May 14, 1968 E. E. ROBINSON 3,382,510

ORTHOPEDIC PILLOW

Filed July 22, 1966 2 Sheets-Sheet 1

FIG. 1

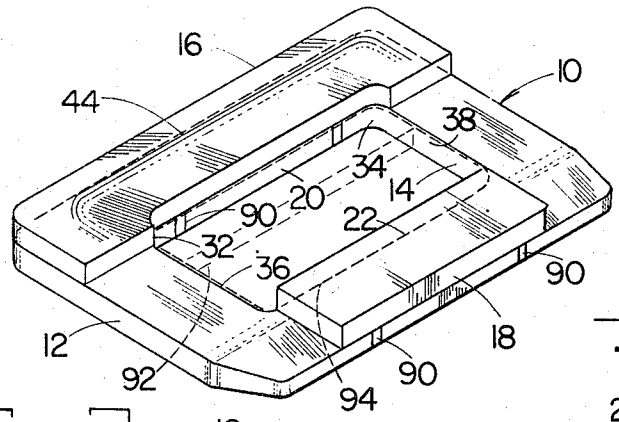


FIG. 2

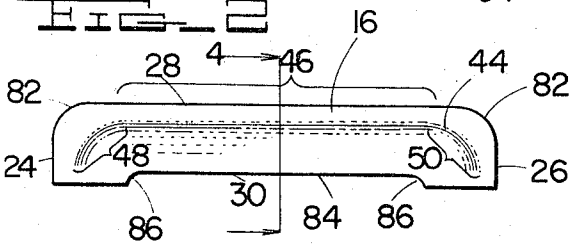


FIG. 3

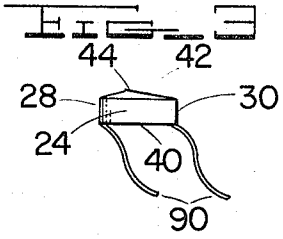


FIG. 4

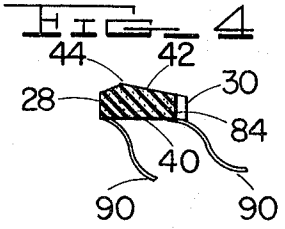


FIG. 5

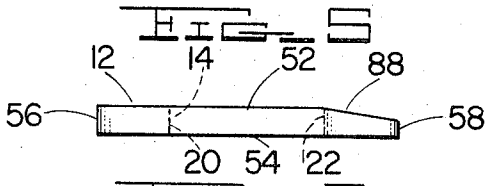


FIG. 7

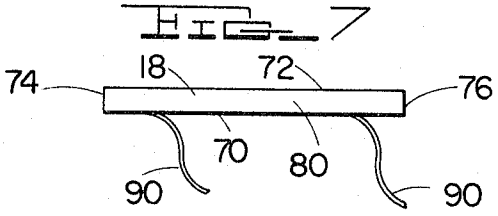


FIG. 8

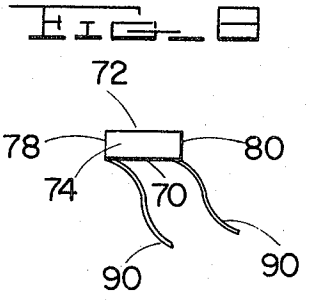
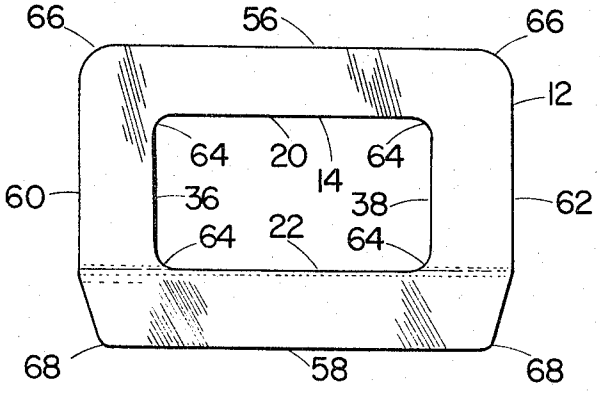


