



(43) International Publication Date
25 August 2016 (25.08.2016)

(51) International Patent Classification:

A43C 13/00 (2006.01) A43B 13/32 (2006.01)
A43C 15/02 (2006.01) A43B 21/36 (2006.01)
A43C 15/04 (2006.01) A43B 21/54 (2006.01)
A43B 13/28 (2006.01)

(21) International Application Number:

PCT/US2016/018032

(22) International Filing Date:

16 February 2016 (16.02.2016)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/117,259 17 February 2015 (17.02.2015) US

(72) Inventor; and

(71) Applicant : BRYAN, Ricci [US/US]; 708 Setting Sun Trail, McKinney, Texas 75069 (US).

(74) Agent: KADIEVITCH, Natalie D.; Fredrikson & Byron, P.A., 200 South Sixth Street, Suite 4000, Minneapolis, Minnesota 55402-1425 (US).

(81) Designated States (unless otherwise indicated, for every

kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every

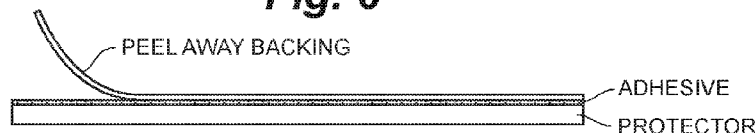
kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: SHOE PROTECTOR

Fig. 6



(57) Abstract: A sole protector having a sole protector material with a lower surface that is meant to be exposed when the sole protector is applied to a shoe, an adhesive layer on an opposite surface of the sole protector material and a peel-away backing layer on the adhesive wherein the sole protector material is the same color as the sole on which it is placed and it covers about 85 % of the sole of the shoe onto which it is applied.



WO 2016/133883 A1

SHOE PROTECTOR

Cross-Reference to Related Applications

This application claims the benefit of U.S. Provisional Application No. 62/117,259 filed February 17, 2015 which is incorporated herein in its entirety.

Field of the Invention

The embodiments of the invention are directed to a protection device for the sole of a pair of high-end shoes as well as a portion of the interior or the entire interior of a shoe to reduce and possibly prevent a foot from sliding in various types of footwear. People often spend significant amounts of money on fashion items and shoes are no exception. It is estimated that about \$254 Billion are spent on shoes globally. Recently, at least one designer, Christian Louboutin, has incorporated color into the soles of the shoes that have his design. In particular, his color is red and it is well known among fashion conscious consumers that such shoes are very expensive and can cost thousands of dollars.

The soles of a pair of shoes, especially dressy shoes often take a beating during their wear. When the shoes are brand new, the sole is unblemished. Often this can result in the shoe being very slippery on floorings. After time, however, the sole becomes damaged by the flooring such as concrete, gravel, for example, on which the sole is exposed to. This can be especially concerning for an owner of designer shoes such as Louboutins since there is a certain status in having the red color of the shoe intact. Figure 3 shows an example of a pair of soles damaged by ordinary use. In this case the shoe was a man's shoe.

There are some known devices and techniques for addressing the issue of new shoes being slippery. One such known device is commercially available from Apra and is known as "Grippy Steps" as shown in Figure 1. Grippy Steps is a patch-like device that can be adhered to the exterior sole of a shoe. It has a surface that is textured, usually a plastic texture, and is exposed to the flooring during use to prevent slipping. To use the device, a peel away backing is removed to expose an adhesive which allows the device to be adhered to the sole of a shoe. As shown in Figure 2, the device only covers a small portion of the sole. It is usually smaller than the sole of the shoe on which it is applied and is oval in shape. Another known device is commercially known as a foot petal and operates in very much the same way as the Grippy Steps. It is usually smaller than the sole of the shoe it is applied to and has a shape of a flower. A disadvantage with these devices is that they are not removable without leaving an adhesive

residue and they are not repositionable or reusable. Oftentimes, during use they can move thus leaving an ugly film such as that shown in Figure 2.

Such devices do not prevent slipping effectively because they only cover a small portion of a sole and they do not adhere well to the sole.

Alternatively, a technique that has been used is to take a brand new pair of shoes to a cobbler who then sands off the entire sole to give it texture and thus grip to enable a permanent bonding adhesive to adhere an aftermarket rubber piece to the shoe to provide a gripping benefit. This technique damages the sole of the shoe and is not desirable with designer shoes that incorporate color into their soles. These types of shoes have become vintage collectibles and thus it would be beneficial to preserve the integrity of the original sole. Also, the bond is intended to be permanent and thus not removable or repositionable.

The embodiments of the invention offer several goals. They are designed to protect the sole of a shoe, they are designed to be removable and repositionable without causing damage to the sole and without leaving virtually any residue after removal as well as be reusable and they provide security in reducing the slippage between the sole of a shoe and the particular flooring it encounters. Used in the interior of the shoe, they reduce or prevent the foot from slipping inside the shoe. The embodiments of the invention are made to be durable to withstand weather conditions without coming unglued.

Brief Description of the Drawings

Figure 1 illustrates a known device that helps prevent slipping of a shoe on a flooring.

Figure 2 illustrates the device shown in Figure 1 mounted on the sole of a pair of shoes after only 8 hours of use.

Figure 3 illustrates the problem occurs for men's shoes as well.

Figure 4 illustrates a shoe sole protector according to an embodiment of the invention.

Figure 5 illustrates a clear material that can be used to create the sole protector.

Figure 6 illustrate a protector in its unattached state.

Figures 7-18 are various embodiments of protectors that are shaped to work with various brands and/or models of women shoes.

Figures 19-29 are various embodiments of protectors that are shaped to work with various brands and/or models of men shoes.

Figure 30 illustrates an embodiment of a protector with a logo imprinted thereon.

Detailed Description of the Drawings

Figure 4 illustrates a shoe sole protector according to an embodiment of the invention. In this particular embodiment, the sole protector is shown in black although other colors can be produced. For example, the protector may be clear as shown in Figure 5. Preferably, the protector covers a majority of the sole that comes in contact with a flooring. Preferably, only a small portion of the sole is exposed. For example, not more than about .25 to about .5 inches of the sole platform is left exposed. Alternatively, the entire sole may be covered. In addition, the surface of the heel that comes in contact with flooring may also be covered. In a preferred embodiment about 85% of the sole of the shoe onto which the sole protector is applied is covered.

Figure 6 illustrate a protector in its unattached state. Preferably the protector is sold in a pair for each sole of a shoe. As will be discussed in further detail hereinafter, the protector has a shape that may be dictated by the type, brand and/or model of shoe as well as its size so that it provides effective coverage. Each protector has a peel-away cover on at least one side that can be removed to expose an adhesive when the protector is to be applied to the sole of a shoe. The opposite side may optionally have a peel-away cover as well that can be removed once the protector is secured to shoe. The adhesive requires no set time to dry so that it simply adheres to the bottom of the shoe and does not need to be cured, for example.

Figures 7-18 are various embodiments of protectors that are shaped to work with particular brands and/or models of women shoes as well as sizes. The protector is shaped to fit the portion of the sole that comes into contact with the flooring under a user's foot pad. The protectors can be sold to be used with a particular maker's shoes and particular styles of shoe. For example, a set of protector can be sold for use with Louboutin's coated leather sole shoe, for example whereas another set of protectors can be sold for use with Gucci's coated leather sole shoe, for example. Alternatively, generic shapes may be produced which are not specific to a particular brand of shoe. The protector may have the same color as the sole onto which it is placed, it may have a different color or it may be clear.

