Nov. 10, 1964 D. L. DERRICK 3,155,984

FASTENERLESS EXAMINATION GOWN

Filed Dec. 16, 1963 2 Sheets-Sheet 1

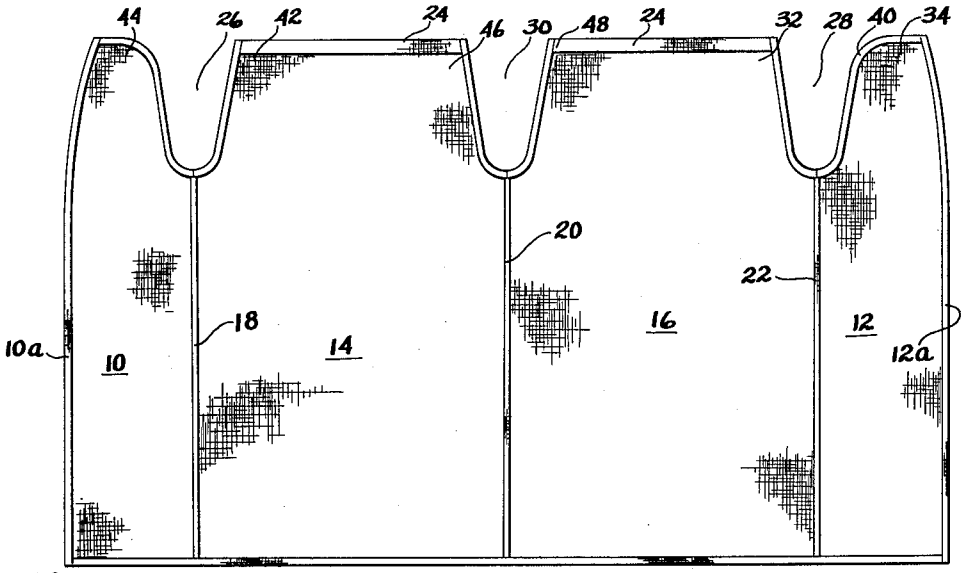


Fig. 1.

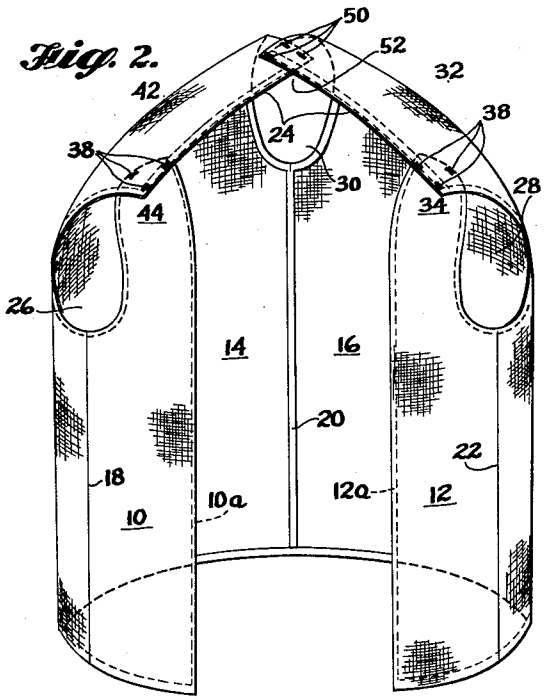


Fig. 2.

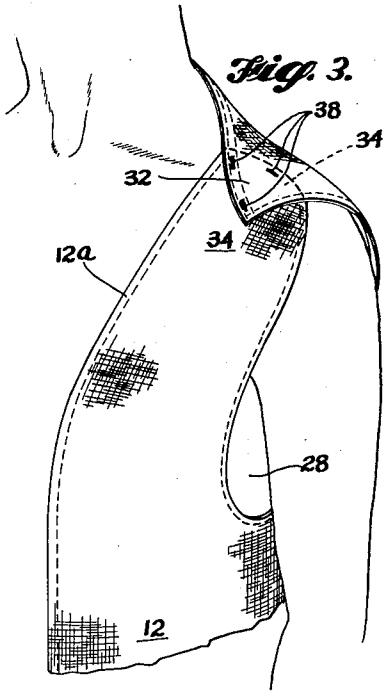


Fig. 3.

