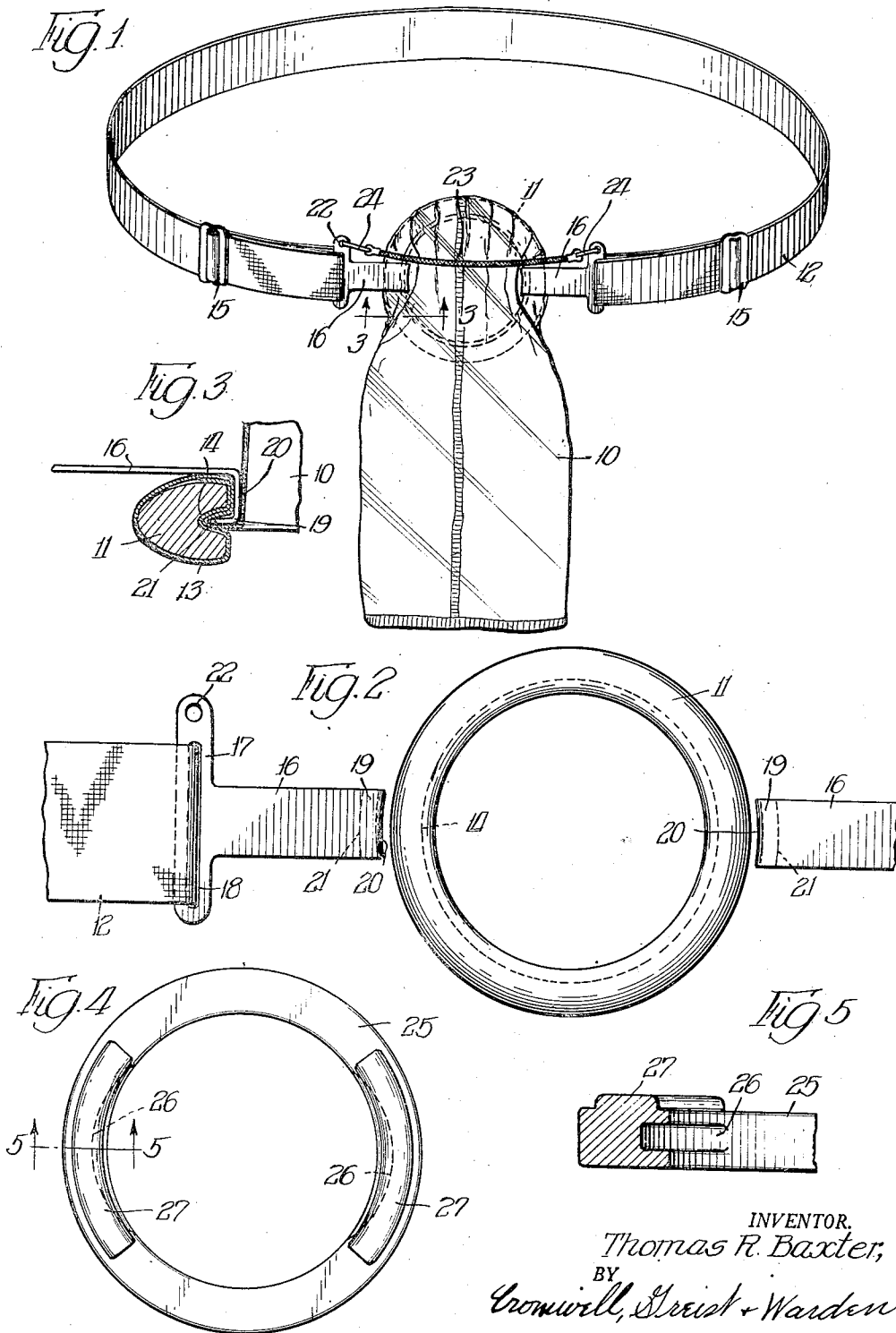


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COLOSTOMY DEVICE

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COLOSTOMY DEVICE

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This invention is concerned with improvements in a device for use after a colostomy operation or the like.

It is an object of the invention to provide a device to be worn by a patient after a colostomy operation which will remain in a substantially flat position against the body, which will be inconspicuous when worn, which can be readily adjusted on the body so that it may be conveniently and comfortably worn, which will collect the discharge at all times, which will be thoroughly sanitary and minimize possible infection and which will avoid or minimize embarrassment due to escaping odors.

