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DISPOSABLE DOUCHE DEVICE

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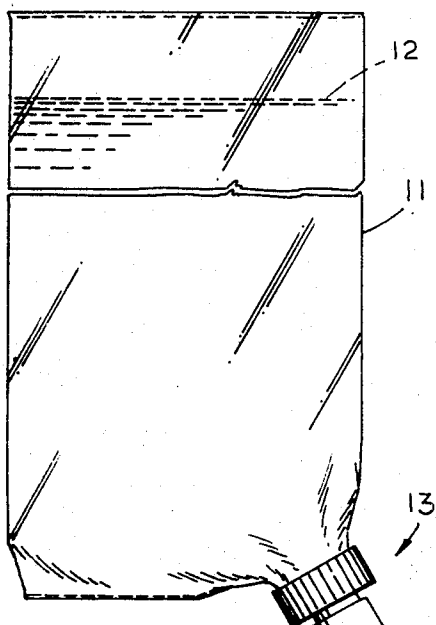


Fig. 1

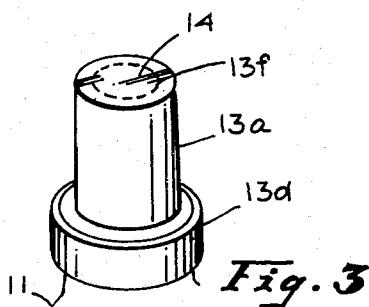


Fig. 3

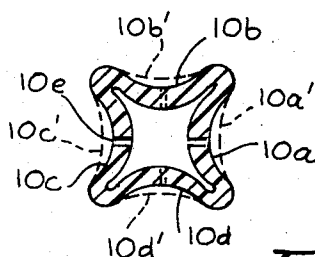


Fig. 4

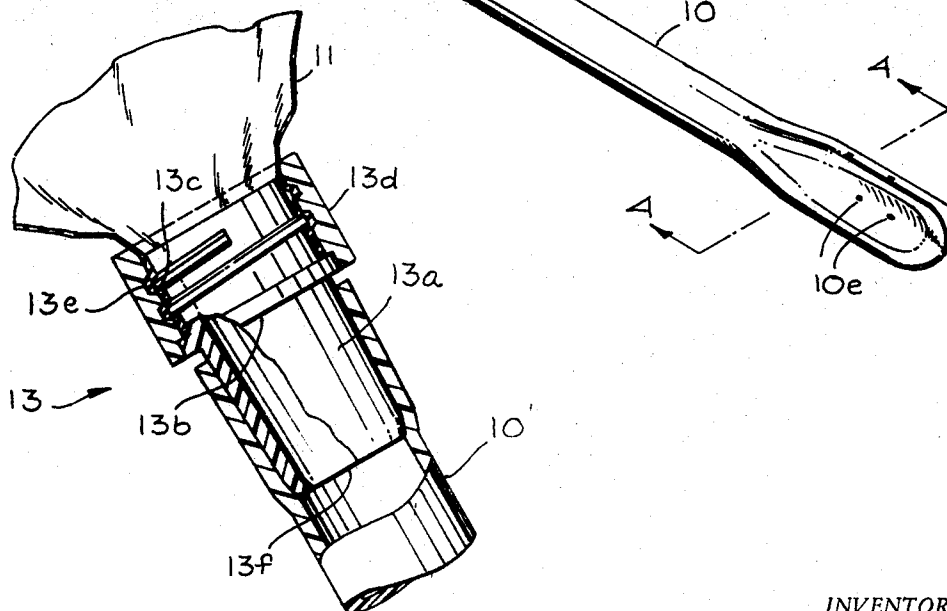


Fig. 2

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DISPOSABLE DOUCHE DEVICE

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4 Claims

ABSTRACT OF THE DISCLOSURE

A disposable douche device includes a plastic bag and a vaginal applicator having an enlarged pressure expandable forward end. An open applicator facing end of the plastic bag is secured between the engaged threaded surfaces of a ring-shaped element and a coupler to which the applicator is attached.

The present invention relates in general to hygienic devices for women and more particularly relates to a new type of douche device.

