SANITARY DISPOSABLE RECEIVER FOR LIQUID AND SOLID MATERIALS, ESPECIALLY HUMAN WASTES

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ABSTRACT OF THE DISCLOSURE

A sanitary disposable receiver for liquid and/or solid materials is disclosed. The receiver is essentially a pouch of fibrous material coated with a substance which essentially waterproofs the same. The receiver is particularly useful in hospitals for collecting human waste and other undesirable waste materials.

The present invention generally relates to an improved container or receiver for waste materials and, more particularly, pertains to a new and improved sanitary disposable receiver for liquid or solid materials, or both, especially for containing and conveniently disposing of human waste, particularly the fecal, urinary and other wastes resulting from personal hygiene of humans, in particular patients in hospitals and those confined to their beds in homes. Although the aforementioned use of the inventive sanitary disposable receiver is one significant application, it obviously can be utilized in other environments, for instance as a nausene-bag on public or private transportation facilities, such as airplanes, trains, cars, buses and the like.

Prior to the advent of disposable bags for bedpans or the like, it was necessary to empty and wash the pans after each use, and sterilization was necessary if they were to be successively used by different patients. Not only are these operations time-consuming and expensive since specially trained hospital personnel and equipment had to be employed, but there additionally existed the danger of germs spreading from the time the bedpans were used until they were emptied and sterilized.

In an attempt to overcome these drawbacks the prior art suggested the use of disposable bags in bedpans or other toilet "utensils." However, up to the present these bags were apparently associated with certain problems and disadvantages. They were usually lacking in one respect or another, particularly from the standpoint of ease and economy in manufacture, ability to effectively retain the waste material and prevent spreading of germs, difficulty in handling and disposal after use, and their tendency to clog the toilet or other disposal facility.

Now, a careful consideration of the situations encountered during normal use of a sanitary disposable bag, especially for confining human wastes, and the conditions which it should be able to fulfill, leads to the determination that, in the main, at least the following requirements should be complied with:

(a) It must possess the ability to retain the waste material without any leakage until the hospital attendant or other authorized person has had an opportunity to dispose of the bag and its contents. Hence, it should be completely water-tight, preferably retaining this property for at least 24 hours.

(b) It should be stable during normal conditions of use, especially possess a certain degree of thermal resistance to temperatures, particularly body temperatures, preferably up to about 110°F, and stable when contacted by a medium having a pH in the range of about 4 to 9, preferably 5 to 8, inasmuch as such is the pH range for urine and blood normally encountered in patients.

(c) It must possess sufficient strength, especially wet strength, so that it can be removed from the bedpan or other holder, if one is used, and carried to a place of disposal without rupturing.

(d) It must be disposable or capable of being reduced to a condition for disposal which can be effectively handled by conventional drainage systems without clogging or otherwise fouling the plumbing hardware.

(e) It must be able to meet all requirements for contact with humans, and must be attractive and appealing enough so that there is no aversion to its use.

Now, the sanitary disposable receivers or bags of the present invention effectively overcome the drawbacks of the prior art structures while complying with the aforementioned requirements. Specifically, the sanitary disposable bag of the invention may be used as an inner liner for bedpans, urinals, holders, wash basins, spittle collecting devices and so forth, and can even be used without any additional support structure, yet in all instances retains the bag contents until the hospital "utensil" or toilet facilities for bedridden patients. Since these disposable bags can be quickly and easily closed any noxious and unpleasant matter is confined within the bag. This ability to effectively confine potentially infectious diseases is of great significance when the bags are used with patients, especially those in hospitals or similar institutions since it reduces the likelihood of spreading disease germs, at the same time relieving professional service personnel for more effective attention to the patient's needs. Moreover, the waste contents contained in the disposable bag can be immediately reduced to an innocuous condition by disposal thereof through the sanitation sewers of the hospital or otherwise.

