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3,356,091

GARMENT WITH WASTE DISPOSAL FACILITIES

Filed Dec. 23, 1964

2 Sheets-Sheet 1

Fig. 1

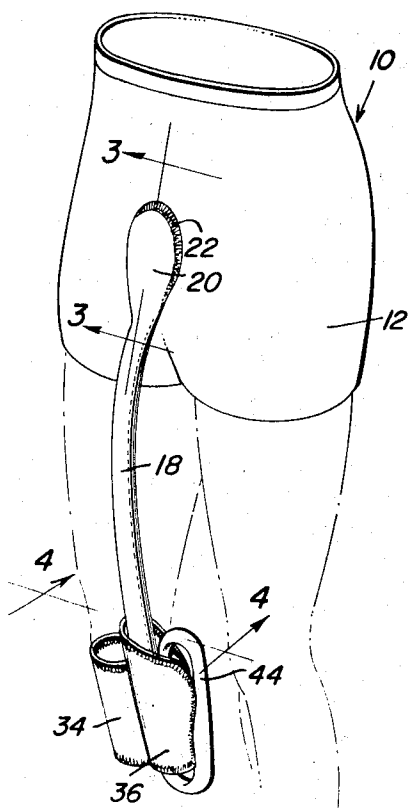


Fig. 3

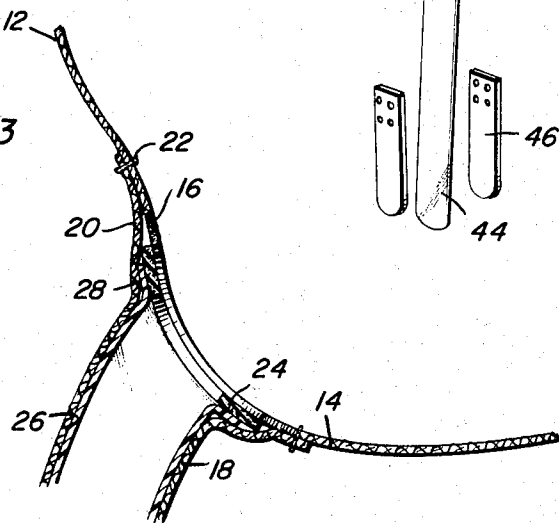


Fig. 2

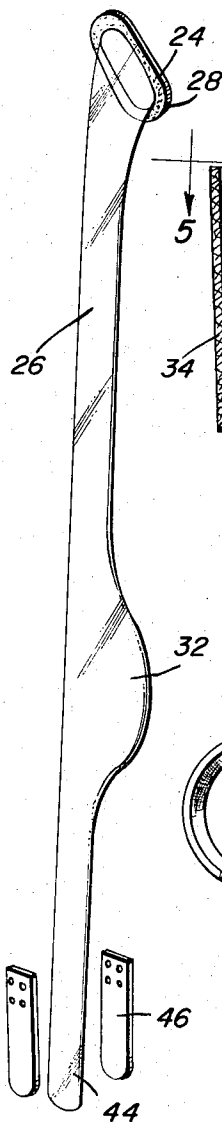


Fig. 4

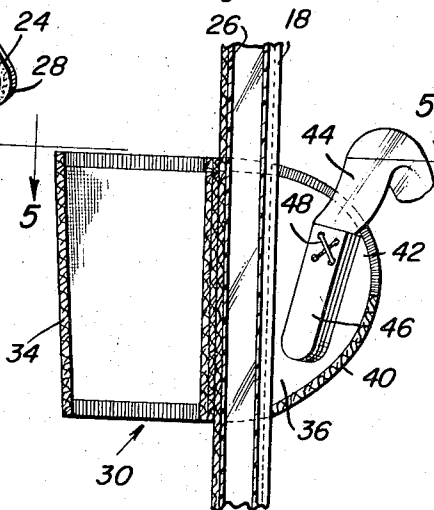
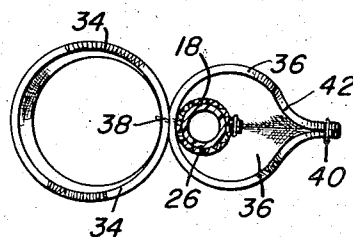


