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3,564,620

BEDSIDE DRAINAGE BAG

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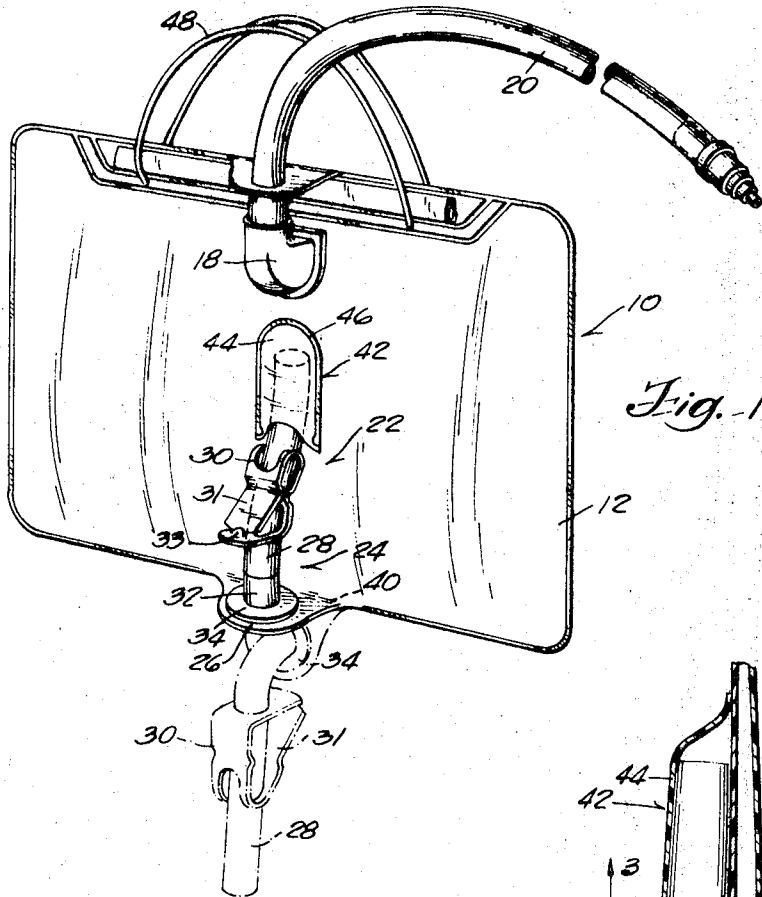


Fig. 1

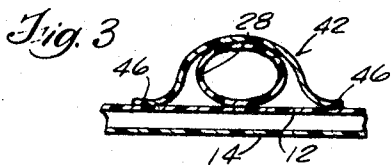


Fig. 3

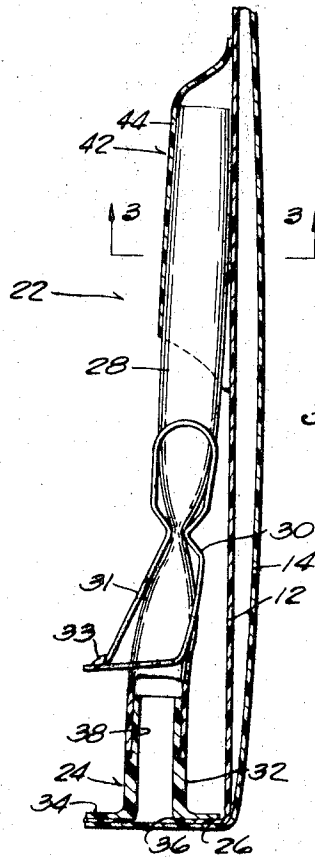


Fig. 2

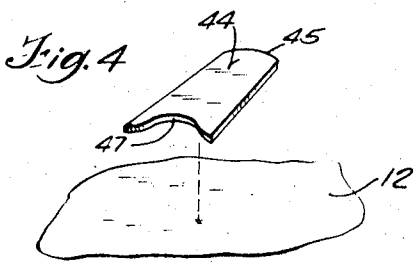


Fig. 4

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BEDSIDE DRAINAGE BAG

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3 Claims

ABSTRACT OF THE DISCLOSURE

A bedside drainage bag for use in hospitals and the like, comprising a bag portion adapted to retain fluid therein having an inlet tube connected thereto for carrying fluid into the bag. A drainage assembly mounted on the bag for periodically draining the contents therefrom, comprised of a drain fitting fastened to a depending flap portion at the bottom of the bag. A drain tube is attached to the end of the drain fitting and can be pivoted from a depending drain position to an upright storage position. A valve member mounted on the tube controls flow there-through, and a drain tube pocket of special design is provided on the face of the bag into which the end of the drain tube is inserted to thereby retain the drainage assembly when in its storage or non-use position.

