

[54] **DISPOSABLE PACKAGE FOR COLLECTING AND TRANSPORTING CULTURES FOR LABORATORY ANALYSIS**

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[51] Int. Cl.²:..... **A61B 10/00**

[58] Field of Search:..... **128/2 B, 2 W, 269, 272; 195/139, 140; 206/210, 361, 363, 438, 439**

[56] **References Cited**

UNITED STATES PATENTS

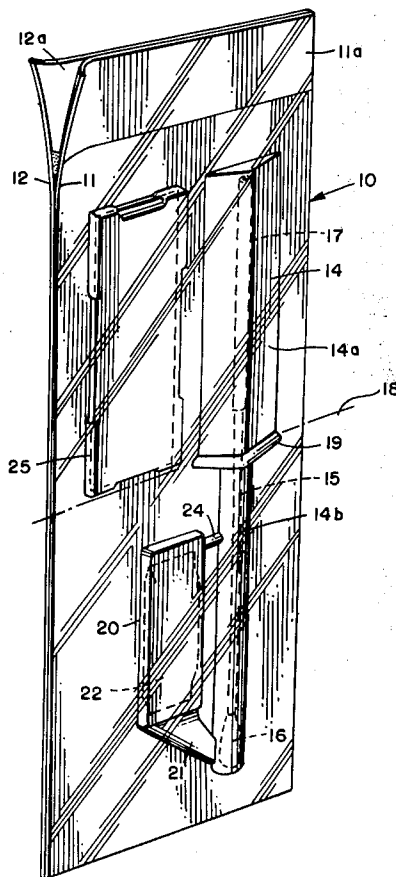
2,847,000	8/1958	Nieburgs	128/2 B
3,450,129	6/1969	Avery et al.	128/2 W
3,579,303	5/1971	Pickering	128/2 W X
3,604,616	9/1971	Greif	206/363 X
3,712,296	1/1973	Gradone	128/2 W
3,752,743	8/1973	Henshilwood	195/103.5 X
3,759,375	9/1973	Nappi	206/210 X
3,776,220	12/1973	Monaghan	128/2 W
3,835,834	9/1974	Brown et al.	128/2 W

