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3,367,338

SURGICAL APPLIANCE

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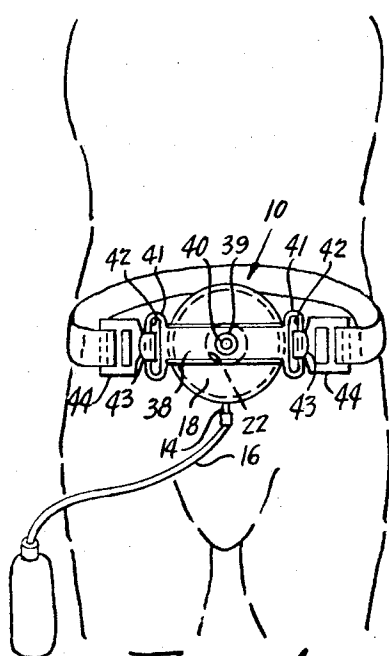


FIG. 1

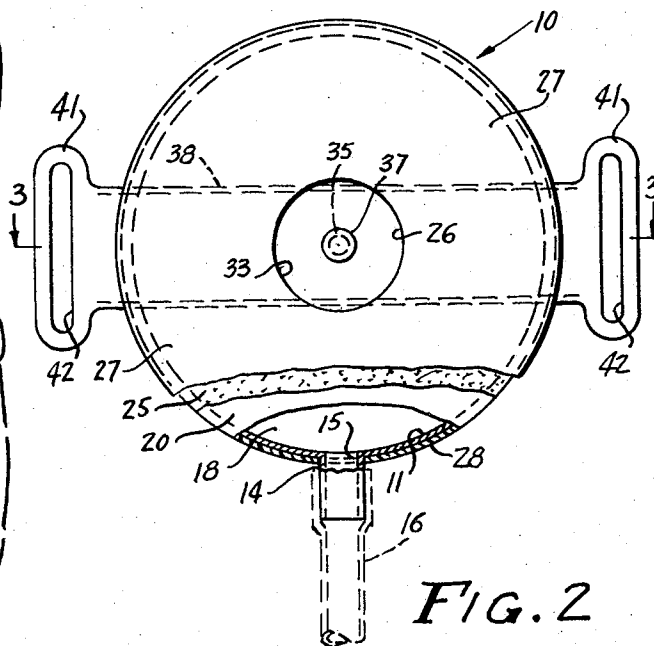


FIG. 2

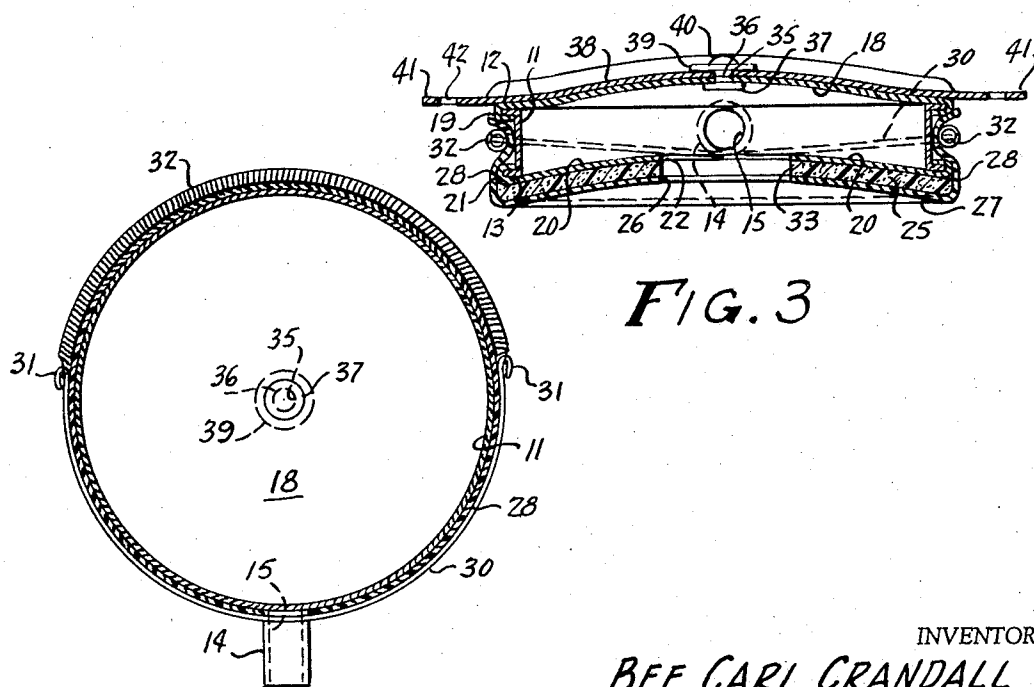


FIG. 3

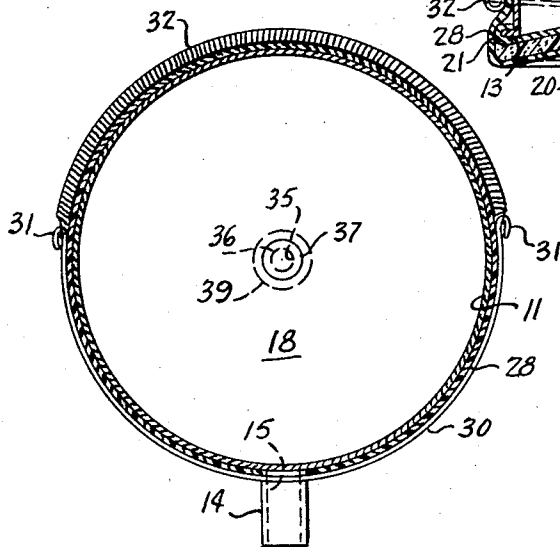


FIG. 4

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## SURGICAL APPLIANCE

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6 Claims. (Cl. 128—350)

This invention relates to a surgical appliance, and more particularly to a genital-urinary appliance which is adapted to be applied to an individual's body after an abdominal operation or the like wherein drainage occurs from the kidney, bladder, colon or other area through the wound until healed. In such instances, catheters are frequently provided in direct connection with the kidney or bladder, or in other cases, the drainage is absorbed by abdominal dressings. In the latter case, frequent changes are required, and an unsanitary and frequently septic condition occurs. It is an object of the invention to provide a device into which a catheter may be extended, or alternatively into which an incision may drain directly, thus obviating the above-mentioned difficulties.

A further object of the invention resides in the provision of a device of this character which may be worn permanently by an individual having a permanently open incision, a drainage tube comprising a component thereof extending to a bag or bottle, the latter, secured to the clothing, being employed by an ambulatory patient.

A further object of this invention is the provision of a device of this character which may be positioned over or around an incision and secured to the body of the patient in substantially seepage-proof relation.

