Aug. 15, 1933. R. GRICKS 1,922,763

COLOSTOMY APPLIANCE

Filed Sept. 4, 1931

Fig. 1.

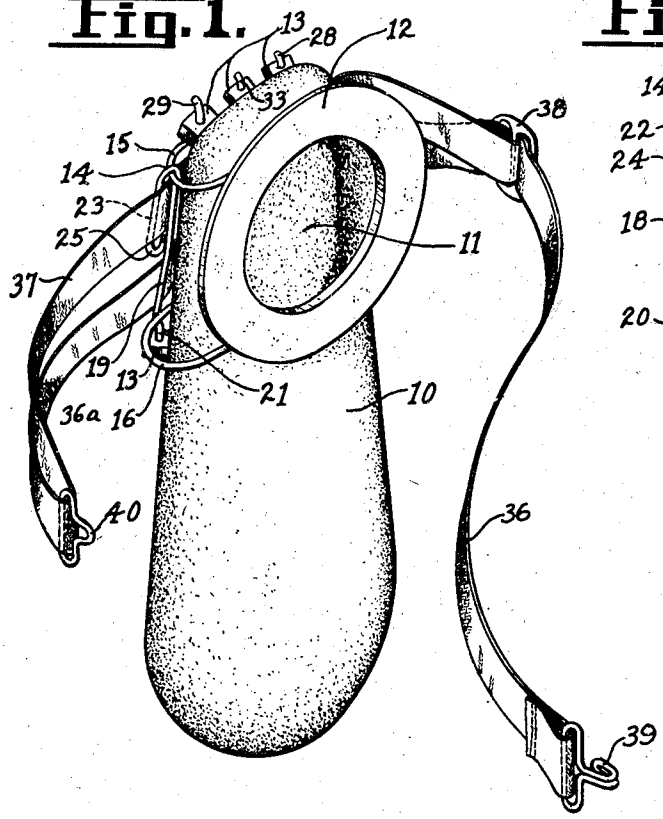


Fig. 2.

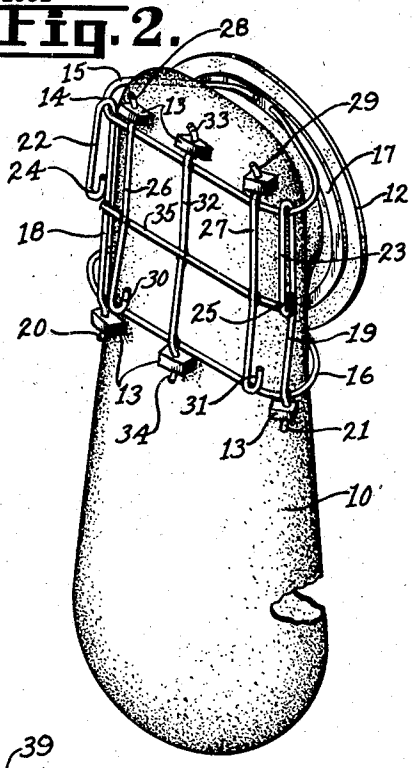


Fig. 3.

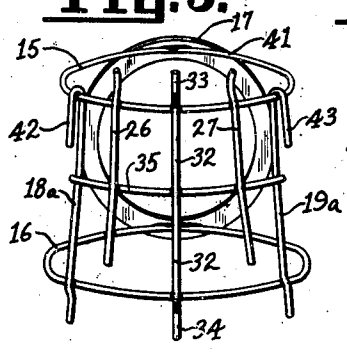


Fig. 4.

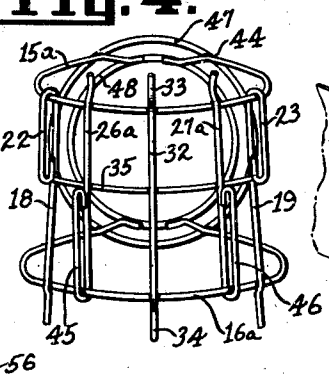


Fig. 5.

