



US 20080052802A1

(19) **United States**

(12) **Patent Application Publication**  
**Bryan**

(10) **Pub. No.: US 2008/0052802 A1**

(43) **Pub. Date: Mar. 6, 2008**

(54) **ELASTIC UPPER-BODY UNDERWEAR**

**Publication Classification**

(76) Inventor: **Laura Bryan, Irvine, CA (US)**

Correspondence Address:  
**FISH & ASSOCIATES, PC**  
**ROBERT D. FISH**  
**2603 Main Street, Suite 1050**  
**Irvine, CA 92614-6232**

(51) **Int. Cl.**

*A41D 27/12* (2006.01)

*A41B 9/00* (2006.01)

*A41B 9/06* (2006.01)

(52) **U.S. Cl. .... 2/54; 2/113; 2/53; 2/78.1**

(57)

**ABSTRACT**

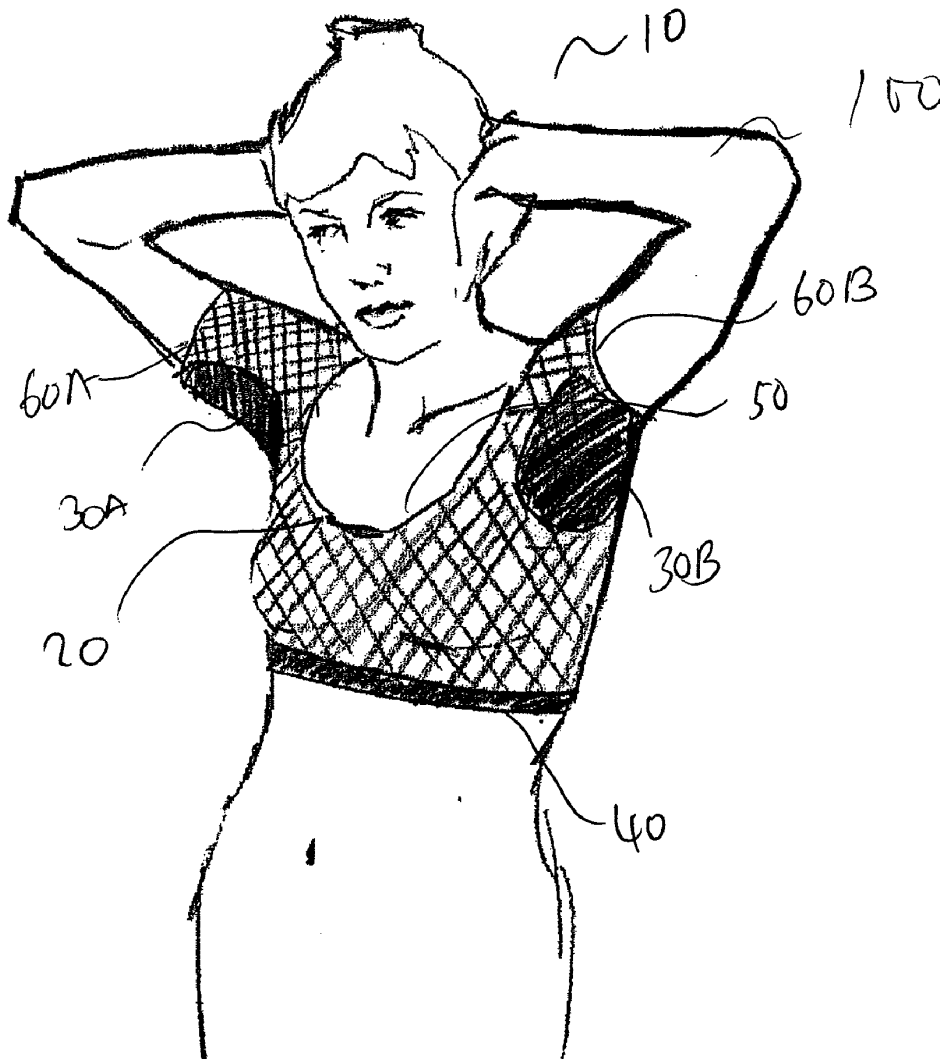
An elastic upper-body undergarment that comprises a form-fitting body portion covering a shoulder region to a mid-torso region and two arm regions, and the body portion is made of elastic material, such as hosiery. The arm region has an absorbent material that is made of materials from panty liner and diaper materials to absorb sweat. The undergarment provides sweat protection to allow user for a tight, inconspicuous and comfortable fit.