Generally speaking, the sanitary disposable receiver of the present invention is manifested by the features of a substantially bag-like carrier of fibrous material into which the material to be contained is deposited directly by the person or patient, said bag-like carrier being provided with means for confining the material therein. Such means comprises a coating on said bag-like carrier which is stable in a pH range of about 4 to 9 and is resistant to thermal decomposition at least up to temperatures of about 110°F. The carrier may be formed of a suitable paper material or a non-woven fabric. According to a preferred embodiment of the invention this coating is formed of wax which may be liquified at elevated temperatures or solubilized in a medium having a given pH, in order that the entire sanitary disposable receiver can be conveniently flushed away or otherwise appropriately disposed of. The coating material also may be a hydrophobic surfactant, such as a silicone oil or a fluorocarbon.
or it may be a suitable hydrophobic polyhydrocarbon or polyhydrocarbon derivative.

Further, the invention contemplates a variant form of sanitary disposable receiver provided with a fiber absorber disposed within the bag-like carrier in order to retain liquids in solid form. This measure effectively safeguards against spillage of any liquid contents. Such fiber absorber may be in block-like configuration and placed at the bottom of the bag-like carrier, yet it also can be in the form of a pancake or layer supported at the floor of the aforesaid carrier. If desired, there can be further provided an additional fiber absorber arranged intermediate the open end disposable bags may be employed with a bedpan, or any other type bag-support structure or holder. In fact, it is conceivable to utilize the disposable bags of the present invention with or without any holder or equivalent structure depending upon the specific environment of use, particularly since these disposable bags themselves possess a certain degree of self-supporting strength. Therefore, while we have chosen to illustrate, on an exemplary basis, our disposable bag retained in a urinal holder, such is primarily for the purpose of emphasizing one very important and useful field of application. However, the versatility of these disposable bags is in no way to be limited in scope by this exemplary environment.

Specifically, then, there is shown in FIGURE 1 a urinal device 10 incorporating a substantially tray-like rectangular body 12 open at its upper region 14 to facilitate insertion of a disposable bag of any of the types herein-after described, wherein such bag is disposed lengthwise of the aforesaid tray-like rectangular body 12. At the forward region of this urinal device 10, in the vicinity of the end wall 16, there depends outwardly and slightly upwardly a curved, substantially full portion 18 within which there is placed the open end or top portion of the disposable bag. This protruding neck-portion 18 may also be used to hold the urinal device 10. In practice, the open end of the disposable bag may be initially formed or gathered together to provide an annulus or a collar portion into which the fluid passage therethrough, and thereafter displaced into the urinal device 10 with the thus formed open end directed towards and bearing upon the channel-shaped neck-portion 18. If desired, a non-illustrated clip or other appropriate retaining member may be placed about the open end of the disposable bag so as to prevent it from shifting relative to the tray-like rectangular body 12. Naturally, the disposable bags can be pre-formed to possess a shape substantially corresponding to the particular shape of the urinal device 10 employed, including the depending neck-portion 18. In essence, then, the particular shape of the disposable bag is non-critical, largely being dependent upon the specific use thereof and possibly the shape of the equipment with which it is intended to be employed.

