

Oct. 31, 1961

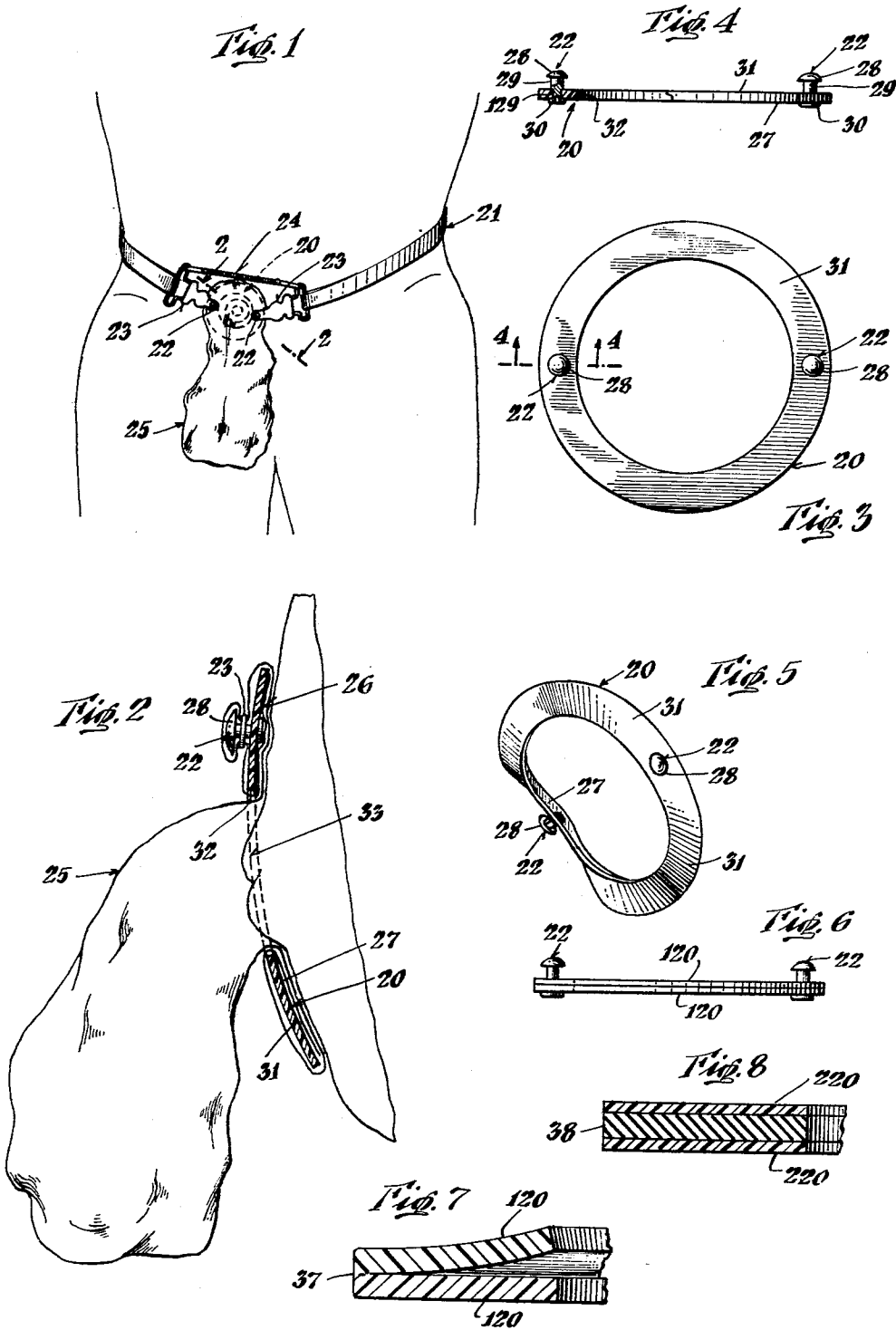
T. R. BAXTER

3,006,343

COLOSTOMY OR ILEOSTOMY APPLIANCE

Filed Feb. 11, 1957

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Fig. 9