INVENTOR.
DONNA L. DERRICK

BY

Reynolds & Christensen

ATTORNEYS

Nov. 10, 1964 D. L. DERRICK 3,155,984

FASTENERLESS EXAMINATION GOWN

Filed Dec. 16, 1963 2 Sheets-Sheet 2

Fig. 4.

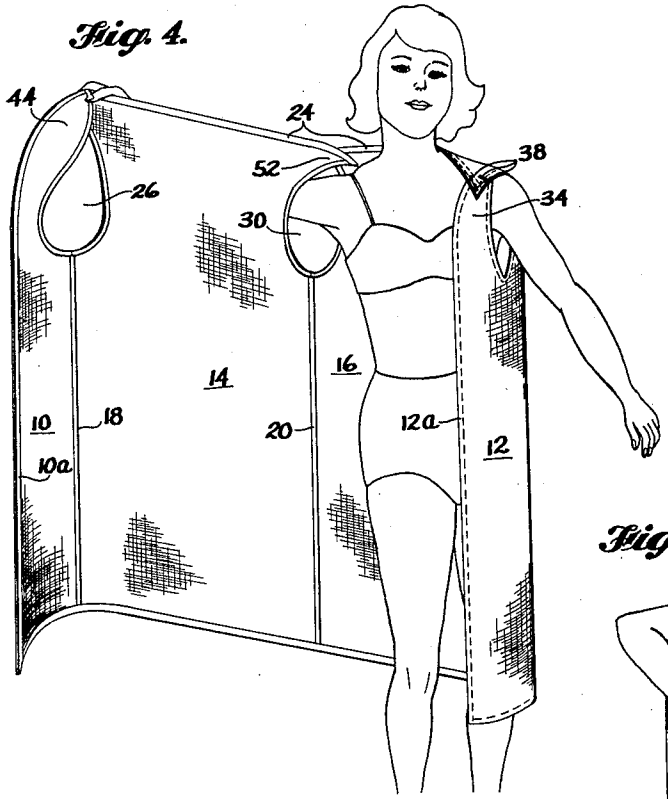


Fig. 6.

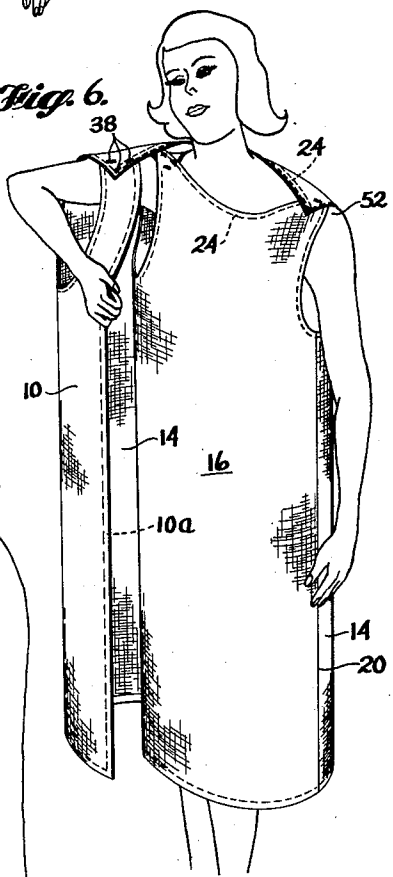
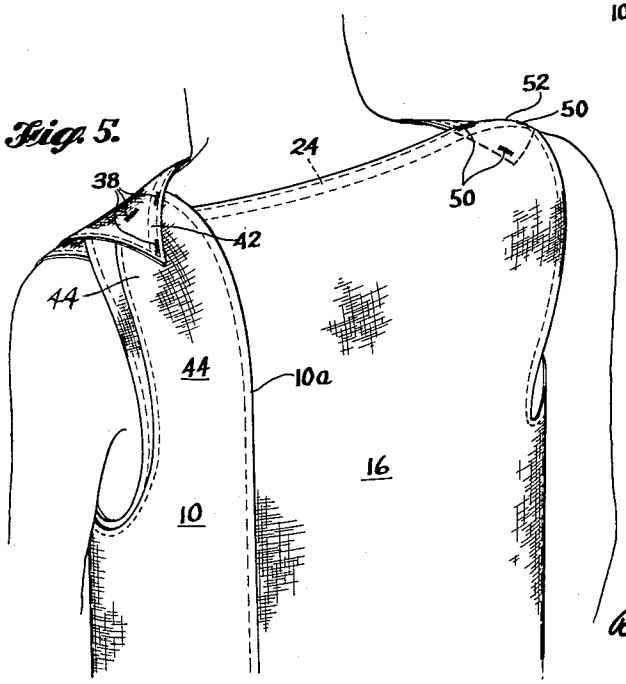


