Abstract: The application is directed to self-securing garments designed to be donned quickly and safely secured to the body in a matter of seconds. Described are garments having an opening in the back terminating at two opposite edges. Attached to the outside of the garment is at least one flexible elongated band at least partially comprised of a shape-memory material. A yoke attached to the garment allows at least one elongated band to be placed around the neck of the wearer without risk of contamination. The ends of the band are formed into dual, oppositely wound coils. To use, the wearer puts on the garment as usual and, grasping a flexible coil in each hand, pulls them so that they unwind and elongate while simultaneously wrapping them around the sides of the body. Upon release, the shape-memory material causes the coil to contract, thus embracing the body and holding the garment between the body and the uncoiled band. The garment can have one or more coiled bands, such as at the waist, chest, or neck, to secure the garment closely to the body quickly and without assistance.
SELF-SECURING GARMENT WITH A YOKE

CROSS-REFERENCE TO RELATED APPLICATION

The present application claims the benefit of U.S. Application Serial No. 12/486,991 filed June 18, 2009, and U.S. Application Serial No. 12/21 1,550, filed September 16, 2008, both of which are hereby incorporated by reference herein in their entirety, including any figures, tables, or drawings.

BACKGROUND OF INVENTION

The use of medical gowns, sterile coverings, and other types of barrier devices in medical or clinical settings is a familiar sight in hospitals, clinics, and doctor's offices. The function of such clothing is to prevent the transmission of fluids, microorganisms, chemicals, and other products from patients to medical personnel, and vice versa. For the purpose of maintaining sterility, such garments are usually preferred to have a continuous front portion with the closures appearing somewhere on the back of the garment, commonly at the neck and about the waist.

The traditional means for closing such garments is with ties that are usually fastened at the back of garment. Some medical garments have ties that are sufficiently long enough to be wound around the body and fastened or tied at the front. Other closure means used with disposable surgical gowns include buttons, hooks, tape, hook and loop belts, etc. However, these and other common closure methods take time, physical effort, and/or physical dexterity by the wearer to secure. In some instances, assistance is required in closing the back of the gown because the wearer cannot reach the closure or to do so would contaminate sterile hands. Under extreme medical emergencies, medical personal have been known to simply insert their arms into the gown and pull it up over the shoulders to save time. However, the gown is not secured and often falls down hindering movement and sight of the patient, or worse, exposing the wearer or patient to contamination.

There have been attempts to provide self-closing garments. For example, U.S. Patent No. 2,675,551 discloses an elastic plastic hoop that encircles the waist and supports a garment. The hoop is designed to be an oval form with slightly overlapping ends. The hoop embraces the body and the material, with time and the effect of body heat, will relax sufficiently to conform to the shape of the wearer. Thus, the hoop is designed for long-term
wear and has an initial diameter of between about 17 and 29 inches and will expand to about 24 to 33 inches.

U.S. Published Application No. 2005/0044608 describes a self-donning medical gown that utilizes one or two curved closure members of a rigid or semi-rigid material. The closure members are operably affixed to and extend laterally across the entire gown body. Pressing or manipulating the closure members at the front of the gown causes the ends of the closure members in the back of the gown to be pushed together forcing the opening in the back of the gown to close. Various types of capturing techniques can be used to keep the gown closed once the edges are in contact.

While these devices fulfill their respective objectives, their bulky or elongated configurations can make them difficult to package or store. Some still require a considerable amount of time to secure or only cover a portion of the wearer.

The need for a full-length disposable medical gown that can be quickly donned and secured with or without assistance is evident. A greater need exists for a disposable medical gown with compact, self-closing structures that can be easily packaged and stored. What is especially required is a garment with self-closing structures that can be quickly and safely placed around the body, particularly around the neck.

BRIEF SUMMARY

It is generally known that disposable medical gowns, sheaths, surgical gowns, and other such garments are used to reduce or prevent transmission of biological contaminants or other substances to and from a wearer. To ensure sterility, most designs for such garments have closures in the back. As a result, securing such garments requires time and/or assistance to close the back of the gown. Under dire circumstances, medical personnel may not have the luxury of time to secure the back of the garment or an extra person to assist. Often, they simply pull it up over their shoulders, overlap the back flaps, and get to work. But, eventually, the unsecured gown falls down, where it gets in the way of work or can block the person's view of the patient as they are bending over.

In accordance with an embodiment of the subject invention, the problem of a medical garment that is time-consuming and/or difficult to put on is solved by a self-securing garment designed to be donned quickly and safely secured in a matter of seconds. The subject application describes a garment with a back-opening gown body terminating at two opposite opening edges at the back of the garment. Attached to the outside of the garment is at least
one elongated band of shape-memory material having ends that are formed into flexible coils. To secure the gown around a person, the elongated band can be grasped at or near a central point and the hands moved in opposite directions, usually simultaneously, to unwind the coiled ends around the body. Upon release, the shape-memory material causes the coil to contract, thus embracing the body and holding the garment between the body and the uncoiled band. A garment can have one or more coiled bands at various locations, such as at the waist, chest, or neck, to secure the garment to the body quickly and without assistance, if necessary. To protect the sterility of the hands when securing the garment, a covering can be attached to the garment that can be used to protect the hands while they secure the bands around the body.

Advantageously, the features of the self-securing garment of the subject invention allow anyone to quickly and easily secure the garment, either to themselves or to someone else. Thus, while the embodiments of the self-securing garment disclosed herein are particularly amendable to being used without assistance, they are also well-suited for use in standard operating environments where assistance is usually available.

**BRIEF DESCRIPTION OF DRAWINGS**

In order that a more precise understanding of the above recited invention be obtained, a more particular description of the invention briefly described above will be rendered by reference to specific embodiments thereof that are illustrated in the appended drawings. Understanding that these drawings depict only typical embodiments of the invention and are not therefore to be considered as limiting in scope, the invention will be described and explained with additional specificity and detail through the use of the accompanying drawings in which:

**Figure 1** is an illustration of one embodiment of a flexible band of the subject invention.

**Figure 2** shows a procedure for using a flexible band of the subject invention.

**Figure 3A** is an illustration of a gown having flexible bands of the subject invention attached for use at the waist and at the neck.

**Figure 3B** is an illustration of a gown having an alternative embodiment of a neck band having a larger single coil.
Figure 4A illustrates one embodiment of a garment having a flexible band at the
waist being contained within a sleeve and a neck band being restrained against the garment
with a tabbed card.