Figures 19-29 are various embodiments of protectors that are shaped to work with particular brands and/or models of men shoes as well as sizes. As can be seen from Figures 7-29, the protector is designed to fit a majority of the sole that comes into contact with flooring. A protector piece will also be designed for the heel portion of the shoe.

In addition, protectors can be made for children's shoes.

Alternatively, the protector can be sold in a generic shoe shape.

Preferably, the protector is removable without leaving a sticky residue on the sole. Also, it is preferable if the protector is reusable. The protector may be made in any color or it may be clear so as to allow the original sole material to show through the protector. The portion of the protector exposed to the flooring may have a texture such as ridges, for example. The protector may also have an abrasive incorporated therein to provide a non-skid surface. The protector may also have graphical representations such as patterns, logos, expressions, inspirational messages or quotes, milestone with dates (e.g., wedding dates, graduation dates, years, etc) trends, brand endorsements, celebrity branding, music artists, college and professional sports teams, comic book characters, Disney characters, private label, influential people, charitable causes (e.g., breast cancer, leukemia, no kid hungry, SPCA, etc), for example, printed thereon such as that shown in Figures 5 ("She Left Beauty Wherever She Went") and 30 ("Ricci Bryan").

The material the protector may be made of is preferably a polymer material that is often used in shoe design. More preferably, the material is a textured polyurethane. It naturally has an antislip property that can enhance the traction the shoe has with the flooring. Various adhesives may be used. The adhesive should preferably create a durable bond while allowing the material to be removed from the shoe without causing damage to the sole. Optionally, the adhesive should allow the material to be reused on either the same or a different pair of shoes. Preferably a pressure sensitive adhesive may be used.

In another embodiment, a complementary insole protector can be made to go inside the shoe in the ball of the foot area so that a person's foot does not slip inside the shoe and prevents the foot from sliding forward along with the foot slipping inside the shoe. This can be particularly helpful with high heels or any shoe with a non-fabric insole. It is also useful in men's shoes. The insole protector is shaped based on the brand and/or model as well as size of the shoe. Alternatively it can be sold in a generic shoe shape. The inside protector may also cover the entire insole of a shoe. This is particularly useful for athletic shoes.

Other embodiments of the claimed inventions will be apparent to those skilled in the art from consideration of the specification and practice of the inventions disclosed herein. It is intended that the specification and examples be considered as exemplary only, with a true scope and spirit of the inventions being indicated by the following claims.

What Is Claimed Is:

1. A sole protector comprising:
a sole protector material having lower surface that is meant to be exposed when the sole protector is being used on a shoe and an upper surface that is not meant to be exposed when the sole protector is being used on a shoe;
an adhesive layer located on the upper surface of the sole protector material; and
a peel-away backing layer located over and adhered to the adhesive layer which can be removed to expose the adhesive layer,
wherein the sole protector material covers about 85% of the sole of the shoe onto which it is to be applied.
2. The sole protector of claim 1 wherein the lower surface of the sole protector material is a textured surface.
3. The sole protector of claim 1 wherein the lower surface of the sole protector material has a graphical representation thereon.
4. The sole protector of claim 3 wherein the graphical representation may be of a sports team logo, a trademark, an illustration.
5. The sole protector of claim 1 wherein the lower surface of the sole protector material is textured to provide an antiskid property.
6. The sole protector of claim 1 where in the sole protector material is reusable.
7. The sole protector of claim 2 wherein the textured surface is ridges.
8. The sole protector of claim 1 wherein the sole protector material is a polymer material.
9. The sole protector of claim 8 wherein the material is a polyurethane.
10. The sole protector of claim 1 wherein the sole protector material has the same shape as the sole of the shoes onto which it is to be applied.
11. A method of protecting a sole comprising:
providing a sole protector material having lower surface that is meant to be exposed when the sole protector is being used on a shoe and an upper surface that is not meant to be exposed when the sole protector is being used on a shoe;
providing an adhesive layer located on the upper surface of the sole protector material;

providing a peel-away backing layer located over and adhered to the adhesive layer which can be removed to expose the adhesive layer; and

removing the peel-away backing layer to expose the adhesive layer so that the sole protector material may be applied to the sole of a shoe, wherein the lower surface of the sole protector material is the same color as the sole of the shoe on which it is to be applied and the sole protector material covers about 85% of the sole of the shoe onto which it is to be applied.

12. The method of claim 11 further comprising providing the lower surface of the sole protector material with a textured surface.

13. The method of claim 11 further comprising providing the lower surface of the sole protector material with a graphical representation thereon.

14. The method of claim 13 wherein the graphical representation may be of a sports team logo, a trademark, an illustration.

15. The method of claim 11 wherein the lower surface of the sole protector material is made of an antiskid material.

16. The method of claim 11 where in the sole protector material is reusable.

17. The sole protector of claim 12 wherein the textured surface comprises ridges.

18. The sole protector of claim 11 wherein the sole protector material is a polymer material.

19. The sole protector of claim 18 wherein the sole protector material is a polyurethane.

20. The sole protector of claim 1 wherein the lower surface of the sole protector material is the same color as the sole of the shoe on which it is to be applied.

21. The sole protector of claim 1 wherein the sole protector material also covers the heel portion of a shoe.

22. A method of using the sole protector of claim 1 comprising adhering the sole protector material to an interior surface of a shoe.

