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(54) **ERGONOMIC PILLOW FOR NECK AND UPPER SHOULDER MUSCLE RELEASE**

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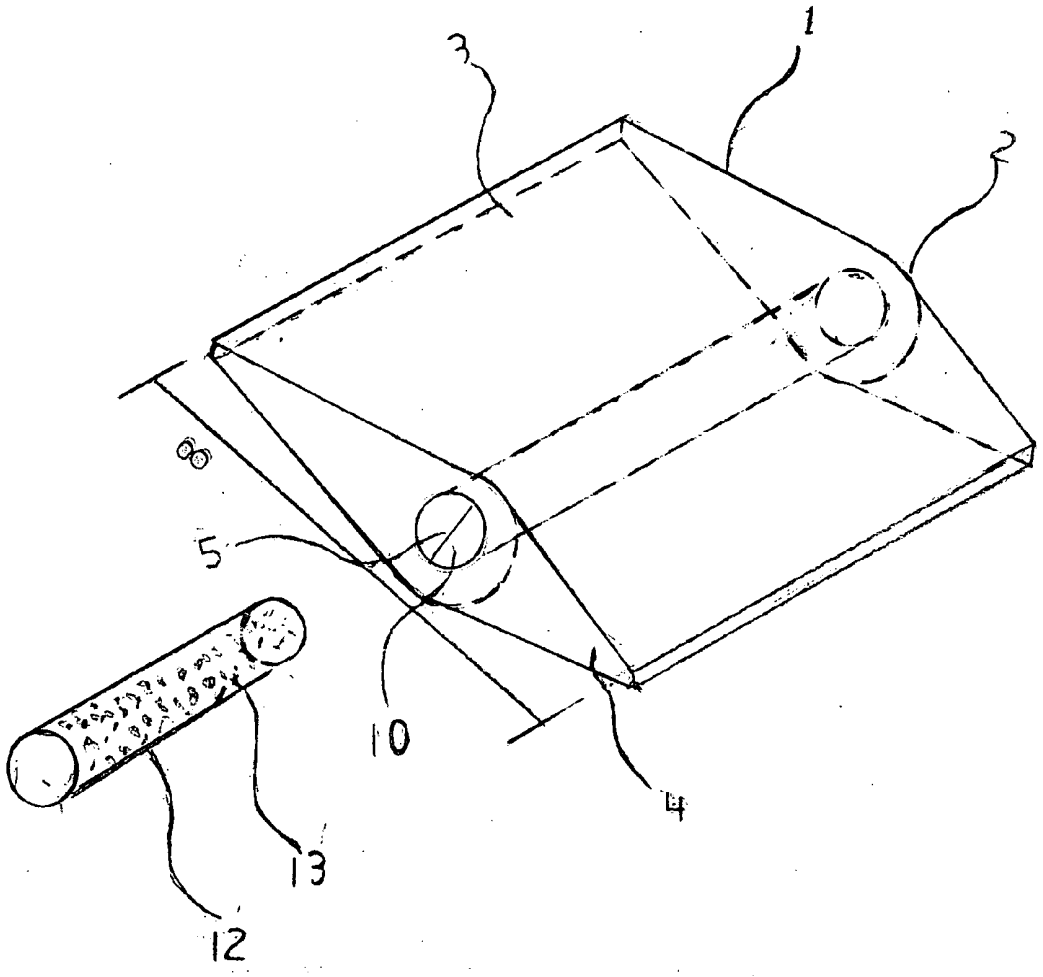
(57) **ABSTRACT**

An ergonomic pillow is provided. The ergonomic pillow according to current application is to release muscles of a user's neck and upper shoulder to remove pains. Office workers usually spend long hours with crouched position. When a user uses this ergonomic pillow while sleeping, it releases muscles on the neck and upper portion of the shoulder of a user. The ergonomic pillow according to current application is comprised of a long cylindrical center portion and two trapezoidal wings whose narrow tip is rounded. The two wings are developed along the long axis of the cylindrical portion on the outer surface thereof. Center portion of one wing is removed for shoulder approach. The pillow of the current application is made of a porous visco-elastic polymer or wood.