Figure 4B illustrates an enlarged view of the neck band shown in Figure 4A.

Figures 5A, 5B and 5C illustrate an embodiment of a garment having a flexible neck
band under a yoke (shown with cross-hatch) that surrounds around the neck of the garment. The neck band can be uncoiled with the hands under the yoke to prevent direct contact with the neck of the wearer. Figures 5B and 5C illustrate alternative embodiments of the back of the yoke.

Figures 6A and 6B illustrate how the uncoiled neck band is positioned under the yoke
(shown with cross-hatch).

Figure 7A shows a front view of an embodiment of a garment utilizing a collar stay. This figures shows how the collar stay can be positioned by using a hand under the yoke to manipulate the collar stay around the back of the garment. It can also be seen that the portion of the collar stay at the front of the garment is between the garment and the yolk.

Figure 7B shows a rear view of the embodiment in Figure 7A. It can be seen that, as the collar stay extends around the back of the garment, it protrudes from under the yoke and can be manipulated so as to overlap the collar tab on the other side of the garment. Also seen is the rear garment tie attached to the tie tab to bring the end of the tie to the front of the garment as the collar stay is positioned.

Figure 8A shows a front view of the embodiment in Figure 7A with the collar stay in position around the back of the garment and attached to the outside of the front yoke. The tie tab can be removed from the collar stay to bring the garment tie down to the waist of the garment.

Figure 8B shows a rear view of the embodiment in Figure 8A. It can be seen that as the collar stay goes around the back of the garment, it raises the collar upwards as it overlaps the collar tab under the yoke on the opposite side of the collar. As the collar is raised upwards, the two back edges at the garment rear overlap and are secured close when the garment is tied.

DETAILED DISCLOSURE

The subject invention in general describes embodiments of self-securing garments. More specifically, the subject invention pertains to embodiment(s) of medical gowns, or other
garments, capable of being donned and secured around the body quickly and easily with little or no assistance.

The following description will disclose that the subject invention is particularly useful in the field of protective garments and, in particular, garments worn by medical personnel during emergency situations where time and safety can be critical. However, a person with skill in the art will be able to recognize numerous other uses that would be applicable to the devices and methods of the subject invention. While the subject application specifically describes medical or surgical gowns, other types of applicable apparel will be apparent to a person with skill in the art having benefit of the subject disclosure and are contemplated to be within the scope of the present invention.

The terms "surgeon", "physician" or "medical personnel" as used in the subject invention are merely for literary convenience. The terms should not be construed as limiting in any way. The devices, apparatuses, methods, techniques and/or procedures of the subject invention could be utilized with any field of endeavor by any person desiring or needing to do so and having the necessary skill and understanding of the invention.

In addition, references to "first", "second", and the like (e.g., first and second coiled end), as used herein, and unless otherwise specifically stated, are intended to identify a particular feature of which there are at least two. However, these references are not intended to confer any order in time, structural orientation, or sidedness (e.g., left or right) with respect to a particular feature.

It should also be understood that the term "garment" or "gown" as used in the subject application are merely for literary convenience. The terms should not be construed as limiting in any way. While useful with wearable garments having back-openings, the self-securing device of the subject invention could be used with any of a variety of front-, side-, or back-opening garment styles. This can include such wearable garments as gowns, shirts, dresses, aprons, bibs, vests, pants, chaps, and other leg clothing, and the like, including any combinations or variations thereof. The garments can be formed from a single and/or continuous sheet of material or from a plurality of sheets of material joined or connected together.

The present invention is more particularly described in the following examples that are intended to be illustrative only since numerous modifications and variations therein will be apparent to those skilled in the art. As used in the specification and in the claims, the
singular for "a," "an" and "the" include plural referents unless the context clearly dictates otherwise.

With reference to the attached figures, which show certain embodiments of the subject invention, it can be seen that an embodiment of the subject invention comprises a gown 10 with at least one self-securing device capable of securing the gown to a person. More particularly, the subject application describes a gown having one or more flexible bands 50 capable of extending at least partially around an area of the body and holding the gown against a wearer.

A flexible band of the subject application can comprise any of a variety of materials having at least some shape-memory characteristics, such as, for example, numerous types of plastics, metals, wood or paper products, rubbers, ceramics, woven or non-woven fabrics, or combinations thereof. In one embodiment, the band is made of a material that is light, flexible, and disposable. In a further embodiment, the material has sufficient flexibility to allow the shape of the band to be altered and returned to the same or almost the same initial configuration. Preferably, the material utilized for a band of the subject invention is capable of being disposed of and/or processed in the same manner as a discarded gown. It can also be advantageous for the band to be lightweight and easily unwound, but with sufficient tensile strength and shape memory to secure it around a wearer. In a further embodiment, a band of the subject invention can be brightly colored, fluorescent, and/or reflective, so that it is easy to see at all times.

In one embodiment, the band 50 is an elongated at least partially flattened strip of flexible material having an outer side 51 and an inner side 52, a first end 53 and a second end 54 with a defined length there between. In an alternative embodiment, the band 50 is a length of flexible rod- or wire-like material having a substantially circular cross-section. In a further embodiment, the ends of the band are coiled, such as shown, for example, in Figure 1. In this embodiment, the first end 53 and the second end 54 form oppositely wound substantially flat spiral coils on the inner side 52 of the band, facing each other, such that they are generally mirror-images, for example, as shown in Figures 1 and 2. In an alternative embodiment, the first end 53 and second end 54 form oppositely wound substantially flat spiral coils on opposite sides of the band, such that the first end 53 is coiled towards the outer side 51 of the band and the second end 54 is coiled towards the inner side 52.

It is expected that the bands utilized with embodiments of the subject invention can be of any size or number, depending upon the overall length of the elongated band, as well as
other factors known to those with skill in the art. For example, the coils can be multiple and tightly wound or there may be fewer coils that are more loosely wound. Thus, the configuration of the coils can vary and any and all such variations are considered to be within the scope of the subject invention, to the extent they are not inconsistent with the explicit teachings of this specification.

