

Provisional Application for Patent Cover Sheet

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c)

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All Inventors Must Be Listed – Additional Inventor Information blocks may be generated within this form by selecting the **Add** button.[Add](#)**Title of Invention**

Cooling Pillow

Attorney Docket Number (if applicable)

00901.0068

Correspondence Address

Direct all correspondence to (select one):

☒ The address corresponding to Customer Number☐ Firm or Individual Name

Customer Number

54962

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

☒ No.

Yes, the invention was made by an agency of the United States Government. The U.S. Government agency name is:

Yes, the invention was under a contract with an agency of the United States Government. The name of the U.S. Government agency and Government contract number are:

Entity Status**Applicant asserts small entity status under 37 CFR 1.27 or applicant certifies micro entity status under 37 CFR 1.29**

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- ☐ No

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Please see 37 CFR 1.4(d) for the form of the signature.

Signature	James A. Edwards/		Date (YYYY-MM-DD)	2016-07-22
First Name	James	Last Name	Edwards	Registration Number (If appropriate)
				74905

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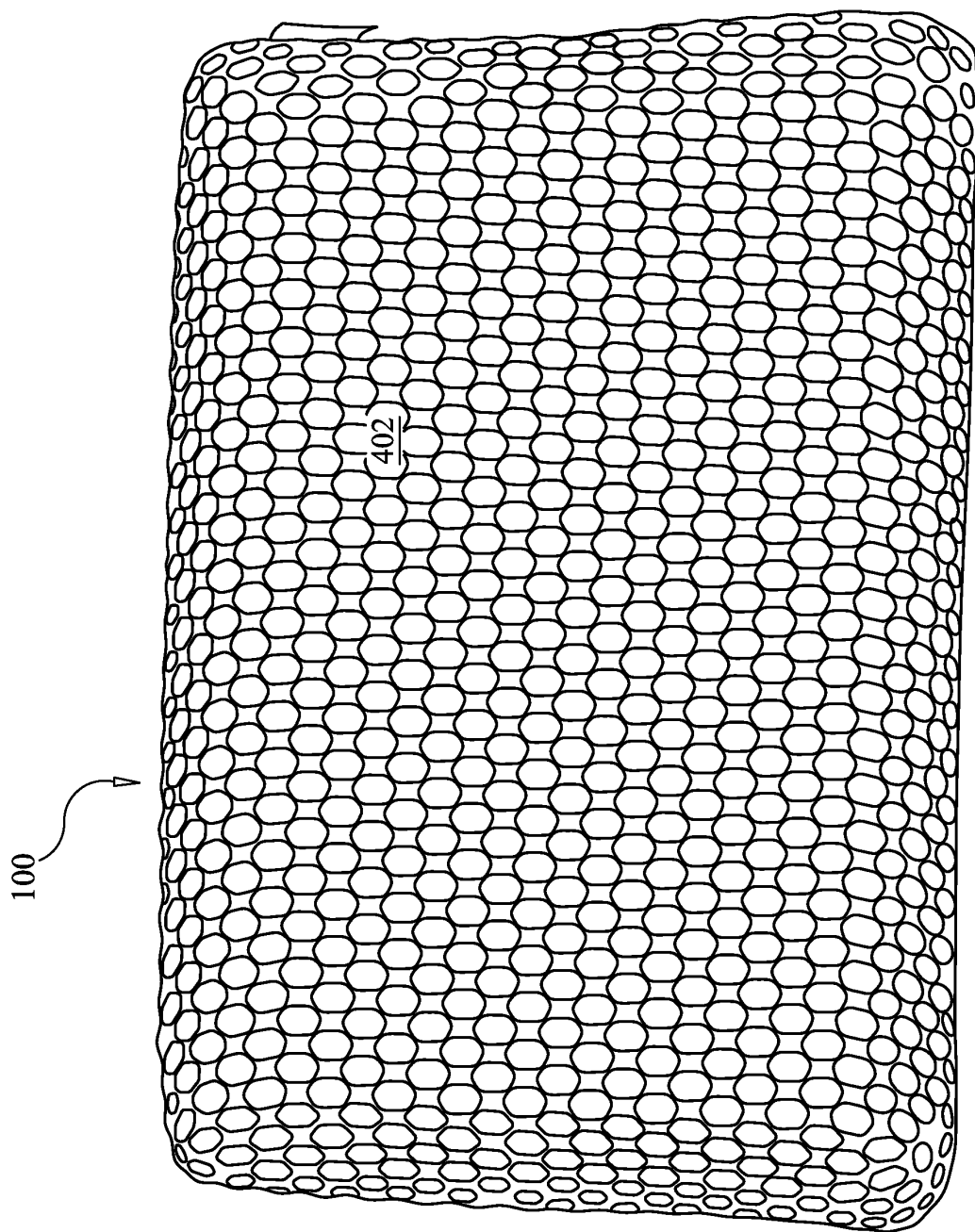


