April 4, 1950 M. H. LAY 2,503,056

COLOSTOMY DEVICE

Filed July 21, 1947 2 Sheets-Sheet 1

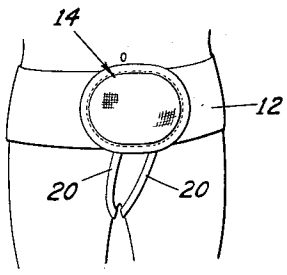


Fig. 1

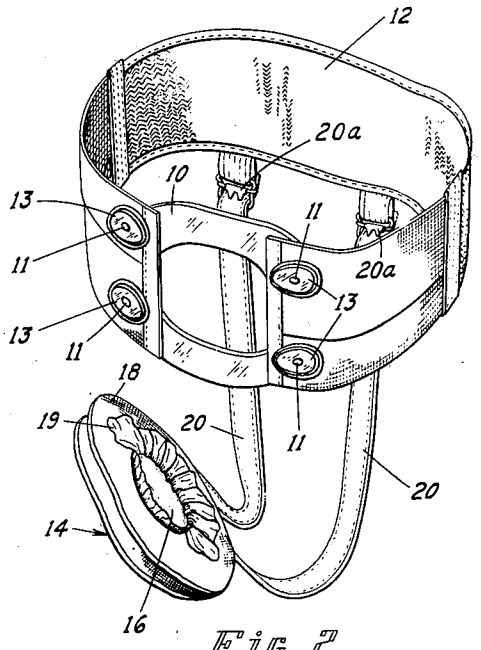


Fig. 2

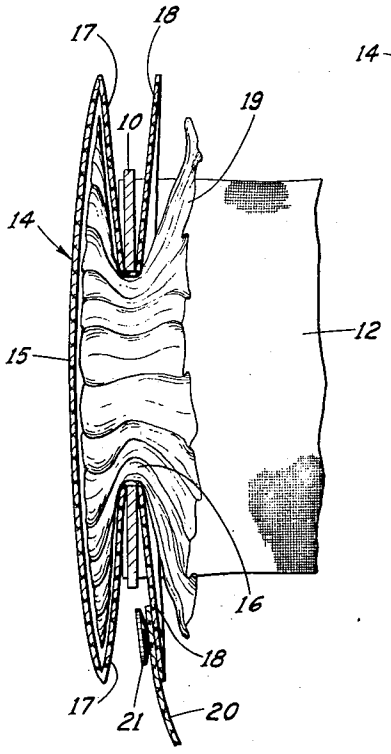


Fig. 3

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COLOSTOMY DEVICE

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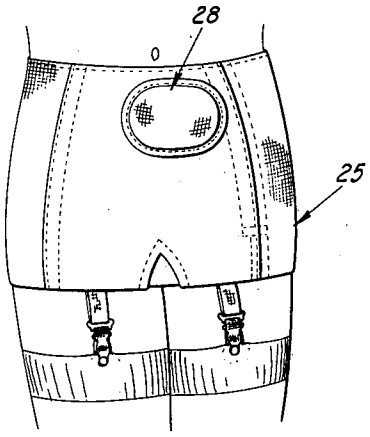


Fig. 4.

