

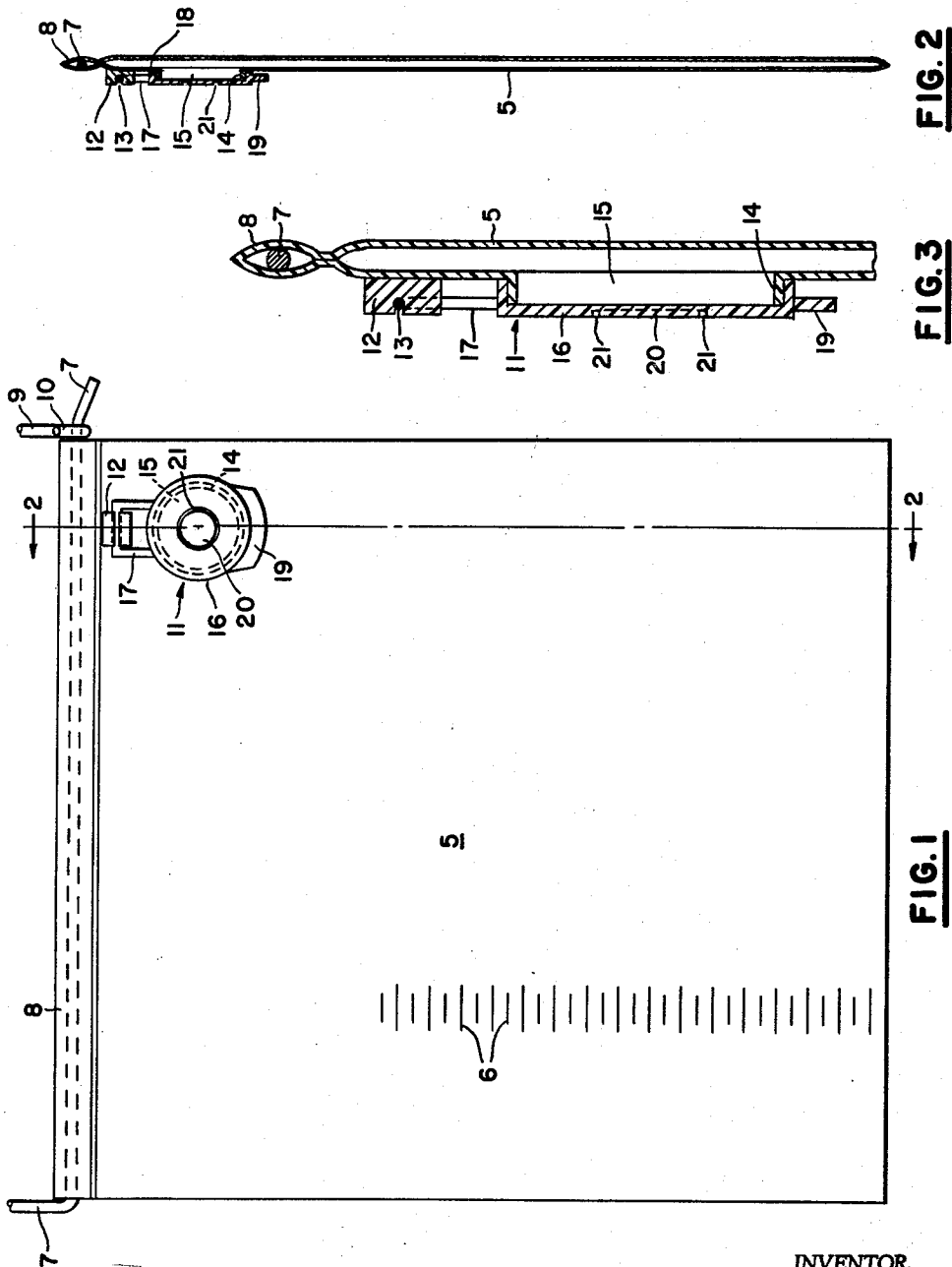
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FLEXIBLE BAG

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FLEXIBLE BAG

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1 Claim. (Cl. 150-8)

This invention relates in general to an improved flexible bag and more particularly to the access openings in a flexible bag.

