COUGH RELIEF PATCH

TECHNICAL FIELD OF THE INVENTION

Embodiments of the present invention relate generally to healthcare industry, in particular to a healthcare product of particular transdermal application or administration. More particularly, the present invention relates to heating patches that are used for healing, curing or relieving cough.

BACKGROUND OF THE INVENTION

Heating pad or patch has been so popular and is the most sought-after aid used by individuals to treat or alleviate muscular pain, strains and joint stiffness as it provides quick and effective remedy. In the existing market, there are many types of heating patch to target different kinds of pains and different area of a human body, whereby it can be used for back, hip, thigh, calf, arm, neck and shoulder pain.

With the continuous improvement of people's living standard and the continuous advancement of technology, not only body pains can be treated by heating patches, the sickness or illness like cough can also be treated or relieved by the use of specific heating patch to replace the conventional treatment mode like clinically treated by mainly adopting oral medicine. The treatment mode of conveying oral medications like liquid or pill into the body of a patient causes

inconveniences and systemic side effects like drowsiness, dry mucosal membranes and even addiction. These side effects in turn makes it hard for the users to use it during day time when they are required to drive or work.

Various health-care patches exist in the market at present, with different treatment efficacy and different transdermal application on body parts. For example, KR1020170165531A disclosed a heating patch that is attached to acupuncture point at the center of suprasternal fossa. CN201721055583.3 disclosed a Bian stone and herb acupuncture shoulder plaster that could be used to heal various body pains besides cough. CN111035502A disclosed a Constant temperature hot compress paste that is attached to acupuncture points or affected body parts to heal diseases such as cough, cough and asthma, upper respiratory infection and the like or pains like abdominal pain and abdominal distension, scapulohumeral periarthritis, neck and shoulder pain, etc. CN106137523A, on the other hand disclosed spontaneous heating joint care patch with the use of Chinese herbal medicine and is attached to joints.

Although there are various heating patches for healing cough exists in the market, they are mostly required to paste on acupuncture points or acupoints, or suprasternal fossa of human body, and they contain medications which may not be suitable for use by every individual. Moreover, the prior arts are mostly a general heating patch to treat various illnesses or pains and is not a heating patch solely targeting cough illness. Hence, the treatment efficacy on cough is not efficient.

Additionally, according to the research of the present invention, there are other ingredients and other areas or body parts of the human body which are more suitable to be attached or pasted by heating patch, which are not disclosed by the prior arts. These areas, when pasted with heating patch for healing cough, have improved treatment efficacy than those areas disclosed by the prior arts.

Hence, it would be advantageous to alleviate the shortcomings or setbacks by having the following disclosure therein.

SUMMARY OF THE INVENTION

Accordingly, it is the primary aim of the present invention to provide a patch to relief cough illness that is applied directly on skin of human body.

It is yet another object of the present invention to provide a patch to relief cough that is applied to specific body parts of human body not disclosed by the prior art.

It is yet another object of the present invention to provide patch to relief cough wherein said patch adopts curative ingredients not disclosed by the prior art, of which has great treatment efficacy and curative effect.

It is yet another object of the present invention to provide patch to relief cough, of which is user friendly, portable, convenient and quick to use.

Additional objects of the invention will become apparent with an understanding of the following detailed description of the invention or upon employment of the invention in actual practice.

According to the preferred embodiment of the present invention the following is provided:

A patch for relieving cough, comprising:

an adhesive patch;

characterized in that

said patch is a heating patch, of which is adhere to skin or body parts of human body.

BRIEF DESCRIPTION OF THE DRAWINGS

Other aspect of the present invention and their advantages will be discerned after studying the Detailed Description in conjunction with the accompanying drawings in which:

FIG. 1 illustrates an exemplary front view of a cough relief patch or a patch for relieving cough according to the preferred embodiment of the present invention.

FIG. 2-A illustrates an exemplary application of the cough relief patch or a patch for relieving cough of the present invention on one body part.

FIG. 2-B illustrates an exemplary application of the cough relief patch or a patch for relieving cough of the present invention on another body part.

FIG. 2-C illustrates an exemplary application of the cough relief patch or a patch for relieving cough of the present invention on another body part.

FIG. 3-A illustrates an exemplary top view of the cough relief patch or a patch for relieving cough of according to the preferred embodiment of the present invention.

FIGS. 3-B to 3-D illustrate the cough relief patch or a patch for relieving cough of the present invention in various shapes.

DETAILED DESCRIPTION OF THE DRAWINGS

In the following detailed description, numerous specific details are set forth in order to provide a thorough understanding of the invention. However, it will be understood by the person having ordinary skill in the art that the invention may be practised without these specific details. In other instances, well known methods, procedures and/or components have not been described in detail so as not to obscure the invention.