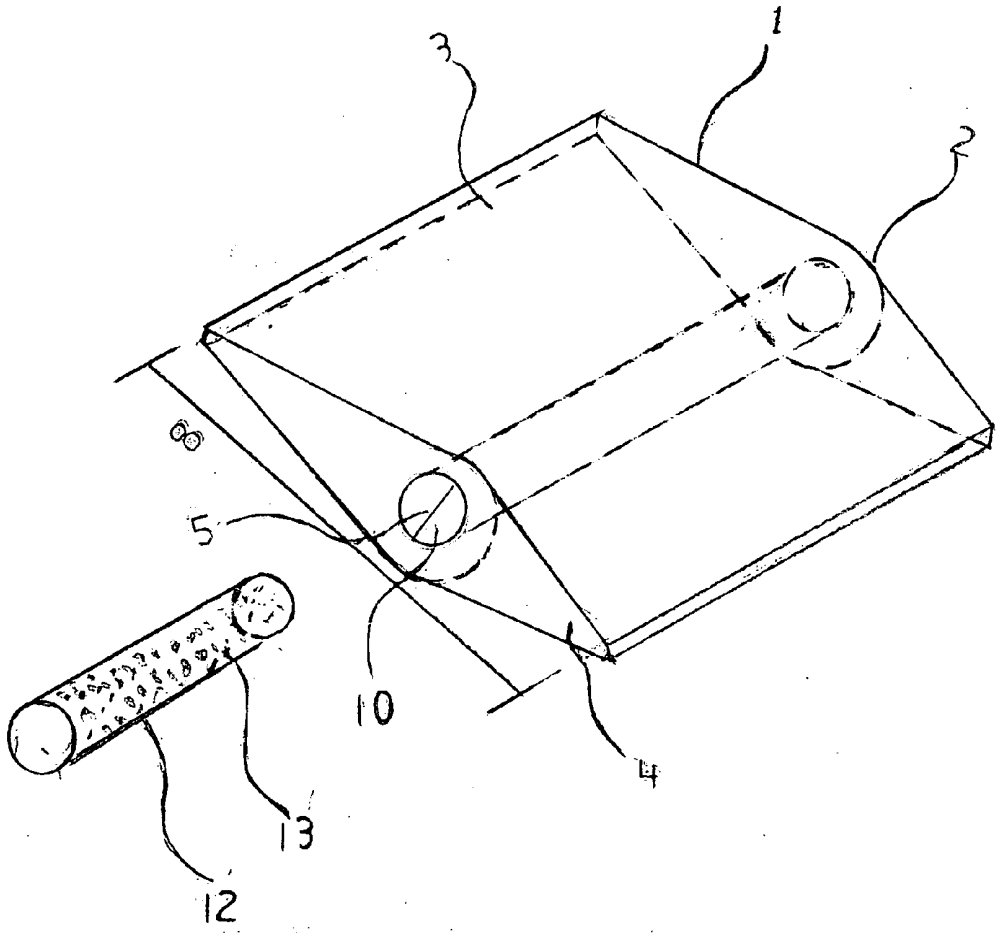


FIG 1

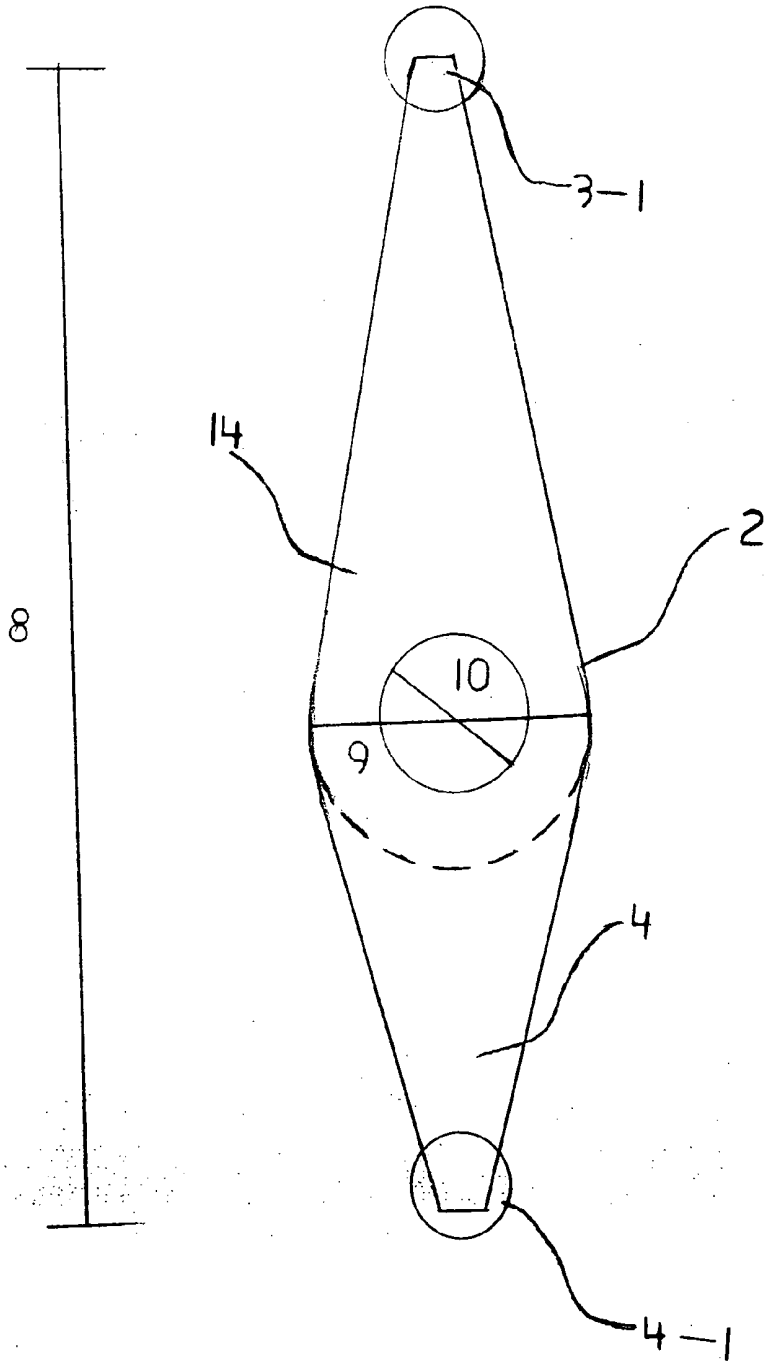


FIG 2

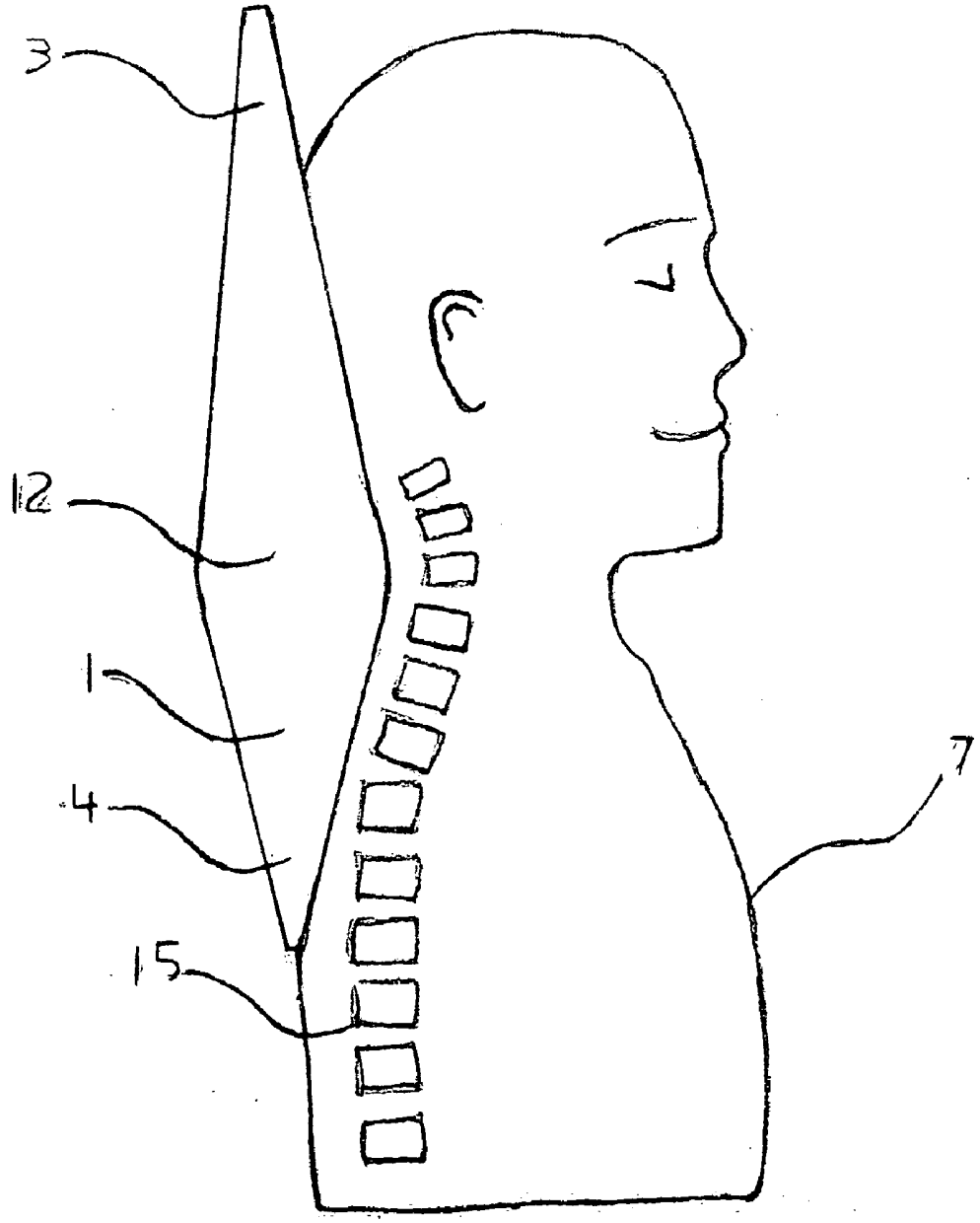


FIG 3

ERGONOMIC PILLOW FOR NECK AND UPPER SHOULDER MUSCLE RELEASE

1. FIELD OF THE INVENTION

[0001] The invention relates generally to a pillow, especially to a pillow that is comprised of a long cylindrical center portion and two trapezoidal wings whose narrow tip is rounded.

2. BACKGROUND

[0002] Since a significant amount of attention has been focused on sleeping, particularly how are sleep comfort effects a person's ability to get a good nights sleep, various types of pillows have been produced that minimize or eliminate the problems associated with traditional pillows. Pillow does a critical role in good sleeping. If a user sleeps on a wrong pillow, he/she may not turn the neck next morning. One extreme