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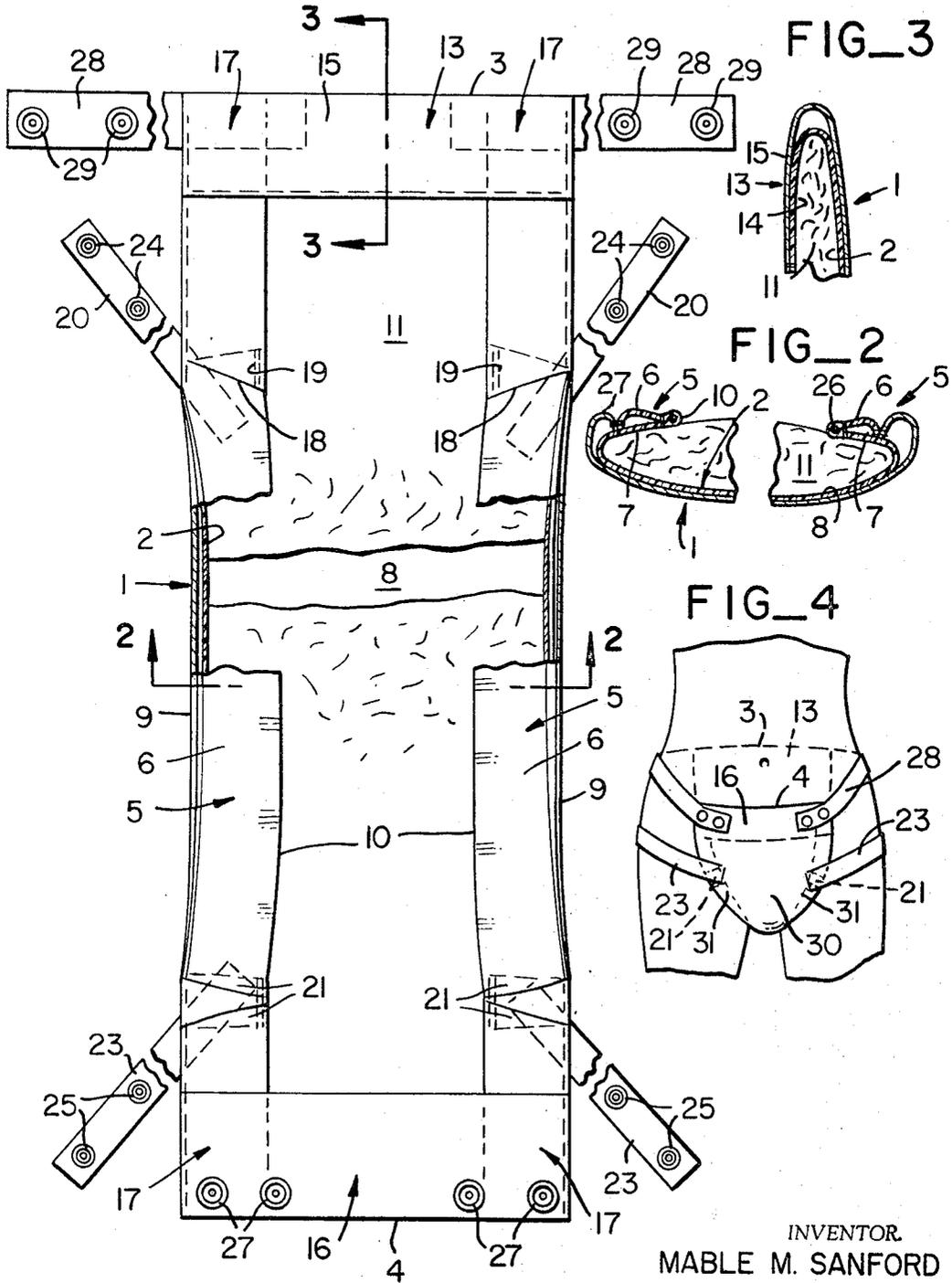
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INCONTINENCE DEVICE

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FIG_1



FIG_3

FIG_2

FIG_4

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INCONTINENCE DEVICE

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2 Claims

ABSTRACT OF THE DISCLOSURE

An incontinence device for adults comprising a strip of flexible material having an inner waterproof layer, the marginal portions of which are folded over said layer and over marginal portions of a pad of absorbent material against said inner layer to hold said pad in an operable position against the crotch of a person, and means is provided for holding said strip and pad in said operable position.

