

Description

Title of the Invention:

METHOD FOR ATTACHING BEDPAN DIAPER AND BEDPAN WITH DIAPER

Technical Field

[0001] The present invention relates to a method for attaching a bedpan diaper and a bedpan with a diaper that a care-requiring person having trouble in mobility attaches in the crotch to automatically handle urination and defecation using an excretion processing apparatus.

Background of the Invention

[0002] A care-requiring person having trouble in mobility attaches a bedpan into the crotch to automatically handle urination and defecation using an excretion processing apparatus, and conventionally, a bedpan (10) shown in Figure 5 which is used by being attached to a care-requiring person's (12) crotch after a special diaper (11) shown in Figure 7 has been set from above is known as shown in Figure 6 (Patent document 1).

The structure of the bedpan (10) and the special diaper (11), and the method for setting the diaper (11) to the bedpan (10) are explained in more detail.

In Figure 5, the bedpan (10) is roughly comprised of a toilet seat main body (13), a rear cover (14) and a hip-receiving part (15).

The toilet seat main body (13) is comprised of a defecation-receiving part (16) having a tray-like pit and a urine-receiving part (17) like a vertical groove.

[0003] The defecation-receiving part (16) has an integrated protruding tube part that connects to the rear end and becomes a defecation suctioning hole (18), and the front end of the defecation-receiving part (16) is equipped with a washing nozzle (21). And the defecation-receiving part (16) is equipped with a stool sensor (19) and four urine sensors (20).

[0004] The urine-receiving part (17) is equipped with a washing nozzle (21) at its middle position.

The rear cover part (14) is equipped with an excretion suctioning hose (22), an air supply

tube (23), a water supply tube (24), and an electrical cord (25) from the bottom to the top as shown in Figure 6.

[0005] In Figure 7, the diaper (11) for the bedpan is made of thin, strong paper, the near side is a hip-covering part (26), the rear side is a belly-covering part (27), the middle part is a crotch-covering part (28), and a thick cushion material is stuck on the front surface. At both edges of the hip-covering part (26), two fastening pieces (30) to be fastened to the surface fastener (29) of the belly-covering part (27) are arranged for each side in a protruded way.

Internal waterproof paper (33) is stuck to the center of the crotch-covering part (28), sticking margins (35) with cut lines (34) are formed around an excretion hole (32) formed in the internal waterproof paper (33) at the defecation-receiving part (16) and the urine-receiving part (17), and two pieces of gap holding tape (36) are arranged at the edge of the excretion hole (32). And in the back side of the hip-covering part (26) (the side shown in Figure 7), a toilet seat receiving sheet (37) into which the hip-receiving part (15) is inserted is formed.

[0006] To set the diaper (11) to the bedpan (10) as configured above, the hip-receiving part (15) of the bedpan (9) is inserted into the inner side of the toilet seat receiving sheet (37) of the diaper (11) for the bedpan. Then, the excretion hole (32) of the diaper (11) matches the defecation-receiving part (16), and the washing nozzle (21) in the lower side is exposed through the excretion hole (32). In this state, release paper at the sticking margin (35) at the peripheral area of the round excretion hole (32) is detached and the portion is stuck to the inner wall part (16a) of the defecation-receiving part (16), and release paper at the sticking margin (35) at the linear part of the excretion hole (32) is detached and the portion is stuck to the inner wall part (16a) of the defecation-receiving part (16) and the inner wall part of the urine-receiving part (17).

[0007] The bedpan (10) to which the diaper (11) has been set is placed at the crotch of the care-requiring person (12). Then, the anus is located almost just above the stool sensor (19) of the defecation-receiving part (16).

When the bedpan is tightly fitted, the belly-covering part (27) is folded up to the belly of the care-requiring person (12), and the hip-covering part (26) is applied as a cover and fixed to the surface fastener (29) of the belly-covering part (27) with the fastening pieces (30).

[0008] To prevent excreta from touching the diaper (11) around the excretion hole (32) by forming an adequate space between the defecation-receiving part (16) and the urine-receiving part (17) of the bedpan (10) and the urinary organs of the care-requiring person (12), a piece of the gap holding tape (36) is pulled in to tightly fit the outer surface of the diaper (11) to the bedpan (10), and another piece of the gap holding tape (36) is applied in a crossed way to prevent the tape (36) from detaching.