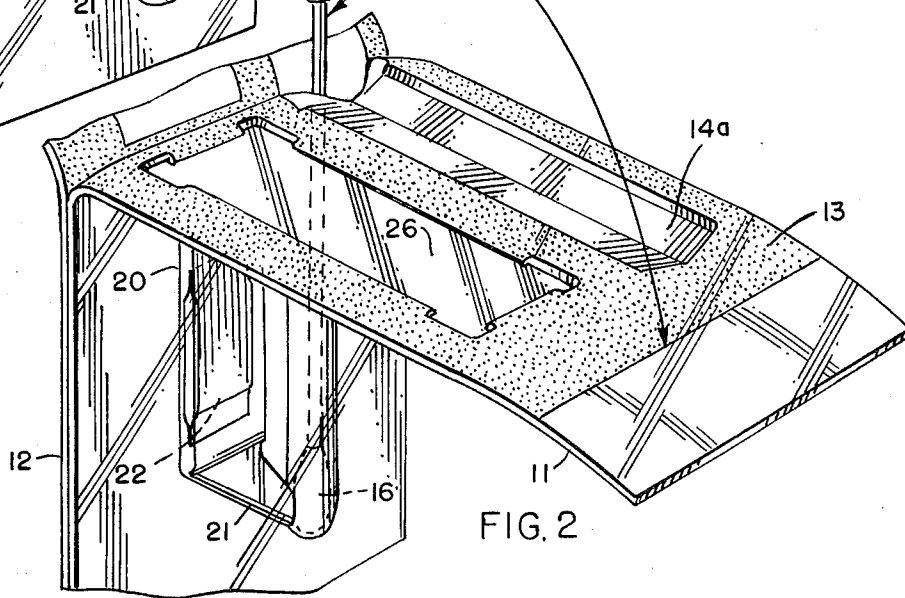
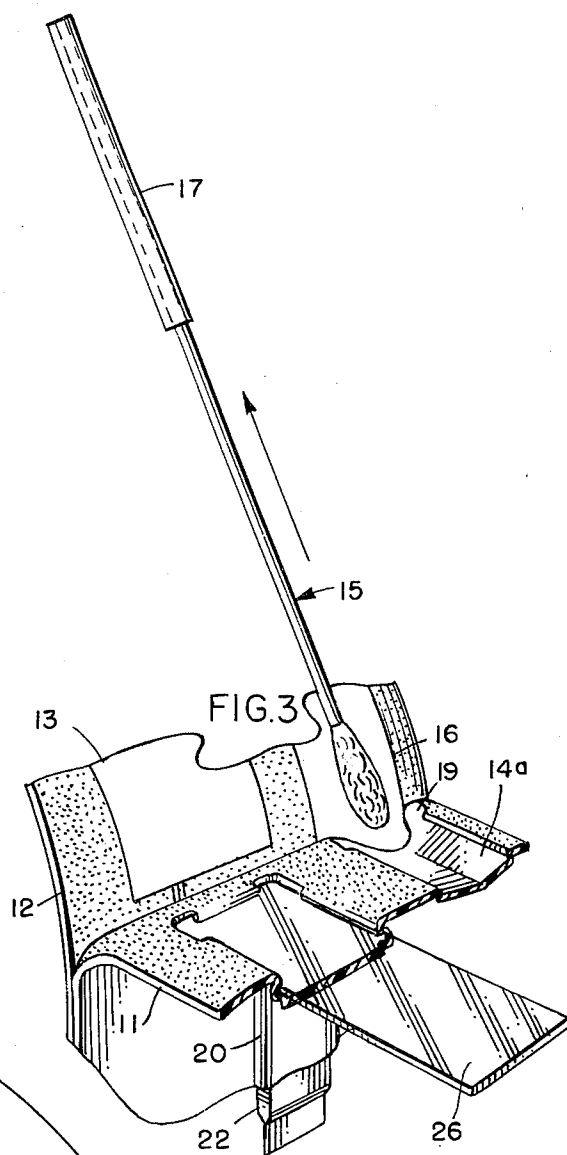
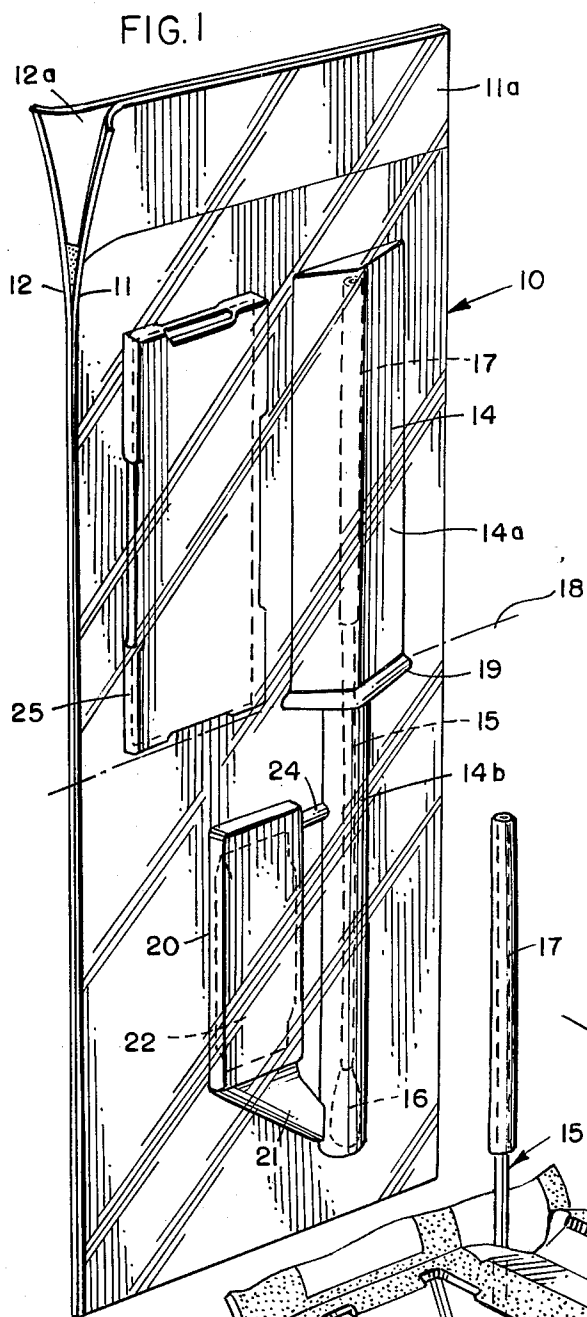
Primary Examiner—Kyle L. Howell
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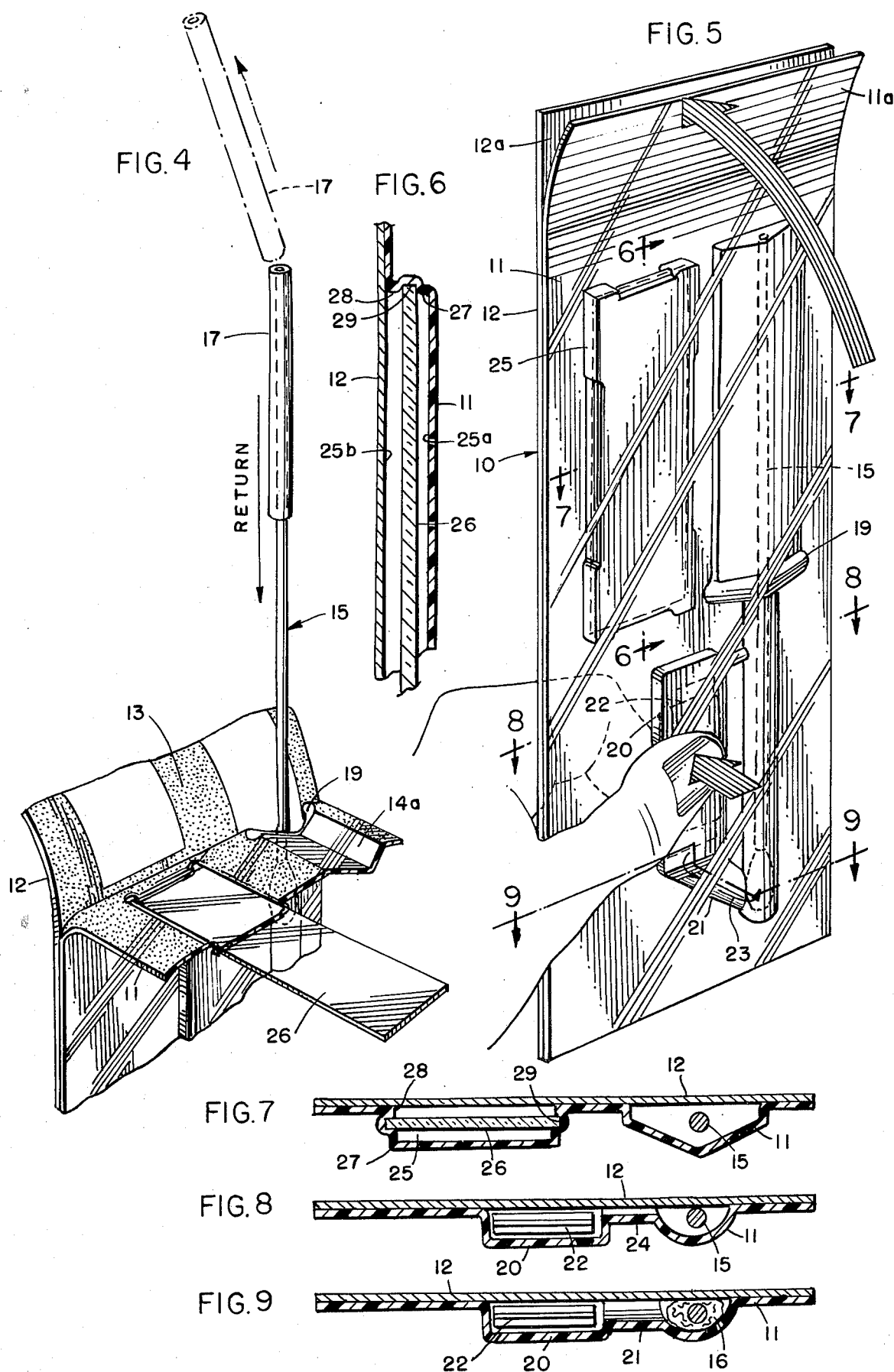
[57] **ABSTRACT**