FIG. 6



INVENTOR
EFFIE E. ROBINSON
BY Wood, Dust & Irish
ATTORNEYS

May 14, 1968 E. E. ROBINSON 3,382,510

ORTHOPEDIC PILLOW

Filed July 22, 1966 2 Sheets-Sheet 2

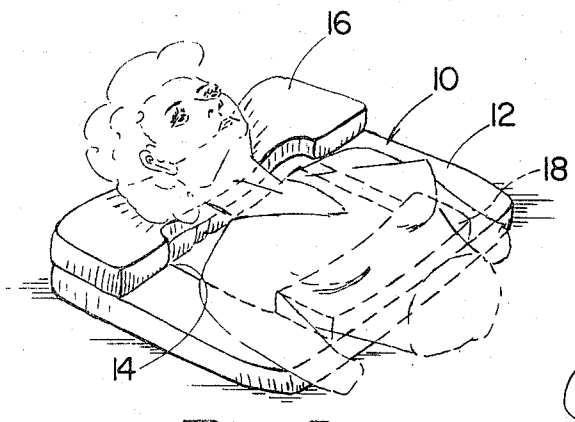


Fig. 9

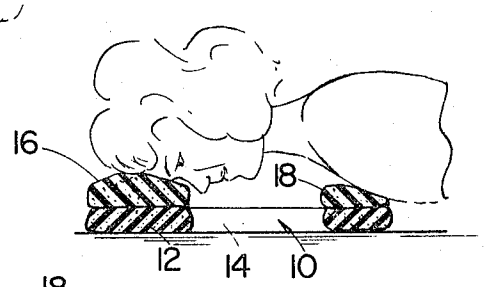


Fig. 10a

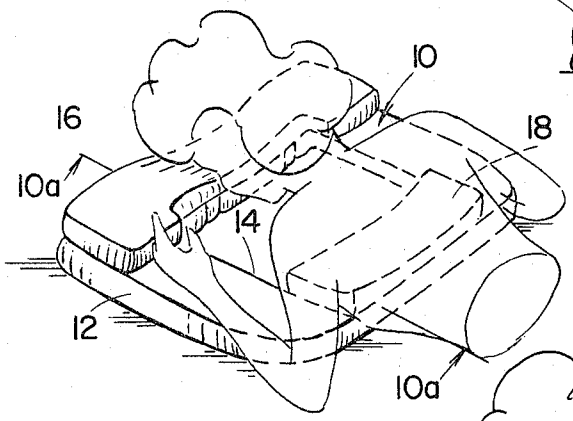


Fig. 10

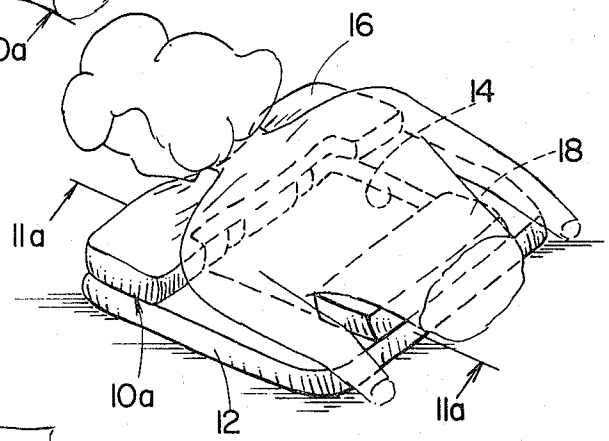


Fig. 11

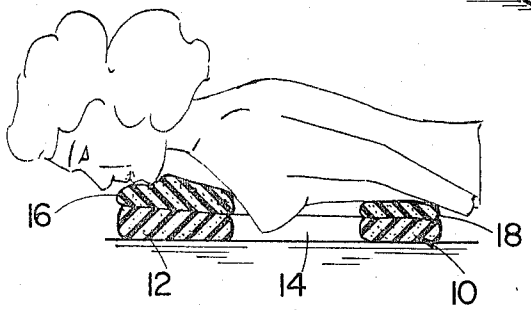


Fig. 11a

INVENTOR
EFFIE E. ROBINSON
BY Wood Gust & Irish
ATTORNEYS

United States Patent Office 3,382,510 Patented May 14, 1968

3,382,510

ORTHOPEDIC PILLOW

Effie E. Robinson, 3519 Portage Ave., Apt. 1, Wildwood Place, Fort Wayne, Ind.

