July 1, 1969 W. F. BLANFORD 3,452,750

VAGINAL BIB

Filed Oct. 31, 1966 Sheet 1 of 2

Fig. 1.

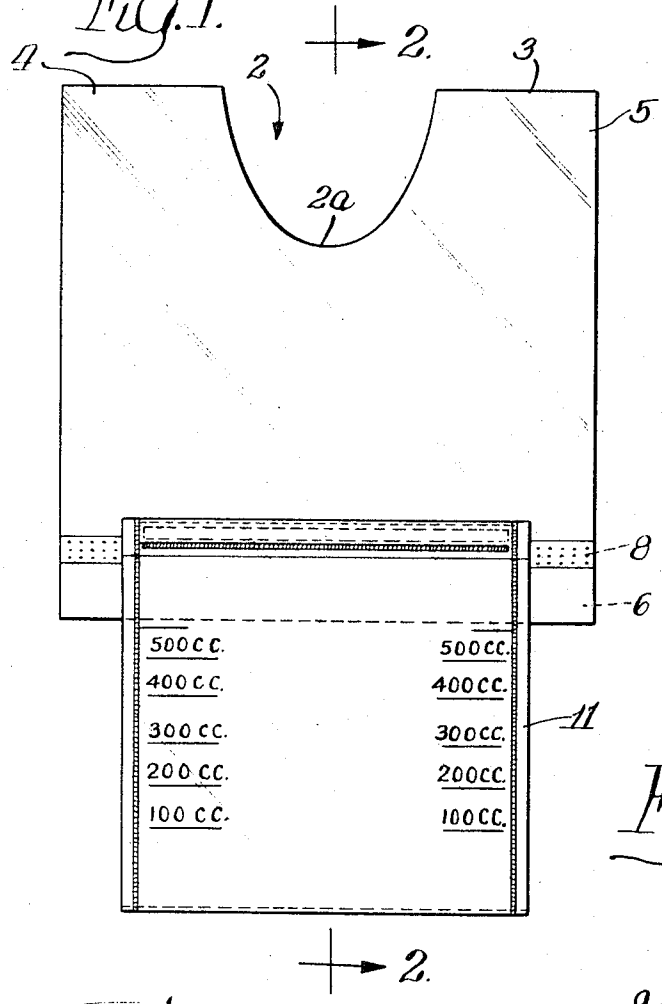


Fig. 2.

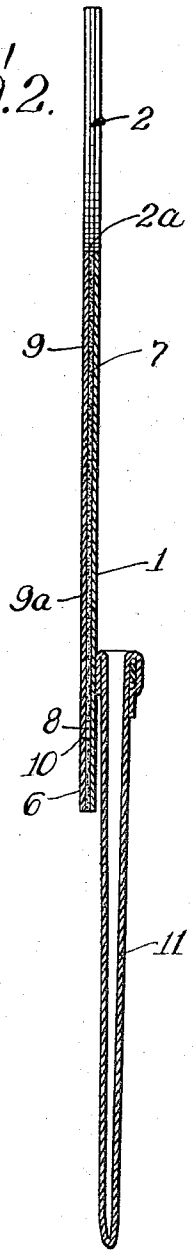


Fig. 3.

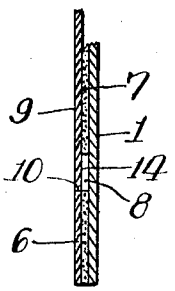
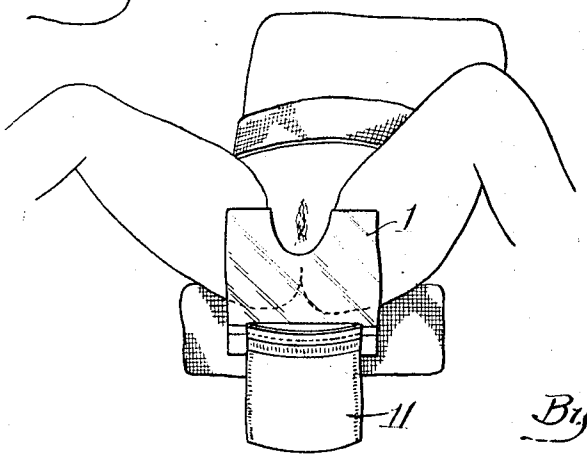


Fig. 4.