A culture package having a pair of separable panels defining two compartments, one holding a sterile absorbent swab and the other supporting a rupturable container for a liquid organism-sustaining medium. At least one of the panels is transparent and flexible, permitting the swab to be viewed in its compartment and allowing the container to be ruptured by finger pressure so that the liquid therein may drain into the adjoining swab compartment. A sheath of distinctive color is removably fitted on the swab handle. By gripping only the sheath, a user may withdraw the swab and later return and reseal it within its compartment without contaminating the swab handle. In one form of the invention, the package includes a third slide-containing compartment oriented with respect to the swab compartment, and to the package as a whole, so that a surface of the slide is exposed when the package is opened for swab removal. The disclosure includes a description of structure for facilitating the extraction of the swab and slide from their compartments, for supporting the slide to protect it from breakage during mailing and handling of the package, and for insuring that liquid released from the rupturable container will enter and remain in the swab compartment.

23 Claims, 9 Drawing Figures







DISPOSABLE PACKAGE FOR COLLECTING AND TRANSPORTING CULTURES FOR LABORATORY ANALYSIS

BACKGROUND

U.S. Pat. No. 3,450,129 discloses one form of package for maintaining a culture specimen in viable condition for laboratory testing. The unit includes a swab with an absorbent swabbing tip, a flexible plastic tube, and a frangible glass ampoule filled with a suitable organism-sustaining medium. In use, the tube is opened, the swab removed and, after a specimen of bacteria is taken by contacting the absorbent end of the swab with the throat or other portion of the patient's body, the swab is returned to the tube and the glass ampoule is crushed to release the liquid for maintaining the culture specimen in viable condition until it reaches the testing laboratory. While such a system is simple and has achieved substantial use in the medical field, the provision of a glass ampoule might be regarded as objectionable because of a remote but possible danger that glass fragments might pierce the wall of the plastic tube and because such fragments might also become entrapped in the absorbent material of the swab and interfere with subsequent culturing procedures. Furthermore, since the swab must be handled during a sampling procedure, there is a real possibility that the handle of the swab will lose its sterility and that organisms on the handle might contaminate the specimen and cause misleading test results. Efforts to avoid such contamination problems have resulted in alternative or modified constructions as disclosed in U.S. Pat. Nos. 3,282,114, 3,308,039, 2,902,146, and 3,513,830.

A major shortcoming of many packages in commercial use for the transport of culture swabs is that not infrequently they fail to achieve the main objective of keeping the specimens in moist and viable condition during such transport, often because the packages are incapable of being sealed sufficiently tightly to prevent evaporative loss and drying of the swabs during the interval between the taking of the specimens and the testing procedures. Even where such packages are capable of being tightly sealed, the integrity of that seal may be broken through rough handling during mail delivery.