FIG. 1

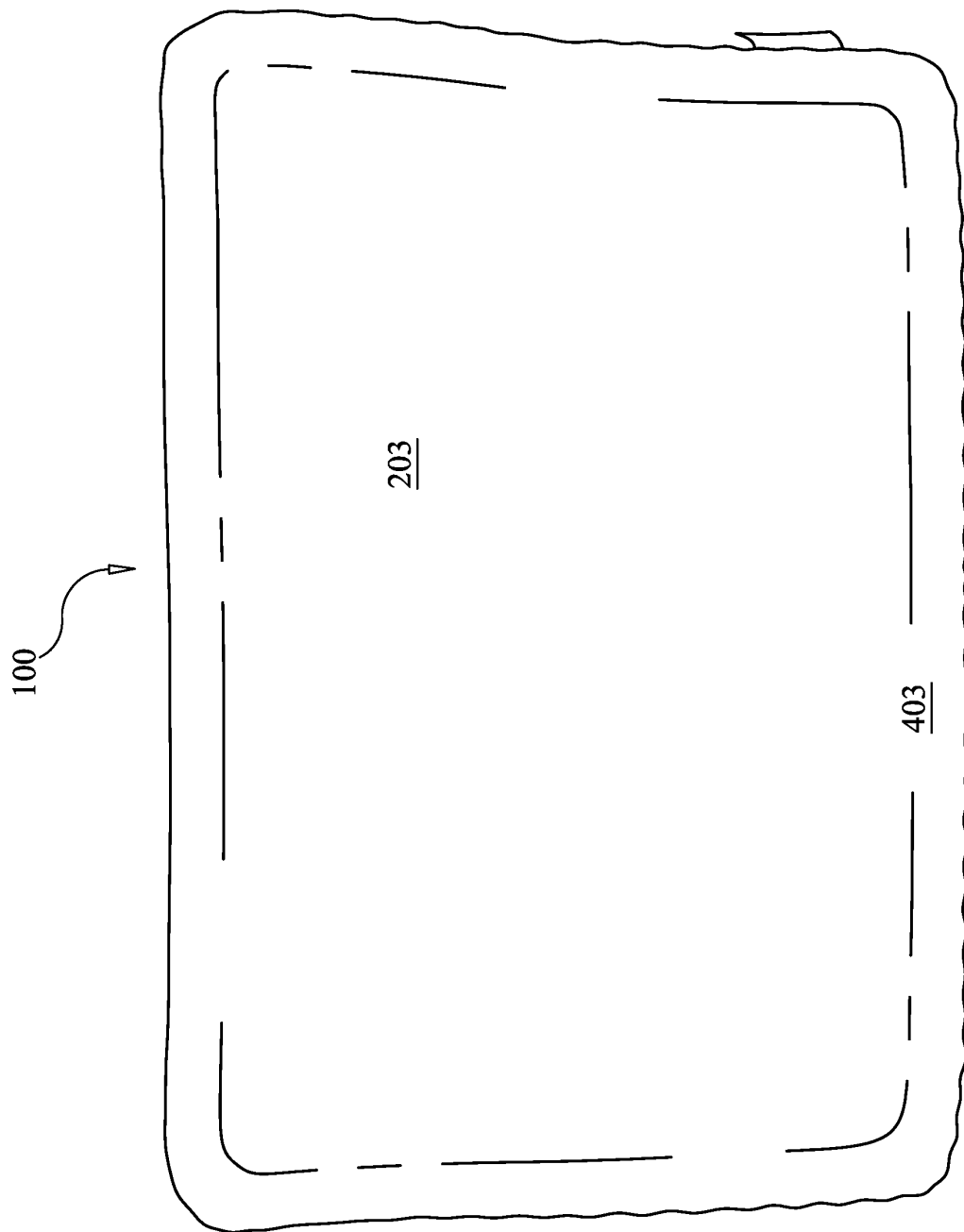


FIG. 2

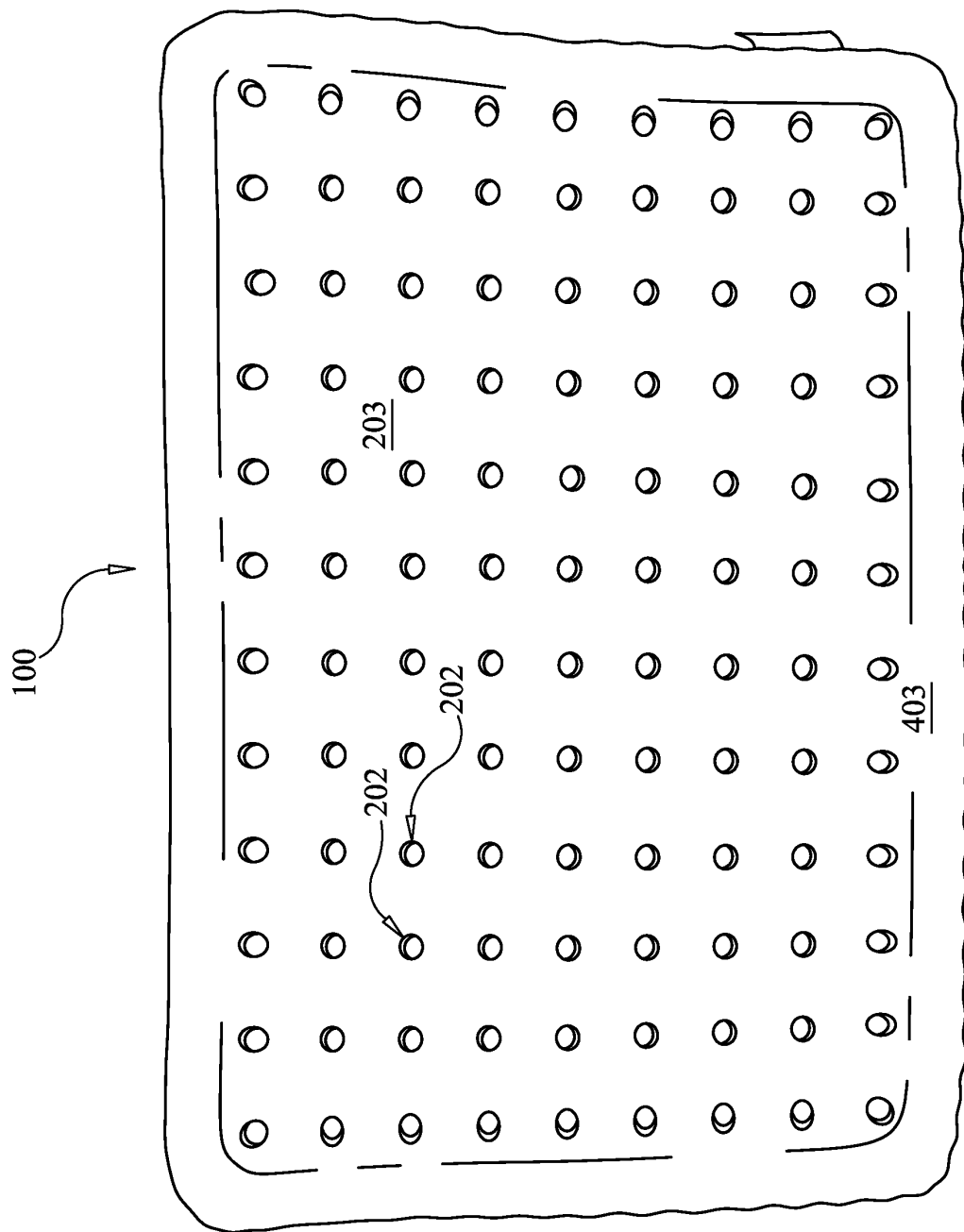


FIG. 3

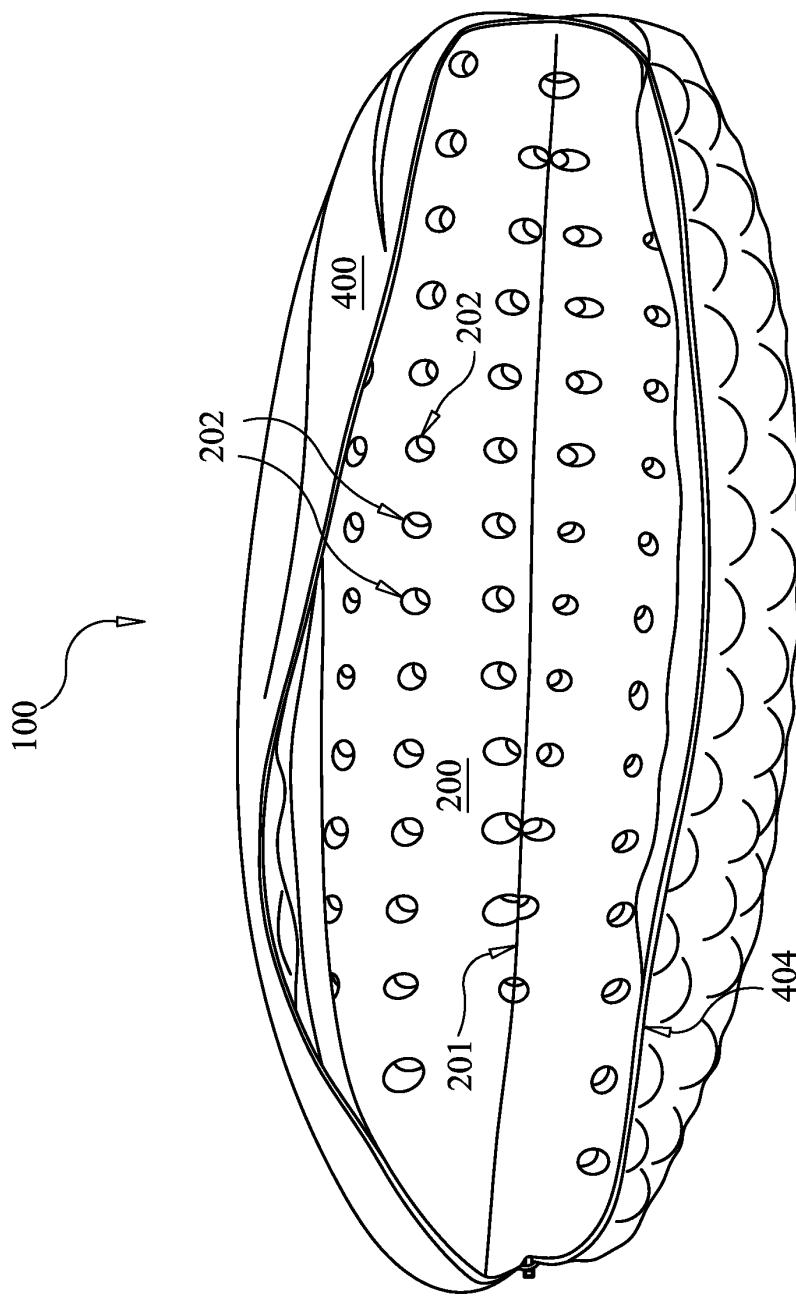


FIG. 4

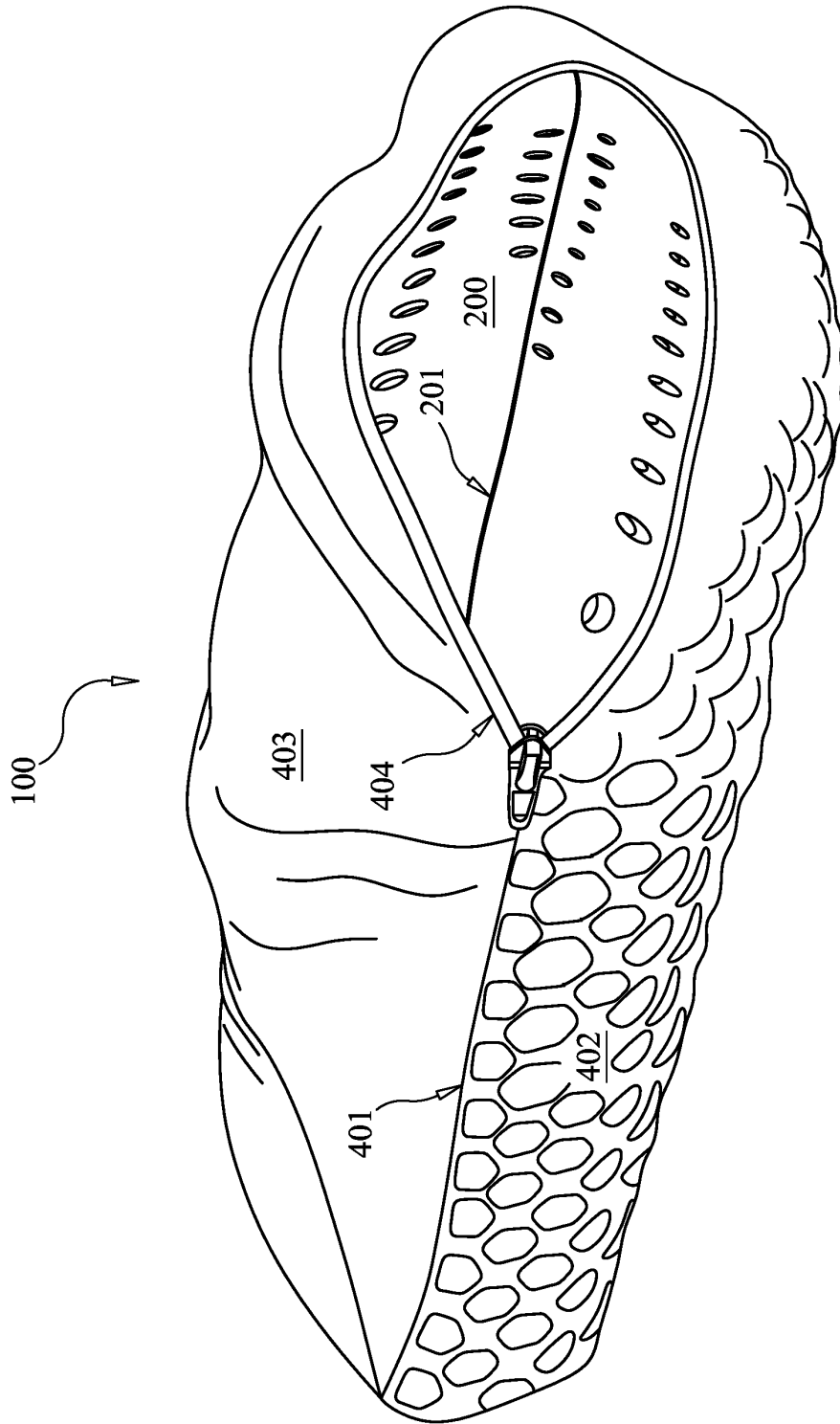


FIG. 5

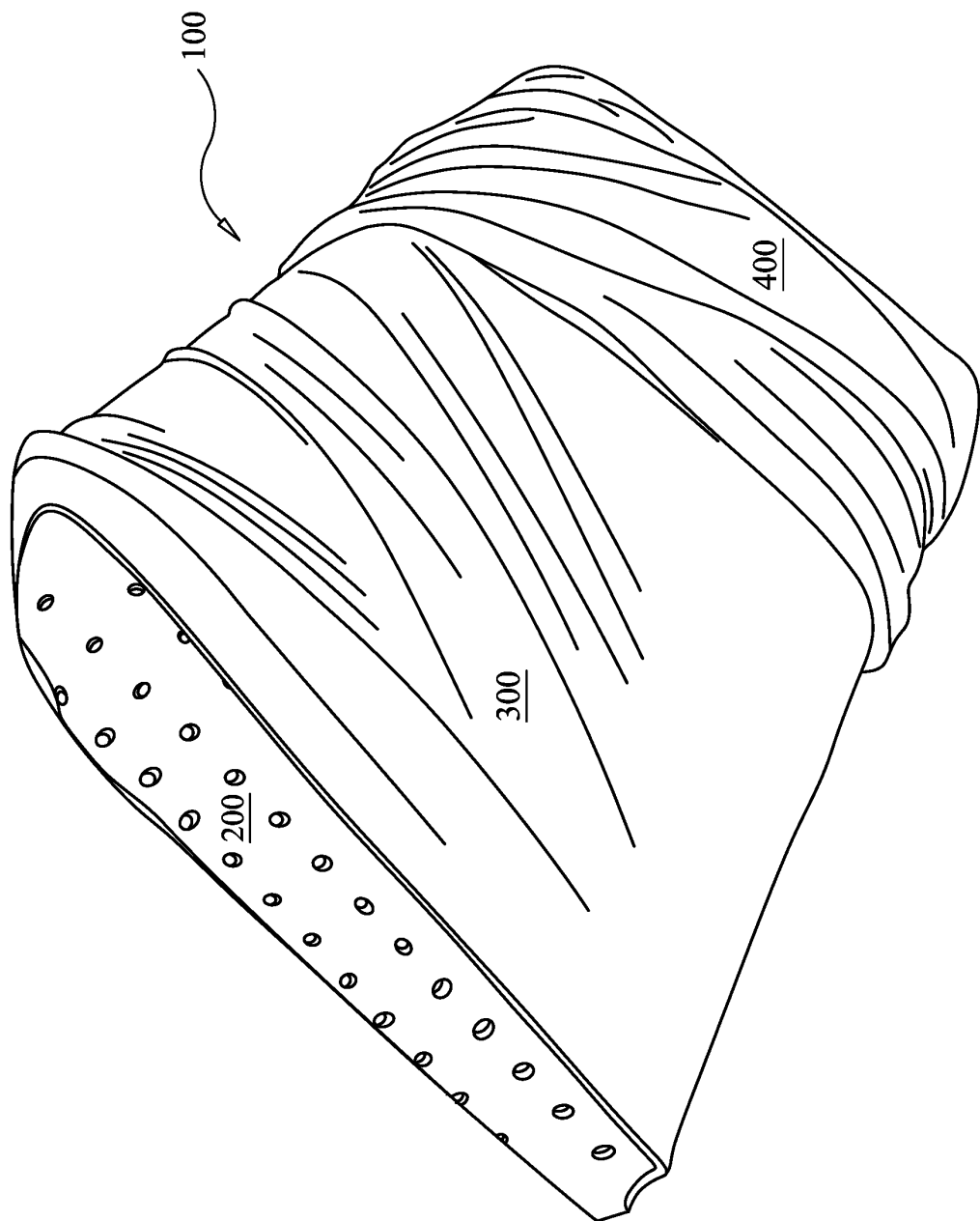


FIG. 6

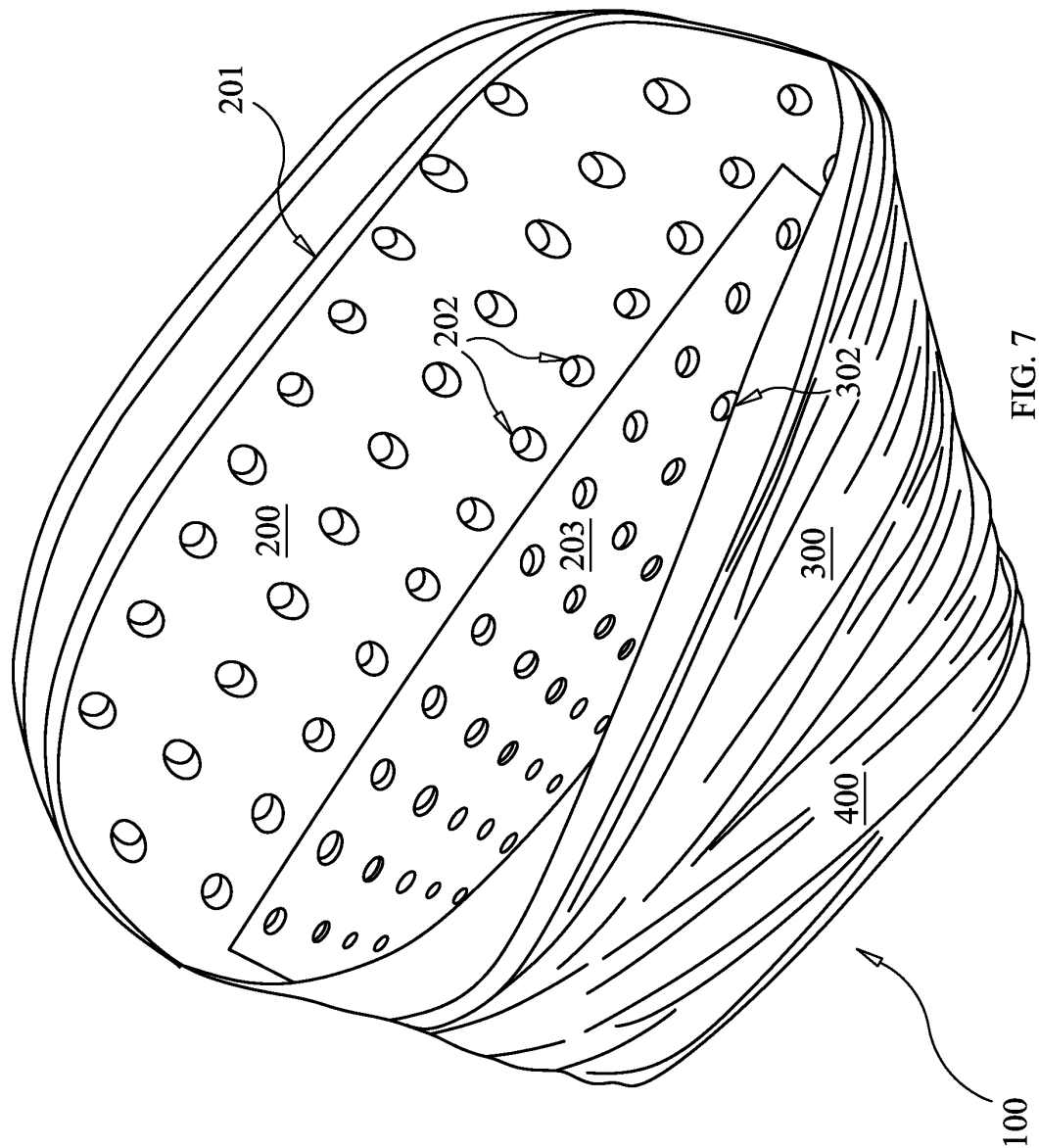


FIG. 7

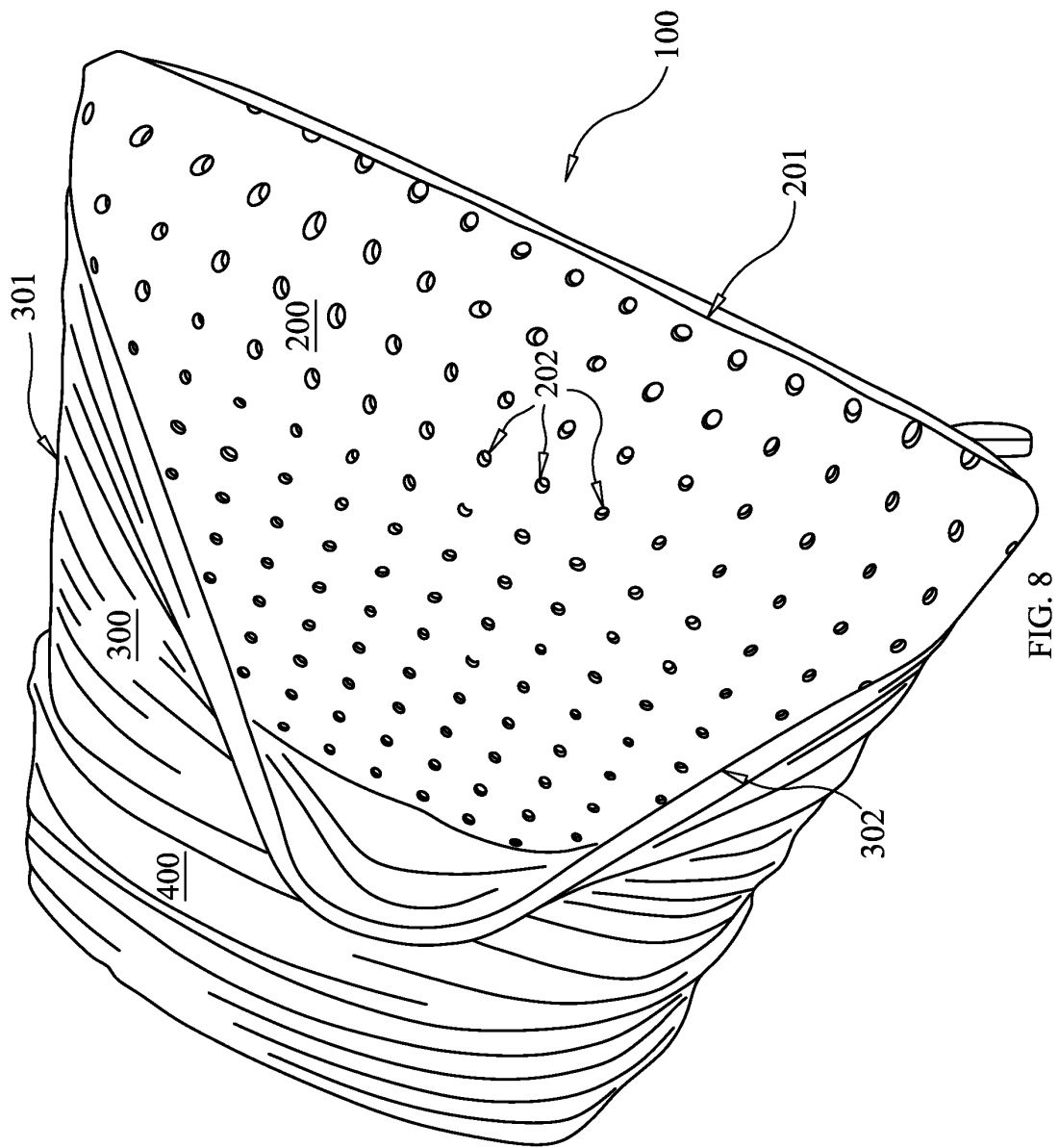


FIG. 8

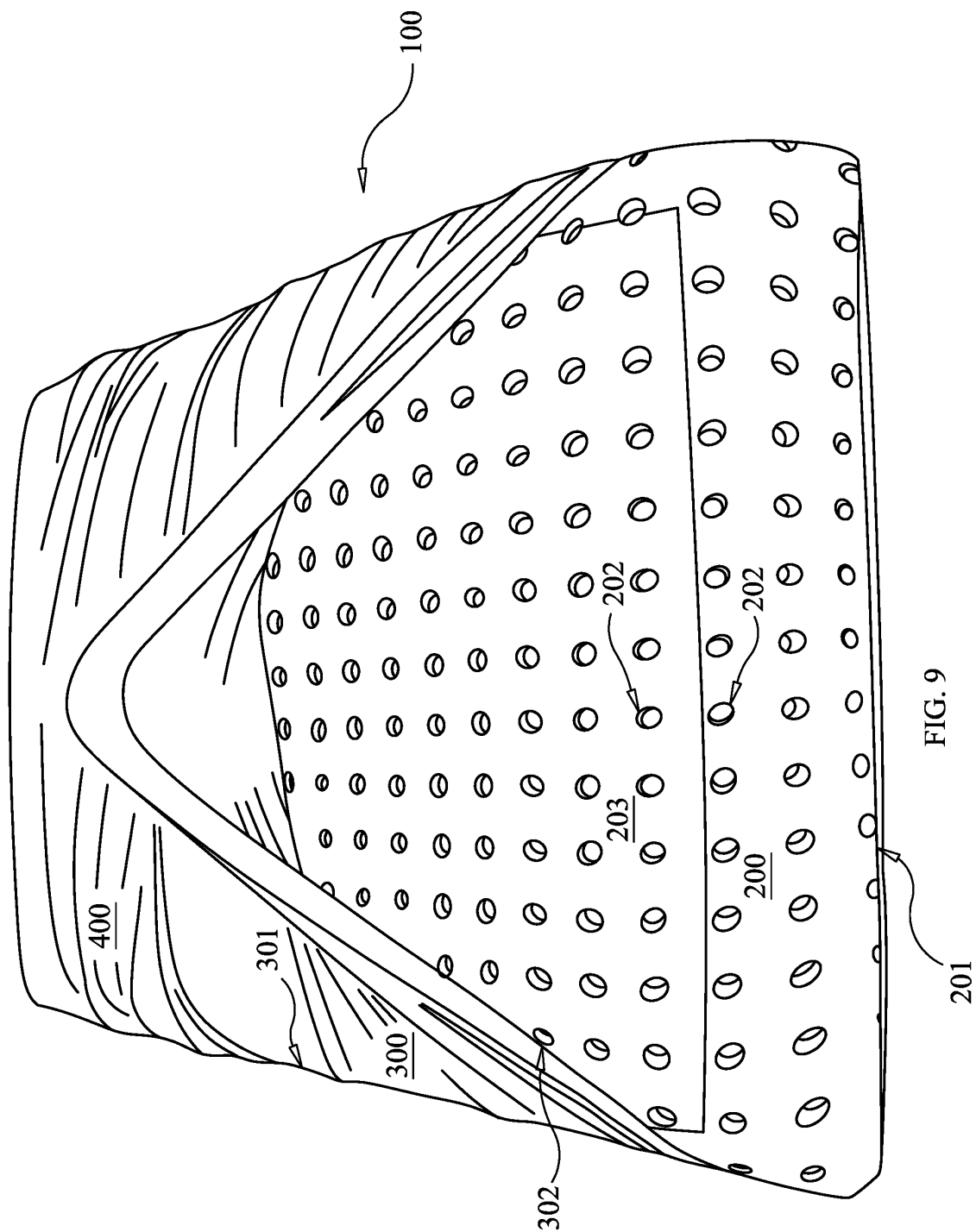


FIG. 9

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TITLE OF THE INVENTION

[0001] Cooling Pillow

CROSS-REFERENCE TO RELATED APPLICATIONS

[0002] Not Applicable

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0003] Not Applicable

THE NAMES OF PARTIES TO A JOINT RESEARCH AGREEMENT

[0004] Not Applicable

INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC

[0005] Not Applicable

BACKGROUND OF THE INVENTION

FIELD OF THE INVENTION

[0006] The invention relates to bedding, and in particular to a cooling pillow.

DESCRIPTION OF THE RELATED ART

[0007] Obtaining quality sleep is an essential component of both maintaining and improving one's health. While sleeping, we pass through five phases of sleep: stages 1, 2, 3, 4, and REM (rapid eye movement) sleep. These stages progress in a cycle from stage 1 to REM sleep, then the cycle starts over again with stage 1. People lose some of the ability to regulate their body temperature during REM, so abnormally hot or cold temperatures in the environment can disrupt this stage of sleep. Having suitable bedding is critical in controlling temperature, which ultimately, when adequate, can enhance the quality of sleep that one receives.