[0009] When the bedpan (10) with the set diaper (11) as described above is worn and defecation or urination is detected by a stool sensor (19) or a urine sensor (20), an excretion processing apparatus not shown in the figures is activated, processes the feces or urine in the bedpan (10) by suctioning them from the defecation suctioning hole (18), washes the defecation place, urination place, the defecation-receiving part (16), and the urine-receiving part (17) with hot water, and dries them with warm air.

Prior Art Documents

Patent Documents

[0010] Patent document 1: No. 2016-97267 in the Japanese Published Unexamined Patent Applications

Summary of Invention

Problems to be solved by the invention

[0011] There have been the following problems in setting a conventional diaper (11) to a bedpan (10).

(1) The processing of the internal water-proof paper (33) formed on the diaper (11) is complicated. Specifically, this internal water-proof paper requires processing such as cutting out the excretion hole (32) and making cutting lines (34), and processes to stick the sticking margins (35) having release paper and gap holding tape (36) to a material different from the internal water-proof paper (33), making the processing of the diaper (11) difficult.

(2) When the diaper (11) and bedpan (10) are set, the excretion hole (32) and the defecation-receiving part (16) need to be aligned by specially arranging a toilet seat receiving sheet (37) on the diaper (11) for the hip-receiving part (15) of the bedpan (10) to be inserted there.

(3) Sticking the multiple sticking margins (35) to the internal wall surfaces of the defecation-receiving part (16) and the urine-receiving part (17) to set the diaper (11) to the bedpan (10) requires skill, and sticking by an unskilled person can cause leakage of urine and water, and emission of odor.

(4) Even after the bedpan has been attached to a care-requiring person (12) by using the multiple sticking margins (35), gap holding tapes (36) are required to form an adequate space between the defecation-receiving part (16) and the urine-receiving part (17) of the bedpan (10) and the urinary organs.

[0012] This invention is to provide a method for attaching bedpan diaper using a simple diaper so that the diaper can be correctly set in the bedpan even without special training, and a bedpan with a diaper.

Means to solve the problems

[0013] A bedpan with a diaper in this invention is characterized by comprising an inner (40) that functions as a bedpan having a defecation-receiving part (16), a urine-receiving part (17) and a defecation suctioning hole (18), a diaper (42) to be attached to the crotch by being attached to the back side of the inner (40), and an outer (41) that holds the diaper (42) between the outer itself and the inner (40) by being attached to the back side of the diaper (42) so that the defecation-receiving part (16) and the urine-receiving part (17) of the inner (40) are exposed.

[0014] The inner (40) has at least a stool sensor (19), a urine sensor (20) and a washing nozzle (21).

In the outer (41), a fitting recess (46) is formed that holds the diaper (42) by tightly fitting it in the gap (57) between the outer peripheral surface of the inner (40) and the inner periphery of the outer (41).

In the diaper (42), a part that fits in the gap (57) between the inner (40) and the outer (42) is internal waterproof paper (33), and the outer peripheral part of the internal waterproof paper (33) is a cushion material (51).

[0015] At the defecation part fitting wall (46a) and urination part fitting wall (46b) of the inner fitting recess (46), a soft material (45) is formed that protrudes to the outside from

the defecation-receiving part (16) and the urine-receiving part (17) when the inner (40) is fitted.

The hip-receiving part (15) is attached to the front end of the outer (41).

[0016] The method of attaching a diaper to the bedpan which is the first part of this invention is characterized by comprising a process in which the diaper (42) to be attached to the crotch is placed on the back side of the inner (40) that has a defecation-receiving part (16), the urine-receiving part (17) and the defecation suctioning hole (18) at its front surface and functions as a bedpan, and the next process in which the outer (41) is placed from the back side of the diaper (42) so that the front surface of the inner (40) is exposed and the outer (41) holds the internal waterproof paper (33) of the diaper (42) between the outer and the inner (40).

[0017] The method of attaching a diaper to the bedpan which is the second part of this invention is characterized by comprising a process in which the diaper (42) to be attached to the crotch is placed on the front surface of the outer (41), and the next process in which the inner (40) that has a defecation-receiving part (16), a urine-receiving part (17) and the defecation suctioning hole (18) at its front surface and functions as a bedpan is fitted from above the diaper (42) and holds the internal waterproof paper (33) of the diaper (42) between the outer (41) and the inner (40).

