(54) Title: MEN'S BRIEFS WITH SEPARATE SPACE FOR PENIS COMPRISING REMOVABLE INCONTINENCE ABSORBENT RECEPTACLE

Fig. 3

Fig. 7b

(57) Abstract:
Men's briefs with separated space for penis comprising removable incontinence absorbent receptacle, made as short or long leg briefs, with flexible belt, panel (A), front outer insert (B) and front inner insert (?), wherein separated space for penis is formed by
(57) Abrégé(suite)/Abstract(continued):
front outer insert (B) and front inner insert (B'); the inserts (B) and (?) being connectable to the panel (A) and optional part (3) in a manner to form men's briefs, wherein front inner insert (?) has shape and dimensions same as front outer insert (B). Front inner insert (?) is formed from two overlapping sewed parts (C) and (D) having curved hem (17) and respectively hem (18), where curved hems (17) and (18) form circular like adjustable orifice (19) for inserting penis into separated space. Orifice (19) encircle penis in a way that prevents its falling out from separated space. Men's briefs are further provided with removable incontinence receptacle (G) having orifice (22), where incontinence receptacle (G) is placed within front outer insert (B) and front inner insert (?) thru the embrasure formed by hems (11, 5), whereat incontinence receptacle (G) having shape same as inserts (B, B') and dimensions to fit within inserts (B, B') in a manner that orifice (22) is faced to orifice (19) in order that incontinence receptacle (G) receives penis.
MEN'S BRIEFS WITH SEPARATE SPACE FOR PENIS COMPRISING REMOVABLE INCONTINENCE ABSORBENT RECEPTACLE

Abstract: Men's briefs with separated space for penis comprising removable incontinence absorbent receptacle, made as short or long leg briefs, with flexible belt, panel (A), front outer insert (B) and front inner insert (B'), wherein separated space for penis is formed by front outer insert (B) and front inner insert (B'), the inserts (B) and (B') being connectable to the panel (A) and optional part (3) in a manner to form men's briefs, wherein front inner insert (B') has shape and dimensions same as front outer insert (B). Front inner insert (B') is formed from two overlapping sewed parts (C) and (D) having curved hem (17) and respectively hem (18), where curved hems (17) and (18) form circular like adjustable orifice (19) for inserting penis into separated space. Orifice (19) encircles penis in a way that prevents its falling out from separated space. Men's briefs are further provided with removable incontinence receptacle (G) having orifice (22), wherein incontinence receptacle (G) is placed within front outer insert (B) and front inner insert (B') thru the embrasure formed by hems (11, 5), wherein incontinence receptacle (G) having shape same as inserts (B, B') and dimensions to fit within inserts (B, B') in a manner that orifice (22) is faced to orifice (19) in order that incontinence receptacle (G) receives penis.
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MEN'S BRIEFS WITH SEPARATE SPACE FOR PENIS COMPRISING REMOVABLE INCONTINENCE ABSORBENT RECEPTACLE

TECHNICAL FIELD

Present invention relates to men's underwear, in particular men's underpants having separate space to physically separate the penis from the testicles at inner side of their front part, comprising removable incontinence absorbent receptacle and to the incontinence absorbent receptacle as such.

TECHNICAL PROBLEM AND BACKGROUND ART

The penis and the testicles are constantly in contact, which is not good from the hygienic and health points of view. Due to their position, these organs are constantly exposed to sweating. Particularly negative effect is from the drops of urine remaining after urination or caused by problems with mild incontinence.

Present invention aims to provide versatile men's briefs especially suitable for wear by active persons who suffer mild urinary incontinence or for patients recovering after surgery. Moreover, it is an advantage of the arrangements disclosed herein that the briefs are intended for those not incontinent and for those suffering incontinence.

The technical problem that is solved by this invention relates to designing of men's briefs, where the penis will be physically separated from the testicles, comprising removable incontinence absorbent receptacle adapted to fit within said men's briefs in a easy and comfortable way with tightening means for preventing penis to go beyond the incontinence absorbent receptacle.

Since penis is naturally slightly directed to the left or right side, present invention provides such natural position avoiding any pressure caused by briefs. On the other hand, overlapping inner insert prevents falling out of penis from briefs separate space, especially during long-lasting sitting position. Further advantage of present
invention is that briefs orifice is oriented left or right, depending of the customer preferences.

Further advantage of the present invention is adjustably tightening of penis thus preventing penis to go beyond the incontinence absorbent receptacle during sleep or any other sport activity.