The invention will be more clearly understood from the following description of the embodiments thereof, given by way of example only with reference to the accompanying drawings, which are not drawn to scale.

As used in this disclosure and the appended claims herein, the singular forms "a", "an", and "the" include plural referents unless the context clearly dictates or denotes otherwise.

Throughout the disclosure and claims of this specification, the word “comprise” and variations of the word, such as “comprising” and “comprises,” means “including but not limited to,” and is not intended to exclude, for example, other components, integers or steps. “Exemplary” means “an example of” and is not intended to convey an indication of a preferred or ideal embodiment, “such as” is not used in a restrictive sense, but for explanatory purposes.

FIG. 1 illustrates a front view of the preferred embodiment of the present invention, in particular the front cross-sectional view of a cough relief patch (1) or a patch for relieving cough (1). Th term “patch” mentioned throughout this specification including but not limited to pad, plaster, bandage, or the like.

The patch for relieving cough (1) according to the present invention is an adhesive patch (1), of which is for transdermal application, wherein said patch (1) is a heating patch, of which is adhered to skin or specific body parts of human body, which will be mentioned in detail later.

The patch for relieving cough (1) according to the present invention comprising at least an adhesive body (10), at least an outer sealing body (12) sealing the adhesive body (10) at one side, and at least an impermeable peeling film (14) sealing the adhesive body (10) at another side. The adhesive body (10) of the patch (1) for relieving cough comprising at least an adhesive layer (101) to be adhered or sticked to skin when in use, wherein one side of the adhesive layer (101) is sealed with the peeling film (14). Said adhesive layer (101) is hypoallergenic and can be used long-term, without fear of skin irritation. The adhesive layer (101) may be formed on the entire one side surface or may be formed along the edge of the adhesive body (10).

The adhesive body (10) of the patch (1) for relieving cough further comprising at least a self-heating layer (103) bonded to another side of the adhesive layer (101) whereby the adhesive layer (101) is larger than the self-heating layer (103) in size, measured in length, width, and diameter. Said self-heating layer (103) comprising at least a heating element or material and at least a curative ingredient extracted from plants. Said curative ingredient contains at least an essential oil, wherein said essential oil including but not limited to, thyme extract, peppermint extract, or ginger extract, or the combinations thereof. It should be understood that other types of essential oil could be used or combined with the combinations of the types of essential oil of the present invention to provide an improved curative effect. The self-heating layer (103), when brought into contact with human body, converts chemical energy into heat energy, which not only can remarkably accelerate the absorption of human body to the essential oils, but also can promote

blood circulation, and the use is more comfortable, thereby improving the curative effect of the cough relief patch (1) of the present invention.

The adhesive body (10) of the patch (1) for relieving cough further comprising at least a porous layer (105) overlaying or bonding the self-heating layer (103), wherein the porous layer (105) provides a space to allow air and/or moisture to penetrate through the self-heating layer (103) into the porous layer in order to activate the heating process when the self-heating layer (103) is contacted with air and/or moisture after the peeling film (14) is peeled off from the adhesive layer (101)

The outer sealing body (20) of the patch (1) for relieving cough comprising at least an impermeable occlusive protective layer (201) bonding the porous layer (105) and the self-heating layer (103), hence protecting the self-heating layer (103) from being permeable, contaminated or polluted from air, fluids and harmful contaminants. Having the impermeable occlusive protective layer (201), the self-heating layer (103) is physically isolated from the outside air to prevent the generated heat from being radiated to the outside to increase and maintain the heat supply to the skin when in use, as well as preventing the activation of self-heating layer (103).

It can be deduced that, at this point, the entire self-heating layer (103) needs to be air tight or impermeable to air before the peeling film (14) is peeled off.

The outer sealing body (20) of the patch (1) for relieving cough further comprising at least a porous outer layer (203) sealing the area or the section of the adhesive layer (101) which is not connected or bonded with the self-heating layer (103), wherein said porous outer layer (203) may comprise of tiny holes (205), ventilation holes or micropores in the layer (203) to make it breathable and permeable to oxygen, carbon dioxide, and water, to avoid skin irritation. Additionally, it also makes the patch (1) easy to tear from skin without leaving a sticky residue.

The cough relief patch (1) or the patch (1) for relieving cough according to the present invention is targeted to certain or specific body parts or skin of human body, whereby these body parts, when adhered or pasted with the patch (1) of present invention, has high treatment efficacy or curative effect compared to those disclosed by the prior arts. Preferably, said cough relief patch (1) or the patch (1) for relieving cough is adhered or pasted to the sub-clavicular area (A) of human body, naval area (B) of human body or sole of foot (C) of human body, of the combinations thereof, as illustrated in FIGS. 2-A, 2-B and 2-C.