Effects of the invention

[0018] By the invention set forth in Claim 1, since the bedpan comprises an inner that has a defecation-receiving part, a urine-receiving part and a defecation suctioning hole and functions as a bedpan, a diaper to be attached to the crotch by being placed on the back side of the inner, and an outer that holds the diaper between itself and the inner by being placed on the back side of the diaper so that the defecation-receiving part and the urine-receiving part of the inner are exposed, the bedpan has following effects.

The only required process for the internal waterproof paper formed in the diaper is the processing of protrusion relief holes, and processes such as cutting out an excretion hole, making cut lines, arranging sticking margins having release paper, and sticking gap-holding tape to a material different from the internal waterproof paper are not required, making the processing of the diaper extremely simple.

When the diaper and the bedpan are set, the excretion hole of the diaper and the defecation-receiving part of the bedpan do not need to be aligned.

Attaching a diaper to the bedpan does not require skill and sticking by an unskilled person does not cause leakage of urine or water, or emission of odor.

[0019] By the invention set forth in Claim 2, since the inner comprises a stool sensor, urine sensors and a washing nozzle, the stool sensor and/or urine sensors in the inner can be washed by the washing nozzle.

[0020] By the invention set forth in Claim 3, since an inner fitting recess that holds the diaper tightly in the gap between the outer peripheral surface of the inner and the inner periphery of the outer is formed in the outer, setting the inner and diaper tightly to the outer can be conducted extremely easy.

[0021] By the invention set forth in Claim 4, since the diaper has an internal waterproof paper part that fits into the gap between the inner and the outer, and the outer peripheral part of this internal waterproof paper is made of a cushion material, the bedpan with diaper of this invention can be attached to a care-requiring person easily and simply.

[0022] By the invention set forth in Claim 5, since a soft material is formed at the defecation part fitting wall and urination part fitting wall at the outer periphery of the inner fitting recess and the soft material protrudes to the outside from the defecation-receiving part and the urine-receiving part when the inner is fitted, an adequate space between the urinary organs and the defecation-receiving part and the urine-receiving part of the bedpan can be formed.

[0023] By the invention set forth in Claim 6, since the front-end part of the outer is equipped with a hip-receiving part, the hip of the care-requiring person can be received by the cushion material of the diaper.

[0024] By the invention set forth in Claim 7, since the method comprises a process in which the diaper to be attached to the crotch is applied to the back side of the inner that has a defecation-receiving part, a urine-receiving part and a defecation suctioning hole at its front surface and functions as a bedpan, and a process in which the outer is applied to the back side of the diaper (42) so that the front surface of the inner is exposed, and holds the internal waterproof paper of the diaper between itself and the inner, the setting can be completed simply by applying the diaper to the back side of the inner and applying

the outer on the back side of the diaper.

[0025] By the invention set forth in Claim 8, since the method comprises a process in which the diaper to be attached to the crotch is attached to the inner that has a defecation-receiving part, a urine-receiving part, a defecation suctioning hole and a washing nozzle at its front surface, and an excretion suctioning hose connected to the defecation suctioning hole, air supply tube, and a water supply tube connected to the washing nozzle at its back surface, and functions as a bedpan, with the excretion suctioning hose at the back side of the inner, the air supply tube and the water supply tube protruding from the protrusion relief hole of the internal waterproof paper, and a process in which the inner fitting recess of the outer is placed on the back of the diaper so that the front surface of the inner is exposed, and holds the internal waterproof paper of the diaper between itself and the inner, with the excretion suctioning hose, air supply tube and water supply tube protruding from the protrusion relief hole of the outer, the excretion suctioning hose connected to the defecation suctioning hole, the air supply tube, and the water supply tube connected to the washing nozzle can be easily protruded from the outer.

[0026] By the invention set forth in Claim 9, since the process in which the outer is placed on the back of the diaper and holds the internal waterproof paper of the diaper between itself and the inner fixes the internal waterproof paper at the front end of the inner to the lower part fixing recess of the inner fitting recess arranged in the outer while the diaper is placed on the back side of the inner, and fits the inner and the diaper to the inner fitting recess using this fixing part as the supporting point, fitting to the right position can be performed easily.

