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SANITARY DISPOSAL BAG ASSEMBLY

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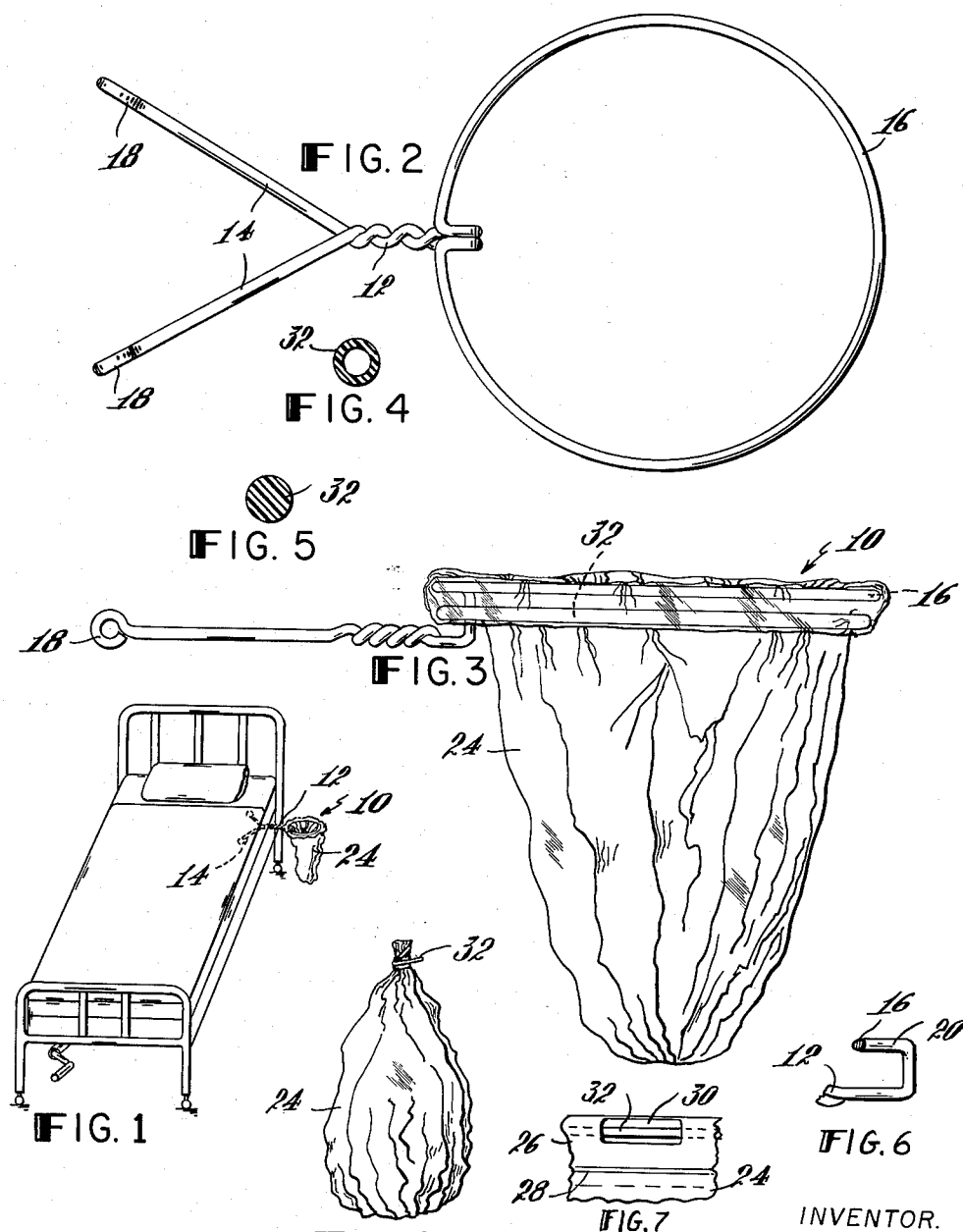


FIG. 8

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SANITARY DISPOSAL BAG ASSEMBLY

