

# United States Patent

[11] 3,608,566

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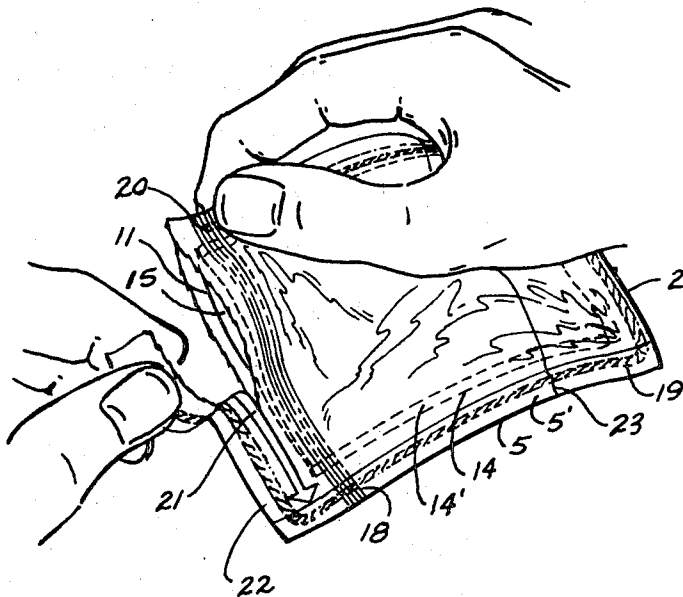
[54] **APPLICATOR PACKAGE**  
 12 Claims, 8 Drawing Figs.

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 84.2, 84.4, 79; 206/56 A, 63.2, 47 A, 56 AA;  
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**ABSTRACT:** An applicator package having an inner pouch of moisture absorptive material enclosed within an outer pouch or envelope and attached thereto along a relatively narrow line located adjacent the inner pouch opening, there being a tear string disposed around the perimeter of said envelope for facilitating opening same on all sides.