[0027] By the invention set forth in Claim 10, since the method comprises a process in which the diaper to be attached to the crotch is placed to the front surface of the outer and a process in which the inner that has the defecation-receiving part, the urine-receiving part and the defecation suctioning hole at its front surface and functions as a bedpan is fitted from above the diaper and holds the internal waterproof paper of the diaper between the outer and the inner, setting the inner, the diaper and the outer can be conducted simply.

[0028] By the invention set forth in Claim 11, since the method comprises a process in which the internal waterproof paper part of a diaper having a protrusion relief hole at

its internal waterproof paper part is placed to the inner fitting recess having protrusion relief holes of the outer, and a process in which the inner that has a defecation-receiving part, a urine-receiving part, a defecation suctioning hole and a washing nozzle at its front surface and an excretion suctioning hose connected to the defecation suctioning hole, air supply tube, and a water supply tube connected to the washing nozzle at its back surface and functions as a bedpan is pushed into the inner fitting recess through the protrusion relief hole of the internal waterproof paper of the diaper, with the excretion suctioning hose, the air supply tube and the water supply tube protruding from the protrusion relief holes of the outer, the excretion suctioning hose connected to the defecation suctioning hole, the air supply tube, and the water supply tube connected to the washing nozzle can be easily protruded from the outer.

Brief Description of the Figures

[0029]

[Figure 1] is a perspective view showing an example of the inner and the outer used for the bedpan with diaper implemented based on this invention.

[Figure 2] is a perspective view showing an example of the diaper used for the bedpan with diaper implemented based on this invention.

[Figure 3] is a sectional view showing an example of the bedpan with diaper implemented based on this invention that has been fitted to a care-requiring person.

[Figure 4] shows an example of the bedpan with diaper implemented based on this invention that has been fitted to a care-requiring person: (a) A-A sectional view of Figure 3, (b) B-B sectional view of Figure 3, (c) C-C sectional view of Figure 3.

[Figure 5] is a perspective view of a conventional bedpan

[Figure 6] is a sectional view showing an example of a conventional bedpan with diaper that has been fitted to a care-requiring person.

[Figure 7] is a perspective view of a conventional diaper

Mode for Implementing the Invention

[0030] A bedpan with a diaper based on this invention comprises an inner (40) that functions as a bedpan having a defecation-receiving part (16), a urine-receiving part (17) and a defecation suctioning hole (18), a diaper (42) to be attached to the crotch by being placed on the back side of the inner (40), and an outer (41) that holds the diaper (42) between itself and the inner (40) by being placed on the back side of the diaper (42) so

that the defecation-receiving part (16) and the urine-receiving part (17) of the inner (40) are exposed.

[0031] The inner (40) has a stool sensor (19), a urine sensor (20) and a washing nozzle (21).

In the outer (41), an inner fitting recess (46) is formed that holds the diaper (42) by tightly fitting it in the gap (57) between the outer peripheral surface of the inner (40) and the inner periphery of the outer (41).

The diaper (42) has an internal waterproof paper (33) part that fits into the gap between the inner (40) and the outer (42), and the outer peripheral part of the internal waterproof paper (33) is a cushion material (51).

At the defecation part fitting wall (46a) and urination part fitting wall (46b) at the outer peripheral part of the inner fitting recess (46), a soft material (45) is formed that protrudes to the outside from the defecation-receiving part (16) and the urine-receiving part (17) when the inner (40) is fitted.

A hip-receiving part (15) is attached to the front edge of the outer (41).

[0032] The method of attaching the diaper to the bedpan in this invention comprises a process in which the diaper (42) to be attached to the crotch is placed on the back side of the inner (40) that has the defecation-receiving part (16), the urine-receiving part (17) and the defecation suctioning hole (18) at its front surface and functions as a bedpan, and a process in which the outer (41) is placed on the back side of the diaper (42) so that the front surface of the inner (40) is exposed, and the outer (41) holds the internal waterproof paper (33) part of the diaper (42) between the outer itself and the inner (40).

