

United States Patent

[11] 3,561,440

[72] Inventors **Robert T. Bayer**
Asheville, N.C.;
Robert M. Woronoff, Atlanta, Ga.
[21] Appl. No. **761,412**
[22] Filed **Sept. 23, 1968**
[45] Patented **Feb. 9, 1971**
[73] Assignees **Said Bayer assignor to Mars Manufacturing Company, Inc., Asheville, N.C., a corporation of North Carolina and said Woronoff assignor to C.R. Bard, Inc., a corporation of New York**

[51] Int. Cl. **A61f 13/00**
[50] Field of Search **128/155, 157, 171, 268, 131, 132, 169, 163**

[56] **References Cited**
UNITED STATES PATENTS
3,068,863 12/1962 Bowman 128/132
FOREIGN PATENTS
692,578 6/1953 Great Britain 128/132

Primary Examiner—Adele M. Eager
Attorney—Clarence A. O'Brien & Harvey B. Jacobson

[54] **SELF-ADHERING TABS FOR SURGICAL DRAPES AND GARMENTS**
7 Claims, 5 Drawing Figs.

[52] U.S. Cl. **128/132, 128/156, 128/171**

ABSTRACT: A tab or area of self-adhering adhesive material incorporated into a disposable surgical drape or garment to enable anchoring of the surgical drape or sterile garment in position while conducting an operative procedure.

