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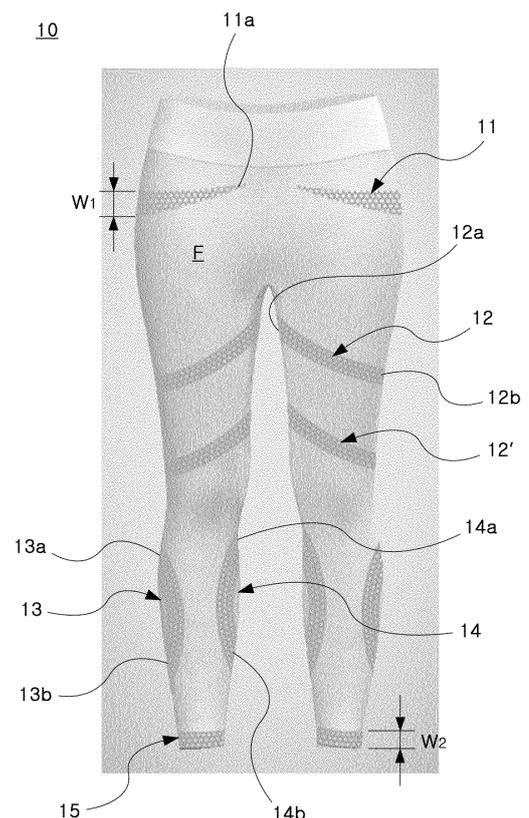
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(54) **TAPING TIGHTS**

(57) Proposed are taping tights. On a front part of a lower body, each of first taping patterns laterally symmetrical to each other converges to a point at an inner distal end along the pelvis of a wearer, and extends to a rear part while being gradually spread, with the inner distal end being terminated with a concave curved line along a hip line. Each of second taping patterns provided on thigh portions includes an inclined line extending on the front part from an inner top end toward an outer bottom end, the inner top end being directed toward the groin, and another inclined line extending on the rear part to join the inner top end on the front part. Each of third taping patterns provided on calf portions includes an arc extending on the front part from an outer top end of the calf portions to be curved inward and then outward and another arc extending on the rear part to be curved inward and then outward such that a top end of the other arc joins the outer top end on the front part. Fourth taping patterns are provided laterally symmetrical from the third taping patterns with respect to the shank line, respectively. The taping tights are easily worn by the general public who enjoy exercises, have a muscle protective function and a body shape correction function, and are worn as casual wear.

[Fig. 1]



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## Description

### Technical Field

[0001] The present invention relates to taping tights serving as sportswear or athletic underwear clinging to the skin and, more particularly, to taping tights having both a muscle protective function and a body shape correction function.

### Background Art

[0002] Athletic taping is a sports medicine technique that has been widely used in order to protect the muscles of an athlete. A type of sportswear to which this technology is applied is taping tights. Taping tights are produced by coating the surface of clothing fabric with a predetermined pattern of a resin, such as silicone, along the texture of muscles or depending on a predetermined purpose, such as shoulder muscle protection, mobility improvement, or balance maintenance.

[0003] As a technology for forming a taping pattern on clothing, Korean Patent No. 0228724 already proposed a pattern for protecting the joint and muscles of a shoulder. Korean Patent No. 0305598 proposed a hamstring protective pattern, and Korean Patent No. 0706631 proposed a knee protective pattern. However, since the uses of these patent technologies are mainly suitable to body shape correction underwear, it has been unsuitable to directly apply these technologies to sportswear.

[0004] In addition, Korean Patent No. 0989829 and Korean Patent No. 1200852 proposed athletic taping tights as full body clothing for body shape correction and muscle support functions. However, due to specific purposes of these patents directly targeting taping tights dedicated to athletes, it has been difficult for the general public to easily, conveniently, and relatively inexpensively use these athletic taping tights.

### Disclosure

#### Technical Problem

[0005] Accordingly, the present invention has been made keeping in mind the above problems occurring in the prior art, and an objective of the present invention is to provide taping tights which may be easily worn by the general public who enjoy exercises, have a muscle protective function and a body shape correction function, and be worn as casual wear.

#### Technical Solution

[0006] In order to accomplish the above objective, provided are taping tights configured to be worn on a lower body and such that a front part and a rear part are connected to each other. The taping tights may include: first taping patterns laterally symmetrical to each other,

