United States Patent

[11] **3,574,868**

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[54] **DRAINAGE BAG TUBE STABILIZER**
1 Claim, 1 Drawing Fig.

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[50] **Field of Search** 4/110; 248/75, 95, 51, 52, 79; 128/295

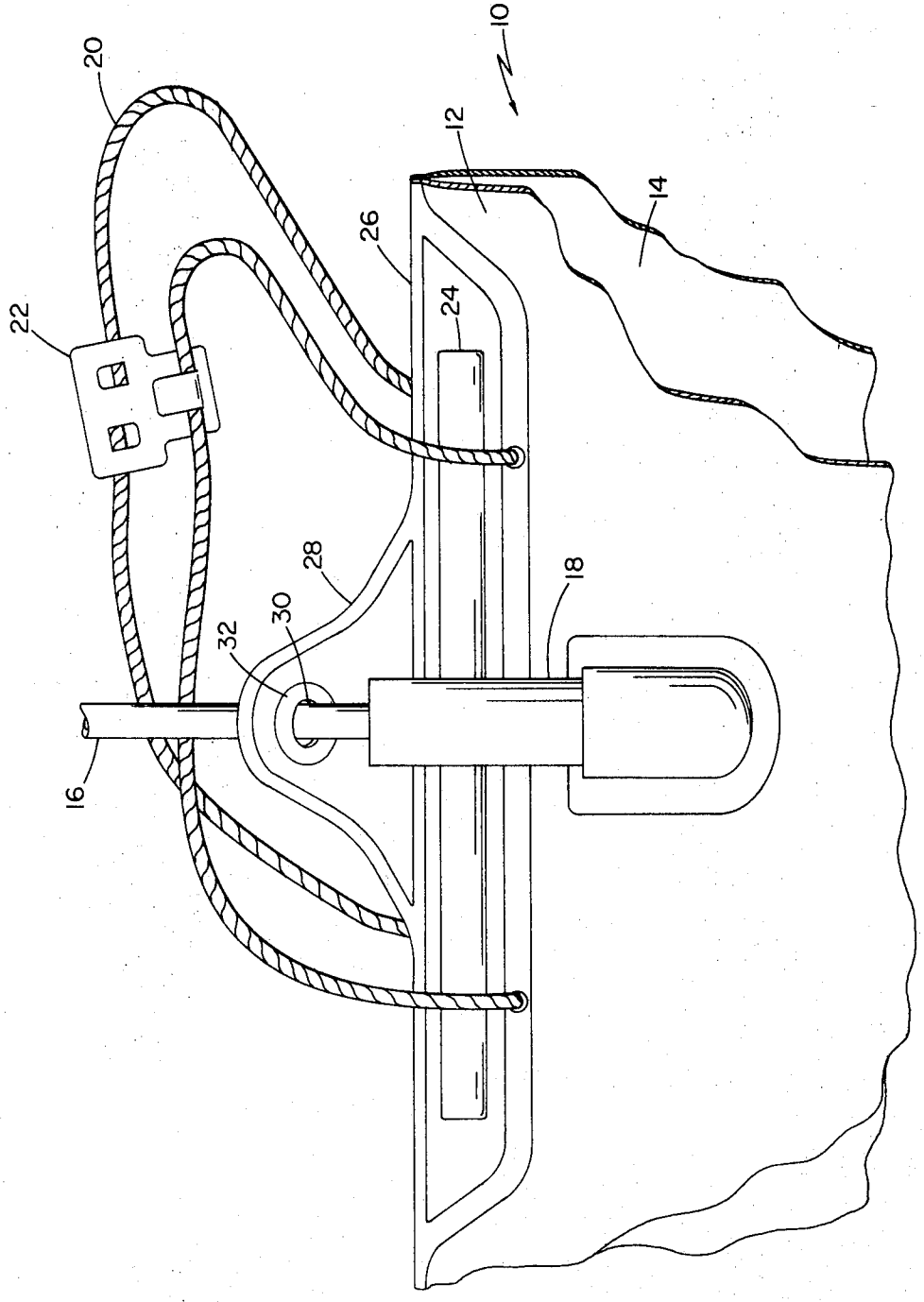
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ABSTRACT: A drainage bag for collecting urine.is provided with a plastic tab connected to its upper edge, said tab being provided with an aperture through which the drainage tube is threaded.