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This invention relates to a sanitary disposal bag and support therefor, and has for its objects to provide an aseptic receptacle and support of very simple, inexpensive construction for receiving, carrying and disposing of material of a contaminated nature; which may easily be installed at bedsides for personal use by patients in the event of nausea, or the like, and readily removed and closed for disposal of the content without danger of spilling. Other objects are to provide an aseptic disposal assembly which can be used in hospitals in place of a basin or the like, in the event of nausea and bleeding of the nose and mouth, or as an operating room accessory for surgery requiring irrigation of the nose or throat, or for holding emissions which require analysis for foreign content, or for carrying the same to a laboratory. Further objects are to provide an aseptic receptacle which may be used as an emergency ice bag, or for carrying water, or for receiving antiseptic solutions for soaking the hands or feet, or for holding bandages and the like, or which may be placed over plaster casts on the hands or feet to prevent soiling thereof. Another object is to provide an assembly of the foregoing kind which is inexpensive enough to be furnished by hotels and transportation systems for use by its clientele when necessary. Another object is to provide an assembly of such construction that the receptacle may be removed from the support and be folded up in a very small compact package to be carried in a bag or pocket, so that it may be available for use by travelers when stricken in public places or in transit. Still other objects are to provide an aseptic receptacle which may be made of material inexpensive enough to be thrown away, after one use, or of a material sufficiently durable to be washed and reused.

As herein shown, the assembly comprises a support having an inner part adapted to be lodged between a bed mattress and its supporting frame and an outer part adapted to project laterally from the bed to support a flexible bag in suspension, with its mouth adjacent the edge of the bed and substantially at the level thereof, including a loop, a limb at the outer end of the outer part having a reversely bent portion mounting the loop above the support, a flexible bag, a substantially inelastic member at the mouth of the bag of sufficient size to be forced over the loop yet, in its relaxed state, of a diameter slightly less than that of the loop thus being adapted to lie at the underside of the loop between it and the outer part to hold the entire marginal edge of the bag folded outwardly over and downwardly around the loop, the substantially inelastic member being disengageable from the loop and operable, when the bag is removed, by crowding of the mouth toward one end of the member, thereby constricting the mouth, to prevent escape of the content of the bag. The inner part is constituted by a pair of diverging legs which lie in a plane parallel to the plane of the loop so as to hold the latter in a horizontal plane and the mouth of the bag has a hollow seam, peripherally of it, with an opening at one place within which is disposed the substantially inelastic member, with a portion of it accessible through the opening. The inelastic member may be a cord of solid or hollow transverse section.

The invention will now be described in greater detail with reference to the accompanying drawings wherein:

FIG. 1 is a perspective view of a hospital bed showing

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the disposal assembly installed between the mattress and its supporting frame adjacent the head of the bed;

FIG. 2 is a plan view to much larger scale of the supporting frame of the assembly;

5 FIG. 3 is an elevation of the same scale showing the bag mounted on the frame;

FIG. 4 is a section through a hollow, substantially inelastic cord;

10 FIG. 5 is a section through a solid, substantially inelastic cord;

FIG. 6 is a fragmentary elevation of the reversely bent limb at the outer end of the outer part, showing the loop in section;

15 FIG. 7 is a fragmentary section of a portion of the mouth of the bag, showing the hem with an opening through which the substantially inelastic member may be drawn; and

FIG. 8 is an elevation of the bag removed from the frame with its mouth closed.

20 For the purpose of illustration, but without limitation, the disposal assembly is shown herein for use at bedsides. Referring to the drawings, the disposal assembly shown at 10 (FIG. 1), has a rigid shank 12 with diverging legs 14 at one end, adapted to be lodged between the mattress and the supporting frame therefor, to hold a loop 16 at the other end in a horizontal plane laterally of the bed, but close to it, and substantially at the level of the bed. To firmly anchor the legs in place so that they will not slip outwardly enlarged eyes 18 are formed at the extremities of the legs. Preferably the eyes are disposed in planes at right angles to the plane of the loop. At the outer end of the shank 12 there is an upstanding, rearwardly bent limb 20. The limb 20 is substantially parallel to the shank and its rear end supports the ring 16, so that the latter lies in a plane above the shank and parallel thereto. While the support is shown herein for holding the bag at bedsides, it also provides a handle for carrying the bag for transporting the content to a place for examination or disposal.

40 The support may conveniently be made of a single piece of stiff wire bent to form a ring and to leave a sufficient length at each end to form the limb 20, the shank 12 and the legs 14, the double portions of the wire forming these sections affording a rigidity and stiffness which suffices to support the bag in spite of its weight when partially or wholly filled. Preferably the portions of the wire forming the shank are twisted to augment its strength.

50 The bag 24 is comprised of a suitable plastic such as vinyl, polyethylene and the like, which may be transparent or opaque and has at its upper edge a hem 26 (FIG. 7) formed by folding the edge over and sealing it at 28, for example, by heat-sealing. One or more openings 30 are provided in the hem through which a substantially inelastic cord 32, disposed in the hem, may be drawn so as to gather the mouth of the bag on the cord at one end to close the same. The cord may also be made of vinyl material, or the like, and may be of solid or hollow section, as shown in FIGS. 4 and 5.

