

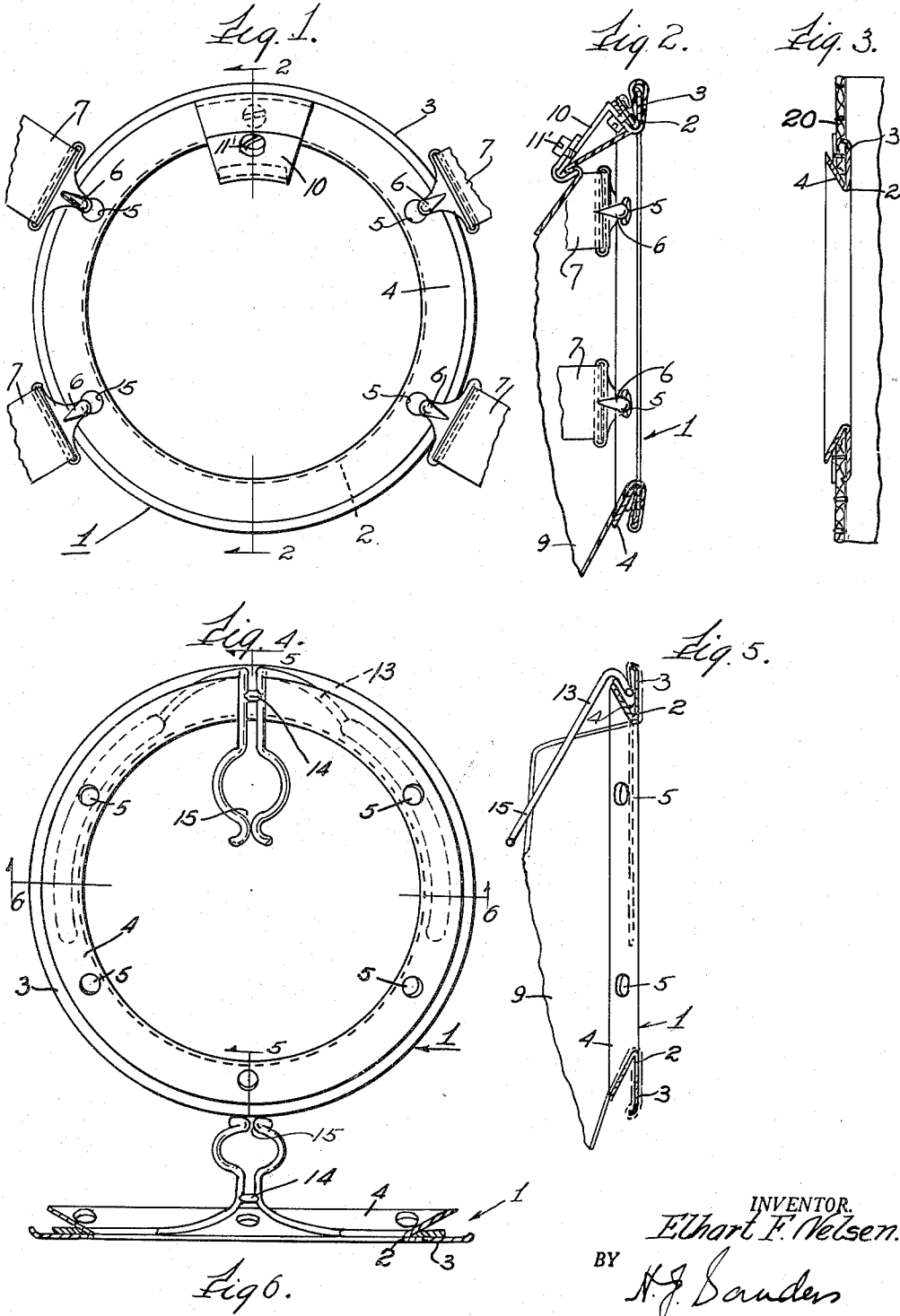
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E. F. NELSEN
COLOSTOMY APPLIANCES