Filed July 22, 1966, Ser. No. 567,200
11 Claims. (Cl. 5—338)

The present invention generally relates to an orthopedic pillow, and more particularly, relates to an orthopedic pillow for supporting the head and neck in a desirable manner independent of whether the patient is lying face-up or face-down. Further, the pillow is designed to support the body in a manner allowing the patient to lie on a sore body portion comfortably and without pain.

The approved medical treatment for most neck and back injuries generally includes the supporting of the head and neck in a proper position relative to the spine during a recovery period. When the patient is bed-ridden, this may be achieved by a specially designed pillow or mattress. Several such devices have been proposed. However, many of the prior proposed devices have been used only with a limited success. One of the major reasons for the limited success of prior devices is that many of them only support the patient properly when the patient is lying in a specific position, for example, on his back, on his stomach, or on his side. Thus, the patient cannot be rolled from one position to another while still keeping the head and neck properly supported when using these prior devices. For this reason, patient fatigue and/or bed sores have been commonplace. Therefore, it is highly desirable to provide an orthopedic pillow which will hold the neck and hand of a patient in a proper position independently of whether the patient is lying on his back or stomach.

Additionally, patients with some neck and back injuries which necessitate keeping the head stationary relative to the body during the above-mentioned recovery period, have been unable to lie on their stomachs if this entails looking face downwards into bedding as breathing becomes difficult if the bedding is allowed to adapt itself to the contour of one's face. Thus, it is highly desirable to provide an orthopedic pillow which supports the head and neck in the above-mentioned desirable position and which allows the patient to lie in a face-down, prone position without the necessity of having to turn the head in order to properly breathe.

Further, patients having a sore body portion, for example, subsequent to an operation, may desire to recline in a manner requiring them to lie on this sore body portion. With conventional pillows and bedding, the contact between the bedding and the sore body portion may make the patient very uncomfortable or cause pain to the patient sufficient to force the patient to rest in another position. For this reason, it is highly desirable to provide an improved orthopedic pillow which will support the body in a comfortable position and will elevate the sore portion of the body out of contact with adjacent bedding and the like, whereby the patient can lie upon the same comfortably.

Still further, it may be desirable to apply heat to a body portion for treatment of an injury, such as those above-mentioned, or to relieve pain. Therefore, it is highly desirable to provide an orthopedic pillow with which conventional heat applicators can be used to apply heat to a body portion while the body is being supported in an approved manner.

Therefore, it is the primary object of this invention to provide an improved orthopedic pillow for supporting the head, neck and body of a patient in an approved manner.

Another object of this invention is to provide an improved orthopedic pillow which allows a patient to lie face downwardly in a prone position without necessitating

the turning of the patient's head with respect to the body in order to properly breathe.

Still another object of this invention is to provide an improved orthopedic pillow for supporting a patient's body with a portion thereof elevated above adjacent bedding and the like whereby a patient can lie on a sore body portion comfortably.

Still further, another object of this invention is to provide an improved orthopedic pillow which can be used to support the head, neck and body of a patient in an approved manner, which can be used to allow a patient to lie face downwardly in a prone position or which can be used to lie upon a sore body portion comfortably, and which has an additional provision for accepting conventional heat applicators into the pillow whereby heat can be applied to that portion of the body supported by the pillow, if desired.