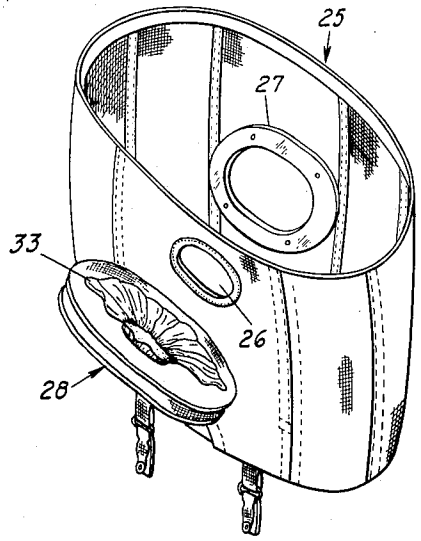


Fig. 5

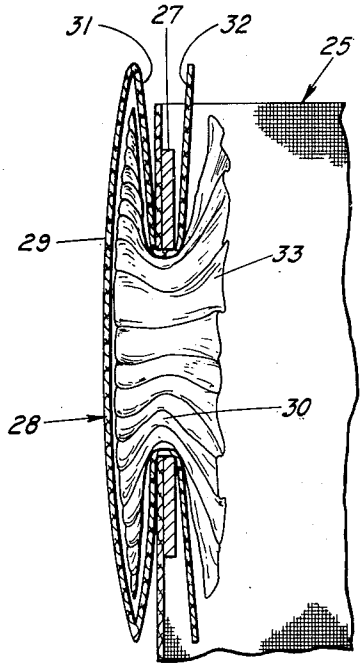


Fig. 6

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UNITED STATES PATENT OFFICE

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COLOSTOMY DEVICE

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Application July 21, 1947, Serial No. 762,440

9 Claims. (Cl. 128—283)

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The present invention relates to a colostomy device. It has to do particularly with a device of this nature which is adapted to be employed by either male or female patients.

Many devices or appliances in the form of receptacles or containers have been employed for association with artificial orifices or openings formed in abdominal walls. Heretofore, devices or appliances of this general nature have been bulky and cumbersome and it has been impossible for the wearer to conceal the presence of the device on his body. It has also been difficult to provide devices which had a fluid-tight joint between the device and the abdomen wall and in an effort to produce such, various means, usually uncomfortable to the wearer, have been provided. In short, the results have been unsatisfactory. If the prior devices have served the purpose and have been leak-proof as desired, they have been either extremely uncomfortable to the wearer, or bulky, and thus easily observed in use.

One of the objects of the present invention is to provide an improved and effective device or appliance for the capture of fecal or other matter drained from the body, as well as gases emitted therefrom in post operative care.

Another object of the present invention is the provision of a colostomy device which can be conveniently and comfortably worn and which lies flat upon the abdomen of the wearer and thus is invisible or substantially invisible by an observer when in use.

A further object of the present invention is to provide a colostomy device capable of use by either male or female patients.

A further object of the invention is to provide an improved colostomy device which is capable of being quickly applied to and removed from an opening formed in an abdomen-encircling band, such as a girdle, which is normally worn by the patient.

Another object of the present invention is to provide an improved colostomy device of relatively simple construction, having few parts, and including a pouch liner which is moisture-proof and which may be easily removed and cleaned.

A further object of the present invention is to provide an improved colostomy device which is capable of quick and easy application to the person of the wearer and removal therefrom.

The foregoing and other objects and advantages of the present invention will appear from the following description and appended claims when considered in connection with the accompanying drawings forming a part of this specification wherein like reference characters designate corresponding parts in the several views.

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In said drawings:

Fig. 1 is a front elevational view of one form of colostomy device embodying the present invention, shown applied to a male patient;

Fig. 2 is a perspective view of the device shown in Fig. 1;

Fig. 3 is a vertical sectional view, partly in elevation, of the device shown in Fig. 1;

Fig. 4 is a front elevational view of another form of colostomy device embodying the present invention and shown applied to the body of a female patient;

Fig. 5 is a perspective view, with the parts separated, of the device shown in Fig. 4; and

Fig. 6 is a vertical sectional view, partly in elevation, of the device shown in Fig. 4.

Before explaining in detail the present invention it is to be understood that the invention is not limited in its application to the details of construction and arrangement of parts illustrated in the accompanying drawings, since the invention is capable of other embodiments and of being practiced or carried out in various ways. It is to be understood also that the phraseology or terminology employed herein is for the purpose of description and not of limitation, and it is not intended to limit the invention claimed herein beyond the requirements of the prior art.

Referring now particularly to Figs. 1, 2 and 3 of the drawings, there is shown in these figures one form of colostomy device or appliance embodying the present invention and adapted particularly for use by male patients. As shown, the device comprises three parts adapted to be held to the abdomen of a patient and to surround and cover an artificial opening or orifice formed in the abdomen, the device being held in place preferably by a torso-encircling member, such as a belt or band having preferably an elastic insert, the device and the belt or band being detachably connected together.

