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2,543,095

SACROILIAC BELT

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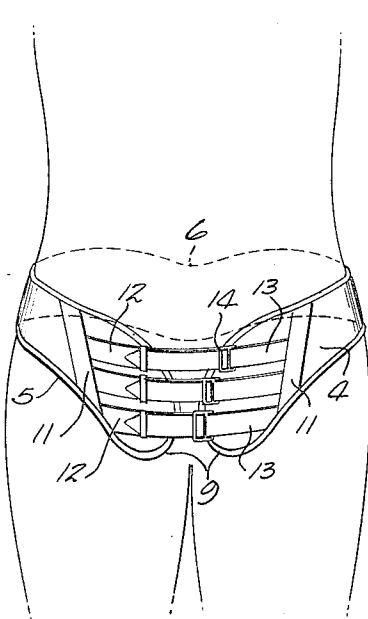


Fig. 1.

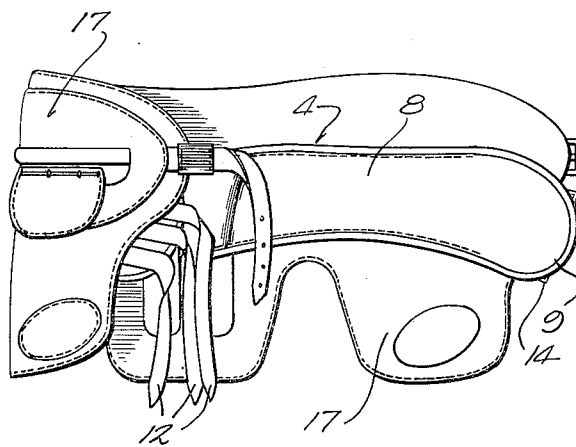


Fig. 4.

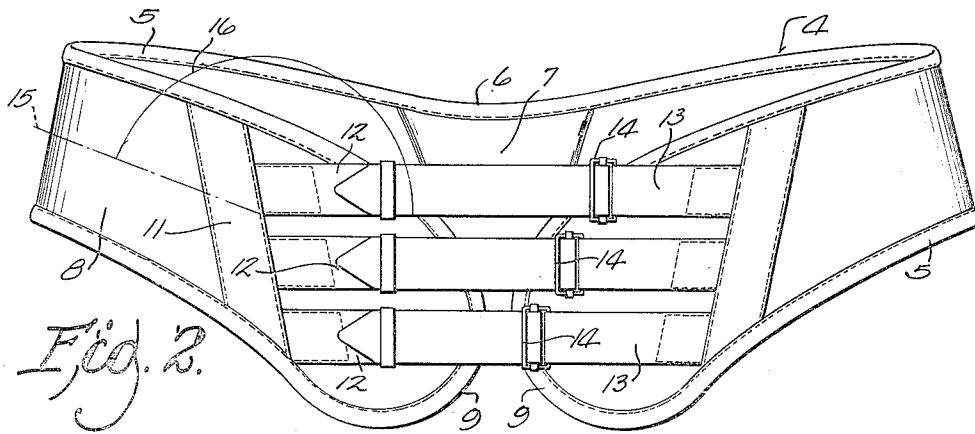


Fig. 2.

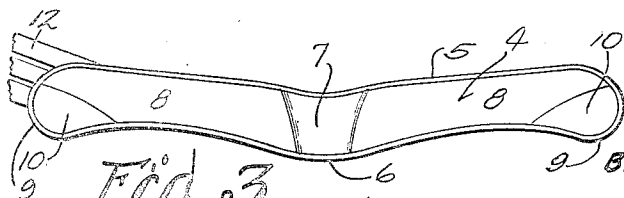


Fig. 3.

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SACROILIAC BELT

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Application March 10, 1947, Serial No. 733,612

5 Claims. (Cl. 2-41)

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This invention relates to improvements in sacro-iliac belts.

In the past, sacro-iliac belts have been in the nature of a collar or girdle extending horizontally about the patient's hips. Such belts usually require stiffening stays and frequently require straps for holding them down in place and preventing them from rising around the waist.

I have discovered that I can provide a stayless, strapless and extremely effective sacro-iliac belt by so cutting the belt that it will fit the patient's body about the iliac region and conform to the contours thereof, the two ends of the belt being joined by tension means which, it is found, must, for the desired effect, have a specific angle to the ends of the belt.

Other objects of the invention will appear more particularly in connection with the following disclosure thereof.

In the drawings:

Fig. 1 is a front view of my improved belt as it appears in use.

Fig. 2 is a view on an enlarged scale showing the belt as it appears when collapsed on a table and viewed in plan.

Fig. 3 is a plan view on a reduced scale of the open belt.

Fig. 4 is a front view showing the belt mounted about the inner periphery of a hip pad member, the latter member being partially opened outwardly to display the manner in which the belt is mounted thereon.

The belt 4 is preferably made of relatively non-elastic webbing having a marginal binding at 5 and preferably cut in the form of a very shallow V, as shown in Fig. 3. The central apex 6 of the V is adapted, in use, to rest over the sacro-iliac joint and is provided with a supporting pad 7. Toward the ends of the belt, the sides in the areas 8 are almost parallel. The extreme ends 9 are enlarged and provided with pads of felt or the like at 10 on their inner surfaces to cushion the contact of the ends with the patient's body and at the same time to stiffen the ends against wrinkling.

