Oct. 27, 1959 A. E. MARSAN 2,910,065

ILEOSTOMY OR DRAINAGE APPLIANCE

Filed Jan. 6, 1958

Fig. 1

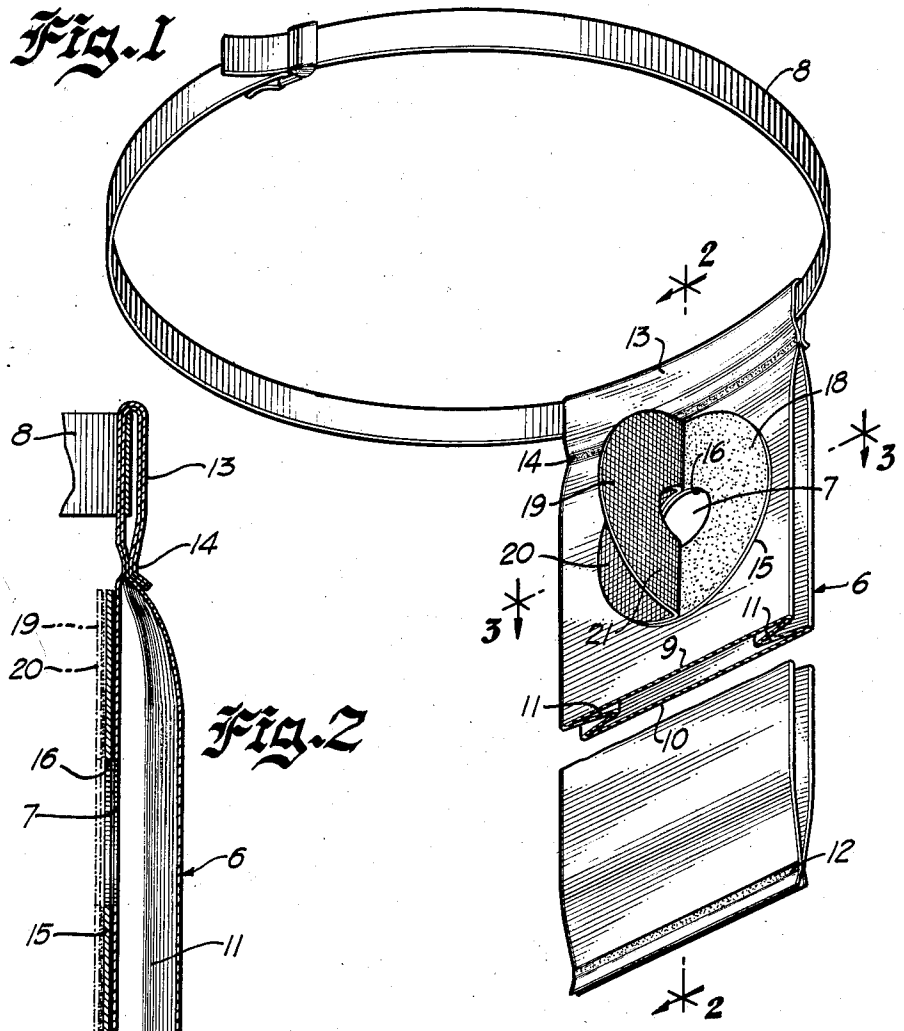
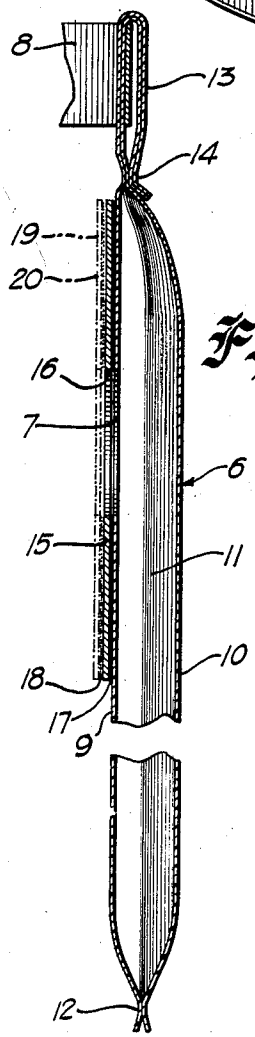


