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BELT SUPPORT

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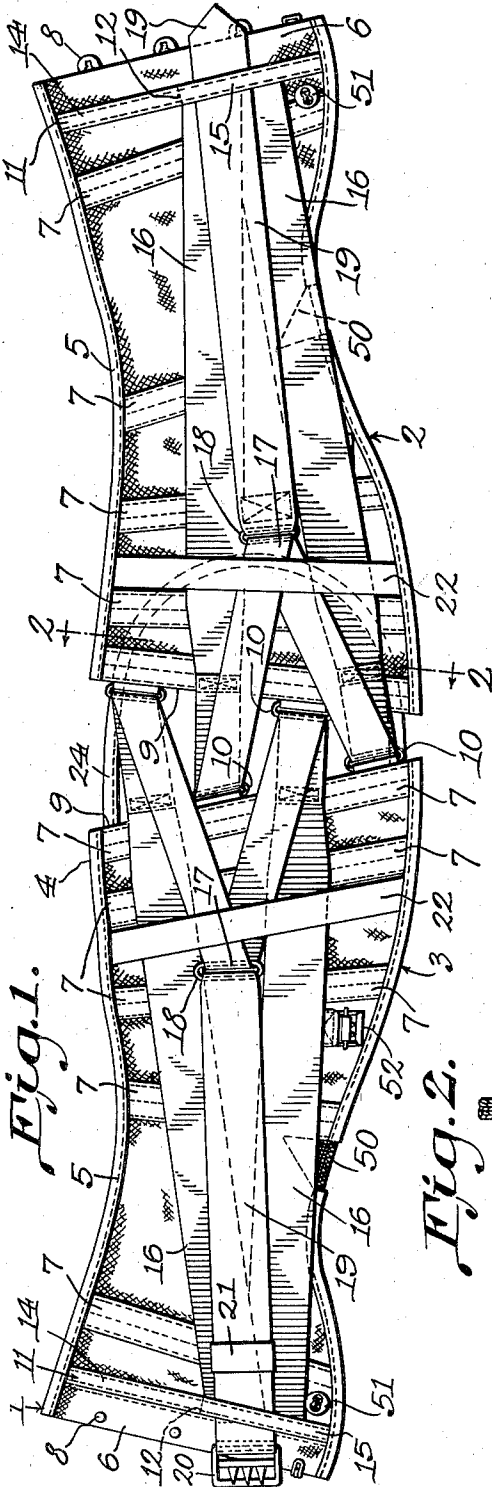
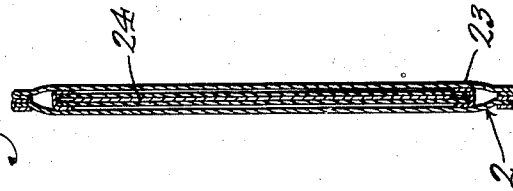
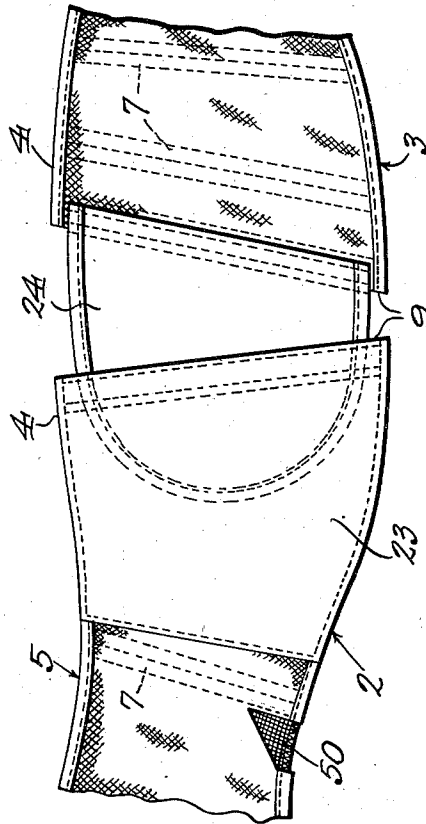


Fig. 3.



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BELT SUPPORT

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2 Claims. (Cl. 128—78)

Heretofore, one appliance has been required for the healing and support of a sacro-iliac ailment located adjacent to the buttock, and another and entirely different appliance has been required for the support of the colon, under conditions commonly known as fallen stomach or ptosis ailments, occurring in the front part of the body at the base of the stomach and directly above the pubic bone.