In one embodiment of the present invention as shown in FIG. 3-A, the cough relief patch (1) or the patch (1) for relieving cough is a long strip patch (1) with rounded ends, wherein the self-heating layer (103), porous layer (105) and the impermeable occlusive protective layer (201) are bonded sequentially and arranged in the center of the adhesive layer (101) or adhesive body (10). The area or section where the adhesive layer (101) or adhesive body (10) that is not bonded

with the self-heating layer (103), porous layer (105) and the impermeable occlusive protective layer (201) is covered, sealing or bonded with the porous outer layer (203) of outer sealing body (20).

In another embodiment of the present invention as shown in FIG. 3-B, the cough relief patch (1) or the patch (1) for relieving cough has a substantially triangle shape.

In another embodiment of the present invention as shown in FIG. 3-C, the cough relief patch (1) or the patch (1) for relieving cough has a rounded end and a flat end. Alternatively, the patch (1) may have irregular shape.

In another embodiment of the present invention as shown in FIG. 3-D, the cough relief patch (1) or the patch (1) for relieving cough has dual or duplicate adhesive body (10) within a single patch (1). In other words, there could be two self-heating layers (103), two porous layers (105) and two impermeable occlusive protective layers (201).

More preferably, it is contemplated that the cough relief patch (1) or the patch (1) for relieving cough of the present invention can exist in any design or any shape, regular or irregular one, as long as the patch (1) has the structures or structural relationship as mentioned above.

In another embodiment of the present invention, the cough relief patch (1) or the patch (1) for relieving cough may be packaged in a packaging bag before use.

When using the cough relief patch (1) or the patch (1) for relieving cough, the peeling film (14) that is sealing the adhesive body (10) or the adhesive film (101) is peeled off, the side of the adhesive film (101) of which the peeling film (14) is peeled off is sticked, adhered or pasted to the skin or body parts of human body, specifically on sub-clavicular area (A), naval area (B) or sole of the foot (C). When the cough relief patch (1) or the patch (1) for relieving cough is brought into contact with skin of human body, chemical reaction occurs between the self-heating layer (103) and the skin (A, B, C), whereby the self-heating layer (103) generates warm heat for the easy dispersion or introduction of warm heat and essential oil into the corresponding areas (A, B, C) for healing process.

While the present invention has been shown and described herein in what are considered to be the preferred embodiments thereof, illustrating the results and advantages over the prior art obtained through the present invention, the invention is not limited to those specific embodiments. Thus, the forms of the invention shown and described herein are to be taken as illustrative only and other embodiments may be selected without departing from the scope of the present invention, as set forth in the claims appended hereto. The scope of the invention encompasses numerous alternatives, modifications and the equivalents. Of necessity, there are many alternative ways of configuring and implementing the

invention to suit particular installations and environments while providing biological outcomes of differing design.

CLAIMS

1. A patch (1) for relieving cough, comprising:

an adhesive patch (1);

characterized in that

said patch (1) is a heating patch (1), of which is adhere to skin or body parts of human body.

2. The patch (1) for relieving cough as claimed in Claim 1, wherein said adhesive patch (1) comprising an adhesive body (10), outer sealing body (20) sealing the adhesive body (10) at one side, and a peeling film (14) sealing the adhesive body (10) at another side;

wherein said adhesive body (10) comprising an adhesive layer (101); a self-heating layer (103) disposed below the adhesive layer (101) whereby the adhesive layer (101) is larger than the self-heating layer (103) in size; and a porous layer (105) overlaying the self-heating layer (103);

wherein said outer sealing body (20) comprising an occlusive protective layer (201) overlaying and sealing the porous layer (105) and the self-heating layer (103); and a porous outer layer (203) sealing the area or section of the adhesive layer (101) which is not connected with the self-heating layer (103).

3. The patch (1) for relieving cough as claimed in Claim 1 or 2, wherein said patch (1) is adhered or pasted to sub-clavicular area (A), naval area (B) or sole of foot (C).

4. The patch (1) for reliving cough as claimed in Claim 2, wherein the self-heating layer (103) comprising at least a heating element and at least a curative ingredient extracted from plants.

5. The patch (1) for relieving cough as claimed in Claim 4, wherein said curative ingredient is essential oil, wherein said essential oil including but not limited to, thyme extract, peppermint extract, or ginger extract, or the combinations thereof.