[0008] When the temperature around the body's microclimate stays balanced, the sleeper awakens less, sleeps deeper, and gets a better more restorative sleep. Today, many people suffer from waking up in the middle of the night due to temperature fluctuations.

[0009] One significant area of importance for temperature balance is at one's head. Commonly, when sleeping, individuals rest their head on a pillow. Traditional pillows are composed of a variety of materials, but such materials lack the ability to regulate one's sleep at a lower, more comfortable temperature.

[0010] Previous attempts at reducing temperature with modified pillows incorporating phase change material (PCM) have been unsuccessful. These prior attempts look to incorporate phase change material into the chemical composition of the cushion prior to pillow formation.

[0011] By mixing phase change material into the chemical composition prior to pillow formation, the phase change material is diluted and the abilities of the PCM are reduced.

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[0012] MacKay, US 2012/0193572 teaches uniformly dispersing the phase change material within the foam of the bedding. No detail is provided regarding the application of a layer of phase change material upon the surface of the bedding. The usefulness of the phase change material in regulating the temperature is thus diluted in the pillows according to MacKay.

[0013] A phase-change material (PCM) is a substance with a high heat of fusion which is capable of storing and releasing large amounts of energy by melting and solidifying at certain temperatures. Heat is absorbed or released when the material changes from solid to liquid and vice versa; thus, PCMs are classified as latent heat storage (LHS) units.