It is a more specific object of the invention to provide an improved device for use after a colostomy operation or the like, which comprises a disposable receptacle and means for securing the mouth of the receptacle over the colostomy incision so that matter draining from the incision will be collected in the receptacle and the disposable receptacle may be easily and quickly removed and replaced.

It is a further object of the invention to provide a colostomy appliance which comprises a disposable container for collecting the drainage from the incision and means for securing the disposable container on the body so that the area around the incision comes in contact with the disposable container only and matter discharged from the incision will not come in contact with any other portion of the appliance.

It is a more specific object of the invention to provide in a colostomy device a means for securing the mouth of a disposable receptacle over the colostomy incision which comprises an internally slotted ring member around which the mouth of the receptacle is folded and an adjustable body encircling belt or the like which is provided on its ends with hook-like members for detachably engaging in the slot in the ring member on opposite sides thereof and exteriorly of the receptacle to support the ring member on the body of the user and to hold the mouth of the receptacle in folded engagement with the ring member and against the body.

It is another object of the invention to provide a colostomy device of the character described wherein the slotted ring member and the hook-like attaching elements on the body belt are so constructed that when the ends of the attaching elements are placed in the slots in the ring member they are automatically centered whereby to greatly facilitate attachment of the elements to the ring member.

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These and other objects of the invention will be apparent from a consideration of the colostomy appliance which is shown by way of example in the accompanying drawing, wherein:

Fig. 1 is a perspective view of a colostomy device embodying the principles of the invention;

Fig. 2 is an elevation, drawn to a larger scale, of portions of the body belt and the mounting ring;

Fig. 3 is a section on the line 3—3 of Fig. 1, drawn to a greatly enlarged scale;

Fig. 4 is an elevation of a modified form of mounting ring; and

Fig. 5 is a section on the line 5—5 of Fig. 4, drawn to an enlarged scale.

Referring to the drawings, there is disclosed a colostomy appliance incorporating the principal features of the invention which comprises a disposable receptacle 10, a mounting ring 11 and a body encircling belt 12 for supporting the receptacle and ring in proper position over the colostomy incision.

The receptacle 10 is preferably fabricated from a flexible sheet-like material such as polyethylene film which has been folded into the form of a tube and sealed longitudinally and then transversely to form an open-ended relatively flat tubular receptacle which may be supplied to the user of the appliance in flat folded condition.

The mounting ring 11 is of proper diameter to completely cover the incision. The receptacle 10 is the proper size relative to the ring 11 to permit the receptacle to be passed through the ring and to have the marginal portions 13 of the receptacle folded outwardly around the periphery of the ring. The ring 11 which may be formed of plastic or similar material having sufficient strength and rigidity is generally oval in cross-section with the flat sides adapted to be placed parallel to the body and provided with a continuous internal groove 14 which has a substantial depth.

The body encircling belt 12 is preferably formed of elastic webbing and the length is adjustable by means of conventional buckles 15 which secure the looped ends to the body of the belt. Each looped end of the belt 12 carries a connector element 16. Each connector element 16 is provided at one end with a wider portion 17 having an aperture 18 for receiving the belt 12 and at the other end with a reversely bent hook-shaped portion 19. The hook-shaped portion 19 may be provided on the end 20 with a transverse curvature corresponding to the curvature of the ring 11. The reversely bent tip 21 of the hook-

shaped portion 19 is adapted to engage in the internal groove 14 of the ring 11 to detachably connect the element 16 with the ring 11.

The connector element 16 is also provided with a small aperture 22 at the end 17, and a small strap 23, preferably of resilient material, is provided having pivoted catches 24 on the ends thereof which are adapted to detachably engage in the apertures 22 in the connector elements 16 to retain the belt 12 on the body while the ring 11 is disconnected from the belt for replacement of the receptacle 10.

In use the open end of the receptacle 10 is passed through the ring 11 and the marginal portions 13 of the receptacle are reversely folded around the periphery of the ring 11 to enclose the ring in the same. The ring 11 is then attached to the belt 12 by placing the open end of the receptacle 10 over the incision and engaging the hook portions 19 in the groove 14 in the ring 11 to retain the receptacle 10 and the ring 11 in connected relation and in proper position on the body. The hook-like end portions 19 of the connector elements 16 are inserted in the groove 14 from the opposite or outer side of ring 11 and retain the receptacle margins 13 in folded relation with the ring 11 as shown in Fig. 3. The end construction 13 on the connector elements 16 cooperates with the slot or groove 14 in the ring 11 to automatically locate or center the ends of the elements 16 and thus facilitates attachment of the elements 16 to the ring 11. With this construction less care is required of the user to properly locate the elements 16 relative to the ring 11.

