

[54] **DISPOSABLE GOWN WITH MULTIPLE FLAPS AND CLOSURES**

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[51] Int. Cl. **A41d 13/00**

[58] Field of Search **2/74, 75, 85, 87, 93, 96, 2/114, DIG. 2, DIG. 6, DIG. 7**

References Cited

UNITED STATES PATENTS

2,260,426 10/1941 Bailey 2/96

3,129,432 4/1964 Belkin 2/114
 3,259,913 7/1966 Tames 2/114
 3,276,036 10/1966 Cater 2/114

OTHER PUBLICATIONS

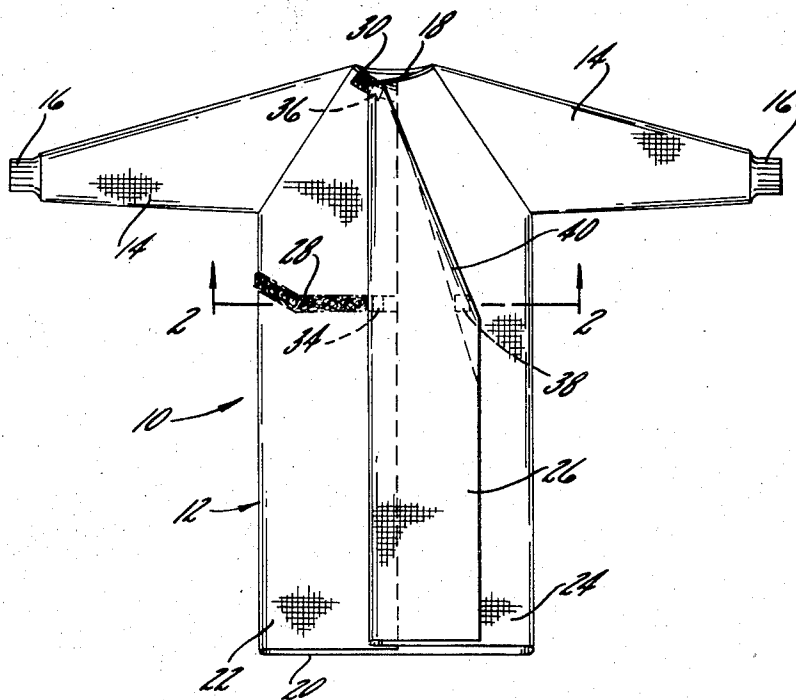
Gershman, "Self-Adhering Nylon Tapes" 10-18-58, JAMA, Vol. 168, No. 7.