As is well known, a douche device is one by means of which a woman may bathe and thereby cleanse herself internally. However, the douche devices found in the prior art are limited in a number of ways. Thus, in these earlier devices, the vaginal applicator is rigid and, therefore, it poses as a hazard for its user who may, because of it, injure herself internally. Second, because these prior art devices are not of a disposable nature, it is necessary that they be dismantled after each use and then thoroughly cleaned to avoid the possibility of future infection. Furthermore, another limiting feature of these former devices lies in the fact that when stored away, the douche bag is empty of any cleansing liquid or powder, which means that the bag must be prepared with cleansing material just prior to use. This can obviously be quite inconvenient and troublesome for a woman, especially when she is travelling. Finally, because of the permanent nature of these existing devices, they are sturdily constructed, that is to say, they are constructed to last, which thereby increases their cost considerably. Accordingly, there has been a long-felt need for improvements in such devices.

The present invention answers this need by providing a douche device that is not only disposable after each use, but whose vaginal applicator is somewhat elastic so as to minimize the possibility of injury. More specifically, according to an embodiment of the present invention, the vaginal applicator is easily coupled to the mouth of a plastic bag in which is contained a correct amount of the cleansing material that is needed, the cleansing material having been placed in the bag upon manufacture and hermetically sealed therein at the time. When put to use, the seal is broken, the bag filled with an appropriate amount of water, and the vaginal applicator thereafter coupled to the bag. After use, the entire device is discarded or thrown away.

The douche device of the present invention is novel in several respects, first, because of its disposable character, second, because it is adapted to include a cleansing material within it to thereby eliminate the aforementioned inconvenience to the woman, and, third and most important, the vaginal applicator thereof is constructed to expand in such a manner as to provide a better cleansing action, as will be seen from the detailed description of the invention presented below.

It is, therefore, an object of the present invention to provide a new type of douche device that is disposable after use.

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It is another object of the present invention to provide a douche device in which the vaginal applicator is adapted to minimize the possibility of internal injury.

It is a further object of the present invention to provide a douche device in which the vaginal applicator is adapted to enhance the cleansing action of such devices.

It is an additional object of the present invention to provide a douche device that is quite sanitary and available for almost immediate use.

It is, finally, an object of the present invention to provide a douche device that is of relatively simple construction and inexpensive.

The novel features which are believed to be characteristic of the invention, both as to its organization and method of operation, together with further objects and advantages thereof, will be better understood from the following description considered in connection with the accompanying drawing in which an embodiment of the invention is illustrated by way of example. It is to be expressly understood, however, that the drawing is for the purpose of illustration and description only, and is not intended as a definition of the limits of the invention.

FIGURE 1 is an overall view of a preferred embodiment of the present invention;

FIGURE 2 is an enlarged view, in cross-section, of the means by which and the manner in which the vaginal applicator is coupled to the douche bag in the preferred embodiment of FIGURE 1;

FIGURE 3 is a view in perspective of the coupling mechanism in FIGURE 2 for the purpose of illustrating the sealing thereof; and

FIGURE 4 is a cross-sectional view of the vaginal applicator taken along the line 4—4 and in the direction of the arrows thereof, to illustrate its internal construction and its expandable nature.

For a consideration of the invention in detail, reference is now made to the drawing wherein, in FIG. 1, a preferred embodiment thereof is shown to include a vaginal applicator 10 coupled to a water-proof bag 11 in which is contained, in a sealed condition, as will be seen below, the cleansing, bathing, or medicinal material 12 used with such a device. As previously mentioned, bag 11 is water-proof and for this reason is preferably a plastic bag, especially since such bags are also thin, pliable and transparent, all of which enhance the utility of the present device. Between vaginal applicator 10 and the bag 11, is a coupling mechanism, generally designated 13, which, as its name implies, couples the applicator to the bag so that liquid can flow out of the bag and through the applicator. Needless to say, and as will be seen more fully below, coupling mechanism 13 is designed to take into consideration the characteristics of both the bag and the applicator, so that a leak-proof channel of flow is provided between the bag and the applicator.

Reference is now made to FIGURE 2 wherein coupling mechanism 13 is shown in greater detail and, as shown therein, it includes a nozzle-type element 13a that is preferably tapered slightly toward the front. Thus, the diameter of nozzle element 13a is preferably slightly smaller at its front end than it is at its rear end, the reason being that the end of the applicator can be slipped onto the coupler a lot more easily this way. Integral with and extending around nozzle element 13a, preferably near the rear end thereof, is a shoulder 13b that is threaded on its outer surface, as is indicated by the designation 13c. Finally, coupling mechanism 13 also includes a ring element 13d that is threaded on its inside surface, as is indicated by the designation 13e, threads 13e being matched to threads 13c so that ring element 13d can be tightly screwed onto shoulder 13b.