[0033] To be more specific, the method comprises a process in which the diaper (42) to be attached to the crotch is attached to the inner (40) that has the defecation-receiving part (16), the urine-receiving part (17), and the defecation suctioning hole (18) and the washing nozzle (21) at its front surface and the excretion suctioning hose (22) connected to the defecation suctioning hole (18), the air supply tube (23), and the water supply tube (24) connected to the washing nozzle (21) at its back surface and functions as a bedpan, with the excretion suctioning hose (22) at the back side of the inner (40), the air supply tube (23) and the water supply tube (24) protruding from the protrusion relief hole (56) of the internal waterproof paper (33), and a process in which the inner fitting recess (46) of the outer (41) is placed on the back side of the diaper (42) so that the front surface of the inner is exposed, and holds the internal waterproof paper (33) part of the diaper (42)

between itself and the inner (40), with the excretion suctioning hose (22), the air supply tube (23) and the water supply tube (24) protruding from the protrusion relief hole (49) and the protrusion relief hole (50) of the outer (41).

[0034] To make the setting easier, in the process in which the outer (41) is placed on the back side of the diaper (42) and holds the internal waterproof paper (33) part of the diaper (42) between itself and the inner, the internal waterproof paper (31) at the front end of the inner (40) is fixed to the lower part fixing recess (47) of the inner fitting recess (46) arranged in the outer (41) while the diaper (40) is placed on the back side of the inner (40), and the inner (40) and diaper (42) are fitted to the inner fitting recess (46) using this fixing part as the supporting point.

[0035] The sequence of the setting may not be limited to the one shown above, but the method may comprise a process in which the diaper (42) to be attached to the crotch is placed on the front surface of the outer (41), and a process in which the inner (40) that has the defecation-receiving part (16), the urine-receiving part (17) and the defecation suctioning hole (18) at its front surface and functions as a bedpan is fitted to the diaper (42) from above and holds the internal waterproof paper (33) part of the diaper (42) between the inner (40) itself and the outer (41).

[0036] To be more specific, the method comprises a process in which the internal waterproof paper (33) of the diaper (42) having a protrusion relief hole (56) at the internal waterproof paper (33) part of the diaper (42) is applied to the inner fitting recess (46) of the outer (41) having a protrusion relief hole (49) and a protrusion relief hole (50), and a process in which the inner (40) that has the defecation-receiving part (16), the urine-receiving part (17), the defecation suctioning hole (18) and the washing nozzle (21) at its front surface and the excretion suctioning hose (22) connected to the defecation suctioning hole (18), the air supply tube (23), and the water supply tube (24) connected to the washing nozzle (21) at its back surface and functions as a bedpan is pushed into the inner fitting recess (46) through the protrusion relief hole (56) of the internal waterproof paper (33) of the diaper (42), with the excretion suctioning hose (22), the air supply tube (23) and the water supply tube (24) protruding through the protrusion relief hole (49) and the protrusion relief hole (50) of the outer (41).

Example 1

[0037] In Figure 1, 40 shows the inner of this invention and 41 shows the outer in this invention.

The inner (40) has almost the same shape and function as those of a conventional bedpan (10) from which the hip-receiving part (15) has been removed. So, the same numbers are used for parts having the equivalent functions in the following description.

The inner (40) comprises a main body (40a) and an outer cover (40b) where the main body (40a) corresponds to the conventional toilet seat main body (13) and the outer cover (40b) to the rear cover (14). The main body (40a) comprises a defecation-receiving part (16) having a tray-like pit and a urine-receiving part (17) like a vertical groove with a wall (17a) part standing at each of both sides. The defecation-receiving part (16) has an integrated protruding tube part that connects to the rear and becomes a defecation suctioning hole (18), and the front end of the defecation-receiving part (16) is equipped with a washing nozzle (21). And the defecation-receiving part (16) has one stool sensor (19) and four urine sensors (20). And at about the middle position of the urine-receiving part (17), the washing nozzle (21) is arranged. At the ends of the inner main body (40a) and the outer cover (40b), lower part fixing protrusions (43) are arranged.

The outer cover (40b) is fitted to the back side of the main body (40a), and the outer cover (40b) is equipped with an excretion suctioning hose (22), an air supply tube (23), a water supply tube (24), and an electrical cord (25) from the bottom to the top. And in the gap between the main body (40a) and outer cover (40b), the air supply tube, water tube, and the electrical cord are placed.