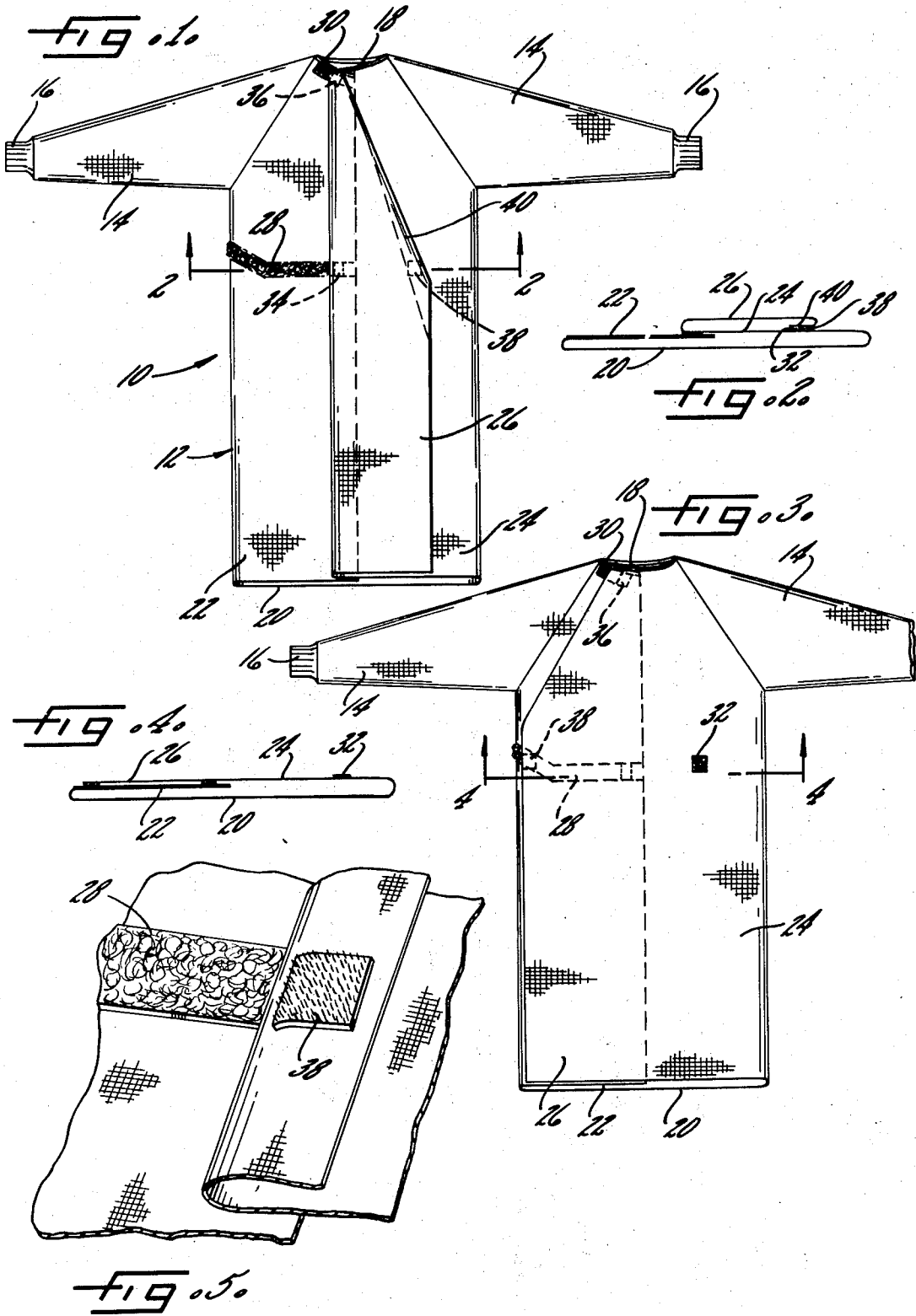
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ABSTRACT

[57] An adjustable wraparound gown comprising a body portion having a continuous front, a pair of sleeves and a neck opening, the back of which is comprised of two panels, one having a flap adapted to cover a substantial portion of the other panel when unfolded. The gown has means for adjustably fastening the panels together and for holding the flap in either a folded or unfolded position.

1 Claim, 5 Drawing Figures





DISPOSABLE GOWN WITH MULTIPLE FLAPS AND CLOSURES

The present application is a continuation of application Ser. No. 158,299 filed June 30, 1971, now abandoned.

This invention generally relates to nonwoven garments and, more specifically, relates to an adjustable wraparound gown suited for medical uses and the like.

An important characteristic of a gown that is adapted for use by medical personnel during a surgical operation or the like where sterile conditions must be maintained, is the capability of the gown to effectively prevent contamination from passing from the inside of the gown to the sterile field. It is preferable that both the front and rear sides of the gown be effectively sealed to prevent contamination of a sterile field in the event the wearer turns around and touches the sterile field with the rear side of the gown.

Although many previous gowns have utilized either snap fasteners or ties to fasten the rear panels of a gown having a continuous front side, such gowns have had disadvantages including the fact that they must be attached to the wearer by a sterile person if the back side were to be considered sterile.