Fig. 2



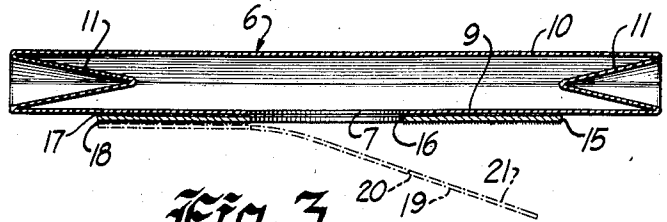


Fig. 3

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ILEOSTOMY OR DRAINAGE APPLIANCE

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1 Claim. (Cl. 128—283)

This invention relates to an appliance for use in cases of ileostomy and the like. In such cases a person has undergone surgery resulting in the ileum or some other part of the intestine being severed and brought out of the wall of the abdomen, forming a artificial anus. As there is no control over the drainage, the patient must wear a container of some sort, and most drainage containers are reused by washing. However, this is not desirable because odors cannot be completely eliminated and, furthermore, the conditions under which these containers are used do not make for sanitation.

The object of my invention is, therefore, to provide an improved ileostomy appliance or drainage device which may be used with greater convenience and which promotes general sanitation in conditions of this kind.

I have also aimed to provide an appliance of this kind which is constructed in such a simple manner as to enable its production at low cost and thereby make it economical for discarding after a single use.

In furtherance of these objects my invention provides a drainage pouch constructed to permit its attachment to the body of the user and its support thereon in such manner as to provide a sensitive and effective seal about the stoma opening and without discomfort to the user or danger of displacing the pouch during usage.

Referring to the drawings:

Figure 1 is a perspective view of an ileostomy appliance embodying my invention as viewed from the side to be attached to the body of the user;

Fig. 2 is an enlarged section taken on 2—2 of Fig. 1; and

Fig. 3 is a similar section taken on 3—3 of Fig. 1.

In the drawings I have shown somewhat diagrammatically an illustrative form of the invention which is characterized by a pouch or bag designated generally by **6** having a stoma opening **7** and provided with means for attachment to the body of the user in sealed relation thereto around the stoma opening. The pouch is closed except for the opening **7** at the center of the body-sealing area. I have further provided for supporting the pouch from the body through means of a belt **8** in such manner that the support is substantially uniformly distributed throughout the width of the pouch so as to relieve the described sealing means of undue strain which might in the normal use of the device cause the sealing means to be loosened and displaced.

I prefer to make the pouch of a suitable waterproof material in thin sheet form such as a plastic film. In practice I prefer to use a film of polyethylene. This material is shaped to provide a drainage bag having inner and outer walls **9** and **10** respectively joined along each longitudinal edge by a gusset **11**. The pouch may be closed at its lower end by heat-sealing along the line **12**. The double thick portion at the upper end of the pouch is folded over upon itself to provide a supporting loop **13** which is heat-sealed along the line **14** to the pouch proper, thus closing the upper end of the pouch. To the inner wall **9** of the pouch is applied adjacent to its upper end

an adhesive patch **15** preferably of disc form having an opening **16** at its center registering with the opening **7**. The disc is provided on each face with a suitable pressure sensitive coating. The adhesive coating **17** at one side of the disc serves to unite the disc to the face of the inner wall **9**. This is for the purpose of permanently attaching the patch or disc to the pouch bag throughout the area contiguous to the opening **7**. The adhesive **18** covering the opposite face of the disc serves for attaching thereto a disc patch **19** of substantially the same size and shape as the inner patch **15**. This patch **19** may be of suitable material such as a thin woven fabric suitably coated or treated to provide a dry waterproof outer surface **20** and an inner surface **21** adapted to be united to the disc **16** by the adhesive **17**. The outer patch **19** serves as a protection to the adhesive **18** and permits handling, stacking and packaging of the drainage pouches without damage to the adhesive.