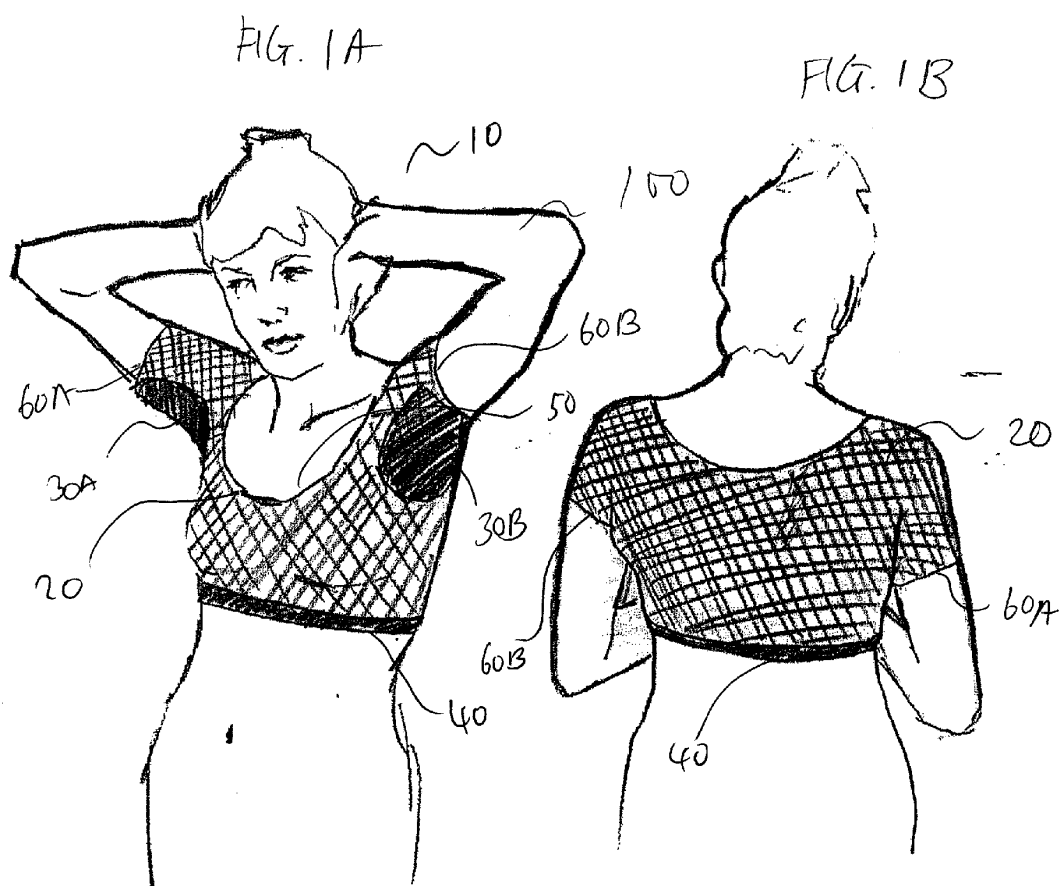
(21) Appl. No.: **11/771,031**

(22) Filed: **Jun. 29, 2007**

**Related U.S. Application Data**

(60) Provisional application No. 60/824,186, filed on Aug. 31, 2006.