Because the band can come into contact with the wearer, it can be helpful and more comfortable for the wearer if the first end 53 and second end 54 do not have sharp or pointed edges. In one embodiment, the first end 53 and second end 54 are sufficiently blunted at their terminal ends 56, so as to present a smooth, regular feel and appearance. In one embodiment, the terminal ends 56 are curved or bent backwards, such as in the form of an end loop, so that they are less likely to come into direct contact with the wearer, an example of which is shown in Figures 3 and 6B. In an alternative embodiment, the first end 53 and second end 54 are blunted by covering with any of a variety materials that protect the wearer from the terminal ends, such as, for example, nylon, plastic, foam, cotton, fabric, rubber, or other non-irritating material, or combinations thereof. A person with skill in the art would be able to determine any of a variety of techniques and methods for blunting or smoothing the terminal ends of the coils. Such variations are contemplated to be within the scope of the subject invention.

At least one self-securing band can be affixed at an area between the coiled ends to the outside of the gown, usually at or near the front of the gown. The area between the coiled ends can be straight or curved, but is generally the approximately central point 55 from which the two coiled ends extend. In a specific embodiment, the approximately central point between the coiled ends is at about the longitudinal center of the band and is the point at which the band can be attached to the outside front of the gown. In alternative embodiments, the band can be offset to one or the other side of the gown. To secure the gown around a person, the band can be grasped at or near either side of the approximately central point 55 of the band (step 1, Figure 2) and the hands moved in opposite directions, usually simultaneously, causing the coil ends to unwind (step 2, Figure 2). When sufficiently unwound, the first end 53 and the second end 54 can be moved towards the back of the body and released (step 3, Figure 2). The shape-memory material of the flexible band 50 will cause them to try to resume their original coiled configuration, forcing them to press against the body with the gown held there between.

In a further embodiment, a band 50 of the subject invention has a covering of a material, coating, or substance. In a further embodiment, the covering aids in the placement
and holding of the band around the wearer. In a still further embodiment, the material is a
highly visibly discernable color. In a particular embodiment, the covering is a sleeve of
material. Still more particularly, the material can be similar or identical to that of the
garment.

To secure a band to a garment, any of a variety of techniques can be utilized with the
subject invention. Preferably, the attachment method permits the coiled ends to lie against
the gown when not in use, for example, as shown in step 1 of Figure 2. In one embodiment, a
waist loop 57, similar to a belt loop, is affixed to the gown to secure all or some portion of the
approximately central point 55 of the band 50 to the gown. In a further embodiment, the
waist loop 57 can be elongated and used to affix the approximately central point 55 of the
band 50 to the gown, as shown, for example, in Figure 2. Use of an elongated waist loop 57
allows the position of the band to be adjusted to the waist of the wearer without having to
move the gown up or down. This can reduce or eliminate bunching and gathering of the gown
material above the waist for some individuals or stretching and pulling of the gown for
others.

Alternative embodiments can employ stitching, one or more adhesives or similar
material, hook and loop tape, snaps, ties, various types of hemming, sleeving, or casing, or
combinations thereof for retaining the approximately central point of the band. A person
with skill in the art would be able to determine any of a variety of techniques and devices for
attaching a flexible band of the subject invention to a gown. Such variations are
contemplated to be within the scope of the subject application.

In yet a further embodiment, a band 50 of the subject application can use a material
for a portion of the approximately central point 55 that is different than that of the coiled
ends. This different material at the approximately central point 55 of the band can be one that
is capable of being fixedly attached directly to the garment, such as by heat-sealing, cold-
sealing and/or crimp-sealing to a gown. In a further embodiment, any of a variety of high-
pressure indentation or embossing techniques could be used, as known to those with skill in
the art. In this embodiment, all or some portion of the approximately central point material
can be attached to the gown by applying high pressure to form indentations or embossing that
join or intertwine the fibers and/or materials of a gown and band. In a further embodiment,
such high-pressure embossing or indentation techniques can be used in conjunction with an
adhesive. A person with skill in the art and benefit of the subject disclosure would be able to
determine any of various methods and devices that could be used to cold-seal, crimp-seal, or
pressure-seal material to a gown of the subject invention, and such variations are contemplated to be within the scope of the subject invention.

As mentioned above, a gown of the subject invention can have one band positioned on the outside at or near the waist area. In a further embodiment, a gown of the subject invention can make use of more than one flexible band or bands in different locations to secure it to a person. In one embodiment, a self-securing band can be positioned on the front of the gown at or near the neck for securing the upper part of the gown around a person’s neck. A self-securing neck band 70 and a flexible band 50 can be the same or have different dimensions or materials to accommodate different locations and uses. In one embodiment, an example of which is shown in Figure 3A, the neck band is configured similarly to a waist band, but the overall dimensions of the neck band 70 are smaller than a band 50 that spans the waist. In this embodiment, the length of a neck band can be shorter than that of a flexible band 50 that goes around the waist. In an alternative embodiment, the neck band comprises fewer and larger coils, wherein the ends overlap, such as shown, for example, in Figure 3B. In a specific alternative embodiment, the neck band has only a single coil with overlapping ends, of sufficient length to secure around the neck. In a further embodiment, the width of a neck band 70 can also be narrower for a more comfortable fit around the neck.

A neck band 70 can be affixed to the gown at or near the neck in the same or similar fashion as described above for a flexible band 50, and utilized in the same fashion. That is, some portion of the approximately central point 75 of the neck band can be affixed to the gown. Figure 3 illustrates an example of how to use the neck band 70, where the first coiled end 71 and the second coiled end 72 are unwound and placed around the neck. The shape-memory material of the neck band 70 causes the band to try to resume the original coiled configuration, which results in the band encircling the neck. The attachment of the neck band to the gown can allow the gown to be pulled upwards and held against the body when the neck band 70 is placed around a person’s neck. As discussed above, the terminal ends 56 of the neck band can be blunted to present a smooth, regular feel and appearance and for easy placement.

In many situations, a physician or surgeon must move quickly to assist patients. It can be seen that a gown of the subject invention can be donned and secured in a matter of seconds. Therefore, it is important that when moving quickly, and donning a gown of the subject invention, medical personnel do not injure themselves or others while unwinding a
flexible band near the neck or face. It such situations, it can be helpful to have a neck band 70 of the subject invention located a sufficient distance from the face. This can ensure that it is firmly grasped and unwound prior to coming near the face and being placed around the neck.

In one embodiment, a neck band 70 can be affixed to the gown utilizing a lanyard or other elongated device that locates the neck band 70 away from the face before placing around the neck. In another embodiment, a neck band 70 can be attached to a gown utilizing an elongated neck loop 76, illustrated in a non-limiting example in Figure 3. In this embodiment, the neck band is located at the bottom end 77 of the neck loop 76 when not in use (step 1, Figure 3). When the neck band is to be used to secure the gown, it can be unwound a safe distance from the face (step 2, Figure 3). Once unwound, it can be moved to the top end 78 of the neck loop and the uncoiled ends placed around the neck (step 3, Figure 3).