Under ideal conditions, a moist specimen received by a bacteriological laboratory is promptly placed and incubated on an agar plate containing the appropriate nutrient base for culturing the particular organism under investigation. In many instances, negative test results cannot be taken to mean that pathogenic organisms are absent, but only that the particular organism selected to be analyzed, a selection commonly made in advance by the physician or pathologist, is lacking. It is entirely possible that negative results might be obtained, and pathogenic organisms might be overlooked, because of a failure to select the most suitable culture media for growth of such an organism. Laboratory screening techniques are well known for differentiating bacterial types but, unfortunately, the medium responsible for moistening the swab and maintaining the organisms in living condition in transit to the laboratory also tends to destroy or reduce the effectiveness of such screening techniques. Thus, Gram staining, correlated with the basic morphology exhibited by a particular organism in a Gram-stained smear, is known to be useful in making tentative generic identification of organisms, thus enabling intelligent selection of suitable culture

media for isolation and confirmation; however, the suspension of organisms in a sustaining medium in a culture pack ordinarily forecloses use of the Gram stain procedure when the specimen reaches the laboratory.

Other references indicating the state of the art are U.S. Pat. Nos. 3,674,007, 3,163,160, 2,835,246, and 3,759,375.

SUMMARY

A principal object of this invention is to provide a culture package which overcomes or greatly reduces the problems and deficiencies associated with prior packages as described above. More specifically, it is an object to provide a disposable package for collecting and transporting culture specimens which is easily opened and resealed, readily allows a swab to be removed from and replaced into its compartment without directly touching or contaminating the handle of the swab, provides a clear visual indication that the package has been opened and that a culture specimen has been taken, is easily manipulated to direct an organism-sustaining liquid into the swab chamber to moisten the absorbent tip of the swab and maintain the bacterial specimen in viable condition for laboratory testing, presents no danger that the walls or panels of the package might be pierced or cut during such manipulation, and affords means to receive and preserve in the same package a bacterial smear which may be used in laboratory screening techniques for making tentative generic identification of the organism for purposes of selecting a suitable culture media.

The package includes a pair of flexible panels which are separably and resealably secured together by zones of pressure sensitive adhesive disposed therebetween. At least one of the panels is formed of transparent plastic material. An elongated swab-receiving compartment is formed between the panels and a swab, having an elongated handle and an absorbent tip portion, is supported within that compartment. Each panel is generally of rectangular shape, having an upper section and a lower section. To facilitate separation or peeling apart of the upper sections, the panels are provided with a pair of unsealed tab portions at their upper ends.

As the tab portions and the upper sections of the panels are stripped apart, the upper portion of the swab compartment is opened and the swab handle is exposed so that it may be easily removed. In the best mode presently known for practicing the invention, the handle of the swab carries a tubular, resilient, and distinctively marked sheath. By gripping the protective sheath, a user may extract and use the swab, and then replace it in its compartment, without directly touching the handle. After a culture specimen has been taken and the swab has been returned to its compartment, the sheath is slipped off of the handle and the panels of the package are resealed. Since the distinctively colored or marked sheath has been removed from the swab handle, and since that fact is readily ascertained by visual inspection of the swab through the transparent wall of the package, the absence of the sheath serves as a clear and positive indication that the package has been opened and a culture specimen has been taken.

The lower section of the package is provided with a second compartment having a passage which communicates with the lower end of the swab-receiving compartment. Within the second compartment is a container or envelop holding an organism-sustaining liquid

medium. By applying a squeezing force to the flexible panel walls which define the second compartment, a user may easily rupture the container or envelop to cause the liquid to drain downwardly through the passage into the first compartment where it is absorbed by the tip portion of the swab. A vent passage extending between the upper portion of the second compartment and the swab compartment (at a point well above the absorbent tip of the swab) prevents liquid from returning to the second compartment when finger pressure is released.

The upper and lower sections of the package, and of each of its flexible panels, are generally delimited by a transverse fold line. When the package is fully opened, the upper sections are spread apart along that fold line to expose the sheathed handle of the swab. Removal of the swab is also facilitated by the fact that the upper portion of the swab compartment is of enlarged cross sectional dimensions and by the further fact that at least one of the panels is provided with an outwardly bulging and transversely extending pliable area at the juncture of the swab compartment's upper and lower portions. The outwardly bulging pliable area permits downwardly folding of the panels along the transverse fold line without at the same time substantially reducing the cross section of the compartment's lower portion immediately adjacent thereto.

In the illustrated embodiment, the upper section of the package includes a third compartment which is opened as the upper sections of the panel are separated to expose the sheathed swab handle. The third compartment supports a conventional microscope slide. Shoulders provided by one of the panels holds the slide in place while at the same time exposing one of the slide's surfaces so that after a culture specimen has been taken and before the swab is returned to its compartment the absorbent end of the swab may be wiped across the slide to provide a smear for subsequent laboratory staining and morphological examination. Resealing of the package seals the slide in its compartment with its opposite surfaces spaced from the walls of the panel, thereby protecting the bacterial smear and also protecting the frangible slide as a whole against breakage or damage in transit to the laboratory. Upon arrival at the laboratory, the panels of the package may be easily peeled apart and, by flexing one of the panels to spread the slide-retaining shoulders, the slide may be readily released for Gram staining and microscopic examination. Based on the results of the screening procedure, a suitable culture media may be selected for culturing the microorganisms maintained in viable condition on the moist absorbent tip of the swab.