Now, in FIGURES 2 and 3 there is depicted a preferred embodiment of sanitary disposable bag 20, here shown in pouch-form for instance, and capable of containing liquid and/or solid materials in a completely sanitary manner, especially for containing human excrements and other undesirable wastes, such as hospital and home waste of human origin. As best seen by inspecting FIGURE 3, and considering the therein disclosed sanitary disposable bag 20 generally, such may be produced from an approximately circular blank 21 of a substantially disposable carrier 22, preferably manufactured of light-weight, water-laid paper in sheet-form and in the range of about 10 to 60 grams per thousand square inches weight for instance. Additionally, this blank 21 is provided at least at the side forming the inner surface of the disposable bag 20 with a coating or layer 23 of liquid or water impervious material, as will be more fully developed hereinafter. Some examples of paper suitable for use with the invention are: glassine, tissue, bleached and unbleached kraft, sulfite paper, saturating paper, crepe, and unglazed extensible paper such as sold under the trademark "Chupak," and so forth. Further, it is desirable for some applications to treat the paper according to conventional techniques to impart to it a certain degree of strength, particularly wet-strength. Moreover, for special applications requiring strength reinforcement of non-woven fabrics without a continuous thread may be employed, in other words, non-woven, dried, air-laid sheets which are deposited essentially by a dry process. In the majority of situations, particularly when dealing with the confinement of human waste, it is extremely desirable to keep the bag contents out of view from the outside which can be easily accomplished by utilizing an opaque carrier 22. Also, the carrier 22 may be dyed any suitable color.

Although selection of the material for the carrier 22...
is not generally critical, especially since there are numerous types of paper and non-woven fabrics which may be satisfactorily employed, it is required that such carrier 22 have a certain degree of strength and stability under normal conditions of use, and further, that the bag itself can be easily disposed of with a minimum of handling and processing. Carrier materials of the aforementioned specific type generally fulfill these requirements adequately, therefore are preferred.

Thus, a specific embodiment of the invention is a disposable bag 20 which employs a suitable paper carrier 22, here in circular form, although as will be explained shortly other forms could obviously be used, and wherein the peripheral edge 24 is slightly folded over upon itself to form a doubled-over marginal edge 26 which securely retains a suitable drawstring 28 or equivalent structure formed of a water-soluble plastic for instance. Drawstring 28 is advantageously employed to assist formation of the flat blank 21 into an opened end receiver or disposable bag 20 of pouche-like configuration, and after use of the bag may be pulled tightly to completely close such bag. It will be appreciated that with this construction it is merely necessary to initially form the blank 21 somewhat into a bowl or cup-shaped configuration by outwardly flexing the marginal portion of the opaque paper carrier 22 at the region thereof intended to form the side walls 30 of the final, pouche-like disposable bag 20, thereafter tensioning the diametrically opposed ends 32 of the drawstring 28. Consequently, the doubled-over marginal edge 26 is pulled inwardly a suitable distance to form a narrower, constricted inlet opening 34 at the top of such disposable bag 20. This inlet opening 34 can be adjusted to any desired size, and after depositing the waste material or otherwise into the interior of the bag 20, the latter may be closed by the drawstring 28 so as to prevent spillage of the contents and to confine noxious odors. However, it should be understood that it is not absolutely necessary to use a drawstring 28, rather the bag may be completely manually formed into desired configuration and, after use, closed by either folding the open upper end a number of times upon itself in the same way that a normal shopping bag is closed, or by using any other suitable means, such as pressure sensitive tape for instance. It is here also remarked that the use of flat blanks 21 for forming the disposable bag 20 is particularly advantageous since the arrangement and storage of these blanks is facilitated and they can, if desired, be housed in a suitable sterilization cabinet until used. This constitutes an obvious advantage if the bags are employed in hospitals. However, the bags may also be formed completely differently, for instance by conventional bag making techniques where a roll of material in sheet form is formed into a tube and then in the usual manner manufactured into a bag.

It will be recalled that the carrier 22 is provided with a suitable coating 23, in this instance a water-proof coating of wax which is stable when contacted by materials at normal room temperatures, at body temperatures and under general conditions of use, but such wax possesses a melting point wherein the wax coating will disintegrate or liquify at elevated temperatures in the order of 120° F. to 150° F. for instance, so that the entire disposable bag 20 is readily flushable in the toilet. Also, the wax coating 23, when the bag is used for confining human waste, should be stable in a pH range of 4 to 9, preferably 5 to 8 the normal range encountered with human body wastes. One wax material which reliably fulfills these requirements is commercially available from the Mobil Oil Company under the trade designation, Mobil 125/127 AMP FRW. It has been found that a disposable bag 20 provided with such a wax coating 23 retains its water-proof properties for considerable length of time, liquid retention for as long as 96 hours having been observed. This wax coating 23 can be applied by any of the well-known coating techniques commonly employed in the coating art, and preferably has a thickness in the order of about 0.1 to 0.5 mil.