Fig. 5.



INVENTOR.
DONNA L. DERRICK

BY
Reynolds & Christensen
ATTORNEYS

United States Patent Office 3,155,984 Patented Nov. 10, 1964

3,155,984

FASTENERLESS EXAMINATION GOWN

Donna L. Derrick, P.O. Box 131, Mukilteo, Wash.

Filed Dec. 16, 1963, Ser. No. 330,779
6 Claims. (Cl. 2—114)

This invention relates to an improved examination gown such as may be used in conducting X-ray examinations, and more particularly concerns a novel wrap-around gown of this type requiring no buttons, snaps, ties, or other fasteners which could interfere with a clear X-ray photograph or which are difficult to manipulate. The invention is herein illustratively described by reference to the presently preferred embodiment thereof; however, it will be recognized that certain modifications and changes therein with respect to details may be made without departing from the essential features involved.

This application is a continuation-in-part of Serial No. 173,461 filed February 15, 1962, now abandoned, entitled Examination Gown.

Examination gowns of the types used heretofore have been those which open in the back, with edges of complemental back sections being provided with tie strings and the like to effect closure of the back of the gown and secure the gown to the wearer. A gown of this type has the disadvantage of the wearer's body being exposed with a slight stress being placed on the garment, as by stooping bending or by positioning of the patient upon an examination table. Frequently the tie strings become knotted causing difficulties in the removal of the garment and occasionally the strings must be cut or otherwise damaged in removing the garment. In some cases persons not understanding the use of these garments put them on backwards. In any case a modest wearer is not comfortably attired in a gown of the former type.

It is an object of this invention, therefore, to provide an improved examination gown which avoids one or more of the disadvantages of the prior art types as mentioned above, and which is relatively inexpensive to manufacture and simple to use.

A further object hereof is to provide an improved examination gown which is easily and quickly donned and doffed by the wearer and which avoids unintentional exposure of the wearer's body.

Still another object of the invention is to provide an improved examination gown which does not require fastening devices, but which is self-retaining as a result of the novel manner in which portions of the gown engage the wearer's body.

A further object of the invention is to provide a gown of such construction as will be reasonably presentable in appearance and which is so formed that one gown will "fit," both for purposes of appearance and functional utility, patients of widely different sizes and shapes.

In this same regard the novel gown is so constituted that it feels secure as well as, in fact, being secure on the patient without necessity for use of fastener elements or the like. If desired, supplemental fasteners may be used, but it is found that they are unnecessary and that their use is in fact undesirable because of the confusion which any fastening device on an unfamiliar piece of wearing apparel may cause in the minds of patients, particularly persons under emotional stress due to age or illness.