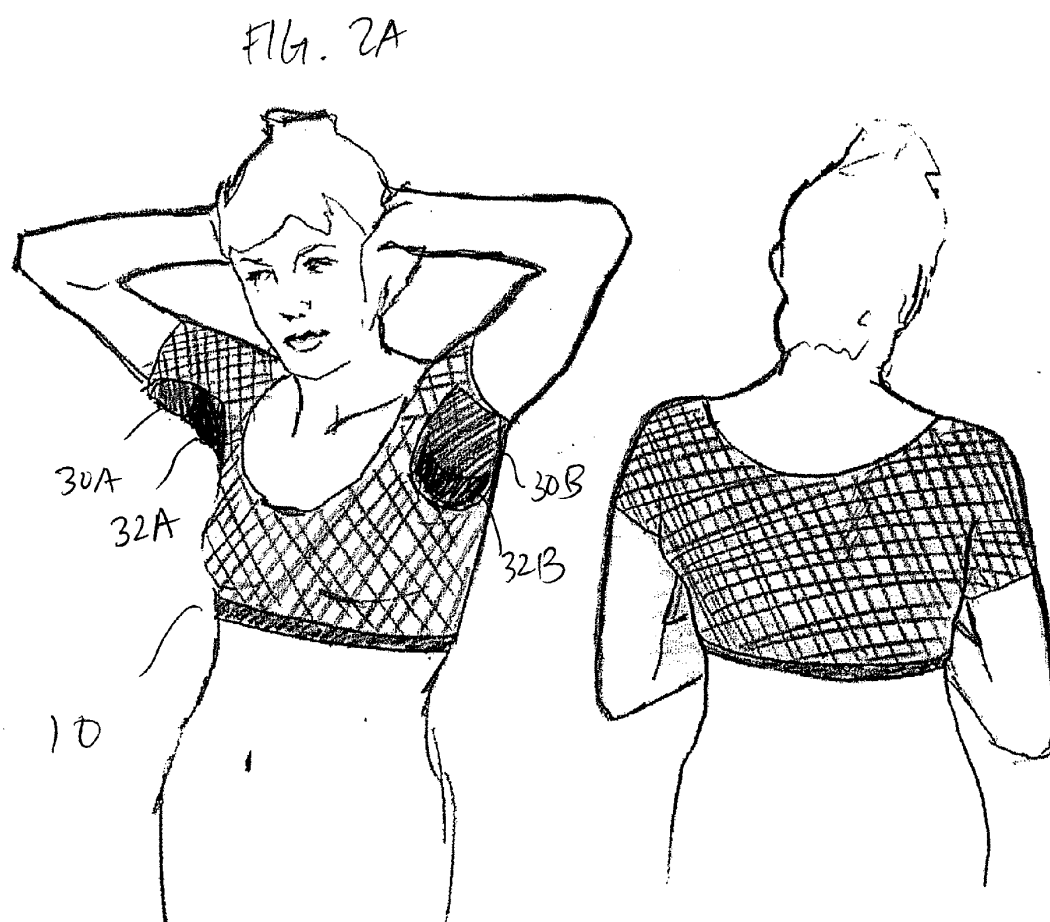


FIG. 3



Fig. 4



**ELASTIC UPPER-BODY UNDERWEAR**

**[0001]** This application claims priority to U.S. provisional application Ser. No. 60/824186 filed Aug. 31, 2006.

**FIELD OF THE INVENTION**

**[0002]** The field of the invention is in underwear.

**BACKGROUND**

**[0003]** Armpit perspiration has always been an issue for many people. Sweating in the armpit region not only is embarrassing but it often ruins clothes with yellow-sweat stains.

**[0004]** Women in particular have a harder time avoiding armpit sweat. Unlike men, most women do not wear an undershirt beneath a blouse or a shirt to serve as a protective layer to absorb sweat. Besides a bra, there is usually nothing but the shirt or blouse itself to absorb sweat. One way to solve this problem is to use deodorants. However, often times deodorants may not be strong enough to block sweat. Some deodorants are so strong that they can leave a deodorant residue on the clothing or their potency is so strong that it poses a health risk because they block sweat glands entirely and cause you to perspire elsewhere. Once sweat stains start to form on a garment it is almost impossible to remove them.

