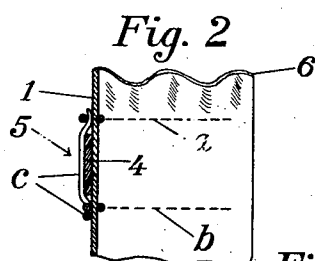
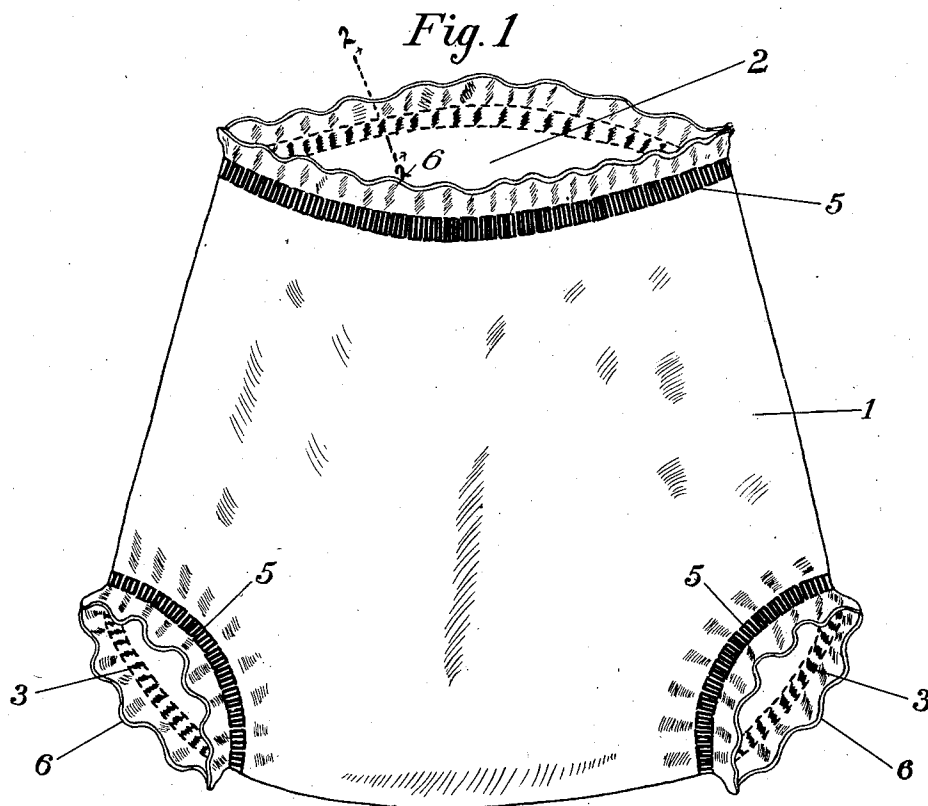
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M. S. GEORGE

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CONTRACTING CONSTRUCTION FOR GARMENTS AND OTHER ARTICLES

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CONTRACTING CONSTRUCTION FOR GARMENTS AND OTHER ARTICLES

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The present invention relates to improvements in baby pants, which is a waterproof garment worn by infants and small children over diapers and the like.

5 The style of baby pants, to which the present invention is directed, is what is commonly termed in the trade as "all rubber baby pants" in contradistinction to those having a loose or removable cloth cover. These "all rubber baby pants" are usually made of rubberized cloth or rubber sheeting to form a full, bag-like trunk garment having only waist and leg openings.

15 It has been proposed to contract these openings, at waist and legs of the wearer, by several different means, such as draw-strings, elastics and the like. Practical use and experience has taught that the provision of elastic at the openings is the most practical because of being more comfortable to the 20 wearer, self-adjusting to the movements and size of the wearers and more efficient to prevent the egress of moisture through the openings; and several methods have been proposed 25 for applying or attaching the elastic at these openings.

30 It is the object of this invention to apply and secure the elastic at the waist and leg openings in a novel as well as ornamental manner, which is much cheaper and quicker than has been heretofore proposed,—and at the same time, having certain features of advantage which increase the wearing qualities or life of the garment and in no way hinders 35 the expansive and contractile properties of the elastic.