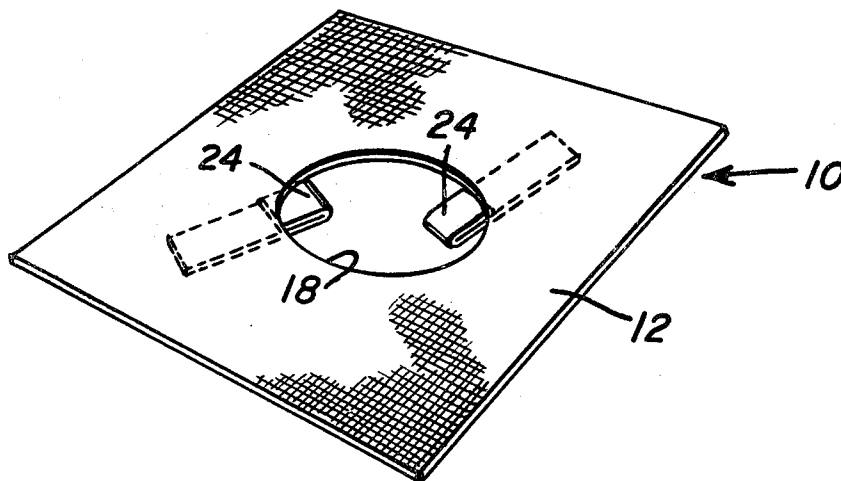


Fig. 1

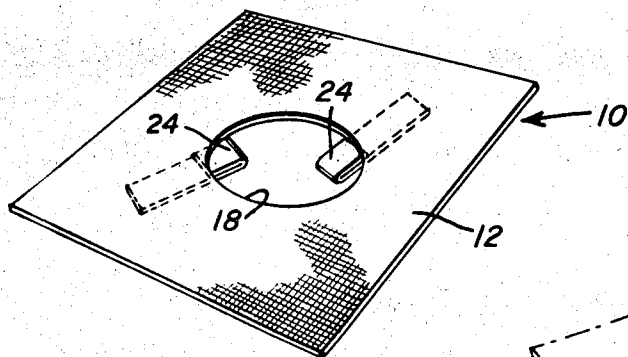


Fig. 2

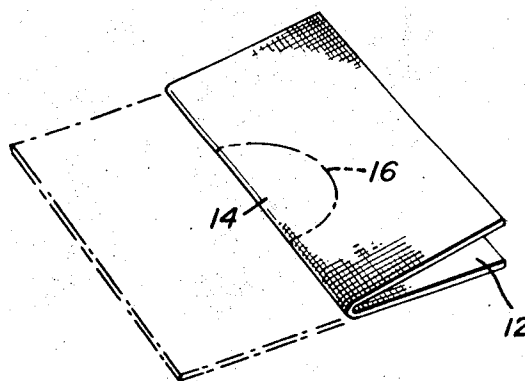


Fig. 5

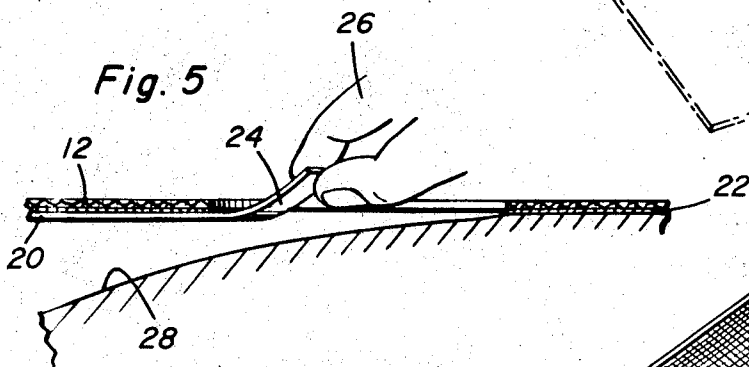


Fig. 3

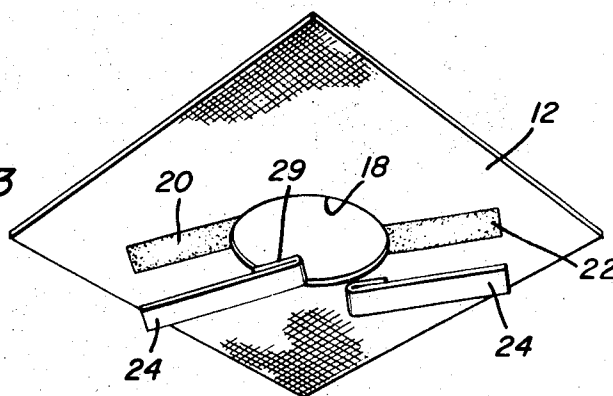
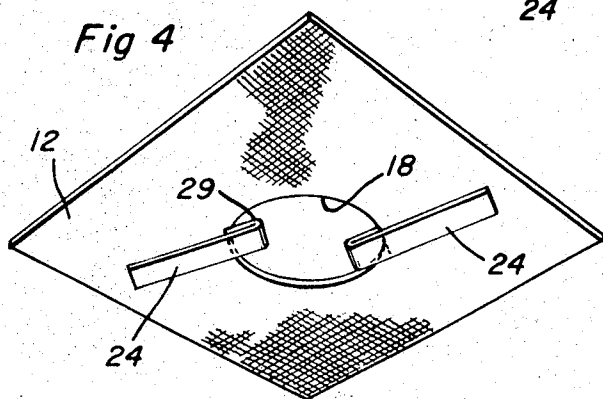


Fig. 4



Robert T. Bayer
Robert M. Woronoff

INVENTORS.

BY *Alma A. O'Brien*
and *Harvey B. Jacobson*
Attorneys

SELF-ADHERING TABS FOR SURGICAL DRAPES AND GARMENTS

Surgical drapes or sterile garments, especially small or specially shaped surgical drapes quite often slip or slide while surgical procedures are being conducted. Such movement of the surgical drape or sterile garment may result in the sterile field being broken and exposing it to contaminants and thus increasing the likelihood of postoperative infection. Additionally, such movement may cause the surgeon to make an error in the surgical procedure such as making an incision at an improper depth or length which could cause immediate and long range impairment to the health of the patient. For example, such an error could be caused by the area in which the surgical procedure is being conducted being temporarily occluded by slippage of the surgical drape.

To eliminate the possibility of movement of the surgical drape, the present invention incorporates the provision of an area or tab of soft adhering adhesive which has been FDA approved for surgical procedures or a double-faced tape with a release paper between the adhesive surface and the patient so that the adhesive area or tape will retain the surgical drape or sterile garment in position without breaking the sterile or aseptic technique.

In conducting a surgical operation, "prepping" creates a sterile surface. A sterile nurse and surgeon place a sterile drape or sterile garment in the area desired. When employing the present invention, the release paper on the adhesive surface which is between the adhesive and the patient is removed by the surgeon or the nurse who are sterile by reaching into the sterile field and removing the sterile release paper. Then they lightly touch the surface of the drape or garment which sticks the self-adhering adhesive to the body thereby anchoring the drape or garment in place.

It is an object of the present invention to provide an anchoring device for sterile drapes or garments which is simple in construction, easy to manipulate, sterile and relatively inexpensive to manufacture. Additionally, it is a further object of the invention to provide self-adhering tabs or adhesive areas which effectively anchor the drape or garment in place during a surgical operation to eliminate the possibility of the sterile field being broken or the accidental slippage or movement of the drape with consequent possible danger to the patient.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIG. 1 is a perspective view of a surgical drape incorporating the self-adhering adhesive areas with release paper thereon;

FIG. 2 is a perspective view illustrating a surgical drape illustrating the manner in which an opening is formed therein;

FIG. 3 is a perspective view illustrating the positioning of the adhesive areas on the sterile drape as well as the release paper;

FIG. 4 illustrates the manner in which the release paper may be removed from the adhesive area; and

FIG. 5 is a sectional view illustrating the manner in which the release paper is removed from the adhesive area when securing the surgical drape to the surface of the body of a patient.