**[0005]** Specific undergarments have been designed in an attempt to solve this problem. U.S. Pat. No. 3,421,514 (to Friedlander) introduced a corset that absorbs sweat and is thick with different layers of materials. While it will absorb sweat, the corset is bulky, un-adjustable, uncomfortable, difficult to put on and it is constricting to the body. U.S. Pat. No. 5,042,089 (to Cramer) has a separate underarm sweat shielding device that attaches to the bra also with similar discrepancies. In relation to that, U.S. Pat. No. 5,245,707 (to Green) and U.S. Pat. No. 6,145,129 (to Czekalla et al.) both present a device in which two sweat guards are fixed on a strap that the user must wear. The strap is not only unattractive, but uncomfortable with hooks and attachments.

**[0006]** Undershirts also have been designed to solve the sweating problem. U.S. Pat. No. 6,282,720 (to Mayer), U.S. Pat. No. 6,591,425 (to Zellers) and Kleinerts from <www.kleinertshields.com> construct a t-shirt that is designed to be worn under a shirt. However, all the shirts are loose and ill-fitting. While the sleeve area can absorb sweat, they are at a fixed length and cannot accommodate shirts with different sleeve lengths. The '425 shirt has an underarm region comprising of many different layers of materials that add bulkiness to the shirt and make wearing an outer garment for women impractical. More importantly, the bulkiness and the loose quality of the shirt make it undesirable for women to wear it under a form-fitting shirt or dress. Similarly, the t-shirts from Kleinerts while cropped and can absorb sweat in the underarm regions, are loose and ill fitting. Many women prefer to wear shorter sleeves or non-sleeve shirts such as a tank top during summer time, when one usually sweats the most. Thus, the problem of having a wearable, adjustable, smooth, inconspicuous, comfortable and sweat absorbing garment still exists.

**[0007]** This and all other referenced patents and applications are incorporated herein by reference in their entirety. Where a definition or use of a term in a reference, which is

incorporated by reference herein is inconsistent or contrary to the definition of that term provided herein, the definition of that term provided herein applies and the definition of that term in the reference does not apply.

**SUMMARY OF THE INVENTION**

**[0008]** The present invention provides an undergarment that is elastic, absorbent, form-fitting, inconspicuous, comfortable and flexible to be worn underneath a shirt.

**[0009]** In a preferred embodiment, an elastic upper-body panty has a form-fitting body portion covering a shoulder region to a mid-torso region. The body portion is made of an elastic material and extends to the armpit regions, which have an absorbent material. The elastic material is sheer, like hosiery, Lycra® branded fabric, viscose or other like materials.

**[0010]** The armpit region preferably has a first, a second, and a third layer. The first layer is a wicking material that keeps the skin dry and wicks away moisture into the second layer. Preferably, the second layer is the absorbent material. Then, a third layer is a waterproof barrier between the upper-body panty and the outer clothing.

**[0011]** 20. A method of making the panty of claim 1, comprising:

**[0012]** providing a first pair of pantyhose;

**[0013]** cutting out a first crotch region of the first pantyhose;

**[0014]** cutting out a plurality of leg portion of the first pantyhose; and

**[0015]** attaching a second and a third crotch region from a second and a third pantyhose, respectively to an armpit region of the first pantyhose.

**[0016]** Preferably, the absorbent material is waterproof and also made of materials found in panty liners, sanitary napkins and diapers. Also preferably the absorbent material is made of a stretchable material, such as stretch cotton. The absorbent material would also preferably contain baking soda or a deodorant. The absorbent material would be sewn into the body portion and can be disposable.

**[0017]** In preferred embodiment, the entire panty is reusable. Alternatively, the entire panty is disposable.

**[0018]** Also in yet another preferred embodiment, the absorbent material can be a pad that is inserted into the upper-body panty in which the pad can be disposed or reused.

**[0019]** The body portion also has a pair of adjustable sleeves. Furthermore, the body portion has an adjustable edge to support the body portion. In another preferred embodiment, the upper-body panty has a built in bra in the body section. The upper-body panty fits snugly to a user's body to provide for a comfortable and inconspicuous feel.

**[0020]** In yet another preferred embodiment, there is a method of promoting and marketing the upper-body panty that is form-fitting, comfortable and inconspicuous to the body and providing an instruction set on to use the panty with or without disposable or reusable pads. There is also a preferred method of promoting and marketing the disposable or reusable pads with a set of instruction separately from the upper-body panty.