In a further embodiment, one or more collar tabs 79 can be attached to the garment at, or around, the neck area or collar 73 of a garment 10. The collar tabs 79 are, in general, stiff appendages, of any suitable material, that extend away from the neck or collar and lay against the garment, as shown, for example, in Figures 3 and 4A. In an alternative embodiment, they can extend away from the collar or neck area, but not necessarily lay against the garment. A collar tab can extend between approximately 0.5 inch and 3 inches in length extending from the attachment point. In a particular embodiment, a collar tab is approximately 1 inch in length extending from the attachment point.

The collar tabs 79 can be utilized to hold one, more specifically, both of the unwound coiled ends of the neck band. In one embodiment, the unwound coiled ends 71 and 72 are placed under the collar tabs 79, so that the neck band 70 is between the collar tab 79 and the garment 10, such as shown, for example in Figure 3. In this embodiment, as the coiled ends 71 and 72 wrap around the neck of the wearer, they cause the neck area or collar 73 of the garment to be held around the neck of the wearer, and reduce or prevent sagging of the collar away from the body. In a specific embodiment, the garment includes two collar tabs, each located on one side of the attachment means for the neck band and generally in the front of the garment. In a further embodiment, the garment includes more than two collar tabs positioned around the neck area or collar of the garment, including on the back of the garment, as shown (in dotted lines) in Figure 3. In a specific embodiment, a collar tab is positioned at or around the neck area or collar at or near each opposite open edge 201 and
202 at the back of the garment, an example of which is shown in Figure 3. In this embodiment, when the neck band is fully uncoiled and positioned under the collar tabs, the coiled ends under the collar tabs at the back of the garment can assist with holding the back of the garment closed.

Surgical gowns are a special concern because the requirements for maintaining sterility after donning are very stringent. For example, it is verboten for a surgeon to reach behind the back with sterile hands after putting on a surgical gown. The reason is that the back of the gown may still be open or not fully closed, offering an opportunity for the hands to become contaminated. A similar issue can arise when securing a neck band of the subject invention around the neck of the surgeon. Coming into contact with the skin or face as the neck band is positioned can also contaminate the hands.

To reduce or eliminate the possibility of contamination, one embodiment of the subject invention utilizes a yoke 100 over a garment 10 under which the hands, when inserted, can be protected as a neck band, described above, is uncoiled and positioned around the neck. A yoke is, in general, a covering or drape that can go around all or part of the neck and shoulders of a garment. It can comprise any of a variety of materials, including one or more materials similar to that of the garment, or one or more completely different materials, as determined by one with skill in the art.

In a further embodiment, the yoke can be expandable to better accommodate the hands when placed underneath. By way of non-limiting example, the yoke material could be formed with various types of expansion or flexion structures such as pleats, folds, crimps, creases, ruffles, tucks, placations, crape, darts, or other similar techniques and structures that allow the yoke to be expandable or flexible. In an alternative embodiment, the yoke can comprise one or more stretchable materials or include elastic or otherwise flexible material(s) that allow the yoke to be expandable or flexible to accommodate the hands when placed therein.

In a further embodiment, the yoke can cover, at least partially, the upper chest area and shoulders of a garment in a bib-like fashion. The yoke can extend down the front of the garment between approximately 4 inches and approximately 10 inches. In a specific embodiment, the yoke extends down the front of the garment approximately 6 inches. In a further embodiment, the yoke can extend over the shoulders to also cover, at least partially, a back portion of the garment. The yoke can extend down the back of the garment between approximately 1 inch and approximately 6 inches. In a specific embodiment, the yoke
extends down the back of the garment approximately 4 inches. Figures 5A-C and 6A-B illustrate different yoke 100 embodiments 100 that can be utilized with a garment of the subject invention.

To maintain placement of the yoke 100 on the garment 10, one or more edges can be fixedly attached to the garment. In one embodiment, a closed seam 104 is formed between the yoke and the garment around or generally near the collar at the front of the garment, such as shown, for example, in Figures 5A and 6A. The closed seam 104 forms a seal between the yoke and the garment that can prevent the transmission of fluids, microorganisms, chemicals, and other products from patients to medical personnel, and vice versa. This can ensure that, as the neck band is unwound and placed around the neck beneath the yoke, the hands do not come into contact with the neck or skin. The yoke can act as a physical barrier between the hands and the area of neck and head. The yoke can also act similar to the collar tabs, as described above, by causing the neck band to better hold more of the neck area or collar 73 of the garment around the neck of the wearer, reducing sagging. In a particular embodiment, shown, for example, in Figures 5A-C and 6A-B, the yoke is fixedly attached between approximately 0.5 inch and 2 inches from the neck or collar of the garment. In a more particular embodiment, the yoke is fixedly attached approximately 1 inch from the collar of the garment. Attachment of the yoke away from the collar can prevent the uncoiled neck band from contracting uncomfortably around the neck and provide some cushioning material between the neck band and the neck of the wearer.

In a further embodiment, a closed seam 104 is formed between the yoke and around the entire neck or collar area of the garment, so that the hands placed under the yoke are not exposed at any time and can properly place the neck band around the entire neck without coming into contact with either the front or back of the neck or head. Figures 5B-C and 6B illustrate an example of a yoke attached around the entire neck of the garment. In a further embodiment, the yoke is open in the back similar to, or corresponding with, the opening in the garment.

To further reduce movement, one or more side edges 106 of the yoke located in front or back of the garment can also be fixedly attached to the garment, as shown, for example, in Figures 5A-B and 6A. In this embodiment, the yoke creates a pocket, whereby the hands are inserted under the lower front edge 102 to be protected from contact with the neck and head when positioning a neck band.
In a still further embodiment, the lower back edge 108 of the yoke can be fixedly attached to the garment, which, in conjunction with the closed seam 104 at the neck can provide a channel 103 around each shoulder for directing the uncoiled ends of the neck band around to the back of the neck, as shown, for example, in Figure 5B. In a further embodiment, the yoke in the back of the garment can be formed as a curve, as shown, for example, in Figure 5C and 6B. This curvature of the yoke can further assist with placement of the neck band coils around the back of the neck, as shown, for example, in Figure 6B. Other yoke shapes can also be used to assist with guiding and placement of the neck band. Such alternatives are contemplated to be within the scope of the subject invention.