The present invention aims to supply a single device which will take care of both of the disorders above referred to, full and proper support in the event of a sacro-iliac disorder being provided through the instrumentality of the pad at the back of the belt, the pad being so constructed that it will slide in a pocket, thereby avoiding wrinkling when the belt is worn either loosely or tightly.

A further object of the invention is to provide a novel tightening strap arrangement which, although capable of adjustment at the will of an operator, and capable of automatic adjustment to suit the movements of the body, nevertheless will call for no alterations in structure in fitting and applying the belt for the treatment of either sacro-iliac disorders or ptosis conditions.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the invention appertains.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the drawing:

Fig. 1 is an elevation of a device constructed in accordance with the invention and laid out flat; Fig. 2 is a section on the line 2—2 of Fig. 1;

Fig. 3 is a fragmental rear elevation.

Saving for stays and reinforcements, the device is made of flexible but inelastic material, such as cloth. It comprises a belt 1 including parts 2 and 3. The belt 1 is widest at the back, as shown at 4, the belt tapering as shown at 5, where it passes over the hips, and having forward ends 6 which are somewhat wider than the narrow parts 5 and somewhat narrower than the rear portions 4. Darts 50 of elastic material are secured in the lower edges of the parts 5 of the belt, in the rear portions of the said parts. Transverse stays 7

are secured in the parts 2 and 3 of the belt. These stays 7 are most numerous at the back of the belt. The parts 5, which pass over the hips, naturally are practically devoid of stays, but there is a stay on each of the parts 2 and 3 of the belt, at places near to the forward ends of the belt. The forward ends of the belt 1 are joined by separable fasteners 8, of any desired construction. Suspension elements, such as buttons 51 and buckles 52, are mounted, as auxiliary elements, on any desired parts of the belt.

Flexible strips 22 pass across the members 2 and 3 of the belt 1 near to the rear ends of the said members, and are secured at their ends to the members of the belt. The ends of flexible strips 11 are secured to the members 2 and 3 of the belt and are located near to the forward extremities of the belt. The strips 11 are secured intermediate their ends, as shown at 12, to the parts 2 and 3 of the belt, thereby forming upper loops 14 and lower loops 15.

The rear end edges of the parts 2 and 3 of the belt converge downwardly, when the belt is in the position of Fig. 1, and are marked by the numeral 9. On the end edges 9 are secured guiding eyes 10, arranged in alternating order on the respective parts 2 and 3 of the belt, as Fig. 1 will show.

Loop-shaped flexible straps 16 extend lengthwise of the belt. The ends of the straps 16 are secured to the parts 2 and 3 of the belt near to the forward end edges of the belt. The constituent arms of the straps 16 on each part of the belt are extended slidably through the guiding eyes 10 on the other member of the belt, and from the eyes 10, the straps 16 extend forwardly, under the strips 22, to the bends 17 of the straps, the bends 17 being slidably received in rigid links 18, to which forwardly extended tongues 19 are connected. The tongues 19 may be extended through the lower loops 15, or the upper loops 14, as occasion may demand. One tongue 19 is engaged by a buckle 20 on the other tongue, and said other tongue has a loop 21, through which the buckle-engaged tongue passes.

The member 2 of the belt is provided at its rear end with a pocket 23 which opens lengthwise of the belt, and the pocket 23 is adapted to receive slidably, the free end of a pad 24, secured to the member 3 of the belt and bridging the space between the rear end edges of the belt parts 2 and 3. The pad 24 has some flexibility, but it is reinforced enough so that it cannot buckle or wrinkle as it slides back and forth in the pocket 23.

The device is placed about the body of the wearer, the separable fasteners 8 are inter-

gaged, the tongues 19 are drawn upon to tighten the straps 16, and the ends of the tongues 19 are joined by the buckle 20. During the adjusting operation, and after the device is in place on the body of the wearer, the side arms of the straps 16 can move in the guiding eyes 10, and the bends 17 of the straps 16 can slide in links 15, the necessary corrective arrangement thus being secured when the belt is applied, and comfort to the wearer being assured thereafter.

The pocket 23 receives the pad 24 for automatic sliding movement, and the pad is held in its proper position at all times.

Owing to the specific arrangement and mounting of the straps 16, shown in Fig. 1, the belt may be drawn tight enough to hold sacro-iliac parts until healing occurs, and at the same time there is an automatic pull on the tongues 19, at the front of the belt, which creates a pressure for the correction of fallen stomach or ptosis conditions.