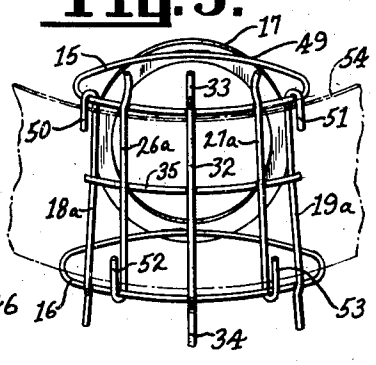
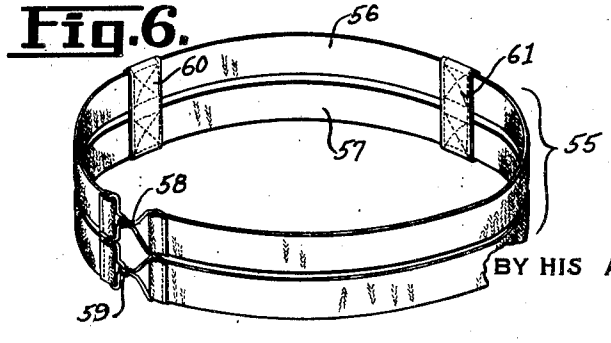


Fig. 6.



INVENTOR
Rudolph Gricks.

BY HIS ATTORNEY
H. G. Manning

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COLOSTOMY APPLIANCE

Rudolph Gricks, Woodbury, Conn.

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7 Claims. (Cl. 128—283)

This invention relates to surgical apparatus, and more particularly to a detachable appliance to be utilized by patients who have undergone a colostomy or other similar abdominal operation.

One object of this invention is to provide a device of the above nature which will be thoroughly sanitary, and which will minimize the inconveniences, discomforts, and handicaps in the use of a colostomy appliance.

A further object is to provide a device of the above nature having a novel construction of a pouch and retainer frame for holding the pouch, whereby the latter may be readily removed whenever desired.

A further object is to provide a device of the above nature in which the rubber pouch will be held in a comfortable snug position by a flexible wire frame which is slidably mounted on an elastic belt, thus allowing freedom of the body for twisting and bending movements without danger of displacing the pouch.

A further object is to provide a device of this nature which will be simple in construction, inexpensive to manufacture, easy to apply and adjust, compact, and very efficient and durable in use.

With these and other objects in view, there has been illustrated on the accompanying drawing, several forms in which the invention may be conveniently embodied in practice.

In the drawing:

Fig. 1 represents a perspective front view of the colostomy appliance attached to a single strap belt.

Fig. 2 is a rear perspective view of the same without the belt.

Fig. 3 is a rear perspective view of a modified form of wire support frame.

Fig. 4 is a rear perspective view of another modified form of wire support frame.

Fig. 5 is a rear perspective view of a still further modified form of wire support frame in which it is attached to a broad single strap belt, shown in phantom.

Fig. 6 is a perspective view of a double strap belt which may be selectively used in any of the support frames shown in Figs. 1 to 5, inclusive.

Following a colostomy operation, it is necessary to provide a suitable drainage receptacle for covering the incision made in the body. This receptacle must fit snugly on the body of the wearer in order to collect the escaping solids and fluids without possibility of leakage. The present invention accomplishes the above and other objects in a simple and efficient manner.

Referring now to the drawing, in which like reference numerals denote corresponding parts throughout the several views, the numeral 10 indicates an elongated thin flexible bag or pouch preferably of translucent rubber, having a side opening 11 in its upper portion. The pouch 10 is adapted to be applied to any artificial aperture made in the body for drainage or other purposes.

In order to prevent leakage, the pouch 10 is provided with a soft flexible broad flat rubber flange 12 which circumscribes the side opening 11 and is made integral with the pouch 10. This flat rubber flange 12 lies snugly in contact with the body of the wearer at all times and adheres to said body thus assisting in preventing the pouch from slipping out of place. The flexibility of the flange 12 also allows it to easily adjust itself to the contour of the body when the wearer is twisting or bending.