As the yoke terminates at the open edges 201 and 202 of the garment, the ends of the channels 103 can be open or closed at the terminal end at the edge of the garment. When closed, the neck band coils are confined under the yoke. When open, the neck band coils can be exposed at the terminal end at the edges of the garment. In either arrangement, when the back edges 201 and 202 of the garment are positioned in an overlapping fashion, the neck band coils within the channels on either side can assist with keeping the back of the gown closed.

A seam for attaching the yoke 100 to the garment can be formed by a variety of techniques and methods, including, but not limited to, heat seal, cold-seal, crimp-seal, or pressure-seal, sewing, gluing, etc. In one embodiment, the same techniques and methods utilized to form the seams of the garment are utilized to secure the yoke. Thus, the yoke could be affixed to the garment during or simultaneously with the usual manufacturing process. A person with skill in the art would be able to determine any of a variety of techniques for attaching a yoke to a garment of the subject invention. Any and all such variations are considered to be within the scope of this invention.

As discussed previously herein, a neck band can be attached to a garment by several techniques, including, but not limited to a lanyard or a neck loop. Further, a neck band can be attached to a garment of the subject invention, so that it is partially or entirely covered by a yoke. The type of attachment will determine the method for positioning the neck band around a wearer. In one embodiment, the neck band is attached so that the coils are directed towards the neck. This allows the neck band to be uncoiled and positioned around the neck without having to remove the neck band from beneath the yoke. In an alternative embodiment, the neck band is attached so that the coils are directed away from the neck. This can entail that the wearer remove the neck band from beneath the yoke to uncoil the
ends and reinsert it in the proper orientation under the yoke for placement around the neck.

The devices herein described permit a person to easily and quickly secure a medical gown or similar barrier device around the body. Advantageously, the devices of the subject invention eliminate the necessity of reaching towards the back in such a way as to compromise the sterility of the hands. However, some individuals may not be capable of the dexterity necessary to utilize a neck band of the subject invention, which requires raising both arms upwards and around the neck. Nonetheless, it is important that all medical personnel properly secure barrier devices to prevent contamination. To accommodate less dexterous individuals, the subject invention includes an embodiment of a medical garment where the neck opening can be secured by raising one or both hands to only about shoulder height.

In this embodiment, a collar stay 200 is positioned partially under the yoke 100. The yoke 100, as described previously, can form a contiguous enclosure, as it extends across the front of the garment and over each shoulder to terminate at the first back open edge 201 and the second back open edge 202 of the garment, as shown in Figure 7A. The collar stay can extend over one shoulder of the garment and through the back of the yoke, which can form channels 103 with the garment material, as described above, to guide and support the collar stay. In one embodiment, the collar stay 200 is fixedly attached within a channel 103. But, in an alternative embodiment, the collar stay 200 is adjustable, such that it can be manipulated by sliding and/or otherwise changing orientation within the channel 103 to the correctly position the collar stay 200 around the back of the garment. In a further embodiment, a safety lanyard 210 can attached to the collar stay to prevent it from accidentally sliding out or otherwise being removed from the channel or yoke.

The collar stay 200 is, generally, a rigid, or semi-rigid, elongated appendage. In one embodiment, a covered end 215 is positioned under the yoke and through the channel 103 and emerges at the first open edge 201 of the garment, as shown, for example, in Figures 7A and 7B. The covered end 215 can be secured by a safety lanyard 210, as mentioned above. Once the wearer's arms are placed within the garment, the covered end at one shoulder can be used to manipulate the collar stay 200 to span around the back of the garment and/or shoulders, so that the uncovered end 220 end is placed sufficiently over the opposite shoulder. Once the uncovered end 220 is placed sufficiently over the opposite shoulder, it can be used to further adjust the collar and arrange the back edges so that they overlap. For example, as shown in Figures 8A and 8B, the collar stay 200 can be used to pull up the back of the garment collar so as to overlap and close the first back open edge 201 of the garment
over the second back open edge 202. In a further embodiment, the collar 73 on the open back edge of the garment is lower on the side with the collar stay 200 than the opposite side, as seen, for example, in Figure 8B. This facilitates the collar stay 200 being used to raise that side of the collar upward. This, in turn, causes the open edge 201 to overlap the opposite open edge 202, to better overlap and close the back of the garment.

The collar stay can incorporate any of a variety of shapes to accommodate spanning the back of the garment and/or shoulders. In one embodiment, shown for example in Figures 7A and 713, the collar stay is curved so that it conforms more fully with the shape of the collar. In a further embodiment, the uncovered end 220 includes one or more folds or bendable areas to assist with placing the uncovered end 220 over the shoulder. Alternative embodiments can utilize other shapes or configurations to assist with manipulation of the collar or to aid in closure of the back of the garment. In general, the collar stay is utilized to close the back of the garment without the necessity of reaching behind the garment. Thus, any of a variety of shapes and configurations of the collar stay could be used to achieve this end. It is contemplated that any and all variations in collar stay shape that facilitate this process are within the scope of the present invention.

The collar stay can be secured to the front yoke of the garment by any of a variety attachment apparatuses 225 coupled to the collar stay. In one embodiment, a terminal portion 240 of the uncovered end has a self-securing material or substance applied or attached thereto. When the uncovered end is brought around over the shoulder to a point at or near the front of the yoke, the material or substance can be affixed to the front of the garment. For example, hook and loop material can be utilized to secure the uncovered end to the front of the yoke. In a particular embodiment, pressure-sensitive adhesive is applied to the terminal portion 240, such that when the uncovered end is pressed against the yoke, the adhesive is released to hold the terminal portion against the yoke. In a further embodiment, the yoke has a receiving area for the adhesive. Alternatively, securing devices can be used to affix the uncovered end to the yoke, such as, by way of non-limiting example, buckles, snaps, stays, eyelets, buttons, zipper ties, wrap-arounds, and other such devices can all be used to secure the uncovered end to the yoke. A person with skill in the art and benefit of the subject application would be able to determine any of a variety of methods and devices for securing the uncovered end of a collar stay. Any and all such variations are contemplated to be within the scope of the subject invention.
To further assist a surgeon in donning the garment and maintaining sterile hands, the garment can utilize a rear tie 235 and a second tie 237. In this embodiment, the rear tie 235 has a fixedly attached end 232 at or near the first back open edge 201 of the garment, on the same side where the collar stay 200 emerges from the back of the yoke 100, as shown, for example, in Figure 7B. In a further embodiment, the loose end 233 of the rear tie 235 is removably attached to the collar stay so that it can be brought around to the front of the garment. In one embodiment, the loose end 233 of the rear tie 235 is removably attached at or near the terminal portion 240 of the collar stay 200. In an alternative embodiment, the loose end 233 is removably attached to a tie tab 239 that is also removably attached to the terminal portion of the collar stay. With this embodiment, the tie tab 239 can be removed from the collar stay after it is attached to the front yoke. One or more finger holds 234 or other grasping apparatus can be included to facilitate removal. The tie tab can be used to bring the loose end 233 of the rear tie down to the waist where it can be tied together with the second tie located on the garment. In a particular embodiment, the second tie is fixedly attached at one end to the garment such that when the two ties are pulled together one side of the garment is pulled towards the opposite side. Figures 8A and 8B illustrate this embodiment and show how the back open edges 201 and 202 of the garment are overlapped and the garment pulled securely around the body when the ties are utilized. In situations where assistance in tying the garment is available, the necessity of the tie tab may not be required.