In accordance with this invention the improved and unique X-ray examination gown or the like features a wrap-around sheet of material, preferably of generally rectangular configuration of a width vertically to serve as a gown and of a transverse length exceeding the girth of the wearer's torso, with the sheet of material having upper corner portions formed with armholes and reentrant shoulder-receiving pockets adjoining or surrounding such armholes, much in the manner of a sleeveless jacket or vest, and being provided with a third armhole, approximately in alignment with the corner armholes, located substantially midway between the corner armholes. Such a gown is donned by inserting one arm through the armhole at one corner of the gown so as to insert the shoulder into the surrounding shoulder-receiving pocket, then wrapping the gown half-way around the body in order inserting the other arm through the intermediate armhole, and then completing the wrap of the gown around the body in order to insert the first arm through the remaining corner armhole and insert the shoulder into the associated corner-receiving pocket, so as to suspend the outer and marginal portion or flap of material in overlapping relation to the main body of the sheet. Such a gown may be donned in this manner satisfactorily in either of two ways, namely by starting with the sheet placed in front of the wearer or by starting with the sheet placed behind the wearer, with substantially equivalent results in both cases. Preferably a somewhat greater feeling of security and presentability is achieved when the gown is donned in the former manner because the marginal portion of the final wrap is then on the front side of the wearer's body where its position may be readily noted by the wearer at all times and where, if desired, it may be comfortably held by arm pressure or by holding the margin in one hand. Holding is not necessary, however, because the downwardly reacting pressure exerted on the ridge of the wearer's shoulder adjacent the base of the neck as a result of the suspended weight of the overlapping marginal end portion of the gown tends to hold the gown in position frictionally against dislodgment in normal conditions of use.

These and other features, objects and advantages of the invention will become more fully evident from the following description thereof by reference to the accompanying drawings.

FIGURE 1 is a face view of a generally rectangular sheet of material, such as cotton fabric or the like, with certain cuts and marginal hems as formed therein at an intermediate stage of manufacture.

FIGURE 2 is a perspective view of the completed gown positioned as if ready for donning by a wearer.

FIGURE 3 is a perspective view with one corner of the gown in place on a wearer's shoulder as the first step in donning the gown.

FIGURE 4 shows the second step of the donning procedure.

FIGURE 5 is a perspective view showing the gown being worn after being donned in the manner illustrated by the steps of FIGURES 3 and 4.

FIGURE 6 shows the gown being donned in the preferred manner, which is the reverse of that shown in FIGURES 3, 4 and 5, so that the overlapping outer margin is positioned in front.

While it is readily possible, of course, to form the wrap-around sheet gown from a single piece of material, it is preferred for reasons of economy in manufacture to produce it from four separate pieces of material joined together in the manner depicted in FIGURE 1. These separate pieces comprise the opposite end panels **10** and **12** and the front and back panels **14** and **16**, each initially of generally rectangular form and suitably seamed together to form a generally rectangular sheet. Thus, the panel **10** is joined to the panel **14** along a vertical seam or hem **18**, the panel **14** is joined to the panel **16** along a vertical seam or hem **20** and the panel **16** is joined to the panel **12** along a vertical seam or hem **22**. For the sake of durability and appearance the top, bottom and end margins are hemmed.

In the illustrated case armholes in the gown are formed by notching the sheet downwardly from the top margin **24** at the two corn locations **26** and **28** and at an intermediate

location 30 approximately midway between the corners. These notches, usually formed by cutting the panels before their assembly into a unitary sheet, are of sufficient depth and width that joining of the corners of material at the entrances of the notches in the manner later described herein will form armholes of adequate size for the largest person to wear the gown. In the illustration the lines of seams 18, 20 and 22 substantially bisect the notches at 26, 30 and 28 respectively, such that panels 14 and 16 may be identical, hence cut with the same pattern, and panels 10 and 12 may be identical for a similar reason. Lines 18, 20 and 22 serve as lines along which the sheet is folded in closing the tops of the respective armholes and forming the associated shoulder-receiving pockets so as to impart a fitted jacket or vest-like configuration to the shoulder portions of the gown as will now be described.