Document GB 2174288 A is closest prior art and discloses a pair of men's briefs (200) includes a pocket located in the crotch region (212) and defined by an outer wall of a liquid-impermeable material which is longer than it is wide and an inner wall of like material which has a central hole therein, and the outer and inner walls are positioned so as to retain, in use, an elongate absorbent pad in the pocket. According to present invention briefs opening has circular like form which encircles penis in a way that prevents its falling out from separated space, and furthermore present invention provides elastic means for adjustably tightening of penis. Further advantage over document GB 2174288 A relates to the material of the briefs and form of the incontinence absorbent receptacle. According to the GB 2174288 A absorbent pad is in elongate form and crotch region of the briefs is made by liquid-impermeable material.

According to the present invention parts of the briefs are not made by liquid-impermeable material. Further, absorbent article is in the form of receptacle; it can be disposable or washable and comfortably fits within briefs. Further, since receptacle according to present invention is in the form of three dimensional container it ensures retention of the urine within the receptacle and prevents contact of urine with briefs. That is very important in case where absorbing layer of the receptacle is not able to absorb large quantity of urinated liquid.

The men's briefs with separate space for the penis adapted for incorporating removable incontinence absorbent receptacle according present invention make a very useful part of underwear, aimed to the man's health, that can be manufactured very economically and in numerous embodiments. It includes essential improvements relative to previously known briefs and incontinence absorbents of this type.
DETAILED DESCRIPTION OF THE INVENTION

The essence of the invention is men’s briefs with separate space for a penis placed at the inner side of their front part and removable incontinence absorbent receptacle which is adjustably placed within separate space for penis.

Men’s briefs with separated space for penis comprising removable incontinence absorbent receptacle, made as short or long leg briefs, with flexible belt, panel, (front outer insert and front inner insert), wherein separated space for penis is formed by front outer insert and front inner insert; said inserts being connectable to the panel and optional part in a manner to form men’s briefs, wherein front inner insert has shape and dimensions same as front outer insert. Front inner insert is formed from two overlapping sewed parts having curved hems, where curved hems form circular like adjustable orifice for inserting penis into separated space. Adjustable orifice is placed in the briefs midline, and where said orifice encircle penis in a way that prevents its falling out from separated space. Adjustable orifice is placed in the briefs center line and is oriented on left or right side by rotating front inner insert by 180° around the briefs midline. Additionally curved hems have elastic means for adjustably encircling the penis, where, according to one embodiment of present invention, said elastic means can be tightened by the means on the outer side of the briefs. The shape of the opening for entering the penis and the height at which it is made are adjusted to allow the penis to smoothly enter its separate space when the briefs are being put on. This way, the testicles remain in their normal position, always physically separated from the penis. Men’s briefs are further provided with removable incontinence receptacle having orifice for receiving penis, where incontinence receptacle is placed within front outer insert and front inner insert, whereat incontinence receptacle has shape same as said inserts and dimensions to fit within said inserts. According to the one embodiment of the present invention removable incontinence receptacle is disposable. According to another embodiment of the present invention removable incontinence receptacle is washable and can be reused.
Detailed description of drawings

Invention will be below described in detail with reference to drawings where:

- figure 1. shows the back and side panel A of the briefs,
- figure 2. shows the front outer insert B,
- figure 3. shows the outer front view of the briefs,
- figure 4. shows view of the part C of the inner panel,
- figure 5. shows view of the part D of the inner panel,
- figures 5a. and 5b show view of the front inner insert B' with orifice 19 left or right oriented,
- figure 6a. schematically shows incontinence receptacle (G) with orifice 22,
- figure 6b. schematically shows dismantled incontinence receptacle (G) with orifice 22,
- figure 7a shows front side of the removable incontinence receptacle with U-shaped orifice, and
- figure 7b schematically shows the outer liquid barrier cover and placing inner absorption receptacle within it.

With reference to figures 1 to 5b, men's briefs with separated space for penis, made as short or long leg briefs, with flexible belt, panel (A), front outer insert (B) and front inner insert (B'), wherein separated space for penis is formed by front outer insert (B) and front inner insert (B'); the inserts (B) and (B') being connectable to the panel (A) and optional part (3) in a manner to form men's briefs, wherein front inner insert (B') has shape and dimensions same as front outer insert (B). Front inner insert (B') is formed from two overlapping sewed parts (C) and (D) having curved hem 17 and respectively hem 18, where curved hems 17 and 18 form circular like adjustable orifice 19 for inserting penis into separated space. As illustrated on figures 5a and 5b,
according to the embodiment of the invention, it is provided that part (C) overlaps part (D) or respectively, part (D) overlaps part (C), without any further modification of said parts (C) and (D) and other parts of briefs. Figures 5a and 5b illustrate adjustable orifice (19) placed in the briefs center line, and where orifice 19 encircles penis in a way that prevents its falling out from separated space and its stable positioning. By rotating front inner insert (B') by 180° around the briefs midline, adjustable orifice (19) is left or right side oriented thus enabling more comfortable placing of penis on the left or respectively right side according to the user's preferences. Additionally hems 17 and 18 have elastic means for adjustably encircling the penis, where, according to one embodiment of present invention, said elastic means can be tightened by the means (21).