The colostomy device in accordance with the present form of the invention comprises a ring member 10 of generally oval shape which is preferably curved to conform to the contour of the human abdomen. The face of the ring 10, which may be formed from lightweight metal, such as aluminum or aluminum alloy, or from any other suitable stiff lightweight material, carries a plurality of studs 11, see Fig. 2, which are adapted to be engaged by fastening devices 13 carried adjacent opposite ends of the colostomy-

encircling band or belt 12. The ring 10 is adapted to support a removable pouch member or pocket 14 which, as shown, is preferably of oval shape and which is of single bellows-like formation having a closed portion or front wall 15, a central opening 16, and a pair of peripheral portions 17 and 18. The opening 16 is, as shown, of reduced size which approximates the opening in the ring 10. The pouch is formed from any suitable fabric material, such as duck or canvas, and is preferably provided with a removable liner 19. The liner is formed from any suitable moisture-proof material and may be a piece or sheet of flexible plastic.

In accordance with the form of the invention shown in Figs. 1, 2 and 3, the torso-encircling member 12 is preferably provided with a pair of crotch entering straps 20 which are adjustable in length and which are secured at their forward ends by buttons, or the like 21 (see Fig. 3) to the lower portion 18 of the pouch 14. These strap members which are adjustable by virtue of the provision of buckles 20*a* serve to prevent the torso-encircling belt or member 12 from riding up when worn.

In use, the pouch 14 is preferably brought into engagement with the stiff and pre-shaped ring 10 as seen in Fig. 3, the removable liner 19 inserted, and the studs 11 of the ring brought into engagement with the fastener members 13 at one end of the band or belt 12. The belt is then placed around the body of the patient with the ring and pouch in covering and encircling position with relation to the artificial abdominal opening. The other pair of fasteners 13 are then engaged with the other studs 11 to hold the device in its proper position of use. The straps 20 have their forward ends engaged with the buttons 21 carried by the pouch when the device or appliance is in position for use. The straps 20 prevent the waist or torso-encircling belt or band 12 from riding up. It will be understood that when in place, the device lies flat upon the surface of the abdomen and does not provide any protuberance or projecting portion under the wearer's clothing, as was true of previous devices or appliances of this general nature.

Referring now particularly to Figs. 4, 5 and 6 of the drawings, a somewhat modified form of colostomy device or appliance embodying the present invention, is shown. This particular form of the invention is adapted for use by females, being particularly intended to be applied to an opening formed in the front left side, or elsewhere, of the usual girdle worn by the patient. As seen in these figures, an ordinary girdle or garment of this nature is shown as a whole at 25. This girdle, as shown, is provided in its front portion with an opening 26 which, as shown, is of substantially oval shape.

The colostomy device or appliance of the present form comprises a substantially oval-shaped ring 27 which is preferably shaped to conform to the contour of the patient's abdomen and which is adapted to receive and support a pouch or pocket member, shown as a whole at 28. This pouch is substantially identical with the pouch 14 of the preceding views and comprises a closed portion or wall 29, a central reduced opening 30 and a pair of peripheral portions 31 and 32 which extend at opposite sides of the opening 30. The pouch 28 is also provided with a removable moisture-proof liner 33 which may be formed from any suitable water-proof material such, for example, as a piece or sheet of flexible plastic material.

In assembling the device of Figs. 4, 5 and 6, the pouch 28 is preferably inserted in the oval-shaped opening 26 formed in the girdle and also through an opening in the ring member 27 so that the parts will be assembled and assume their positions as seen in Fig. 6. The liner 33 is then placed in the pouch, as also seen in Fig. 6. It will be understood that the liner may be placed in said pouch before the pouch and ring are assembled, or after said assembly has taken place.

It will be understood that the natural elasticity of the girdle or garment 25 will hold the colostomy device firmly against the abdomen of the wearer and will lie flatwise so as to not offer any protuberance under the clothing of the patient. By virtue of the novel structure of the present device, it cannot be seen by an observer when worn. The exposed portions of the liner 33 lie flush against the flesh of the abdomen at points surrounding the artificial opening in said abdomen and thus the liner provides a perfect seal for the device. The same sealing effect is, of course, obtained by the liner 19 of the preceding form of the invention.