2,958,326

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3 Sheets-Sheet 1



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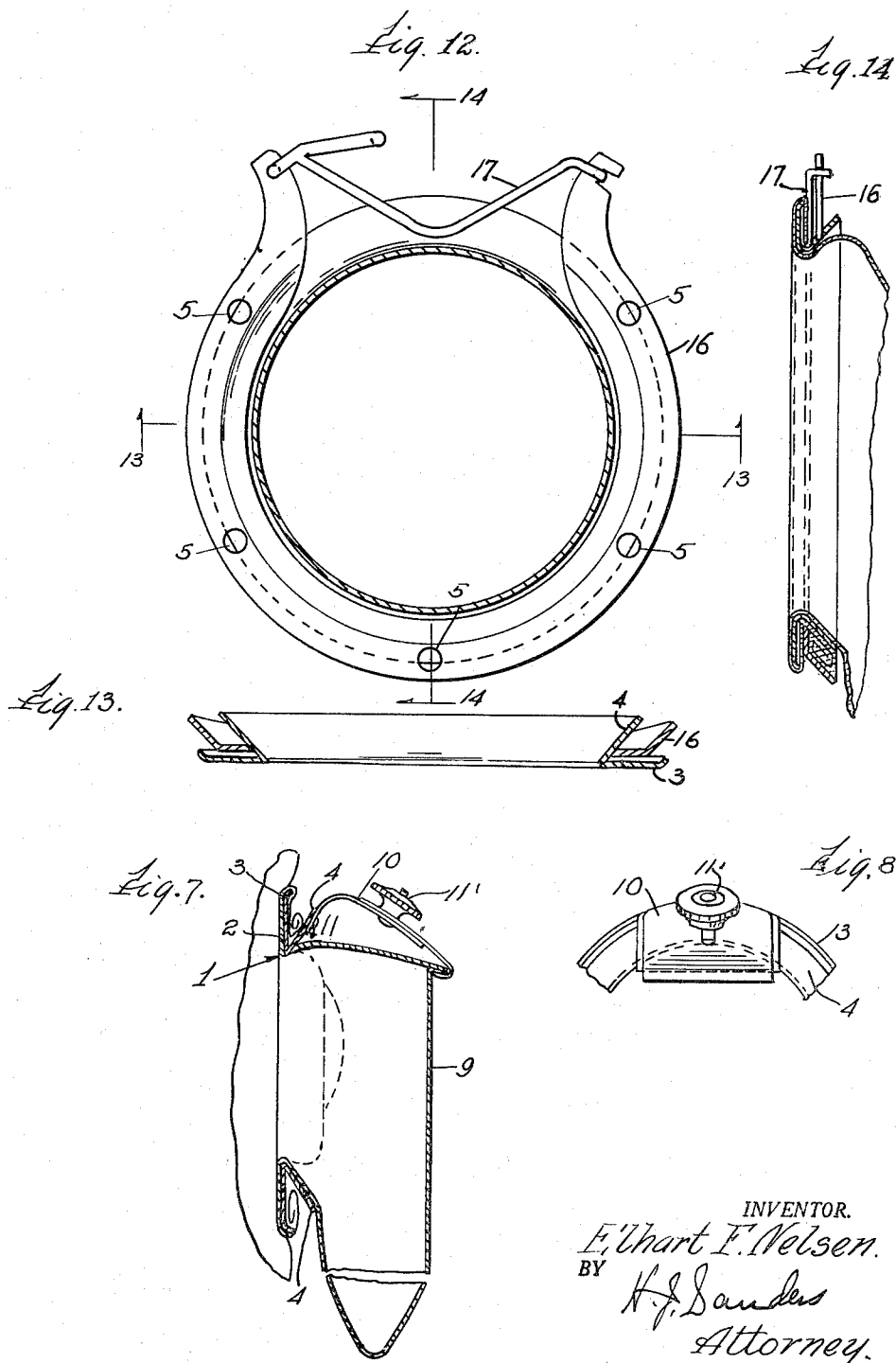
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Fig. 9.