**[0021]** In yet a further preferred embodiment, there is a method used in the making of the upper-body panty by cutting the crotch region of a pair of pantyhose along with the leg portions. The leg portion then can receive the arms of the user and the hole from the crotch accommodates the

head of the user. Further crotch regions of different pantyhose can be attached to the armpit region of the upper-body panty to absorb sweat.

#### BRIEF DESCRIPTION OF THE DRAWING

- [0022] FIG. 1A is a front view of an upper body panty.  
 [0023] FIG. 1B is a back view of FIG. 1A.  
 [0024] FIG. 2 is a front view of another embodiment of the upper body panty.  
 [0025] FIG. 3 is a front view of an upper body panty with adjustable sleeves.  
 [0026] FIG. 4 is a front view of an upper body panty with a built in shelf brassier.

#### DETAILED DESCRIPTION

[0027] The present invention provides an undergarment that is elastic, absorbent, form-fitting and flexible to be worn underneath a shirt.

[0028] In FIGS. 1A and 1B, a upper undergarment 10 generally shows a body portion 20 with two armpit regions 30A and 30B, an edge 40, a neckline 50 and sleeves 60A and 60B on a user 100.

[0029] As used herein, the term "upper undergarment" includes all undergarments for the upper body for a person. This includes the terms of "undergarment", "pit panty", "upper panty" and variations thereof.

[0030] Preferably, body portion 20 covers a user from the shoulder area to the mid-torso area, however, it is contemplated that the body portion extends underneath the chest. It is designed to wear over a bra or have a bra incorporated into it and to then to be worn underneath an outer clothing, such as a shirt, that is form fitting to the user's body and be inconspicuous. Body portion 20 also preferably extends to the arms to form sleeves 60A and 60B. In addition, body portion has neckline 50, which can be of any conventional shape, such as a V shape, scoop shape or straight across. Neckline 50 can also be very low or very high depending on the need of the user.

[0031] In order for the body portion to be form fitting to the user, the material of the undergarment is preferably, one of an elastic material that is not only four-way stretchable but also sheer, therefore being inconspicuous. Preferred elastic materials are those of hosiery or stocking like materials, such as spandex, nylon, Lycra® or viscose fiber. However, it is contemplated that any form fitting elastic material can be used. The benefit of such material is that they allow for a tight and inconspicuous form-fit against the user's body and at the same time provide comfort, be inconspicuous and give a smooth appearance. Since most of these materials are sheer and thin, they can be easily worn under outer clothing such as a shirt, a tank-top, a dress, etc. It is also contemplated that the undergarment can be made of different styles, such as fish net or open-mesh as shown in FIG. 2. Presumably, the undergarment can come in a variety of sizes according to the individual user. While it is preferred that the undergarment is flesh-tone or nude in color to camouflage with the skin, any colors and patterns are suitable for the undergarment.

[0032] Armpit regions 30A and 30B are located on body portion 20 and in the armpit area. Armpit regions can be any size that accommodates the common armpit area. The size of the area generally depends on the user's body and the undergarment itself.

[0033] Preferably, armpit regions 30A and 30B are made of an absorbent material that can absorb sweat while being worn and prevent stains from forming on the consumers outer garment. The absorbent material works similar to a crotch region of a pair of pantyhose and there are several methods of attaching the absorbent material to the undergarment.

[0034] The term "absorbent material" is used herein in a very broad sense to include any article that is able to receive and/or absorb and/or contain and/or retain fluids, especially bodily fluids. The absorbent material preferably is made of the same type of materials found in conventional panty liners, sanitary pads, incontinence pads and diapers. These type of absorbent materials include terry toweling fabric, bamboo, microfibre fabrics, hemp, wood pulp, sphagnum moss, etc. Even more preferably, the absorbent material is customized that has the following characteristics: thin, flexible, stretchable under the armpit regions to be comfortable and inconspicuous.