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DRAINAGE BAG TUBE STABILIZER

This invention relates to a stabilizing means for maintaining a drainage tube in a bedside drainage bag or the like. More particularly it relates to a means for maintaining an inlet tube in a substantially fixed angular relationship to a drainage bag.

Urinary drainage bags are commonly suspended from the side of a hospital bed, and are provided with a length of flexible tubing leading to a catheter which is inserted in the patient. In order for such a combination to function properly, it is necessary that fluid be able to flow readily by gravity from the patient into the drainage bag. The formation of pockets of fluid in the tube not only impedes drainage, but has been suspected to be a potential source of retrograde infection. It is recognized that it is desirable to keep drainage tube urine separate from drainage bag urine.

Recognition of this has led to the devising of means for stabilizing the relationship of the drainage tube to the bag, so that the free flow of fluid is always encouraged. Such devices include specially formed wire hangers, as shown in U.S. Pat. No. 3,090,968, or plastic clips affixed to the body of the bag, as set forth in U.S. Pat. No. 3,251,069. Such devices add to the expense of the assembly, and require special care and extra steps in the fabrication of the bag. In is with improvements in this art that the present invention is concerned.

It is an object of this invention to provide a stabilization means for guiding a drainage tube into a drainage bag. It is a further object of this invention to provide such a device of an economical and expedient nature, demanding a minimum of added material and fabrication.

The present invention contemplates the partial prolongation of the body of the drainage bag above and beyond the conventional straight-line upper edge, to form a tab or projection provided with an aperture through which the drainage tube is threaded. The invention will be better understood with reference to the drawing, in which:

The FIGURE is a partially broken away view of the stabilizing means of this invention, together with the drainage tube, suspension cord, and part of the drainage bag.

Referring now to the FIGURE, a drainage bag **10** is shown, partly broken away, as consisting of two sheets of plastic **12** and **14**, sealed together along their peripheries. The bag is provided with a drainage tube **16**, leading into a plastic drip tube **18** sealed to the upper portion of the face of the bag. The drainage tube **16** may be positioned centrally with respect to the drainage bag—i.e., equidistant from the side edges—or it may be positioned off the central axis of the bag, toward or at one of the edges. The bag is also provided with a suspension cord **20** and clamp **22**, for attaching the bag and tubing to the side of a bed or other convenient location. A reinforcing bar **24** is affixed horizontally along the upper edge of the bag, to guard against lateral distortion or sagging of the bag when in use. The foregoing details are more or less conventional.

The plastic sheet material used to form the bag may be of any of the heat-sealable thermoplastic polymers, such as polyolefin, polyurethane, polyvinyl chloride, and the like. The sheets are heat-sealed together around their edges, as shown at **26**.

The bag is conveniently formed from a pair of superimposed blanks of plastic sealed together by a heated die. Projecting upwardly from the top edge is a tab portion of plastic sheet, preferably continuous and integral with the main body of the bag. Located on the central vertical axis of the tab is an aperture **30** with reinforcing rim **32**, said rim being formed preferably by the pressure of the heated die which is employed to seal the blanks **12** and **14** together.

The aperture **30** should have a diameter about equal to or slightly larger than the outside diameter of the drainage tube **16** which is to be accommodated therein. It will be found that when the plastic film of which the bag walls are composed is between 0.005 and **0.010** inch thick, the resultant 0.010-—0.020-inch thickness of the tab portion **28** is sufficient to provide a firm support for the drainage tube threaded therethrough, while being flexible enough to accommodate drainage tubes of slightly varying sizes. There is thus provided a stabilizing means for a drainage tube which maintains said tube in a vertical position with relation to the bag in normal usage. The provision of a stabilizing means of this sort is effected with economy, and since the stabilizing tab is integral with and a part of the plastic blanks forming the faces of the bag, a single die-pressing operation will form both the bag and the stabilizing means.

I claim:

1. A urine-collecting drainage bag assembly which comprises:

a plastic collection bag and a drip tube sealed to the upper portion thereof;

said drip tube comprising a vertically mounted cylindrical chamber having affixed therein at its upper portion a plastic drainage tube;

said drainage tube being of a smaller diameter than said cylindrical chamber;

the bag being formed of two layers of plastic material heat sealed about its free edges to form the bag;

and a tab formed of the same two layers and extending upwardly from the upper edge of the bag, said tab layers being heat sealed together; and

said tab having an aperture therein through which the drainage tube is threaded, said aperture being positioned below the upper edge of the tab and substantially vertically above the drip tube.