The package is disposable and is inexpensively constructed so that it may be economically discarded after its purpose has been served. The package may be marketed in sterile condition and, at least in a preferred form, one of the wall panels of the package is gas permeable to permit gas sterilization of the package and its contents either during the manufacture process or immediately prior to use.

Other objects and advantages of the invention will become apparent as the specification proceeds.

DRAWINGS

FIG. 1 is a perspective view of a culture package embodying the present invention.

FIG. 2 is a similar perspective view showing the upper section of the package in opened condition and the sheathed end of the swab exposed for removal of the swab from its compartment.

FIG. 3 is a fragmentary perspective view showing the swab following complete removal from the wrapper.

FIG. 4 is a similar fragmentary perspective view illustrating the swab as it is being returned to the swab compartment and, in broken lines, illustrating the removal of the sheath following complete replacement of the swab.

FIG. 5 illustrates the package after it has been resealed and showing the step of rupturing the pouch containing the organism-sustaining liquid to cause such liquid to flow into the swab compartment to moisten the absorbent tip of the swab.

FIG. 6 is an enlarged vertical sectional view taken along line 6—6 of FIG. 5.

FIG. 7 is an enlarged horizontal sectional view taken along line 7—7 of FIG. 5.

FIG. 8 is an enlarged horizontal sectional view taken along line 8—8 of FIG. 5.

FIG. 9 is an enlarged transverse sectional view taken along line 9—9 of FIG. 5.

DESCRIPTION

Referring to the drawings, the numeral 10 generally designates a culture pack including a wrapper consisting of a pair of generally rectangular panels 11 and 12 secured together by a coating or layer of tacky pressure-sensitive adhesive 13 in selected areas extending about the compartments or chambers to be described more fully hereinafter. The adhesive may be selected from any of a variety of pressure-sensitive adhesives which are capable of maintaining a tacky condition when exposed to sterilizing gases (such as ethylene oxide) and over extended storage periods, although a particularly effective adhesive has been found to be polyisobutylene rubber adhesive marketed under the designation R-135 by Avery Products Corporation of Painseville, Ohio.

In the embodiment illustrated in the drawings, the facing panel 11 is formed of transparent plastic material and the rear or backing panel is formed of paper which is permeable to sterilization gases. Various plastics may be used for fabrication of the front panel such as, for example, polyvinyl chloride. At least the front panel is transparent and both panels are highly flexible and readily bendable. At their upper ends, each panel is provided with a tab portion 11a and 12a free of adhesive connection so that the tab portions may be easily gripped when the upper section of the package is to be stripped and spread apart as indicated in FIG. 2. While it is preferred that the backing panel 12 be formed of a gas-permeable material, it is to be understood that it too may be formed of plastic, either clear or opaque, and that the contents of the package may be sterilized by other techniques such as by sterile-packaging procedures.

One of the panels (panel 11) is formed or molded so that in combination with the other panel it defines a vertically elongated compartment or chamber 14. A swab 15 is disposed in that chamber, the swab comprising an elongated body or handle formed of plastic or wood having an absorbent tip portion 16 formed of cotton or other suitable absorbent material. The swab is conventional in construction except that a tubular

sheath 17 is removably fitted about the upper portion of the handle. The sheath is formed from a non-porous flexible plastic or paper and is distinctively marked in contrast with the handle of the swab so that a user may at a quick glance ascertain whether the sheath is in place or has been removed from the swab. Thus, the sheath may contain a brightly colored pigment if, as is usually the case, the handle of the swab is white or neutral in color. Since panel 11 is transparent, the swab and its sheath are clearly visible when the package is sealed as illustrated in FIG. 1.

In opening the package, the upper sections of panels 11 and 12 are peeled apart down to a transverse fold line indicated by the numeral 18 in FIG. 1. The lower portions of the panels below that line remain sealed together. When the upper sections of the panels have been so separated, the sheathed handle portion of the swab is fully exposed as illustrated in FIG. 2. By gripping the sheath and squeezing it slightly to force its walls into snug engagement with the swab handle portion disposed therein, the swab may be easily lifted from its compartment without directly touching the swab handle with the fingers. It will be observed that the swab compartment 14 has upper and lower portions 14a and 14b respectively; the upper portion being enlarged transversely to facilitate removal of the swab in the manner described. The upper and lower portions of the swab compartment meet along transverse fold line 18 and in that area the bottom of the enlarged upper portion is further enlarged to provide an outwardly and laterally bulging intermediate zone or area 19. The outward bulge or enlargement permits the material of panel 11 to fold upon itself as the upper section of that panel is flexed downwardly without at the same time appreciably closing or constricting the opening at the upper end of lower portion 14b. Consequently, even when the upper section of panel 11 is bent at substantially right angles to the lower section of that panel, as illustrated in FIGS. 2-4, the swab may be easily lifted from or returned to its compartment.