[0035] In a preferred embodiment, the absorbent material can comprise of several material. For example, a first layer or a layer closest to the undergarment and to the user's skin preferably is weaved into the absorbent material to wick the moisture away. This first layer can absorbed the moisture into the absorbent material and still stay dry at the same time. Additionally, the absorbent material can be the second layer to soak up the moisture from the first wicking layer to absorb the sweat. Also optionally, there is a third layer or a waterproof moisture shield layer that acts like a barrier between the skin and the moisture. It works very similar to the sanitary pads in which the first layer always stays dry while the absorbent material absorbs the moisture and the third layer prevent the moisture from entering into the outer clothing.

[0036] Another preferred absorbent material is made of cotton. Preferably, the absorbent material is a wicking cotton material, such as Egyptian or French terry cotton but most preferably, the absorbent material is a four way stretch cotton.

[0037] One preferred method is to have the absorbent material sewn directly into the armpit regions. This can be achieved by using any sewing or knitting machine that preferably would generate a one piece of undergarment with the absorbent material. Other preferred methods include knitting, weaving or rousing the absorbent material into the armpit region to allow for greater absorbent density to absorb sweat. The goal is to provide an undergarment that not only is functional in terms of absorbing sweat but also can provide comfort and be inconspicuous.

[0038] It is further contemplated that a regular pair of pantyhose can be used to construct the undergarment as a one-piece garment. As such, the crotch region of the pantyhose is cut and that portion can be pulled over the head to act the body portion of the upper undergarment. The waist band of the pantyhose becomes the edge for the mid-torso region. The legs and feet are then cut off at the appropriate length to accommodate the arms and serve as sleeves. Then two crotch regions are constructed into the armpit regions of the undergarment to absorb sweat. The two crotch regions form a tight fit against the armpit regions. Due the material of the crotch regions, they are able to stretch out the armpit regions up close to the user's armpit to avoid creases, bulges and uncomfortable lines. Again, this construction allows the undergarment to be form fitting against the body without

extra bulkiness. This will make the user more comfortable and feel it like a second skin to the body.

[0039] The sleeves are also adjustable because of the thin-hosiery like material. It is also contemplated that the user can adjust sleeves **60A** and **60B** while still being protected and wear a sleeveless or tank top garment on the outside without having undergarment **10** being seen as shown in FIG. 3. Since the material used on the undergarment is so thin, the sleeves can be adjusted by being pulled up or rolled up and should still be comfortable and inconspicuous for the user without adding extra bulkiness. It is also contemplated that the sleeves can be long or short depending on the need of the user. Thus, it is possible to have a long length sleeve that is adjustable to the elbow region of the arm. Yet the user can still enjoy the benefits of the sweat-absorbing abilities of the present subject inventive matter.

[0040] Preferably, a thin gel-like sticky or tacky strip is attached to the inside of sleeves **60A** and **60B** to prevent the arms from rolling. This can be a conventional adhesive in the industry that will not irritate the skin. However, when the user decides to roll up the sleeves, the thin gel-like sticking strip is thin enough not to be noticeable to the user.

[0041] By having the absorbent material attached, either knitted or sewn, directly onto the armpit regions as a one-piece garment, this upper undergarment can be washed and reused. Alternatively, the entire upper undergarment can be disposable depending on the need of the user.

[0042] Besides the one-piece undergarment, another preferred embodiment is shown in FIG. 2 that shows external armpit pads **32A** and **32B** separately attached to the armpit regions **30A** and **30B**. In this embodiment, the body portion is still made of an elastic material and is connected to the armpit regions. The variation here is that the absorbent material is not directly knitted or sewn into the armpit regions. Instead, armpit pads **32A** and **32B** are made of absorbent materials and can be separately attached to the armpit regions.

[0043] Again, the materials for the armpit pads are absorbent materials that can absorb sweat during wearing and prevent stains from forming on the user's outer garment. The absorbent material preferably is made of the same type of materials found in conventional panty liners, sanitary pads, incontinence pads and diapers. These type of absorbent materials include terry toweling fabric, bamboo, microfibre fabrics, hemp, wood pulp, sphagnum moss, etc. Even more preferably, the absorbent material is customized that has the following characteristics: thin, flexible, stretchable under the armpit regions to be comfortable and inconspicuous. Also a thin first layer preferably is weaved into the absorbent material to absorb the moisture into the absorbent material and still stay dry at the same time. It works very similar to the sanitary pads in which the first layer always stays dry while the absorbent material absorbs the moisture.