The above-mentioned and other features and objects of this invention and the manner of attaining them will become more apparent and the invention itself will be best understood by reference to the following description of an embodiment of the invention taken in conjunction with the accompanying drawings, wherein:

FIG. 1 is a perspective view of the improved orthopedic pillow of this invention in assembled form and illustrating, in dashed lines, the insertion of a conventional heat applicator or the body supporting pillow portion thereof within the pillow recess;

FIG. 2 is a top view of the head and neck supporting pillow portion of the improved orthopedic pillow of this invention;

FIG. 3 is an end view of the head and neck supporting pillow portion of this invention illustrated in FIG. 2;

FIG. 4 is a cross-sectional view of the head and neck supporting pillow portion of this invention illustrated in FIGS. 2 and 3, taken substantially along the section line 4—4 of FIG. 2;

FIG. 5 is a side view of the base pillow portion of the improved orthopedic pillow of this invention;

FIG. 6 is a top view of the base pillow portion illustrated in FIG. 5;

FIG. 7 is a side view of the supporting body pillow portion of the improved orthopedic pillow of this invention;

FIG. 8 is an end view of the body supporting pillow portion illustrated in FIG. 7;

FIG. 9 is a diagrammatic perspective view of the improved orthopedic pillow of this invention showing one use thereof;

FIG. 10 is a view similar to FIG. 9 illustrating another use of the improved orthopedic pillow of this invention;

FIG. 10A is an end view, partially in cross-section, illustrating the pillow of this invention being used in the manner illustrated in FIG. 10, taken substantially along the section line 10A—10A;

FIG. 11 is a view similar to FIGS. 9 and 10 illustrating still another use of the improved orthopedic pillow of this invention; and

FIG. 11A is an end view, partially in cross-section illustrating the pillow of this invention used in the method illustrated in FIG. 11 taken substantially along the section line 11A—11A.

In the broader aspects of this invention, there is provided an improved orthopedic pillow comprising a base pillow portion having an aperture therein, a head and neck supporting pillow portion removably connected to said base pillow portion adjacent to a peripheral boundary portion of said aperture, and a body supporting pillow portion removably connected to said base pillow portion adjacent to another peripheral boundary portion

of said aperture, said head and neck and said body supporting pillow portions being on opposite sides of said aperture.

Referring to the drawings, and more specifically to FIGS. 1 through 8, there is shown the orthopedic pillow **10** of this invention. Pillow **10** generally comprises a base pillow **12** having an aperture **14** therein, a head and neck supporting pillow portion **16**, and a body supporting pillow portion **18**. Head and neck supporting pillow portion **16** is removably connected to the base pillow portion **12** adjacent to a peripheral boundary portion **20** of the aperture **14**, and body supporting pillow portion **18** is secured to the base pillow portion **12** adjacent to a second peripheral boundary portion **22** of the aperture **14** which is opposite and facing the boundary portion **20**. Thus, the pillow portions **16** and **18** are connected to the base pillow portion **12** on opposite sides of the aperture **14** in a manner allowing each of the pillow portions **16** and **18** to be removed from the pillow portion **12** when desired.

Referring now to FIGS. 2 through 4, the head and neck supporting pillow portion **16** will now be described. Pillow portion **16** is elongated and has opposite ends **24** and **26** and longitudinally extending sides **28** and **30**. Longitudinal side **30** is deformed from a straight line to conform to the boundary **20** of the aperture **14**, and a portion of the aperture ends **36**, **38** which extend between the aperture boundaries **20** and **22**, as will be mentioned more specifically hereinafter. Side **28** and opposite ends **24** and **26** generally correspond to the size and shape of the outer peripheral boundary of that part of the base pillow portion **12** to which the head and neck supporting pillow portion **16** is connected and overlays. Pillow portion **16** is further defined by a flat bottom **40** and a top surface **42**. Top surface **42** slopes upwardly from each periphery thereof to an apical ridge **44** extending generally parallel to the side **28** along an intermediate portion **46** and curving generally toward the side surface **30** adjacent ends **24** and **26** along end portions **48** and **50**, respectively. Ridge **44** all along its length, is closer to the side **28** and the opposite ends **24** and **26** than the side **30**.