Inventor:-
William F. Blanford,
By Robert R. Adams
Atty.

July 1, 1969 W. F. BLANFORD 3,452,750

VAGINAL BIB

Filed Oct. 31, 1966 Sheet 2 of 2

FIG. 7.

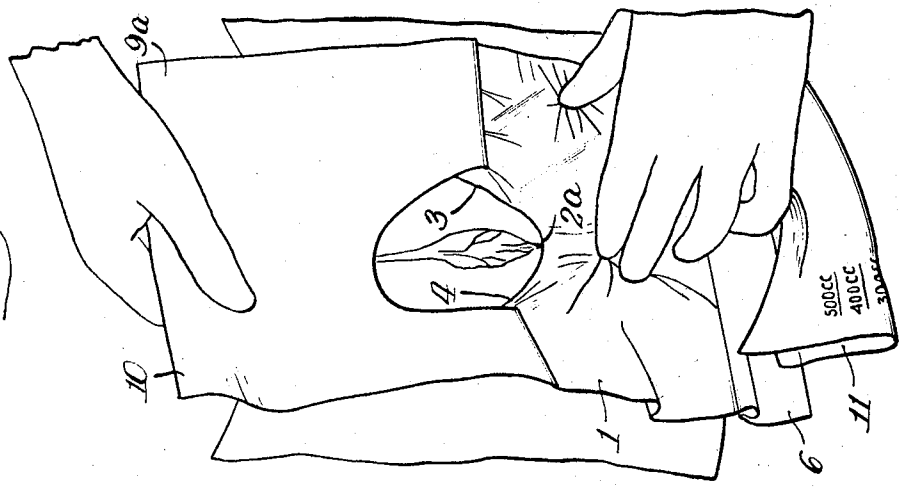


FIG. 6.

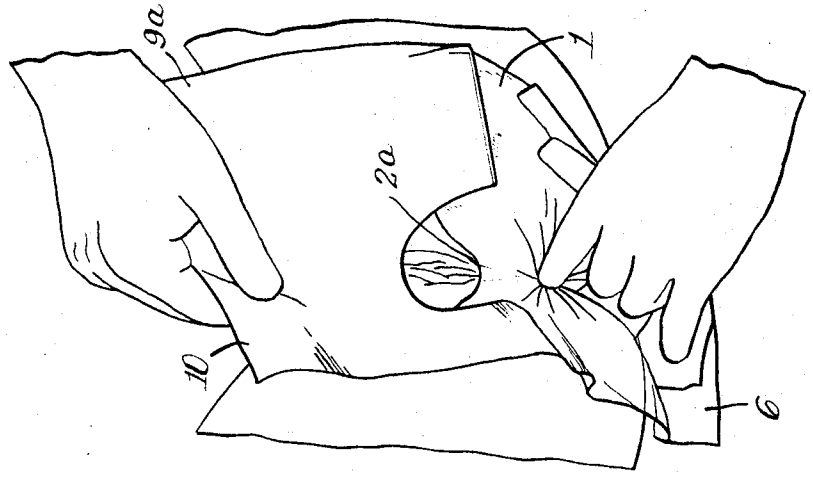
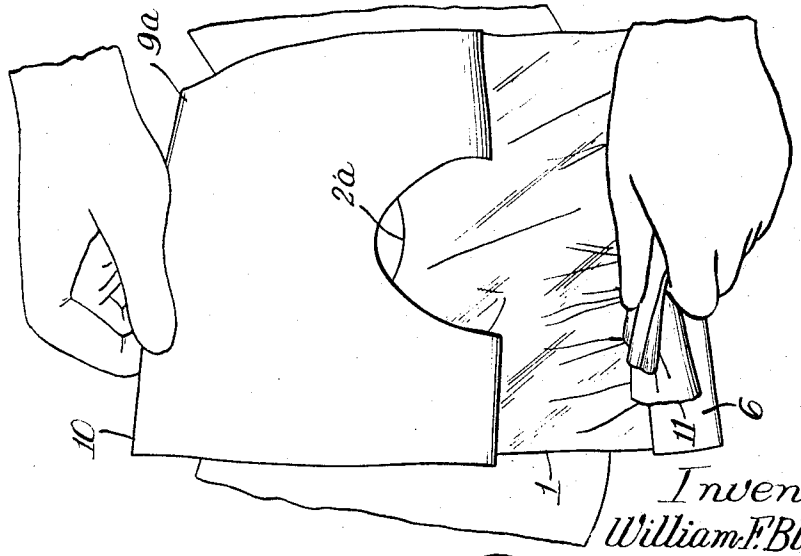