To facilitate the overlap of the back open edges of the garment and ensure that they stay in place, a collar support 250 can be utilized to support the edge of the collar opposite the collar stay. In one embodiment, a collar support 250 is generally a rigid or semi-rigid material located around the back of the collar, as seen, for example, in Figure 7B. The collar support can be of variable length around the collar. In a specific embodiment, the collar support is fixedly attached and extends from about the second back open edge 202 of the garment and over the same shoulder where the collar stay will be attached. With this embodiment, the shoulder end 252 of the collar support can be used to adjust or hold the collar in place, and consequently the back edge of the garment, before or while the collar stay is being manipulated and/or positioned around the back of the garment. Further, the collar stay being positioned and secured over the collar support, as shown, for example, in Figure 8A, can assist in keeping the back of the garment closed. In a further embodiment, the collar support is positioned under the yoke, similar to the collar stay, to ensure sterility of the hands during manipulation and positioning around the neck. Further, a person assisting with
securing the garment will be less likely to contaminate their own hands if the back of the garment is overlapped and closed prior to tying or positioning a waist band 50, as described above. To further facilitate closure of the back open edges of the garment, one or more of the back edges can be cut or formed at an angle. In this embodiment, the back open edges are angled from the collar towards the opposite open edge, for example, as shown in Figure 8B. When the collar support is positioned around the back of the neck, it can be pulled slightly upwards to encourage the back edges to overlap. In a further embodiment, the collar support can be shaped to aid in pulling the edges together. Thus, angling of the back open edges can assist with closure of the garment when the collar stay and the collar support are brought together, as described above.

The dimensions of a self-securing band of the subject invention can vary depending upon several factors, including the material utilized for the band, the location on the gown, the tightness of the coiled ends, the method of attachment to the gown, as well as other factors known to those with skill in the art. One factor that can be considered is how well a gown, in particular the back opening of a gown, must be secured to and around the wearer. In many situations, it is important or necessary for a gown to be secured entirely around a person, such that the back opening is closed. In some hospital or clinic environments, a gown must be fully closed in the back to be considered properly sterile. This means that a gown of the subject invention employed in such situations necessarily must have one or more bands of sufficient length to encircle the body of a variety of different size wearers to ensure closure of the back opening. Thus, the length of a band for use around the waist of a wearer can be relatively long to accommodate a variety of sizes of people. Similarly, the width of a band for use with a gown as described herein can vary depending upon the expected size of a person and where it will be located on the gown. For example, a band intended to be used around the neck might be narrower than one intended for use around the waist. Alternatively, different size gowns with at least one appropriate size band attached can be provided, allowing a wearer to choose the appropriate size. A person with skill in the art would be able to determine a variety of flexible band widths and lengths that would be appropriate for the various uses of the gowns of the subject invention. Substitution of sizes or dimensions other than those specifically exemplified herein is contemplated to be within the scope of the present invention.

Once affixed to a gown, it can be further desirable for a flexible band 50 of the subject invention to be secured to or against a gown or restrained to reduce or prevent movement,
such as twisting, turning, or sliding up and down a tab, as described above, until needed to secure the gown. Any of a variety of methods known to a person with skill in the art can be used to hold or affix the bands and/or the coiled ends to the gown prior to use. In one embodiment, a band engaged with a restraining device is utilized in the same fashion, except that it is disengaged from the restraining device prior to unwinding the coils. In a preferred embodiment, a restraining device permits a band to be disengaged quickly or simultaneously with the unwinding of the coils.

In one embodiment, any of a variety of adhesives can be used to removably attach the bands to the outside of the garment, so that they lie against the gown. In another embodiment, one side of the coiled ends of a band can be removably heat sealed to the gown.

Other methods for securing or stabilizing bands of the subject invention utilize various guards, bands, seals, covers, sleeves, or similar devices for holding, stabilizing, containing, or otherwise temporarily restraining the bands of the subject invention. In one embodiment, a sleeve 80 having a front overlay 81 and a back panel 83 and openings on opposite sides can be used to contain a band and secure it against the garment. One or more sleeves can be used in any location on a garment to secure one or more different types of bands of the subject invention. Thus, a sleeve can be used to secure a band for the waist or a band for the neck. Figure 4A illustrates one embodiment of a flexible band for use around the waist that is contained within a sleeve 80 having openings 84 on either side for access to the band. In this embodiment, the band is secured against the back panel 83 inside the sleeve, as seen in Figure 4A. In an alternative embodiment, a sleeve is formed by an overlay fixedly attached to the gown, such that the back panel is provided by the outside of the gown. In a further embodiment, the side openings 84 have indentations 82 that partially expose the band to facilitate grasping. This can be particularly helpful to someone who may be wearing gloves. In a still further embodiment, the band is wound so that the coils are closer or overlapping to permit use of a smaller or more compact sleeve. A sleeve or front overlay can be attached to a gown by any of various methods and devices described herein or by other methods or devices known to those with skill in the art and such variations are considered to be within the scope of the subject invention.