wherein, on the front part, each of the first taping patterns has a predetermined width in a vertical direction on a pelvis portion, is gradually narrowed inward along the pelvis of a wearer to converge to a point at an inner distal end, and continuously extends inward from the predetermined width in the vertical direction on an outer portion of the front part to the rear part while being gradually spread in the vertical direction, with the inner distal end being terminated with a concave curved line along a hip line; second taping patterns provided on thigh portions, wherein each of the second taping patterns includes an inclined line extending on the front part from an inner top end toward an outer bottom end, the inner top end being directed toward the groin, and another inclined line continuously extending on the rear part from the outer bottom end on the front part to join the inner top end on the front part; third taping patterns provided on calf portions, wherein each of the third taping patterns includes an arc extending on the front part from an outer top end to a bottom end of a corresponding one of the calf portions to be curved inward and then outward and another arc continuously extending on the rear part from the bottom end to the top end of the arc to be curved inward and then outward such that a top end of the other arc joins the outer top end on the front part; and fourth taping patterns provided laterally symmetrical from the third taping patterns with respect to the shank line, respectively, wherein each of the fourth taping patterns includes an arc extending on the front part from an inner top end to a bottom end of the calf portion to be curved outward and then inward and another arc continuously extending on the rear part from the bottom end to the top end of the arc to be curved outward and then inward such that a top end of the other arc joins the inner top end on the front part.

[0007] Here, the second taping patterns may include pairs of taping patterns each including upper and lower taping patterns provided on upper and lower portions of a corresponding one of the thigh portions.

[0008] In addition, the taping tights may further include fifth taping patterns provided as seamless finishing patterns on finishing portions provided along finishing lines surrounding the ankles of the lower limbs, wherein each of the fifth taping patterns is provided along circumference of the finishing portion and has a predetermined width.

[0009] Each of the first to fourth taping patterns may include a silicone resin printed on the taping tights and non-printed areas located in each of the taping patterns, the non-printed areas having a shape of a regular hexagon and being regularly distributed on a plane.

[0010] In addition, the taping tights may be taping tights for men, and each of the first taping patterns may include an inner end joining a vertical boundary between a penis portion and a scrotum portion provided in an inner central portion of the front part.

### Advantageous Effects

**[0011]** As described above, the taping tights according to the present disclosure may be easily worn by the general public who enjoy exercises, have a muscle protective function and a body shape correction function, and be worn as casual wear. Thus, these features may significantly contribute to the enlargement of the market of taping tights. The taping tights according to the present disclosure may be used in a variety of applications, such as sportswear, sports underwear, innerwear, leggings, gym wear, and gym clothing.

### Description of Drawings

**[0012]** FIGS. 1 to 3 are front, side, and rear views illustrating taping tights according to a first embodiment of the present disclosure;

**[0013]** FIGS. 4 to 6 are front, side, and rear views illustrating taping tights according to a second embodiment of the present disclosure;

**[0014]** FIG. 7 is an enlarged view of the taping pattern used in the taping tights according to embodiments of the present disclosure; and

**[0015]** FIGS. 8 to 13 are schematic views illustrating body muscle portions in which the taping tights according to embodiments of the present disclosure are functionally involved.

### Mode for Invention

**[0016]** The motion of the human body a continuous center motion to maintain balance in the front and back direction, the lateral direction, and the vertical direction regardless of any action. This balancing of the human body during motion is referred to as the postural reflex mechanism.

**[0017]** When the postural reflex mechanism is applied to clothing, any imbalance in the front and back direction, the lateral direction, or the vertical direction may be corrected to assist in balancing of the body. Accordingly, the human body may be naturally healed from diseases caused by imbalance.

**[0018]** Specifically, the human body continuously has postural reflect against motion in order to maintain balanced posture in response to any motion. At this time, balancing of the human body occurs in the front and back direction, the lateral direction, and the vertical direction. In order to heal weakness of muscle strength, joint misalignment, or nervous system abnormality caused by postural imbalance, only taping main agonist muscles of each portion of the human body is sufficient to obtain a healing effect.

**[0019]** The present disclosure is characterized by applying the above-described postural reflex mechanism to taping patterns. The present disclosure includes the following patterns configured to mainly complement matching muscles in order to balance flexion and exten-

sion, i.e., joint motion occurring in the front and rear sides of the body, and abduction and adduction, i.e., joint motion occurring in the right and left sides of the body.

**[0020]** FIGS. 1 to 3 are front, side, and rear views illustrating taping tights 10 for women according to an embodiment of the present disclosure. The taping tights 10 are configured to be worn on the lower body and such that a front part F and a rear part R are connected to each other.

**[0021]** On the front part F, first taping patterns 11 each having a predetermined width in the vertical direction are provided on pelvis portions, respectively. Each of first taping patterns 11 is gradually narrowed inward along the pelvis of a wearer to converge to a point 11a at the inner distal end. Each of first taping patterns 11 having the predetermined width W1 in the vertical direction on the outer portion of the front part F continuously extends inward to the rear part R while being gradually spread in the vertical direction. At the inner distal end, each of first taping patterns 11 is terminated with a concave curved line 11b along the hip line.

**[0022]** The first taping pattern 11 is a pattern designed according to the muscle flows of the human body. The first taping pattern 11 is printed such that different areas thereof are applied to different body portions. The first taping pattern 11 performs a body shape correction function of highlighting the curves of the pelvis and pressing the buttock along the hip line 11b so that the buttock is supported to protrude.