Exteriorly, the belt is provided near its ends with diagonally stitched anchorage means 11 for the respective tensioning straps 12 and the supporting straps 13 for the buckles 14 in which the free ends of straps 12 are anchored in use.

In Fig. 2, I have drawn at 15 a broken line which represents a center line between the side margins of the belt where such margins are approximately parallel in the zone 8. I have found that it is very important that the straps 12, 13,

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form an obtuse angle with the projected center line 15 which is no greater than approximately 160 degrees, as shown by the arc 16. In cases where the side margins of the belt or the side margins of the straps are not approximately parallel at the point of strap connection thereto, the obtuse angle should be measured between that line which most nearly represents the course of the strap and that line which most nearly represents the general course of the belt from the crease of the ilium toward the end of the belt, such line being herein designated as a center line even though, at a particular point, it may not be midway between the sides of the belt.

When a belt so constructed is worn as indicated in Fig. 1, the pad 7 will be positioned directly over the sacrum and will ordinarily be high enough to cover and re-enforce the lumbo-sacro joint. The belt will extend somewhat upwardly from this point to within perhaps an inch below the superior crests of the ilium at each side of the patient's body. Thence the belt will follow downwardly at 45 degrees more or less along the lines of the pelvis and will be held by the angularity of the tension means 12 13 in a position which tends to support the pubic arch and which is stable without normally requiring the use of either stays or peritoneal holding straps. It conforms to the lines and angles of the pelvis giving complete support to the pelvic ring. The belt, by reason of the strap angle, does not tend either to wrinkle or to ride up on the patient's body.

It is not desirable that there should be anything yieldable about the belt. The heavy webbing used both in the belt and in the tension straps 12, 13 is such as to be virtually non-elastic under such strains as develop in use.

A belt made as herein disclosed is sufficiently comfortable, by reason of the absence of stays and groin straps, to be worn habitually and, when so worn, it will effectively support the sacro-iliac joint against displacement and also has the effect of tending to prevent hernia.

The belt described above may be incorporated with good effect in another garment, as for example, a football player's hip pad 17 illustrated in Fig. 4. A hip pad of this type, when worn about the body, gives a measure of protection against injury, but it does not have the same protective and supporting functions as characterize the belt. However, by combining the belt with an auxiliary garment in the general manner illustrated in Fig. 4, there is provided a completely protective member having all the desirable features of the belt itself, together with those addi-

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tional safety factors provided by the auxiliary member. The combination of the belt with any auxiliary garment may be used, provided that the belt will not thereby be drawn out of its proper protective position when the resulting combined member is applied about the body.

This application is a continuation in part of my application, Serial Number 625,223, for Sacro-iliac Belt, filed October 29, 1945, and which has now become abandoned.

I claim:

1. A device of the character described comprising the combination with a belt cut in the form of a shallow V and having a central apex provided with a pad adapted to rest over the patient's sacrum, the belt having intermediate portions at each side of said pad adapted to rest above said pad and just below the superior crest of the patient's ilium, said belt having widened ends having both their upper and lower margins downwardly inclined from corresponding margins of said intermediate portions and provided with stiffening means and anchorages immediately adjacent the respective ends, together with a plurality of tension straps connected with the respective anchorages and externally spanning such ends, said straps being obliquely disposed respecting such ends whereby to cause such ends to assume a downwardly directed position, the respective straps being substantially parallel with each other and having an angle to the projected center lines of the respective belt portions beyond said anchorages, which angle is at least as small as approximately 160 degrees.

2. A device of the character described comprising the combination with a belt having lateral portions of a form applicable over a patient's hips, said belt being provided intermediate said lateral portions with a rear portion provided with a sacrum pad, said belt having end portions extending forwardly and downwardly from said lateral portions and anchorages immediately adjacent the respective ends, of a plurality of tension straps connected with the respective anchorages and externally spanning such ends, the straps being disposed at an oblique angle at least as small as 160° respecting the belt end portions at said anchorages for disposition of said straps in a generally horizontal direction across the front of the patient's body to urge such ends to downwardly directed positions.

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3. The device of claim 2 in combination with an auxiliary garment member externally attached to the belt and having end portions adapted to be closed on the end portions of the belt.

4. The device of claim 2 in further combination with a hip pad mounted on the garment for positioning by said belt.

5. A device of the character described comprising a substantially non-elastic belt adapted to encircle the lower part of a patient's body and provided in an intermediate rear portion with a sacro-iliac pad centrally disposed, said belt having hip-engaging lateral portions at each side of the pad adapted to fit the patient just below the superior crest of the patient's ilium, the belt extending downwardly from each of said lateral portions and being provided with wide re-enforced ends, anchorages on the belt between said ends and said lateral portions, a plurality of straps connected with each of the respective anchorages and disposed obliquely respecting the center line of the belt at the respective anchorages at obtuse angles at least as small as approximately 160°, the corresponding straps connected with respective anchorages being provided with buckle means for their cross-connection substantially horizontally at the front of the patient's body and across said ends, whereby to cause the ends to assume a downwardly directed position at the front of the patient's body.

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