[0014] Therefore, a PCM that melts below body temperature would feel cool as it absorbs heat, for example, from a body. The melting and freezing of the material takes place over a narrow temperature range, thereby allowing small changes in temperature to cause reactions.

[0015] PCMs have been used in the inclusion of the chemical composition of foam pillows, but due to diluting of the advantageous properties of the PCM, the user is unable to feel the full extent of the coolness that PCMs are capable of achieving.

[0016] Accordingly, there exists a need for a pillow that can obtain the benefits of the PCM without diluting the PCM and reducing their capabilities.

BRIEF SUMMARY OF THE INVENTION

[0017] It is an object of the present invention to provide a cooling pillow, which incorporates phase change material in a more useful way to alleviate the discomfort associated from temperature fluctuation while sleeping.

[0018] An object of the invention is to improve discomfort felt while sleeping. One way the cooling pillow improves discomfort is through improving air flow. The cooling pillow is formed of aerated gel memory foam, which allows air to circulate and creates a plush more responsive feel than a traditional pillow. The aerated gel memory foam pillows create a current of air when the pillow is compressed. The air current created is greater in an aerated pillow than an unaerated pillow.

[0019] The gel memory foam is aerated by incorporating holes uniformly throughout the pillow. In the preferred embodiment, the holes are cylindrical in shape and extend from one side of the pillow to the other. The holes can be made by a mold during the pillow's manufacturing.

[0020] An object of the invention is to improve the way in which phase change material is utilized. One way the cooling pillow improves the utilization of phase change material is through innovative application of the phase change material on the surface of the cooling pillow. The cooling pillow incorporates the phase change material in a uniform layer on at least one surface of the pillow.

[0021] The cooling pillow is designed for repeated use. In order to withstand the repeated use, the cooling pillow incorporates both an inner pillow cover and an outer pillow cover to create a thin, but protective barrier between the user of the cooling pillow and the phase change material. The cooling pillow includes an inner pillow cover, which encapsulates the foam pillow. The inner pillow cover includes an opening at one end. The foam pillow may be removed from the inner pillow cover through the opening.

[0022] The portion of the inner pillow that overlies the phase change material can be made of a performance fabric. The performance fabric improves the cooling of the pillow by minimizing the blockage of air-flow from the pillow as the pillow is being compressed. The performance fabric is improved compared to natural fiber covers, particularly cotton. In addition, the performance fiber transfers heat (i.e. cool) better than natural fibers. The performance fiber is also cool to the touch. The performance fiber wicks moisture and perspiration from the user's skin.

