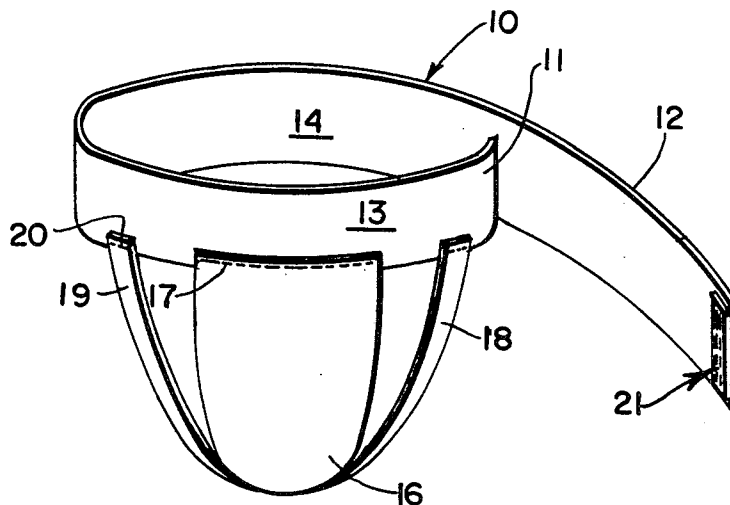


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[21] Appl. No. **791,985**
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Primary Examiner—Adele M. Eager
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[54] **ATHLETIC SUPPORTER**
10 Claims, 6 Drawing Figs.
[52] U.S. Cl..... **128/158,**
2/2, 128/100
[51] Int. Cl..... **A61f 5/40**
[50] Field of Search..... 128/158,
94, 95, 96, 97, 99—101, 132; 2/2

ABSTRACT: An athletic supporter composed of a waistband having opposite free ends, a pouch and buttock bands depending from the waistband and joined together at their lower ends, and a detachable juncture in the waistband composed of a patch of minute hook elements facing inwardly from the inner side of the band and adapted to penetrate into the grip the fibers on the outer side of the band when one end portion is in overlapping relation with the other end portion.