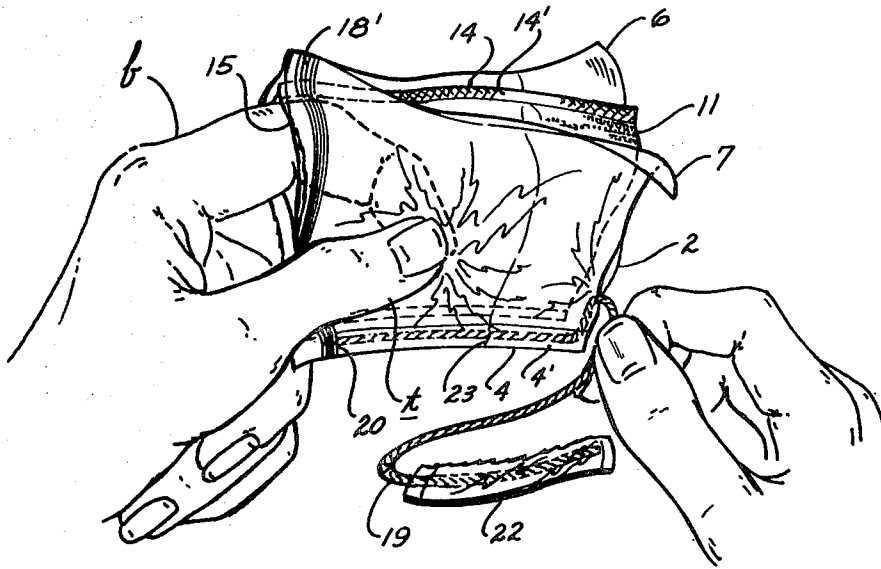


FIG. 4

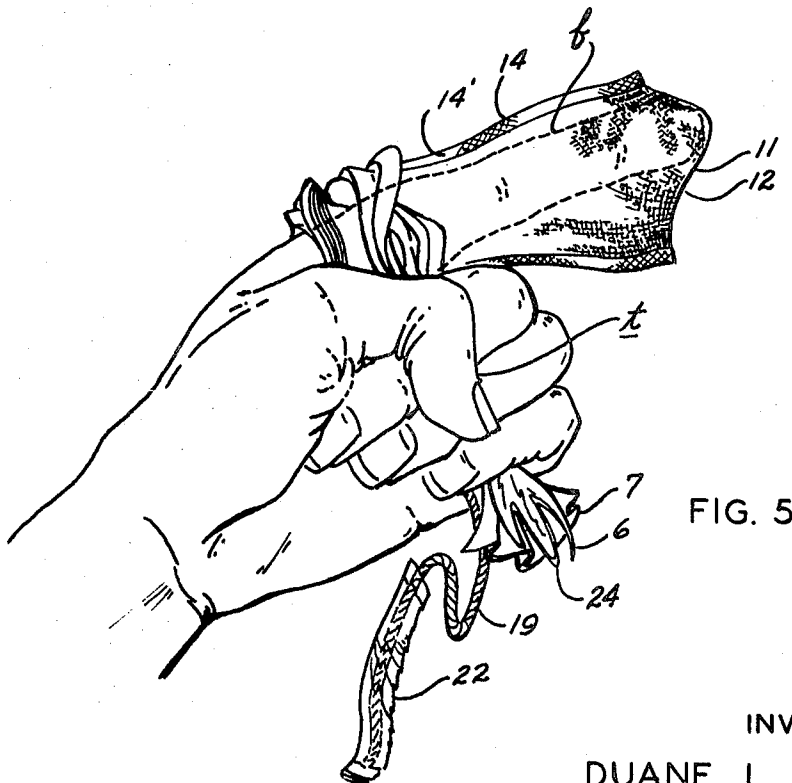


FIG. 5

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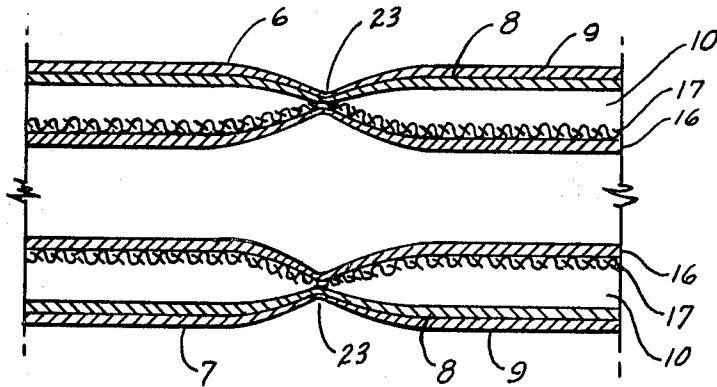