FIG. 5.



Inventor:-
William F. Blanford,
By Robert R. Adams
Atty.

United States Patent Office 3,452,750
Patented July 1, 1969

3,452,750

VAGINAL BIB

William F. Blanford, Dayton, Ohio, assignor to Parke, Davis & Company, Detroit, Mich., a corporation of Michigan

Filed Oct. 31, 1966, Ser. No. 590,939
Int. Cl. A61m 27/00, 1/00
U.S. Cl. 128—132 4 Claims

ABSTRACT OF THE DISCLOSURE

A surgical or obstetrical drape is provided having a pliable sheet coated with a pressure sensitive adhesive, a protective sheet covering and releasably held by the adhesive, and a handling strip along one margin of the pliable sheet adapted for grasping with one hand while holding and stripping off the protective sheet with the other hand. The handling strip and protective sheet are cooperatively adapted to facilitate grasping and separation and to prevent the drape from curling, sticking to itself or otherwise being unmanageable.

The present invention relates to a plastic surgical drape useful in connection with operative procedures in the vaginal area and in child deliveries, and is an improvement on the invention described in the application of Pereny et al. Ser. No. 325,733 issued as Patent No. 3,288,135. During a surgical operation conducted in the vaginal area, and during child delivery, such drapes prevent contamination of the mother or child or instruments from the anal area, and from any fecal extrusion which may occur during the operation.

The surgical drape therein described comprises a pliable sheet of suitable material having a generally medially located arcuate bifurcating notch adjacent one end (herein designated arbitrarily as the upper end) which provides two tabs. One surface of the sheet is coated with a pressure sensitive adhesive, and a protective sheet of paper or other suitable material covers and protects the adhesive. When the drape is to be used, the protective sheet is stripped off so as to expose the pressure sensitive adhesive coat. During the operation of stripping off the protective sheet to expose the adhesive and after the protective sheet is removed, the drape becomes difficult to handle, and has a tendency to curl and stick to it self and otherwise become tangled.

It is an object of the present invention to provide an improved structure which facilitates handling and application of such drapes to the patient.

The drape of the present invention comprises a pliable sheet of suitable material having a generally medially located bifurcating notch adjacent the upper end to provide two tabs, and a handle of stiffening material adjacent the lower end of the sheet. One surface of the pliable sheet is coated with a pressure sensitive adhesive which coating preferably does not encroach the handle, and a backing or protective sheet of suitable material covers the adhesive coat. This backing sheet is releasably held by the adhesive so it can be stripped off readily to expose the adhesive. Releasability can be accomplished by the use of a protective sheet of material of such nature that it does not adhere firmly to the adhesive, or by a protective sheet covered with release material so as to reduce adherence to the adhesive. If desired, the handle may be a strip of similar stiffening material and both the handle and protective sheet may be attached to the pliable sheet by the same kind of adhesive. The handle may lie on the same face as the protective sheet.