A second compartment 20 is spaced laterally from the lower portion 14b of swab compartment 14, the second compartment including a tapered passage sloping downwardly from the bottom of compartment 20 to the lower end of compartment 14. Within the smaller compartment 20 is a sealed pouch or container 22 containing saline or a suitable aqueous solution for moistening the tip 16 of the swab and for sustaining organisms in viable condition until the culture specimen reaches the laboratory for analysis. The pouch may be ruptured by squeezing together the walls of the second compartment in the manner illustrated in FIG. 5. Upon rupturing of the pouch with the package supported in the upright position illustrated, the organism-sustaining liquid is free to drain into the bottom of the swab compartment as indicated by arrows 23. The upper end of compartment 20 is in direct communication with the swab compartment 14 (at a point spaced well above swab tip 16) by means of a vent passage 24. The vent passage prevents the sustaining or holding fluid from being drawn upwardly into sloping passage 21 should the walls of compartment 20 be released suddenly following rupture of pouch 22.

In the form illustrated in the drawings, a third compartment 25 is provided for supporting a conventional microscope slide 26 formed of glass or plastic. The location of compartment 25 is critical: it will be observed

that such compartment is disposed in the upper section of the package above transverse fold line 18. Consequently, when the package is fully opened to permit removal of swab 15, the slide 26 is supported in the recess of panel 11 so that one surface of the slide is substantially fully exposed. Referring to FIGS. 6 and 7, it will be noted that the wall portions 27 defining the perimeter of compartment 25 are provided with spaced shoulders 28. The shoulders define channels or recesses 29 receiving edge portions of the slide 26, supporting the slide in compartment 25 so that opposite surfaces of the slide are spaced a substantial distance from the walls 25a and 25b of panels 11 and 12. The shoulders serve to retain the slide within the recess of panel 11 when the package is opened, and protect the slide against impact forces directed against panels 11 and 12 when the package is sealed. Also, as described hereafter, the spacing between the surface of slide 26 and wall portion 25b prevents the wall from contacting a biological smear applied to the slide. Because of the resilient or flexible material from which the panels, particularly panel 11, are formed, the slide may nevertheless be released and removed for staining and microscope examination after the package has been reopened by simply deforming or flexing panel 11 to urge the edges of the slide out of channels 29.

When a culture specimen is to be taken, a sterile package, held in the position shown in FIG. 1, is opened by pulling apart tabs 11a and 12a and peeling the upper sections of panels 11 and 12 until the sheath handle of swab 15 and one surface of the supported slide 26 are fully exposed (FIG. 2). The sheath is then gripped between the fingers, squeezed slightly, and lifted as shown in FIG. 3 to withdraw the swab from its compartment. The absorbent end of the sterile swab is then brought into whatever portion of a patient's body a culture is to be taken. Before the swab is returned to its compartment, the absorbent tip, with the culture specimen thereon, is wiped across the exposed face of slide 26 to provide a bacterial smear useful in the laboratory for preliminary screening procedures. With the swab still held only by the removable sheath, the swab is then returned to its compartment in the manner illustrated in FIG. 4. Finger pressure is released slightly from the sheath to permit the sheath to be slipped off of the upper end of the swab. If desired, to help hold the swab in its compartment, the walls of lower compartment portion 14b may be squeezed between the fingers. The upper sections of panels 11 and 12 are then released so that except for one important and distinguishing difference the resealed package assumes the appearance illustrated in FIG. 1.

That difference lies in the fact that sheath 17 has been removed from the handle of the swab and, because of the absence of the distinctive marking or coloration which it provides, an observer would immediately conclude that the package has been opened and resealed and, therefore, that a culture specimen has been taken. It is to be noted that such specimen is taken without directly touching the swab or the slide with the fingers. The entire procedure of opening the package, taking a culture specimen, applying a smear to slide 25, returning the swab to its compartment, and resealing the package may be carried out without contaminating the swab and slide except, of course, by the culture specimen itself.

After the package has been resealed, compartment 22 is compressed in the manner already described, and as shown in FIG. 5, to rupture the pouch 22 and saturate the absorbent tip of the swab with sterile organism-sustaining liquid. The pouch may be formed of foil or plastic, or a laminate of the two, and preferably has its lower portion weakened, as by a selectively rupturable heat-seal line, to facilitate the downward discharge of liquid into sloping passage 21 although, as already pointed out, when the package is supported in the manner illustrated in FIG. 5, the released liquid enters the bottom of the swab compartment under the influence of gravity.

While in the foregoing an embodiment of the invention has been disclosed in considerable detail for purposes of illustration, it will be understood by those skilled in the art that many of these details may be varied without departing from the spirit and scope of the invention.