As shown on figures 4 and 5, front inner insert (B') is formed from two parts (C) and (D) with mutually sewed hems 6 and 13, 8 and 16, 15 and 16, 9 and 12, where curved hems 17 and 18 form circular like adjustable orifice 19 for inserting penis into separated space, where orifice (19) is placed in the briefs midline, wherein orifice 19 encircle penis in a way that prevents its falling out from separated space. With reference to the figures 5a and 5b, front inner insert (B') being sewed with to the inner side of the outer panel (A) and front outer insert (B) at lest through hem (7) and hem (14), and through sewing hem (8) and hem (15) to hem (16). Furthermore, inserts B and B' are connected to the outer panel (A) through hems (6 and 13), (10 and 4) and (8 and 15). Outer panel (A) constitutes back, side and partially front side of briefs. Outer panel (A) can be tailored in one piece where that one piece includes part of the front panel (3). For person skilled in the art is obvious that certain modifications of the design of the outer panel (A) and inserts (B, B') are possible without impact on the scope of the invention. For instance, outer panel A can be tailored from the more than one piece of fabrics (e.g. par (3) can be separate part of the briefs).

With reference to figures 6a to 7b, men's briefs are further provided with removable incontinence receptacle (G) having orifice (22). Incontinence receptacle (G) is placed within front outer insert (B) and front inner insert (B') thru the embrasure formed by hems (11, 5). Incontinence receptacle (G) has shape same as inserts (B, B') and has dimensions to fit within inserts (B, B') in a manner that orifice (22) is faced to the
orifice (19) in order that penis thru orifices (22, 19) is accommodated within incontinence receptacle (G). Expression “dimensions to fit within”, and other variants of said expression, in present application means that dimensions of an element to which said expression relates are such that it can be inserted or positioned within defined space and can not be displaced from its position after insertion. The best mode of carrying out the invention is that incontinence receptacle (G) has same shape as inserts (B, B'), and dimensions to fit within inserts (B, B') are possible provided that orifice (22) is faced to the orifice (19). Hems (17) and (18) have elastic means for adjustably encircling the penis and additionally elastic means can be tightened by the means (21). These features provide preventing penis to go beyond the incontinence absorbent receptacle during sleep or intense activities.

As shown on the figures 7a, 7b and 8 incontinence receptacle (G) consists of the outer liquid barrier cover (24), where inner absorption receptacle (25) having shape same as cover (24) and dimensions to fit within cover (24) is placed within cover (24), whereat cover (24) and receptacle (25) are both provided with concurring orifice (22) at the same place. Orifice (22) can be circular or U-shaped or of any other shape suitable for receiving penis. Orifice is placed in the center line of the incontinence receptacle (G). Incontinence receptacle (G) is defined by receptacle front panel (H) and receptacle back panel (l). Panels (H) and (l) are on the edges mutually firmly connected. In another embodiment on the upper end cover (24) is provided with opening (26) for inserting inner absorption receptacle (25). Inner absorption receptacle (25) is defined by two planes mutually firmly connected on their edges forming pocket like receptacle.

According to one embodiment of the invention incontinence receptacle (G) is disposable and consists of the outer liquid barrier cover (24) and inner absorption receptacle (25) which cover (24) and receptacle (25) are on their edges mutually firmly connected. In this embodiment cover (24) is not provided with opening (26). In another embodiment of the invention incontinence receptacle (G) is not disposable where cover (24) and inner absorption receptacle (25) are not mutually firmly connected thus enabling changing and/or washing of the absorption receptacle (25).
In order to additionally fix incontinence receptacle (G) within inserts (B, B'), they are provided by detachable means (23, 23'). By means (23, 23') incontinence receptacle (G) is detachably connected to the front inner insert (B') and/or front outer insert (B).

The men's briefs with separate space for the penis comprising removable incontinence absorbent receptacle, according to this invention, eliminate deficiencies of the present briefs cuts, related to their hygienic and health properties and physical discomforts. The separate space for the penis is situated at the inner side of front part of the briefs, between front outer insert and front inner insert. Removable incontinence absorbent is adjustably placed within separate space for penis. Regardless of the body movements and position, the penis will always remain in the separate space within incontinence absorbent, which fully satisfies the essence and the function of the invention.