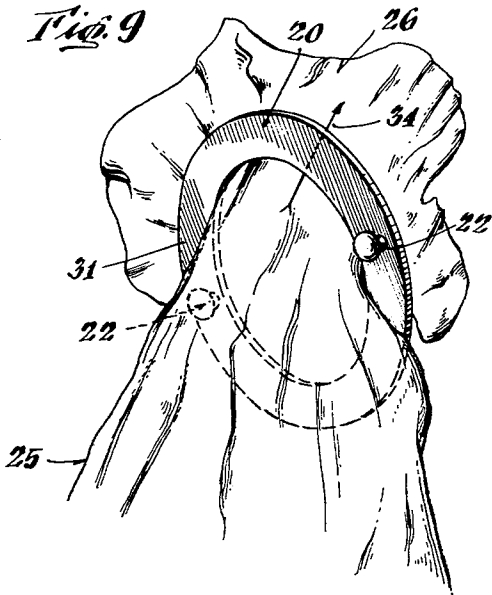


Fig. 10

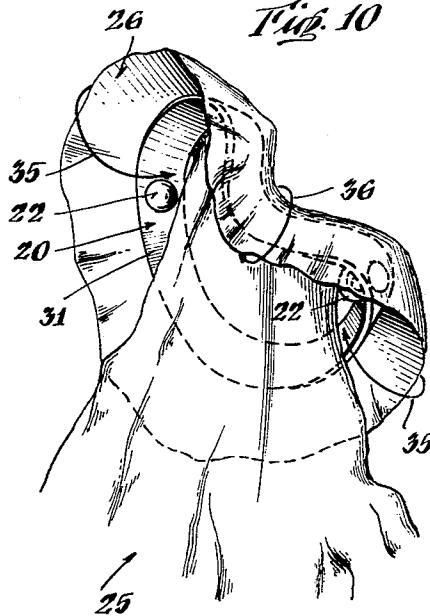


Fig. 11

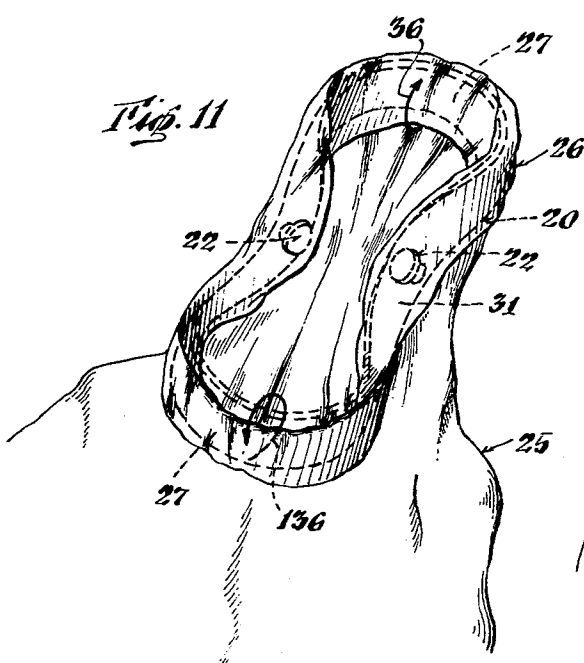
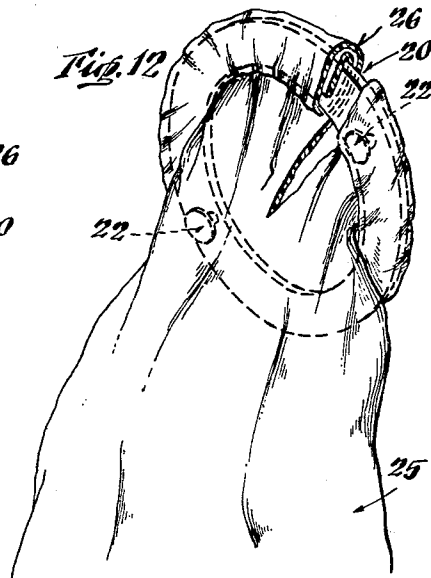