Fig. 5



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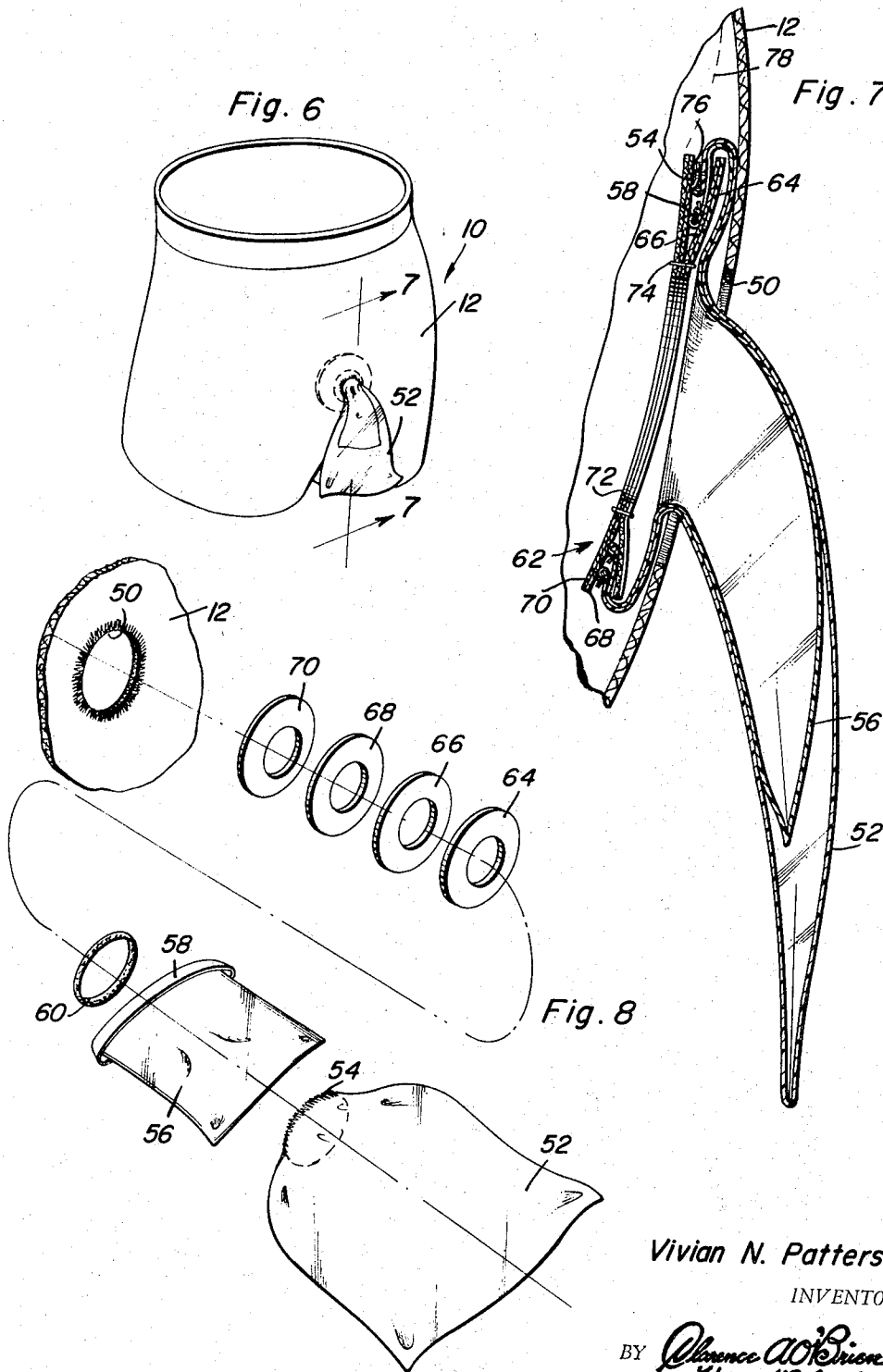
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GARMENT WITH WASTE DISPOSAL FACILITIES
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ABSTRACT OF THE DISCLOSURE