Referring now specifically to the drawings, the surgical drape employing the present invention is generally designated by the numeral 10 and includes a panel 12 of any suitable shape and size and being constructed of the usual textile or disposable paper material from which surgical drapes are constructed. In forming the drape 10, the panel 12 may be folded along its centerline as illustrated in FIG. 2 and a circular central area 14 die-cut therefrom along dotted line 16 in FIG. 2 thus forming a central opening 18 in the panel 12. Applied to the undersurface of the panel 12 is a pair of self-adhering adhesive areas 20 and 22 which have their inner edges coincident with the opening 18 and oriented in laterally extending

relation from opposed areas of the opening 18 with the particular positioning of the adhesive areas 20 and 22 being variable about the periphery of the opening 18. An FDA approved adhesive or double-faced tape may be employed to form the adhesive areas 20 and 22 and for each adhesive area 20 and 22, there is a release paper 24 of silicon or the like which completely covers the adhesive areas 20 and 22 with the inner ends of the release silicon paper 24 projecting into the opening 18 as illustrated in FIG. 1. FIGS. 4 and 5 illustrate the manner in which the release paper 24 is removed from the adhesive area with FIG. 5 illustrating the manner in which the fingers 26 of the sterile nurse or surgeon grasp the inner end of the release paper 24 to remove it thus enabling the outer surface of the panel 12 to be touched so that the adhesive areas 20 and 22 will secure the surgical drape 10 to the skin surface 28 of the body of the patient thus anchoring the surgical drape 10 in position in relation to the body of the patient while a surgical procedure is being conducted. The paper 24 has the end thereof projecting into the opening reversely folded as at 29 which extends slightly into underlying relation to the edge of the opening to conceal the surface which would normally engage the adhesive area and also provide a convenient gripping tab.

The particular shape, size and configuration of the surgical drape may be varied as may the shape, size and configuration of the opening 18. While the self-adhering adhesive areas or tabs are especially useful in relatively small or specially shaped surgical drapes, the invention may be used on other types of drapes in order to assure that such drapes will be anchored in position in relation to the area in which a surgical operation is being conducted thus eliminating the possibility of slippage or movement of the drape which may cause contamination of the sterile field and also may cause the surgeon to make a mistake both of which may cause impairment of the health of the patient. Also, the drape may be formed by die cutting a plurality of drapes oriented in superposed relation rather than folding and then cutting as illustrated in FIG. 2.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

We claim:

1. In combination with a surgical drape employed in overlying contacting relation with the body of a patient during a surgical operation and subject to slippage in relation to the area in which the surgical operation is being conducted, an adhesive area on the surface of the drape adapted to contact the surface of the body, and a release paper for said adhesive area to enable a sterile drape and adhesive area and release paper to be placed in position on a sterile field on the body of the patient after which a sterile hand may remove the release paper and anchor the drape to the body by exerting pressure on the exterior surface of the drape, said drape including an opening therein, said opening being spaced inwardly from the periphery of the drape, said adhesive area being in the form of two strips of adhesive material on the undersurface of the drape and extending outwardly from the periphery of the opening at opposed areas thereof.

2. The combination as defined in claim 1 wherein said release paper extends inwardly into the interior of the opening to indicate the positioning of the adhesive areas and release paper to facilitate grasping thereof by the hand removing the release paper during installation of the surgical drape on the body of the patient.

3. The structure as defined in claim 2 wherein said adhesive area is a self-adhering adhesive attached to the undersurface of said drape.

4. The method of securing a surgical drape in position on the body of a patient in predetermined relation to an area in which a surgical procedure is to be conducted consisting of

3

the steps of applying an adhesive area onto the undersurface of the drape, covering the adhesive area with a release paper, applying the drape with the adhesive area and release paper thereon to a sterile field on the body of the patient, grasping the release paper while maintaining the sterile field, removing the release paper while maintaining the sterile field, and applying external pressure on the drape over the adhesive area for securing the adhesive area and the drape to the sterile field of the body while maintaining the sterile field.

5: The method as defined in claim 4 in which the step of ap-

4

plying an adhesive area to the drape includes the step of restricting the adhesive area to a relatively small portion of the sterile field and surgical drape.

6. The method as defined in claim 5 in which the adhesive area and release paper is formed in the shape of elongated strips on opposite sides of an opening in the surgical drape.

7. The method as defined in claim 6 including the step of extending the release paper interiorly of the opening in the drape to facilitate grasping thereof.

15

20

25

30

35

40

45

50

55

60

65

70

75