FIG. 6

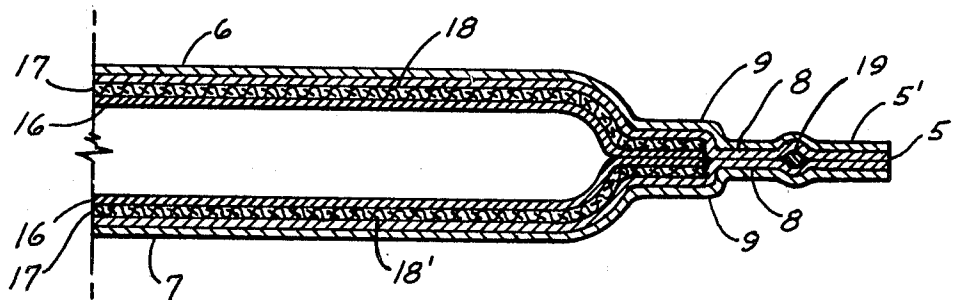


FIG. 7

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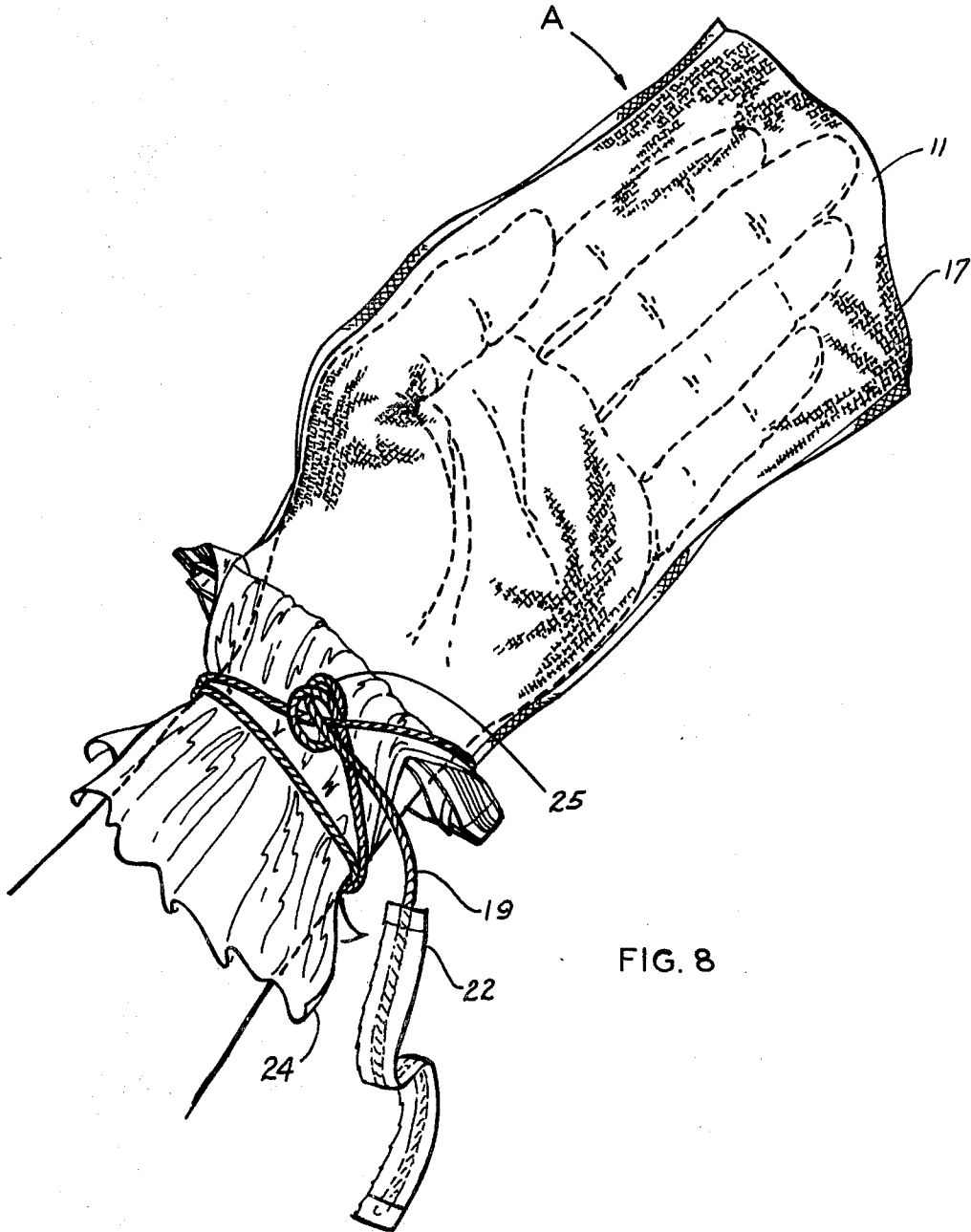


FIG. 8

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## APPLICATOR PACKAGE

### BACKGROUND AND SUMMARY OF THE INVENTION

The present invention relates in general to flexible packaging and, more particularly, to an applicator package having a treated pouch attached to and enclosed within an outer pouch or envelope.