**[0023]** In addition, as illustrated in FIGS. 8 and 9, the first taping pattern 11 assists in the motion of gluteus medius 1 participating in the front-back, lateral, and vertical flexion in the buttock# and the motion of gluteus maximus 2 participating in extension in response to the flexion.

**[0024]** The first taping pattern 11 on the rear part F highlights the muscle line of the buttock# by the curved line 11b, thereby obtaining a butt lift effect, as described above. Consequently, the buttocks look more prominent and the beauty of the motion is improved.

**[0025]** Referring to FIGS. 1 to 3, in each of second taping patterns 12 provided on thigh portions, an inclined line extends from an inner top end 12a toward an outer bottom end 12b, the inner top end 12a being directed toward the groin, and another inclined line continuously extends on the rear part R from the outer bottom end 12b on the front part F to join the inner top end 12a on the front part. In particular, a lower second taping pattern 12' may be provided on the thigh portion below the second taping pattern 12, thereby providing a pair of upper and lower second taping patterns 12 and 12'. In this manner, the high elasticity silicone resin printed on the clothing fabric of the tights provides a pressing effect due to contractile force. Consequently, as illustrated in FIGS. 10 and 11, an effect of pressing a biceps femoris group 3 (e.g., biceps femoris, semimembranosus, and semitendinosus) participating in flexion in the thigh and a quadriceps muscle group 4 (e.g., rectus femoris, vastus inter-

medius, vastus medialis, and vastus lateralis) participating in extension in response to the flexion may be obtained to assist in blood circulation, thereby reducing fatigue. In addition, pressing the thigh muscles may obtain a beauty effect of slimming the thighs and highlighting the muscles.

**[0026]** Referring to FIGS. 1 to 3, in each of third taping patterns 13, an arc extends on the front part F from an outer top end 13a to a bottom end of a calf portion to be curved inward and then outward, and another arc continuously extends on the rear part R from the bottom end 13b to the top end of the arc to be curved inward and then outward such that the top end of the other arc joins the outer top end 13a on the front part F.

**[0027]** In each of fourth taping patterns 14, an arc extends on the front part F from an inner top end 14a to a bottom end of the calf portion to be curved outward and then inward, and another arc continuously extends on the rear part R from the bottom end 14b to the top end of the arc to be curved outward and then inward such that the top end of the other arc joins the inner top end 14a on the front part F.

**[0028]** The third taping pattern 13 and the fourth taping pattern 14 may be provided laterally symmetrical from each other with respect to the shank line.

**[0029]** The third and fourth taping patterns 13 and 14 serve to press the calf portions inward in the lateral direction, thereby causing the calves of the wearer to be slim and the motion to look beautiful.

**[0030]** In addition, the pressing effect by the third and fourth taping patterns 13 and 14 protects, while complementing the functions of, a tibialis anterior group 5 participating in flexion of the lower limb and triceps surae muscle 6 (e.g., Achilles tendon and soleus muscle) participating in extension in response to the flexion, as illustrated in FIGS. 12 and 13.

**[0031]** In particular, as illustrated in FIG. 3, the effect of the third taping patterns 13 and the fourth taping patterns 14 pressing the calves inward from both sides may assist in blood circulation in the calf muscles also referred to as the second heart. (This effect is also referred to as a tunnel effect.) Thus, the pumping effect of the calf muscles may be promoted.

**[0032]** As illustrated in FIGS. 1 to 3, fifth taping patterns 15 are provided as seamless finishing patterns on finishing portions provided along finishing lines E surrounding the ankles of the lower limbs. Each of the fifth taping patterns 15 is formed along the circumference of the finishing portion made of single clothing fabric, and has a predetermined width W2 in the vertical direction. The fifth taping pattern 15 may replace conventional fold finishing, i.e., seam processing. As a characteristic feature, finishing processing may be provided by the single clothing fabric itself. In addition, the length of the taping tights may be adjusted to the height of the wearer by the wearer him/herself by cutting suitable portions of the fifth taping patterns within the width W2 depending on the height.

**[0033]** The fifth taping patterns 15 serve to hold the

hems of the taping tights so as not to be dragged up toward the thighs during knee bending motion, thereby guaranteeing the activity of the wearer.

**[0034]** FIGS. 4 to 6 illustrate taping tights 20 for men according to an embodiment of the present disclosure. Patterns of the taping tights 20 for men are substantially the same as those of the taping tights 10 for women and thus descriptions thereof will be omitted.

**[0035]** In FIG. 4, the first taping patterns 21 are configured such that inner ends 21a thereof join a boundary L between a penis portion 26 and a scrotum portion 27 provided in the inner central portion. Thus, the first taping patterns 21 serve to pull the boundary L outward to help the penis and the scrotum be separated from each other. Consequently, the penis and the scrotum may remain separated from each other even during intense sports activities.