example is when a user sleep on a stone pillow, the user's may suffer from face muscle monologue. Meanwhile, many people spend long hours with wrong position, such as crouching on a desk for paper work or bend down waist over a work desk for manufacturing. In any position, s/he must bend or stretch neck. After long hours work, his/her neck get stiff and sometimes get pain. On the other hand, seniors or people with high blood pressure always feel that their neck is stiff. Massaging the neck may release the feeling of the stiffness. But, that is only temporary. Therefore, a novel and cheap method or tool for releasing the muscle and pain everyday is needed. Inventor of the current application focused that pillow is the only tools that everybody use everyday and contact the neck and upper shoulder. Pillow of a novel design shown in the current application release muscle and pain effectively.

DESCRIPTION OF THE PRIOR ART

[0003] U.S. Pat. No. 7,120,953 to Ferber, et al. illustrates a pillow which includes a neck portion extending along a length of the pillow, and a head portion attached to the neck portion, the head portion divided into at least two head compartments.

[0004] U.S. Pat. No. 7,107,642 to Wong, et al. illustrates an adjustable mattress and pillow system and related methods in which a sensing mat positioned on the top face of a mattress affects microprocessor-controlled optimization of the contour of the mattress and a pillow based on a user's position.

[0005] U.S. Pat. No. 7,089,616 to Funatogawa illustrates a composite pillow which prevents difference in level and a depression from being formed at a contact surface between divided core material parts, thereby prevents discomfort to a user.