The requisite thermal energy for destruction of the wax coating 23 in order to render the bag 20 with its contents disposable by ordinary sanitation equipment can be provided, for instance, by furnishing a supply of hot water into which the disposable bag 20 is dropped, then flushed away. To this end, the toilet bowl or other appropriate sanitation equipment may incorporate a small heating unit, for example an instantaneous immersible resistance heater, which will automatically heat up the water in the toilet bowl to a temperature in the range of 120° F. to 150° F., the melting point of the wax—prior to flushing. Another possible source of heat could be provided through use of an anhydrous chemical which releases heat as it hydrates and also produces a pH change, such as sodium oxide or phosphorous pentachloride. Still another possible technique for disintegrating or dissolving the coating 23 would be to only change the pH of the water in the toilet bowl or other receptacle. Finally, it is mentioned that the disposable bag 20 can be provided with a suitable sterilant or deodorant, such as potassium permanganate, phenyl mercuric acetate, benzenonium chloride, sodium salicylate, pine oil and so forth, for instance. If desired, the sterilant or deodorant can be added to the wax coating.

Another extremely interesting as well as new and improved embodiment of disposable bag 40 is depicted in FIGURE 4. Once again, there is provided a suitable carrier 42 formed, for instance, of paper of one of the types previously considered. This paper carrier 42 is covered with a very thin, water-resistant coating 44, preferably having a thickness in the range of 0.05 to 0.3 mil. Coating 44 may be formed of a plastic resin, such as polyethylene, or may be a suitable wax for instance, applied in accordance with conventional coating techniques. This coating 44 should be thin enough so that the bag 40 may be easily disposed of, as by flushing down a normal toilet facility or other appropriate sanitary equipment.

Now, according to the invention, each disposable bag 40 is provided with a fiber absorber 46 which is biodegradable, that is, can be treated with normal sewage biological chemicals in order to be disintegrated. In the exemplary embodiment, this fiber absorber 46 may be conventionally bonded or adhesively fixed to the disposable bag 40. The weight of such fiber absorber 46 serves to facilitate insertion of the disposable bag 40 into an ordinary device or other equivalent bag holder. Fiber absorber 46 is formed of monoaxially compressed natural fibers, for example wood pulp, and preferably possesses a density of about 30-50 pounds per cubic foot. Wetting of the fiber absorber 46 causes it to swell in a direction opposite the direction of fiber compression, the fluid or liquid being retained in the fiber block in a solid form which can be easily handled. This is of particular significance when handling human wastes since there is thus completely avoided spillage. Moreover, the fiber absorber 46 can absorb at least about 5 times its own weight of liquid, so that a block of no more than 50 grams is generally sufficient for handling a normal human void. Monoaxially compressed fiber material suitable for producing the fiber absorber 46 is commercially available on the market, and can be obtained from West Virginia Pulp and Paper Co., Waldorf Hoeerner, Scott Paper Co. and others, sold in the trade as flash dried pulp. After the waste material or otherwise has been deposited into the disposable bag 40 the liquid component thereof is retained in solid form in the fiber absorber 46, and the bag may be sealed and disposed of as such as by means of a pressure sensitive tape 48 carried at the upper region of the inner coated surface 44 of the open end of the aforesaid disposable bag 40. Obviously, any other suitable closing technique may be employed in lieu of the pressure sensitive tape 48, such as by merely
folding the open end of the bag upon itself a few times, by using a suitable drawstring, twist tie or equivalent structure. Just as in the previous embodiment, here also the disposable bag 40 may be preformed into a bag or formed from a flat blank which is appropriately shaped into pouch-form for instance, and thereafter, the fiber absorber 46 is deposited therein. As already explained, the use of flat blanks simplifies shipping, handling and storage, allowing for sterilization, if desired, prior to actual use. The thus filled bag 40, including any solids and the liquid in solid form in the fiber absorber 46, may be disposed of by flushing away in a suitable toilet or other appropriate sanitation facility.