**[0036]** FIG. 7 is an enlarged view of a pattern shape used in the above-described patterns. A pattern P formed by printing a silicone resin on the surface of clothing fabric 10a includes non-printed areas N having the shape of a regular hexagon, the non-printed areas N being regularly distributed on a plane. Accordingly, moisture discharge performance and permeability, as well as improved elasticity, may be obtained.

#### Claims

1. Taping tights configured to be worn on a lower body and such that a front part and a rear part are connected to each other, the taping tights comprising:

first taping patterns laterally symmetrical to each other, wherein, on the front part, each of the first taping patterns has a predetermined width in a vertical direction on a pelvis portion, is gradually narrowed inward along the pelvis of a wearer to converge to a point at an inner distal end, and continuously extends inward from the predetermined width in the vertical direction on an outer portion of the front part to the rear part while being gradually spread in the vertical direction, with the inner distal end being terminated with a concave curved line along a hip line;

second taping patterns provided on thigh portions, wherein each of the second taping patterns comprises an inclined line extending on the front part from an inner top end toward an outer bottom end, the inner top end being directed toward the groin, and another inclined line continuously extending on the rear part from the outer bottom end on the front part to join the inner top end on the front part;

third taping patterns provided on calf portions, wherein each of the third taping patterns comprises an arc extending on the front part from an outer top end to a bottom end of a corresponding

one of the calf portions to be curved inward and then outward and another arc continuously extending on the rear part from the bottom end to the top end of the arc to be curved inward and then outward such that a top end of the other arc joins the outer top end on the front part; and fourth taping patterns provided laterally symmetrical from the third taping patterns with respect to the shank line, respectively, wherein each of the fourth taping patterns comprises an arc extending on the front part from an inner top end to a bottom end of the calf portion to be curved outward and then inward and another arc continuously extending on the rear part from the bottom end to the top end of the arc to be curved outward and then inward such that a top end of the other arc joins the inner top end on the front part.

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2. The taping tights according to claim 1, wherein the second taping patterns comprise pairs of taping patterns each comprising upper and lower taping patterns provided on upper and lower portions of a corresponding one of the thigh portions.

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3. The taping tights according to claim 1, further comprising fifth taping patterns provided as seamless finishing patterns on finishing portions provided along finishing lines surrounding the ankles of the lower limbs, wherein each of the fifth taping patterns is provided along circumference of the finishing portion and has a predetermined width.

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4. The taping tights according to claim 1, wherein each of the first to fourth taping patterns comprises a silicone resin printed on the taping tights and non-printed areas located in each of the taping patterns, the non-printed areas having a shape of a regular hexagon and being regularly distributed on a plane.

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5. The taping tights according to claim 1, wherein the taping tights are taping tights for men, and each of the first taping patterns comprises an inner end joining a vertical boundary between a penis portion and a scrotum portion provided in an inner central portion of the front part.

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6. The taping tights according to claim 2, wherein each of the first to fourth taping patterns comprises a silicone resin printed on the taping tights and non-printed areas located in each of the taping patterns, the non-printed areas having a shape of a regular hexagon and being regularly distributed on a plane.

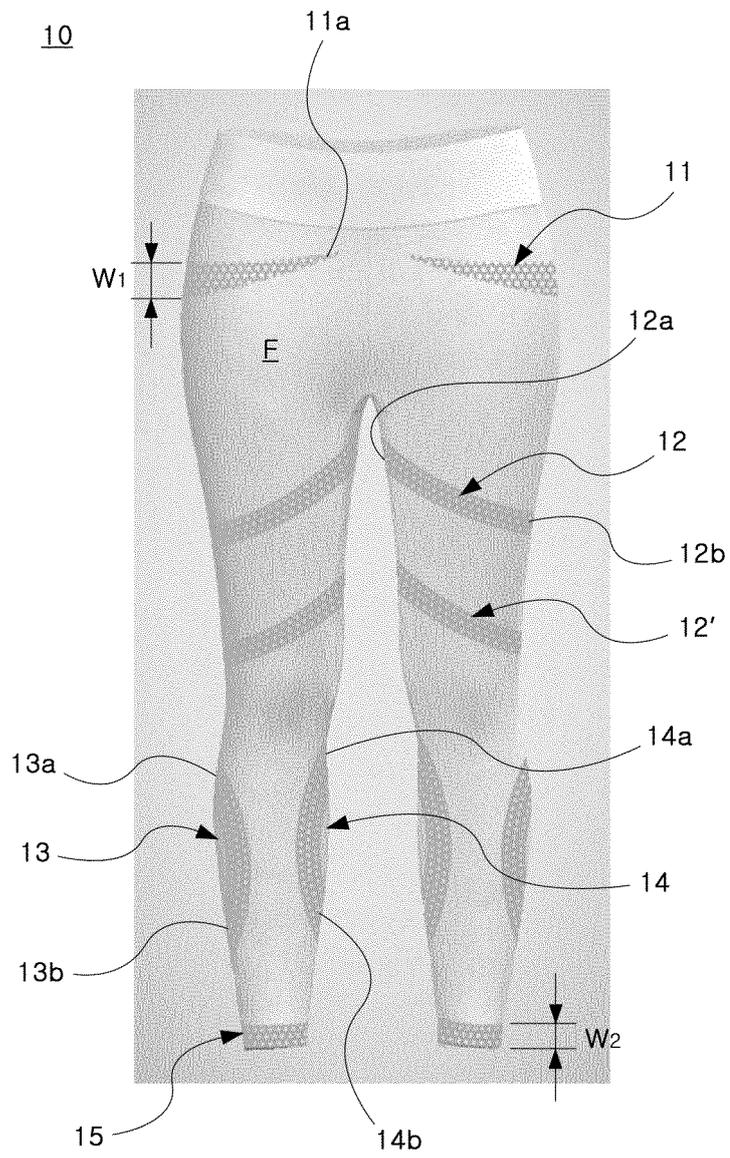
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7. The taping tights according to claim 3, wherein each of the first to fourth taping patterns comprises a silicone resin printed on the taping tights and non-printed areas located in each of the taping patterns, the

