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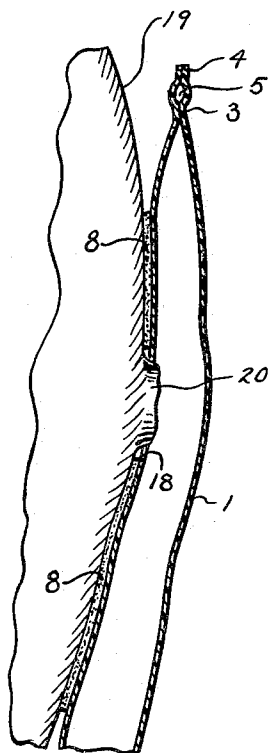
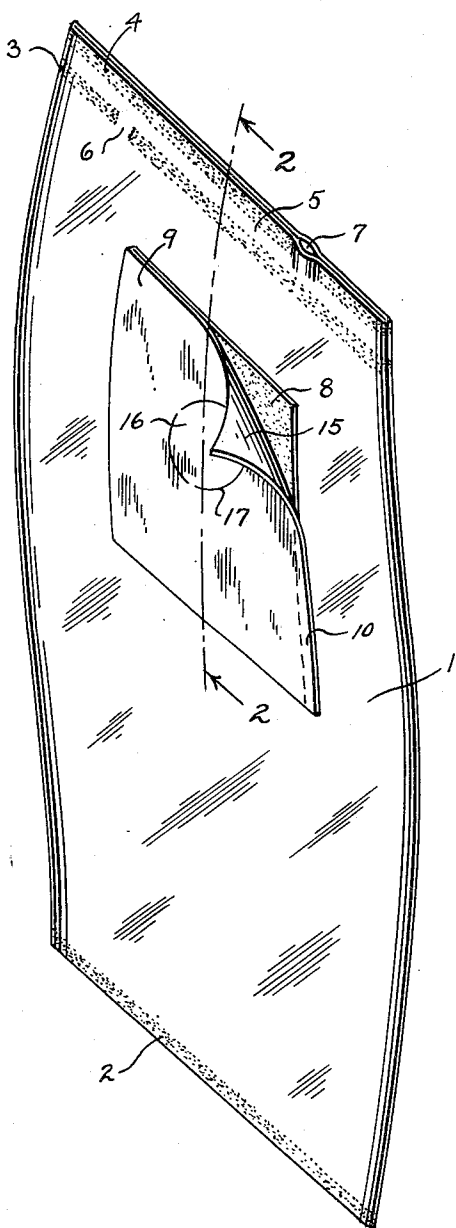
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DRAINAGE POUCH FOR MEDICAL PURPOSES

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Fig. 1

Fig. 2



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DRAINAGE POUCH FOR MEDICAL PURPOSES

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This invention relates to drainage pouches for placement over a stoma such as formed in a colostomy or an ileostomy, and it more specifically resides in a pouch having an adhesive deposited over a substantial area of the pouch, in the proximity of a stoma entrance in the pouch, to serve for attachment directly to the skin of a patient, together with a removable protective liner covering the adhesive which has a release coating upon its surface in contact with the adhesive whereby the liner may be readily removed to expose the adhesive when it is desired to place the pouch in position over the stoma. This invention also provides, in its more complete form, a permanent, integrally formed escape avenue for air and gas which accumulate within the drainage pouch.

In the past, drainage pouches have generally been secured to the body by attachment to belts fastened about the patient. Such a method of attachment is bulky, heavy and generally uncomfortable to the wearer. The present invention provides for direct attachment to the patient by means of a pressure sensitive adhesive which will secure the pouch firmly in the presence of body heat. Thus attached, the belts and auxiliary apparatus attached thereto are eliminated, and direct attachment results in a drainage pouch which is compact, comfortable, light in weight, inconspicuous and less restrictive to physical movements of the wearer.

Furthermore, the use of belts and auxiliary equipment to attach the drainage pouch to the patient has made it difficult to substitute a fresh drainage pouch. On the other hand, direct attachment to the skin of the patient, as provided for in the present invention, allows for simple and swift substitution of the pouches anywhere the patient may find it necessary to change drainage pouches.

The methods heretofore used to secure the drainage pouch to the area surrounding the stoma have proved unsatisfactory. It is necessary to so affix the drainage pouch to the area surrounding the stoma as to provide a leak-proof seal. The present invention, by affixing the drainage pouch directly to the skin of the patient, provides such a leak-proof contact. Furthermore, the leak-proof contact cannot be broken by movement of the body of the patient since the drainage pouch will flex with body movement, thereby insuring a liquid-tight contact until such time as the drainage pouch is desired to be removed.