Referring now to FIGS. 5 and 6 and the base pillow portion **12** of this invention, portion **12** is shown to be generally rectangular in shape and to have a top surface **52** and a substantially flat bottom surface **54**. A portion of surface **52** slopes toward the surface **54** forming a wedge-shaped configuration; this configuration will be described in more detail hereinafter. Aperture **14** is also generally rectangular in shape and is aligned generally longitudinally of the portion **12**. Thus, longitudinal aperture boundaries **20** and **22** are generally parallel to longitudinal portion **12** boundaries **56** and **58**. Likewise, transverse aperture boundaries **36** and **38** are generally parallel to transverse portion **12** boundaries **60** and **62**. Also aperture boundaries **20** and **22** are perpendicular to transverse aperture boundaries **36** and **38**; and likewise pillow portion boundaries **56** and **58** are generally perpendicular to transverse pillow boundaries **60** and **62**. However, aperture boundaries **20**, **22**, **36** and **38** are joined at relatively sharp, rounded corners **64**; whereas pillow portion **12** boundary **56** is joined to boundaries **60** and **62** at relatively large radiused curved corners **66**, and boundary **58** is joined to boundaries **60** and **62** at tapered corners **68**.

In the preferred embodiment illustrated, the aperture **14** is located in the center of pillow portion **12**. However, for particular uses it may be desired to have more support in a particular location and less support in another; if this is the case, the aperture **14** can be positioned out of the central location illustrated in the drawings to provide this needed additional support.

Referring now to FIGS. 7 and 8, the description of the body supporting pillow portion **18** will follow. Body supporting pillow portion **18** is shown to have the shape

generally of a rectangular parallelpiped. Thus, portion **18** has a parallel and substantially flat bottom surface **70**, and a flat top surface **72**, parallel and substantially flat end surfaces **74** and **76**, and parallel and substantially flat side surfaces **78** and **80**.

The improved orthopedic pillow **10** is shown in assembled form in FIG. 1. Thus assembled, pillow portions **16** and **18** are superimposed onto parts of the base pillow portion **12**, and the portions **16** and **18** generally correspond to the shape of that part of the base pillow portion **12** directly beneath the respective pillow portions **16** and **18**, as above-mentioned. For example, longitudinal side **28** and the opposite ends **24** and **26** of the portion **16**, are generally perpendicular to each other and are joined at relatively large radiused curved corners **82** which correspond to the corners **66** of the pillow portion **12**. Further, the length of the portion **16** is substantially identical to the length of the portion **12** such that the longitudinal side **28** and the opposite ends **24** and **26** generally define the same shape as the portion **12** boundaries **56**, **60** and **62**. Similarly, the side **30** is shaped intermediate ends **24** and **26** to correspond to the shape defined by the aperture boundary **20** and the opposite end corners **64** thereof. Thus, side **30** has an intermediate straight portion **84** corresponding to the length of the boundary **20** and rounded corners **86** adjacent the opposite ends thereof corresponding to the corners **64**. Further, the width of the portion **16** between the side portion **84** and side **28** is generally the same as the dimension of the portion **12** between the boundaries **20** and **56**. Thus, generally, the entire part of the portion **12** between the aperture **14** and the peripheral boundary **56** is covered by the portion **16**.

Similarly, the body supporting pillow portion **18** has a width generally the same as the pillow portion **12** between the peripheral boundary **58** and the aperture boundary **52**. Thus, that part of the portion **12** is completely covered by the pillow portion **18**. However, the pillow portion **18** is shorter in length than the aperture **14**. Thus, both longitudinal boundaries **20** and **22** of the aperture **14** are longer than the portion **18**. Further, the width dimension of the portion **18** is shorter than the length of transverse boundaries **36** and **38** of the aperture **14**. Thus, the portion **18** can be fitted into the aperture **14** whenever desired.