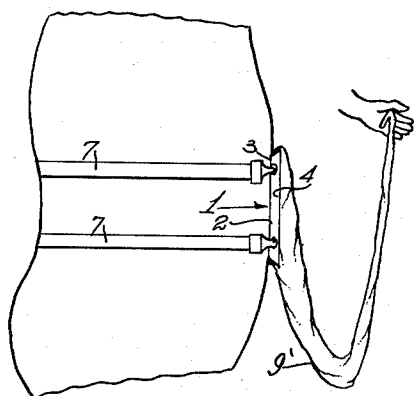


Fig. 10

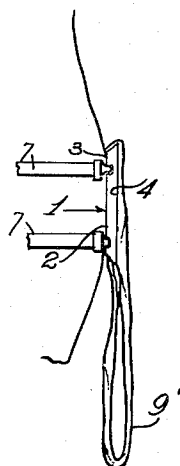
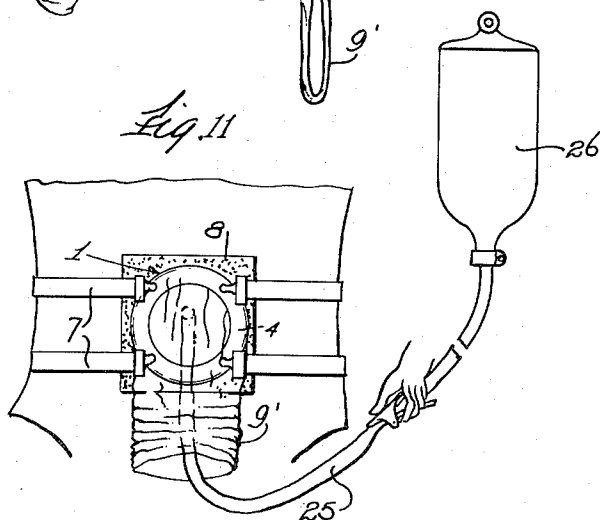


Fig. 11



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COLOSTOMY APPLIANCES

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3 Claims. (Cl. 128—283)

This invention relates to surgical devices and more particularly to a sanitary, convenient and comfort-giving appliance for application to a person's body to fit over and about the stoma to receive the discharge therefrom and that may be worn all of the time. One object is to provide a novel device of this type that is readily applied to the body by the wearer without difficulty, that maintains its adjusted position and that includes means for keeping the bag away from contact with the colostomy opening, an important sanitary measure, and that includes sanitary cleansing means.

A further object is to provide a body appliance of this type including a dispensable bag that is readily applied to the retaining member for use and as readily detached after use, the bag being made of a somewhat resilient material that will tighten itself to the supporting element by shrinking and so retain its position until its removal.

A still further object is to provide a colostomy appliance that when assembled, adjusted and applied to the body of the wearer will permit the removal of the bag member for disposal and the substitution of another bag without detaching the bag supporting means from the body.

A further object is to provide a colostomy appliance of light weight that is readily assembled, easily adjusted, that is worn without inconvenience, that is durable, inexpensive to manufacture and that cannot irritate the wearer. A still further object is to provide a colostomy appliance having a bag member that is moisture proof, that will not leak and that is particularly adapted to catch body discharge in operations for cancer, where the main gut is cut because the discharge cannot take place in the regular manner, this device providing a substitute orifice, the discharge being made through an opening in the body cut by the surgeon, in the lower abdomen. The invention is a further development of the appliance set forth in my Patent No. 2,634,727, granted April 14, 1953.

With the foregoing and other objects in view the invention consists in the combination and arrangement of parts hereinafter more fully described, defined in the claims and illustrated in the accompanying drawings forming part of this disclosure, and wherein:

Fig. 1 is a face view of the ring portion of the device, including part of the harness employed.

Fig. 2 is a vertical sectional view taken substantially on the line 2—2 of Fig. 1.

Fig. 3 is a vertical sectional view of a portion of the ring, including a portion of a supporting belt that may be substituted for the harness of Figs. 1 and 2.

Fig. 4 is an elevational view of the ring showing a modified form of clamp that may be employed.

Fig. 5 is a detail sectional view taken on the line 5—5 of Fig. 4.

Fig. 6 is an horizontal cross sectional view taken on the line 6—6 of Fig. 4.

Fig. 7 is a vertical sectional view, partly broken away, of the appliance applied to the colostomy opening.

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Fig. 8 is a fragmentary view of the device showing the bag supporting means.

Fig. 9 is a side elevational view of the device applied to a person's body but showing a sleeve-type bag that may be employed.

Fig. 10 is a view similar to Fig. 9 but showing the bag in receiving position.

Fig. 11 is a view similar to Fig. 9 but showing the irrigation means applied.

Fig. 12 is a slightly modified form of the appliance showing a bag clamp that may be employed.

Fig. 13 is an horizontal cross sectional view taken approximately on the line 13—13 of Fig. 12, and,

Fig. 14 is a vertical cross sectional view through Fig. 12 on the line 14—14.

Referring now to Figs. 1 and 2 and 7 through 11, the instant instrument includes a grooved assembly ring 1, the groove 2 being substantially V-shape in cross section and opening outwardly and extending completely around the ring, the groove being so formed that a major ring portion 3 of relatively great outside diameter and a minor ring flange portion 4 of lesser outside diameter are formed, the ring portions diverging from each other from their meeting edges, the flange portion formed with a plurality of perforations 5 spaced apart and releasably receiving and retaining the hooks 6 carried by the harness or body straps 7 that pass about the body of the wearer to retain the instrument in operative position.