It is a requirement in the use of a pressure sensitive adhesive for attachment directly to the skin that moisture must not be allowed to come in contact with the adhesive if it is to retain its adhesive characteristics. To meet this requirement, the present invention provides a removable protective liner which covers the adhesive prior to its use. The liner has a release coating, such as a silicone coating, on its surface contacting the adhesive, whereby the liner can be physically removed from the adhesive without the necessity of applying moisture to the liner. The use of a protective release coated liner has the further advantage of allowing for fast and simple exposure of the adhesive prior to application.

Air and gas often accumulate in a drainage pouch. In the past, it was necessary to puncture the pouch to enable the air or gas to escape. The present invention provides a permanent avenue of escape which is an integral part of the pouch and which requires only gentle pressure on the pouch to expel the air and gas. The configuration of the avenue of escape is such as to prevent liquids from

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escaping from the pouch. Thus, the necessity of puncturing the pouch is eliminated, thereby increasing the useable life of the drainage pouch.

Previous drainage pouches have been provided with a rigid ring which surrounds the stoma. The use of such a rigid ring may result in a fit which is not liquid-tight. The drainage pouch of the present invention is so designed that the stoma entrance can be altered by the patient to coincide with the configuration of his stoma, thereby insuring a liquid-tight contact between the drainage pouch and the skin.

It is, therefore, an object of this invention to provide an improved drainage pouch that is disposable and can be readily changed.

It is another object of this invention to provide a drainage pouch which is adapted for direct attachment to the skin of the patient.

It is still another object of this invention to provide a drainage pouch which will conform to the flexing of the body of the patient so as to be non-restrictive to physical movement.

It is a further object of this invention to provide a drainage pouch that is light in weight, compact and inconspicuous.

It is still a further object of this invention to provide a drainage pouch with a pressure sensitive adhesive that can be applied directly to the skin without the use of moisture.

It is also an object of this invention to provide a drainage pouch which will have a leak-proof contact between the pouch and the body of the patient.

It is also an object of this invention to provide a drainage pouch having a stoma entrance which can be made to conform to the configuration of the patient's stoma.

It is also an object of this invention to provide a drainage pouch with a permanent, integrally formed avenue of escape for accumulated air and gas.

The foregoing and other objects and advantages of this invention will appear from the following description. In the description reference is made to the accompanying drawing which forms a part hereof, and in which there is shown by way of illustration, and not of limitation, a specific form in which the invention may reside.

In the drawings:

FIG. 1 is a view in perspective of the drainage pouch of this invention; and

FIG. 2 is a view in section of a portion of the drainage pouch taken along the line 2—2 of FIG. 1, showing the pouch attached to the body of a patient.

Referring now to the drawings, and more specifically to FIG. 1, a pliable impermeable tube 1 formed from a thermal responsive material such as polyethylene is provided with an edge seal 2 across the bottom and a pair of spaced crosswise seals 3 and 4 at the top. The seals 2, 3 and 4 enclose the ends of the tube 1 to develop a pouch, and the unsealed portion of the tube 1 between the crosswise seals 3 and 4 forms a transverse avenue 5. The crosswise seal 3 has a short interruption 6 at one side that provides an entrance into the avenue 5 from the interior of the pouch, and a similar short interruption 7 in the crosswise seal 4 at the side opposite the interruption 6 provides a vent opening leading from the avenue 5 to the exterior.

A pressure sensitive, non-irritating adhesive layer 8 deposited on a portion of the outer surface of the tube 1 is preferably located toward the top of the pouch. This adhesive layer 8 has, in the preferred embodiment, a greater dimension longitudinally relative to the length of the tube 1 than it has in the transverse direction. A thin pliable protective sheet liner 9 covers the entire area of the adhesive layer 8 and extends beyond the limits of the

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adhesive 8 at one side thereof to provide a release tab portion 10. The protective liner 9 has a release coating 15, such as a silicone coating, on that surface which contacts the adhesive layer 8.

A patch 16 is formed in the material of the liner 9 by an interrupted cut 17 which extends through the liner 9, the adhesive layer 8 and one surface of the tube 1. The center of the patch 16 is preferably positioned above the center of the adhesive layer 8 to enhance the adhesion between the pouch and the area about a stoma, as is herein discussed.