Each of the pillow portions **12**, **16** and **18** have a thickness which enhances the usefulness of the pillow **10**. Portion **12**, as shown in FIG. 5, has a thickness which is constant between the peripheral boundary **56** and the boundary **22** of the aperture **14**. Between the aperture **22** and the peripheral boundary **58** of the portion **12**, the top surface **52** of the portion **12** slopes from the boundary **22** downwardly toward the boundary **58** defining a sloping portion **88**. Thus, the thickness of the pillow portion **12** adjacent the boundary **56** is larger than the thickness adjacent the boundary **58** and defines the wedge-shaped configuration above-mentioned. The thickness of the pillow portion **18** is substantially identical with the thickness of the portion **12** adjacent the boundary **58**, and the thickness of the pillow portion **16**, adjacent the sides **28**, **30** and the ends **24**, **26**, is substantially the same as the thickness of the portion **12** adjacent the boundary **56**. Thus, the pillow **10** as assembled, is thicker adjacent the portion **16** than adjacent the portion **18**. Further, the portion **18** is attached to the sloping portion **88** of the top surface **52** of the portion **12**, and thus, the top surface **72** of the portion **18**, when assembled, also slopes accordingly. This slope of the surface **72** functions together with the slope of the top surface **42** of the portion **16** to hold the head and neck and body of the person using the pillow in the desired manner above-mentioned.

In a preferred embodiment of this invention, each of the pillow portions **12**, **16** and **18** are made of foam material which is resilient and easily formed in the shape above-described. For example, foam rubber or poly-

urethane foam material would both be satisfactory. Further, each of the pillow portions **12, 16** and **18** are desirably covered with a removable and washable cover or a cover which can be cleaned such that the pillow can meet the standards of cleanliness required by hospitals, doctors and the like. Preferably, attached to the cover of each of the portions **16**, and **18** are two pair of flexible straps **90** for removably connecting the same to the portion **12** as above-described. However, within the scope of the invention herein described, other means for removably connecting the pillow portions **12, 16** and **18** can be used and can be equal satisfactory. Lastly, the preferred embodiment of this invention has the following dimensions:

PORTION 12

	Inches
Length	27½
Width	24
Thickness adjacent boundary **56**	3½
Thickness adjacent boundary **58**	2

APERTURE 14

Length	16½
Width	10

PORTION 16

Length	27½
Width between side **28** and **30**	5½
Width between side **28** and side portion **84**	4¾
Thickness adjacent the periphery	3½
Thickness at ridge **44**	4

PORTION 18

Length	16
Width	7¼
Thickness	2

In operation, the improved orthopedic pillow **10** of this invention functions to support the head, neck and body of a person using the same in an approved manner. Referring to FIGS. 9, 10, 10A, 11 and 11A, several various uses of the pillow **10** of this invention are illustrated. Referring first to FIG. 9, there is shown a patient lying on the pillow **10** having the body, head and neck supported in an approved manner. Both the head and neck of the patient is supported by the pillow portion **16**, and the body is supported by the pillow portion **18**. In this manner, the pillow **10** has been used in the treatment of patients suffering from "whiplash" injuries such as that commonly resulting from automobile accidents.

Referring now to FIGS. 10 and 10A, there is illustrated a patient lying face down in a prone position on the pillow **10** of this invention without encountering any difficulty in breathing. In the treatment of many back and neck injuries, the patient is instructed not to move the head relative to the body. This instruction, without the use of a pillow such as pillow **10** requires the patient to lie only on his back or side. As a conventional pillow will conform to the face of the patient if he were to lie face down on the same, lying face down would result in breathing difficulties. Thus, the pillow of this invention allows the patient during the treatment of neck and back injuries to lie on his stomach, and thus, to assume a position not heretofore possible with conventional pillows. In this position, the head is supported by the pillow portion **16**, and the shoulders and upper body is supported by the pillow portion **18**. The nose, mouth and the neck are suspended between the portions **16** and **18** directly over the aperture **14**. Thus, normal breathing can be accomplished without difficulty.