Fig. 12



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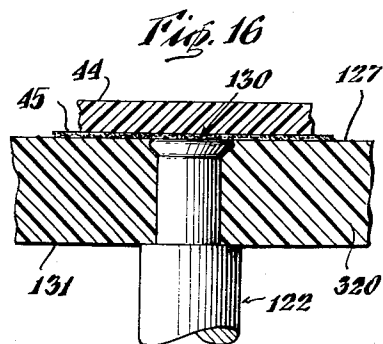
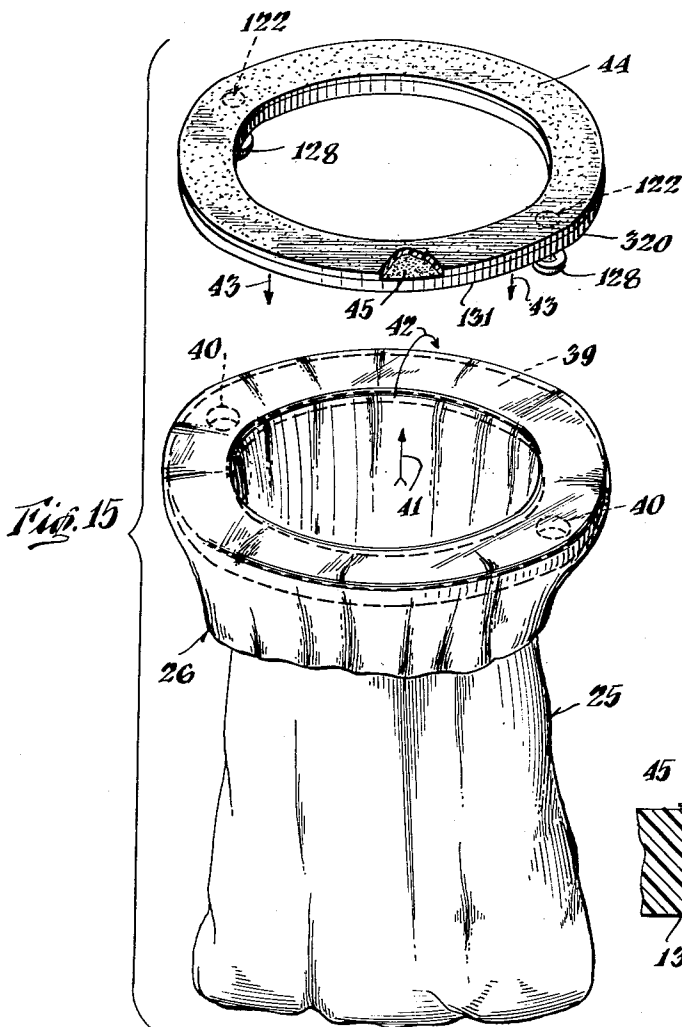
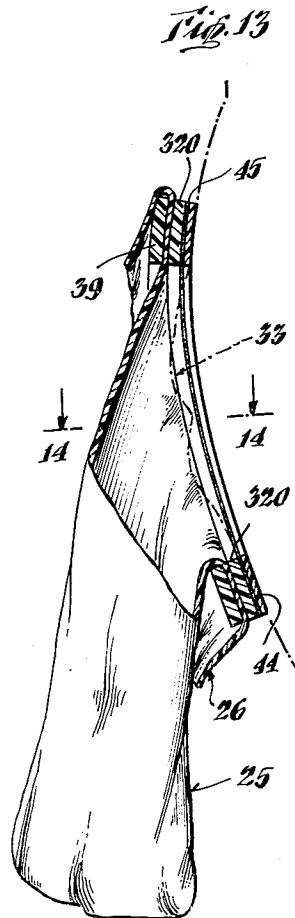
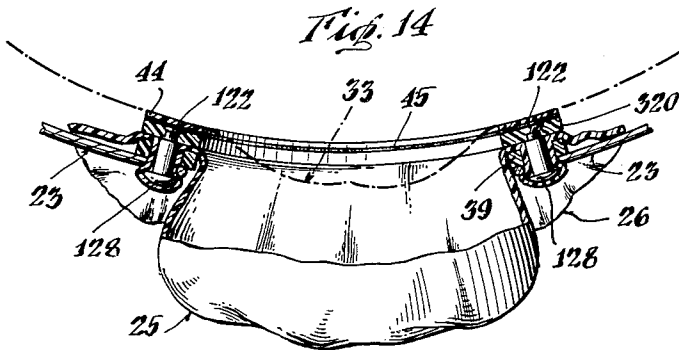
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3,006,343

COLOSTOMY OR ILEOSTOMY APPLIANCE

Thomas R. Baxter, 202 N. Edgewood Road,
Mount Vernon, Ohio

Filed Feb. 11, 1957, Ser. No. 639,277

11 Claims. (Cl. 128—283)

The present invention relates to colostomy or ileostomy devices of the type wherein a ring structure is supported on person's abdomen by suitable supporting harness and is employed for temporary support thereon of a disposable bag for receiving intestinal or ileal discharge from an abdominal opening surrounded by the ring structure, and is an improvement upon the surgical appliance of my prior Patent No. 2,581,319 of January 1, 1952.

A general object of the present invention is to provide in such an appliance a ring structure which is sufficiently pliable or flexible as to be readily conformable to the abdominal contours when clamped thereto and which after a period of usage takes a physical set in shape dictated by such contours thereby assuring maximum comfort to the wearer, which is readily manipulated to secure such bag thereto in a leak-proof manner and which is of simple and economical construction.

A more specific object of the present invention is to provide in such an appliance a disposable bag-supporting ring structure which is formed from or includes a semi-rigid annulus or washer-like ring of flexible elastic plastic material that conforms to the contours of an area of a person's abdomen when clamped thereto and in use under the influence of body heat and clamping stress takes a physical set to a shape corresponding generally to the shape of the body portion over which it is clamped to assure maximum comfort to the wearer.

Another object of the present invention is to provide an embodiment of the invention in which the annulus is in the form of a stack of washer-like plies secured together, one or more of which is formed from the settable elastic plastic and another of which is formed from flexible rubber-like material to assure a certain flexibility of the annulus and to minimize tendency of the latter to buckle and unduly bow laterally under considerable strain applied by fastening or supporting harness strapped to the body at points across on opposite sides thereof, i.e., harness strain in opposite directions generally in the plane of the annulus.

A further object of the invention is to provide an embodiment of the invention which is particularly adapted for use as an ileostomy appliance with the bag-supporting annulus or ring being faced on one side with a permanently tacky material which will securely hold the ring temporarily to the body skin in a fluid-tight manner when the ring is clamped thereto while permitting ready peel-away without stripping the stratum corneum, thereby effectively avoiding irritating digestion of the skin about the stoma by the active digestive fluids discharged and a stripping of the skin upon removal of the appliance for change of the disposable bag.

Still another object of the invention is the provision of structural embodiments of the appliance which may be readily constructed and which will permit efficient use and operation thereof.

Other objects of the invention will in part be obvious and will in part appear hereinafter.

The invention accordingly comprises the features of construction, combination of elements, and arrangement of parts, which will be exemplified in the constructions hereinafter set forth, and the scope of the invention will be indicated in the claims.