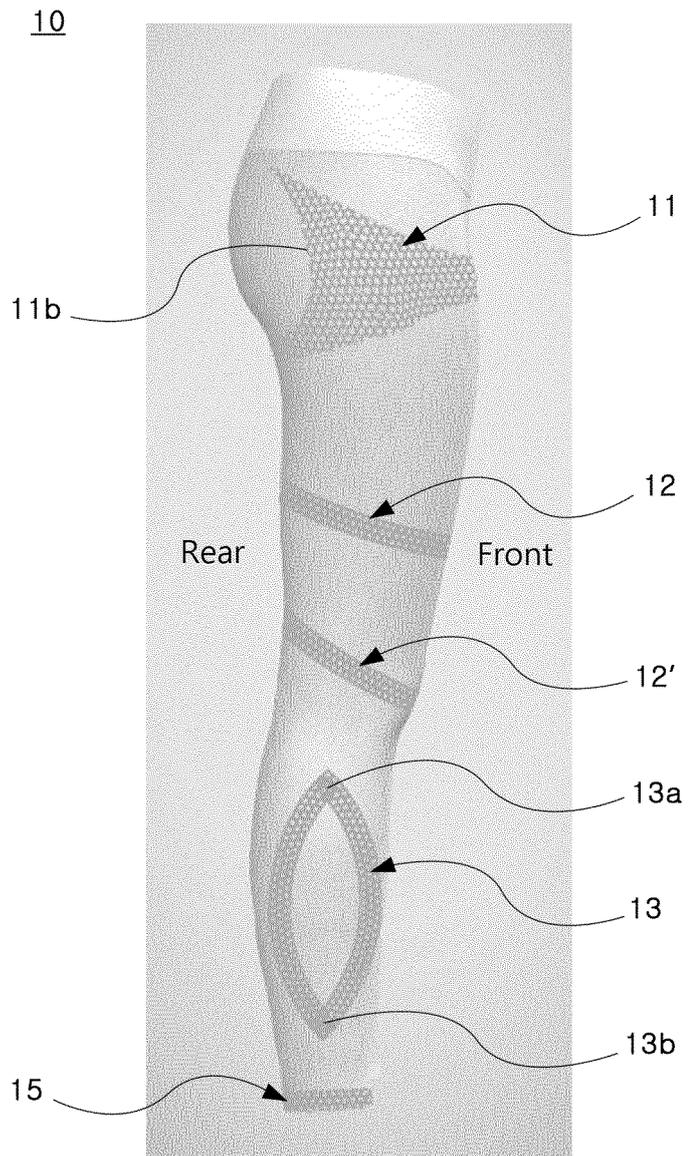
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non-printed areas having a shape of a regular hexagon and being regularly distributed on a plane.