Instead of having the fiber absorber 46 in block form, it would be also possible, according to the variant embodiment of FIGURE 5, for instance to provide a substantially circular-shaped blank 50 from which the disposable bag is manufactured. In this case, the blank 50 incorporating a coating of the hydrophobic bag, monoxially compressed fibrous material. It will further be recognized that blank 50 additionally comprises a carrier 54 and a coating 56, which may be similar to the carrier 42 and coating 44 of the previous embodiment. In this embodiment the fiber absorber pancake or lining 52 would be fixedly carried by the blank 50 by appropriately attaching it thereto. Once again, the blank 50, similar to the embodiment of FIGURES 2 and 3, could also be folded into closed condition if this is deemed adequate, or else provided with a drawstring, pressure sensitive adhesive tape, or, in fact, any other appropriate closure means for obturating the bag after use.

FIGURE 6 depicts a further embodiment of disposable bag 60 formed from a blank, similar to blank 50 shown in FIGURE 5, and for which reason the same reference numerals have been employed for similar elements. Of course, instead of a fiber absorber 52, a block 46 as in FIGURE 4 also could be provided. This embodiment differs from those previously considered in FIGURES 4 and 5 in that, additionally here there is arranged at the inside of the disposable bag 60, intermediate its floor and open top end, a ring-shaped lining 62 of further fiber absorber material. A number of liquid tampering means, such as suitable wicks 64, extend from the inside of the floor of the disposable bag 60 upwardly into the fiber absorber lining 62. Hence, a certain portion of the liquidous material which has been deposited into the disposable bag 60 is conveyed by the wicks 64 to the fiber absorber lining 62, causing the latter to expand radially inwardly, thereby sealing the solid and/or liquid material within such bag. Advantageously, this sealing action of the fiber absorber lining 62 additionally retains within the bag any noxious odors and keeps the waste material or otherwise from view. In fact, it is conceivable to use such a fiber absorber lining 62 with or without a fiber absorber located at the outside surface, although the previously considered combination of two fiber absorbers has its advantages, as should be now readily apparent from the previous description.

Moreover, in all of the embodiments of FIGURES 4 to 7, the fiber absorber can be constructed in any desired shape and size; it may be even suitably colored or dyed. Also, the disinfectant and/or deodorant may be incorporated in the fiber absorber. Further, it is possible to form a block of fiber material coated on the outside surface with a suitable water-immiscible coating, and large enough to itself serve as a bedpan or other material receiver.

In FIGURE 8 there is depicted an embodiment of disposable bag 70, also in pouch-form for instance, and comprising a suitable carrier 72 formed of any of the materials previously considered, at the inside surface of which there is applied a light coating 74 of a hydrophobic surfactant such as silicones and fluorocarbons. The coating 74 of the hydrophobic surfactant preferably possesses a thickness in the order of .01 to 0.5 pound per 1000 square feet. Examples of surfactant coating materials suitable for the purpose of the present invention are silicones, elestomeric emulsions, polyethylene emulsions, polypropylene and many co-polymers. Here again, a suitable drawing 76 for instance, can be provided at the open end of the bag 70 for closure purposes. The other considered closing techniques also can be utilized. In this case, the disposable bag 70 may be destroyed by mechanical agitation, for instance by tearing it up in a Waring Blender. However, if the amount and thickness of the coating is properly regulated it is even conceivable that mechanical destruction can be dispensed with the bag being disposed of by flushing away in a normal toilet facility.