A garment structure having incorporated therein an assembly for receiving waste material in the form of an elongated tube attached to the front of the garment with the lower end of the tube having a leg engaging supporting structure in which there is incorporated a structure for closing the free end of the elongated tube for collecting liquid waste material. The garment is also provided with an aperture therein having an adapter associated therewith for mounting an inner and outer bag in relation thereto. The adapter is provided with a peripheral recess receiving a resilient ring to secure the mouth of the bag and liner thereto.

The present invention generally relates to a new and useful garment and more particularly to an undergarment having waste disposal facilities incorporated therein.

An object of the present invention is to provide an undergarment or the like having waste disposal features incorporated therein which include a disposable bag employed as a liner for a larger receptacle thus enabling the waste material to be easily removed and disposed of.

Another object of the present invention is to provide a garment especially adapted for use by bedridden patients, handicapped people or the like which is not complicated and quite comfortable when worn. The garment is also well adapted for use by small children and the like and is so simple than anyone can change the disposable liner or bag with very little effort and skill required.

A further important object of the present invention is to provide a garment having waste disposal facilities incorporated therein having an elongated urinal assembly incorporated therein and a flexible pouch or bag having a disposable liner therein having a novel association with the seat portion of a garment to provide adequate reception facilities for body waste and to enable such waste material to be easily disposed of.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a front perspective view of the garment of the present invention illustrating the urinal construction incorporated therein;

FIGURE 2 is an elongated perspective view of the urinal construction;

FIGURE 3 is a detailed sectional view, on an enlarged scale, taken substantially upon a plane passing along section line 3—3 of FIGURE 1 illustrating the structural details of the attachment of the urinal structure to the garment;

FIGURE 4 is a vertical sectional view taken substantially upon a plane passing along section line 4—4 of FIGURE 1 illustrating further structural details of the urinal structure and the manner of connecting the lower end thereof to the leg of the wearer;

FIGURE 5 is a transverse, plan sectional view taken substantially upon a plane passing along section line

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5—5 of FIGURE 4 illustrating further structural details of the leg attachment feature;

FIGURE 6 is a rear perspective view of a garment illustrating the waste disposal facility incorporated therein;

FIGURE 7 is a sectional view taken substantially upon a plane passing along section line 7—7 of FIGURE 6, on an enlarged scale, illustrating the structural details of the flexible plastic bag and the flexible disposable liner incorporated therein; and

FIGURE 8 is an exploded group perspective view illustrating the structural features of the rear waste disposable facility.

Referring now specifically to FIGURES 1—5 of the drawings, the garment is generally designated by the numeral 10 and includes a body 12 which encloses the mid portion of a person wearing the garment somewhat in the nature of shorts or pants which have resilient characteristics for snugly engaging the surface of the skin of the wearer. The specific structural details of the garment may vary as may the size requirements thereof depending upon the size and age of the person wearing the garment. As illustrated in FIGURE 3, the garment body 12 includes a crotch covering and engaging area 14 having an opening 16 therein adapted to overlie and engage the surface of the body of the wearer in encircling relation to the discharge area of the urinary tract whether the wearer is female or male.

