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3,454,003

PIERRE MAX SAILHEN DIT KLEBER-SAILHEN

UNDERGARMENTS FOR PATIENTS SUFFERING FROM HERNIAE

Filed Dec. 30, 1966

Sheet 1 of 2

FIG. 1

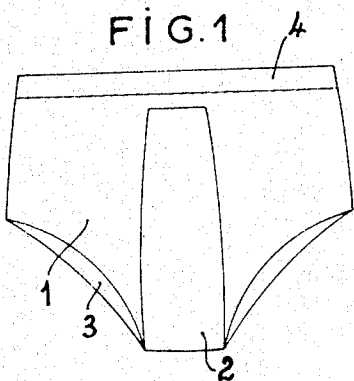


FIG. 2

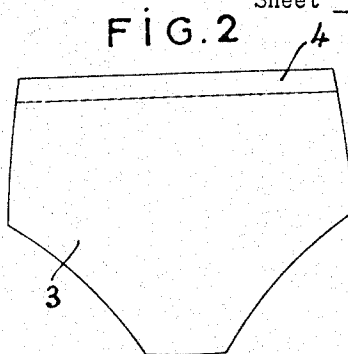


FIG. 3

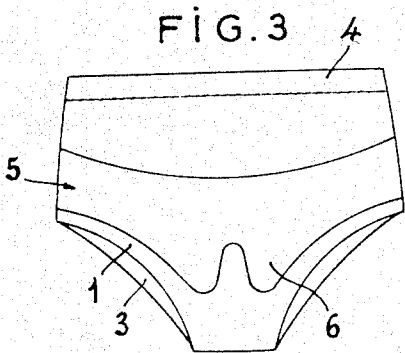


FIG. 4

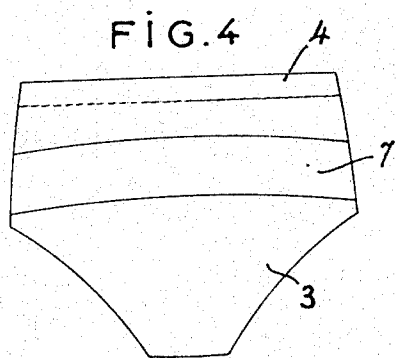


FIG. 5

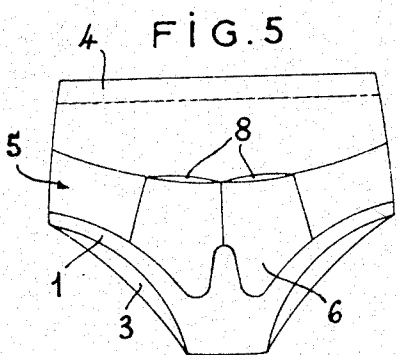
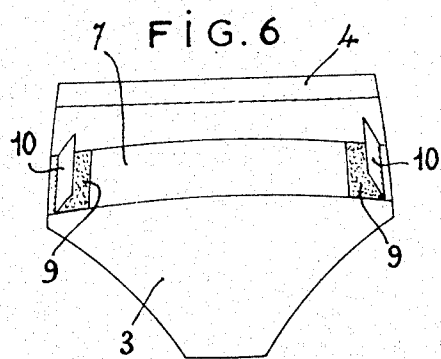