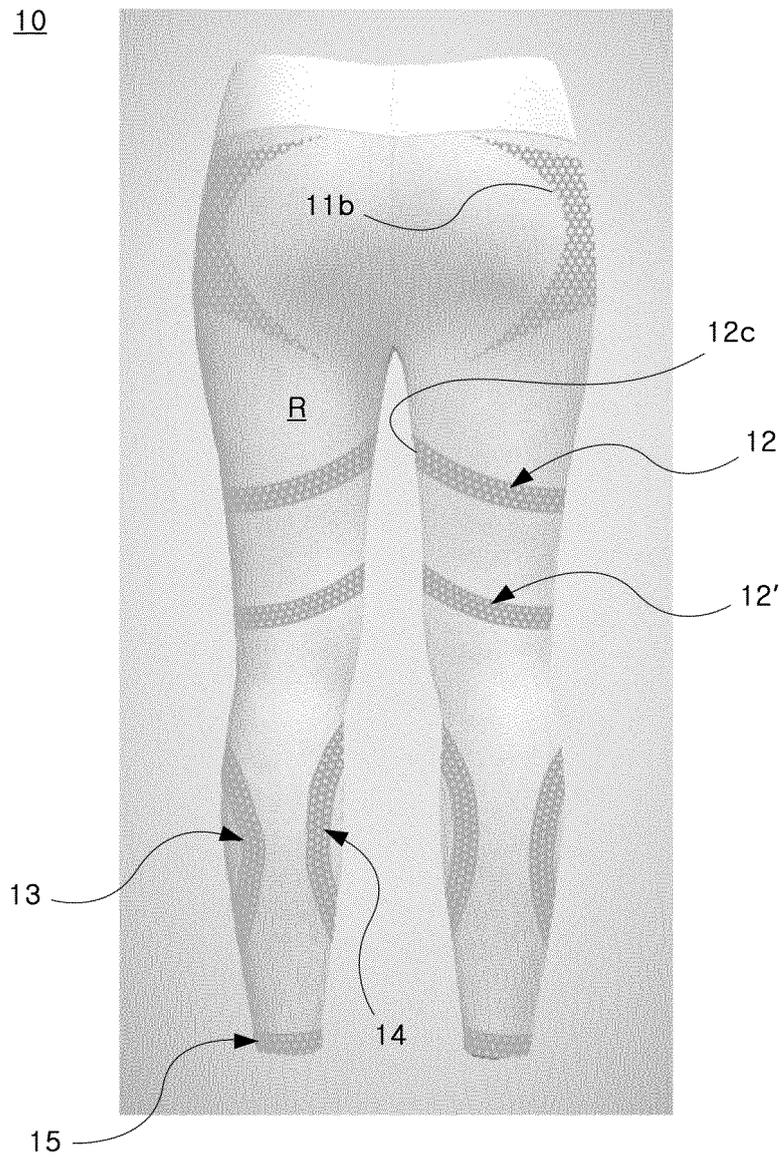
[Fig. 1]



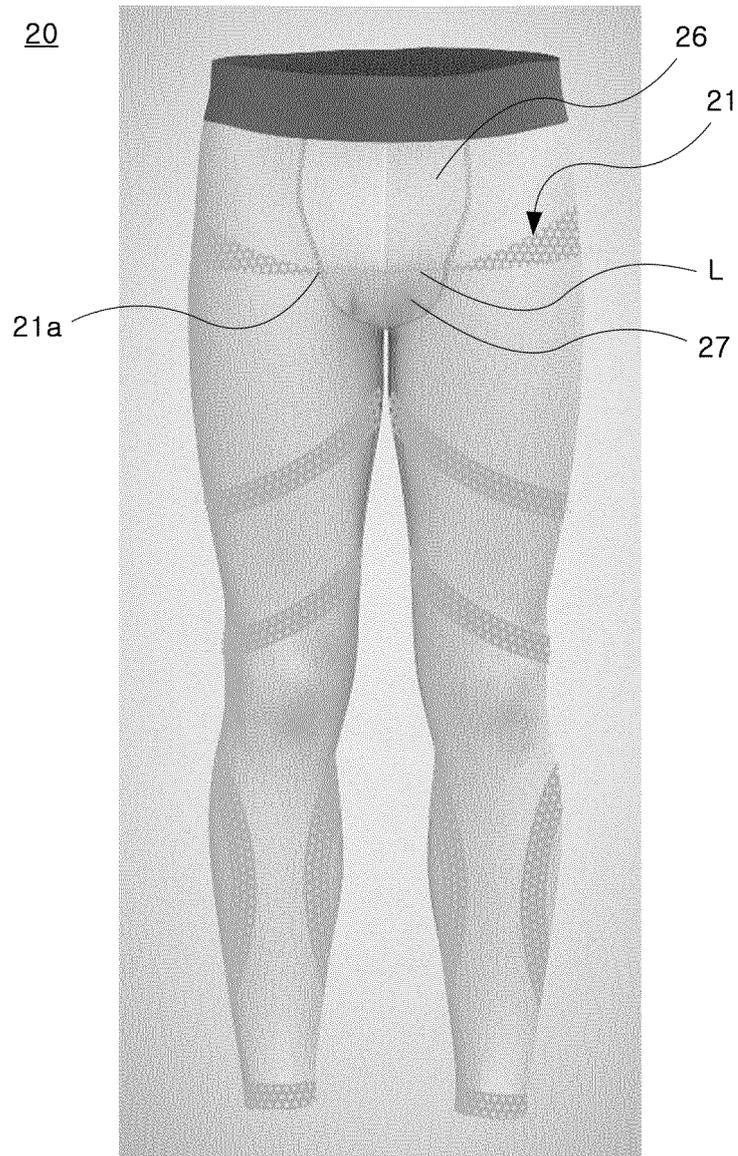
[Fig. 2]