Finally, in FIGURE 9 there is depicted a pouch-like disposable bag 80, closeable by means of the drawstring 86, and formed of a suitable carrier 82 of the types previously considered, preferably paper, and having a polyhydrocarbon derivative such as silicone, a thermoplastic resin obtained by the polymerization of vinylidene chloride or copolymerization of vinylidene chloride with lesser amounts of other unsaturated compounds. A further example of a suitable coating material is "Daran," a polyvinylidene chloride, and preferably 50, for instance, or equivalent. Preferably, the thickness of the coating is about .01 to 0.5 pound per 1000 square feet. This disposable bag 80 may be disintegrated by tearing it up in a Waring Blender, yet if the amount and thickness of the coating are controlled, it is also, once again, conceivable to dispose of the bag without subjecting it to mechanical disintegration.

Finally, in the embodiments herein disclosed, particularly those of FIGURES 8 and 9, the carrier 72 or 82 may be formed of a water soluble or dissolvable paper, which would then be coated on the inside with a suitable hydrophobic surfactant, for instance of the types previously considered. Due to this construction the entire bag is completely flushable.

In all of the embodiments herein disclosed, the disposable bags may be suitably colored or dyed to provide an attractive appearance. If it is deemed advisable, both sides of the carrier may be coated. Further all of these bags may be additionally equipped with an effective deodorant and/or sterilant, such as potassium permanganate, pine oil, camphor and various other metallic-organic antiseptics and others previously enumerated, to suppress noxious odors and kill disease-spreading germs. Additionally, the disposable bags may be already pre-formed from a tube, film or other, or the bag may be sheet material so as to assume a desired shape, for instance the shape of the holder or other device in conjunction with which the bag is intended to be employed. It is also remarkable that individual features of one embodiment may be combined with features of another embodiment insofar as modifiable thereof does not conflict with the intended purpose and functionality of the disposable bag.

It should be apparent from the foregoing detailed description, that the objects set forth at the outset to the specification have been successfully achieved. While there is shown and described present preferred embodiments of the invention it is to be distinctly understood that the invention is not limited thereto. Accordingly, what is claimed is:

1. A sanitary disposable receiver for liquid or solid materials, or both, particularly for containing human excrement and other undesirable hospital and domestic wastes of human origin, comprising:
   (a) a seamless substantially bag-like carrier of fibrous material into which the material to be contained is deposited, and having an opening through which said material to be contained is deposited;
   (b) means provided for said bag-like carrier for confining the material within said bag-like carrier, said means comprising a coating on said bag-like carrier
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which is stable in a pH range of about 4 to 9 and is resistant to thermal decomposition at least up to temperatures of about 110°F.

2. A sanitary disposable receiver as defined in claim 1, wherein said carrier is formed of paper.

3. A sanitary disposable receiver as defined in claim 1, wherein said paper is glassine.

4. A sanitary disposable receiver as defined in claim 1, wherein said carrier is formed of a non-woven dried air-aided material.

5. A sanitary disposable receiver as defined in claim 1, wherein said coating is formed of wax.

6. A sanitary disposable receiver as defined in claim 5, wherein said wax can be liquefied at an elevated temperature.

7. A sanitary disposable receiver as defined in claim 6, wherein said wax can be liquefied at a temperature in the range of about 120°F to 150°F.

8. A sanitary disposable receiver as defined in claim 5, wherein said wax is insoluble in a medium having a pH in the range of about 4 to 9 and is soluble in a medium having a pH outside of this range.

9. A sanitary disposable receiver for liquid or solid materials, or both, particularly for containing human excrement and other undesirable hospital and domestic wastes of human origin, comprising:
   (a) a substantially bag-like carrier of fibrous material into which the material to be contained is deposited,
   (b) means provided for said bag-like carrier for containing the material within said bag-like carrier, said means comprising a coating on said bag-like carrier which is stable in a pH range of about 4 to 9 and is resistant to thermal decomposition at least up to temperatures of about 110°F, said coating being formed of a material selected from the group consisting of hydrophobic polyhydrocarbons and polyhydrocarbon derivatives.