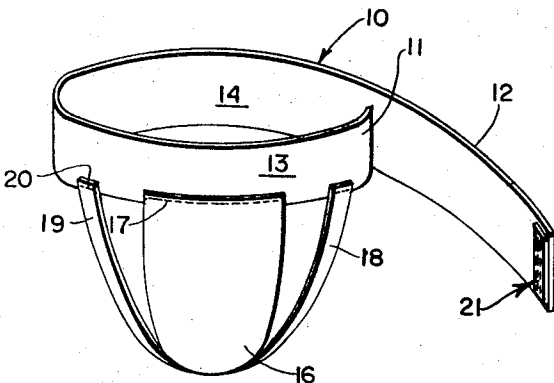


FIG. 1

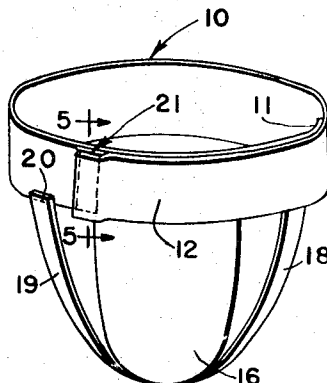


FIG. 2

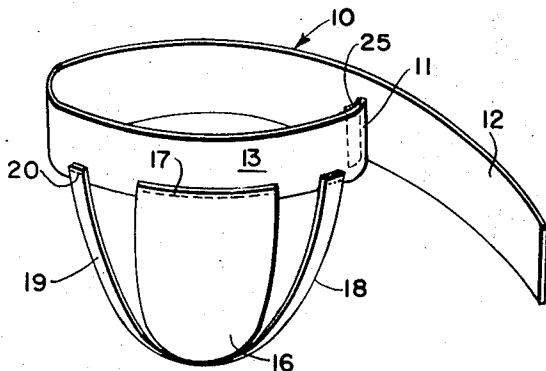


FIG. 3

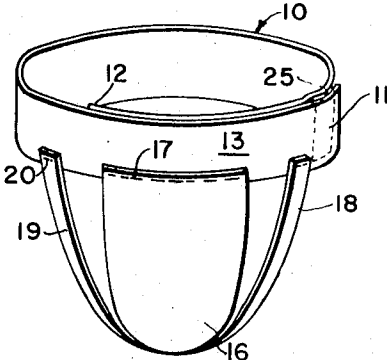


FIG. 4

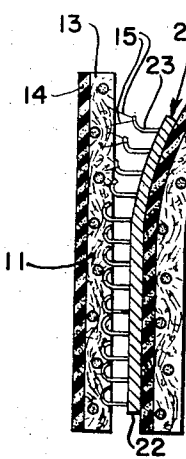


FIG. 6

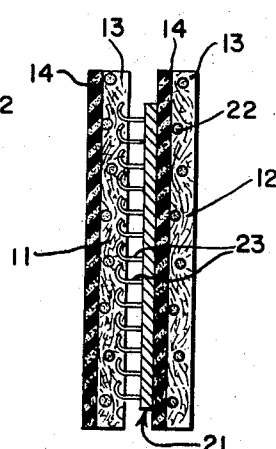


FIG. 5

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ATHLETIC SUPPORTER

BACKGROUND OF THE INVENTION

This invention relates to an athletic supporter having a waistband with an inner layer of elastomer material that contacts the surface of the skin and an outer layer of fabric. The waistband has face ends adapted to overlap with the outer end having a patch of minute hook elements directed inwardly and adapted to penetrate into and engage the fibers of the fabric side of the band.

Heretofore, the conventional-type athletic supporter has been composed of a continuous waistband with a pouch and two buttock straps depending from it. The buttock bands and pouch are joined at their lower ends.

There are several problems that exist with the above-type athletic supporter. It is desirable that the waistband fit snugly but yet comfortably. The waistband usually has a rubber base so that it can stretch or yield. However, as the supporter is used and laundered, the band becomes worn and permanently stretched, thereby becoming both uncomfortable and inefficient. The band becomes rolled and uncomfortable. There is no way to adjust the length of the waistband.

With the above in mind, it is the primary object to provide an athletic supporter having a waistband of an inner side of elastomer material and an outer fabric side. The band has opposite ends and a male Velcro patch at one end on the elastomer side that penetrates into the fabric side of the opposite end portion, when overlapped, so as to grip the fibers of the fabric side. The elastomer layer is of sufficient gauge to prevent rolling of the band and the elastomer layer will fit against the skin to provide a firm support around the waist that fits the contour of the body. The waistband can be adjusted to any size waist and be adjusted to the comfort of the wearer.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the athletic supporter of the present invention with its waistband not closed.

FIG. 2 is a perspective view of the athletic supporter of FIG. 1 with the waistband closed and joined.

FIGS. 3 and 4 are perspective views, similar to FIGS. 1 and 2, of a modified form of the invention.

FIG. 5 is an enlarged sectional view taken substantially along line 5-5 of FIG. 2.

FIG. 6 is a sectional view similar to FIG. 5, showing the structure in a different position.

Referring now to FIGS. 1, 2, 5 and 6, an athletic supporter is composed in part of a waistband 10 having opposite ends 11, 12. The band has an outer layer 13 of fabric that is positioned away from the body and an inner layer 14 of elastomer material that lies next to the body when the athletic supporter is mounted on the body. The layers 13, 14 are fused to one another so as to prevent separation thereof. The fabric layer 13 is of one of numerous fabrics that are woven to stretch and to have crimped fibers 15 on its surface.

The genital-supporting portion of the supporter is composed of a genital pouch 16 having a wide upper portion sewed at 17 to the lower edge of band 10. A pair of buttock bands or straps 18, 19 is also sewed, as at 20, to the waistband 10 and depends therefrom. The buttock bands 18, 19 and genital pouch are joined at their lower ends in a conventional manner. It should also be noted that the first buttock band 18 is closely adjacent the end 11 and the second band 19 is spaced lengthwise from the end 11 and substantially at the midpoint between the ends 11, 12. The pouch 16 is, of course, midway between the bands or straps 18, 19. Thus, the length of waistband 10 beyond the strap 19 will fit across the back of an individual except for the portion adjacent the end 12 that is in overlapping relation to the portion adjacent the end 12.

At the end 12 there is provided a fastener device in the form of a patch 21. The patch 21 is of a male Velcro material having a plastic base 22 and a multitude of integral minute hook elements 23 that project from the base 22. The patch 21 is fixed by sewing, or other suitable means, to the inner or

elastomer side 14 of the waistband 10 and will face toward the body. As may be seen, the patch 21 is smaller than the width of the band 10 so as to permit some tolerance when closing on the underlying portion.