Referring now to FIGS. 11 and 11A, there is shown still another use for the pillow **10** of this invention. Generally, whenever a patient is operated upon or injured, sore body portions, upon which the patient can only lie if he subjects himself to great pain, exist during the recovery period. Thus, it is highly desirable to provide a pillow which can support the body in a manner such that the sore body portion can be elevated above the bedding or supporting surface upon which the patient is lying. For example, during the recovery period following a breast biopsy, it is commonly very painful for a woman to lie on her stomach. FIGS. 11 and 11A illustrate the manner by which the pillow of this invention can support a patient during this recovery period allowing the patient to lie on her stomach in a relatively comfortable position. In this illustrated use of the pillow **10**, the pillow portion **16** supports the head and neck of the patient and the pillow portion **18** supports the body adjacent the waist of the patient, and the breasts are elevated above the bedding or other supporting surface upon which the patient is lying.

Referring to FIG. 1 and the above description of the pillow portions **12** and **18**, pillow portion **18** can when desired be placed within the aperture **14** as indicated by the dashed lines **92** and **94** of FIG. 1. This positioning of pillow portion **18** within the aperture **14** will provide additional support to the pillow **10** adjacent boundaries **22** and **58** of the pillow portion **12** and will at least partially fill the aperture **14** whenever desired.

Whenever heat is desirably applied to the body of the patient using the pillow **10** of this invention, heat applicators can be positioned within the aperture **14**. Thus, conventional hot water bottles, moist heat packs, hot towels, or the like can be used in conjunction with the pillow of this invention to administer prescribed heat to an injured area and at the same time support the patient in a proper manner.

The above-mentioned uses of the pillow **10** are exemplary only and many uses of the pillow **10** outside the treatment of patients suffering from neck and back injuries or post-operative discomfort will become obvious upon a further understanding of this invention. One such use of the pillow **10** is by sunbathers who also desire, at times, to lie in a prone, face-down position. The pillow **10** of this invention, as above-mentioned, allows a person to lie in this manner without encountering difficulties of breathing; and thus, sunbathers can tan themselves more evenly since they can assume both the positions illustrated in FIG. 9 and FIGS. 10 and 10A, respectively.

While there have been described above the principles of this invention in connection with specific apparatus, it is to be clearly understood that this description is made only by way of example and not as a limitation to the scope of the invention.

What is claimed is:

1. An orthopedic pillow comprising a base pillow portion having an aperture therein, a head and neck supporting pillow portion removably connected to said base pillow portion adjacent to a peripheral boundary portion of said aperture, and a body supporting pillow portion removably connected to said base pillow portion adjacent to a second peripheral boundary portion of said aperture, said head and neck and said body supporting pillow portions being on opposite sides of said aperture.

2. The orthopedic pillow of claim **1** wherein said head and neck and said body supporting pillow portions are both elongated, said head and neck supporting pillow portion having a thickness greater than said body supporting pillow portion, and said head and neck and body supporting pillow portions overlaying parts of said base pillow portion between said aperture and the peripheral boundary of said base pillow portion.

3. The orthopedic pillow of claim **1** wherein said head and neck and body supporting pillow portions overlay parts of said base pillow portion between said aperture and the peripheral boundary of said base pillow portion, said parts of said base pillow portion overlaid by said head and neck and said body supporting pillow portions having dimensions between said aperture and the periphery thereof generally equal to the width of the respective pillow portions overlaying the same, said head and neck supporting pillow portion extending beyond opposite sides

of the peripheral boundary of said aperture, said base pillow portion having a substantially flat bottom surface.

4. The orthopedic pillow of claim 2 wherein said base pillow portion and said aperture therein are both generally rectangular in shape, and said head and neck and body supporting pillow portions extend longitudinally of said base pillow portion and aperture.

5. The orthopedic pillow of claim 2 wherein said head and neck supporting pillow portion has a length at least as long as the longitudinal dimension of said aperture, said body supporting pillow portion having a length shorter than said longitudinal aperture dimension, said parts of said base pillow portion overlaid by said head and neck and said body supporting pillow portions having dimensions between said aperture and the periphery thereof generally equal to the width of the respective pillow portions overlaying the same, and said aperture having a size adapting said pillow to receive said body supporting pillow portion therein.