[0038] The outer (41) has an inner fitting recess (46) to fit to the diaper (42) described later between itself and the inner (40) with a small gap (57) (about 1 to 2 mm). This inner fitting recess (46) is formed by a defecation part fitting wall (46a), a urination part fitting wall (46b) and a back-surface wall (46c). The defecation part fitting wall (46a) is loosely fitted to the defecation-receiving part (16), and the urination part fitting wall (46b) is loosely fitted to the urine-receiving part (17). At the peripheral areas of the defecation part fitting wall (46a) and the urination part fitting wall (46b), a soft material (45) similar to one conventionally used is arranged, protruding to the outside. At the back-surface wall (46c), a protrusion relief hole (49) through which the excretion suctioning hose (22) and the air supply tube (23) protrude, a protrusion relief hole (50) through which the water supply tube (24) and the electrical cord (25) protrude, and an upper part fixing hole (48) of the lock pin (54) that connects the inner (40) and the outer (41) are formed. And at the internal end of the inner fitting recess (46), a lower part fixing recess (47) that fixes to the lower part fixing protrusion (43) is arranged.

At the front end of the outer (41), the bedpan main body (13) is arranged in an integrated way and a soft material (55) is applied on this bedpan main body (13) as a cover.

[0039] In Figure 2, the basic structure of the diaper (42) is similar to that of a conventional special diaper (11), using a thin and strong diaper main body made of paper. This diaper main body is 55 to 60 cm in width and 80 to 85 cm in length. When this diaper main body is divided into three pieces longitudinally, the near side is a hip-covering part (26), the rear side is a belly-covering part (27) and the mid part is a crotch-covering part (28), where the width of this crotch-covering part (28) is narrowed to 35 to 40 cm. The area around the end of the hip-covering part (26) is “hip gathers” containing elastic materials such as rubber whose length is about 20 cm when extended, and similarly, the area around the both sides of the crotch-covering part (28) is “crotch gathers” containing elastic materials such as rubber whose length is about 20 cm when extended, and 12 cm when not extended. A thick cushion material (51) is stuck to the internal side of the diaper main body, covering the hip-covering part (26), crotch-covering part (28) and belly-covering part (27), excluding the internal waterproof paper (33), and at the both sides of the internal waterproof paper (33) in this cushion material (51), an internal gathers part (52) and an external gathers part (53) are arranged, respectively. At each of the both ends of the belly-covering part (26), two fastening pieces (30) with surface fasteners (29) are arranged, protruding outward.

What is different from the conventional special diaper (11) is that the internal waterproof paper (33) at the center, whose size is just enough to cover the back side of the inner (40), has only a protrusion relief hole (56) at its (33) center that is used to relieve the excretion suctioning hose (22), the air supply tube (23), the water supply tube (24) and the electrical cord (25), and into which a lock pin (54) is inserted, whereas the internal waterproof paper does not have the excretion hole (32), cut line (34), sticking margins (35) and gap holding tape (36) of the conventional special diaper (11), and does not have the toilet seat receiving sheet (37) at the back surface.

[0040] The process of setting the diaper (42) with the inner (40) and the outer (41) is described.

Place the diaper (42) on the back side of the inner (40) so that the belly-covering part (27) is in the upper side and the internal waterproof paper (33) of the diaper (42) is tightly fitted to the defecation-receiving part (16) and urine-receiving part (17). At this time, have the excretion suctioning hose (22), the air supply tube (23), the water supply tube (24) and the electrical cord (25) of the inner (40) protrude from the protrusion relief hole

(56). The position of the protrusion relief hole (56) may not be accurate.

With the diaper (42) placed on the back of the inner (40), insert the lower part fixing protrusion (43) at the front end of the inner (40) into the lower part fixing recess (47) of the outer (41) together with the internal waterproof paper (33) of the diaper (44) by slightly tilting it, and push the inner (40) and the internal waterproof paper (33) to the urination part fitting wall (46b), using the fixing part of the lower part fixing protrusion (43) and the lower part recess (47) as the supporting point. Then, they are tightly fitted into the inner fitting recess (46) and stored, as the lower part of the outer (41) covers them with the defecation part fitting wall (46a) of the outer (41) and the upper part of the outer (41) covers them with the urination part fitting wall (46b) of the outer (41). After the inner (40) and diaper (42) have been tightly fitted to the outer (41), insert the lock pin (45) through the upper part fixing hole (48) of the outer (41), the protrusion relief hole (56) of the diaper (42) and the upper part fixing hole (44) of the outer cover (40b), and rotate it by 90 degrees to fix the whole, as shown in Figure 4 (a).