To be more specific the invention relates to an opening means for a flexible bag which is adaptable to a multiplicity of uses.

In hospitals today, a flexible bag of plastic or some such pliable material is widely used as a bedside drainage bag for the patients. These have replaced the bed urinals and glass jars used for many years and due to the versatility of the flexible bags have proved much more satisfactory and superior to the old devices.

A device used today is a flexible bag which is supported by a rack which can be hung over the side rail of the patient's bed. The bag usually has markings on an upper corner thereof to indicate to the nurse or other person installing the device to cut it off along the markings to provide an opening for insertion of the drainage tube coming from the patient.

As a rule the nurse will cut off only enough material to allow easy insertion of the tube; if too much of the bag is cut away, thus providing a larger hole, the bag becomes weakened and subject to tearing when it contains any substantial amount of fluid.

A particularly vexing problem is encountered when such a bag is to be emptied and washed out. If the cut-off opening is large enough for easy insertion of a water faucet then it is large enough to cause a general weakening of the bag, thereby providing inadequate support for a large amount of contained fluid.

According to my invention the bag may be removed, the larger opening utilized for emptying and washing of the bag, then the larger opening may be closed and the smaller of the openings used again as an entrance for a drainage tube from the patient.

My invention relates to an improved opening for such a flexible bag and more importantly provides an opening device which may be used when a small opening is desired or a second opening which may be used when a larger opening is needed.

Throughout this specification the invention will be described as used in a flexible drainage bag but it will become obvious to anyone skilled in the art that the invention has general utility in any situation where a flexible bag with a plurality of different sized openings is utilized.

A primary object of the invention, therefore, is to provide a flexible bag with an opening device adaptable to requirements of bags with different sized openings.

It is another object of the invention to provide a flexible bag with a smaller opening for use when filling the bag and a larger opening for use when emptying and washing the bag.

It is a further object of the invention to provide a flexible bag with a multiple opening arrangement which will not weaken the bag itself thereby rendering the bag ineffective for its intended use.

It is a still further object of the invention to provide a flexible bag which is simple, durable, and easily manufactured.

These and other objects of the invention will be fully understood from the following description of a preferred form of the invention, throughout which description reference is made to the accompanying drawing in which:

FIGURE 1 is a front elevational view of the invention;

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FIGURE 2 is a side sectional view taken substantially on the line 2-2 of FIGURE 1;

FIGURE 3 is an enlarged sectional view showing the construction of the closure in greater detail.

5 Referring now to the drawing, 5 represents the body of the flexible bag itself. It is made of any pliable material and may be provided with a measuring scale 6 on the outside thereof if desired.

The bag 5 is shown as being supported by a rigid member 7 which extends through a folded over portion 8 forming an envelope through which member 7 slides. The rigid rod 7 provides support for the flexible bag so that it will not collapse when an amount of liquid is placed in the bag.

15 Rigid member 7 is snapped over the end of rigid vertical member 9 which is provided with a turned up end 10. By lifting member 7 up over the end 10 and permitting it to rest on the bottom of the vertical member 10 adequate support is provided for bag 5 and it also permits easy removal of the bag from the holder.

In the upper right corner of flexible bag 5 is opening device 11. Molded into or suitably attached to the surface of bag 5 is a raised portion 12. In the front surface of raised portion 12 is a groove 13.

25 Bag 5 is further provided with a raised circular portion 14 around opening 15. Cover member 16 is provided with a hinge element 17 which is of substantial U-shape with the bottom of the U frictionally fitting into groove 13 of raised portion 12. Since the member 17 is frictionally engaged by member 12 it permits relatively easy rotation of the hinge.