For a fuller understanding of the nature and objects of the invention reference should be had to the following

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detailed description taken in connection with the accompanying drawings, in which:

FIG. 1 is a pictorial front elevational view of a portion of the trunk of a person's body showing an embodiment of the appliance of the present invention mounted on or strapped to the person's abdomen by suitable supporting harness and securely clamping about a stoma a disposable bag;

FIG. 2 is an enlarged sectional view taken substantially on line 2—2 of FIG. 1, with more portions of the wearer's body broken away;

FIG. 3 is a top plane view to about three-quarters of the actual full scale of the disposable bag-supporting ring structure of the FIGS. 1 and 2 embodiment before use;

FIG. 4 is an edge elevational view of the ring structure shown in FIG. 3, with a portion thereof broken away and sectioned on line 4—4 of FIG. 3;

FIG. 5 is a perspective view of the ring structure of FIGS. 3 and 4 showing a typical shape thereof after use for an appreciable time and indicating the physical set taken as a result of being subjected to body heat and clamping stress while conforming to the contours of the wearer's abdomen;

FIG. 6 is an edge elevational view of another embodiment of the ring structure of the appliance of the present invention, showing it formed from a stack or pair of washer-like plies, both preferably formed of the elastic plastic material which will take a physical set in use to a conforming shape, such as that illustrated in FIG. 5;

FIG. 7 is an enlarged sectional view, with parts broken away, of a ring structure of the plural-ply type shown in FIG. 6, illustrating securement together of the plies annularly along their outer circumferential edges and being spread or flexed apart along their inner circumferential edges where they may be preferably unsecured together to emphasize such unsecurement of inner edges;

FIG. 8 is an enlarged sectional view, with parts broken away, of another form of the ring structure of the present appliance;

FIGS. 9 to 12 inclusive are perspective views of ring structure of the FIGS. 1 to 5 inclusive embodiment, illustrating step-by-step possible manipulation thereof to wrap up thereabout the mouth of a disposable bag of flaccid material for support thereby;

FIG. 13 is a sectional view similar to FIG. 2 of a further embodiment of the present invention particularly useful as an ileostomy appliance;

FIG. 14 is a sectional view taken substantially on line 14—14 of FIG. 13;

FIG. 15 is an exploded perspective view of the parts of the device shown in FIGS. 13 and 14, illustrating assembly thereof to clamp the disposable bag thereto; and

FIG. 16 is an enlarged sectional detail, with parts broken away, of the main ring and its tacky facing of the FIGS. 13 to 15 inclusive embodiment at the location of one of the anchoring pins for attaching it to suitable supporting harness.

The ring structures of the embodiments of the invention illustrated in the drawings, by way of example, all are characterized by a degree of flexibility permitting each when worn readily to conform to the contours of that portion of the person's abdomen over which it is strapped by suitable supporting harness. However, each ring structure is semi-rigid or is of such rigidity that when anchored at diametrically opposite points to supporting harness, as may be preferred, pulling or clamping stress applied at such points will not unduly buckle the ring structure intermediate the anchoring points to defeat the fit attained by conformance to abdominal contours. Further, each ring structure is formed from or embodies one or more plies of synthetic polymerized or elastic plastic material

of a character which in use for an appreciable period of time under the influence of body heat, which normally is at a temperature of about 37° C., and clamping stress will take a physical set to the contour-conforming shape corresponding generally to the shape of the body portion over which it is clamped, in order to assure maximum comfort to the wearer and leak-proof attachment of the appliance at all times. Such fit as is provided by the contour-conforming shape has been found to assure an efficient leak-proof mount of the supported bag to the patient's abdomen. This physical setting characteristic is exhibited by a variety of types of elastic plastic materials, such as, for example, certain polyethylenes; vinylidene chloride resin polymers or copolymers, frequently referred to by the trade name "Saran"; and flexible polystyrenes. The polyethylenes which are molded or cast from resins produced in reactors under relatively high pressure (and thus called "high pressure" polyethylenes) are, as a rule, softer and less rigid than "low pressure" polyethylenes. Such "high pressure" polyethylenes may be preferred from the standpoint of comfort although more likely to buckle and unduly distort at intermediate top and bottom points under pulling or clamping stress applied at remote side points. As hereinafter indicated suitable provision may be made to overcome the latter difficulty. Some "low pressure" polyethylene materials may have sufficient stiffness to be suitable for this service, e.g. "Marlex 50" produced by the Phillips Petroleum Co. The softness of the polyethylene ring structure may be increased for assuring greater comfort without causing it to be too prone to buckling and undue distortion by incorporating with the resin about 10% to 25% of butyl rubber or about 3% to 10% of polyisobutylene, or in a plural-ply ring structure one or more intervening or associated plies may be formed or rubber-like or synthetic rubber material, such as butyl rubber, as will be explained later.