40 With these and other objects in view, the invention resides in the sundry details of construction, combination, and arrangement of elements hereinafter more fully set forth and pointed out in the appended claims.

45 In this specification and the annexed drawings, the invention is disclosed in the form in which it is considered to be the best, but the invention is not limited to such form be-

cause it is capable of being embodied in other forms; and it is to be understood that in and by the claims following the description herein it is intended to cover the invention in whatever form it may embody within the 50 scope thereof.

In the drawings, which illustrate the preferred embodiment of the invention:—

Figure 1 is a front elevation of the baby pants embodying the invention. 55

Fig. 2 is a fragmentary sectional view taken substantially on line 2—2 of Fig. 1.

Fig. 3 is an enlarged fragmentary detail of a portion of the garment adjacent its openings, equipped with the invention, said edge 60 portion being in its normally contracted condition, and

Fig. 4 is a view similar to Fig. 3, but illustrating the edge portion of the opening in its expanded condition. 65

Referring particularly to the drawings, 1 indicates the baby pants, which is a full, bag-like garment, constructed in any particular manner, and having a waist opening 2, at its upper portion and with leg openings 3 on 70 opposite sides of its lower portion.

The waist and leg openings of the garment are provided with suitable means for contracting them about the body and legs of the 75 wearer. This means consisting of a relatively wide strip of elastic or other suitable expansible and contractible material 4. This strip 4 is arranged on the outer face of the garment and encircles the opening thus forming a band normally contracting the opening, in the 80 manner shown in the drawings, but is spaced for a distance from the edge of the opening, as shown.

The elastic strips 4 are maintained in position by an expansible casing 5, enclosing it 85 and secured to the garment. This casing 5 is provided by two spaced rows of stitching *a* and *b*, coextensive with the elastic strip 4. The rows of stitching, *a* and *b* are connected together by a series of closely arranged cross 90

stitches *c*, extending substantially transversely over the strip 4 and secured or attached to the rows of stitching *a* and *b* in any suitable manner. The stitches *c* may be provided by a continuous thread or cord looped back and forth alternatively in the rows of stitching *a* and *b*, or may be provided in any other desired manner, form or configuration which will produce the cross stitches *c* overlying the strip 4. In the present instance, the cross stitches *c* are shown as criss-cross stitching extending transversely over the strip 4 and being parallel to each other. The stitches *c*, in conjunction with the rows of stitching *a* and *b*, provide a casing enclosing the strip 4, when the openings of the garment are in their normal unstretched condition.

In the drawings, the stitching *a* and *b* is shown at opposite sides of the strip 4, and is not connected to the strip, so as to leave the strip 4, entirely free and unattached from the garment for unhindered expansion, although it is to be understood that it is within the purview of the invention to have the stitches *a*, *b*, extend through the elastic strip 4.

To permit the openings 2 and 3 to stretch with the strips 4, about the body of the wearer, as may be needed and required, the material of the garment is shirred at the openings as indicated at 6. Also, to permit this expansion of the rubber material of the baby pants at the openings, without injury to the material, such as ripping or the breaking of the stitch itself, the stitches *a* and *b* are preferably of an expansive character or nature, such, as for instance, what is commonly known as chain stitch. Were these stitches of a non-stretchable character, such as the lock stitch now commonly used on baby pants, there is considerable liability of breaking the stitching itself, when the shirred openings of the garment are stretched, or else causing the stitch to cut the rubber material and thus destroy the garment. The stitching *a* and *b* of the present invention is of an expansible or stretchable character and will stretch as far as the elastic itself without enlarging the perforations in the rubber material of the garment, and will consequently place all of the strain incident to the stretching on the elastic strip 4 and not on the stitching *a* and *b*, although it is to be understood that the invention is not limited to expansible stitching *a* and *b*, because it may be practiced in some degree with other forms of stitching.

In addition to the above advantage, the casing 5 of this invention is a decided improvement over the ordinary casing provided by a strip of material stitched down at its edges and the gathering or shirring about the opening being left entirely to the action of the elastic within the casing, which often causes a surplusage of gathering at one particular point in the opening and is always bulky, due to the fact that the strip forming

the casing must also have a surplusage therein to allow for expansion.