When the device is to be used the outer patch **19** will be pulled off by hand as indicated in Figs. 1 and 3, leaving the adhesive surface **18** exposed and ready for attachment to the body of the user. This attachment is effected by placing the pouch in position over the stoma with the latter entering the opening **7**, and by manually pressing the pouch against the body throughout the patch area until the patch is attached to the body throughout the surface **18**. This provides a very effective seal entirely around the stoma and prevents escape of the drainage material and of odors. This loop portion **13** is for reception of the belt **8** which when properly applied around the waist of the user provides support for the bag substantially uniformly distributed from side to side thereof. This supplements the patch connection to the body and relieves the patch connection from undue strains which might cause loosening or displacement of the patch. I have found this construction to be highly satisfactory in cases of ileostomy, particularly because in such cases the fluid passes out almost continuously by dripping or slow drainage. This makes it necessary for the user to wear the appliance over a considerable period of time, depending on the extent of the drainage. I have found that my invention provides a most satisfactory appliance for this purpose because its gives assurance that the device may be worn without danger of displacement and the consequences thereof and without undue discomfort to the user. Also the device is of such simple construction and low cost as to make it economical for disposing of the entire unit (except of course the belt) after a single use.

Referring to the patch **15** which has adhesive applied to both sides: The adhesive that is applied to the side of the patch that is to be adhered to the skin of the abdomen should be a pressure sensitive type similar to the adhesive on surgical tape. This has a rubber base or some non-irritating resins or plastics such as vinyl ethyl ether resins. The adhesive that is to be applied to the side of the patch that adheres to the side of the pouch should be of such a nature that it will adhere tightly to the pouch. This adhesive may be of a pressure sensitive type or non-pressure sensitive type depending upon the time lapse in the manufacturing process between the application of the adhesive to the patch and the application of the patch to the pouch.

An alternative method of attaching the pouch to the body is to apply the adhesive directly to the polyethylene wall **9** in the area around the opening **7**, together with a covering patch similar to the disc **19**. Another embodiment is to apply the adhesive to the wall **9** in the area around the opening **7** and to fold the bottom portion of the pouch back over the adhesive so that this lower portion of the pouch serves to protect the adhesive before application to the body. In this latter form a suitable anti-adhesive coating may be applied to the lower portion of the pouch which is folded over, thereby preventing

undue sticking of the folded pouch portion and subsequent sticking to the clothing of the user after the lower portion of the pouch has been pulled away to uncover the adhesive.

In the instance where the adhesive is applied directly to the pouch (eliminating the embodiment wherein a double coated patch is used) the adhesive should be a pressure sensitive type that will adhere firmly to the pouch and also to the skin of the abdomen when applied. In view of the difficulty of obtaining adhesion to the polyethylene pouch I prefer to first apply a coating to the surface of the polyethylene that will improve the adhesion between the polyethylene and the adhesive, whether or not the adhesive is a pressure sensitive type. This precoating may be by any of the known printing inks or materials that have been developed as adherent coatings for polyethylene film.

I claim:

An appliance adapted to be worn by a person for receiving body drainage from a stoma as in the cases of ileostomy and other conditions of such character, comprising a pouch unit in combination with a belt adapted to be worn around the waist of the person, said pouch unit comprising a bag of thin waterproof material having an inner wall and an outer wall of greater length than width, the bag being entirely closed except for an opening in its inner wall centrally between its side edges and adjacent to its top end whereby the bag may be positioned with its inner wall flat against the side of the person and with the stoma extending through said opening, an adhesive of the pressure sensitive type on the outer side of the inner wall covering an area entirely surrounding said

opening whereby the bag may be applied in the described location by manual pressure inwardly against the outer side of the bag and directly against said adhesive area so as to seal the inner wall of the bag to the body entirely around the stoma opening, providing an effective seal against escape of drainage materials and odors and providing for ready removal of the bag from the body by reason of the pressure sensitive type of the adhesive, and a belt-receiving loop united to the bag across the top end thereof substantially from side to side thereof whereby when the bag is sealed to the body with the belt extending through the loop, the loop portion of the pouch unit provides support for the bag substantially uniformly distributed from side to side thereof across the full width of the adhesive seal area to relieve the seal of undue strains which might cause loosening or displacement of the bag from its described seal connection to the body while the bag is being worn, the pouch unit being complete for its intended function and of such low cost of construction as to make it economical for disposal after each use.

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