We claim:

1. A disposable package for collecting and transporting culture specimens for laboratory analysis comprising a pair of flexible panels separably and resealably secured together by zones of pressure-sensitive adhesive disposed therebetween; one of said panels being formed of transparent plastic material; at least one of said panels being formed to define an elongated compartment between said panels; a swab disposed within said compartment having an elongated handle and an absorbent tip portion; said panels being vertically elongated and having a pair of unsealed tab portions at the upper ends thereof for gripping the respective panels and stripping the same apart; said compartment having an enlarged upper portion housing the upper end of said handle and a reduced lower portion containing the lower end of said handle and said absorbent tip; said one panel being provided with an outwardly-bulging and transversely extending pliable intermediate portion between said upper and lower portions of said compartment to permit downward folding of said one panel along a transverse fold line extending through said pliable intermediate portion without substantially reducing the cross sectional area of the compartment's lower portion immediately therebelow.

2. The package of claim 1 in which at least one of said panels is gas permeable to permit gas sterilization of said package and its contents.

3. A disposable package for collecting and transporting culture specimens for laboratory analysis comprising a pair of flexible panels separably and resealably secured together by zones of pressure-sensitive adhesive disposed therebetween; one of said panels being formed of transparent plastic material; at least one of said panels being formed to define an elongated compartment between said panels; a swab disposed within said compartment having an elongated handle and an absorbent tip portion; said panels being vertically elongated and having a pair of unsealed tab portions at the upper ends thereof for gripping the respective panels and stripping the same apart; said compartment having an enlarged upper portion housing the upper end of said handle and a reduced lower portion containing the lower end of said handle and said absorbent tip; said one panel being provided with an outwardly bulging and transversely extending pliable intermediate portion between said upper and lower portions of said compartment to permit downward folding of said one panel

along a transverse fold line extending through said pliable intermediate portion without substantially reducing the cross sectional area of the compartment's lower portion immediately therebelow; each of said panels having an upper section above said transverse fold line and a lower section below said transverse fold line; the lower section of at least one of said panels being formed to define a second compartment having at its lower end a passage communicating with the lower portion of said first-mentioned swab compartment; and a rupturable container disposed within said second compartment and containing an organism-sustaining liquid, whereby, said container may be ruptured by squeezing said flexible panels of said second compartment to permit said liquid to drain through said passage into the swab-containing first compartment.

4. The package of claim 3 in which said passage slopes downwardly from said second compartment to said first compartment.

5. The package of claim 3 in which a transverse vent passage joins the upper end of said second compartment and said first compartment above the tip portion of said swab.

6. The package of claim 3 in which said container comprises a pouch formed essentially of metal foil.

7. The package of claim 3 in which the upper section of at least one of said panels is formed to define a third compartment; a microscope slide being removably supported in said third compartment; a surface of said slide being exposed as said one panel is folded downwardly along said transverse fold line.

8. The package of claim 7 in which said third compartment is substantially deeper than the thickness of the slide contained therein; and means provided within said third compartment for maintaining said slide out of surface contact with said panels.

9. The package of claim 8 in which said means comprises pairs of resilient shoulders provided by said one panel; said shoulders defining channels therebetween for releasably holding said slide with its surfaces in spaced relation relative to said panels.

10. A disposable package for collecting and transporting culture specimens for laboratory analysis comprising a pair of flexible panels separably and resealably secured together by zones of pressure-sensitive adhesive disposed therebetween; one of said panels being formed of transparent plastic material; at least one of said panels being formed to define an elongated compartment between said panels; a swab disposed within said compartment having an elongated handle and absorbent tip portion; and a tubular resilient sheath slidably and removably carried by said handle and visible through said transparent panel; said panels being separable to uncover said sheath for permitting the manual removal of said swab from said compartment, and the manual return of said swab to that compartment, without direct touching of the handle of the swab with the fingers; said sheath being slidably removable from said handle after said swab has been returned to its compartment to expose the unsheathed handle and provide visual indication through the transparent wall of the resealed package that such package has been opened and that a specimen culture has been taken; said panels being generally rectangular in shape and having a pair of unsealed tab portions at the upper ends thereof for gripping the respective panels and stripping the same apart; said compartment having an enlarged upper por-

tion housing the sheathed portion of said handle and a reduced lower portion containing the lower end of said handle and said absorbent tip; said one panel being provided with an outwardly bulging and transversely extending pliable area between said upper and lower portions of said compartment to permit downward folding of said one panel along a transverse fold line extending through said pliable area without substantially reducing the cross section of the compartment's lower portion immediately adjacent said area.