Referring to the drawings, like numerals identify similar parts throughout the various embodiments illustrated therein by way of example. It will be seen therefrom and, more particularly, from FIGS. 1 to 5 inclusive that an embodiment of the present invention may comprise a ring structure 20 suitably anchored or fastened to supporting harness or a waist-encircling belt 21 by harness-engaging means which may comprise headed studs or buttons 22, 22 carried by the ring structure and over which are clipped fastener loops 23, 23 suitably secured to the opposed ends of the belt. A linking tie or tethering strap 24, which may be elastic to permit an amount of stretching to facilitate donning of the belt 21, may be fastened, detachably if desired, to the fastener loops 23, 23 to retain the belt in position about the wearer's waist when the bag supporting-ring structure is detached from the belt for bag replacement. The bag 25 is of the disposable tubular type made of flaccid waterproof material, such as substantially fluid impervious polyethylene composition, "Pliofilm," a vinyl or the like, having an open end or a relatively wide open mouth defined by a free marginal portion 26 of the bag walls.

Referring to the embodiment illustrated in FIGS. 1 to 5 inclusive, it will be seen that the ring structure 20 may be provided as a semi-rigid annulus preferably washer-like in form of relatively wide flexible stock having appreciable thickness while being appreciably greater in width than the thickness and initially having a substantially flat bearing face 27. The annulus 20 may be cut out by a suitable die from a sheet of flexible, relatively hard, semi-rigid polyethylene sheet having a thickness of about one-eighth of an inch, an O.D. of about three and one-fourth inches, and an I.D. of about two and three-eighths inches. The parts of the anchoring means or harness-engaging means at 22, 22 may each be provided in the form of a headed aluminum or stainless steel pin or button having an enlarged head 28 and a stepped shank 29 with a portion 129 of the latter of smaller

diameter received through a hole in the annulus 20 and with the back end thereof spun over, as is indicated at 30 in FIG. 4. It will be seen therefrom that the shank 29 of each headed button or pin 22 is appreciably longer than the thickness of the annulus 20 so that the clip loop 23 may be snapped thereabout between its head 28 and the outer face 31 of the annulus. Although two headed pins 22, 22 located across the ring to opposite sides thereof are shown for anchoring support by suitable harness it is to be understood that each such means may consist of a pair thereof with the two of each pair located a relatively short distance apart and with the two pairs located across the ring from each other.

In order to support bag 25 from the annulus 20 of the FIGS. 1 to 5 inclusive embodiment in a fluid-tight manner, the open end 26 of the bag is drawn through the annulus hole 32 from the outer side thereof and is then wrapped in one or more turns about the annulus, covering the pin heads 28, 28 with one or more layers of bag material, as will be seen from FIG. 2. Then with the belt 21 encircling the wearer's waist, the clip loops 23, 23 are snapped over the covered pin heads 28, 28 and the ring structure with the bag mouth anchored to and supported thereby adjusted about the stoma depicted at 33, as illustrated in FIG. 2.

A plurality of turns of the free end 26 of the bag 25 may be wrapped around the ring structure 20 in a manner similar to that proposed in FIGS. 9 to 12 inclusive. FIG. 9 illustrates drawing of the open end 26 of the bag 25 through the ring structure 20 from the outer side thereof in the direction of the arrow 34, and FIG. 10 illustrates an initial lap back of the edge of the bag mouth in the direction of the arrows 35, 35. In FIG. 10 is also illustrated initial manipulation of a portion of the annulus 20 intermediate the headed pins 22, 22 in the direction of the arrow 36, to turn the annulus in through itself and thereby wrap the bag mouth thereabout. In order more readily to understand this turn-through and wrap of the annulus 20, reference should be made to FIG. 11 wherein is illustrated by arrow 36 turn-through of one half of the annulus 29 and then a reversal of the annulus and bag so that one is looking down into the open mouth of the bag. The other half of the annulus 20 will then be turned through in the direction of the arrow 136 to complete the turn-through of the annulus and the attainment of the wrap approaching two full turns of the bag mouth thereabout to complete the support or anchorage of the bag 25 illustrated in FIG. 12.

It will thus be understood from FIGS. 9 to 12 inclusive that although the ring structure 20 must have appreciable rigidity it must likewise retain a fair degree of flexibility so as to permit the illustrated turn-through in wrapping the mouth of each bag 25 thereabout in the change of the bags. Also, as illustrated in FIG. 2, elasticity of the annulus 20 must be such as to permit the ring to conform to the abdominal contours for close fit thereof, and of the turns of the bag mouth 26 wrapped thereabout, to the abdominal wall. Additionally, after a period of use under the influence of body heat and strain applied by clamping stress, the annulus 20 is to take a permanent physical set to a shape, such as that illustrated in FIG. 5, so as comfortably to fit against the abdomen when reapplied.