In order to form an armhole and shoulder-receiving pocket starting, for example, with the corner portion of the sheet in which the notch at 28 is formed, the marginal portion 12 is folded back upon the panel 16 at the seam or fold line 22 and the corner 32 adjacent the inside edge of the notch 28 is brought into overlapping or underlapping relationship to the upper edge 34 of the panel 12 and there stitched in place, such as indicated in FIGURES 2 and 3 by the three spot stitchings 38. The corner 40, adjacent the outside edge of the notch entrance at 28 is preferably rounded convexly in the manner depicted so that, although free, there will be less tendency for it to become folded over or under when the gown is being donned. This forms a reentrant shoulder-receiving pocket or cavity to accommodate the wearer's shoulder in an approximate fit and to drape the material over the ridge of the shoulder in the manner of a sleeveless jacket or vest so as to cause the material to assume a natural position closely encircling the body.

In FIGURE 5 it will be evident that the shoulder-forming pocket and armhole last to be positioned on the wearer is formed in the same manner as that first in position as shown in FIGURE 3, namely by stitching the corner of material 42 adjacent the inner side of the notch at 26 to the upper end 44 of the panel 10 in the overlapping or underlapping relationship previously described. Again, the fitted effect of the shoulder-receiving pocket thus formed assures that the outer marginal portion of material 10, including the marginal edge portion thereof, 10A, will lie in close overlapping frictional contact with the underlying material over a maximum area by being suspended directly from the wearer's shoulder on the back side of the wearer's body commencing at a location adjacent the base of the neck and extending outwardly therefrom toward the tip of the shoulder. Pressure acting downwardly on the shoulder over a major portion of its width by the weight of the suspended material in the portion 10 creates a frictional retaining force which helps prevent the gown from slipping off the shoulder inadvertently.

A shoulder-receiving pocket is preferably formed in association with the intermediate armhole also. This is done by bringing the two corners of material, 46 and 48, into overlapping relationship on a bias as depicted in FIGURE 2 and forming spot stitches therein at 50. By thus angling these overlapping corners a reentrant open corner 52 preferably slightly less than a right angle is formed between the oppositely extending stretches of the upper margin 24. This divergence permits the marginal portions at the neck of the gown to extend comfortably past the front and back of the wearer's neck with minimum bulging of material.

A gown thus simply formed in the described manner may be made at low cost, yet achieves a presentable appearance and a self-retaining characteristic obviating any necessity for separate fasteners such as tie strings or other elements. This advantage immediately overcomes any question of the type of fasteners which might be required in X-ray examination gowns to achieve transparency to X-rays as well as the problem of manipulation of fastener elements. Furthermore, the gown, by enwrapping the patient's body approximately one and one-half times, assures the modest person of presentable attire.

As depicted in FIGURES 3, 4 and 5 the gown may be applied by inserting arms and shoulders in the manner of donning a conventional sweater, jacket or vest and by completing the final wrap and inserting the arm and shoulder last to be engaged with the final marginal portion extending around the back side of the latter shoulder, as depicted in FIGURE 5. However, it is preferred in practice to follow a reverse procedure in which, as shown in FIGURE 6, the final wrap brings the final marginal portion into position extending across the front side of the wearer for reasons previously mentioned. In either case, however, the gown will remain in position securely against the tendency for it to become dislodged under normal conditions of use due to the self-retaining action illustrated and described. In the mode of wearing the gown as shown in FIGURE 6, the patient has the added feeling of assurance and comfort which obviously comes from the fact that she or he may observe the position of the overlapping outer marginal portion and, in fact, may also grasp it in the hand or press it to the side of the body with the inner forearm or elbow if desired. This may be done particularly when the person is walking rapidly or shifting between extreme positions which tend to disarray the gown to some extent.

These and other aspects of the invention will be recognized from the foregoing description and accompanying illustration of the presently preferred embodiment thereof.

I claim as my invention:

1. A substantially fasternerless wrap-around X-ray examination gown comprising a generally rectangular sheet of a width vertically to serve as a gown and of a transverse length exceeding the girth of the wearer's torso, said sheet having upper corner portions formed as the shoulder portions of a jacket, each such shoulder portion comprising a reentrant shoulder-receiving pocket provided with an armhole, and said sheet having a third armhole formed therein approximately midway between the corner armholes.