An additional object of the invention is the provision of a device of this character which is adapted to be attached to a belt secured about the body of the patient, and which includes a belt bar, the device being rotatable relative to the belt bar so that the drainage nipple may be directed in any appropriate direction for free flow.

A further object of the invention is the provision of a device of this character wherein the usual flexible securing means are supplanted by resilient spring wires which are not subject to breakage, and provide increased efficiency.

Still another object of the instant invention is the provision of a device of this character which is sturdy and durable in construction, reliable and efficient in operation, and relatively simple and inexpensive to manufacture as well as convenient to utilize.

Other objects will in part be obvious and part be pointed out hereinafter.

Still other objects reside in the combinations of elements, arrangements of parts, and features of construction, all as will be more fully pointed out hereinafter and disclosed in the accompanying drawings wherein:

FIGURE 1 is a front elevational view of one form of the device embodying the instant inventive concept shown as applied to the body of a patient;

FIGURE 2 is an enlarged rear elevation view of the device, certain portions thereof being broken away, and certain other portions being indicated in dotted lines;

FIGURE 3 is a sectional view taken substantially along the line 3—3 of FIGURE 2 as viewed in the direction indicated by the arrows; and

FIGURE 4 is a sectional view taken substantially along the line 4—4 of FIGURE 3 as viewed in the direction indicated by the arrows.

Similar reference characters refer to similar parts throughout the several views of the drawings.

