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SLEEP INDUCING HEATING PAD

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Fig. 1

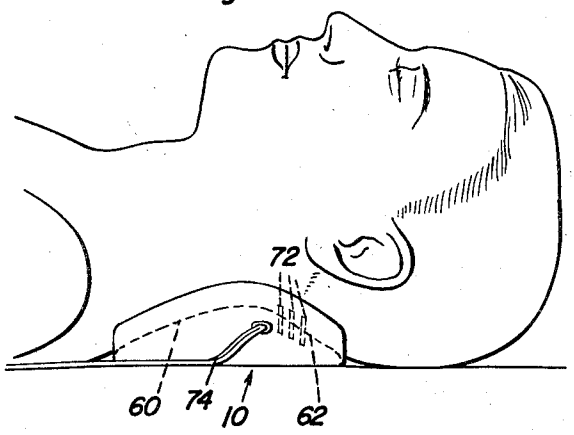


Fig. 2

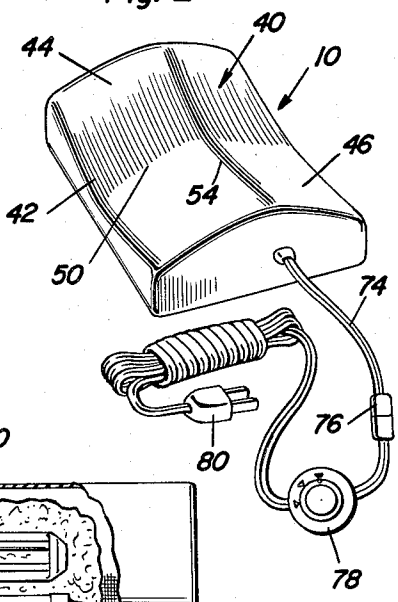


Fig. 3

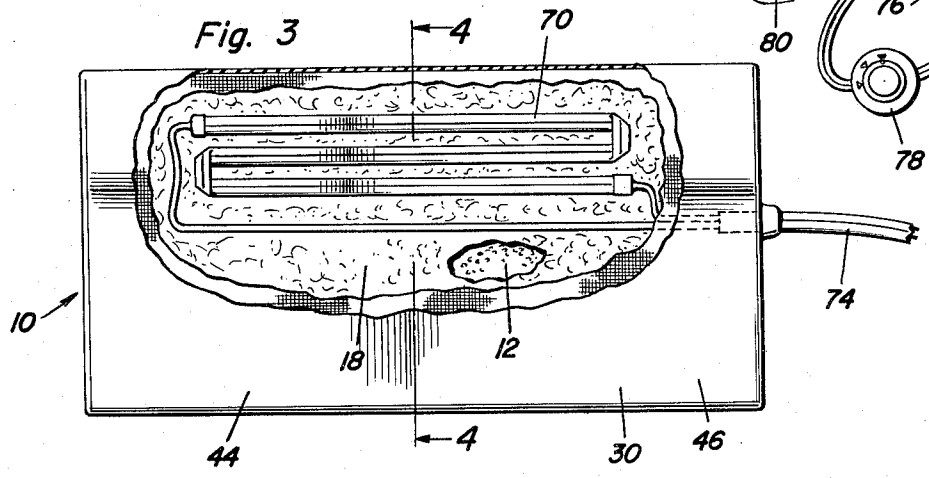
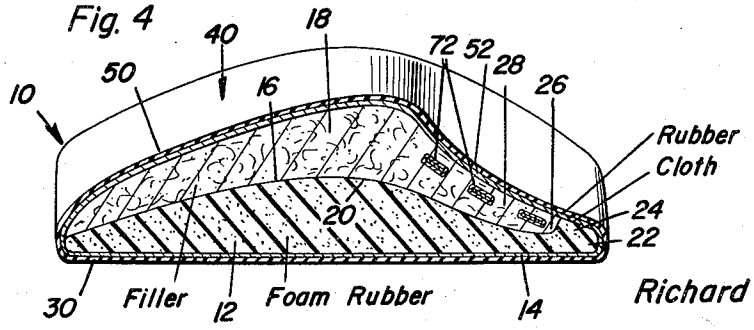


Fig. 4



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SLEEP INDUCING HEATING PAD

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This invention comprises a novel and useful sleep inducing heating pad and more particularly pertains to a means and a method to assist in inducing sleep.