Fig. 1



Fig. 2

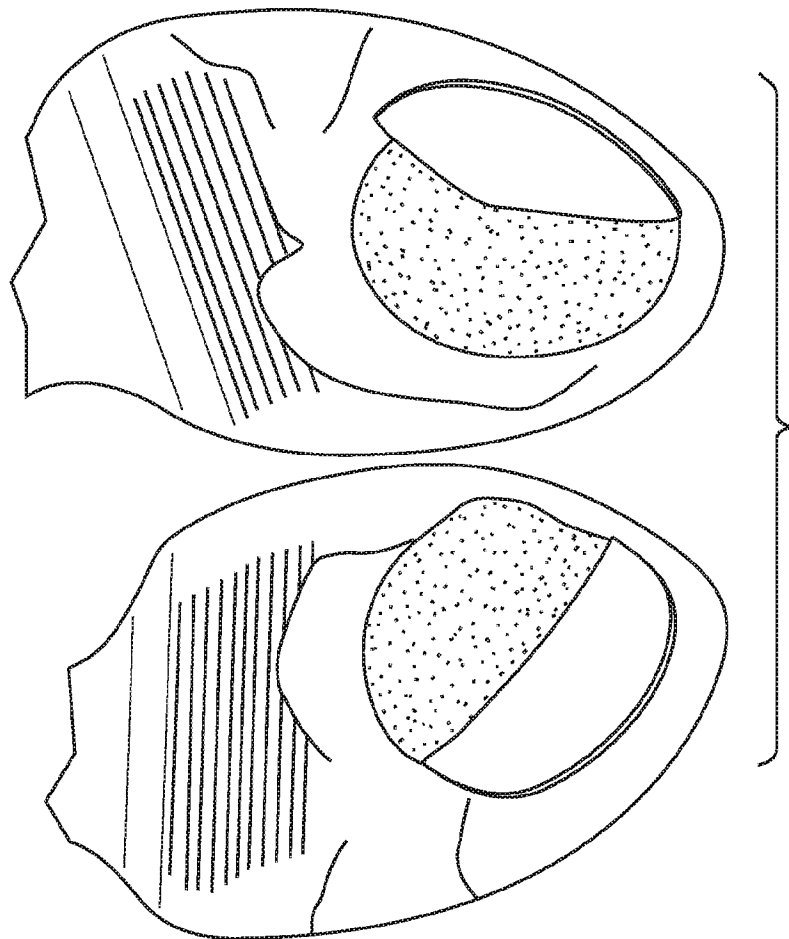


Fig. 3

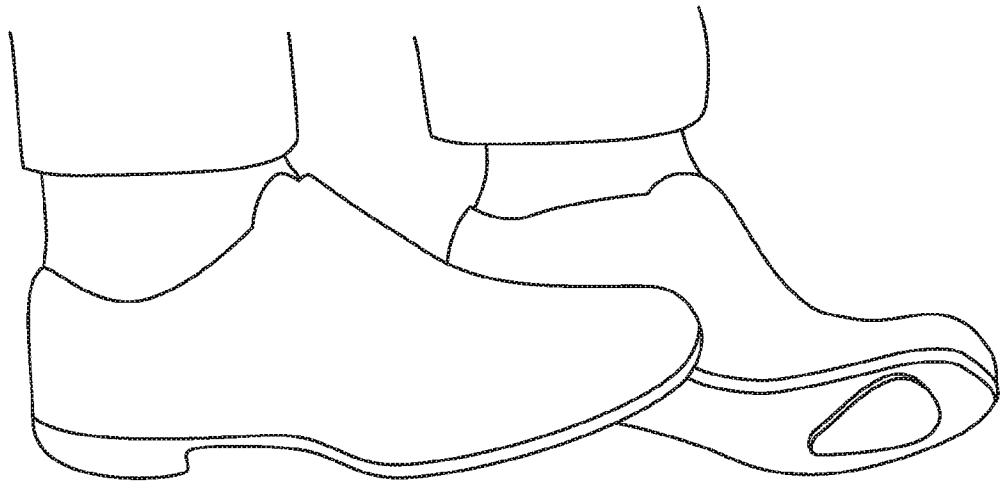


Fig. 4

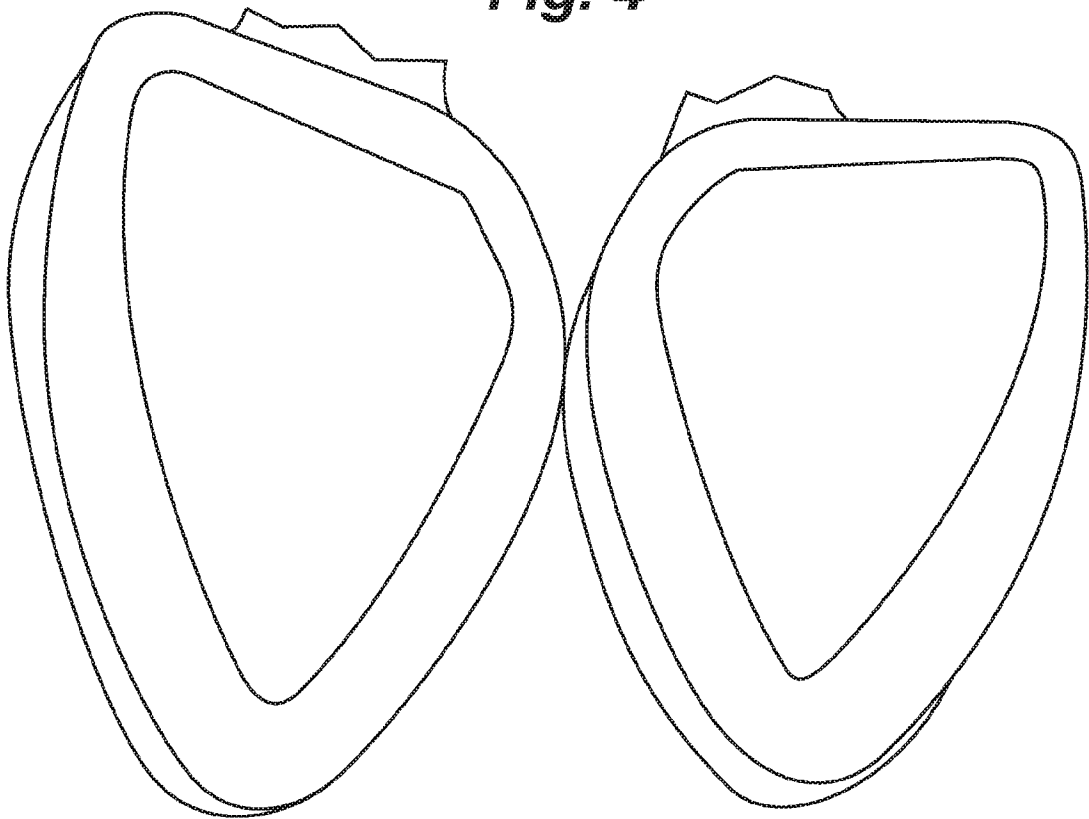


Fig. 5



Fig. 6

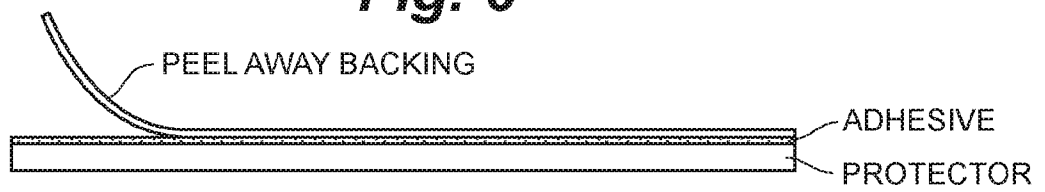


Fig. 7

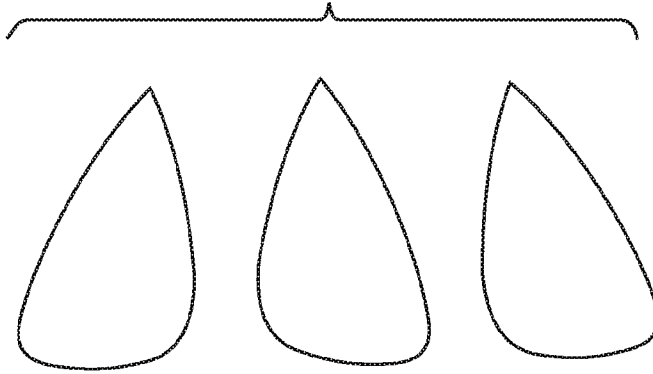


Fig. 8

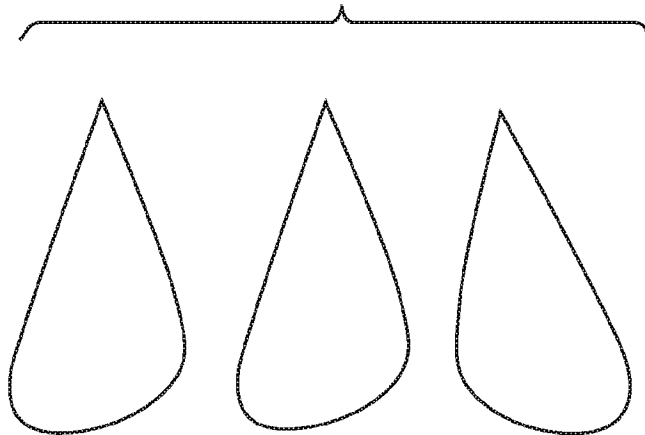


Fig. 9

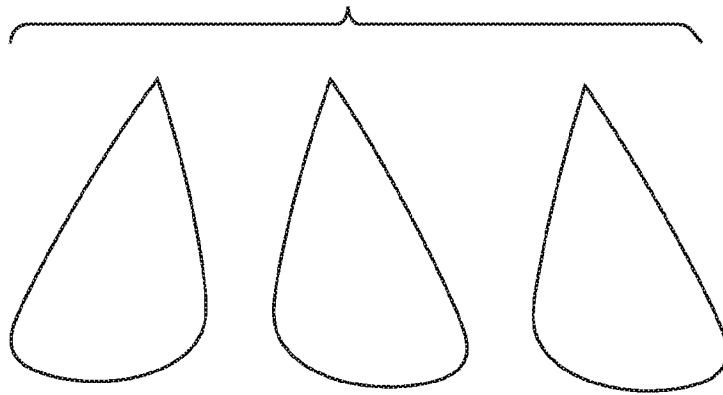


Fig. 10

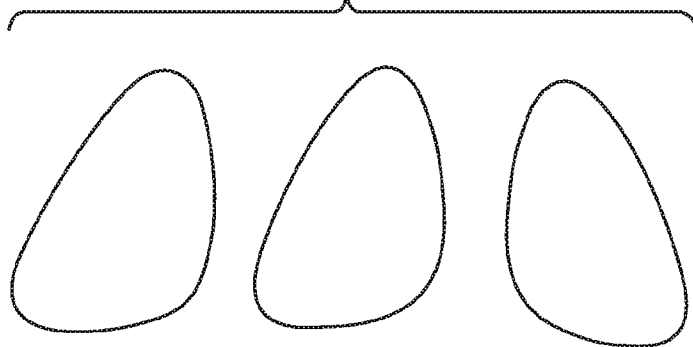


Fig. 11

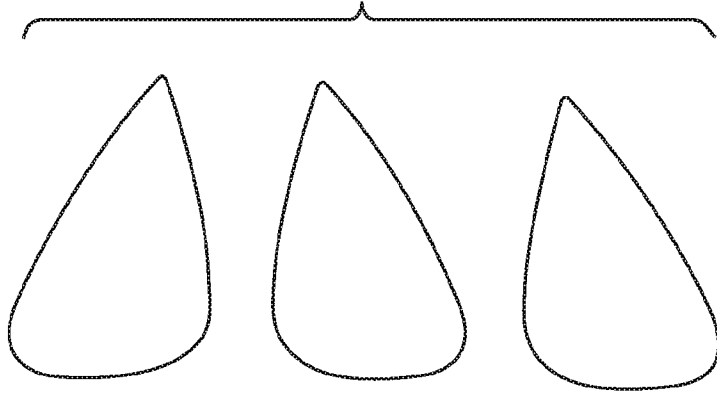


Fig. 12

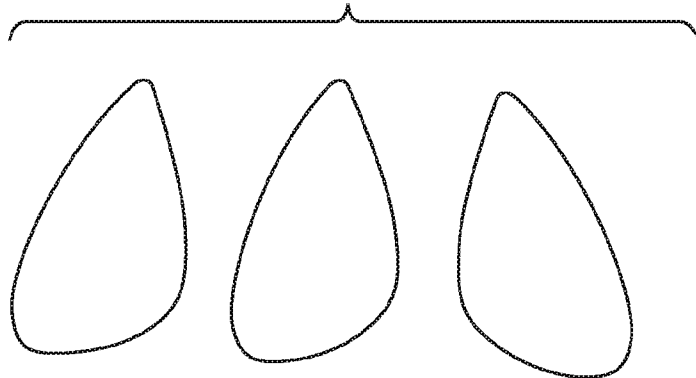


Fig. 13

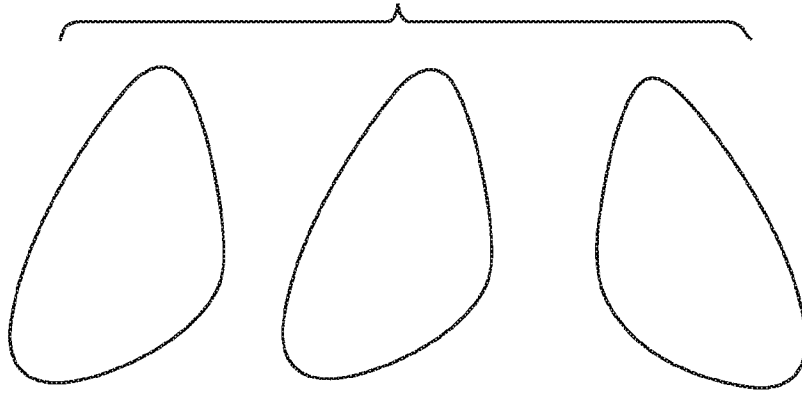


Fig. 14

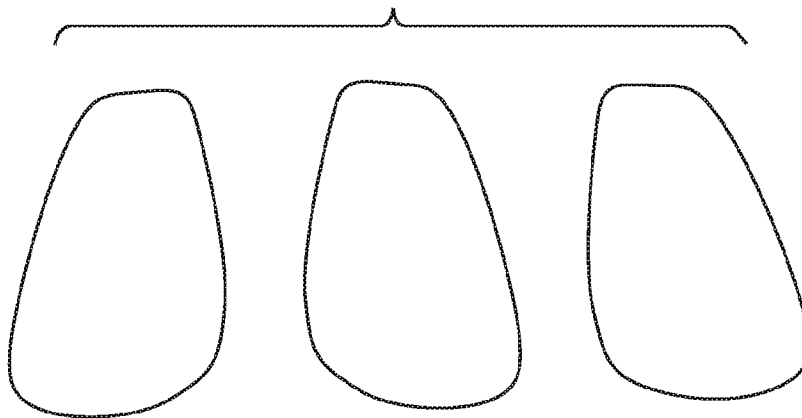


Fig. 15

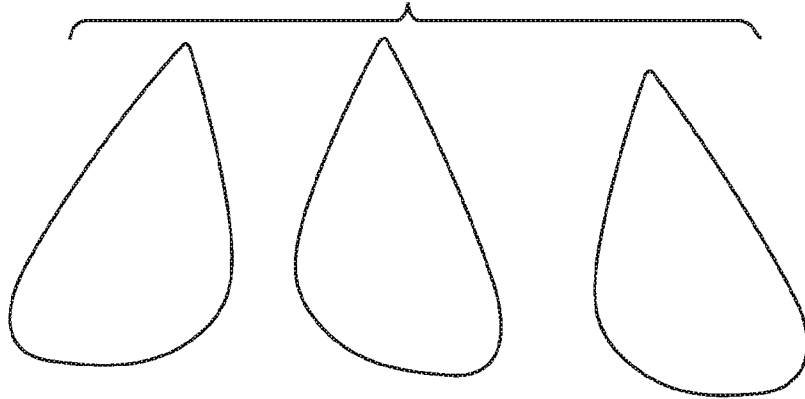


Fig. 16

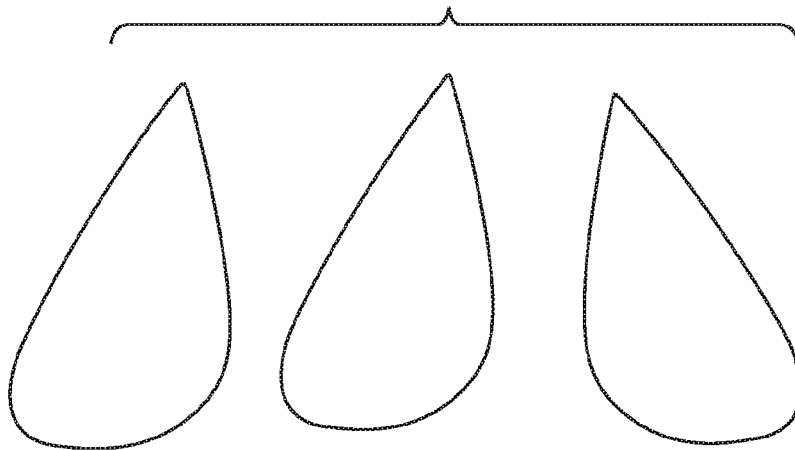


Fig. 17

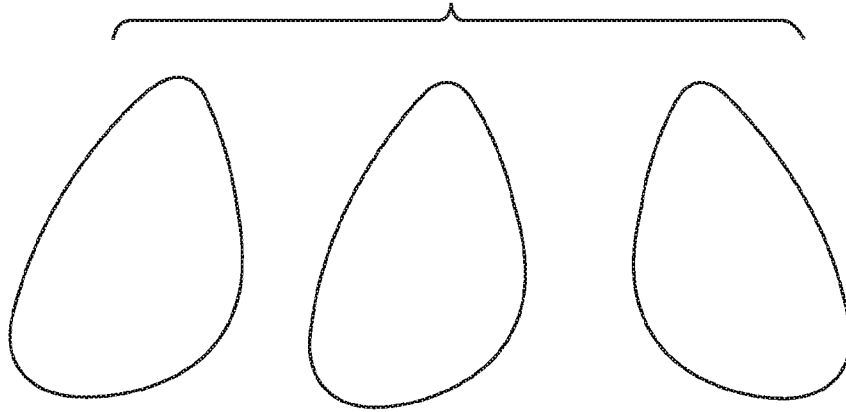


Fig. 18

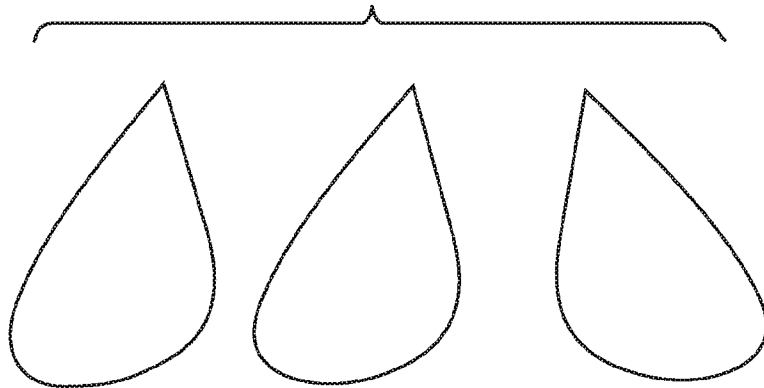