Having reference now to the drawings in detail, the device of the instant invention is generally indicated at 10, and includes an annular cylindrical or circular rim having upper and lower externally extending radial flanges

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12 and 13 extending from the upper and lower edges thereof, respectively, as viewed in FIGURE 3. Flanges 12 and 13 may also be referred to as outer and inner flanges, respectively, since this is the position assumed when the device is in position on the body of the patient. Annular rim 11, flanges 12 and 13 are integral, and are preferably comprised of stainless steel. A nipple 14 surrounds an opening 15 at a selected circumferential point of the rim, and is adapted for connection to a conventional drainage tube 16 in the usual manner, tube 16 leading to any desired fluid receptacle 17.

A circular outer cover plate 18 is provided with an inwardly reverted flange 19 which engages beneath outer flange 12 and provides an outer cover for the device. Similarly, an inner wall member 20 is provided having an inwardly reverted flange 21 which overlies lower flange 13, the juxtaposed flanges being suitably sealed together in fluid tight relation. Lower plate 20 is concaved inwardly to accommodate the body contours and includes a central opening 22 which is adapted to overlie the incision or provide for the insertion of the catheter as desired.

A pad 25 of foam rubber or similar soft resilient material is contoured to fit inner plate 20 and provided with a central opening 26. Suitably secured to the inner side of pad 25 is a sheet 27 of "Latex" or similar rubber material which has an extending portion 28 of an extent sufficient to be folded upwardly about the outer side of annulus or rim 11. The extending portion and hence the sheet and pad are secured in position by a metallic wire 30, which in the illustrative embodiment herein shown is of substantially circular configuration and terminates in wire loops 31, between which loops extends a coil spring 32 to impart resiliency to the assembly. By virtue of the wire 30 and the spring 32, the marginal edge or extension 28 of sheet 27 is securely and firmly held in position about annular rim 11, thus firmly securing pad 25 in position. The wire is preferably at the bottom of the device, or adjacent nipple 14, to permit tube 16 to engage and encircle nipple 14 to the fullest possible extent.

Sheet 27 is provided with a central opening 33 which is aligned with the openings 22 and 26 to provide a clear passage from the incised area to the interior of the receptacle.

Outer wall 18 is provided with a central opening 35 through which extends a stud 36 having an internal head 37, upon which is mounted a belt bar 38. Positioned above the belt bar is a friction washer 39 and then the assembly is held in place by a head 40. The belt bar extends beyond the periphery of the device and is provided with enlarged ends 41 having slotted apertures 42 therein, and adapted for the reception of hooks 43 carried by buckles 44 of the body encircling belt 45. The device may thus be held securely in position over the incision or body opening. Elastic or non-elastic belting material may be employed as desired.

From the foregoing the use and operation should now be readily understandable. The metallic portions of the device are sterilized prior to assembly of the sanitary rubber and foam rubber inner covering, the body of the patient about the incision being rendered sterile. The device may then be applied with the aligned openings 33, 26 and 22 overlying the body incision, and the apparatus may be held in position by means of adhesive, or may be taped to the body, or may be secured in position by the previously described belt means.

From the foregoing it will now be seen that there is herein provided a surgical appliance which accomplishes all the objects of this invention, including many advantages of great practical utility and commercial importance.

As many embodiments may be made of this inventive

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concept and as many modifications may be made in the embodiment hereinbefore illustrated and described, it is to be understood that all matter herein is to be interpreted merely as illustrative and not in a limiting sense.

I claim:

1. In a surgical device, a metallic annular rim having an aperture therein, an external radial flange along each edge thereof, a nipple adapted for connection to a drainage tube surrounding said aperture, a circular metallic outer wall having an inwardly reverted flange overlying one of said external radial flanges and closing one side of said rim to define a circular receptacle, a concaved circular inner wall having a reverted flange overlying the other of said radial flanges, and having a central opening therein, a concaved compressible resilient pad conforming to said inner wall, a sheet of resilient material overlying said pad and secured thereto, said pad and sheets having central openings therein aligned with said opening in said inner wall, said sheet having an annular extension foldable against said rim and resilient means securing said extension to said rim.

2. The structure of claim 1 wherein a belt bar is affixed to said device.

3. The structure of claim 2 wherein said belt bar is pivotally mounted on said outer wall.

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4. The structure of claim 1 wherein said metallic rim, nipple and inner and outer walls are of stainless steel.

5. The structure of claim 1 wherein said pad is of foam rubber and said sheet is of "Latex" adhesively connected thereto.

6. The structure of claim 1 wherein said resilient means comprises an annular wire having a coil spring interposed therein.

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