This invention is a device for use by persons suffering from what is medically known as incontinence, or the inability to control the natural evacuation of urine.

One of the objects of the invention is the provision of a device adapted for use by adults suffering from incontinence, and which device is simple and economical to make, comfortable to wear, and provides security from accidental leakage.

Another object of the invention is a device of the above character adapted to hold an adequate supply of moisture absorbent material for its intended purpose, and that is constructed to insure a moisture-proof seal with the skin at the groin or inguinal region.

A still further object of the invention is the provision of a device of the above character that is adapted to hold an adequate supply of moisture absorbent material without discomfort to the wearer, and that is adapted to be worn by men or women when clothed without evidence of its presence, and which device, when worn by women wearing corsets, may have the moisture absorbent material withdrawn and replaced without necessitating the inconvenience of removing or adjusting the corsets.

Other objects and advantages will appear in the description and drawings.

FIG. 1 is a plan view of the device with the several elastic strips broken in length to accommodate the view to the sheet, and also broken away in parts to show interior structure.

FIG. 2 is an enlarged cross-sectional view, broken in width, taken along line 2—2 of FIG. 1.

FIG. 3 is an enlarged fragmentary sectional view taken along line 3—3 of FIG. 1.

FIG. 4 is a reduced size front view of the device in position on a wearer.

In detail, the device as viewed in FIG. 1, comprises a generally oblong strip 1 of relatively soft fabric, such as outing flannel, and a similarly shaped strip 2 of flexible waterproof plastic sewed along its edges to strip 1.

The side seen in FIG. 1 is the side that is to face the body of the wearer. The upper portion, as viewed in FIG. 1 is adapted to extend up the rear side of a person from the crotch, while the lower portion is adapted to extend from the crotch over the pubic area. In FIG. 4, the numeral 3 designates the upper edge of the portion extending up the rear side of a person while numeral 4 designates the opposite end edge of the device, which is at much lower level on the body than the edge 3.

Strips 1, 2, after securement together along their edges, are folded over along their longitudinally extending edges to provide marginal portions, generally designated 5, and strip 2, in turn, is folded on itself along its longitudinally

extending edges intermediate its end portions to provide an inner layer 7 and an outer layer 6 (FIG. 2), the former being an integral extension of the central body 8 of strip 2. This central body 8 of strip 2 is the innermost layer of the device and the lines of fold 9 of the marginal portions define the longitudinally extending edges of the device, while the bends at the junctures between the layers 6, 7 of the marginal portions 5 define the opposite edges of a central slot 10 extending longitudinally of the device, through which slot the absorbent material 11 to be held in the device, is exposed.

The upper marginal portions of the strips 1, 2, as viewed in FIG. 1 are generally designated 13 and are folded over the same side of the device as marginal portions 5 to provide an inner layer 14 of the plastic strip 2 and an outer layer 15 of cloth 1, and said strips 1, 2 are stitched together along their terminating free end edges (FIG. 3).

The lower marginal portions of strips 1, 2 as viewed in FIG. 1 are generally designated 16 and are folded over the body of the device at the lower end thereof in the same manner as marginal portion 13, to provide a waterproof inner layer and a cloth outer layer, with the two layers stitched together along the terminating end edges of the strips 1, 2.

None of the stitching along any of the marginal portions of the device is at the bends defining the side edges 9 or the upper and lower edges 3, 4 and the plastic material is folded on itself in the corner portions generally designated 17, hence there is no place within the pocket formed by the central body of the strip 2 and its marginal and corner portions where any possible leakage of moisture could occur due to stitching. In other words, a completely waterproof pouch or receptacle is formed, having an outer layer 1 of cloth that, in turn, is isolated from the absorbent material, and any attachments such as straps, etc. are connected directly to this outer layer that is stitched to the layer 2.

The foregoing structure is important when it is considered that the device may be worn by a person in reclining position, as well as in an upright or seated position, and it should be effective for retaining the urine within the device in any such positions, free from leakage along all of said bends and corners.