In applying the supporter on the body, the waistband is left open until the other parts thereof are comfortable on the body. The band is then closed by overlapping the end portion adjacent end 12 over the end portion adjacent the end 11. This will occur across the front of the body where a double layer of waistband 10 may support the lower abdomen muscles. The patch 21 is pressed slightly into the fabric side of the band 10 until the minute hook elements grip the fibers in the fabric layer 11, thus locking the waistband in a closed condition.

The construction of the waistband serves several purposes. The elastomer layer next to the skin serves to shape to the body contour and to slightly grip the skin so that the feel of support remains constant. The elastomer layer also serves to pad the body against the patch 12. It further serves to retain uniform width of the band 10, even after the patch has penetrated and removed from the fabric layer 11 several hundred times. It should here be recognized the withdrawal of the hook elements from the fabric, as shown in FIG. 6, tends to pull the fibers from the fabric and would, unless the fabric is reinforced, tend to neck down at the area of implantation of the patch into the fabric. The elastomer layer gives sufficient body or support to the fabric to prevent such.

The primary advantage, however, of the present supporter is that it may easily and simply be adjusted for comfort by merely raising the patch 21 from the fabric side of the underlying portion of the waistband and reinserting it at the desired location.

In the form of the invention shown in FIGS. 3 and 4, the waistband 10, pouch 16, and buttock straps 18, 19 are substantially identical and consequently are given identical reference numbers. The primary difference lies in the positioning of a patch 25 on the end 11 of the waistband rather than at the opposite end 12. Thus, when closing the band 10 the end portion adjacent the end 12 is laid across the lower abdomen and the end portion adjacent the end 11 is laid outside thereof and the patch 25 pressed slightly into the fabric. This causes the two end portions to be locked together. It also provides a double layer of waistband across the abdomen muscles. The elastomer layer on the inner side of the outer band portion frictionally engages the fabric surface of the underlying band portion and will prevent lengthwise slippage between the band portions. Thus, the band, when assembled on the body, offers double support across the lower abdomen, and the portion extending across the back will extend and retract due to activity of the person wearing the supporter.

I claim:

1. An athletic supporter composed of an elongated waistband having opposite ends and composed of an outer fabric side and an inner side, the outer fabric side having exposed fibers on its surface; a latching device at one of the ends on the inner side of the band and adapted to engage and grip the fibers of the outer side when in an overlapped position therewith; a pouch depending from the lower edge of the waistband and fixed thereto; a pair of buttock bands depending from the waistband on opposite sides of and spacedly from the pouch, and means interjoining the lower end of the pouch and buttock bands at their lower ends.

2. The invention defined in claim 1 in which the waistband's inner side is composed of an elastomer layer and its outer fabric side is a fabric layer fused to the inner side.

3. The invention defined in claim 1 in which the latching device is a patch of minute hook elements extending from the inner side and adapted to grip the fibers of the outer side.

4. The invention defined in claim 1 in which the first of the buttock bands is relatively closely adjacent one of the ends of the waistband, the other buttock band is substantially at the lengthwise midpoint of the waistband, and the pouch is connected to the waistband substantially intermediate of the two buttock bands.

5. The invention defined in claim 4 in which the latching device is a patch of minute hook elements adapted to penetrate into the fabric side and grip the crimped fibers; and the patch is fixed to the end of the waistband adjacent the first of the buttock bands.

6. The invention defined in claim 1 characterized by the waistband being of such length that it will circumscribe a body part and the overlapped portions will be sufficient to extend across the abdomen portion of the body.

7. The invention defined in claim 6 in which the waistband is composed of an inner layer of elastomer material and an outer layer of fabric and the elastomer side when overlapped will frictionally resist lengthwise movement between the overlapped portions.

8. The invention defined in claim 4 in which the latching device is a patch of minute hook elements adapted to penetrate into the fabric side and grip the crimped fibers, and the patch is fixed to the end of the waistband not adjacent the

first of the buttock bands.

9. The invention defined in claim 1 in which the latching device is a patch of hook elements and the normal area of the underlying portion that the patch engages has a reinforcing layer of material that prevents necking down of the band at that area.

10. An athletic supporter composed of an elongated waistband having opposite ends and composed of an outer fabric layer and an inner elastomer layer, the fabric layer having exposed crimped fibers on its surface; a patch of minute hook elements at one of the ends facing inwardly and adapted to engage and grip the fibers of the fabric layer when the respective end is in an overlapped position therewith; a pouch depending from the lower edge of the waist band and fixed thereto; a pair of buttock straps depending from the waist band on opposite sides of and spacedly from the pouch; and means joining the lower ends of the pouch and straps.

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