6. An orthopedic pillow comprising a base pillow portion having an aperture therein, a head and neck supporting pillow portion removably connected to said base pillow portion adjacent to a peripheral boundary portion of said aperture, and a body supporting pillow portion removably connected to said base pillow portion adjacent to a second peripheral boundary portion of said aperture, said head and neck and said body supporting pillow portions being on opposite sides of said aperture, said head and neck and said body supporting pillow portions being both elongated, said head and neck supporting pillow portion having a thickness greater than said body supporting pillow portion, said head and neck and body supporting pillow portions overlaying parts of said base pillow portion between said aperture and the peripheral boundary of said base pillow portion, said base pillow portion and said aperture therein being both generally rectangular in shape, said head and neck and body supporting pillow portions extending longitudinally of said base pillow portion and aperture, said head and neck supporting pillow portion having a length at least as long as the longitudinal dimension of said aperture, said body supporting pillow portion having a length shorter than said longitudinal aperture dimension, said parts of said base pillow portion overlaid by said head and neck and said body supporting pillow portions having dimensions between said aperture and the periphery thereof generally equal to the width of the respective pillow portions overlaying the same, and said aperture having a size adapting said pillow to receive said body supporting pillow portion therein.

7. The orthopedic pillow of claim 6 wherein said body supporting pillow portion has a generally rectangular cross-section, said base pillow portion being thicker adjacent to said head and neck supporting pillow portion than adjacent to said body supporting pillow portion, and said base pillow portion has a substantially flat bottom surface.

8. The orthopedic pillow of claim 7 wherein said head and neck supporting pillow portion has a flat bottom and a top surface, said top surface sloping upwardly from each of the peripheral boundaries thereof thereby forming an apical ridge intermediate said boundaries.

9. An orthopedic pillow comprising a base pillow portion having an aperture therein, a head and neck supporting pillow portion removably connected to said base pillow portion adjacent to a peripheral boundary portion of said aperture, and a body supporting pillow portion removably connected to said base pillow portion adjacent to a second peripheral boundary portion of said aperture, said head and neck and said body supporting pillow portions being on opposite sides of said aperture, said base pillow portion and said aperture therein both being generally rectangular in shape, said head and neck and said body supporting pillow portions being both elongated, said head and neck and body supporting pillow portions extending longitudinally of said base pillow portion and aperture, said head and neck supporting pillow portion having a thickness greater than said body supporting pillow portion, said head and neck and body supporting pillow portions overlaying parts of said base pillow portion between said aperture and the peripheral boundary of said base pillow portion, said head and neck supporting pillow portions having a length at least as long as the longitudinal dimension of said aperture, said body supporting pillow portion having a length shorter than said longitudinal aperture dimension, said parts of said base pillow portion overlaid by said head and neck and said body supporting pillow portions having dimensions between said aperture and the periphery thereof generally equal to the width of the respective pillow portions overlaying the same, said body supporting pillow portion having a rectangular cross-section, said base pillow portion being thicker adjacent to said head and neck supporting pillow portion than adjacent to said body supporting pillow portion, and said base pillow portion having a substantially flat bottom surface, said head and neck supporting pillow portion having a flat bottom and a top surface, and said top surface sloping upwardly from each of the peripheral boundaries thereof thereby forming an apical ridge intermediate said boundaries.

10. The orthopedic pillow of claim 9 wherein each of said pillow portions are formed of foam material, and said aperture has a size and shape adapting said pillow to receive heat applicating devices therein.

11. The orthopedic pillow of claim 9 wherein said head and neck and body supporting pillow portions are each enclosed by a cover, and said covers respectively have straps secured thereto for tying said last mentioned pillow portions to said base pillow portion.

References Cited

UNITED STATES PATENTS

319,537	6/1885	Winter	5—337 XR
1,045,228	11/1912	Weltmer	5—337 XR
1,537,414	5/1925	Darling	5—338 XR
2,182,861	12/1939	Albert	5—91
2,556,629	6/1951	O'Brien	5—337

BOBBY R. GAY, *Primary Examiner.*

A. M. CALVERT, *Assistant Examiner.*