One of the highly important features of this invention is the provision of means along each of the marginal portions 5 for shortening the length of these marginal portions relative to lengths of the strips opposed thereto and against which the material 11 is held. This may be accomplished by forming tucks 18 in the marginal portions 5 and permanently stitching them in place by stitches 19 along edges 10. These tucks are adjacent to the upper end of the device, as viewed in FIG. 1, at about the point where a pair of elastic straps 20 are secured at one of their ends to the outer strip 1 at the side of the device opposite to the side seen in FIG. 1. These elastic straps extend divergently upwardly relative to each other from their points of connection to the strip 1 and a pair of tucks 21 are fixedly stitched to the marginal portions 5 along edges 10 adjacent to the lower marginal portion 16, and at positions where another pair of elastic straps 23 are connected at one of their ends with the strip 1. Straps 23 extend divergently downwardly, as viewed in FIG. 1, relative to each other from their points of connection with strip 1. Both sets of straps 20, 23 project outwardly from opposite edges 8 of the device and each strap 20 has a pair of spaced conventional quick snap fasteners 24 secured thereto on its outwardly projecting end portion.

Tucks 18 and the straps 20 are spaced a substantial distance farther from end 3 than the tucks 21 and straps

23, and the tucks 21 are preferably positioned approximately at the groin of a person when in use. Each strap 23 has a pair of spaced quick snap fasteners 25 secured to the outer end thereof. If desired, the marginal portions 5 may each be provided with an elastic 26 (FIG. 2) that may further and yieldably shorten the marginal portions 5 by gathering the marginal portions at points along the elastic.

It should be noted that the stitching for the tucks 18, 21 is along the edges 10 of the marginal portions 5; hence is not at the bends or edges 9. This stitching is not in positions where there is any hazard from leakage as were they along the edges or sides 9. Also, straps 20 and 23 are not stitched to the waterproof strip or liner 2, but are stitched to the outer cloth strip 1.

The lower marginal end portion 16 as viewed in FIG. 1 has a pair of snap fasteners 27 secured thereto at each end of edge 4, and the upper marginal end portion 13 has a pair of elastic straps 28 secured at one of their ends thereto adjacent to each end of edge 3. Each strap 28 has a pair of snap fasteners 29 secured thereto.

In use, a pad or filler of moisture absorbent material is positioned against the waterproof liner and it may extend at its ends below marginal end portions 13, 16 and along its side marginal portions below the marginal portions 5. The formation of the tucks 18, 21 so shortens the marginal portions 5 which may be generally called "side flaps" that the portion of plastic 2 extending between the lines of fold 9 or side edges of the device, form a transversely and longitudinally curved pouch when the device is positioned between the legs of the wearer with the absorbent material facing the crotch. The plastic marginal portions 5 of the device conform to the contours of the inner surface of the legs, and normally a portion of the flannel covering is also in engagement with the legs when the material 11 exposed between edges 10 faces the crotch and genital organs are in engagement with said absorbent material.

The end portion of the device adjacent to the end marginal portion 16 is generally designated 30 in FIG. 4, and extends over the pubic area of the body when the device is on a person, and the marginal portion 16 is relatively low on the body, while the opposite end portion 13 along edge 3 is relatively high. The straps 28 may be brought around the sides of the body above the hips, and snap fasteners 29 are connected with snap fasteners 27, thus securely holding the device on the body in the desired position. The straps 20, 23 then are respectively extended across the opposite outer sides of the legs and the snap fasteners 24, 25 are connected, with said straps being under yieldable tension.

By this structure, which includes the divergent positions of the pairs of straps 20, 30, respectively, the portions of the device at points 31 (FIG. 4) and adjacent thereto are held in sealing engagement with the groin where, heretofore, leakage has almost invariably occurred.

The end edge 4 of the device, as seen in FIG. 4 is in a position where the straps 28 may be quickly disconnected, and a filler 11 replaced, without interference from corsets, when the latter are being worn. There is no uncomfortable wrinkling, chafing, or pressure where the straps 28, 20 and 23 are properly adjusted, and each may have any of the conventional strap adjusters (not shown) thereon for adjusting the length of the straps.

The marginal portions 13, 16 at the ends of the device are of cloth on the sides that are in engagement with the body which adds to the comfort of the wearer and since the strips 1, 2 are relatively narrow, the body cover is reduced to a minimum compatible with safety, and the sides of the strips between tucks 18, 21 curve inwardly slightly to narrow the portion that extends between the legs.

It is obvious that modification and changes may be made by a person skilled in the art, hence the detailed

description is not intended to be limiting of the scope of the claims.

For example, the liner or waterproof 2 may be removably secured to the cloth portion by any conventional means, such as snap fasteners, but in any such structure the generally oblong shape of the strip 2 is maintained for folding the corners 17 on themselves to eliminate any stitching at the corners where leakage otherwise would occur.