The demand of some wearers may require greater flexibility of the ring structure for maximum comfort with respect to a particularly selected elastic plastic material. One cannot materially reduce the thickness of the ring structure since, in the preferred form, clamping stress is to be applied at points across on opposite sides of the ring by anchorage means which will tend sharply to buckle outward portions of the annulus at bottom and top opposite points intermediate the locations of the anchorage means when the annulus is excessively thin. Headed pins, such as those shown at 22, 22, are preferred as such anchorage means because of the simplicity

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thereof, the accessibility thereof with respect to anchoring clips on the supporting harness and their functions of connecting plies together thereat. When such pins are employed the strain of harness stress is applied to the ring structure as levering strain through the pin shanks which in turn transmits leverage along the ring structure to remote intermediate points to tend there to develop buckling. Forming the ring structure properly overcomes this tendency, as explained hereinafter. Such increased flexibility may be attained in embodiments of the invention employing such anchorage means by forming the ring structure as a plurality of or stack of washer-like plies, such as is proposed in FIG. 6. In the FIG. 6 structure two plies or flat rings 120, 120 are secured together by the headed anchoring pins 22, 22 in face-to-face relation at diametrically opposite points across the ring structure from each other. Such plural-ply ring structure is satisfactory when the plies are formed from relatively rigid elastic plastic material, such as relatively hard polyethylene, but if more flexible plastic material is employed for such a plural-ply ring structure it may be suitably stiffened by securing the plies together along their outer circumferential edges while being free from each other along their inner circumferential edges and substantially over their juxtaposed faces, as is proposed in FIG. 7, the plies being secured together annularly as indicated at 37 by any suitable means, such as cement or heat-sealing. Tendency to buckle at bottom and top points intermediate the headed pins, such as those shown at 22, 22, where clamping stress is concentrated is reduced by such annular securement, such as that proposed at 37 in FIG. 7, and more so if the plies are secured together in face-to-face engagement, such as by interposed cement.

It has been found that increased flexibility may be assured while avoiding such a tendency for intermediate top and bottom outward buckling by increasing the mass of the ring structure with relatively highly flexible material, such as by intervening two of the elastic plastic plies with a more highly flexible ply. For example, as proposed in FIG. 8 a pair of elastic plastic plies 220, 220 of polyethylene, each of which may be about three sixty-fourths of an inch thick, if desired, may be intervened by a ply 38 of synthetic rubber compound, such as gum rubber composition, having a durometer of about 4 to 20 depending upon the flexibility desired and which, if desired, may be about three thirty-seconds of an inch thick. The juxtaposed faces of the plies 220, 38 and 220 may be suitably cemented together, such as by rubber cement, and the flexibility may be controlled both by the selected thicknesses of the plies and the particular durometer of the interposed rubber compound ply 38. A relatively low durometer intervening rubber ply is employed for a relatively small ring structure while a somewhat larger diameter ring structure may require a harder rubber ply due to the fact that in the larger ring structures a greater degree of manipulation is assured by the greater leverage provided by the increased dimensions of the parts. When a plurality or stack of plies are employed to construct the ring structure and it is desired to secure them in face-to-face engagement they may be suitably cemented together but if thermoplastic materials are selected for their formation, heat-sealing may be employed for this purpose.

Embodiments of the ring structure of the present invention may be designed for use particularly as ileostomy appliances. Since the performance of an ileostomy usually involves removal of more of the lower bowel and at times a part of the upper bowl, drainage from the stoma will include active digestive fluids which can digest the skin around the stoma. Thus it is imperative in such cases to assure a careful fluid-tight fit between the appliance and the skin. The contour fitting as assured by the physically set ring structure of the present invention should be sufficient for this purpose but some patients require for peace of mind a more visibly demonstrated

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type of sealing to the abdomen. It has been previously proposed to seal ring structure to the abdominal wall by the use of certain cements which, however, have not been entirely successful since they tend to cause stripping of the stratum corneum with peel-away of the ring structure and, of course, the inner face of the latter must be exposed for adherent engagement to the skin. An embodiment of the present invention well designed for use as such an ileostomy appliance is shown in FIGS. 13 to 16 inclusive.

The ring structure of the FIGS. 13 to 16 inclusive embodiment may comprise an inner washer-like ring or annulus 320 to be formed from the elastic plastic material and carrying headed studs 122, 122 at diametrically opposite points. Means is provided to secure in a fluid-tight manner the open mouth of the disposable bag 25 to the outer face 131 of the annulus 320. Such means preferably is in the form of a flexible clamping ring 39 having enlarged holes 40, 40 extending therethrough at diametrically opposite points freely to receive there-through the heads 128, 128 of the anchoring pins 122, 122.

As is illustrated in FIG. 15, the disposable bag 25 may have its open end 26 anchored to the washer-like ring 320 by being pulled through the clamping ring 39 from the outer side thereof in the direction of the arrow 41 and then lapped about and reversed in the direction of the arrow 42 to provide a skirt surrounding the bag and depending from the clamping ring, as will be seen in the lower portion of FIG. 15. Thereafter the heads 128, 128 of the pins 122, 122 will be aligned with the holes 40, 40 covered by bag mouth material. Then the ring 320 will be pushed forward in the direction of arrows 43, 43 toward the ring 39 so that the pin heads 128, 128 will push bag mouth material through the holes 40, 40 with the covered heads of the pins eventually extending appreciably beyond the clamping ring 39 to receive the belt clamping loops 23, 23, as indicated in FIG. 14, thereby clamping between the rings in fluid-tight manner the walls of the open mouth of the bag. It will thus be seen that pins 122, 122, carried by the inner washer-like ring 320, serve as means temporarily anchoring the flexible clamping ring 39 to the outer face of the former. The heads 128, 128 of the pins 122, 122 on ring 320 are pushed through holes 40, 40 in ring 39 for this purpose, so as to clamp between the rings in fluid-tight manner the wall 26 of the open mouth of the disposable bag 25 after its open end had been pulled through and lapped about the clamping ring 39, as is illustrated in FIG. 15. The body encircling harness means may be in the form of belt 21, as is previously indicated, carrying at the ends thereof fastener or clamping loops 23, 23. The heads 128, 128 of pins 122, 122 whether covered or not by bag mouth wall material, serve removably to receive the clamping loops 23, 23, and since these pins are mounted to the outer side of ring 320 they constitute anchoring means for the harness means which are mounted to the outer face of this washer-like ring. Thus pins 122, 122 and their heads serve the dual purpose of cooperating with structure of clamping ring 39 temporarily to clamp the latter to the outer face of the washer-like ring 320 to secure the bag mouth therebetween, and also as means to anchor the harness to the outer face of the washer-like ring.