Cover 16 is further provided with a rearwardly extending circular flange 18 which is slightly larger in diameter than the raised circular portion 14 so as to provide a friction fit when the two members are brought together.

Cover 16 has a lip member 19 at the bottom thereof to provide a gripping surface in order to remove and replace cover member 16 over raised circular portion 14.

40 At the approximate center of the cover member 16 is knockout portion 20. This may be made with a groove 21 encircling it so that the thickness of the cover 16 around this groove 21 is much less than the remainder of the cover and may be easily punched out with a finger or tool when the flexible bag is put into use.

Operation of the device is as follows:

Envelope 8 of bag 5 is slipped over rigid member 7 and rigid member 7 is adequately secured to its supports by lifting the end thereof over upright member 10 and permitting the end to rest in the cradle formed by members 9 and 10.

In this position bag 5 is held in rigid support and ready for use.

Knockout portion 20 of cover member 16 is then punched out and the drainage tube from the patient is inserted and pushed down into the bag. Due to the small size of the opening formed by knockout portion 20 the tube is held in position to prevent accidental removal from the bag.

60 After the bag has fulfilled its initial usefulness as a container for drainage, the tube is removed from the opening made by knockout member 20. The entire rack and bag may then be removed and carried to the location where it is to be emptied or, if desired, member 7 may be lifted up over the end 10 of vertical member 9 and sleeve 8 slid off of rigid member 7.

Attention is called to the fact that during this removal and emptying operation there is very little danger of spillage because of the small size of opening 20.

70 When it is desired to empty the bag, lip 19 of cover member 16 is gripped between the fingers and lifted upwardly pulling the member 18 of cover 16 away from

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the circular ring 14 of bag 5. Hinge member 17 pivots in the groove 13 thus providing an opening 15 in the bag as large as the circular member 14.

The contents of the bag may be poured out through the large opening then due to the size of the opening a water faucet may be placed into the opening and water run into the bag. After this it may be sloshed around to wash out the inside of the bag, then disposed of through opening 15. This process may be repeated until the bag is thoroughly rinsed.

Then cover member 16 is pressed back against the bag and member 18 frictionally contacts annular ring 14 to close the larger opening 15. The bag 5 is then placed back on the rigid member 7 and it is ready for re-use by insertion of the discharge tube into the hole formed by knockout member 20.

The means shown for fastening cover means 16 to the bag 5 is shown for purposes of illustration only and anyone skilled in the art may devise other methods but still fall within the purview of this specification.

A suggested alternative means for fastening the cover member 16 would be to mold the hinge into the bag 5 as a single piece. Or, if desired, hinge member 17 could be made in the form of a loop to slip over the top of envelope 8 and clamp over rigid member 7. The cover member 16 would be reusable and all the bag manufacturer need supply is a bag with a circular member 14 formed in the bag.

Having described a typical preferred form and embodiment of my invention, I do not wish to be limited or restricted to specific details herein set forth but wish to reserve to myself any variations or modifications that may appear to those skilled in the art and falling within the scope of the following claim.

What is claimed is:

A urinary drainage bag assembly comprising

(a) a drainage bag having an envelope portion,

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- (b) a tubular supporting hem extending along the top portion of said envelope portion,
- (c) said tubular hem providing space for accommodation of a supporting frame member,
- (d) an opening in said bag near the top portion thereof,
- (e) said opening located below said tubular hem,
- (f) said opening being formed by an enlarged surrounding portion of said bag,
- (g) a hinge-holding means located near said opening,
- (h) a cover member of a size adapted to fit over said enlarged surrounding portion,
- (i) said cover member having a hinge member in said hinge-holding means,
- (j) a lifting lip on said cover member located diametrically opposite said hinge member,
- (k) a knockout portion located near the center of said cover member for forming a hole therein,
- (l) said hole formed by said knockout portion adapted to snugly receive a urinary drainage tube, and
- (m) said opening in said drainage bag being large enough to receive the end of an ordinary water faucet.

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