The thicknesses of the strips 1, 2 in FIGS. 1-3 are greatly exaggerated to show structure, and it is to be noted that the formation of the tucks 18, 21 draws a portion 27 (FIG. 3) of the cloth layer 1 over the side of the device that is adapted to face the wearer along the portion that extends between the legs, while the plastic 2 extends along the edges 10. This adds to the comfort of the wearer.

I claim:

1. An incontinence device comprising:

- (a) an elongated strip of flexible material including an inner layer of waterproof material on one side thereof,
- (b) said strip having a front end portion, an intermediate portion and a rear end portion in successively adjoining relation respectively adapted to extend over the pubic area of a person, and between the legs and partially over the buttocks when in operable position on the body of such person, said inner layer having an inner side facing the body when in said position,
- (c) said strip, including said layer, having opposite end marginal portions and opposite side marginal portions respectively along the opposite end edges and opposite side edges of said strip with said opposite end marginal portions folded over said inner side and spaced apart, and said side marginal portions extending substantially at right angles to said end marginal portions and also folded over said inner side and spaced apart and said end and side marginal portions having ends integrally united with each other whereby said inner layer will provide a waterproof receptacle adapted to hold moisture absorbent material therein extending across said inner side and below said end and side marginal portions,
- (d) means on said strip secured thereto and projecting therefrom adapted to extend across the opposite outer sides of the body of a person between said front end portion and said rear end portion for holding said strip in said operable position, including a pair of elastic straps connected at one of their ends to said front end portion at points adjacent to the groin of said person for holding said side marginal portions tightly against the groin at said points,
- (e) said pair of elastic straps each being lengthwise in two sections with one pair of said sections having said ends connected to said front end portion at said points, and the other pair of said sections connected at one of their ends to said rear end portion,
- (f) said one pair of sections and said other pair, respectively extending divergently relative to each other outwardly of said strip along said opposite side marginal portions when said strip is off the body of a person in straight extended position for extending downwardly from opposite sides of the body of a person to their points of connection with said strip when the outer ends of said sections are secured together, and (g) means on the outer ends of said sections for releasably connecting them,
- (h) the points of connection between the sections of said pairs of elastic straps being spaced from the opposite ends of said strip substantial distances, and
- (i) additional elastic straps connected at one of their ends to the ends of said end marginal portions for extending across opposite sides of a person to hold said end marginal portion against the body of such person when said strip is in said operable position.

2. An incontinence device comprising:
- (a) elongated strip of flexible material including an inner layer of waterproof material on one side thereof,
 - (b) said strip having a front end portion, an intermediate portion and a rear end portion and a rear end portion in successively adjoining relation respectively adapted to extend over the pubic area of a person, and between the legs and partially over the buttocks when in operable position on the body of a person, said inner layer having an inner side facing the body when in said position,
 - (c) said strip including said layer having opposite end marginal portions and opposite said marginal portions respectively terminating in free edges at the opposite end edges and opposite side edges of said strip with said opposite end marginal portions and said opposite side marginal portions being folded over said inner side to overlying relation thereto along fold lines extending approximately at right angles to each other whereby said free edges of said end marginal portions are in spaced opposed relation and said free edges of said side marginal portions are spaced opposed relation and define the outline of an opening through which said inner layer is exposed and through which a pad of moisture absorbent material may be positioned against said inner layer,
 - (d) said free edges of said marginal portions being free from securement to the portion of said inner layer over which they are positioned to enable the marginal portions of said pad to be positioned between said end and side marginal portions of said inner liner and the inner layer over which said marginal portions are folded and a pad so positioned over said inner side and extending between the latter and said marginal portions of said strip,
 - (e) said free edges along said side marginal portions being of lengths between spaced points respectively adjacent said end marginal portions shorter than the corresponding lengths of said inner layer along each

side marginal portion opposite thereto, and means for so shortening said free edges along each side marginal portions whereby said side marginal portions along said free edges thereof will snugly and smoothly engage the inner opposed sides of the legs of a person when said strip is in said operable position on the body of such person, and the portion of said inner layer to said fold lines of said side marginal portions will bow outwardly away from said side marginal portions for providing a space for said marginal portions of said pad,

(f) means connected with the ends of said end marginal portions for extending across the opposite lateral sides of such person to hold said front end portion and said rear end portion against the front and rear sides of the body of said such person with said pad in and facing the crotch of such body, including an element secured to said strip adjacent to said points for holding said side marginal portions and said free edges of the latter between said points snugly against the inner opposed sides of the legs of said person.

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