[Fig. 3]



[Fig. 4]



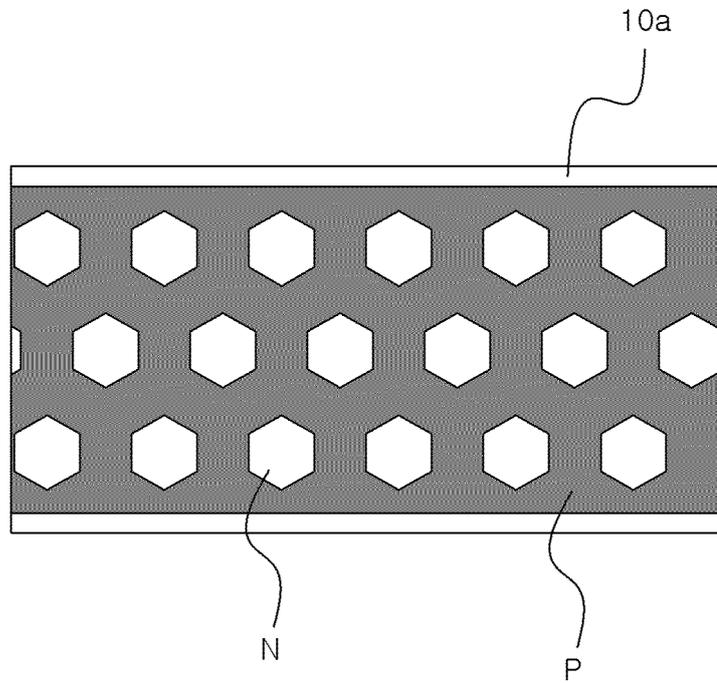
[Fig. 5]



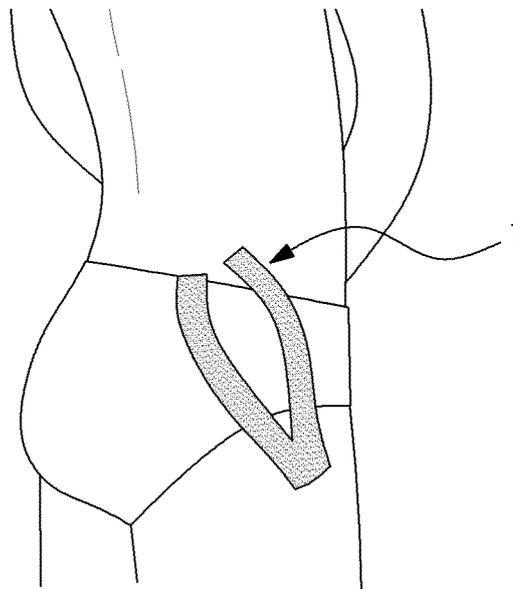
[Fig. 6]



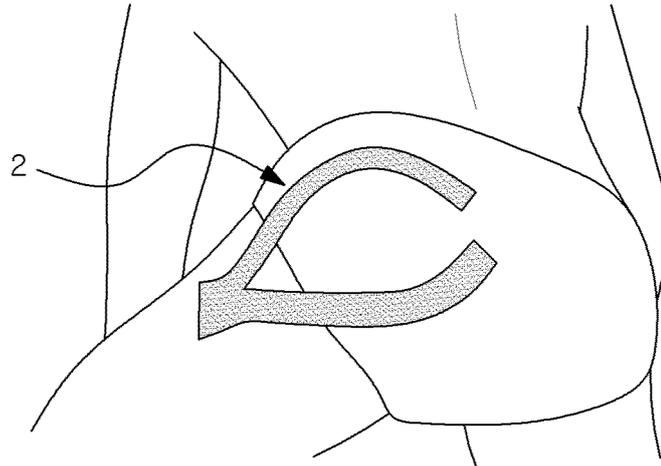
[Fig. 7]



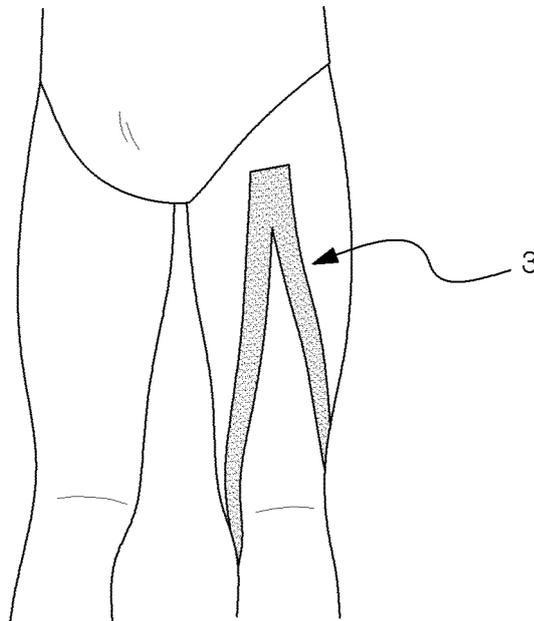
[Fig. 8]