BACKGROUND OF THE INVENTION

(I) Field of invention

This invention relates to bedside drainage bags and, more particularly, to a specially designed drain tube assembly for periodically draining the contents of the drainage bag.

(II) Description of prior art

In the conventional drainage bag, a drain tube is pendantly mounted in the bottom portion thereof for purposes of periodically draining the bag. The tube remains in this position both during periods when fluid is draining into the bag during periods when the bag is being emptied. Such an arrangement produces an unsightly appearance and creates a sanitary problem in that the drainage tube is exposed at all times.

The principal object of this invention, therefore, is to provide an improved drainage tube assembly wherein the drain tube can be easily and conveniently positioned in an upstanding position for storage during periods between the times the bag is drained.

SUMMARY OF INVENTION

A bedside drainage bag having a bag portion adapted to retain fluid therein and an inlet tube means connected to the bag for conducting fluid into the bag. A drainage assembly is mounted on the bag and adapted for periodically draining the contents therefrom. Such assembly includes a drain tube member connected to the bottom portion of the bag and in communication with the inside thereof. The tube is further adapted for movement between a depending drain position and an upstanding storage position. A specially designed drain tube pocket is provided on the face of the drainage bag for receiving and retaining the end of the drain tube member when such member is in its upright storage position. A further refinement of the drainage assembly includes a depending flap portion on the bag to which the drain tube is connected. Such flap portion is adapted to facilitate pivotal movement of the drain tube assembly between its drain and storage position.

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DESCRIPTION OF DRAWINGS

FIG. 1 is a perspective view of a flexible container incorporating the present invention;

FIG. 2 is a fragmentary sectional view of the drain tube assembly for the container with the tube shown in its "storage" or "non-use" position;

FIG. 3 is a sectional view taken along line 3—3 of FIG. 2; and

FIG. 4 is a fragmentary exploded view showing the drain tube pocket prior to attachment to the drainage bag.

DESCRIPTION OF PREFERRED EMBODIMENT

Referring now to the drawings in detail, FIG. 1 shows a bedside drainage bag 10 preferably made from two sheets of polyvinyl chloride plastic 12, 14 which are sealed to each other around the peripheral edges thereof as at 16 preferably by an electronic welding procedure to provide a sealed container.

The drainage bag is provided with an inlet fitting 18 having a tube 20 connected thereto for conducting the flow of fluid into the bag. Fitting 18 and tube 20 are also preferably made from polyvinyl chloride material.

The bag 10 is also provided with a drainage assembly 22 designed for periodically draining the bag of its contents.

As clearly shown in FIG. 2, drain assembly 22 is comprised of an outlet fitting 24 welded or otherwise secured to a depending flap portion 26 of the bag. A drainage tube member 28 is connected to outlet fitting 24 and is provided with a shut-off valve 30 of any suitable design. Valve 30 is in the form of a clip having a spring arm 31 held in closed position by an abutment 33 as shown in FIG. 2. The valve is opened by simply releasing the end of arms 31 from abutment as shown in dotted lines in FIG. 1.

As most clearly shown in FIG. 2, fitting 24 is comprised of a nipple portion 32 having a flange portion 34 formed at one end thereof for purposes of attachment to the front face of flap portion 26. Such attachment is preferably made by electronic welding. The front face of flap portion 26 is provided with an opening 36 through which the contents of the bag are drained. The nipple portion 32 of fitting 24 is provided with a tip portion 38 of reduced outside diameter. Tube 28 is connected to fitting 24 by simply inserting the end of the tube over the tip portion 38 of the fitting as shown in FIG. 2. The tube and fitting are dimensioned to provide a snug friction fit to thereby retain the tube securely on the fitting. The outside diameter of tube 28 and the exposed portion of nipple 32 are the same to thus provide a smooth, substantially continuous surface at the joint.