11. A disposable package for collecting and transporting culture specimens for laboratory analysis comprising a pair of flexible panels separably and resealably secured together by zones of pressure-sensitive adhesive disposed therebetween; one of said panels being formed of transparent plastic material; at least one of said panels being formed to define an elongated compartment between said panels; a swab disposed within said compartment having an elongated handle and absorbent tip portion; and a tubular resilient sheath slidably and removably carried by said handle and visible through said transparent panel; said panels being separable to uncover said sheath for permitting the manual removal of said swab from said compartment, and the manual return of said swab to that compartment, without direct touching of the handle of the swab with the fingers; said sheath being slidably removable from said handle after said swab has been returned to its compartment to expose the unsheathed handle and provide visual indication through the transparent wall of the resealed package that such package has been opened and that a specimen culture has been taken; said panels being generally rectangular in shape and having a pair of unsealed tab portions at the upper ends thereof for gripping the respective panels and stripping the same apart; said compartment having an enlarged upper portion housing the sheathed portion of said handle and a reduced lower portion containing the lower end of said handle and said absorbent tip; said one panel being provided with an outwardly bulging and transversely extending pliable area between said upper and lower portions of said compartment to permit downward folding of said one panel along a transverse fold line extending through said pliable area without substantially reducing the cross section of the compartment's lower portion immediately adjacent said area; each of said panels having an upper section above said transverse fold line and a lower section below said transverse fold line, the lower section of at least one of said panels being formed to define a second compartment having at its lower end a passage communicating with the lower portion of said first-mentioned swab compartment; and a rupturable container disposed within said second compartment containing an organism-sustaining liquid; whereby, said container may be ruptured by squeezing said flexible panels of said second compartment to permit said liquid to drain downwardly through said passage into said swab-containing first compartment.

12. The package of claim 11 in which said passage slopes downwardly from said second compartment to said swab-containing first compartment.

13. The package of claim 11 in which a transverse vent passage joins the upper end of said second compartment and said first compartment above the tip portion of said swab.

14. The package of claim 11 in which said container is a pouch formed essentially of metal foil.

15. The package of claim 11 in which the upper section of at least one of said panels is formed to define a third compartment; a microscope slide being removably supported in said third compartment; a surface of said slide being exposed as said one panel is folded downwardly along said transverse fold line for removal of said swab.

16. The package of claim 15 in which said third compartment is substantially deeper than the thickness of the slide contained therein; and means provided within said third compartment for maintaining said slide out of surface contact with said panels.

17. The package of claim 16 in which said means comprises pairs of resilient shoulders provided by said one panel; said shoulders defining channels therebetween for releasably holding edge portions of said slide with the opposite surfaces of the slide in spaced relation relative to said panels.

18. A disposable package for collecting and transporting culture specimens for laboratory analysis comprising a pair of flexible panels separably and releasably secured together by zones of pressure-sensitive adhesive disposed therebetween; one of said panels being formed of transparent plastic material; at least one of said panels being formed to define an elongated compartment between said panels; a swab disposed within said compartment having an elongated handle and an absorbent tip portion; said panels being vertically elongated and having a pair of unsealed tab portions at the upper ends thereof for gripping the respective panels and stripping the same apart; said compartment having an upper portion housing the upper end of said handle and a lower portion containing the lower end of said handle and said absorbent tip portion; said panels being foldable away from each other along a transverse fold line extending between the upper and lower portions of said compartment; each of said panels having an upper section above said transverse fold line and a lower section below said transverse fold line; the lower section of at least one of said panels being formed to define a second compartment along said first-mentioned compartment and having at its lower end a passage communicating with the lower portion of said first-mentioned swab compartment; the lower section of at least one of said panels also being formed to define a transverse vent passage joining the upper end of said second compartment and said first compartment above the tip portion of said swab; and a rupturable pouch disposed within said second compartment, said pouch having flexible walls and containing an organism-sustaining liquid; whereby, said pouch may be ruptured by squeezing said flexible panels of said second compartment to permit said liquid to drain through said passage into the swab-containing first compartment.

19. The package of claim 18 in which said passage slopes downwardly from said second compartment to said first compartment.

20. The package of claim 18 in which said pouch is formed essentially of metal foil.

21. A disposable package for collecting and transporting culture specimens for laboratory analysis comprising a pair of flexible panels separably and resealably secured together by zones of pressure-sensitive adhesive disposed therebetween; one of said panels being formed of transparent plastic material; at least one of said panels being formed to define an elongated compartment between said panels; a swab disposed within

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said compartment having an elongated handle and an absorbent tip portion; said panels being vertically elongated and having a pair of unsealed tab portions at the upper ends thereof for gripping the respective panels and stripping the same apart; said compartment having an upper portion housing the upper end of said handle and a lower portion containing the lower end of said handle and said absorbent tip portion; said panels being foldable away from each other along a transverse fold line extending between the upper and lower portions of said compartment; each of said panels having an upper section above said transverse fold line; the lower section of at least one of said panels being formed to define a second compartment having at its lower end a passage communicating with the lower portion of said first-mentioned swab compartment; and a rupturable container disposed within said second compartment and containing an organism-sustaining liquid; whereby, said container may be ruptured by squeezing said flexi-

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ble panels of said second compartment to permit said liquid to drain through said passage into the swab-containing first compartment; the upper section of at least one of said panels being formed to define a third compartment; a microscope slide being removably supported in said third compartment; a surface of said slide being exposed as said panels are folded apart from said tab portions and about said transverse fold line.

22. The package of claim 21 in which said third compartment is substantially deeper than the thickness of the slide contained therein; and means provided within said third compartment for maintaining said slide out of surface contact with said panels.

23. The package of claim 22 in which said means comprises pairs of resilient shoulders provided by said one panel; said shoulders defining channels therebetween for releasably holding said slide with its surfaces in spaced relation relative to said panels.

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