This completes the setting of the diaper (42) to the bedpan.

[0041] Next, set the diaper (42) to the inner (40) as a bedpan and the outer (41), and place it to the crotch of the care-requiring person (12). At this time, the hip touches the cushion material (51) of the diaper (42) as shown in Figure 4 (a) (b) and (c). Even if the cushion material (51) of the diaper (42) shifts its position relative to the outer (41), it does not cause pain in the hip because it touches the soft material (45) of the outer (41).

[0042] When the diaper is tightly attached to the crotch, fold the belly-covering part (28) to cover the belly. Place the hip-covering part (26) on the belly, cover the hip with hip-covering part (26) while extending the hip gathers from the both sides of the hip-covering part (26), and fix the surface fasteners (29) of the fastening pieces (30) to the surface fastener of the belly-covering part (27).

[0043] When the inner (40) as a bedpan with the set diaper (42) as described above is worn and defecation or urination is detected by the stool sensor (19) or the urine sensor (20), an excretion processing apparatus which is not illustrated is activated, processes the stool and/or urine in the inner (40) by suctioning them from the defecation suctioning hole (18), washes the area with hot water, and dries it with warm air.

[0044] In the method of attaching the diaper to the bedpan in the example shown above, first the diaper (42) to be attached to the crotch is placed on the back side of the inner

(40) functioning as a bedpan, then the outer (41) is placed on the back side of the diaper (42) so that the front surface of the inner (40) is exposed, and the outer (41) holds the internal waterproof paper (33) of the diaper (42) between itself and the inner (40).

[0045] However, the sequence is not limited to the one shown above, but the following processes may be used. First the diaper (42) to be attached to the crotch is placed on the front surface of the outer (41), then the inner (40) is fitted to the diaper (42) from above, and the outer (41) and inner (40) hold the internal waterproof paper (33) of the diaper (42) between them.

[0046] The bedpan in which the inner (40), diaper (42) and outer (41) have been set is fitted to a care-requiring person (12) as shown in Figure 3. The method of fitting it is almost the same as a conventional one, and the bedpan to which the diaper (42) has been set is placed to the crotch of the care-requiring person (12). Then, the anus is located almost just above the stool sensor (19) of the defecation-receiving part (16).

When the bedpan is tightly fitted, the belly-covering part (27) is folded up to the belly of the care-requiring person (12), it is covered by the hip-covering part (26), and the hip-covering part (26) is fixed to the surface fastener (29) of the belly-covering part (27) with the fastening pieces (30).

[0047] An appropriate gap is formed between the crotch and the washing nozzle (21) by the soft material (45) and the cushion material (51), as shown in Figure 4 (b).

An appropriate gap is formed between the anus and the stool sensor (19) by the soft material (45) and cushion material (51), as shown in Figure 4 (c).

[0048]

10 Bedpan

11 Special diaper

12 Care-requiring person

13 Toilet seat main body

14 Rear cover

15 Hip-receiving part

16 Defecation-receiving part

17 Urine-receiving part

18 Defecation suctioning hole

19 Stool sensor

- 20 Urine sensor
- 21 Washing nozzle
- 22 Excretion suctioning hose
- 23 Air supply tube
- 24 Water supply tube
- 25 Electrical cord
- 26 Hip-covering part
- 27 Belly-covering part
- 28 Crotch-covering part
- 29 Surface fastener
- 30 Fastening piece
- 32 Excretion hole
- 33 Internal waterproof paper
- 34 Cut line
- 35 Sticking margin
- 36 Gap holding tape
- 37 Toilet seat receiving sheet
- 38 Soft material
- 40 Inner
- 41 Outer
- 42 Diaper
- 43 Lower part fixing protrusion
- 44 Upper part fixing hole
- 45 Soft material
- 46 Inner fitting recess
- 47 Lower part fixing recess
- 48 Upper part fixing hole
- 49 Protrusion relief hole
- 50 Protrusion relief hole
- 51 Cushion material
- 52 Internal gathers part
- 53 External gathers part
- 54 Lock pin
- 55 Soft material
- 56 Protrusion relief hole
- 57 Gap

Scope of Claim

[Claim 1] A bedpan with a diaper that is characterized by comprising
an inner that has a defecation-receiving hole,
a urination-receiving hole and a defecation suctioning hole, and
functions as a bedpan, a diaper applied on the back of the inner to be attached
to the crotch, and an outer that is applied from behind the diaper so that the defecation-
receiving hole and the urination-receiving hole of the inner are exposed and holds the
diaper between the outer itself and the inner.