It is an object of the present invention to provide an adjustable wraparound gown that is particularly adapted for medical uses.

Another object of the present invention is to provide an adjustable gown that is adapted such that a nonsterile person may assist the fastening thereof and yet is also adapted to have sterile front and rear sides because of its unique fastening means.

Yet another object of the present invention is to provide a surgical gown having a back comprised of two panels, one of which has a flap that is adapted to cover a substantial portion of either of the panels depending upon whether the flap is folded or unfolded.

Still another object of the present invention is to provide a gown of the above character having a fastening means that enables adjustable fastening of the panels to one another and also holds the flap in either a folded or unfolded position as desired.

Other objects and advantages will become apparent from the ensuing detailed description and upon reference to the attached drawings, in which:

FIG. 1 is a plan view of the adjustable gown of the present invention, and illustrating the backside thereof with the flap being folded;

FIG. 2 is a sectional view of the adjustable gown of the present invention and is taken generally along the lines 2—2 of FIG. 1;

FIG. 3 is a plan view of the adjustable gown of the present invention and illustrating the backside thereof with the flap unfolded or extended;

FIG. 4 is a sectional view of the gown of the present invention and is taken generally along the line 4—4 of FIG. 3; and

FIG. 5 is an enlarged perspective view of a portion of the gown of the present invention, and particularly illustrating the fastening means thereof.

While the invention will be described with certain preferred embodiments, it will be understood that it is not intended to limit the invention to these particular embodiments. On the contrary, it is intended to cover all alternatives, modifications and equivalent arrange-

ments as may be included within the spirit and scope of the invention as expressed in the appended claims.

Turning now to the drawing, there is shown a gown, indicated generally at 10, which may be fabricated of either woven or nonwoven material, although nonwoven material is preferred. As is shown in FIG. 1, the gown 10 has a body portion indicated generally at 12, a pair of sleeves 14 having cuffs 16 and a neck opening 18.

As viewed in FIG. 1, the body portion 12 has a continuous front side 20 which is hidden from view and a back side comprising left and right panels 22 and 24. Attached to the right panel 24 is a flap 26 extending substantially the full length of the gown and which is shown in a folded position in FIG. 1 and an unfolded position in FIG. 2. Although the gown is described as having left and right back panels, it should be understood that the gown may be reversed. For surgical uses, however, the gown is usually worn with a continuous front as described herein.

In keeping with the invention, the flap 26 is adapted to cover a substantial portion of the left panel 24 when it is in a folded position as well as cover a substantial right portion of the adjacent panel 22 when it is unfolded.

To fasten the rear panels 22 and 24 together along a vertical seam, as well as to hold the flap 26 in either its folded or unfolded position, a number of flexible fastening devices are attached to the outer surface of the panels. With the flexible fastening devices are a number of pressure fastening segments attached to the underside of the panel 24 or to the flap 26 in a manner that enables the gown to be closed.

For the fastening components, it is preferred to use cooperative pressure elements of the type in which one component is a female member while the other component is a male member adapted to engage and be retained by the female component. As shown in FIG. 5, the female components or strips are comprised of a backing having a plurality of outwardly extending fiber or filament loops emanating from the backing layer, and the male segment having a backing layer and a plurality of relatively stiff fiber-like outwardly extending male members. The members are adapted to engage and be retained by the loops of the female strips, and yet may be pulled free of the loops. The male members may be elongated rodlike elements having various hooks or beads at their outer ends. While the female component is shown to be the strips and the male component the segments, it should be realized that the converse arrangement could be utilized.