Flap portion 26 of bag 10 to which outlet fitting 24 is connected is adapted to pivot between a drainage position shown in dotted lines in FIG. 1 and a storage position shown in solid lines in FIGS. 1 and 2. The portion of the bag indicated by dotted line 40 serves as a kind of a hinge to permit such pivotal action.

To retain the assembly 22 in storage position, a specially designed storage pocket 42 is provided on the front face 12 of the bag. The pocket is fabricated by attaching a properly shaped strip 44 of plastic material to the face 12 of the bag, preferably by electroic welding. The strip, before its attachment, is in the form of a flat member as shown in FIG. 4. The strip 44 is rounded at one end 45 and has a cut-out portion 47 at its other end. Also of significance is that the strip is slightly tapered from its rounded end 45 to its cut-out end 47 with said cut-out end having the maximum width. Before its attachment, the edges of strip 44 are flexed inwardly towards each

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other causing the body of the member to be bowed upwardly when the strip is in assembled position as shown in FIGS. 1, 2 and 3. The weld area which is indicated by reference numeral 46 extends only partially around the periphery of the strip to provide an opening in one end thereof into which the end of tube 28 can be inserted for storage. Because of the taper referred to above, the open end of the pocket formed by the strip is of a larger cross-sectional area that at any other point to the rear of such opening. Thus, the pocket 42 formed by the strip provides a relatively large opening for easy insertion of tube 28 with the pocket having a gradually decreasing cross-sectional area dimensioned to securely retain the tube therein.

The preferred material for fitting 24 and strip 44 is polyvinyl chloride (to facilitate welding to the bag). The preferred material for tube 28 is pure latex and the preferred material for shut-off valve 30 is spring steel. As shown in FIG. 1 the bag 10 is provided with a supporting cord 48 for hanging the entire unit on the side of a hospital bed.

To use the bedside drainage bag described above, fluid is allowed to flow into the bag 10 through tube 20 and inlet fitting 18 until the bag becomes at least partially full. During this period, valve 30 is in its closed position and the drainage tube assembly 22 is in its "storage" or "non-use" position as shown in FIG. 2.

When it becomes necessary to drain the bag, tube 28 is removed from the pocket 42 and the entire assembly 22 is then pivoted downwardly to the dotted line position shown in FIG. 1. Valve 30 is then opened, allowing the contents of the bag to be drained therefrom by gravity. Valve 30 is then returned to its "off" position, the assembly 22 is pivoted back to its storage position and the end of tube 28 is inserted back into pocket 42. The drainage bag is now ready for further use.

Although but one embodiment of the present invention has been illustrated and described, it will be apparent to those skilled in the art that various changes and modifications may be made therein without departing from the spirit of the invention or from the scope of the appended claims.

What is claimed is:

1. A bedside drainage bag comprising:
 - a bag portion adapted to retain fluid therein;
 - an inlet tube connected to said bag and adapted to carry fluid into said bag; and

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a drainage assembly mounted on said bag adapted for periodically draining the contents therefrom, said assembly including a drain tube member connected to the bottom portion of the bag and in communication with the inside thereof, said tube being connected to said bag by hinge means which is comprised of a depending flap portion of said bag with said drain tube being connected to one side surface of said flap portion, said hinge means permitting movement of said drainage tube between a depending drain position in which said flap portion is positioned generally in the plane of said bag and an upstanding storage position in which said flap portion is folded and transverse to the plane of said bag, said assembly further including a retaining means mounted on the bag for holding said drain tube member in its storage position, said retaining means comprising a pocket mounted on the front face of said bag and having an opening in one end thereof for insertion of said tube, said pocket having a decreasing cross-sectional area from the open end thereof to the closed end thereof.

2. A bedside drainage bag according to claim 1 in which said pocket is comprised of a strip of plastic material adhered to the bag for receiving and retaining the end of said drain tube member when said member is in storage position, said strip being rounded at one end and having a cut-out portion at the other end, said strip being further characterized by being slightly tapered end-to-end with the cut-out end having the maximum width.

3. A bedside drainage bag according to claim 2 in which said drainage assembly further includes a valve member mounted on said drain tube adapted to control flow of fluid therethrough.

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