In Figs. 4 and 5 a modified form of mounting ring 25 is shown. The ring 25 is generally rectangular in cross-section and provided with oppositely disposed relatively short internal slots indicated at 26. The slots 26 are rounded so that when the hook formations 19 are engaged therein the curved ends 21 of the hooks 19 will tend to center the hooks in the slots 26. The ring 25 is preferably thickened or reinforced at the slots 26 as indicated at 27, the cross-sectional area being somewhat smaller for the remainder of the ring.

In both forms illustrated the mounting ring with the receptacle margins folded around the same lies flat against the body and is comfortably held on the body in an inconspicuous manner by the belt 12. The connecting strap 23 may be kept engaged with the belt so that the belt will not become undone if one of the hooks 19 becomes disengaged from the ring.

The disposable container, when formed of the material referred to, clings to the body and tends to make a moisture seal against the body as soon as it is warmed up to the body temperature which prevents leakage between the container and the body. The container may be formed of other materials having similar sealing characteristics, as for example, Pliofilm, polybutene and vinyl chloride-acetate copolymers and similar plastics. The container may be furnished to the user with a breakable capsule of suitable deodorant enclosed in a perforated pocket forming member attached to the inner wall within the container, which capsule may be broken after the container is secured in position for use.

While specific materials and details of construction have been referred to in describing the illustrated forms of the device, it will be understood that other materials and other details of construction may be resorted to within the spirit of the invention.

I claim:

1. In a colostomy appliance, a disposable receptacle of flat flexible material, a mounting ring member adapted to encircle the mouth of the receptacle with the margins of the receptacle reversely folded into encompassing relation around said ring member, a supporting body belt, and hook-shaped elements on said body belt having detachable engagement with portions of said receptacle margins on said ring member for securing said receptacle margins in connected relation with said ring member.

2. A colostomy device comprising a disposable receptacle formed of flexible sheet material, a mounting ring member having a groove extending internally of the same, said receptacle having its marginal portions extending through said ring member and being folded around the same, and a body encircling belt having attaching elements on the ends thereof, said attaching elements having hook-like portions detachably engageable in the groove in said ring member exteriorly of the receptacle.

3. A colostomy device comprising a disposable receptacle, a mounting ring for engagement with the mouth of the receptacle, and a body encircling belt having end fasteners for detachable engagement with said mounting ring, said mounting ring having a continuous groove extending internally of the same and portions of said end fasteners adapted to engage in said groove.

4. In a colostomy appliance, a disposable receptacle of flat flexible material, a ring member adapted to encircle the mouth of the receptacle, said ring member being relatively flat in cross-section and having an internal groove, said receptacle having its margins reversely folded into encompassing relation around said ring member, an adjustable supporting body belt, and hook-shaped elements on the ends of said belt for detachable connection with said ring member, said hook-shaped elements having reversely bent portions adapted to be inserted in the groove in said ring member for securing said ring member and said receptacle margins in connected relation.

5. A colostomy device comprising a disposable receptacle formed of flexible sheet material, a ring member having opposed internal grooves therein, said receptacle having its marginal portions extending through said ring member and being reversely folded around the same, and an adjustable body encircling belt having attaching elements on the ends thereof, said attaching elements having reversely bent portions detachably engageable in the grooves in said ring member and clamping therein the folded marginal portions of the receptacle.

6. A colostomy device comprising a disposable receptacle, a mounting ring for supporting the receptacle, and a body encircling belt for securing the mounting ring to the body, said mounting ring having an internal groove, end fasteners on said belt, said receptacle having marginal portions positioned over said groove, and said end fasteners having hook portions detachably engaging in said groove and securing said receptacle on the mounting ring.

7. A colostomy device as recited in claim 6 and a strap member detachably connecting said end fasteners to permit disengagement of said fasteners and said mounting ring without removing said body encircling belt from the body.

8. A colostomy device comprising a disposable receptacle formed of flexible sheet material, a ring member having an internal groove therein,

said receptacle having its marginal portions extending through said ring member and being reversely folded around the same, and an adjustable body encircling belt having attaching elements on the ends thereof, one of said attaching elements having a reversely bent portion detachably engageable in the groove in said ring member, said reversely bent portion being automatically centered in said groove and clamping therein the folded marginal portions of the receptacle.

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