Attached to the garment body 12 is an elongated tubular member 18 having an outwardly flared flange 20 at the upper end thereof secured to the garment body 12 as by stitching 22 or the like. Interposed between the crotch portion 14 of the garment body 12 and the flange 20 of the tubular member 18 is a seal member 24 of soft rubber or equivalent material such as sponge rubber, sponge plastic and the like. Attached to the external surface of the seal washer or grommet is an elongated soft plastic tube 26 having a laterally extending flange 28 at the upper end thereof secured to the sealing washer 28. As illustrated in FIGURE 3, the elongated soft plastic tube 26 is received within the fabric tubular member 18 and the plastic tubular member 26 is washable along with the fabric tubular member 18 and the garment body 12 with the protective cover or tubular member 18 serving to retain the plastic tubular member 26 in place when being washed. When being washed, the garment should be squeezed rather than rubbed and cleaned in mild cleaning solutions with lukewarm water or cool water. When the garment is dried, the elongated tubular member may be blown up by directing a stream of air into the upper end thereof such as by using the mouth or the like. Of course, the mouth may not actually touch the garment but a discharge stream of air may be directed therinto which will serve to distend or inflate the plastic tubular member 26. Also, the plastic tubular member or urinal bag 26 may be disposable if it is desirable to use a new one each time the garment is washed. Of course, this procedure may be varied in order to comply with various local ordinances relating to devices of this nature.

The urinal fabric from which the garment and the tubular member 18 is constructed is a stretch fabric or the like and the soft plastic tube 26 will also stretch and will be constructed of various sizes some of which are adapted to actually receive the scrotum and male urinary organs.

A leg attaching and supporting holder 30 is provided for the lower end of the plastic tube and tubular member 18 for supporting the lower enlarged end 32 of the plastic tubular member 26. The holder 30 includes a sleeve 34 which may be elasticized or provided with other means for adjustment to fit the size of the leg for retaining the holder on the leg in a desired vertically orientated posi-

tion. Attached to the sleeve 34 is a supporting sleeve 36 of general cylindrical configuration and attached tangentially to the sleeve 34 by stitching 38. The outer edge of the sleeve 36 has a convex curved stitched edge 40 with the upper portion thereof being open as at 42 to define a socket for receiving and frictionally gripping the lower end portion of the plastic tube 26 which is designated by numeral 44. The lower end portion 44 is closed by a pair of generally rigid plastic tabs 46 attached to the lower end of the tube 44 in any suitable manner such as by stitching, heat sealing or the like designated by numeral 48 and being adhesively secured together for forming a seal for the lower end of the tube 26. Thus, the structure illustrated in FIGURES 4 and 5 not only form a support for the lower end of the tube 26 but also form the seal therefor.

Referring now specifically to FIGURES 6-8, the rear perspective view of the garment 10 is illustrated in which the body member 12 includes an opening 50 formed therein generally in alignment with the rectal opening for receiving waste material therefrom. Attached to the garment body 12 is a flexible plastic bag or pouch 52 having a resilient band 54 incorporated into the open mouth end thereof. Disposed in the plastic bag 52 is a disposable plastic liner or bag 56 having an opened end provided with a reversely folded flange 58 for receiving a resilient band 60 thereunder.

The open end of the plastic bag 52 and the liner 56 are inserted through the opening 50 and are connected to an adapter assembly 62 which includes four annular members 64, 66, 68 and 70 each of which has a central opening defining an opening 72 communicating with the interior of the liner 56. The periphery of the openings in the annular members 64-70 are secured together by a peripheral row of stitching 74 as illustrated in FIGURE 7. The two annular members 64 and 66 are adhesively attached to each other by virtue of the annular members 64 and 66 being annular disks of adhesive tape material in which the adhesive surfaces are interconnected and which the smooth non-adhesive surfaces are exposed outwardly. The two annular disks 68 and 70 are of similar adhesive tape material and the facing surfaces thereof are also secured together and the outwardly facing surfaces are smooth and are not tacky. This structure provides an outwardly opening peripheral recess 76 which receives the resilient band 54 incorporated into the plastic bag 52 and which also receives the reversely folded flange 58 with the resilient ring 60 thereunder for detachably securing the bag 52 and liner 56 to the adapter 62. The adapter 62 is larger than the opening 50 in the garment body 12 and this together with the orientation of the flexible plastic bag 52 and liner 56 disposed exteriorly of the garment body 12 will secure the device to the garment. The resiliency of the garment body 12 will serve to retain the surface of the adapter 62 against the surface 78 of the skin in surrounding relation to the rectal orifice for receiving waste material therefrom.