It is obvious that the present casing 5 has no surplusage of material therein because it is composed of a series of closely laid substantially parallel stitches *c* which will separate one from the other under the expansion or stretching action at the opening. The stitches *c* of the casing 5 may be of any desired color or combination of colors to produce an ornamental embroidery effect, thus greatly enhancing the appearance of the garment. In case the elastic 4 should break or become worn it can be readily replaced by stretching the garment as indicated in Fig. 5, whereby access can be had to the strip or band 4 to withdraw it and replace another. By having the casing 5 and the strip 4 on the outer surface of the garment, a relatively smooth surface is presented on the inner surface of the garment at the openings 2 and 3, when in a stretched or partially stretched condition so that there is no uncomfortable or injurious effect produced upon the wearer.

Therefore, from the foregoing it will be observed that the present improvement in baby pants is one of material advantage both to the manufacturer and the wearer. The garments made as proposed by the invention can be produced at a considerable less cost and with more celerity than by any of the methods which have been heretofore proposed and in practical use. The improvement also gives greater comfort to the wearer as well as enhances the appearance of the garment and permitting him to readily renew broken or worn elastic strips 4. Furthermore, it should not be overlooked that the present method or manner of stitching the casing to the rubber material of the garment, permits the material of the garment to be stretched at the openings to its limit without the stitching causing the rubber material to rip or the stitching itself to break.

Having thus described my invention, what I claim is:

1. In a garment having an opening therein, an elastic strip contacting with the outer surface of the garment and spaced from the edge of the opening, stitches extending transversely across the outer face of the band but not penetrating the band or the garment material, means disposed contiguously to the edges of the strip for anchoring said stitches to the garment so as to maintain the opening in normally contracted position and to produce a shirred ruffle at that portion of the garment between the strip and edge of said opening, said cross stitches normally lying in close approximate parallel formation to substantially cover the strip and being capable of lateral separation when the garment and the strip are stretched to allow unrestricted stretching of the strip independent of the surface of the garment.

2. A trunk-like garment having waist and leg openings, elastic strips contacting with the outer face of the garment, one disposed around and adjacent to the edge of each opening and spaced from said edge, stitches extending transversely across the outer face of said strips but not penetrating the strips or the garment material, rows of spaced stitching extending through the garment material parallel with the edges of the respective strips and engaging contiguous portions of said respective cross stitchings to maintain the openings in normal contracted position, said rows of stitching being positioned contiguous to the edges of the respective band strips to cause the cross stitches to bind against the strips so as to produce a shirred ruffle at those portions of the garment between said strips and the edges of the openings uniformly shirred throughout their lengths, said cross stitches normally lying in close approximate parallel formation to substantially cover the strips and being capable of lateral separation when the garment and said strips are stretched to allow unrestricted stretching of the strips independent of the surface of the garment.

3. In an article including a flexible material, an elastic strip on said material, stitches extending transversely across the outer face of said strip in approximate close relation but not penetrating said strip, means disposed on said material at opposite sides of said strip and contiguous to the edges thereof for anchoring said stitches to said material, whereby said stitches maintain said strip in position on the material and whereby said stitches and elastic cooperate to normally produce shirring of the material on opposite sides of said strip, and said stitches substantially cover the strip in normally contracted position.

4. In an article including a flexible material, an elastic strip on said material, stitches extending transversely across the outer face of said strip in approximate close relation but not penetrating said strip, stitches disposed on said material at opposite sides of said strip and contiguous to the edges thereof for anchoring said cross stitches to said material, whereby said cross stitches maintain said strip in position on the material and whereby said cross stitches and elastic cooperate to normally produce shirring of the material on opposite sides of said strip, and said cross stitches substantially cover the strip in normally contracted position.

5. In an article having a flexible body material, the combination of an elastic strip on said body material and spaced from an edge of said body material, stitches extending transversely across the outer face of said strip but not penetrating the strip or the body material, spaced rows of expansible stitches in the material disposed at opposite sides

of and contiguously to the edges of said strip and substantially coextensive therewith for anchoring said cross stitches to said body material, whereby said stitches and elastic strip cooperate to normally produce shirring of the body material on opposite sides of said strip and to maintain said material in a normally contracted position.

In testimony whereof I have hereunto set my hand.

MAUDE SINCLAIR GEORGE.