Fig. 19

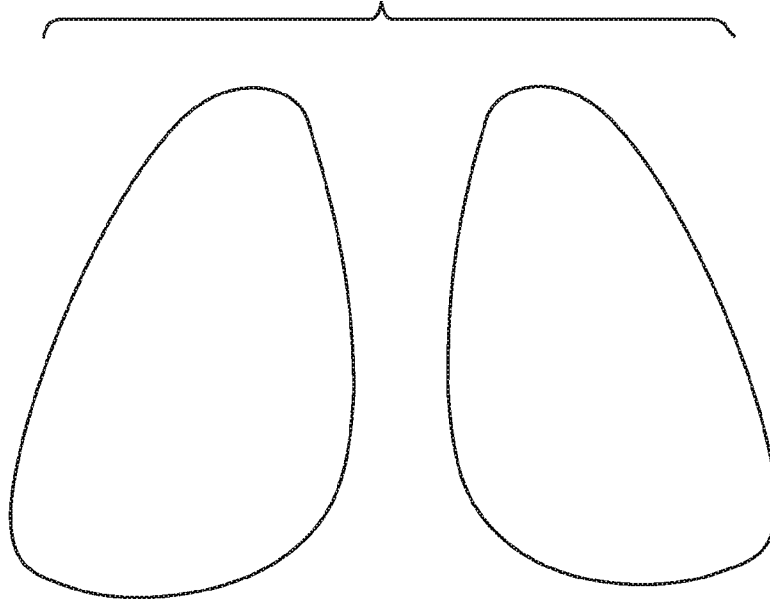


Fig. 20

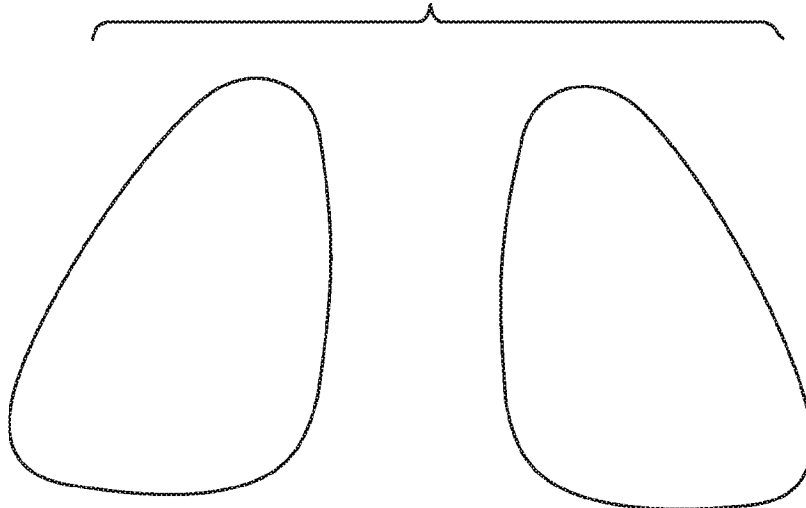


Fig. 21

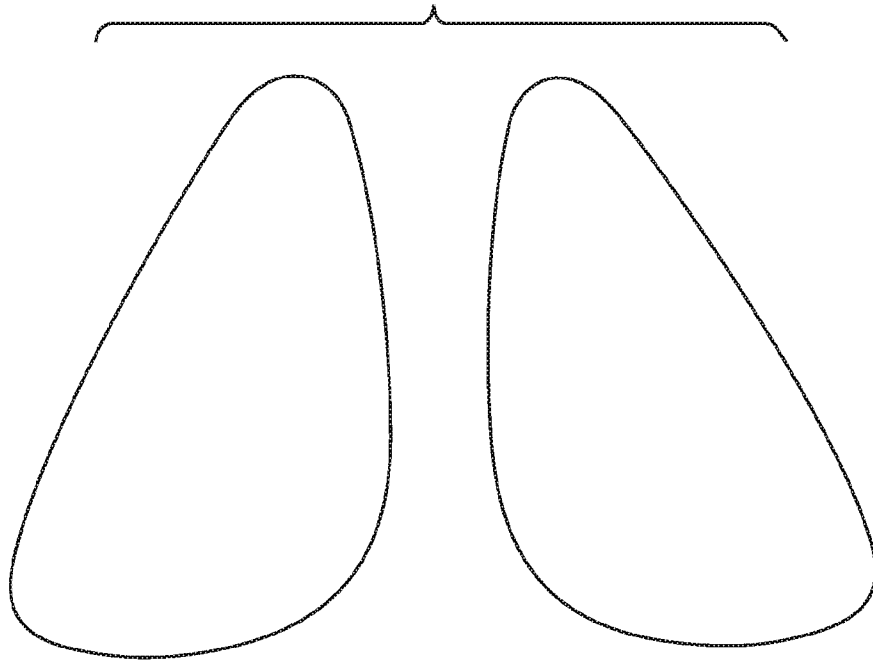


Fig. 22

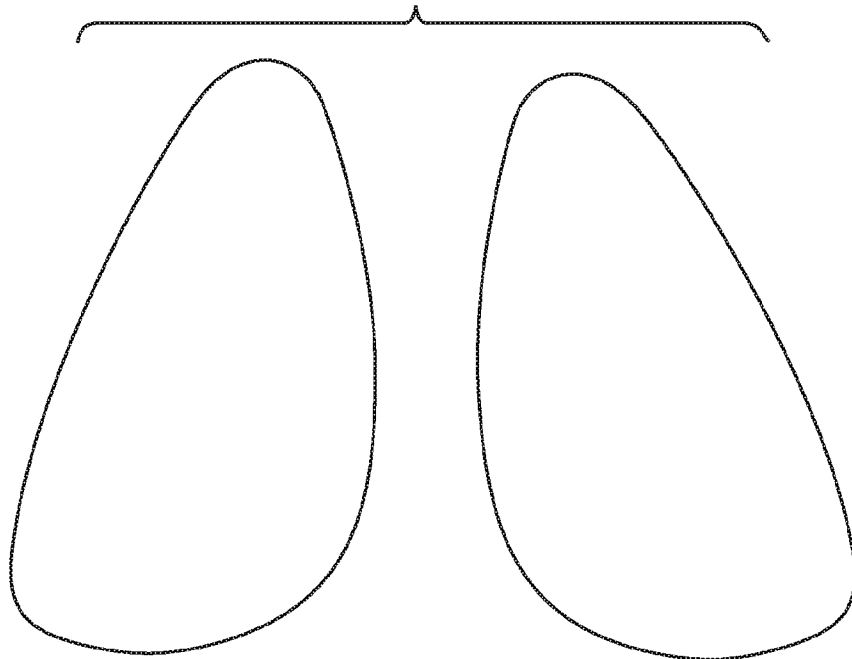


Fig. 23

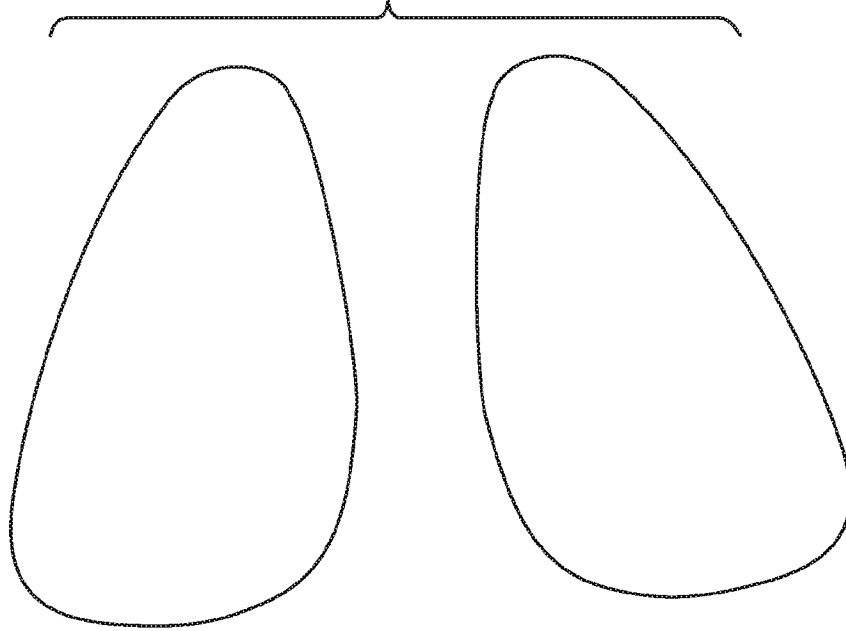


Fig. 24

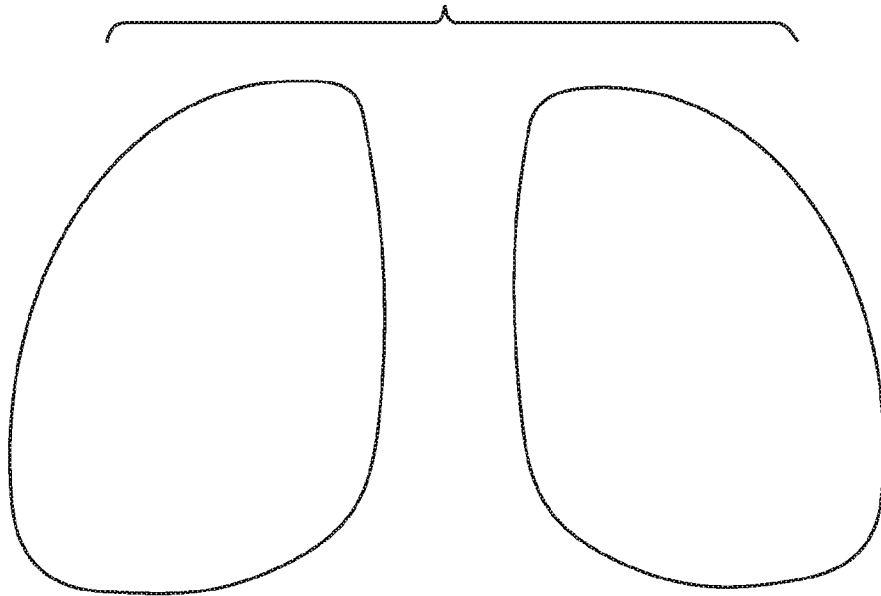


Fig. 25

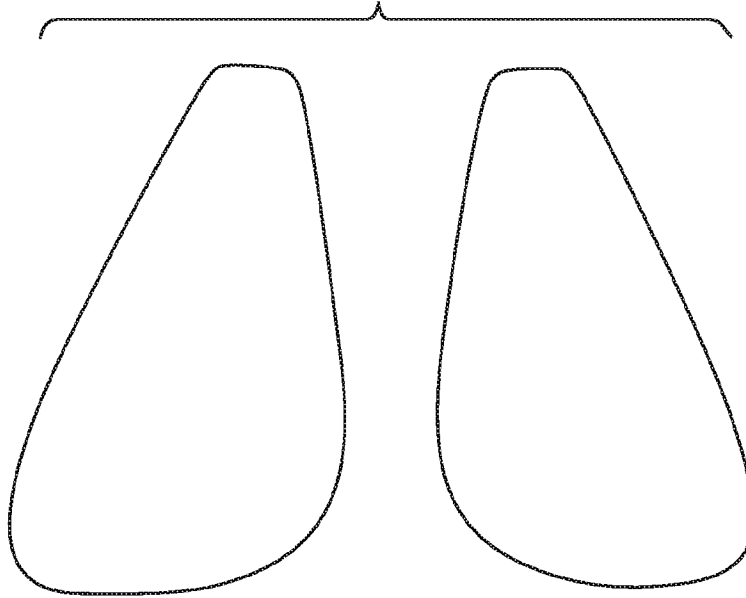


Fig. 26

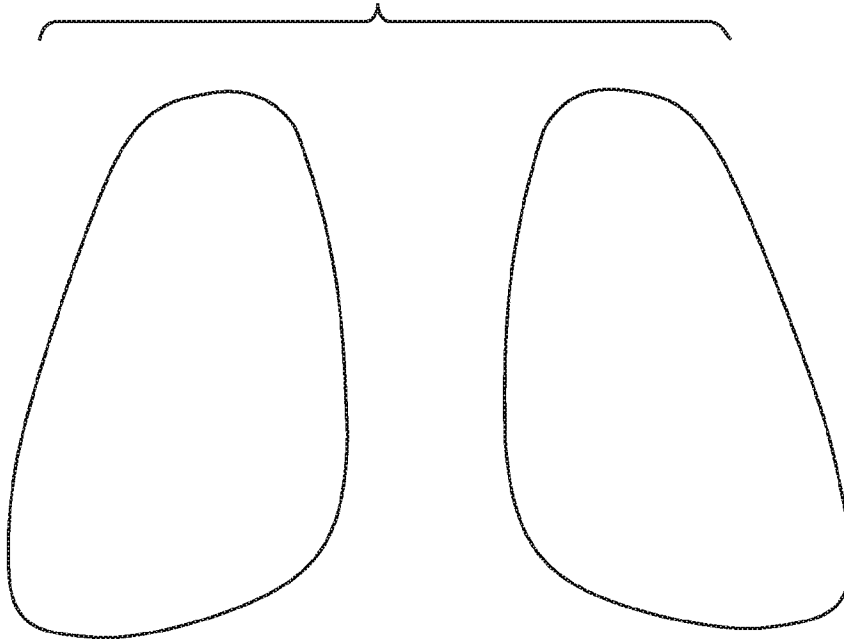


Fig. 27

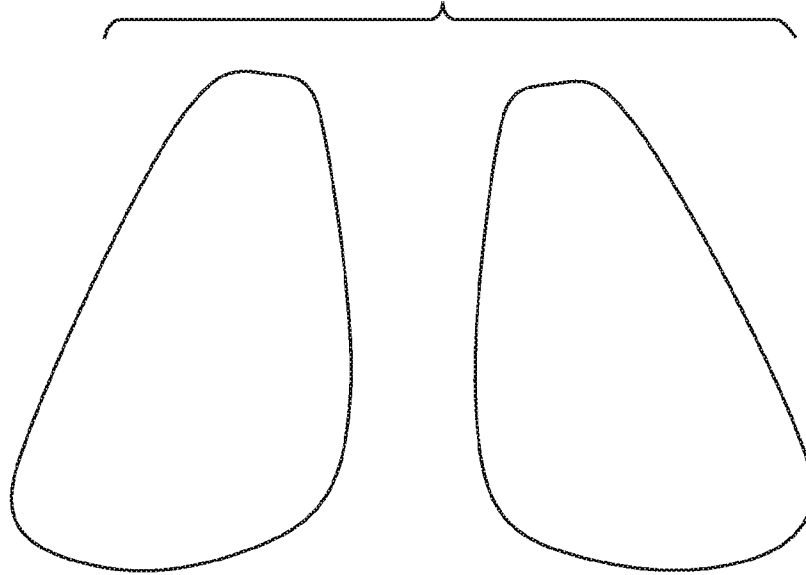


Fig. 28

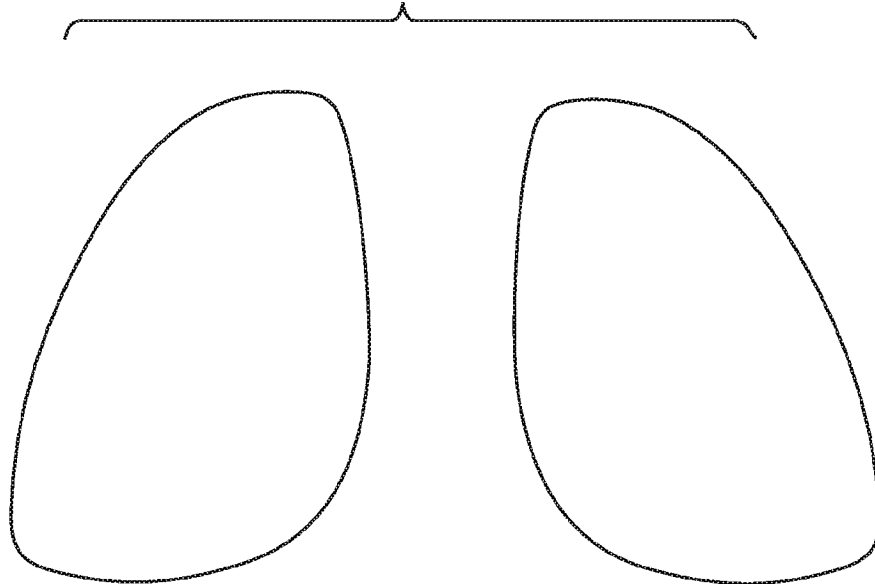


Fig. 29

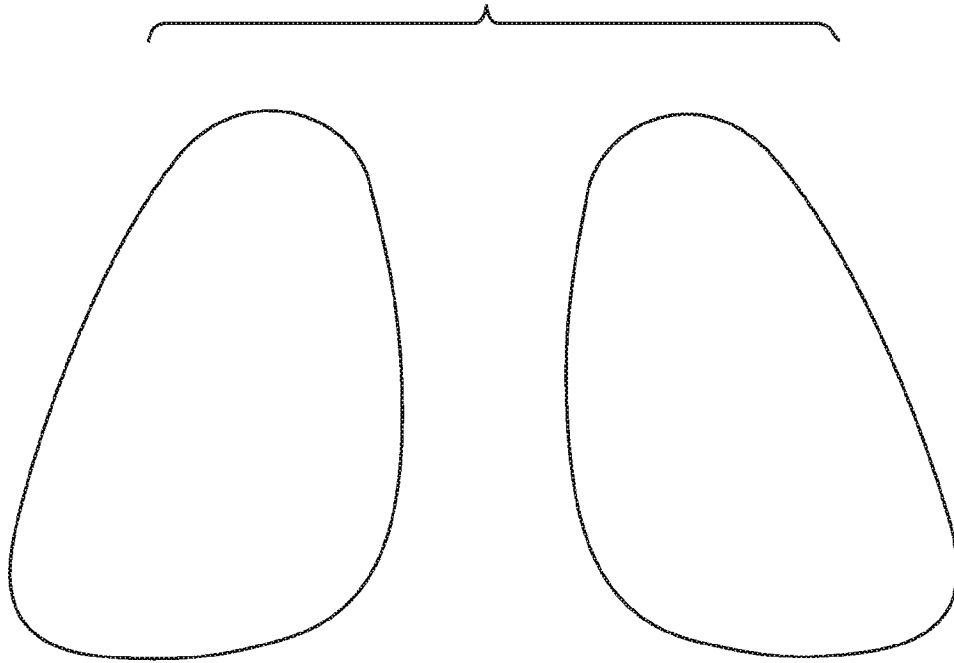
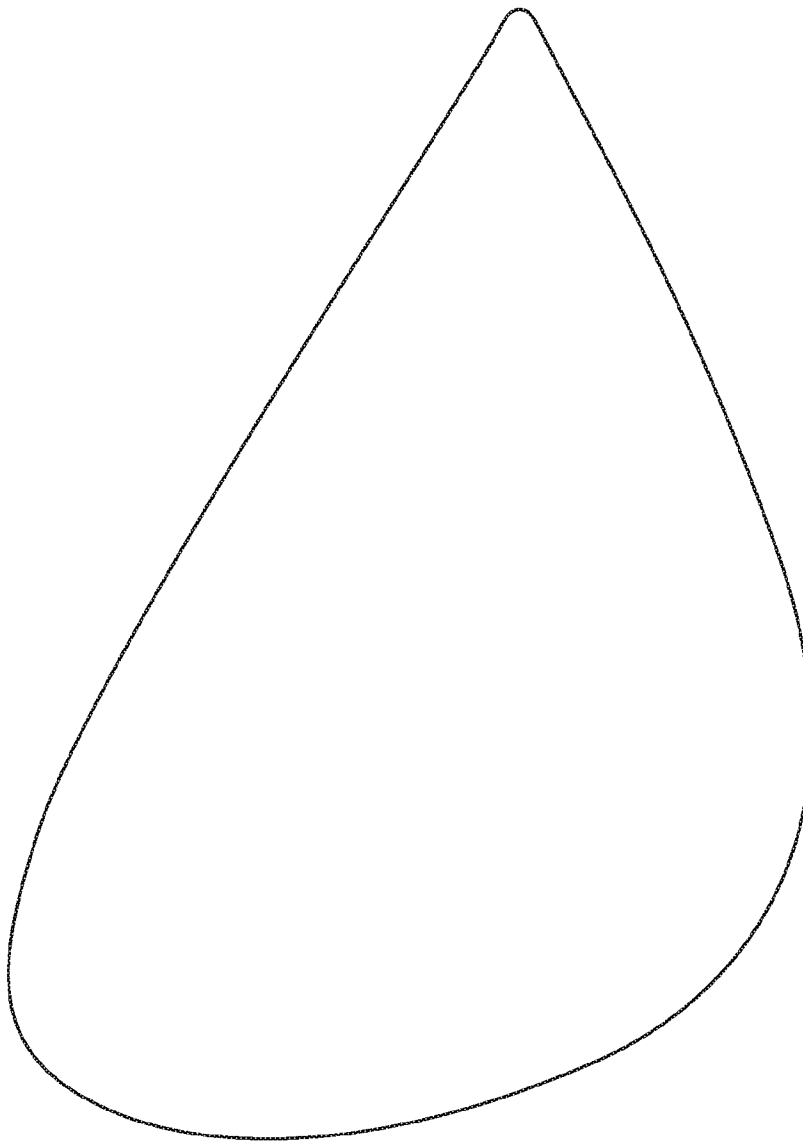


Fig. 30



INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 16/18032

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A43C 13/00, A43C 15/02, A43C 15/04, A43B 13/28, A43B 13/32, A43B 21/36, A43B 21/54 (2016.01)