In order to give suitable form to the upper part of the thin pouch 10 to prevent possibility of collapse and thus permitting positive and free movement of all waste material passing out through the drainage opening in the body, the rubber pouch 10 is provided on its upper rear side with a plurality of equally spaced rectangular lugs 13 formed intergral with said pouch and provided with vertical apertures, for holding a support frame generally indicated by the numeral 14.

The support frame 14 consists of a pair of upper and lower horizontal flexible wire loops 15 and 16 substantially oval in shape and adapted to surround the upper part of the pouch 10. The loops 15 and 16 are soldered at their front ends to a vertical flexible thin flat metal ring 17 adapted to be positioned directly in back of the rubber flange 12 for reenforcing it. To the rear portions of the wire loops 15 and 16 are soldered a pair of outer downwardly extending supporting wires 18 and 19 terminating at their lower ends in a pair of curved prongs 20 and 21. The upper ends of said wires 18 and 19 are formed into a pair of elongated narrow loops 22 and 23, the lower ends of which terminate in a pair of U-shaped hooks 24 and 25 which are resiliently pressed against the vertical members 18 and 19.

Adjacent the vertical members 18 and 19 and inwardly positioned with respect thereto, are another pair of upwardly extending members 26 and 27 soldered to the upper loop 15, and terminating at their upper ends in a pair of curved prongs 28 and 29. The lower ends of said members 26 and 27 are formed into a pair of U-shaped

hooks 30 and 31 which resiliently press against the lower oval loop 16.

Between the support members 26 and 27 is an intermediate vertical member 32 soldered to the upper and lower loops 15 and 16 and having its upper and lower ends terminating in curved prongs 33 and 34.

In order to give additional strength to the support frame 14, provision may be made of an intermediate horizontal cross-wire 35 soldered to all of the vertical members described above.

In order to support the colostomy appliance tightly against the patient's body, provision is made of a single elastic strap belt 36 which is doubled back upon itself to form an upper strap 37 and a lower strap 36*a*. The upper strap 37 has attached to its free end an adjustable slide buckle 38, so that the belt may be adjusted to fit the size of the patient's body. The belt 36 has attached to one end a hook member 39 which is adapted to engage an eye member 40 held by the loop formed by the end of the straps 36*a* and 37, as clearly shown in Fig. 1. The upper strap 37 is adapted to pass through the loops 22 and 23 in the wire frame 14 and is prevented from slipping down by means of the U-shaped hooks 24 and 25. The lower strap 36*a* is passed behind the lower part of the vertical members 26 and 27 and is prevented from slipping downwardly by means of the U-shaped hooks 30 and 31.

The curved prongs 20, 21, 28, 29, 33, and 34 which extend upwardly and downwardly from the frame 14 are adapted to pass through the respective vertical apertures provided in the rubber lugs 13 for detachably holding the pouch 10 in position, and also to maintain said pouch in un-collapsed condition, as clearly shown in Fig. 2.

In the modified form of support frame 41 shown in Fig. 3, the construction is identical to that of the support frame 14 already described, except that it has no lower hooks corresponding to the hooks 30, and 31, and the outside support members 18*a* and 19*a* are provided at their upper ends with a pair of reversed U-shaped hooks 42 and 43 adapted to embrace the strap 37 of the belt 36.

In the modified form of a support frame 44 shown in Fig. 4, the construction is also identical with the support frame 14 shown in Figs. 1 and 2 except that the lower ends of the support members 26*a* and 27*a* are provided with a pair of elongated vertical loops 45 and 46 similar to the upper loops 22 and 23. Moreover, the upper and lower horizontal oval loops 15*a* and 16*a* are soldered at their front ends to a pair of flexible concentric wire rings 47 and 48 used in place of the flat metal ring 17 of the first form.