FIG. 6



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FIG. 7

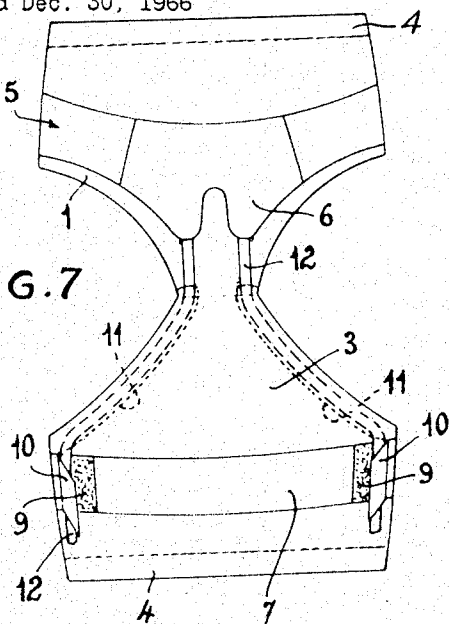


FIG. 8

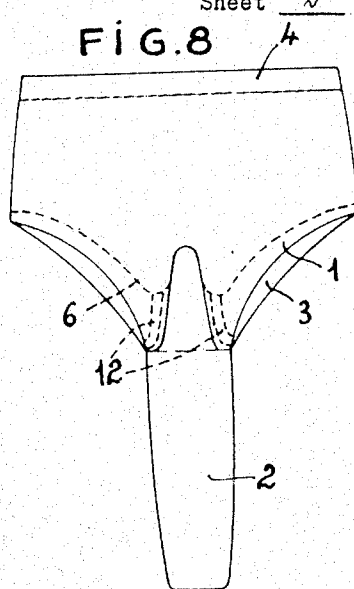
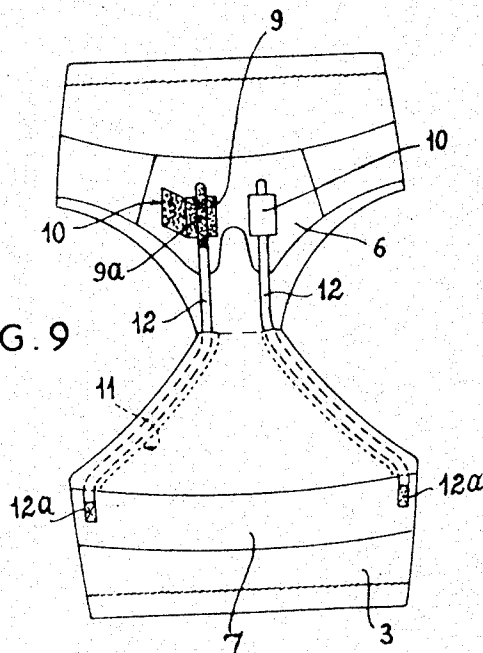


FIG. 9



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## UNDERGARMENTS FOR PATIENTS SUFFERING FROM HERNIAE

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U.S. Cl. 128—96

3 Claims

### ABSTRACT OF THE DISCLOSURE

An undergarment for patients suffering from hernia, the inner front and rear portions of which are provided with reinforcements to wit, a front part which forms a ventral girdle extending to the hip bones and a back part having a convex outline so as to support said front part, the front part being adapted for receiving conventional hernial support means. On either the inner surface of the front or rear portions are removable and adjustable fixing means for two elastic thigh straps each having one end permanently fixed while the other end is removably fixed so as to enable adjustment thereof.

The present invention relates to undergarments for patients suffering from herniae.

All types of known trusses, either made of elastic fabric or provided with springs, are in the form of belts or bands carrying some accessories adapted to act on the ruptured abdominal walls.

A person suffering from hernia or having undergone an operation for rupture, who wants to be protected can only use such types of spring-mounted belts or elastic trusses, that is, para-medical articles designed for such infirmities. Said articles are sometimes grim looking, often unsightly, and, anyway, always cumbersome, so that their appearance constantly reminds the patients of their infirmity and is likely, in some cases, to give rise to inferiority complexes.

The object of the present invention is to provide a relieving appliance for persons suffering from herniae, or having undergone operations for herniae, or suffering from a recurrence thereof, which appliance is quite different from the known types and has no longer the shape of a truss.

As a matter of fact, it has the shape and the lightness of the usual undergarment, while its design enables nevertheless a good retention of the hernia in place and a proper holding of the abdominal wall, without the relieving device being conspicuous.

It has already been suggested to add removable relieving arrangements inside a normal undergarment, but the retention in place thus obtained is wholly inadequate.

The present invention relates to a device for patients suffering from herniae, the novel design of which results in the combination of two articles hitherto always independent from each other, to wit, an undergarment and a hernia-retaining device, which combination produces a single undergarment the two parts of which, although they are closely interconnected, each keep their own functions, while the adjustable retaining action required from the part acting as a truss does not interfere with the normal use of the other part or undergarment.

The invention is characterized in that the inner faces of an undergarment include reinforced parts, to wit, a front part which forms a ventral girdle extending to the hip bones and a back part having a convex outline and provided with removable and adjustable fixing means for two thigh straps of elastic fabric having each one end con-

nected permanently with said front reinforced part while the other end is removably connected with said back reinforced part so as to enable said straps to be adjusted. Said thigh straps pass through hems or sheaths provided in the edges of the leg holes of the undergarment and inside which they are adapted to slide freely, which enables the pressure on the pubic area to be adjusted without any reaction on the undergarment proper, the latter remaining stable without any creases or folds.

When the invention is applied to undergarments provided with pockets, as worn by men, the use of the pocket thus remains free.