[0006] U.S. Pat. No. 7,089,615 to Parimuha illustrates a pillow to provide predictable support for a reclining person during sleep or therapy. The preferred embodiment of the invention is formed by a continuous portion forming two openings, at which are joined side panels.

[0007] U.S. Pat. No. 7,082,633 to Maarbjerg illustrates a pillow adapted for supporting the head of a user. The pillow can have a visco-elastic body having a center portion elevated with respect to adjacent lateral side portions, each of which can have a recess.

[0008] U.S. Pat. No. 7,020,919, Inaba illustrates a pillow of an appropriate height, resiliency, and hardness, which is light in weight and excellent in strength and does not impose too much stress on a user's head and neck while enhancing air permeability and heat dispersion properties, provides good comfort to the user.

[0009] U.S. Pat. No. 6,993,800 to Greenawalt, et al. illustrates a custom; therapeutic pillow is constructed based on measurements of a person's torso and head widths. The custom, therapeutic pillow comprises rails to support the user's neck and a memory foam-bottomed cavity in which to receive the user's head.

[0010] U.S. Pat. No. 6,973,691 to Cordova, et al. illustrates a portable, elongated support pillow that when propped between the chin and lap of the user limits both head and torso movements caused by resting or sleeping while sitting in an upright position.

[0011] U.S. Pat. No. 6,895,619 to Lee illustrates a pillow that can be folded or rolled into a plurality of configurations is described. Preferred embodiments of the pillow typically comprise an elongated viscoelastic foam pad that can be evenly folding into half, thirds or quarters to create a formed pillow of varying thicknesses.

[0012] U.S. Pat. No. 6,928,677 to Pittman illustrates a pillow includes a pillow base having a top, bottom, front, rear and opposite sides. The base includes first and second compartments defining areas which extend between the opposite sides. A quantity of fill material is disposed within the first compartment. A support member is enclosed within the second chamber. The support member includes a resilient body having a top wall, a bottom wall, a front wall, a rear wall, and spaced apart side walls. The front wall includes a slot extending between the side walls. The support member is disposed adjacent to at least the front of the pillow base.

[0013] None of the prior art illustrates a pillow that stretch neck and support the upper shoulder body to release the muscles thereof while a user sleeps over night.

SUMMARY OF THE INVENTION

[0014] Since a significant amount of attention has been focused on sleeping, various types of pillows have been produced that minimize or eliminate the problems associated with traditional pillows. Pillow does a critical role in good sleeping. If a user sleeps on a wrong pillow, for example, on a stone pillow, the user may suffer from face muscle monologue. Meanwhile, many people spend long hours with wrong position, such as crouching on a desk for paper work or bend down waist over a work desk for manufacturing. In any position, s/he must bend or stretch neck. After long hours work, his/her neck get stiff and sometimes get pain. On the other hand, seniors or people with high blood pressure always feel that their neck is stiff. Massaging the neck may release the feeling of the stiffness. But, that is only temporary. Therefore, a novel and cheap method or tool for releasing the muscle and pain everyday is needed. Inventor of the current application focused that pillow is the only tools that everybody use everyday and contact the neck and upper shoulder. To realize the goal an ergonomic pillow is provided. The ergonomic pillow according to current application is to release muscles of a user's neck and upper shoulder to remove pains. Office workers usually spend long hours with crouched position. When a user uses this ergonomic pillow while sleeping, it releases muscles on the neck and upper portion of the shoulder of a user. The ergonomic pillow according to current application is comprised of a long cylindrical center portion and two trapezoidal wings whose narrow tip is rounded. The two wings are developed along the long axis of the cylindrical

portion on the outer surface thereof. Center portion of one wing is removed for shoulder approach. The pillow of the current application is made of a visco-elastic polymer or wood.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] FIG. **1** is a perspective view of a pillow according to current invention.

[0016] FIG. **2** is a side view of the pillow according to current invention.