It has been found in the development of the embodiment of the invention illustrated in FIGS. 13 to 16 inclusive that the inner face of the ring 320 may be adhered to the abdominal skin in a fluid-tight manner by unique means which may be in the form of a permanently tacky facing or thin ring 44, which will securely adhere to the skin under clamping pressure of the harness while being readily peeled away without danger of stripping the stratum corneum. For this purpose the adhering ring or facing 44 may be formed of tacky polypropylene or tacky polyethylene compound secured to the inner face 127 of the ring 320 by any suitable means, such as a layer of cement 45, and such facing or adhering ring may, for

example, be of a thickness of about 0.004". The tacky layer 44 may be of a thickness of about 4 to 8 mils, if desired. In order to make polyethylene tacky for this purpose it can be compounded with suitable additives and extruded at relatively high temperatures. Such tacky polyethylene compound may be made by milling together polyethylene resin, about 10 to 15% rubber and about 10 to 15% mineral oil, and then extruding the mixture at relatively high temperature of the order of about 575° F. Any other permanently tacky plastic material may be employed for this purpose provided it is resistant to attack by the digestive fluids and is chemically inert with respect to body moisture and the discharged fluids. FIGS. 13 and 14 illustrate adherent securement of the ring structure directly to the abdominal skin by the tacky facing 43 with the ring structure conforming to the abdominal contours. After a period of use, the ring structure of the FIGS. 13, 14 and 15 embodiment become physically set to substantial conformance with the abdominal contours, as explained above. FIG. 16 indicates by a showing to greatly increased scale that the back ends of the reduced shanks of the headed pins 122 preferably are spun over with sufficient pressure as to cause the spun enlargement 130 of each actually to sink into the elastic plastic of ring 320 so that the back end of the pin is substantially flush with the inner face of the ring. This permits effective covering of the back ends 130, 130 of pins 122, 122 by the tacky layer 44 when cemented thereover by the layer of cement 45.

It will thus be seen that the objects set forth above, among those made apparent from the preceding description, are efficiently attained and, since certain changes may be made in the above construction without departing from the scope of the invention, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A colostomy or ileostomy appliance comprising, in combination; a re-usable mounting ring structure for temporary support of a disposable bag comprising a separate, initially flat, semi-rigid, washer-like, annulus of limited flexibility and substantially rectangular cross section having an outer diameter of the order of about three inches, an appreciable thickness of the order of about an eighth of an inch and a width several times greater than its thickness with the ring structure initially having a substantially flat inner bearing face of certain annular outline and an opposite outer face, said annulus being formed from elastic plastic material selected from the group consisting of such of the flexible polyethylenes, the flexible polymers and copolymers of vinylidene chloride resins, and the flexible polystyrenes as take a physical set when held in distorted condition at a temperature of about 37° C. to conform to the contours of an area of a person's abdomen when physically clamped thereto and in use under the influence of body heat and clamping stress takes a physical set diametrically to a shape corresponding generally to the shape of the body portion over which it is clamped; a pair of harness anchoring means mounted to the outer face of said annulus at substantially diametrically-opposite points each in the form of an elongated rigid levering member extending outward from the outer annulus face and having an inner shank portion anchored in said annulus, an outer engaging head portion and an intervening outer shank portion; a disposable bag of relatively thin, flaccid and flexible stock separate from and having a large open mouth removably lapped against said annulus circumferentially thereof with portions of the

bag mouth extending over the outwardly-extending outer shank and head portions of said rigid anchoring levering members; and body-encircling harness means physically to clamp said ring structure to an area of a person's abdomen with the bearing face of said ring structure shaped to and held at all points firmly against the abdominal area and with substantial maintenance of the annular outline thereof free of undue buckling, said harness means carrying a pair of laterally spaced-apart and opposed engaging means each having a portion detachably engaged about the outwardly-extending outer shank portion and beneath the outer head portion of one of said rigid anchoring levering members with said harness means disconnectably extending between the pair of the latter, the portion of the bag mouth extending over the outwardly-extending outer shank and head portions being temporarily gripped between the outer shank portions and the engaging means carried by said harness means.