In keeping with the invention, a number of the flexible strips are applied to the back panels 22 and 24, with a strip 28 being applied generally midway of the length and on the outside of the panel 22, a strip 30 applied to the outside of the panel 22 adjacent the neck opening 18, and another strip 32 being applied generally midway of the length and on the outside of the right panel 24 near the edge of the flap 26 when the flap is in a folded position. Cooperating with the flexible strips 28, 30 and 32 are a number of generally rectangular segments 34, 36 and 38 that are associated with either the panel 24 or the flap 26. The segments 34 and 36 are secured to the underside of the flap 24 adjacent its edge, segment 34 being in position to engage the strip 28 and segment 36 being adjacent the neck opening in position to engage the strip 30. Since the strips 28 and

30 are elongated, the segments 34 and 36 may be attached anywhere along the length of the strip to thereby enable infinite adjustability of the size of the neck opening as well as the circumference of the gown near the waist to accommodate wearers of different sizes.

In keeping with an aspect of the present invention, and as is shown in FIGS. 1 and 2, an outer end portion 40 of the flap 26 is inwardly folded and the segment 38 is attached to the end portion 40 at a location that is adjacent the strip 32 to permit fastening of the flap 26 to the panel 24 for holding it in its folded position until unfolding is desired. It will be understood that when the cooperating strip 32 and segment 38 are separated and the flap 26 is unfolded to cover a substantial portion of the panel 22, the unfolding of the end portion 40 presents the segment 38 such that it is capable of cooperating with the strip 28 in a manner enabling the holding of the flap 26 in place as shown in FIG. 3. As shown in FIGS. 1 and 3, the strip 28 has a generally horizontal section extending from the edge of the panel toward the side and then a section extending upwardly at an acute angle.

Thus, it is seen that the segment 38 and end 40 perform the dual function of holding the flap 26 in its folded position and also holding it in its unfolded position when it is on the wearer. It should be realized that a gown may be donned by a physician or nurse and may be initially fastened by a nonsterile person who engages the segments 34, 36 to the strips 28 and 30, respectively, contaminating only the exposed surface of the folded flap 26 and the back panel 22 adjacent the back seam. Thus, it should be seen that a physician may have the panels 22 and 24 fastened together by a nonsterile attendant. Thereafter, a sterile person or a nonsterile person using sterile forceps or the like may separate the segment 38 and strip 28 in the unfolded position. By so doing, the flap then covers any previously contaminated area adjacent the back seam and maintains the entire exposed surface of the back side of the gown sterile. By having pressure cooperating male and female fasteners, the flap may be easily released from either its unfolded or folded position and may thereby be easily moved. The fact that the segments 34 and 36 may be placed anywhere along the length of the strips to suit the individual wearer. Thus, it is seen that an improved adjustable wraparound gown has been shown

and described.

I claim:

- 1. An adjustable wraparound gown, comprising:
 - a body portion having sleeves attached thereto;
 - said body portion having a front and a back comprising two panels;
 - said body portion and two panels also defining a neck opening;
 - one of said back panels further having a flap extending from said one back panel substantially the full length the gown;
 - spaced segments of pressure fastening material located adjacent opposite edges on the inside of the flap in the waist portion of the gown and a neck closing segment of pressure fastening material on the inside of the flap adjacent the neck portion of the gown;
 - a first strip of pressure fastening material located on the outside of the other back panel in the waist portion of the gown for receiving said spaced segments on the flap and releasably fastening said back panels together at the waist with the flap extended and overlapping the other back panel to cover any opening along the vertical back seam defined by the other back panel;
 - a second strip of pressure fastening material located on the outside of said other back panel adjacent the neck opening for receiving said neck closing segment and releasably fastening said back panels together at the neck portion;
 - said first strip of pressure fastening material having a generally horizontal section extending from the edge of the panel toward the side and a second section extending upwardly at an acute angle from the first section; said spaced segments and neck closing segment on the flap cooperating with the first and second strips of fastening material on the panel, respectively, to provide a gown adjustable to fit different size bodies, said segments being fastenable to the strips of fastening material anywhere along their length, said first strip of fastening material having sections located at an angle relative to each other for receiving said spaced segments when the flap is wrapped further around and further overlaps the other back panel to fit a smaller body.

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