The present invention relates also to other special setting features, namely: the ventral girdle is provided with a lining providing two pockets adapted to accommodate any fittings, such as, for instance, pads, intended for retaining one or two herniae in place; the elastic power of the reinforced inner parts of the undergarment is progressively decreased; said reinforced parts are permanently inserted in the undergarment or have been knitted together with the latter.

In a modified embodiment of the undergarment of the invention, the rear part of said undergarment is provided with a flap so as to allow the wearer to defecate without removing or pulling down his undergarment, that is, without removing the retaining action exerted by the ventral part of the undergarment at a time when, as a matter of fact, such action is particularly useful.

In the case of undergarments for women, the flap piece between the legs or fork piece can also be adapted to fold down.

The invention will now be described in greater detail, with reference to the appended diagrammatic drawing, given only by way of illustration, in which:

FIGURES 1 and 2 are outer front and back views respectively of a basic portion of an undergarment according to an embodiment of the invention;

FIGURES 3 and 4 show respectively the inner front side and the inner back side of said undergarment;

FIGURES 5 and 6 are similar to FIGURES 3 and 4, after the addition of pockets to the ventral portion and lappets to the back portion;

FIGURE 7 is a view of the whole undergarment assembly opened out to show the two inner parts thereof;

FIGURE 8 is a front view of the undergarment of the invention with its pocket flap turned down;

FIGURE 9 is a view similar to that of FIGURE 7, but with the removable and adjustable fixing means for the thigh straps transferred to the front part.

According to the invention, starting from an undergarment made, for instance, of knitted elastic material, having a front 1 provided with a pocket 2, a back 3, and a waist belt 4, two reinforced parts 5 and 7 are added to said undergarment. The part 5 is located on the front 1 and its middle portion constitutes a ventral girdle 6, while the part 7, positioned at the back, has a convex outline so as to bear against the pelvis and ensure the suspension of the pubic part 5. Said two parts 5 and 7 are interconnected at the sides of the undergarment.

A lining forming two pockets 8 is added to the ventral portion 6, which pockets are adapted to accommodate any conventional retaining device.

In addition, the reinforced part 7 is provided with two pieces of adhesive fabric 9 having two small flaps or lappets 10.

Lastly, each leg hole section of the back part 3 is bound with a hem or sheath 11 inside which an elastic narrow band 12 passes and slides freely, said band 12 forming a thigh strap and being fixed to the reinforced back part 7 by the pieces of adhesive fabric 9 under the lappets 10.

Such setting isolates the operation of the two thigh

straps 12, and makes it possible to adjust the pressure on the pubic area only, while the wrapping undergarment part 1-2-3 remains independent and stable while the formation of creases or folds is prevented.

Thus, the pubic area of the ventral girdle remains constantly pressed flat against the abdomen, while the pocket 2 remains free and independent.

Moreover, as shown in FIGURE 8, the flap forming said pocket can be adapted to be turned down and removably held in position by any detachable suspending means.

A further advantage of the undergarment of the invention is the fact that it is particularly suitable, as a preventive means, for sportsmen and workers during periods of great exertion.

In a modification of the above-mentioned embodiment, in order to facilitate the positioning and the adjustment of the tension of the thigh straps, the removable fixing means for the latter can be transferred to the ventral portion 6. Said thigh straps then exert a pressure on the lower tips of said ventral portion, which is beneficial to the retaining effect desired. In said modification, the thigh straps 12 are permanently fixed by stitching at 12a to the sides of the reinforced part 7 of the back 3, while their other extremities are each provided with a piece of adhesive fabric 9a which cooperates with fabric 9 which is disposed on the ventral portion 6. Said ventral portion is therefore also provided with the lappets 10, the right-hand side one of which is shown in its turned down closed position, while the left-hand side one is in its lifted opened position.

What I claim is:

1. An undergarment for patients suffering from hernia, said undergarment comprising a pair of shorts having front and back portions, and a pair of leg openings, said front portion being adapted for receiving hernial support means, a reinforced portion arranged along the inside of the front portion, a reinforced portion arranged along the inside of the back portion, a hem encircling each leg opening, and an elastic band freely accommodated inside each of said hems for free displacement therein, the elastic bands constituting thigh straps and having ends with attachments to said reinforced portions, front and back, respectively, one of the attachments being disconnectable and adjustable.

2. An undergarment as claimed in claim 1 wherein said front portion comprises a reinforcing girdle having a middle portion provided with a lining defining two pockets adapted to accommodate said hernial support means.

3. An undergarment as claimed in claim 1 wherein said reinforced portions have elasticity which is progressively decreasing.

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ADELE M. EAGER, *Primary Examiner.*

U.S. Cl. X.R.

128—159, 524, 579