2. In a colostomy or ileostomy appliance, a mounting re-usable ring structure for temporary support of a disposable bag and comprising a stack of a plurality of washer-like plies of elastic plastic stock including a semi-rigid washer-like and initially flat annulus of relatively wide flexible stock and appreciable thickness formed from elastic plastic material that conforms to the contours of an area of a person's abdomen when physically clamped thereto and in use under the influence of body temperature and clamping stress takes a physical set to a shape corresponding generally to the shape of the body portion over which it is clamped, said ring structure initially having an inner substantially flat bearing face and an opposite outer face, and harness-engaging means on the outer face of said ring structure at points on opposite sides thereof across from each other for engagement by body-encircling supporting harness physically to clamp its inner bearing face at all points to the person's abdomen, at least a pair of said plies having said harness-engaging means extending through both thereof and anchoring them directly together at the points of locations thereof with opposed portions of said pair of plies at other locations being free of direct connections together.

3. The mounting ring structure as defined in claim 2 characterized by at least said pair of plies being secured together annularly along their outer circumferential edges while being free from each other along their inner circumferential edges and substantially over their juxtaposed faces.

4. The mounting ring structure as defined in claim 3 characterized by said stack of plies consisting of said pair with a pair of said harness-engaging means being mounted through said pair of plies substantially intermediate of the inner and outer circumferential edges thereof at substantially diametrically-opposite points.

5. In a colostomy or ileostomy appliance, a re-usable mounting ring structure for temporary support of a disposable bag of flaccid material and comprising a separate, initially flat, semi-rigid, washer-like annulus of relatively wide stock and appreciable thickness having opposite inner and outer faces and formed from elastic plastic material that conforms to the contours of an area of a person's abdomen when physically clamped thereto and in use under the influence of body temperature and clamping stress takes a physical set to a shape corresponding generally to the shape of the body portion over which it is clamped, and harness-engaging means mounted on the outer face of said annulus across on opposite sides thereof, said ring structure being formed of a pair of washer-like plies in face-to-face engagement with the plies being secured together along their outer circumferential edges while being substantially free from each other at all other points except at the harness-engaging means, each of said harness-engaging means extending through both of said plies and clamping them together in face-to-face relation at this point.

6. The mounting ring structure as defined in claim 5

characterized by said ring structure as being formed of three washer-like plies in face-to-face engagement, the two outside plies being formed from said elastic plastic material capable of taking the physical set in use, the middle ply being of more flexible rubber-like material, each of said pair of harness-engaging means extending through all three said plies clamping them together at the location of said means.

7. In a colostomy or ileostomy appliance, a mounting ring structure for temporary support of a disposable bag of flaccid material and comprising an initially flat, semi-rigid, washer-like annulus embodying an inner side washer-like ring of appreciable thickness formed from elastic plastic material that conforms to the contours of an area of a person's abdomen when physically clamped thereto and in use under the influence of body temperature and clamping stress takes a physical set to a shape corresponding generally to the shape of the body portion over which it is clamped, a flexible clamping ring located to the outer side of said washer-like ring, a plurality of means temporarily anchoring said clamping ring to the outer face of said washer-like ring with each of said temporary anchoring means including cooperating engageable means on the outer face of said washer-like ring and means on said clamping ring detachably engaging said engageable means, a disposable bag having an open mouth and the wall thereof adjacent its mouth clamped between said rings in fluid-tight manner with said cooperating engageable and engaging means detachably interengaged, body-encircling harness means, and a plurality of spaced harness anchoring means each including engageable structure mounted to the outer face of said washer-like ring and an anchoring element carried by said harness means temporarily and detachably engaging said engageable structure and disengageably fastening said harness means to said washer-like ring with said harness means extending therebetween.

8. The mounting ring structure as defined in claim 7 characterized by said harness anchoring means being equal in number to that of and located at the points of location of the flexible clamping ring anchoring means for association together, the engageable structure of each of said harness anchoring means being mounted upon the engageable means of the associated one of said temporary ring anchoring means for support thereof to effect the

mount of this engageable structure to the outer face of said washer-like ring.

9. The mounting ring structure as defined in claim 8 characterized by said associated harness anchoring means and temporary ring anchoring means comprising a plurality of fastening devices located at points across on opposite sides of said annulus, each fastening device having a portion mounted on said washer-like ring and a cooperating portion on said flexible clamping ring with the portions of each fastening device disengageably engaged.

10. The mounting ring structure as defined in claim 9 characterized by the portion of each fastening device on said washer-like ring being in the form of an outwardly projecting element having one part temporarily engaged by the portion on said flexible clamping ring, said element having another part temporarily engaged by one of said supporting harness anchoring elements.

11. The mounting ring structure as defined in claim 10 characterized by each of said projecting elements being in the form of a headed post having an inner shank section serving as the part engaged by the portion on said flexible clamping ring with the latter having a plurality of holes the sidewalls of which form the engaging portions of the fastening devices, each post having an outer head and an outer shank section intervening the head and inner shank section covered with bag mouth material and extending through one of the holes in and beyond said clamping ring detachably receiving thereover one of the harness anchoring elements outward of said clamping ring.

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