2. A substantially fastenerless wrap-around X-ray examination gown comprising a generally rectangular sheet of a width vertically to serve as a gown and of a transverse length exceeding the girth of the wearer's torso, said sheet having upper corner portions formed as the shoulder portions of a jacket, each such shoulder portion comprising a reentrant shoulder-receiving pocket provided with an armhole, and said sheet having a third reentrant shoulder-receiving pocket provided with an armhole, approximately midway between the corner armholes.

3. A substantially fastenerless wrap-around X-ray examination gown comprising a generally rectangular sheet of a width vertically to serve for a gown and of a transverse length exceeding the girth of the wearer's torso, said sheet having two armholes and associated reentrant shoulder-receiving pockets formed in opposite upper corners of the sheet, each by a downwardly extending notch formed in the upper margin of the sheet at a location separated from the adjacent end of the sheet by an end margin, with the upper corners of such end margin secured to the upper margin with the end margin back folded over the sheet substantially on a vertical line passing through the base of the notch, said sheet further having a third armhole formed therein approximately midway between the upper corners thereof.

4. A substantially fastenerless wrap-around X-ray examination gown comprising a generally rectangular sheet of a width vertically to serve for a gown and of a transverse length exceeding the girth of the wearer's torso, said sheet having two armholes and associated reentrant shoulder-receiving pockets formed in opposite corners of the sheet, each by a downwardly extending notch formed in the upper margin of the sheet at a location separated

from the adjacent end of the sheet by an end margin, with the upper corners of such end margin secured to the upper margin with the end margin back folded over the sheet substantially on a vertical line passing through the base of the notch, said sheet further having a third armhole and associated reentrant shoulder-receiving pocket formed therein approximately midway between the upper corners thereof by notching of the upper margin of the sheet downwardly and by securement of the upper corners at such notch to each other in overlapped relationship with the sheet folded upon itself substantially on a vertical line passing through the base of the notch.

5. A substantially fastenerless wrap-around X-ray examination gown comprising a generally rectanglar sheet of a width vertically to serve as a gown and of a transverse length exceeding the girth of the wearer's torso, said sheet having upper corner portions with armholes formed in each, and having a third armhole formed therein approximately midway between the corner armholes, said sheet at one end being folded back upon itself over a fraction of its length at the location of the adjacent armhole to form a vertically extending overlapping marginal portion, said sheet having an upper margin to which substantially the upper corner of said marginal portion is joined to form a reentrant shoulder-receiving pocket adjoining said adjacent armhole, said marginal portion having a width approximating at least a major portion of the length of the ridge of the wearer's shoulder, thereby to permit suspending the weight of said marginal portion directly from the wearer's shoulder along a zone of pressure thereon extending from a location adjacent the base of the neck outwardly along the ridge of the shoulder.

6. A substantially fastenerless wrap-around X-ray examination gown comprising a generally rectangular sheet of a width vertically to serve as a gown and of a transverse length exceeding the girth of the wearer's torso, said sheet having upper corner portions with armholes formed in each, and having a third armhole formed therein approximately midway between the corner armholes, said sheet at both ends being folded back upon itself over a fraction of its length at the location of the adjacent armholes to form vertically extending marginal portions, said sheet having an upper margin to which substantially the upper corners of said marginal portions are joined to form reentrant shoulder-receiving pockets adjoining the respectively adjacent armholes, said marginal portions each having a width approximating at least a major portion of the lengths of the ridges of the wearer's shoulders, thereby to permit suspending the weight of said marginal portions directly from the wearer's shoulders along zones of pressure thereon extending from locations adjacent the base of the neck outwardly along the ridges of the shoulders.

References Cited by the Examiner

UNITED STATES PATENTS

2,299,232	10/42	Heyser	2—49
2,425,502	8/47	Sieloff	2—75
2,494,664	1/50	Lublow	2—2 X
2,807,022	9/57	Bonanni	2—114
2,818,573	1/58	O'Donnell	2—114

FOREIGN PATENTS

382,129	11/07	France.

JORDAN FRANKLIN, *Primary Examiner.*