[0044] Another preferred absorbent material is made of cotton. Preferably, the absorbent material is a wicking cotton material, such as Egyptian or French terry cotton but most preferably, the absorbent material is a four way stretch cotton. Also, preferably, the pads can be fabric or fabric-like materials that are thin and flexible so the user does not feel them during use. However, it is contemplated that the fabric can be made of other suitable absorbent materials.

[0045] Armpit pads **32A** and **32B** can be any shape and sizes but preferably large enough to accommodate absorbing

sweat of an average person. However, other shapes are contemplated such as a heart, a crescent, etc. While the pads can be inserted, knitted, sewn or weaved into the armpit regions, they can also be attached via adhesive liner to the armpit regions. There are also several other preferred methods of attaching the armpit pads to the armpit regions. One preferred method includes cutting a slit in the armpit region and allow the armpit pad to be inserted into the armpit region. The armpit pads preferably would have an adhesive liner in the back and the user will simply peel of the liner and insert half the armpit pad into the slit, then insert the other half.

[0046] Another preferred method is to have the armpit region be a flap that opens up to accommodate the armpit pad. The flap can be any size according to the need of the armpit region. Again, since the material of the armpit region is smooth and flexible, when the pad is inserted into the region and the user wears the undergarment, the undergarment as a whole provides suction to the pad and smooth the armpit region out. This way, the user will not feel the pad being too bulky under the armpit.

[0047] Yet another preferred method is to have the area where the armpit regions would have been cut out as a hole. Around the edge of the hole is a thin area of the absorbent material. The armpit pads in this preferred method would have an outer edge with adhesive that attaches to the thin area of the absorbent material around the hole.

[0048] Preferably, the pads are disposable and can be replaced according to the usage. They function like pantyliners for undergarments. However, depending on the material, the pads can also be washed and reused.

[0049] The thickness of the absorbent material and armpit pads are relative depending on the level of protection a user wants. For someone who has a slight sweating problem, a thinner absorbent material is used. On the other hand, a thicker material or pad are used for someone who sweats more. Moreover, the advantage of the present invention is that the absorbent material integrates with the rest of the undergarment so that the whole undergarment is thin, sheer, easy to wear, and can still absorb sweat. The overall undergarment is streamlined to conform to the individual's body and extremely lightweight and inconspicuous. Due to its hosiery like feel, the undergarment can come in packages similar to hosiery. It is even contemplated that the undergarment is disposable upon each individual use.

[0050] Furthermore, it is contemplated that the absorbent material or armpit pads contain materials that can further absorb odor such as, baking soda. Baking soda is commonly used in a deodorant and can absorb any odor associated with the smell. It is also contemplated that the absorbent materials can include a scent-laced deodorant which will release pleasant odors such as lavender during wearing.

[0051] In a preferred embodiment, undergarment **10** contains a built-in bra **80** that is constructed directly into the undergarment seamlessly as shown in FIG. 4. This eliminates the need for wearing a bra underneath the garment. Built in bra **80** can be made out the same materials as the body portion such as an elastic material. It is contemplated that the built in bra can be a shelf bra, cup bra, or any feasible bra. More preferably, the bra section can be made of more supportive materials such as heavier spandex, cotton or Lycra® branded products.



[0052] In preferred embodiments, the body portion also has edge 40 of the mid-torso region that serves to stop rolling of the fabric material of the undergarment. Edge 40 can be any suitable material, such as lace or cotton. It can also be a thin gel-like sticky and tacky material to prevent rolling up of the garment. It is contemplated that the edge of the mid-torso can extend lower to cover up the abdominal region or even extend to the crotch region and to the legs that will allow it to work as a one piece body-suit.