The protective sheet preferably terminates at the periphery of the adhesive coat on the pliable sheet. However, at the bottom, preferably it terminates at or near the handle. For example, where the handle is in the form of a strip or bar, the protective sheet may butt or overlap such strip, or may terminate short of such strip. The bottom edge of the protective sheet adjacent the handle is rendered non-adherent to the pliable sheet (or to the handling strip if overlapped by the protective sheet). This may be accomplished by having the protective sheet extend beyond the adhesive coat covered thereby, or by coating an area along the lower end of the protective sheet with a release material which renders the adhesive non-adherent at such area. The protective sheet and handling strip may be paper, textile fabric, plastic sheet, or other suitable material, and they need not be of like material. The handling strip can be in the form of a bar, narrow sheet, wire or the like. The drape can be formed into a roll with the handle strip innermost, and in this form is transported and stored until ready for use.

The invention is described in the following specification in connection with the accompanying drawing illustrating a preferred embodiment of the invention by way of example, and wherein:

FIG. 1 is a plan view showing the invention;

FIG. 2 is a sectional view taken on line 2—2 of FIGURE 1;

FIG. 3 is an enlarged fragmentary sectional view, and FIGS. 4, 5, 6 and 7 illustrate steps in applying the invention to a patient.

Referring to the drawing, FIGURES 1 and 2, numeral **1** indicates a pliable sheet of material which may be made of, for example, polyvinyl chloride resin, polyethylene, or other resin or suitable material. The thickness will depend on the nature of the resin, but in general a range of about .001 to .005 inch is suitable. The sheet preferably is transparent, and may be of any suitable dimensions, for example, about nine inches by nine inches. The bifurcating notch **2** of suitable dimensions in the top edge **3** preferably is provided by cutting away the sheet as by a die cut, and provides the top tabs **4** and **5**. The notch **2** may extend approximately one third of the length of the sheet and about 40% of the width of the sheet. For example, a notch approximately 3½ inches wide by 2½ inches deep is suitable. The notch provides an arcuate bottom **2a** which merges more or less tangentially and smoothly with the tabs **5** and **4**. A sheet of this type is described in the Pereny et al. patent above referred to.

A handle in the form of a strip **6** is firmly attached adjacent the bottom edge, this strip being stiff enough so as to prevent the pliable sheet curling back on itself about a vertical axis when the lower end is grasped. By firmly attached is meant, attached so that it will not be pulled loose or away from the pliable sheet in the normal handling of the drape as herein described. The handling strip may be of plastic material, stiff paper, or the like and may be attached to the sheet by heat sealing, by adhesive, or in any other suitable manner, or the handle may be attached by inserting it in a casing formed by suitably hemming the edge of the pliable sheet. The handle strip **6** may be of any suitable width, as for example, about 1½ to 2 inches.

As illustrated, one face of the pliable sheet is coated with suitable adhesive, indicated at **7**, except for a narrow band **8** adjacent the lower end of the sheet. Suitable adhesives are known, and examples of suitable adhesives are disclosed in Patent Nos. 3,090,694 and 3,247,002. In practice this band may be about one quarter inch to one inch wide, and the adhesive coated face then is covered by the protective sheet **9**, which previously has been treated on the adhesive engaging face, except for the portion below band **8**, with a suitable release material to reduce adherence to the adhesive layer. Then the protective sheet is severed by a cut at **10** which is gauged so

that it does not sever the pliable sheet **1**. The structure which results comprises the handle **6** (which originally was part of the protective sheet **9**) firmly adhering to the bottom portion of the pliable sheet **1**, and serving as a handle therefor, and a cover sheet **9***a* (originally part of protecting sheet **9**) protecting the adhesive coat and releasably adhering thereto. The handle **6** is firmly affixed to the pliable sheet by the adhesive because this portion of sheet **9** was not treated with release material. The bottom edge of the cover sheet **9***a* formed by cut **10** is substantially in butting relation to the upper edge of the handling strip **6**. By reason of the non-coated band **8**, the bottom band of the cover sheet **9***a* is substantially non-attached to the pliable sheet **1**. The invention illustrated includes a pouch **11** described in the application of Pereny et al., for Surgical Drape filed Sept. 8, 1966, as Ser. No. 578,100 now issued as Patent No. 3,364,928

This structure may be formed into a roll, preferably with the handling strip at the inner axial edge of the roll, and sterilized. Preferably the drape is enclosed in an outer protective wrapper which keeps the drape sterile, and is removed when the drape is ready to be applied, for example as described in Patent No. 3,279,595.