[0023] Outside of the inner pillow cover is an outer pillow cover. The outer pillow cover encompasses the inner pillow cover. The outer pillow cover includes a zipper at one end to removeably secure the foam pillow inside the outer pillow cover. The outer pillow cover is dual-sided with differing sewing patterns located on either side.

[0024] The sewing pattern on one side of the outer pillow cover is shaped in a specialized pattern, with increased thickness regions in some areas, and decreased thickness regions in the spaces between the increased thickness regions.

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[0025] The sewing pattern on the opposite side of the outer pillow cover is uniform in thickness. The thickness of this side of the outer pillow cover is equal to the thickness of the decreased thickness regions on the patterned outer pillow cover side.

[0026] The rear (i.e. not facing the phase-change side) of the inner pillow cover and the outer pillow cover are composed of cotton.

[0027] It is an object of the current invention to allow for the phase change material to adequately regulate the user's temperature. One way in which the phase change material is adequately utilized is through controlling the thickness of both the inner pillow cover and the outer pillow cover to allow the user's temperature to be responsively observed by the phase change material to allow the material to both absorb and release heat as needed.

[0028] In the preferred embodiment, the phase change material layer, located on at least one side of the foam pillow, is exposed to the side of the outer pillow cover with uniform thickness. By having the phase change material layer be exposed to the uniform thickness side of the outer cover, the degree of separation between the user and the phase change material is minimized. This allows for the phase change material to adequately respond to the thermal needs of the user.

[0029] It is an object of the current invention to provide a cooling sensation to the user, which will increase comfort levels. One way in which cooling is provided to the user is through the aeration in the pillow. With the use of aerated gel foam, the pillow provides a release of air in an outward motion when compressed. This release of air, combined with the phase change

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material, cools the user's head with a gust of cooled air when the pillow is compressed, thus increasing comfortability.

[0030] One object of the current invention is to maintain a sustained comfortable thermal environment in order to provide quality sleep. The cooling pillow provides a maintained thermal environment, within an ideal temperature range, with the phase change material layer. The phase change material melts when the temperature increases above the range, and solidifies when the temperature decreases beneath the range. This melting and solidifying of the phase change material absorbs and releases heat as needed to provide a controlled thermal environment for the user.

[0031] Other features of the invention are set forth in the appended claims.

[0032] Although the invention is illustrated and described herein as embodied the invention is not limited to the details shown because various modifications and structural changes may be made without departing from the invention and the equivalents of the claims. However, the construction and method of operation of the invention together with additional objects and advantages thereof will be best understood from the following description of specific embodiments when read in connection with the accompanying drawings.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING

[0033] Fig. 1 is a bottom side view of an outer cover for holding a pillow according to the invention.

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[0034] Fig. 2 is a top side view of the outer cover shown in Fig. 1 with a cooling layer shown in phantom.

[0035] Fig. 3 is a top side view of a pillow according to the invention.

[0036] Fig. 4 is a left side view of the cooling pillow shown in Fig. 1 with the outer pillow cover unzipped and spread.

[0037] Fig. 5 is a perspective view of the cooling pillow shown in Fig. 4.

[0038] Fig. 6 is a perspective view of the cooling pillow shown in Fig. 1 with the outer pillow cover retracted and the inner pillow cover partially retracted.

[0039] Fig. 7 is a top perspective view of the cooling pillow shown in Fig. 6 with the outer and inner cover retracted to expose the cooling layer.

[0040] Fig. 8 is a bottom perspective view of a cooling pillow shown in Fig. 7.

[0041] Fig. 9 is a further top perspective view of the cooling pillow shown in Fig. 6.

DETAILED DESCRIPTION OF THE INVENTION

[0042] At the outset, it should be appreciated that like drawing numbers on different drawing views identify identical, or functionally similar, structural elements of the invention. While the present invention is described with respect to what is presently considered to be the preferred aspects, it is to be understood that the invention as claimed is not limited to the disclosed aspects.

[0043] Furthermore, it is understood that this invention is not limited to the particular methodology, materials and modifications described and as such may, of course, vary. It is also understood that the terminology used herein is for the purpose of describing particular aspects only, and is not intended to limit the scope of the present invention, which is limited only by the appended claims.

[0044] Unless defined otherwise, all technical and scientific terms used herein have the same meaning as commonly understood to one of ordinary skill in the art to which this invention belongs. Although any methods, devices or materials similar or equivalent to those described herein can be used in the practice or testing of the invention, the preferred methods, devices, and materials are now described.

[0045] The following terms are used throughout the specification and are to have the following meanings. A “cooling pillow” refers to the pillow, inner cover, and outer cover. The pillow is the aerated gel memory foam that included the cooling layer. The inner cover is a skim that encloses the pillow. The outer cover encloses the inner cover and the pillow. The relationship and details of the parts are described below.

[0046] Fig. 1 shows a preferred embodiment of the cooling pillow 100. The cooling pillow 100 is shown encapsulated by the outer pillow cover 400. The outer pillow cover 400 includes a patterned side 402 and the uniform side 403. In Fig. 1, the patterned side 402 of the pillow cover 400 is shown. The patterned side 402 of the cooling pillow 100 allows for versatile use by preference of the user. The patterned side 402 is textured by increasing and decreasing the thickness of the outer pillow cover 400. In the preferred embodiment, the patterned side 402

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has evenly spaced thick regions separated by evenly spaced thinner regions. The patterned side 403 includes a hexagonal pattern made with stitching.

[0047] The user of the cooling pillow 100 may choose to sleep on either side of the cooling pillow 100. In certain climates, the user may prefer to utilize the patterned side 402 of the outer pillow cover 400. The patterned side 402, by having increased and decreased thickness regions equally spaced, creates a soothing sensation for the user. Also, the patterned side 402, by having increased thickness relative to the uniform side 403 (as shown in Fig. 2) of the outer pillow cover 400 allows for an decreased thermal level during sleep, which may be preferable to certain users.

[0048] Fig. 2 shows the uniform side 403 of the outer pillow cover 400. The outer pillow cover 400 encapsulates the cooling pillow 100. In the preferred embodiment, the cooling layer 203 is on the side of the cooling pillow 100 exposed to the uniform side 403 of the outer pillow cover 400. In an alternative embodiment, the cooling layer can be over both sides of the pillow. By having the cooling layer 203 of the cooling pillow 100 exposed to the uniform side 403 of the outer pillow cover, the user of the cooling pillow 100 has less material between the user and the cooling layer 203. The cooling layer 203 will more accurately respond to the users temperature levels when the separation between the user and the cooling layer 203 is minimized.

[0049] Fig. 3 shows the cooling layer 203 on the surface of the uniform side 403 of the outer pillow cover 400. The cooling pillow 100 utilizes a cooling layer 203 on the exterior surface of the foam pillow 200 (as shown in Fig. 4) in order to achieve a higher level of performance from

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the phase change material than if the phase change material were part of the composition of the foam pillow 200. Exposure of the cooling layer 203 to the uniform side 403 of the outer pillow cover 400 allows for this higher level of performance of the phase change materials properties, while allowing for repeated use. Without the use of an outer pillow cover 400 the cooling layer 203 could become worn. The holes 202 of the cooling pillow 100 allow for increased airflow when the cooling pillow 100 is compressed. In the preferred embodiment, the holes 202 extend vertically from one side of the cooling pillow 100 to the other. In another embodiment, which is not shown, the holes may be made in the surface and may not penetrate through the pillow 200. When compressed the air captured in the holes 202 is forced outward toward the user. This utilization of holes 202 in the cooling pillow 100 increases airflow and participates in the cooling sensation that the user feels.

[0050] The cooling layer 203 is a glycerin-based phase change material. The cooling layer is painted on an already formed perforated gel pillow and cured.