CPC - A43C 13/00, A43C 15/02, A43C 15/04, A43B 13/28, A43B 13/32, A43B 21/36, A43B 21/54

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8): A43C 13/*, A43C 15/*, A43B 13/*, A43B 21/* (2016.01)

CPC: A43C 13/*, A43C 15/*, A43B 13/*, A43B 21/*

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

IPC(8): A43C*, A43B* (2016.01)

CPC: A43C*, A43B*

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PatBase, Google Patents, Google Web

Keywords: glue, adhesive, peel, backing, protective, polyurethane, PUR, urethane, color, colour, match, same, matching, Louboutin

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|------------------------------|
| X | Welcome to Madame Rouge sole protectors. Datasheet [online]. Madame Rouge, 2014 [retrieved on 2016-05-02]. Retrieved from the Internet: <URL:https://web.archive.org/web/20140811043506/http://www.freewebsite.org/Madame-Rouge-Sole-Protectors>. | 1-2, 5, 7, 11-12, 15, 17, 20 |
| X | US 5,761,833 A (McMULLIN) 09 Juno 1008 (00.06.1008), entire document | 1-2, 5, 8-10 |
| - | | ----- |
| Y | | 19 |
| X | US 2010/0082640 A1 (ALLEN et al.) 00 April 2010 (00.04.2010), entire document | 1-2, 5-8, 10 |
| X | US 2005/0257398 A1 (BLACKMER) 24 November 2005 (24.11.2005), entire document | 11, 20-22 |
| X | US 2009/00313852 A1 (DAVENPORT et al.) 24 December 2009 (24.12.2009), entire document | 1, 3-4, 8, 10-11, 13-14, 18 |
| - | | ----- |
| Y | | 19 |
| X | US 2008/0163518 A1 (PETTIS) 10 July 2008 (10.07.2008), entire document | 1-2, 5, 7, 10 |
| X | US 7,377,054 B2 (MILNER et al.) 27 May 2008 (27.05.2008), entire document | 11, 16 |