In another embodiment, a tabbed card 90 can be used to hold a band of the subject invention against a gown when not in use. In one embodiment, a tabbed card 90 is generally a stiff or sufficiently firm material having two or more tabs capable of engaging with one or more coils of a band. One or more tabbed cards can be used in any location on a garment to
secure one or more different types of bands of the subject invention. Thus, a tabbed card can be used to secure a band for the waist or a band for the neck. In a specific embodiment, a tabbed card 90 is a piece of stiff material, such as, for example, cardboard or paperboard, having two tabs 93 that open to opposite sides of the card. In this embodiment, a band can be positioned on the tabbed card with at least one of the coils on the first end 71 engaged with one tab 93 and at least one of the coils on the second end 72 engaged with the opposite tab 93. Figure 4B illustrates an embodiment of a tabbed card 90 used to hold a neck band 70. In a further embodiment, the coiled ends of the band can be wound so that they are closer to each other or so that they overlap to decrease the overall size of the band and, thus, the size of the tabbed card required to restrain the band. Figures 4A and 4B illustrate an embodiment having a neck band wound so that the coiled ends overlap and engage with a tabbed card. In a further embodiment, the tabbed card is affixed to the gown so that the band is held a sufficient distance from the face, such as, for example, at the bottom end 77 of a neck loop 76. In a one embodiment, the tabbed card 90 can be positioned on the gown so that the coiled ends are held downwards, as shown, for example, in Figure 4B. In an alternative embodiment, a tabbed card can be positioned so that the coiled ends are held facing upwards eliminating the need to turn them towards the neck prior to unwinding them.

The self-securing gowns described by the above application are quickly and easily put on by a person. Certain gown embodiments detailed herein require only a few seconds for a single person to insert their arms, drape around the body, secure it against the body, and close it at the back and at the neck. This can ensure that doctors, physicians, other medical personnel, or anyone in need of protection can be properly covered and safely secured to protect themselves and other people.

All patents, patent applications, provisional applications, and publications referred to or cited herein are incorporated by reference in their entirety, including all figures and tables, to the extent they are not inconsistent with the explicit teachings of this specification.

It should be understood that the examples and embodiments described herein are for illustrative purposes only and that various modifications or changes in light thereof will be suggested to persons skilled in the art and are to be included within the spirit and purview of this application.

It should be understood that any reference in this specification to "one embodiment," "an embodiment," "example embodiment," "further embodiment," "alternative embodiment," etc., is for literary convenience. The implication is that any particular feature, structure, or
characteristic described in connection with such an embodiment is included in at least one embodiment of the invention. The appearance of such phrases in various places in the specification does not necessarily refer to the same embodiment. Further, when a particular feature, structure, or characteristic is described in connection with any embodiment, it is submitted that it is within the purview of one skilled in the art to affect such feature, structure, or characteristic in connection with other ones of the embodiments.

The invention has been described herein in considerable detail, in order to comply with the Patent Statutes and to provide those skilled in the art with information needed to apply the novel principles, and to construct and use such specialized components as are required. However, it is to be understood that the invention can be carried out by specifically different equipment and devices, and that various modifications, both as to equipment details and operating procedures, can be effected without departing from the scope of the invention itself. Further, it should be understood that, although the present invention has been described with reference to specific details of certain embodiments thereof, it is not intended that such details should be regarded as limitations upon the scope of the invention except as and to the extent that they are included in the accompanying claims.
1 claim:

1. A garment capable of covering some portion of a wearer, said garment having attached thereto at least one elongated band comprising:
   a first coiled end and a second coiled end with a defined length there between;
   an outer side and an inner side; and
   a means for attaching the band to the garment;
   where at least a portion of said band comprises a flexible shape-memory material.

2. The garment, according to claim 1, wherein the elongated band is a length of rod- or wire-like material.

3. The garment, according to claim 1, wherein the at least one elongated band is a waist band.

4. The garment, according to claim 3, further comprising a waist loop for movably attaching the waist band to the garment.

5. The garment, according to claim 4, wherein the waist loop is sufficiently elongated to permit adjustable placement of the waist band.

6. The garment, according to claim 1, wherein the first coiled end and the second coiled end are located on the same side of the at least one elongated band.

7. The garment, according to claim 1, wherein the at least one elongated band is a neck band.

8. The garment, according to claim 7, wherein the first coiled end and the second coiled end are located on the same side of the at least one elongated band.
9. The garment, according to claim 7, further comprising a neck loop for moveably attaching the neck band to the garment.

10. The garment, according to claim 9, wherein the neck loop is sufficiently elongated to permit the neck band to be unwound at an appropriately safe distance from the face of a wearer prior to placement.

11. The garment, according to claim 1, further comprising a pouch having two side openings and affixed to the garment for restraining the at least one elongated band against the garment prior to use.

12. The garment, according to claim 11, wherein the pouch comprises a front overlay affixed to the garment.

13. The garment, according to claim 12, further comprising indentations along the edge of the side openings.

14. The garment, according to claim 13, further comprising a back panel to which is attached the front overlay, wherein the back panel is attached to the gown.

15. The garment, according to claim 1, further comprising a tabbed card for securing the at least one elongated band to the garment.

16. The garment, according to claim 15, wherein the tabbed card comprises at least two tabs for securing the first coiled end and the second coiled end.

17. The garment, according to claim 1, further comprising disposable materials.

18. The garment, according to claim 1, wherein the elongated band is an at least partially flattened strip of material.
19. The garment, according to claim 1, wherein the elongated band is a length of rod- or wire-like material.

20. The garment, according to claim 1, wherein at least a portion of the elongated band comprises a reflective, fluorescent, or brightly colored material.

21. The garment, according to claim 1, wherein the first and second coiled ends are substantially flat-spiral coils facing each other on the inner side of the band.

22. The garment, according to claim 1, wherein the approximately central point between the first and second coiled ends comprises a material by which the elongated band is attached to the garment.

23. The garment, according to claim 22, wherein the material is affixed to the garment utilizing a heat-sealing or a crimp-sealing technique.

24. A garment capable of covering some portion of a wearer, said garment having attached thereto:

   a first elongated band comprising,
   a first coiled end and a second coiled end with a defined length there between;
   an outer side and an inner side;
   a means for movably attaching the first elongated band to the garment, so that it can encircle the waist of a wearer;

   a second elongated band comprising,
   a first coiled end and a second coiled end with a defined length there between;
   an outer side and an inner side; and
   a means for movably attaching the second elongated band to the garment, so that it can encircle the neck of a wearer:

where at least a portion of said first and second elongated band comprises a flexible shape-memory material.
25. The garment, according to claim 24, wherein the first and second coiled ends of the first and second elongated bands are substantially flat-spiral coils facing each other on the inner side of the band.