[0051] Fig. 4 shows the left end of the cooling pillow 100. The cooling pillow 100 is the combination of the foam pillow 200, the inner pillow cover 300 (as shown in Fig. 6), and the outer pillow cover 400. In the preferred embodiment, the foam pillow 200 is formed of aerated gel foam. When formed, the foam pillow 200 has holes 202, and a seam 201. The holes 202 extend from one side of the foam pillow 200 to the other, with the seam 201 separating the sides. The foam pillow 200 is releasably held within the outer pillow cover 400 by a zipper opening 404. The user of the cooling pillow 100 may remove the foam pillow 200 from within

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the outer pillow cover 400 in order to switch the side of the outer pillow cover 400 that the cooling layer 203 is exposed to, or to wash the outer pillow cover 400.

[0052] Fig. 5 shows the cooling pillow 100 inside of the outer pillow cover 400, with the zipper opening 404 in an open position. The seam 201 of the foam pillow 200 aligns with the seam 401 of the outer pillow cover 400. The cooling pillow 100 is shown in the upward position, that in the preferred embodiment, would be the position in which the user would sleep on the pillow. The uniform side 403 of the outer cover 400 is directed towards the top of the cooling pillow 100, and the patterned side 402 of the outer pillow cover 400 is directed toward the bottom of the cooling pillow 100. In the preferred embodiment, the cooling layer 203 (as shown in Fig. 3) is exposed to the uniform side 403 of the outer cover 400 of the cooling pillow 100. The user places their head on the uniform side 403 of the cooling pillow 100 while sleeping. In other embodiments, not shown, the user may reverse the side that the cooling layer 203 is exposed to. In the other embodiments, not shown, the cooling layer 203 may be exposed to the patterned side 402 of the outer pillow cover 400.

[0053] Fig. 6 shows the various components of the cooling pillow 100. The foam pillow 200 is the most interior of the components, with the inner pillow cover 300 encompassing the foam pillow 200. Outside of the inner pillow cover 300 is the outer pillow cover 400. In the preferred embodiment, the outer pillow cover 400 has differing thicknesses on either side (as shown in Fig. 5). In the embodiment shown the inner pillow cover 300 has thickness equal to the thickness of the uniform side 403 of the outer pillow cover 400. In other embodiments, not shown, the inner pillow cover may be absent from the cooling pillow 100. In these

embodiments, the cooling pillow 100 is composed of a foam pillow 200 and an outer pillow cover 400. In embodiments with the inner pillow cover 300, the inner pillow cover 300 allows for easy removal of the foam pillow 200 from the outer pillow cover 400. The outer pillow cover 400 may be pulled down relative to the inner pillow cover 300 through the zipper opening 404 (as shown in Fig. 5).

[0054] Fig. 7 shows the left end of the cooling pillow 100 with the opening 302 of the inner pillow cover 300 in an open position, exposing the foam pillow 200 beneath. The outer pillow cover 400 is shown encompassing the inner pillow cover 300. The cooling layer 203 located on the surface of the foam pillow 200 is shown facing outward. In the preferred embodiment, the holes 202 in the surface of the foam pillow 200 extend through the cooling layer 203. In the embodiment shown, the cooling layer 203 is rectangular in shape. In embodiments, not shown, the shape of the cooling layer 203 may vary without departing from the invention. In the embodiment shown, the cooling layer 203 is located on one surface of the foam pillow 200. The cooling layer 203 in the preferred embodiment is outward facing, toward the uniform side 403 of the outer pillow cover 400. In other embodiments, the cooling pillow 100 may incorporate multiple cooling layers 203, for instance, a further cooling layer may match the cooling layer that is depicted in the preferred embodiment and be exposed toward the patterned side 402 of the outer cover 400.

[0055] Fig. 8 shows the preferred embodiment of the cooling pillow 100. The outer pillow cover 400 is pulled down below the inner pillow cover 300, and the inner pillow cover 300 is pulled down through the opening 302 of the inner pillow cover 300, exposing the foam pillow

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200. The seam 301 of the inner pillow cover 300 aligns with the seam 201 of the foam pillow 200. The side of the foam pillow 200 shown is the absent the cooling layer 203. The cooling layer, in the embodiment shown, is exposed to the back side of the foam pillow 200, causing it not be able to be seen. When in use, the inner pillow cover 300 is pulled upward toward the exposed end of the foam pillow 200, and the outer pillow cover 400 is pulled upward in a similar fashion to encompass the inner pillow cover 300. The cooling pillow 100, when in use does not expose the holes 202 outside of the inner pillow cover 300 or the outer pillow cover 400. Instead, when compressed, the holes 202 release air in an outward direction, toward the user through both the inner pillow cover 300 and the outer pillow cover 400. This release of air, in combination with the cooling layer 203, creates increased comfortability to for the user.

[0056] Fig. 9 shows the reversed side of the cooling pillow 100 that was depicted in Fig. 8. The outer pillow cover 400 is pulled down below the inner pillow cover, and the inner pillow cover 300 is both lifted upward away from the pillow, and pulled down toward the end of the foam pillow 200 opposite of the end of the opening 302, exposing the foam pillow 200 beneath. The cooling layer 203 is shown in a rectangular shape on the surface of the foam pillow 200. The holes 202 in the foam pillow 200 are shown extending through the foam pillow 200 and the cooling layer 203. The seam 201 of the foam pillow 200 aligns with the seam 301 of the inner cover 300 to allow the inner cover 300 to be straight in relation to the foam pillow 200 when pulled up. The opening 302 of the inner cover 300 allows for the foam pillow 200 to be removed. The foam pillow 200 may need to be removed from the inner pillow cover 300 and the outer pillow cover 400 to allow for either the inner pillow cover 300 or the outer pillow cover 400 to be washed.

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[0057] Unless otherwise mentioned the reference numbers are used consistently throughout the figures.

WHAT IS CLAIMED IS:

1. A cooling pillow, for providing cooled air when compressed, comprising:
an aerated foam pillow having a surface, and
a phase change material being disposed on said surface of said cooling pillow.
2. The cooling pillow according to claim 1, wherein said cooling pillow includes a uniform dispersion of holes, said uniform dispersion of holes being equally spaced and cylindrical, extending from a first side of said cooling pillow to a second side of said cooling pillow.
3. The cooling pillow according to claim 1, wherein said cooling pillow is surrounded by an inner cover and an outer cover, said outer cover surrounding said inner cover.
4. The outer cover according to claim 3, said outer cover having a patterned side and a uniform side, said patterned side having equal spaced regions with increased thickness separated by regions with decreased thickness.
5. The outer cover according to claim 4, wherein said uniform side is equal in thickness as the regions with decreased thickness on the patterned side.
6. The cooling pillow according to claim 3, wherein said inner cover and said outer cover is composed of cotton.
7. The cooling pillow according to claim 3, wherein said inner cover has an opening to removeably insert the foam pillow.
8. The cooling pillow according to claim 3, said outer cover having at least one opening with a zipper to removeably seal the foam pillow inside said outer cover.

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9. The cooling pillow according to claim 2, wherein said holes pierce through said layer of phase change material.
10. A cooling pillow, for providing cooled air when compressed, comprising:
 - an aerated foam pillow having a surface;
 - a cooling, layer being disposed on said surface of said aerated foam pillow;
 - an inner cover surrounding said aerated foam pillow; and
 - an outer cover surrounding said inner cover.
11. The cooling layer according to claim 10, wherein said cooling layer is composed of phase change material.
12. The cooling pillow according to claim 10, wherein said outer cover thickness is at least as great as the thickness of the inner cover.
13. The cooling pillow according to claim 10, wherein:
 - said inner cover includes a performance fabric panel; and said performance fabric panel overlies said cooling layer.

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ABSTRACT OF THE DISCLOSURE

A cooling pillow generates a gust of cooled air when compressed. The cooling pillow includes an aerated foam pillow. A phase change layer is disposed on the foam pillow. The cooling pillow includes an inner pillow cover and an outer pillow cover. The outer pillow cover has differing textures on either side of the outer pillow cover. One side of the outer cover has a pattern, and the other side of the outer cover is uniformly flat. The differing textures are created through increasing and decreasing the thickness of the outer cover on textured side. Placing the phase change material in a single layer on one side of the pillow is enough phase change material to create the cooling effect. The cooling pillow provides the user with decreased temperature in order to provide a more comfortable thermal regulated sleeping environment.