REFERENCE SIGNS:

The reference signs used in the description and figures have the following meaning:

A - back and side panel of briefs

B – front outer insert

B' – front inner insert

C - part of the inner panel

D - part of the inner panel

G – incontinence receptacle

H – receptacle front panel

I – receptacle back panel

1 - panel A hem
2 - insert B hem

3 - optional part of the front panel

4 - hem sewed to hem 10

5 - - hem 6 - - hem sewed to hem 13

7 - sewed to inner side of the outer panel

8 - - hem sewed to hem 16

9 - - hem sewed to hem 12

10 - - hem sewed to hem 4

11 - - hem

12 - - hem sewed to hem 9

13 - - hem sewed to hem 6

14 - - hem sewed to hem inner side of the outer panel

15 - - hem sewed to hem 16

16 - - hem sewed with hems 8 and 15

17. - curved hem

18 - curved hem

19 - opening

20 - seam

21 - means suitable for adjustment of opening 19

22 - orifice
23, 23' – detachable means

24 – outer impermeable cover - outer liquid barrier cover

25 – inner absorption receptacle

26 - opening

Persons skilled in the art will find it obvious that certain modifications of the design of the separate penis space are possible and accordingly of the removable incontinence absorbent receptacle, given the briefs design, however not leaving the spirit of the invention.
AMENDED CLAIMS

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1. Men's briefs with separated space for penis comprising removable incontinence absorbent receptacle, made as short or long leg briefs, with flexible belt, panel (A), front outer insert (B) and front inner insert (B'), wherein separated space for penis is formed by front outer insert (B) and front inner insert (B'); the inserts (B) and (B') being connectable to the panel (A) and optional part (3) in a manner to form men's briefs, wherein front inner insert (B') has shape and dimensions same as front outer insert (B), where front inner insert (B') is formed from two overlapping sewed parts (C) and (D) having curved hem (17) and respectively hem (18), where curved hems (17) and (18) form circular-like adjustable orifice (19) for inserting penis into separated space, and where adjustable orifice (19) encircles penis in a way that prevents its falling out from separated space. characterized by that said men's briefs are further provided with removable incontinence receptacle (G) consisting of at the edges mutually firmly connected planes (H) and (I) with an orifice (22) placed on plane (H), where incontinence receptacle (G) is placed within front outer insert (B) and front inner insert (B') thru the embrasure formed by hems (11, 5), whereat incontinence receptacle (G) has shape same as inserts (B, B') and dimensions to fit within inserts (B, B') in a manner that orifice (22) is faced to orifice (19) in order that incontinence receptacle (G) receives penis.

2. Men's briefs according to claim 1, characterized by that incontinence receptacle (G) consists of the outer liquid barrier cover (24), where inner absorption receptacle (25) having shape same as cover (24) and dimensions to fit within cover (24) is placed within cover (24), whereat cover (24) and receptacle (25) are provided with orifice (22) at the same place.

3. Men's briefs according to claim 2, characterized by that absorption receptacle (25) is disposable or washable, where cover (24) is provided with opening (26).
5. Men's briefs according to any of preceding claims, characterized by that orifice (22) is circular, U-shaped or of any other shape suitable for receiving penis.

6. Men's briefs according to any of preceding claims, characterized by that orifice (22) is placed in the incontinence receptacle (G) center line.

7. Men's briefs according to any of preceding claims, characterized by that orifice (19) is placed in the briefs center line.

8. Men's briefs according to claim 1, characterized by that hems (17) and (18) have elastic means for adjustably encircling the penis.

9. Men's briefs according to claim 8, characterized by that elastic means are tightened by the means (21).

10. Men's briefs according to any of preceding claims, characterized by that incontinence receptacle (G) is connected by detachable means (23, 23') to the front inner insert (B') and/or front outer insert (B).

11. Incontinence receptacle (G) suitable for men's briefs defined in claim 1, characterized by that it consists of the outer liquid barrier cover (24) where within cover (24) is placed inner absorption receptacle (25) having shape same as cover (24) and dimensions to fit within cover (24), whereat cover (24) and receptacle (25) are provided with orifice (22) at the same place.

12. Incontinence receptacle (G) according to claim 11, characterized by that absorption receptacle (25) is disposable or washable, where cover (24) is provided with opening (26).

13. Incontinence receptacle (G) according to claim 11, characterized by that incontinence receptacle (G) is disposable and consists of the outer liquid barrier cover (24) and inner absorption receptacle (25), which cover (24) and receptacle (25) are on their edges mutually firmly connected, whereat cover (24) and receptacle (25) are provided with orifice (22) at the same place.

14. Incontinence receptacle (G) according to claims 11 to 13, characterized by that orifice (22) is circular, U-shaped or of any other shapes suitable for receiving penis.

15. Incontinence receptacle (G) according to claims 11 to 14, characterized by that orifice (22) is placed in the incontinence receptacle (G) center line.
16. Incontinence receptacle (G) according to claims 11 to 15, characterized by that it contains detachable means (23, 23') suitable for fastening receptacle (G) to the men's briefs.