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E. R. CHINCHOLL
ABDOMINAL APPLIANCE

2,520,831

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Fig. 1.

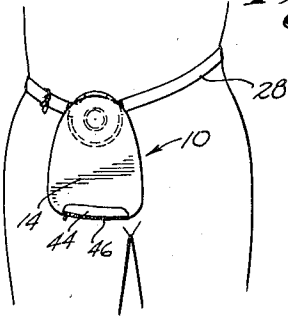


Fig. 2.

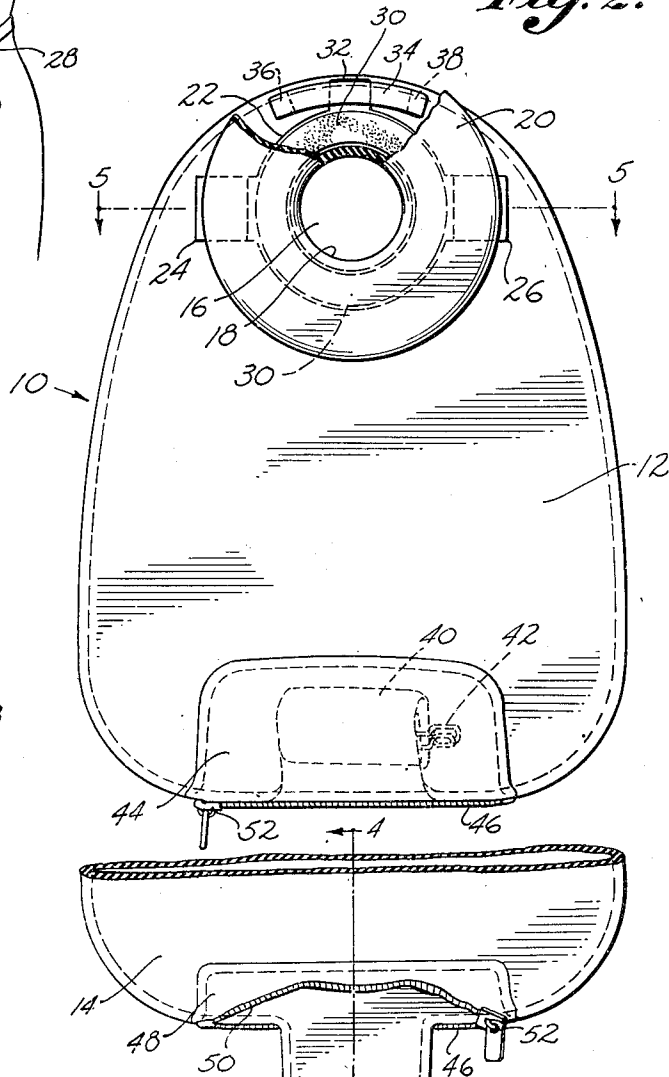


Fig. 4.

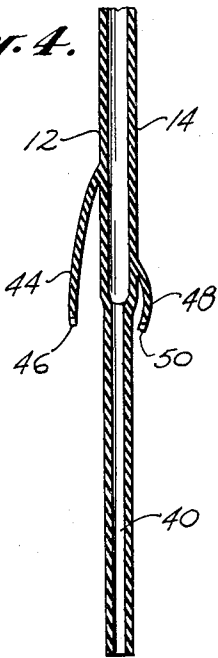


Fig. 5.

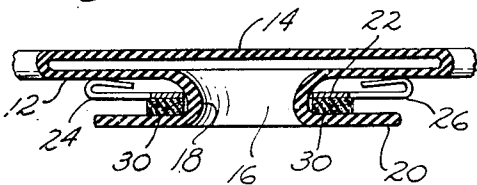
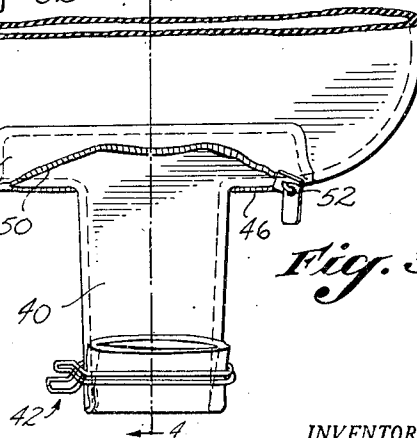


Fig. 3.



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ABDOMINAL APPLIANCE

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3 Claims. (Cl. 128—283)

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This invention relates to a device adapted to be worn by a person to receive and temporarily retain matter discharged from artificial orifices in the abdominal region.

A number of such receptacles or containers are known and the best available have had to be used even though they have been found unsatisfactory for a number of reasons. Thus, in one prior construction, when a tight connection about the body orifice is formed by applying what is essentially a rigid pressure plate or disk directly against the skin, the wearer suffers great inconvenience, especially when undertaking appreciable bodily movement. However, for sanitary reasons it is at the same time essential that an air-tight seal be made, both of the body orifice and the receptacle contents, and attempts to solve each of these problems in various ways have met with only indifferent success in the past.

Accordingly, it is a purpose of the present invention to produce an improved device of the character described which overcomes the foregoing defects in a notable manner; and to provide such a receptacle which is both simple in construction and efficient in operation or use.

Other objects and advantages of the invention will be apparent from the following description and claims, the novelty consisting in the features of construction, combination of parts, the unique relations of the members and the relative proportions, disposition, and operation thereof, all as more completely outlined herein and particularly pointed out in the appended claims.