Document1

Electronic Patent Application Fee Transmittal				
Application Number:				
Filing Date:				
Title of Invention:		Cooling Pilliow		
First Named Inventor/Applicant Name:		Marc L. Werner		
Filer:		James Alexander Edwards		
Attorney Docket Number:		00901.0068		
Filed as Small Entity				
Filing Fees for Provisional				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Provisional Application Filing Fee	2005	1	130	130
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				130

Electronic Acknowledgement Receipt	
EFS ID:	26483881
Application Number:	62367840
International Application Number:	
Confirmation Number:	6026
Title of Invention:	Cooling Pilliow
First Named Inventor/Applicant Name:	Marc L. Werner
Customer Number:	54962
Filer:	James Alexander Edwards
Filer Authorized By:	
Attorney Docket Number:	00901.0068
Receipt Date:	28-JUL-2016
Filing Date:	
Time Stamp:	15:03:29
Application Type:	Provisional

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Provisional Cover Sheet (SB16)	00185109.PDF	1477307	no	3
			a045cd67e3193b156e5f4a59834157b0277a6e73		

Warnings:

Information:					
2	Drawings-only black and white line drawings	00182765.PDF	588359 2245a2bc1a2d8ce7ac98b403d9e749debe9a6e1d	no	9
Warnings:					
Information:					
3		00185171.PDF	140562 f29c5aedfe51869fd2fc69098f3914360d1b1c9	yes	18
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Specification		1	15	
	Claims		16	17	
	Abstract		18	18	
Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	29514 8da7f4fee0dd6b5fcb2ac7fe5986e3f9d9440481	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			2235742		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					



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www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
62/367,840	07/28/2016		0.00	00901.0068		

CONFIRMATION NO. 6026

FILING RECEIPT



0000000083000274

54962

Loren Donald Pearson
Assouline & Berlowe, PA
3250 Mary Street
Suite 100
Miami, FL 33133-5232

Date Mailed: 08/11/2016

Receipt is acknowledged of this provisional patent application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)

Marc L. Werner, Plantation, FL;

Applicant(s)

Marc L. Werner, Plantation, FL;

Power of Attorney:

James Edwards--74905

Permission to Access Application via Priority Document Exchange: No

Permission to Access Search Results: No

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 08/10/2016

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 62/367,840**

Projected Publication Date: None, application is not eligible for pre-grant publication

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

Cooling Pillow

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

page 1 of 3

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

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Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

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Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

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Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

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The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit <http://www.SelectUSA.gov> or call +1-202-482-6800.



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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
62/367,840	07/28/2016	Marc L. Werner	00901.0068

CONFIRMATION NO. 6026

FORMALITIES LETTER



54962
Loren Donald Pearson
Assouline & Berlowe, PA
3250 Mary Street
Suite 100
Miami, FL 33133-5232

Date Mailed: 08/11/2016

NOTICE TO FILE MISSING PARTS OF PROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(c)

Filing Date Granted

An application number and filing date have been accorded to this provisional application. The items indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The statutory basic filing fee is missing.
- Surcharge as set forth in 37 CFR 1.16(g) must be submitted.
The surcharge is due for late submission of filing fee or cover sheet.

SUMMARY OF FEES DUE:

The fee(s) required within **TWO MONTHS** from the date of this Notice to avoid abandonment is/are itemized below. Small entity discount is in effect. If applicant is qualified for micro entity status, an acceptable Certification of Micro Entity Status must be submitted to establish micro entity status. (See 37 CFR 1.29 and forms PTO/SB/15A and 15B.)

- \$ **130** basic filing fee.
- \$ **30** surcharge.
- \$(**0**) previous unapplied payment amount.
- \$ **160** TOTAL FEE BALANCE DUE.

Replies must be received in the USPTO within the set time period or must include a proper Certificate of Mailing or Transmission under 37 CFR 1.8 with a mailing or transmission date within the set time period. For more information and a suggested format, see Form PTO/SB/92 and MPEP 512.

Replies should be mailed to:

Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web, including a copy of this Notice and selecting the document description "Applicant response to Pre-Exam Formalities Notice".
<https://portal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

For more information about EFS-Web please call the USPTO Electronic Business Center at 1-866-217-9197 or visit our website at <http://www.uspto.gov/ebsc>.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/sgorems/

In the United States Patent and Trademark Office

Appl. No. : 62/367,840 Confirm. No. : 6026
Applicant : Werner, Marc L.
Filed : 07/28/2016
Title : Cooling Pillow
Docket No. : 00901.0068
Customer No. : 54962

Response to Notice of Missing Parts

Mail Stop No-Fee Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Examiner:

Responsive to the Notice to File Missing Parts of Non-Provisional Application dated August 11, 2016, Applicant offers the following.

Applicant is a small entity.

The following payments are attached:

- The basic filing fee of \$130.
- The surcharge of \$30.

If an extension of time for this paper is required, petition for extension is herewith made.

Respectfully submitted,

/Loren D. Pearson/

LOREN DONALD PEARSON
Reg. No. 42,987
ASSOULINE & BERLOWE, P.A.
3250 Mary Street
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Miami, FL 33133-5232
Tel: (305) 567-5576
Fax: (305) 567-9343
Email: LDP@AssoulineBerlowe.com

Electronic Patent Application Fee Transmittal				
Application Number:		62367840		
Filing Date:		28-Jul-2016		
Title of Invention:		Cooling Pillow		
First Named Inventor/Applicant Name:		Marc L. Werner		
Filer:		Loren Donald Pearson		
Attorney Docket Number:		00901.0068		
Filed as Small Entity				
Filing Fees for Provisional				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
PROVISIONAL APPLICATION FILING FEE	2005	1	130	130
Pages:				
Claims:				
Miscellaneous-Filing:				
LATE PROVISIONAL FILING FEE/COVER SHEET	2052	1	30	30
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				160

Electronic Acknowledgement Receipt	
EFS ID:	27185321
Application Number:	62367840
International Application Number:	
Confirmation Number:	6026
Title of Invention:	Cooling Pillow
First Named Inventor/Applicant Name:	Marc L. Werner
Customer Number:	54962
Filer:	Loren Donald Pearson
Filer Authorized By:	
Attorney Docket Number:	00901.0068
Receipt Date:	11-OCT-2016
Filing Date:	28-JUL-2016
Time Stamp:	21:23:59
Application Type:	Provisional

Payment information:

Submitted with Payment	yes
Payment Type	EFT
Payment was successfully received in RAM	\$ 160
RAM confirmation Number	101216INTEFSW21432400
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant Response to Pre-Exam Formalities Notice	00193086.PDF	59649	no	1
			0b2fba7759c9c83cbba953bc824cbab3c5de5385		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	31867	no	2
			d216b492b1f0283db67d348c79f6621231f1d3b6		
Warnings:					
Information:					
Total Files Size (in bytes):			91516		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					



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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
62/367,840	07/28/2016		160	00901.0068		

CONFIRMATION NO. 6026

UPDATED FILING RECEIPT



0000000068487759

54962

Loren Donald Pearson
Assouline & Berlowe, PA
3250 Mary Street
Suite 100
Miami, FL 33133-5232

Date Mailed: 10/17/2016

Receipt is acknowledged of this provisional patent application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)

Marc L. Werner, Plantation, FL;

Applicant(s)

Marc L. Werner, Plantation, FL;

Power of Attorney:

James Edwards--74905

Permission to Access Application via Priority Document Exchange: No

Permission to Access Search Results: No

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 08/10/2016

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 62/367,840**

Projected Publication Date: None, application is not eligible for pre-grant publication

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

Cooling Pillow

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

page 1 of 3

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

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Title 37, Code of Federal Regulations, 5.11 & 5.15

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