The primary purpose of this invention is to provide a means and a method which will in a soothing and restful manner and purely by physical means be effective to induce sleep in a person. I have found that the application of heat to the upper portion of the trapezius muscle at the region between the overhang of the head and the upward portion of the back of the neck is especially restful and relaxing to the nerves and muscles of the body and is highly effective to produce and induce sleep and relaxation in a person. The present invention makes use of this knowledge by providing a means for applying heat in a localized manner to this specific portion of the body while comfortably and resiliently supporting the same.

It is therefore the primary object of this invention to provide a device and a method for effectively inducing sleep in a person thereby obviating the use of drugs or other means.

Still another purpose of the invention is to provide a heating pad especially contoured and adapted to comfortably engage, support and apply heat to the desired region of the body.

Yet another purpose of the invention is to provide a sleep inducing heating pad of an inexpensive yet durable construction and yet which will efficiently and effectively resiliently support and cushion the upper neck and lower head portion of a person while applying heat locally to both sides and the back of the lower portion of the head at its junction with the upper portion of the neck and to the trapezius muscles thereof.

A still further purpose of the invention is to provide a heating pad in accordance with the foregoing objects which will be effective to resiliently cushion and support substantially the entire rear surface of the neck and while so supporting the neck will apply heat locally to the rear of the head and the sides thereof at the adjacent trapezius muscles.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a side elevational view indicating the manner in which the heating pad and the method of this invention may be effectively applied to a person for the purpose of inducing sleep;

FIGURE 2 is a perspective view of the heating pad device in accordance with this invention;

FIGURE 3 is a top plan view of the pad, portions being broken away to show the internal construction and the arrangement of the heating element therein; and

FIG. 4 is a vertical longitudinal sectional view through the heating pad taken substantially upon the plane indicated by section line 4—4 of FIGURE 3.

The sleep inducing heating pad in accordance with this invention is designated generally by the numeral 10 in the accompanying drawings and is shown in FIGURE 1 in its applied position to resiliently cushion and support the neck of a person and apply heat to the trapezius muscles at the lower rear part of the head at the junction of the latter with the neck.

The heating pad 10, referring chiefly to FIGURE 4, comprises a cushioning body consisting of a base member 12 of a suitable yieldable cushioning material such as foam rubber or the like and which preferably has a flat or planar bottom surface 14 together with a curving contoured top surface 16. Resting upon the base member 12 is a block of material comprising a filler 18 which likewise may be of any suitable resilient material but which preferably also is of a sufficiently heat conductive nature to perform its intended purposes. The bottom surface of the filler 18, indicated by the numeral 20 is contoured to conform to that of the top surface 16 of the base member 12 so that the filler may seat snugly thereupon. As shown in FIGURE 4, at its upper or forward portion 22, the base member 12 has an upstanding projection 24 so that there is defined a recess pocket or seat 26 between this projection and the top surface 20. The corresponding upper or forward portion of the filler 18 as shown at 28 is received in this pocket or seat so as to thus firmly anchor the filler in place. If desired, cementitious material or other means may be provided for bonding or otherwise fixedly securing the adjacent surface 20 and 16 of the filler 18, and the base member 12 together. It is preferred, however, to provide a water-proof covering such as canvas or any other suitable material such as a plastic or the like as at 30 to enclose the two members 12 and 18 and secure them firmly together into a unitary assembly.