The device, in a single appliance, takes care of ptosis disorders and relieves pain arising out of sacro-iliac strain. Although corrective measures for each of these pathological conditions are known, no one, so far as I am advised as to the state of the art, has provided a single garment, belt or appliance which will administer to both of the needs referred to, and, especially, through the instrumentality of the specific structure hereinbefore described, delineated in the drawing, and particularly pointed out in the appended claims.

By way of summary, it may be stated that the device forming the subject matter of this application serves two purposes: namely, the correction of ptosis at the front of the body and sacro-iliac trouble at the back of the same body. The situation resembles that in which a man has his right leg and his right arm cut off. If someone invented a single device that gave the crippled man full equivalent for his right leg in walking, and full use of his right arm for general purposes, and did so in a single appliance, whereby he could obtain relief by purchasing one article, instead of going to the expense of buying two articles, such an appliance ought to be patentable, if not anticipated by a prior art. The same observation holds true with respect to the device forming the subject matter of this application. An upward lift at the front of the body, for the relief and correction of ptosis, and a pressure and bracing effect at the back of the body, for the relief of sacro-iliac pains and ailments, is secured automatically and simultaneously, in the single appliance which characterizes the present application. In that appliance, two members, represented by the strips 16, have their forward ends secured to the belt 1, at the front thereof. The strips 16 pass slidably through the eyes 10, which are secured to the rear edges of the parts of the belt, on opposite sides of the opening in the back of the belt. In the eyes 10, the strips 16 are reversed, and extend forwardly, the bends of the strips being slidably received in the links 15 on the rear ends of forwardly extended tongues 19, having their forward ends detachably united, and united for tightening, by means such as the buckle 20, the tightening completing the upward lift at the front and the pressure at the back. Pressure is secured in at least four different places, where pressure is desirable to carry out the objects of the invention.

It is to be observed that in a device of the class

described, one of the chief problems is to get a back pad, corresponding to the pad 24, into the proper position and then hold it in that position. A failure to achieve these ends is one of the major weaknesses of prior supporting belts of the class described, whether actually on the market or disclosed in patents or other publications.

In the device forming the subject matter of this application, the pad 24 may be said to be fed into the pocket 23, and in that way the pad is caused to retain its position with a certainty and security not to be found in any article heretofore used or known.

All sacro-iliac belts heretofore suggested, in which the pad is an important part in giving relief to the patient, have relied upon straps, strings or the like, to suspend or carry the pad. The straps, strings or equivalent means have to be so constructed that there is play, and if the belt were drawn up tightly, or if it were desired to let out the belt to a greater circumference on the body of the wearer, there would be a leverage on the straps or strings which threw excess material into them. The straps or strings, as a consequence, have tended to wrinkle and knot, and the pad has not been held in a proper position. These difficulties have been overcome in the device herein disclosed. My pad 24, fitting into and sliding directly in the pocket 23, retains its position securely and prevents the pad from shifting, once the belt has been tightened and adjusted to the body. The operation of locating the pad 24 takes place automatically, and when the pad is in proper position, that position is maintained permanently.

Having thus described the invention, what is claimed is:

1. In a device of the class described, a belt comprising members having a space therebetween at the back of the belt, means operable from the front of the belt for drawing said members toward each other at the back of the belt, a pad secured at one end to one member of the belt and bridging said space, and a pocket carried by the other member of the belt and receiving the opposite end of the pad for sliding adjustment, said means being free from the pad, the pad being resilient but stiff enough so that said opposite end thereof can slide in the pocket without buckling.

2. In a device of the class described, a belt comprising members having a space therebetween at the back of the belt, a pad secured at one end to one member of the belt and bridging said space, the opposite end of the pad being free, the pad being resilient but stiff enough to bridge said space without buckling, guiding eyes on the rear portions of said members of the belt, U-shaped straps having their forward ends secured to the forward portions of the members of the belt, forwardly extended tongues provided at their rear ends with links, the bends of the U-shaped straps passing slidably through the links, and means for joining the tongues together at the front of the belt, the straps being free from the pad, the strap on each member of the belt extending slidably through the guiding eyes on the other member of the belt, and being extended from the guiding eyes reversely toward the forward part of the belt, and through the links as aforesaid.

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