[0053] A user of the undergarment would simply put the undergarment on as a shirt but the undergarment is much more form-fitting, thin, elastic, inconspicuous and comfortable than a shirt. Preferably the undergarment is in one piece and can be pulled over from the head to the torso. It is also contemplated that the undergarment can have a front or back enclosure with hooks or Velcro. Other types of enclosures are also contemplated. The material of the undergarment allows the user to wear it inconspicuously underneath an outer garment and provide sweat absorbing protection at the same time. It is contemplated that when the undergarment has a built-in bra, it eliminates the need to wear a bra or the unwanted bra strap lines. Unlike the conventional bra, this undergarment will eliminate the bulges in the back torso and the user can have a smooth torso region, especially when wearing tight fitting clothes. Furthermore, the material of the present undergarment provides protection and will give a smooth torso appearance. This is desirable, especially for women who want to eliminate unwanted bulges from conventional bra straps. Most preferably the user is a woman; however, men and children can also wear the undergarment.

[0054] In a contemplated embodiment, the undergarment of the present inventive subject matter is promoted, marketed and sold in a kit. The kit preferably contains the undergarment and instructions on how to use the undergarment. Retailers, manufacturers, wholesalers or any other distributors that market, promote or sell the kits also can include armpit pads, disposable or reusable ones. Optionally, the armpit pads can be promoted, marketed and sold separately.

[0055] It should be apparent to those skilled in the art that many more modifications beside those already described are possible without departing from the inventive concepts herein. Moreover, in interpreting the disclosure all terms should be interpreted in the broadest possible manner consistent with the context. In particular, the terms "comprises" and "comprising" should be interpreted as referring to elements, components, or steps in a non-exclusive manner, indicating that the referenced elements, components, or steps could be present, or utilized, or combined with other elements, components, or steps that are not expressly referenced. Where the specification claims refers to at least one of something selected from the group consisting of A, B, C . . . and N, the text should be interpreted as requiring only one element from the group, not A plus N, or B plus N, etc.

What is claimed is:

1. An elastic upper-body panty comprising:  
a form-fitting body portion covering a shoulder region to a mid-torso region, wherein the body portion comprises an elastic material;  
the body portion further comprises a plurality of armpit region, wherein each of the armpit region comprises an absorbent material.
2. The panty of claim 1, wherein the armpit region comprises a first, a second, and a third layer, wherein the first layer is a wicking material, the second layer is the absorbent material, and a third layer is a waterproof material.
3. The panty of claim 1, wherein the absorbent material is a stretchable material.
4. The panty of claim 1, wherein the body portion comprises a stocking material.
5. The panty of claim 1, wherein the absorbent material comprises a waterproof material.
6. The panty of claim 1, wherein the absorbent material is a panty liner.
7. The panty of claim 1, wherein the absorbent material is a diaper.
8. The panty of claim 1, wherein the absorbent material is knitted into the body portion.
9. The panty of claim 1, wherein the panty is reusable.
10. The panty of claim 1, wherein the panty is disposable.
11. The panty of claim 1, wherein the absorbent material is a disposable pad.
12. The panty of claim 1, wherein the absorbent material is a reusable pad.
13. The panty of claim 11, wherein the pad is inserted into the armpit region.
14. The panty of claim 1, further comprising a shelf bra section in the body portion.
15. The panty of claim 1, further comprising a pair of sleeves on the body portion, wherein the sleeves are adjustable.
16. The panty of claim 1, wherein the body portion fits snugly to a user's body.
17. A method of promoting the panty of claim 1 comprising providing a kit, wherein the kit comprises the panty of claim 1 and a set of instruction on how to use the panty.
18. A method of promoting the panty of claim 17, further comprising providing a pad in the kit.
19. A method of promoting the panty of claim 1 comprising providing a kit, wherein the kit comprises a pad and a set of instructions on how to use the pad in conjunction with the panty.
20. A method of making the panty of claim 1, comprising:  
providing a first pair of pantyhose;  
cutting out a first crotch region of the first pantyhose;  
cutting out a plurality of leg portion of the first pantyhose;  
and  
attaching a second and a third crotch region from a second and a third pantyhose, respectively to an armpit region of the first pantyhose.

\* \* \* \* \*