[0017] FIG. **3** is a side view of a user lying on the pillow according to current invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0018] The ergonomic pillow for neck and upper shoulder muscle release is designed not only for releasing muscle and pains but also good in terms of hygiene. The FIG. **1** is a perspective view of a pillow (**1**) according to current invention. The pillow has a cylindrical center portion (**2**) and two wings (**3**), (**4**). One wing (**3**) is longer than the other wing (**4**). An air hole (**5**) is developed throughout the whole horizontal width (**6**) of the pillow. The air hole (**5**) allows air to pass through to remove sweats from the pillow (**1**) while a user (**7**) sleeping. The air hole (**5**) also facilitates penetration of water and detergent through the pillow (**1**) when doing a laundry. Center portion (**4-2**) of shorter wing (**4**) is removed for shoulder approach. Horizontal width (**6**) of the pillow (**1**) is in the range of 50 cm to 100 cm depending on the gender and age of a user. Vertical length (**8**) of the pillow (**1**) is in the range of 33 cm to 60 cm. Outer diameter (**9**) of the center portion (**2**) is in the range of 5 cm to 10 cm. Diameter (**10**) of the air hole (**5**) is in the range of 1 cm to 3 cm. Length of one wing (**3**) from the center of the center portion (**2**) is in the range of 16 cm to 45 cm. Width (**11**) of the center portion (**4-2**) of the shorter wing (**4**) is in the range of 12 cm to 18 cm.

[0019] The pillow (**1**) according to current invention is made of a porous visco-elastic polymer, porous poly-urethane for example, or porous wood, cork for example. A tube type insert (**12**) is engaged to the air hole (**5**) when the pillow is made of a porous visco-elastic polymer. The insert (**12**) is made of flexible PVC (poly-vinyl chloride) with pluralities of small holes (**13**) of average diameter 3 mm. The tube type insert (**12**) supports the air hole (**5**) of the pillow (**1**) to maintain air flow there through.

[0020] FIG. **2** is a side view of the pillow (**1**) according to current invention. Side view of the pillow (**1**) is well curvature. The center portion (**2**) is basically circle shape. The center portion (**2**) and wings (**3**), (**4**) meet and for concave surfaces (**14**). Tips (**3-1**), (**4-1**) of each wings (**3**), (**4**) are rounded.

[0021] FIG. **3** is a side view of a user (**7**) lying on the pillow (**1**) according to current invention. When a user lies on the pillow (**1**), the cervical vertebrae (**15**) of the user (**7**) are stretched along the curvature of the center portion (**2**). Stiffness of the pillow (**1**) is adjusted by controlling stiffness of the insert (**12**). Upper shoulder (**16**) of the user (**7**) is pressed by the rest (**4-3**) of the wing (**4**).

[0022] By stretching the cervical vertebrae (**15**) of the user while pressing the upper shoulder (**16**), the ergonomic pillow (**1**) releases muscles surrounding the cervical vertebrae (**15**) and the upper shoulder (**16**)

What is claimed is:

1. An ergonomic pillow for neck and upper shoulder muscle release is comprised of:

a cylindrical center portion throughout which an air hole, which allows air to pass through to remove sweats from the pillow while a user sleeping and facilitates penetration of water and detergent through the pillow when doing a laundry, is developed along the whole horizontal width of the pillow,

and

two wings, one of which is longer than the other wing and center portion of shorter wing is removed for shoulder approach,

and

a tube type insert that is engaged to the air hole to supports the air hole of the pillow to maintain air flow there through and is made of flexible PVC (poly-vinyl chloride) with pluralities of small holes of average diameter 3 mm.

2. An ergonomic pillow for neck and upper shoulder muscle release of claim **1**,

wherein horizontal width of the pillow is in the range of 50 cm to 100 cm,

and

vertical length of the pillow is in the range of 33 cm to 60 cm depending on the gender and age of a user,

and

outer diameter of the center portion is in the range of 5 cm to 10 cm,

and

diameter of the air hole is in the range of 1 cm to 3 cm,

and

length of one wing from the center of the center portion is in the range of 16 cm to 45 cm,

and

width of the center portion of the other wing is in the range of 12 cm to 18 cm.

3. An ergonomic pillow for neck and upper shoulder muscle release of claim **1**, wherein side view of the center portion is circle shape and the center portion and the two wings meet and forms concave surfaces and tips of the two wings are rounded.

4. An ergonomic pillow for neck and upper shoulder muscle release of claim **1**, wherein the pillow is made of porous wood.

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