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2,294,537

COLOSTOMY DEVICE

Filed March 29, 1941

Fig. 1.

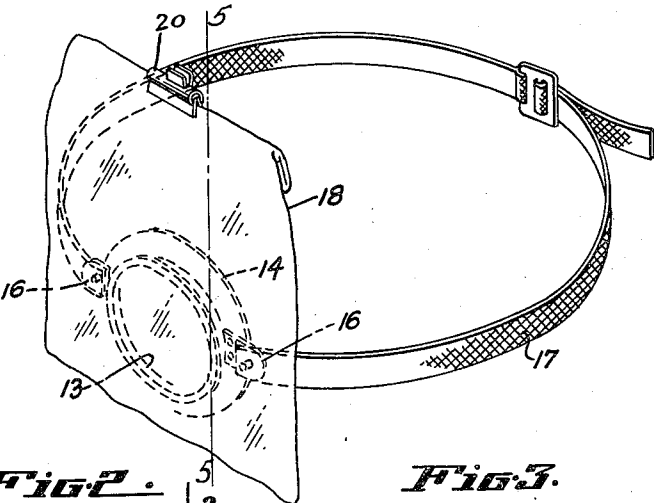


Fig. 6.

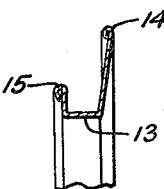


Fig. 2.

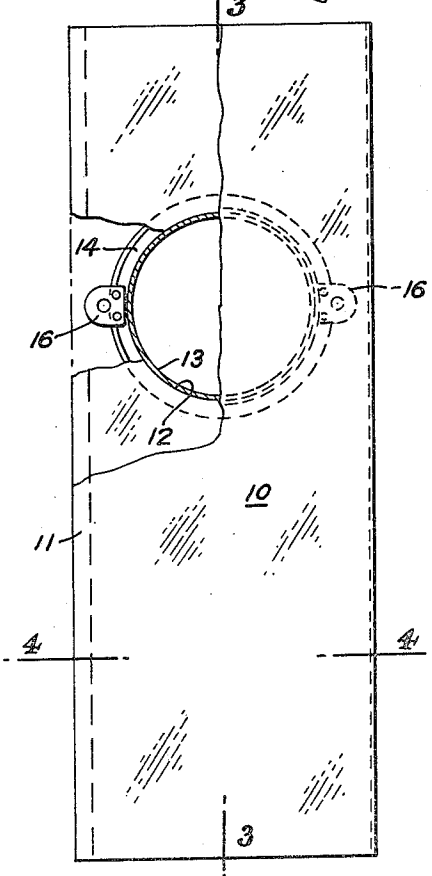


Fig. 3.

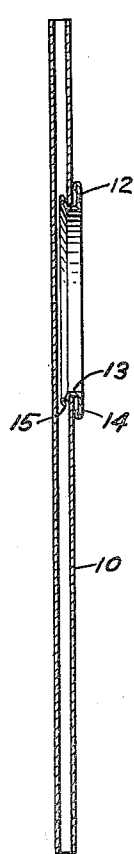


Fig. 5.

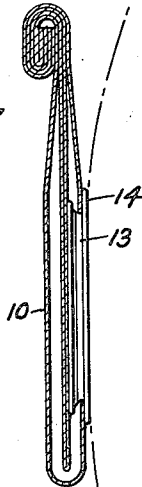
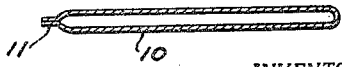


Fig. 4.



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UNITED STATES PATENT OFFICE

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COLOSTOMY DEVICE

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4 Claims. (Cl. 128—283)

This invention relates to colostomy devices and has for its principal object the provision of effective means 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 invention is the provision of a colostomy device which can be conveniently and comfortably worn during convalescence.

Additionally, it is an object of the invention to provide a device of the character described having a detachable element adapted to be formed into a bag or receptacle for the matter drained or gases emitted, which may be thrown away or conveniently removed for purposes of cleaning.

Other objects of the invention will become apparent as this specification proceeds.

I am aware of the prior art devices designed for the purposes for which this invention is intended and the practices resorted to overcome the problems involved, but they have been uniformly unsatisfactory for many reasons, including extreme bulkiness, discomfiture to the patient, uncleanliness and high costs.

The present invention overcomes the deficiencies of the prior art devices and practices in a simple yet highly efficient manner. In general terms, the objects of this invention are attained by means of a ring adapted to overlie the body opening and an open ended sleeve having an orifice therethrough into which a portion of the ring fits to establish communication, the sleeve being adapted to be folded upon itself to form a bag or receptacle.

Referring now to the drawing wherein a preferred form of the invention is illustrated:

Fig. 1 is a perspective view of the invention, in folded position ready for use,

Fig. 2 is a front elevation of the device in unfolded position with a portion of the sleeve broken away for clarity,

Fig. 3 is a vertical section taken along the line 3—3 of Fig. 2,

Fig. 4 is a transverse section through the sleeve part of the device,

Fig. 5 is a vertical section along the line 5—5 of Fig. 1, and

Fig. 6 is a fragmentary view of the peripheral edge of the ring element.