It is to be understood that the device for use by female patients need not necessarily be incorporated in or associated with a girdle, as shown, in Figs. 4, 5, and 6 of the drawings. A female patient may well wear the torso-encircling band or belt 15 of Figs. 1, 2 and 3 of the drawings. Or, if desired, one of the colostomy devices may be applied to the artificial opening in the patient's abdomen and held in position in association with said opening by any suitable means other than those shown and described herein.

By virtue of the provision of the moisture-proof removable liners 19 and 33, the device may be kept free of excretion and sanitary at all times. It is merely necessary to remove the liner to empty the contents of the pouch, after which the liner may be washed and reused. The ring members and the pouches of the two forms illustrated are of such a nature as to last for considerable periods of time.

The device of the present invention is not only of relatively simple construction and of few parts but these parts may be manufactured by mass production methods at relatively low manufacturing costs. Thus, the devices may be placed upon the market at relatively reasonable prices and within the reach of all who require their use.

Having thus described the invention, what is claimed is:

1. A colostomy device comprising a relatively stiff ring member adapted to surround an abdominal opening, a fabric pouch of substantially bellows-like form associated with said ring and supsuported thereby, said pouch having similar peripheral portions embracing and concealing the ring when the device is in use, a removable water-proof liner of flexible material located within said pouch, and means adapted to encircle the torso of a human being for maintaining said ring, pouch, and liner in position with relation to the abdominal opening and with the ring out of surface contact with the wearer's abdomen.

2. A device according to claim 1, wherein the ring is formed from relatively stiff lightweight material and is curved to conform to the contour of the abdomen.

3. A device according to claim 1, wherein the

liner is formed from plastic and the ring is of substantially oval shape and carries studs on its exterior end portions, and wherein the encircling means is provided with sockets at its opposite ends to releasably engage said studs to hold the parts together.

4. A device according to claim 3, wherein strap means is provided for connecting the encircling means at the back of the wearer with said ring, said strap means passing through the crotch of the wearer.

5. In combination with a girdle having an opening formed in the front thereof at the left side of its center, a relatively stiff ring member of substantially oval shape, a fabric pouch member having a body portion and an inner peripheral portion fitting within the ring and within the girdle opening and together providing means for concealing said ring member, and a removable non-porous moisture-proof liner within the pouch, said ring and pouch being adapted to surround an abdominal opening and lying flat upon and conforming to the contour of the abdomen.

6. Structure according to claim 5, wherein the ring is formed from lightweight material, wherein the pouch is formed from canvas, and wherein the liner is formed from a sheet of flexible plastic material.

7. A colostomy device adapted to be applied to the abdomen of a wearer to surround an abdominal opening, said device comprising a relatively stiff lightweight ring member, a pouch formed from fabric associated with said ring member and having similar peripheral portions overlying and completely concealing opposite faces of said ring member when the device is in use, and a removable non-porous moisture-proof liner for said pouch.

8. A device according to claim 7, wherein the ring member is formed from lightweight material and is curved to conform to the curvature of the human abdomen, whereby the device will lie flat upon said abdomen when in use.

9. A colostomy device comprising a relatively stiff ring member of thin gauge material and of substantially oval shape, said ring member being

adapted to surround an abdominal opening, a canvas pouch of substantially bellows-like form associated with said ring member and supported thereby, said pouch having a body portion of substantially oval shape and similar peripheral portions of like shape embracing and concealing the ring member when the device is in use, a removable non-porous water-proof liner of flexible material having an area substantially equal to the total area of the pouch and located within said pouch, said liner being formed from plastic and said stiff ring member being curved in its longitudinal dimension to conform to the contour of the abdomen of the wearer of the device, and torso-encircling means for encircling the torso of a human being for maintaining said ring, pouch and liner in position with relation to the abdomen opening and with the ring out of surface contact with the wearer's abdomen and also protected from engagement by garments of the wearer, said ring member carrying on its outer surface at its opposite ends stud members and said torso-encircling means having disposed at its end portions sockets for receiving said studs, said studs and sockets permitting ready attachment and detachment of the parts, said entire device being adapted to conform to the curvature of the torso of the wearer whereby to lie flat upon said torso.

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