The modified form of support frame 49, shown in Fig. 5, differs from the first form of Figs. 1 and 2 in that the outside support wires 18*a* and 19*a* carry at their upper ends a pair of reversed depending U-shaped hooks 50 and 51 similar to the hooks 42 and 43 shown in Fig. 3. The lower ends of the support members 26*a* and 27*a* are soldered to the lower oval loop 16, and are provided with upstanding U-shaped hooks 52 and 53. The hooks 50, 51, 52, and 53 are adapted to embrace the upper and lower edges of a wide single elastic strap belt 54, shown in phantom.

The belt 54 is adapted to be passed around the patient's body and is fastened securely at the front by means of any suitable hook and catch devices, not shown.

A still further modified form of belt 55 is shown in Fig. 6. This belt consists of a pair of upper and lower narrow elastic straps 56 and 57 which are detachably fastened by means of a pair of suitable hook and catch devices 58 and 59. In order to hold the two straps 56 and 57 in the proper spaced relation, provision is made of a pair of cross-straps 60 and 61 secured to the straps 56 and 57 as by stitching. This belt 55 may be selectively employed upon any of the support frames described above.

Operation

In operation, the pouch 10 will first be assembled in the frame 14, as already explained. The upper strap 37 will then be inserted upwardly into the space between the elongated loops 22 and 23 and the vertical members 18 and 19, and is adapted to rest within the hooks 24 and 25. The bottom strap 36*a* of the belt 36 will likewise be inserted upwardly between the U-shaped hooks 30 and 31 and the vertical wires 18 and 19. The pouch will then be placed in position with its side opening 11 in alinement with the drainage opening. The belt 36 will then be passed around the patient's body and suitably adjusted and attached in position.

While there have been disclosed in the specification several forms in which the invention may be embodied, it is to be understood that these forms are shown for the purpose of illustration only, and that the invention is not to be limited to the specific disclosures, but may be modified and embodied in various other forms without departing from its spirit. In short, the invention includes all the modifications and embodiments coming within the scope of the following claims.

Having thus fully described the invention, what is claimed as new, and for which it is desired to secure Letters Patent, is:

1. In a colostomy appliance, an elongated pounch having a forward opening in one side adjacent the top thereof, a flange integral with said pouch and surrounding said opening, a frame surrounding said pouch and means for connecting the exterior of said pouch to said frame for supporting the upper rear portion of said pouch in uncollapsed condition.

2. In a colostomy appliance, an elongated rubber pouch having a forward opening in one side adjacent the top thereof, a flange integral with said pouch and surrounding said opening, a frame surrounding said pouch and connected thereto for supporting the upper rear portion of said pouch in uncollapsed condition, and means on said frame for backing up said flange.

3. In a colostomy appliance, an elongated pouch having a forward opening in one side adjacent the top thereof, a flat body engaging flange integral with said pouch and surrounding said opening, and an exterior metal frame for supporting the upper rear portion of said pouch in uncollapsed condition, said frame having a flange-engaging ring.

4. In a colostomy appliance, an elongated rubber pouch having a forward opening in one side adjacent the top thereof, a flange integral with said pouch and surrounding said opening, means for backing up said flange, and means for supporting the upper rear portion of said pouch in uncollapsed condition, said pouch having a plurality of lugs on its rear exterior surface for connection with said supporting means.

5. In a colostomy appliance, an elongated pouch having a forward opening in one side adjacent the top thereof, a flange integral with said pouch and surrounding said opening, and an exterior flexible frame for supporting the upper rear por-

tion of said pouch in uncollapsed condition, the upper rear surface of said pouch being attached to said frame, said frame having means for slidably receiving a belt for holding said appliance in position.

6. In a colostomy appliance, an elongated pouch of flexible material having an opening in one side at the upper portion thereof, a flat flange integral with said pouch and surrounding said opening, a frame attached to the exterior of the upper portion of said pouch to retain the mouth thereof in open position, and means on said frame for holding said flange against the body of the wearer.

7. In a colostomy appliance, a substantially vertical elongated pouch having an opening in one side adjacent the top thereof, an exterior frame for supporting the upper portion of said pouch in uncollapsed condition, the upper rear surface of said pouch being attached to said frame, said frame having means for slidably receiving a belt for holding said appliance in position.

RUDOLPH GRICKS.