In the drawings, which form part of the present specification:

Figure 1 is a somewhat diagrammatic view of my device shown in position on a user;

Figure 2 is an elevational view of the inner or body face of the device;

Figure 3 is a fragmental perspective view of the lower portion of the device as seen from the back of Figure 2;

Figure 4 is a longitudinal sectional view through the lower end of the device taken along the line 4—4 of Figure 3 with the discharge tube entirely extended; and

Figure 5 is a transverse sectional view taken through the head of the device, along the line 5—5 of Figure 2.

As illustrated, my device consists of a bag or container 10, having flat sides 12, 14 adapted normally to lie in a collapsed position of lateral registration, and formed of good quality rubber similar to a hot water bag. Near the top of the bag in the inner wall, an orifice 16 is formed,

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about which the wall 12 curves out in an arcuate sided neck 18 which merges into a flexible contact disk 20. This disk is attached to the skin of the user by suitable adhesive material so as to form a removable, air-tight ring about the abdominal opening, which is at the same time flexible to the same extent as the adhered skin.

Around the outer circumference of the neck 18, there is loosely disposed a rigid washer-like member 22, as of metal or plastic, having a hook 24, 26 on each side for connection to a supporting belt 28 which is worn about the waist of the user (Fig. 1).

The inner face of the washer 22, next to the contact disk 20 is provided with a sponge rubber layer or cushion 30 which normally presses against the flexible disk 20 by action of the belt 28, so as to hold the disk against the skin in a comfortable manner and prevent the weight of the bag from pulling on the attachment disk 20. The upper edge of the washer 22 is provided with a projecting tab 32 inserted beneath an attachment band 34 of fabric or rubber, the ends of which are secured to the inner face 12 of the container at 36 and 38. The purpose of this tab 32 is to prevent the upper portion or top margin of the container 10—above the orifice 16—from being bent over or pulled down (i. e. outward) by weight of material within the bag. By this construction, it should be noted that the washer 22 can rotate about the neck 18 for a limited distance (due to movement of the wearer, for example) without pulling on the attachment disk 20, because of the lateral play allowed the tab 32 between the fastening points 36 and 38.

At the lower end of the container, the opposite walls 12, 14 continue as an elongated discharge tube 40 which normally is folded upon itself to act as a closure. A spring tension clamp 42 is provided to hold the folded portion tightly together so as to prevent leakage. Removal of the same allows the contents of the bag to be emptied.

Adjacent the base of the discharge tube, a flap 44 is attached along its edges to the outer face of one wall (12) of the container, and its lower free edge is provided with engaging means 46. A strip 48 carrying corresponding means 50 of the "zipper" type engageable by a slide fastener 52, is secured to the outer face of the opposite container wall (14) so that the two mutual attachment elements 44, 48 can be brought together and connected beneath the container to form a closed pouch in which the folded discharge tube 40 may be inconspicuously lodged. Not only does this eliminate the incon-

venience of the dangling discharge tube of prior constructions but by sealing the same in the pouch by means of the slide fastener 52, the escape of odors from the tube is prevented. In the past, both of these occurrences have proved a source of considerable embarrassment to the user.

Accordingly, it will be seen that I have provided a greatly improved ileostomy or similar bag which is more comfortable to the user, affords greater self-adjustment to bodily movements, as well as being more sanitary both in relation to the user and in relation to others in preventing the escape of odors which might prove offensive. The advantages to the user are therefore both physical and psychological.

While a presently preferred embodiment of my abdominal bag has been here illustrated and described in some detail, it is to be understood that various modifications may be made therein within the scope of the invention as hereafter defined, it being my intention to claim the invention broadly within the limitations of the prior art.

I claim:

1. An abdominal bag of the character described, comprising in combination: a flexible container adapted normally to lie flat when collapsed, and having an upper, lateral opening in a wall thereof; a discharge tube functionally attached adjacent the bottom of the container and provided with a clamping element for closing the same; a flap attached adjacent the bottom of the container so as to form a pouch in conjunction with the container wall, which pouch surrounds said point of attachment of the discharge tube and is adapted to have the clamped discharge tube stored therein; slide fastener means for sealing said pouch with the discharge tube inside; a flexible contact disk connected to the container by an annular neck at said upper opening; a substantially rigid washer rotatably mounted on said neck and having attachment means for connection to a belt, said washer having a layer of compressible material on its side adjacent the contact disk and further having an

upwardly projecting tab along its upper edge; and an elongated band connected at each end to the inner face of the container wall adjacent the top thereof and adapted to receive said tab between itself and the container so as to support the top of the container while permitting the tab limited radial movement beneath the band.

2. In an abdominal bag of the character described, having an upper opening in a wall thereof, the improvement comprising: a flexible contact disk connected to the container by an annular neck at said upper opening; a substantially rigid washer rotatably mounted on said neck and having attachment means for connection to a belt, said washer having a layer of compressible material on its side adjacent the contact disk and further having an upwardly projecting tab along its upper edge; and an elongated band connected at each end to the inner face of the container wall adjacent the top thereof and adapted to receive said tab between itself and the container so as to support the top of the container while permitting the tab limited radial movement beneath the band.

3. In an abdominal bag of the character described, in combination with a dependent discharge tube, the improvement comprising: a flap attached adjacent the bottom of the container so as to form a pouch in conjunction with the container wall, which pouch is adapted to have the discharge tube stored therein, said discharge tube being functionally attached to the bag within the pouch; and slide fastener means carried by said flap and adapted to close said pouch with the discharge tube completely inclosed therein.

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The following references are of record in the file of this patent:

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