An object of the present invention is to provide an applicator package embodying an inner pouch having a treated area, which pouch is enclosed within and attached to an impervious outer pouch, whereupon opening one end edge of the latter, a user may insert a finger, hand or extension of the hand within the pouch, and upon opening the remaining envelope edges, a user may peel back the envelope portions for exposing the pouch without having to touch the treated area.

Another object of the present invention is to provide an applicator package of the character described wherein the moisture absorptive portion of the pouch is treated with an agent to be used for cleaning, cosmetic, medicinal, and other such purposes.

A further object of the present invention is to provide an applicator package of the character described which, upon opening, provides an extension for effecting a firm, secure grip without having to touch the treated portion of the pouch.

Another object of the present invention is to provide an applicator package of the character described which, upon opening, provides an extension of the outer envelope, which extension may be wrapped around the forearm and maintained in such position by the tear string, hand or a clamping device.

A still further object of the present invention is to provide an applicator package of the type described which incorporates a tear string located within the envelope around the perimeter thereof for facilitating opening of same on all sides.

Another object of the present invention is to provide an applicator package of the character described wherein the pouch is attached to the envelope along a line located adjacent the pouch opening so that the envelope is never separated from the pouch in order that they may function as a unit in many diverse applications.

A further object of the present invention is to provide an applicator package of the character described wherein the pouch is attached to the envelope along a line located adjacent the pouch opening by a bonding heat seal that prevents moisture applied to the absorptive portion of the pouch from seeping into the pouch interior.

Another object of the present invention is to provide an applicator package of the character described wherein the pouch is additionally attached to the envelope along a thin seal line located spacedly from the pouch closed end, which thin seal line prevents moisture applied to the absorptive portion of the pouch in the region between the pouch closed end and said seal from receding beyond said seal line.

Another object of the present invention is to provide an applicator package of the character described wherein the tear string is constructed of dental floss and the treatment agent is a dentifrice so that the user, upon opening the outer envelope, may readily dislodge food particles from between the teeth with the tear string and clean the surface of the teeth by rubbing same with the dentifrice treated layer of the pouch.

A further object of the present invention is to provide an applicator package which is simple in construction, economical in manufacture and reliable and durable in usage.

### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a plan view of an applicator package constructed in accordance with and embodying the present invention with one corner being partially broken away.

FIG. 2 is an enlarged transverse section taken on the line 2-2 of FIG. 1.

FIG. 3 is a perspective view illustrating one step in the opening of said package.

FIG. 4 is a perspective view illustrating a further step in the opening of said package.

FIG. 5 is a perspective view illustrating the package in position for use.

FIG. 6 is an enlarged vertical section taken on the line 6-6 of FIG. 1.

FIG. 7 is an enlarged sectional view taken on the line 7-7 of FIG. 1, illustrating the common bond between the inner pouch and the outer envelope.

FIG. 8 is a perspective view of another use of the present invention illustrating same in position for use.

### DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now by reference characters to the drawings which illustrate the preferred embodiment of the present invention, A generally designates a flexible package comprising an outer envelope 1 having end edges 2, 3, side edges 4, 5 with intervening side panels 6, 7. Envelope 1 is formed from a single web of laminated sheet material incorporating a thermoplastic, heat sealable film layer 8, such as polyethylene, pliofilm, polycarbonate, polypropylene, or the like, and a moisture and gas impervious layer 9, such as aluminum foil. Said web is folded back upon itself at end edge 2 with film layer 8 being on the inside whereupon end edges 3 and side edges 4, 5 are heat sealed, as at 3', 4' and 5' respectively; said side panels 6, 7 cooperating with seals 3', 4', 5' and end edge 2 to define a chamber 10.