Until such time as the drainage pouch is to be used by the patient, the liner 9 protects the adhesive layer 8 from contamination and moisture as well as premature adhesion to a surface. When the patient desires to use the drainage pouch, the patch 16 is first removed, thereby exposing a stoma entrance 18 to the interior of the tube 1 (see FIG. 2). The protective liner 9 is next removed to uncover the adhesive layer 8 by grasping the release tab portion 10 and peeling the liner 9 away from the adhesive layer 8. Since the liner 9 has a release coating 15 on that surface which contacts the adhesive layer 8 removal of the liner 9 is readily accomplished. Once the adhesive layer 8 has been exposed the drainage pouch is placed against the body 19 of a patient in such a manner as to position the entrance 18 about the stoma 20. By pressing against the pouch in the vicinity of the adhesive layer 8 it is firmly attached directly to the skin, and since the pouch is constructed from a pliable material it will conform to the undulations of the wearer's body 19 to provide and maintain a liquid-tight contact regardless of the degree of body movement.

By depositing the adhesive layer 8 on the upper portion of the tube 1, the greater volume of the tube 1 will be disposed below the stoma 20 thereby providing the greatest liquid capacity. In addition, constructing the pouch so that the largest dimension of the adhesive layer 8 is from top to bottom, and so that the center of the patch 16 is located above the center of the adhesive layer 8, results in a greater area of contact below the entrance 18 thereby eliminating leakage where such leakage normally occurs.

In the event that a patient has a stoma 20 which does not conform in size or shape to the entrance 18, the wearer can enlarge or shape the entrance 18 to match the configuration of his stoma 20 by cutting the liner 9, the adhesive layer 8 and the tube 1 prior to removal of the liner 9. Cutting may be accomplished by any conventional means.

Gas may accumulate in the interior of the drainage pouch. This may be expelled by gently pressing the drainage pouch. Pressing the pouch forces the gas into the avenue 5 through the entrance provided by the interruption 6 and from the avenue 5 expels the same through the vent formed by the interruption 7. The staggered position of the interruptions 6 and 7 prevents the accidental escape of liquid from the interior of the drainage pouch.

Removal of the drainage pouch from the wearer's body 19 is readily accomplished by grasping a corner of the pouch and pulling it slowly away from the skin. A replacement pouch may then be readily prepared and placed in position about the stoma to have uninterrupted collection of drainage. The invention thus provides an improved drainage pouch having advantages as hereinbefore discussed.

I claim:

1. In a drainage pouch for medical purposes the combi-

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nation of: a tube of pliable impermeable material having a seal across the bottom and a pair of vertically spaced, crosswise seals at the top forming a crosswise avenue therebetween, each of said top crosswise seals having a short interruption which is staggered to a side opposite from that of the other interruption to provide a vent from the avenue to the exterior and an entrance from the interior of said tube to said avenue, whereby a permanent gas escape passage is provided along the major length of said avenue; a pressure sensitive adhesive layer affixed to an area of the pouch at a point below said crosswise seals; a protective sheet liner overlying said adhesive layer with a release coating applied to the surface thereof in contact with the adhesive layer; and a patch formed within said sheet liner by a cut extending through the liner, the adhesive layer and the tube.

2. In a drainage pouch for medical purposes the combination of: a tube of pliable impermeable material having a seal across the bottom and a pair of vertically spaced, crosswise seals at the top forming a crosswise avenue therebetween, each of said top crosswise seals having a short interruption which is staggered to a side opposite from that of the other interruption to provide a vent from the avenue to the exterior and an entrance from the interior of said tube to said avenue, whereby a permanent gas escape passage is provided along the major length of said avenue; a pressure sensitive adhesive layer affixed to an area of the pouch in the upper portion thereof and which area has a substantial dimension in the top to bottom direction of the pouch; a thin pliable protective sheet liner overlying said adhesive layer with a portion thereof extending beyond said adhesive layer to form a release tab portion of said liner, said liner having a release coating applied to the surface thereof in contact with the adhesive layer; and a patch formed within said sheet liner by a cut extending through the liner, the adhesive layer and said tube, said patch having its center disposed above the center of the adhesive layer.

3. In a drainage pouch for medical purposes the combination of: a tube of pliable impermeable material having a seal across the bottom and a pair of vertically spaced, crosswise seals at the top forming a crosswise avenue therebetween, each of said top crosswise seals having a short interruption which is staggered to a side opposite from that of the other interruption to provide a vent from the crosswise avenue to the exterior and an entrance from the interior of said tube to said avenue, whereby a permanent gas escape passage is provided along the major length of said avenue; an adhesive layer affixed to an area of the pouch in the upper portion thereof and which area has a substantial dimension in the top to bottom direction of the pouch; a thin pliable protective sheet liner overlying said adhesive layer in contact with the adhesive layer; and a patch formed within said sheet liner by a cut extending through the liner, the adhesive layer and the tube, said patch having its center disposed above the center of the adhesive layer.

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