 Further documents are listed in the continuation of Box C.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"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

"E" earlier application or patent but published on or after the international filing date

"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

"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)

"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

"O" document referring to an oral disclosure, use, exhibition or other means

"&" document member of the same patent family

"P" document published prior to the international filing date but later than the priority date claimed

Date of the actual completion of the international search

29 April 2016

Date of mailing of the international search report

19 MAY 2016

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US, Commissioner for Patents

P.O. Box 1450, Alexandria, Virginia 22313-1450

Facsimile No. 571-273-8300

Authorized officer:

Lee W. Young

PCT Helpdesk: 571-272-4300

PCT OSP: 571-272-7774

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 16/18032

| C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|---|--|-----------------------|
| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| A | DE 4421754 A1 (SPIEGEL) 11 January 1996 (11.01.1996), entire document | 1-22 |
| A | US 6,460,273 B2 (WITJES) 08 October 2002 (08.10.2002), entire document | 1-22 |
| A | US 5,771,605 A (SAFDIE) 30 June 1998 (30.06.1998), entire document | 1-22 |
| A | US 7,559,159 B1 (LUNDBERG) 14 July 2009 (14.07.2009), entire document | 1-22 |
| A | GB 840541 A (ROBERTSON) 06 July 1960 (06.07.1960), entire document | 1-22 |