Disposed within chamber 10 is a pouch 11 having an end edge 12 and a pair of side edges 13, 14, there being an opening 15 at the opposite end edge. Said pouch 11 is formed from a web of laminated sheet material incorporating a thermoplastic, heat sealable film layer 16, of similar construction as layer 8 of envelope 1 and a moisture-absorptive layer 17, such as fabric or the like. The web of said pouch 11 is folded back upon itself at end edge 12 with film layer 16 being on the inside whereupon side edges 13, 14 are heat sealed, as at 13', 14' respectively.

Said pouch 11 is attached to envelope 1 adjacent opening 15 by aligned heat seal lines 18, 18' which extend transversely across the respective side panels 6, 7 joining film layer 8 of envelope 1 to fabric layer 17 of pouch 11 for effecting a common bond therebetween. In heat sealing lines 18, 18' the temperature, pressure and time factors of the sealing operation must be such that film layer 16 of pouch 11, adjacent pouch opening 15, will not be sealed for closing opening 15. This can be accomplished by utilizing a lower density film for layer 8 than film layer 16, as a lower density film will seal at a lower temperature.

Presented within envelope 1 substantially around the perimeter thereof is a tear string preferably constructed of nylon material, although not limited to such, which may be stitched into place or held in position by said heat seals 3', 4', 5'; one terminal portion 20 of same being also held between seal lines 18, 18'. Spacedly from end edge 3, outer envelope 1 is provided with a transversely disposed tear line 21 for defining a tear flap 22 which contains a portion of tear string 19. Said tear line 21 is longitudinally spaced from and in parallel relationship to said seal lines 18, 18' so that upon severing flap 22 from envelope 1 ready access to the interior of pouch 11 is provided.

The moisture absorptive fabric layer 17 of pouch 11 may contain a treatment agent of known types depending on the desired use of package A. In such instances the common bond seal 18 serves as moisture barrier for preventing moisture from seeping into the interior of pouch 11. Said package A may also be provided with a thin line transverse seal 23 which bonds film layer 8 to film layer 17 for preventing moisture of the treatment agent from receding beyond same. In the latter instance, the treatment agent is applied to the fabric layer 17 in the region between said thin line seal 23 and end edge 12 for maintaining a portion of the fabric layer 17 in a dry state.

It will be understood that although the envelope 1 and pouch 11 have been described as being formed of a single web of laminated material, that the same may be easily constructed from two webs in a four-side seal or in a vertically made, pil-

low-type pouch without departing from the principle of the present invention. Additionally, although thermostealing has been defined as the preferred method of sealing the respective envelope and pouch, it is obvious that other means, such as gluing, adhesive bonding, etc., or any combinations thereof, may be readily utilized.

In operation, a user will pull tear flap 22 along tear line 21 for effecting transverse opening of envelope 1 adjacent end edge 3, thereby providing access to opening 15 of pouch 11, as shown in FIG. 3. The user will then insert a finger *f* into opening 15, grip package A between said finger *f* and his thumb *t* and thence continue to sever edges 5, 2, and 4 of envelope 1 by pulling on tear string 19, as shown in FIG. 4, until terminal portion 20 is reached. It will be noted that tear string 19 may remain attached at its terminal portion 20 to package A through its engagement between seal lines 18,18' or may be readily disengaged therefrom upon further pulling action. The user will then peel side panels 6, 7 rearwardly toward his wrist for exposing fabric layer 17 and grasp panels 6,7 with thumb *t* and the remaining fingers as shown in FIG. 5. It will thus be seen that side panels 6,7 of envelope 1 become an extension, as at 24, of pouch 11 for permitting a firm, secure grip upon same during manipulation of package A without having to touch the fabric layer 17.

In the preferred form of flexible package A, a dentifrice is deposited upon fabric layer 17 and the tear string 19 is comprised of nylon dental floss. Upon the opening of envelope 1 in the manner described above, the dental floss tear string 19 may be utilized for dislodging food particles from between the teeth after which fabric layer 17 is utilized for vigorously rubbing the teeth surface for removing food debris and plaque. The dentifrice used may be any conventional teeth cleaning and deodorizing agent. It will be observed that after package A has been utilized it may readily be disposed of in a common waste receptacle.