In use the ring portion 3 is placed in contact with the body of the wearer, the flange portion 4 outwardly disposed therefrom for easy engagement by and disengagement from the straps 7, or from a body belt equivalent 20. As shown in Fig. 11 a pad of soft tissue or foam rubber 8, having a central perforation, preferred by some users is placed against the body and receives the ring 1 to avoid any possibility of chafing, the pad being desirably of square shape and having an outside diameter slightly greater than that of the ring portion 3, although few wearers have skin sufficiently sensitive to require this pad. Carried by the ring 1 is an elongated bag or pouch 9 made of a material having some degree of elasticity, such as nylon, or a plastic, the bag being leakproof and sealed at one end in its usual form, or having open ends as shown in Fig. 11, the opposite end or mouth of the bag being inserted in the groove of the ring 1 from the outside while the sealed end of the bag is held in a horizontal position, enough of the bag being placed through the ring so that about 1½ inches overlap the top of the ring and this lapped-over part is pressed into the ring groove, it being desirable to place more of the bag into the groove at the bottom than at the top of the ring, as this method of bag application will allow the sealed end, in this more common form, to tilt forward, which is desirable.

The material can be stretched substantially by inserting fingers in the bag and pulling. The bag will then tighten itself around the ring by shrinking, and will remain in position. After use the bag is readily removed by first detaching one portion from the groove and then pulling the bag from the ring. The bag is of very light weight, moisture proof, does not leak and is of strong texture. The V-shape ring directs the body waste directly into the plastic bag and there is no chance of seepage between the ring and the patient's body and, further, the ring major portion has a radius that goes against the body of the wearer and so prevents the device from cutting or irritating the body, as otherwise a ring could cause soreness or sore spots about the colostomy opening. A body belt may replace the straps 7 if desired.

I provide a bracket 10 of somewhat resilient material that is secured to the flange 4 by the screw 11, the parts of the bracket secured to each other adjustably by the screw 11', Figs. 1, 2, 7 and 8, the clamp extending

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obliquely downwardly and having the bag 9 secured thereto, the purpose of the clamp being to hold the bag away from the colostomy opening.

Referring now to Figs. 3 through 6 a modification is shown wherein a sectional "wishbone" type spring wire clamp 13 is provided, the sections thereof welded together at 14, the clamp beyond the weld forming spring jaws 15 that may hold the bag tightly at this point, the body of the clamp securing the bag positively in the ring groove.

Referring now to Figs. 12 through 14 a further modified form is shown wherein a resilient "horseshoe" type clamp 16 is provided adapted to be seated in the ring groove to positively retain the bag removably in the ring, the ends of the horseshoe being notched to receive the yoke 17 to yieldingly retain the horseshoe in place.

In Fig. 11 a colostomy irrigator is shown, as an accessory, wherein a rubber hose or a catheter 25 leading from a liquid container 26 is applied or inserted through the open ended sleeve-like bag 9' that may be clamped shut at the bottom as by a rubber band (not shown), the member 25 extending from the container 26 and introduced the then open end of the bag to supply warm water into the anus of the user for irrigation or cleansing purposes. The warm water retained in the body for a short period is then drained through the bag.

What is claimed is:

1. In a colostomy appliance, a ring having an outwardly opening V-shaped groove comprising major and minor ring portions, the major ring portion being substantially planar and the minor ring portion outwardly flaring

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therefrom, a bag having a mouth portion extending into the groove from the outside and overlapped over a top portion of the ring, the overlapped bag portion being pressed into said groove, the portion of said bag adjacent its mouth pressed into the remainder of said groove, a portion of the bag diametrically opposite said ring top portion pressed in greater quantity into said groove to provide a hump spacing the remaining portion of the bag outwardly from the plane of the ring, and supporting means for securing the appliance to the user's body, said V-shaped construction facilitating the passage of waste and preventing the accumulation of such material adjacent the user's body.

2. The structure defined in claim 1 including a clamp carried by said ring and engaging said bag retaining same in outward spaced relation to the plane of said ring, away from the colostomy opening.

3. The structure defined in claim 1 wherein the major ring portion has a radius that goes against the user's body into intimate contact therewith, the bag being secured to said ring in direct line with and receiving waste passing from the body.

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