Release materials which may be applied to the protective sheet to reduce or prevent adherence are known, and include certain silicones, waxes and the like. Sheet materials which do not substantially adhere likewise are known and include various "Mylar" sheets, glassine paper, and the like. Instead of providing a band **8** free of adhesive on the pliable sheet, the entire pliable sheet may be coated with adhesive, and the cover sheet **9** may be coated along the corresponding located area **14** with wax or similar adherence preventing material. The non-adherence of the lower edge of the protective sheet **9***a* enables this edge to be grasped to peel off the protecting sheet. Especially, when the drape has been formed into a roll the curvature of protective sheet **9** causes the bottom edge to project away from the pliable sheet.

FIGURE 4 shows the drape applied to a patient. The handling of the drape in the operating room now is described. The outer wrapper (if used) is removed and the drape is unrolled. The handle strip **6** is grasped from below, by one hand (usually the left hand) as shown in FIGURE 5 and holding the drape with the adhesive coated face toward the patient, the bottom edge (indicated at cut **10**) of the cover sheet is grasped with the other hand and gently pulled upwardly, to cause it to peel off of the pliable sheet. The edge **10**, it will be noted, is not adherent to the adhesive and can easily be grasped as the rolled form tends to make the edge stand out. When the cover sheet has been peeled to slightly beyond point **2***a*, as shown in FIGURE 6, the drape is generally positioned on the patient and the exposed adhesive coated face is touched against the buttox to hold the lower end and thus allow the operator to disengage his hand holding the handle strip. The pliable sheet then is pressed against the perineum with the free hand as shown and is smoothed into place against the patient's body while the rest of the backing sheet is peeled off as shown in FIGURE 7. Thus, the drape is easily and quickly attached to the patient's body.

Various modifications of the invention may be made without departing from the spirit or scope of the invention.

I claim:

1. A surgical drape comprising

a pliable sheet having opposing lower and upper ends and having a generally medial bifurcating notch adjacent the upper end to provide two tabs,

a handling strip of stiffening material located marginally across the lower end of the pliable sheet,

a coating of pressure sensitive adhesive on one face of the pliable sheet on said tabs and below said notch,

and a protective sheet covering and being releasably held by the adhesive, the protective sheet having a lower edge adjacent the handling strip which edge is detached from the pliable sheet to allow it to be grasped for stripping it off, the handling strip being adapted to be grasped by hand and being sufficiently stiff to prevent the pliable sheet curling back on itself about its vertical axis when the lower end of the sheet is grasped.

2. A surgical drape as specified in claim **1** wherein the handling strip is firmly affixed to the pliable sheet and the lower edge of the protective sheet abuts an edge of the handling strip and is located on the same face of the pliable sheet as said strip.

3. A surgical drape as specified in claim **1** wherein an area adjacent the lower edge of the protective sheet is coated to substantially prevent adherence to the adhesive.

4. A surgical drape as specified in claim **1** wherein one face of the pliable sheet is coated with adhesive except for a narrow band adjacent the handling strip and said band is overlayed by the lower end of said protective sheet.

References Cited

UNITED STATES PATENTS

3,060,932	10/1962	Pereny et al.	128—132
3,251,360	5/1966	Melges	128—132
3,260,260	7/1966	Questel	128—132
3,263,680	8/1966	Morgan	128—132

ADELE M. EAGER, *Primary Examiner.*

U.S. Cl. X.R.

128—156, 171, 283, 292; 206—59