Referring now to FIG. 8 of the drawings, it will be seen that flexible package A may be constructed so that a user may insert his entire hand within pouch 11, and if desired, may tie tear string 19 around his wrist or forearm, as at 25, for maintaining package A against undesired movement. In addition, the extension 24 of pouch 11 can be fully extended up the forearm and held securely by the tear string 19 or by other means to achieve a maximum protected area. In this form, package A may be utilized as a medical dressing for cleaning wounds, for removing cosmetics, or for washing one's face, as well as for countless other practical uses. A treatment agent may be deposited on fabric layer 17, such as an antiseptic agent, a cleaning solution, or the like.

Having described my invention, what I claim and desire to obtain by Letters Patent is:

1. An applicator package comprising: an envelope closed around its perimetral edge portions for providing an enclosed compartment; a pouch having an opening at one marginal end portion, said pouch being disposed within said compartment; means for attaching the pouch adjacent said opening to the confronting portions of said envelope; means formed in said envelope for opening said envelope along an edge portion adjacent said pouch opening for providing access to the interior of said pouch; and means on said envelope for opening the remaining edge portions of said envelope for providing access to the exterior of said pouch.

2. An applicator package as defined in claim 1 and further characterized by said attachment means comprising a heat seal located along a transverse margin spacedly adjacent the

pouch opening.

3. An applicator package as defined in claim 1 and further characterized by said means for opening the remaining edges of said envelope for providing access to the exterior of said pouch comprising a tear string extending adjacent the perimeter of said envelope.

4. An applicator package as defined in claim 1 and further characterized by said means for opening said envelope along an edge portion adjacent said package opening for providing access to the interior of said pouch comprising a tear line on said envelope located spacedly from said pouch opening.

5. An applicator package as defined in claim 2 and further characterized by a tear line on said envelope located spacedly from said heat seal and in parallel relationship therewith.

6. An applicator package as defined in claim 1 and further characterized by said pouch being constructed of laminated material having an inner moisture resistant layer and an outer moisture absorptive layer; a treatment agent provided on said moisture absorptive layer.

7. An applicator package as defined in claim 6 and further characterized by said means for opening said envelope along one edge comprising a tear line located transversely across said envelope spacedly from said edge for defining a tear flap, said means for opening the remaining edges of said envelope comprising a tear string disposed within said envelope along its perimeter, a portion of said tear string being connected to said tear flap.

8. An applicator package as defined in claim 7 and further characterized by said tear string consisting of dental floss and said treatment agent being a dentifrice.

9. An applicator package as defined in claim 6 and further characterized by said attachment means comprising a first seal line located along a transverse margin spacedly adjacent the pouch opening, a relatively thin second seal line connecting said pouch to said envelope in spaced-apart, parallel relationship with said first seal line, said treatment agent being provided on said moisture absorptive layer in the region between said second seal line and the opening remote edge of said pouch.

10. An applicator package as defined in claim 6 and further characterized by said envelope having first and second panels, said panels providing an extension of said pouch upon opening of said envelope.

11. A method of using an applicator package for the cleaning of teeth comprising:

providing an applicator package having a dentifrice treated pouch having an opening at one marginal end portion and being enclosed within and attached to an envelope, the latter having a tear string provided substantially around its perimeter

opening said envelope along one end edge adjacent the pouch opening;

inserting a finger within the pouch;

pulling on said tear string for opening said envelope on its remaining three sides;

peeling the envelope portions backwardly for exposing the dentifrice treated pouch;

gripping the extended envelope portion with the thumb and remaining fingers; and

rubbing teeth with the dentifrice treated pouch.

12. A method of using an applicator package as defined in claim 11 and further characterized by using the tear string to dislodge food particles from between the teeth.