When it is desired to change the liner 56, it is a very simple matter to remove the assembly from the garment, remove the adapter and then remove the liner 56 and replace the liner and the adapter may be reused after cleaning or a new adapter may be used as desired.

Various conventional garment constructing procedures may be employed in forming the garment of the present invention. Blind stitches may be used where desired and various suitable materials may be employed such as stretch yarn fabrics constructed of nylon or the like. Where the openings are defined in the garment, the peripheries thereof may be stitched or biased in any conventional manner to provide a long lasting and comfortable garment structure. In forming the invention, pattern pieces will be stitched together in a conventional manner and the structure of the present invention is relatively simple and will not irritate sensitive skin. Further, the garment of the present invention may be worn with external cloth-

ing without interference nor will the device interfere with the motion of the legs when walking, sleeping and the like. Persons handicapped or wearing braces may easily operate the structure of the present invention whereas structure of presently available waste disposal devices are complicated, cumbersome and hard to operate. If desired, the garment may be provided with a zipper back such as in pants for a small girl or the like in order to enable the small girl to change the disposable bag and the external flexible safety bag when desired. This device is especially useful for children who may be sick or handicapped and the structure of the present invention avoids the problem of such children pulling off conventional waste disposal facilities. This device provides a readily changeable device which keeps the child more comfortable and does not adversely affect their normal procedures.

When installing the plastic bags or plastic tubes, it is desirable to blow into the open end thereof to open the bag or tube up to facilitate the installation thereof and subsequent proper usage. The adapter where it engages the skin of the person wearing the device may be covered with a fabric material or the like thus further facilitating the comfort of the person using the device. The stretch fabric such as soft cotton fabric is wrinkle free and does not need ironing and is comfortable to wear. When desired, the garment may be provided with only the urinal structure illustrated in FIGURES 1-5, only the waste disposal facility illustrated in FIGURES 6-8 or both facilities depending upon the needs of the person wearing the device.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A garment having waste disposal facilities incorporated therein comprising a body member, said body member including an opening generally aligned with a waste disposal area of the wearer, a flexible receptacle means supported by the garment body member and including means at the end thereof engaging the body of the wearer to receive waste material, said receptacle means being in the form of an elongated plastic tube, a fabric covering for the elongated plastic tube, means for closing and supporting the outer end of the elongated plastic tube, said means including a leg engaging member for supporting the lower end of the plastic tube from the leg of the wearer, said leg engaging member including an open-ended resilient sleeve for resiliently engaging the leg in adjustable position, a support sleeve mounted on said resilient sleeve, said support sleeve having a slit-like opening communicating with the upper edge thereof, said plastic tube having a lower end portion extending down through the support sleeve with the terminal lower end extending upwardly and disposed in the slit-like opening thereby closing and sealing the lower end of the tube.

2. The structure as defined in claim 1 wherein said terminal end portion of the tube includes a pair of longitudinally extending substantially rigid tips removably inserted into the slit-like opening for closing the tube.

3. A garment having waste disposal facilities therein comprising a body member having an opening for alignment with a waste discharge area of a wearer, an elongated flexible tube attached to said body member in communication with the opening and adapted to extend alongside of the leg of the wearer, the free end of said tube being open, and leg engaging means supporting the free end of said tube, said leg engaging supporting means including means engaging and closing the open end of said tube.

4. The structure as defined in claim 3 wherein said leg

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engaging supporting means includes a resilient sleeve adapted to encircle the leg, and a support sleeve on the resilient sleeve for receiving the free end of said tube, said support sleeve having a slit-like opening formed therein for receiving the open end of the flexible tube for retaining the open end thereof in closed position.

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