60 The bag is adapted to be disposed within the ring 16 and the substantially inelastic cord 32 is slightly smaller in diameter than the ring but may be forced over the ring to a position between it and the shank 12, so as to fold the entire margin of the bag outwardly over the ring. When once forced over the ring the cord reassumes its initial size so that it lies inwardly of the perimeter of the ring hence the weight of the bag and its content holds the inelastic cord against the underside of the ring and will thus hold the bag in suspension until the cord is forcibly pulled off of the ring.

70 After use, the bag is removed by forcibly disengaging the inelastic cord and then the cord is pulled through

the opening 30, so as to crowd the mouth of the bag toward one end of the cord, whereupon, the cord may be wrapped around the neck of the bag (FIG. 8), to keep it closed until the content can be disposed of. To facilitate sliding the hem at the mouth of the bag along the cord to crowd the mouth closed, the cord may be made of a vinyl, polyethylene, or the like material, which has a smooth slippery surface.

The bag may be made of light cheap plastic sheeting so that it can be thrown away after one use, or of the more durable plastic sheeting which can be washed and sterilized repeatedly without destruction, so that it may be used over and over. The frame is preferably made sufficiently durable so that it may be used over and over.

It should be understood that the present disclosure is for the purpose of illustration only and that this invention includes all modifications and equivalents which fall within the scope of the appended claims.

I claim:

1. A sanitary disposal assembly comprising a support having an inner part adapted to be lodged between a bed mattress and its supporting frame, and an outer part adapted to project laterally from the bed including means adapted to support a flexible bag in suspension with its mouth adjacent the edge of the bed and substantially at the level thereof, said means comprising means projecting upwardly from the end of the outer part and rearwardly, substantially parallel to the support and a rigid loop fixed to the rearwardly extending means, a flexible bag, and a substantially inelastic member at the mouth of the bag of smaller size than the loop but being adapted to be forced over the loop so as to lie at the underside of the loop, inwardly of its perimeter, between it and the outer part to hold the entire marginal edge of the bag folded outwardly, over and beneath the loop.

2. A sanitary disposal assembly comprising a support having an outer part and splayed feet adapted to be lodged between a bed mattress and its supporting frame, non-rotatably to hold its outer part projecting laterally from the bed, to support a flexible bag in suspension with its mouth adjacent the side of the bed and substantially at the level thereof, said outer part including an upstanding, rearwardly bent limb, a ring at the extremity of the limb situated above and substantially parallel to the outer part, a bag, and a substantially inelastic cord at the mouth of the bag of smaller size than the ring but

adapted to be forced over the ring, when the bag is disposed within it, to lie outside of the bag at the lower side of the ring, to hold the entire margin of the bag folded outwardly, over and beneath the ring.

3. A sanitary disposal assembly comprising a rigid shank, a pair of diverging supporting legs at the inner end of the shank, an upstanding limb at the outer end of the shank bent rearwardly with respect to the outer end, a ring supported by the bent portion of the limb in spaced parallel relation to the shank, a bag, said bag having a tubular hem at its mouth, with an opening at one point and a substantially inelastic cord disposed in the hem with a portion exposed at the opening, said cord being smaller than the ring but adapted to be forced over the ring, when the bag is disposed in the ring, to lie outside the bag, between the lower side of the ring and the shank, to hold the marginal edge of the mouth folded outwardly over and beneath the ring.

4. A sanitary disposal unit according to claim 1, wherein the substantially inelastic member is of solid section.

5. A sanitary disposal assembly according to claim 1, wherein the substantially inelastic member is of hollow section.

6. A sanitary disposal assembly according to claim 1, wherein the bag is plastic.

7. A sanitary disposal unit according to claim 3, wherein the shank, legs and ring are comprised of a single piece of wire bent symmetrically to form the ring and twisted throughout the shank portion to stiffen the latter.

8. A sanitary disposal unit according to claim 3, wherein the feet have enlarged eyes at their ends disposed in planes perpendicular to the plane of the ring to anchor the feet between supporting surfaces.

9. A sanitary disposal unit according to claim 3, wherein the bag and the cord are made of a plastic which has a smooth slippery surface.

10. A sanitary disposal unit according to claim 1, wherein the substantially inelastic member is adapted to be wrapped about the mouth of the bag to hold it closed.

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