10. A sanitary disposable receiver as defined in claim 9, wherein said coating material is a polyvinylidene chloride resin.

11. A sanitary disposable receiver as defined in claim 1, wherein said bag-like carrier is formed from a substantially flat sheet of material.

12. A sanitary disposable receiver for liquid or solid materials, or both, particularly for containing human excrement and other undesirable hospital and domestic wastes of human origin, comprising:
   (a) a substantially bag-like carrier of fibrous material into which the material to be contained is deposited,
   (b) means provided for said bag-like carrier for containing the material within said bag-like carrier, said means comprising a coating on said bag-like carrier which is stable in a pH range of about 4 to 9 and is resistant to thermal decomposition at least up to temperatures of about 110°F,
   (c) said bag-like carrier being formed of water-disintegrable paper, said coating being a hydrophobic surfactant applied to the inside surface of said bag-like carrier.

13. A sanitary disposable receiver for liquid or solid materials, or both, particularly for containing human excrement and other undesirable hospital and domestic wastes of human origin, comprising:
   (a) a substantially bag-like carrier of fibrous material into which the material to be contained is deposited,
   (b) means provided for said bag-like carrier for containing the material within said bag-like carrier, said means comprising a coating on said bag-like carrier which is stable in a pH range of about 4 to 9 and is resistant to thermal decomposition at least up to temperatures of about 110°F, said coating being formed of wax, said wax containing a sterilant.

14. A sanitary disposable receiver as defined in claim 9, wherein said fiber absorber contains a disinfectant and deodorant.

15. A sanitary disposable receiver as defined in claim 1, wherein said fiber absorber is formed of monoaxially compressed fiber.

16. A sanitary disposable receiver as defined in claim 10, wherein said fiber absorber is in block form and placed at the bottom of the bag-like carrier.

17. A sanitary disposable receiver as defined in claim 12, wherein said fiber absorber is in substantially layer form and disposed at the bottom of the bag-like carrier.

18. A sanitary disposable receiver as defined in claim 10, wherein said fiber absorber is affixed to the inside of said bag-like carrier in spaced relation from the bottom thereof.

19. A sanitary disposable receiver as defined in claim 15, further including means for directing liquid from the bottom of the bag-like carrier to said fiber absorber affixed in spaced relation from the bottom thereof.

20. A sanitary disposable receiver as defined in claim 9, wherein said coating is formed of polyethylene.

21. A sanitary disposable receiver as defined in claim 12, wherein said coating is formed of wax.

22. A sanitary disposable receiver for liquid or solid materials, or both, particularly for containing human excrement and other undesirable hospital and domestic wastes of human origin, comprising:
   (a) a substantially bag-like carrier of fibrous material into which the material to be contained is deposited,
   (b) means provided for said bag-like carrier for containing the material within said bag-like carrier, said means comprising a coating on said bag-like carrier which is stable in a pH range of about 4 to 9 and is resistant to thermal decomposition at least up to temperatures of about 110°F, said coating being a hydrophobic surfactant material.

23. A sanitary disposable receiver as defined in claim 17, wherein said hydrophobic surfactant material is a silicone oil.

24. A sanitary disposable receiver as defined in claim 17, wherein said hydrophobic surfactant material is a fluorocarbon.
excrement and other undesirable hospital and domestic wastes of human origin, comprising:

(a) a sheet formable into a substantially bag-like carrier of fibrous material into which the material to be contained is deposited,

(b) means provided for said bag-like carrier for confining the material within said bag-like carrier, said means comprising a coating on said bag-like carrier which is stable in a pH range of about 4 to 9 and is resistant to thermal decomposition at least up to temperatures of about 110°F, said coating being a hydrophobic surfactant material.

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