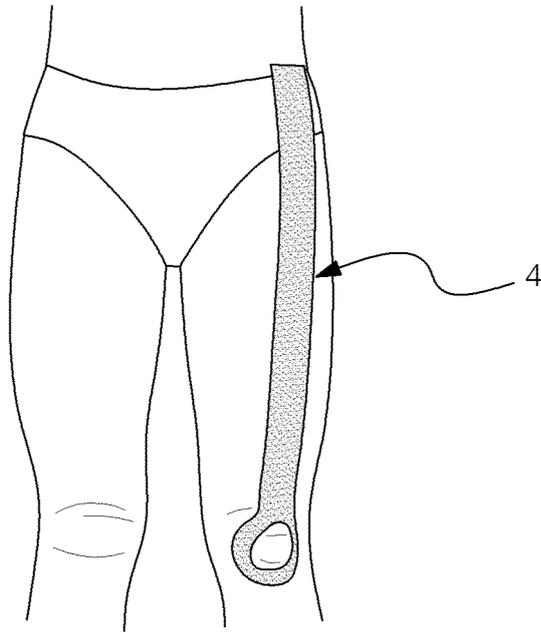
[Fig. 9]



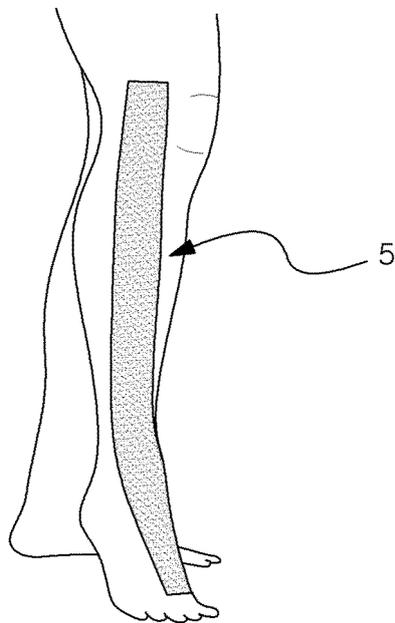
[Fig. 10]



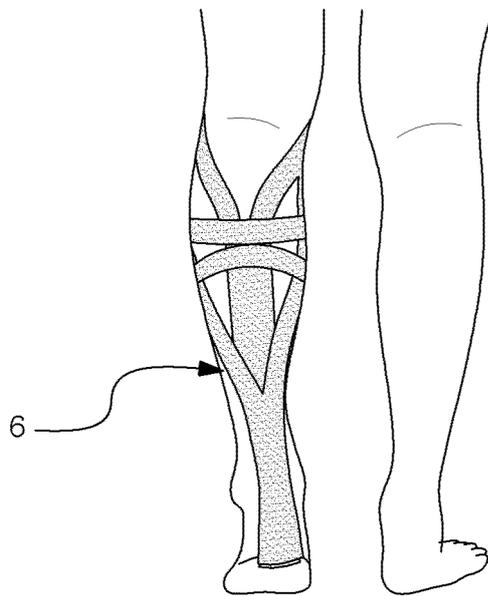
[Fig. 11]



[Fig. 12]



[Fig. 13]



INTERNATIONAL SEARCH REPORT

International application No.  
**PCT/KR2020/017714**

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<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
A41D 1/06(2006.01); A41D 13/05(2006.01); A41D 13/06(2006.01); A41B 11/14(2006.01); A41D 31/18(2019.01);		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols) A41D 1/06(2006.01); A41B 11/00(2006.01); A41B 11/14(2006.01); A41D 1/08(2006.01); A41D 13/00(2006.01); A41D 13/12(2006.01); A41D 27/06(2006.01)		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean utility models and applications for utility models: IPC as above Japanese utility models and applications for utility models: IPC as above		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) eKOMPASS (KIPO internal) & keywords: 테이핑 타이즈(taping tights), 테이핑 패턴(taping pattern), 실리콘(silicone), 무봉제(seamless)		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
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* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "D" document cited by the applicant in the international application "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search <b>21 July 2021</b>		Date of mailing of the international search report <b>21 July 2021</b>
Name and mailing address of the ISA/KR <b>Korean Intellectual Property Office Government Complex-Daejeon Building 4, 189 Cheongsaro, Seo-gu, Daejeon 35208</b> Facsimile No. +82-42-481-8578		Authorized officer  Telephone No.

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INTERNATIONAL SEARCH REPORT  
Information on patent family members

International application No.  
**PCT/KR2020/017714**

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