26. The garment, according to claim 25, wherein the elongated band is a length of rod- or wire-like material.

27. A garment capable of covering some portion of a wearer, said garment having attached thereto:
   a pouch having two side openings,
   a first elongated band, contained within the pouch, comprising.
   a first coiled end and a second coiled end with a defined length there between;
   an outer side and an inner side;
   a means for attaching the first elongated band to the interior of the pouch;
   a tabbed card having at least one tab,
   a second elongated band, removably affixed to the tabbed card and comprising,
   a first coiled end and a second coiled end with a defined length there between;
   an outer side and an inner side;
   a means for movably attaching the second elongated band to the garment;
where at least a portion of said first and second elongated band comprises a flexible shape-memory material.

28. The garment, according to claim 27, wherein the first and second coiled ends of the first and second elongated bands are substantially flat-spiral coils facing each other on the inner side of the band.

29. The garment, according to claim 28, wherein the elongated band is a length of rod- or wire-like material.

30. A garment capable of covering at least some part of the upper body, said garment having attached thereto at least one elongated band comprising:
   a first coiled end and a second coiled end with a defined length there between;
a means for attaching the band to the garment:
where at least a portion of said band comprises a flexible shape-memory material; and
a yoke fixedly attached to and covering at least a portion of the garment, such that at
least a portion of the at least one elongated band can be utilized between the yoke and the
garment.

31. The garment, according to claim 30, wherein the yoke covers at least a portion of the
upper chest area and shoulders of the garment.

32. The garment, according to claim 31, wherein the yoke extends over the shoulders and
covers at least a portion of the back of the garment.

33. The garment, according to claim 32, wherein the yoke is fixedly attached at or near the collar of the garment.

34. The garment, according to claim 33, wherein the yoke is fixedly attached to the
garment at one or more side edges.

35. The garment, according to claim 34, wherein a lower back edge of the yoke is
fixedly attached to the garment so as to form one or more channels between the yoke and the
back of the garment.

36. The garment, according to claim 35, wherein the attachment of the yoke to the
garment forms a closed seam.

37. The garment, according to claim 36, comprising a surgical gown.

38. The garment, according to claim 37, wherein the first coiled end and second
coiled end are blunted.

39. The garment, according to claim 38, wherein the at least one elongated band is
attached to the garment such that it is at least partially covered by the yoke.
40. The garment, according to claim 38, wherein the at least one elongated band is attached to the garment such that it is fully covered by the yoke.

41. A garment capable of covering a wearer, said garment having attached thereto at least one elongated band comprising:
   a first coiled end and a second coiled end with a defined length there between;
   a means for attaching the band to the garment;
where at least a portion of said band comprises a flexible shape-memory material; and
at least one collar tab fixedly attached at or near the neck of the garment such that the first coiled end and the second coiled end of the at least one elongated band can be utilized between the at least one collar tab and the garment.

42. The garment, according to claim 41, wherein at least two collar tabs are fixedly attached on a front portion of the garment at or near the neck area.

43. The garment, according to claim 42, further comprising at least two collar tabs fixedly attached on a back portion of the garment at or near the neck area.

44. The garment, according to claim 43, wherein the at least two collar tabs are further attached at or near the back edges.

45. The garment, according to claim 44, comprising a surgical gown.

46. The garment, according to claim 41, wherein the first coiled end and second coiled end are blunted.

47. A method for securing a garment to a wearer, said garment having attached thereto:
   at least one elongated band comprising,
   a first coiled end and a second coiled end with a defined length there between;
   a means for attaching the band to the garment;
where at least a portion of said band comprises a flexible shape-memory material; and

a yoke fixedly attached to and covering at least a portion of the garment, such that at least a portion of the first coiled end and the second coiled end of the at least one elongated band can be utilized between the yoke and the garment,
	said method comprising,

uncoiling the first coiled end and the second coiled end of the elongated band;

placing the uncoiled first end and the uncoiled second end around the neck of the wearer, beneath the yoke, so that the uncoiled first end and uncoiled second end are secured around the wearer and between the yoke and the garment.

48. A garment capable of covering at least some part of the upper body, said garment comprising:

a yoke fixedly attached to and covering a front part of the garment and extending over each shoulder of the garment to form a first and second channel, said first and second channels extending over each shoulder to terminate at or near a back open edge of the garment;

an elongated collar stay having a covered end under the yoke at about the front of the garment, said collar stay extending through the first channel, such that an uncovered end of the collar stay extends past the first channel, at the back of the garment, sufficiently to reach the opposite shoulder of the garment;

an elongated collar support having a first end under the yoke at about the front of the garment, said collar support extending through the second channel to terminate at or near the termination of the second channel at the back of the garment;

an attachment apparatus coupled to the uncovered end of the collar stay, for attaching the collar stay to the yoke.

49. The garment, according to claim 48, further comprising one or more ties for securing the garment around the waist.

50. The garment, according to claim 49, wherein the garment comprises two ties.
51. The garment, according to claim 50, further comprising a tie tab removably attached to the uncovered end of the collar stay.

52. The garment, according to claim 48, further comprising back open edges that are angled towards each other.

53. A method for securing a garment to a wearer, said garment comprising:
   a yoke fixedly attached to and covering a front part of the garment and extending over each shoulder of the garment to form a first and second channel, said first and second channels extending over each shoulder to terminate at or near a back open edge of the garment;
   an elongated collar stay having a covered end under the yoke at about the front of the garment, said collar stay extending through the first channel, such that an uncovered end of the collar stay extends past the first channel, at the back of the garment, sufficiently to reach the opposite shoulder of the garment;
   an elongated collar support having a first end under the yoke at about the front of the garment, said collar support extending through the second channel to terminate at or near the termination of the second channel at the back of the garment;
   an attachment apparatus coupled to the uncovered end of the collar stay, for attaching the collar stay to the yoke,
   said method comprising,
   manipulating the first end of the collar support to adjust a first back open edge of the garment around the body;
   manipulating the covered end of the collar stay to place the uncovered end of the collar around the back of the garment and over the second channel;
   attaching the uncovered end of the collar stay to the yoke, such that the collar stay overlays the second channel and the collar support therein.

54. The method, according to claim 53, wherein the garment further comprises,
   at least two ties for securing the garment around the waist;
   a tie tab removably attached to the uncovered end of the collar stay, wherein at least one tie is removably attached to the tie tab.
said method further comprising,
removing the tie tab from the uncovered end of the collar stay after attachment
to the yoke;
positioning the tie tab at or about the waist;
disconnecting the tie from the tie tab; and
securing the at least two ties.