Bag 11 and coupling mechanism 13 are assembled as a unit at the time of manufacture, the assembly there-

of being accomplished by slipping an opening in the bag over the coupling mechanism so that threads 13c of shoulder 13b are covered by the bag material. Ring element 13d is then screwed onto shoulder 13b so that the bag material is caught between threads 13c and 13e in the manner shown in FIGURE 2, and since these threads present a corrugated and twisted path, the junction between the coupling mechanism and the bag is thereby made leak-proof under the conditions of normal use. The assembly of bag 11 and coupling mechanism 13 is also illustrated in FIGURE 3 which additionally shows that, prior to use, the mouth of nozzle element 13, designated 13f, is closed or sealed with an adhesive flap 14 that prevents material 12 from passing out of the bag through the nozzle. Flap 14 may simply be a piece of wax paper or plastic that has an adhesive substance on its bottom surface that will permit it to tightly adhere and thereby close off the mouth of the nozzle.

When put to use, seal 14 is simply peeled off, thereby exposing the mouth 13f of the nozzle-shaped element. Water is then poured into bag 11, through the opening of mouth 13f, until the cleansing or bathing substance 12 therein is mixed with the right amount of water, the entry of the water producing sufficient agitation to thoroughly mix substance 12 with the water. At this point, the forward end of member 13a is fitted into the rear end of vaginal applicator 10 to provide a tight and leakproof connection therebetween. To achieve these purposes, the applicator is preferably made of a medical grade polyvinyl chloride or similar type of material which not only gives the applicator its desired flexibility, but also provides the necessary tight and leak-proof fit with member 13a. In this regard, it should be mentioned that once the applicator is fitted over the coupling member, it becomes extremely difficult to thereafter pull or pry it off, which means that there is substantially no possibility that the applicator will come off due to liquid flow and pressure.

A more detailed view of the construction and configuration of the forward end or head of the vaginal applicator 10 is presented in FIGURE 4 wherein that part of the applicator is shown to comprise four recessed sides designated 10a-10d. More specifically, as is shown in FIGURES 1 and 4, the applicator is tubular-shaped for most of its length but expands into a larger four-sided structure at its forward end that resembles a square whose sides are of a concave configuration. It is along these sides that a plurality of orifices are located, such as orifices 10e, through which the liquid in bag 11 ultimately exits for the purposes intended. As many such orifices may be utilized as is deemed necessary. With respect to applicator walls 10a-10d, these expand under liquid pressure

substantially to the positions shown by broken lines 10a'-10d', thereby producing a reaction force against the liquid that more forcefully directs it out through the orifices. In this way a better spray action is obtained and, therefore, a better cleansing action.

Although a particular arrangement of the invention has been illustrated and described above by way of example, it is not intended that the invention be limited thereto. Accordingly, the invention should be considered to include any and all modifications, alterations, or equivalent arrangements falling within the scope of the annexed claims.

Having thus described the invention, what is claimed is:

1. A douch device comprising: a plastic bag having an opening through one portion thereof; a vaginal applicator that is flexible and that has a plurality of orifices through the walls thereof at its forward end, said forward end being of larger cross-section than the rest of said applicator and adapted to expand under pressure to an even larger cross-section; and means for coupling said applicator to said bag in a leak-proof manner through the open portion thereof, said coupling means including a nozzle-shaped member having a shoulder near its rear end that is threaded on its outer surface, and a ring shaped element that is threaded on its inner surface, said ring-shaped element being screwed onto said shoulder with the open portion of said bag fastened between said threaded outer and inner surfaces.

2. The device defined in claim 1 wherein the forward end of said applicator has recessed sides of a concave configuration that expand outwardly under pressure applied to its inner surfaces, and wherein the rest of said applicator is tubular-shaped.

3. The device defined in claim 2 wherein the forward end of said nozzle-shaped member is fitted into the rear end of said applicator.

4. The device defined in claim 3 wherein said applicator is made of a polyvinyl chloride material that gives the applicator its flexibility and provides a tight, leak-proof fit, with said nozzle-shaped member.

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