The numeral 10 indicates an elongated sleeve of a thin, transparent, but tough material having requisite degrees of air and waterproofness. As a preferred material I mention "Pliofilm," a rubber hydrohalide product manufactured by Goodyear Tire and Rubber Company, of Akron,

Ohio. However, it will be obvious that other materials of like character will be suitable for the purpose of the invention. An important factor is that the material of the sleeve 10 shall be inexpensive. The sleeve 10, is for obvious economy, formed from a rectangular blank of the material, folded lengthwise once upon itself and having the abutting edges secured together, as at 11 (see Fig. 5), by heat sealing or the use of a suitable adhesive.

The sleeve 10 is additionally provided with an orifice 12 through one of its walls, in spaced relation to its upper end, to receive a ring 13 in the manner about to be described. The orifice 12 is cut, for obvious efficiency of manufacture, while the sleeve 10 is in the blank of material.

Ring 13 is provided with an inner, relatively wide flange 14 adapted to press against the body of the patient and surrounding the opening into the same, and an outer beaded flange 15 which enters the orifice 12 in sleeve 10. Additionally, ring 13 is provided with a pair of laterally projecting ears 16 to which the ends of a body encircling belt 17 may be attached to hold the invention in place. The means for attaching the ends of belt 17 to ears 16 may be any one of a number of conventional connectors and forms no part of this invention.

It should be mentioned at this point that the thickness of the material of sleeve 10 has been greatly exaggerated in the drawing solely for purposes of illustration.

When the sleeve 10 and ring 13 have been thus assembled the resulting structure will be that illustrated in Figs. 2 and 3 of the drawing. As will be clearly noted from Fig. 3 the sleeve 10 is open at both its top and bottom ends.

The next operation in making the device ready for use is to fold the bottom portion of the sleeve 10 outwardly and upwardly upon itself, in the manner illustrated to best advantage in Fig. 5 of the drawing. In this operation the top and bottom edges of the sleeve are drawn together preparatory to lap folding these edges to render the bag or receptacle substantially air and moisture tight. I have found that an effective joint between the top and bottom edges of the sleeve 10 can be made by first folding the corners inwardly on the diagonal as at 18 (see Fig. 1) and then lap folding the transverse edges several times as shown in Fig. 5. When thus folded the receptacle may be maintained in closed condition by the use of suitable clamp such as that shown in Fig. 1 at 20.

When thus assembled and applied to the per-

son my device has been found to be highly effective for the purpose intended. It not only captures and retains for suitable and convenient disposal the matter drained through the body opening, but as well seals off, at least substantially, the obnoxious gases usually emitted from the body.

Additionally, my device is extremely thin in comparison to the prior art structures and practices and may therefore be worn beneath clothing without discomfiture or embarrassment from untidy appearance.

It is within the intendment of my invention that the sleeve 10 may be periodically replaced for sake of cleanliness and the relative low cost of the material and manufacture of the sleeve makes this possible. However, if it be desired to prolong the use of the sleeves the device may be readily cleaned by simply opening it to the position shown in Fig. 3. A stream of water or other cleanser passed throughout the length of the sleeve 10 and through the ring 13 will renew it for further use as a unit.

While I have described my device as adapted for use in colostomy cases, it may be understood the invention will be equally useful in other cases wherein drainage from a body opening is a factor of post operative care. Moreover, my invention may take forms other than that illustrated and described herein without departing from the principles involved.

The invention claimed is:

1. A surgical appliance comprising a ring member adapted to overlie a body orifice, a flexible sleeve in communication with the interior of said ring member and having oppositely extending, open-ended portions extending beyond said

ring member; the lengths of said portions being sufficient to permit interfolding of the open ends of said sleeve to form a common closure for both ends of said sleeve.

5 2. A flexible, replaceable sleeve for use in a surgical appliance having a ring member adapted to overlie a body orifice; said sleeve having an aperture engageable with said ring member, and oppositely extending open-ended portions extending beyond said aperture; the lengths of said portions being sufficient to permit interfolding of the open ends of said sleeve while the same is attached to said ring member, whereby to form a common closure for both ends of said sleeve.

10 3. A surgical appliance comprising a ring member adapted to overlie a body orifice, a substantially straight, flexible sleeve of substantially uniform cross-section presenting an unobstructed path for a flushing cleanser disposed in communication with the interior of said ring member and having opposite open-ended portions of sufficient length to permit said portions to be juxtaposed and closed by a common closure means.

15 4. A flexible, open-ended, replaceable sleeve for use in a surgical appliance having a ring member adapted to overlie a body orifice; said sleeve being substantially straight and uniform in cross-section so as to present an unobstructed path for a flushing cleanser and having an aperture intermediate its ends for engagement with said ring member; said aperture being positioned so as to permit the open ends of the sleeve to be juxtaposed and closed by a common means while
20 35 said aperture is in engagement with said ring.

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