Referring now especially to FIGURE 2 in conjunction with FIGURE 4, it will be observed that the top surface 40 of the unitary pad 10 is provided with a centrally depressed longitudinally extending trough or recess 42 therein with a pair of side walls 44 and 46 bounding or defining this trough. Further, as will be best apparent from FIGURE 4, the bottom of the trough 42 has a convexly curved surface 50 extending longitudinally of the body from what may be termed the lower or rear end of the body beyond or forwardly of its intermediate portion. The forward portion of the body is a concavely curved surface as at 52 and these two surfaces meet along a ridge 54 which ridge extends transversely of the body. The proportions are such that the surface 50 is adapted to conform to the concavely arched portion 60 of the neck of a person as shown in FIGURE 1, while the concave recess 52 in turn is adapted to conform to the convexly shaped portion 62 below the bulge of the head. Both the transverse curvature of the surfaces 44 and 46 as was the longitudinal curvature of the surfaces 50 and 52 are shaped to conform as closely as possible to the contour of the body so that the device when placed in position as shown in FIGURE 1 will be inserted below the upper portion of the neck and the lower portion of the head and when so placed will firmly but yieldably cushion and support the neck and head in a comfortable position.

Embedded in the filler 18 beneath the concave surface 52 is a heating means 70 which although capable of various forms is particularly suitably formed by heating elements 72 which are embedded in the material of the filler and which are supplied with electric current as by a conventional cable 74 having a detachable coupling 76, a thermostatic control or the like 78 and a plug 80 for connecting it to any suitable source of electric current.

It is of particular importance that the heating filament 72 of the heating means 70 shall be disposed solely and entirely beneath the concave portion 62 of the lower portion of the head and above its junction with the neck and at the area of the trapezius muscle. Thus, the heating effect is confined to and is more specifically directed to this particular area of the body which has been found to be extremely responsive to heating for inducing sleep.

The oppositely inclined surfaces 44 and 46 serve to center and position the head upon the pad, while the ridge 54 serves to properly locate the pad so that the heating element thereof will be disposed properly with respect to the side and rear portions at the lower portion of the head.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A sleep inducing heating pad comprising a pillow-like cushioning body of a resiliently yieldable nature, said body having its upper surface transversely concaved and longitudinally convexed and contoured and depressed to conform to the shape of the back of the lower head and upper neck and the upper trapezius muscle of a person for snugly and comfortably supporting the latter when in a reclining position, heating means disposed in said body in position for supplying heat to said upper surface, said body having its top surface depressed to form a generally V-shaped trough for receiving and centering a person's neck therein, said trough having a transverse ridge intermediate its ends, said trough having longitudinally convexly curved portions from said ridge towards its opposite ends, said heating means being disposed entirely on one side of said ridge and beneath one of said convexly curved portions whereby said heating means may be disposed at the region of the upper trapezius muscle and beneath the rearward bulge of the head.

2. The combination of claim 1 wherein said heating means comprises an elongated heating element, said heating element extending transversely of said trough for partially embracing the back and both sides of the neck of a person.

3. The combination of claim 1 wherein said body includes a base member of a resiliently yieldable material, a filler disposed upon said base member and having an upper surface contoured to form and shape the upper surface of said body and a covering enclosing said base member and said filler.

4. The combination of claim 3 wherein said heating means is disposed entirely within said filler.

References Cited in the file of this patent

UNITED STATES PATENTS

1,194,200	Lowder	Aug. 8, 1916
1,244,715	Dozier et al.	Oct. 30, 1917
1,881,198	Kirk	Oct. 4, 1932
1,898,272	Sters	Feb. 21, 1933
1,984,520	Curtis	Dec. 18, 1934
2,082,468	Pupier	June 1, 1937
2,185,692	McCleary	Jan. 2, 1940
2,376,902	Clark	May 29, 1945
2,466,054	Siebel	Apr. 5, 1949
2,481,050	Starnes	Sept. 6, 1949
2,509,086	Eaton	May 23, 1950
2,558,105	Schinman	June 26, 1951
2,718,565	Hariu	Sept. 20, 1955
2,718,584	Hariu	Sept. 20, 1955
2,889,445	Wolf	June 2, 1959
2,986,140	Gardner et al.	May 30, 1961

FOREIGN PATENTS

490,233	Great Britain	Aug. 11, 1938