[Claim 2] A bedpan with a diaper described in Claim 1 that is characterized by its inner
that has a stool sensor, a urine sensor, and a washing nozzle.

[Claim 3] A bedpan with a diaper described in Claim 1 that is characterized by its outer
on which an inner fitting recess that holds the diaper tightly in a gap between the outer
peripheral surface of the inner and the inner periphery of the outer is formed.

[Claim 4] A bedpan with a diaper described in Claim 3 that is characterized by its diaper
which has an internal waterproof paper part that fits between the inner and the outer
and the outer peripheral surface of the waterproof paper is made of a cushion material.

[Claim 5] A bedpan with a diaper described in Claim 3 that is characterized by a soft
material formed at the defecation-part fitting wall and urination-part fitting wall at the
outer periphery of the inner fitting recess that protrudes toward outsides from the
defecation-receiving part and urination-receiving part when the inner is fitted.

[Claim 6] A bedpan with a diaper described in Claim 1 that is characterized by a hip-
receiving part mounted at the front end of the outer.

[Claim 7] A method for attaching a bedpan diaper that is characterized by comprising
a process in which a diaper to be attached to the crotch is placed on the back of
the inner that has a defecation-receiving hole, a urination-receiving hole and a defecation
suctioning hole and functions as a bedpan, and
a process in which the outer is applied from behind the diaper so that the front
surface of the inner is exposed, and holds the internal waterproof part of the diaper

between the outer itself and the inner.

[Claim 8] A method for attaching a bedpan diaper that is characterized by comprising

a process in which a diaper to be attached to the crotch is applied to an inner that has a defecation-receiving part, a urine-receiving part and a defecation suctioning hole at its front surface and an excretion suctioning hose connected to the defecation suctioning hole, an air supply tube, and a water supply tube connected to the washing nozzle at its back surface and functions as a bedpan, with the excretion suctioning hose, the air supply tube and the water supply tube at the back side of the inner protruding from the protrusion relief hole of the internal waterproof paper of the diaper, and

a process in which the inner fitting recess of the outer is applied from behind the diaper so that the front surface of the inner is exposed, with the excretion suctioning hose, the air supply tube and the water supply tube protruding from the protrusion relief hole of the outer, and holds the internal waterproof paper part of the diaper between the outer and the inner.

[Claim 9] A method for attaching a bedpan diaper described in Claim 8 that is characterized by

a process in it where a lower part protrusion at the front end of the inner is fixed, together with the internal waterproof paper of the diaper, to the lower part fixing recess of the inner fitting recess arranged in the outer while the diaper is placed on the back of the inner, and the inner and the diaper are fitted to the inner fitting recess by using the fixing part as the support point, when the outer is applied from behind the diaper and holds the diaper between itself and the inner.

[Claim 10] A method for attaching a bedpan diaper that is characterized by comprising

a process in which a diaper to be attached to the crotch is applied on the front surface of an outer, and a process in which an inner that has a defecation-receiving hole, a urination-receiving hole and a defecation suctioning hole at its front surface and functions as a bedpan is fitted to the diaper from above and holds the internal waterproof part of the diaper between the inner itself and the outer.

[Claim 11] A method for attaching a bedpan diaper that is characterized by comprising

a process in which the internal waterproof paper part of the diaper having a protrusion relief hole is applied to an inner fitting recess of the outer having protrusion relief holes, and

a process in which an inner that has a defecation-receiving part, a urine-receiving part, a defecation suctioning hose and a washing nozzle at its front surface and an excretion suctioning hose connected to the defecation suctioning hole, an air supply tube, and a water supply tube connected to the washing nozzle at its back surface and functions as a bedpan is pushed into the inner fitting recess through the protrusion relief hole of the internal waterproof paper of the diaper, with the excretion suctioning hose, the air supply tube and the water supply tube protruding through the protrusion relief holes of the outer.