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R. W. OGLE

2,429,583

HEATING PAD

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Fig. 1

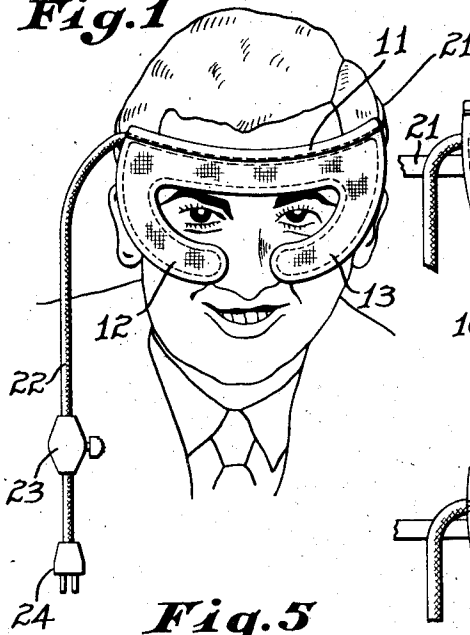


Fig. 2

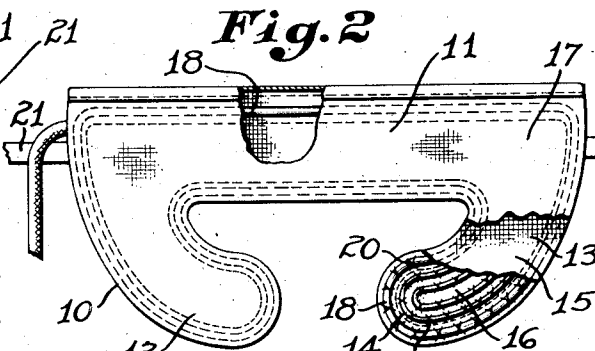


Fig. 3

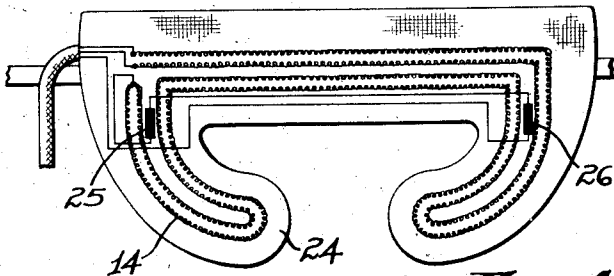
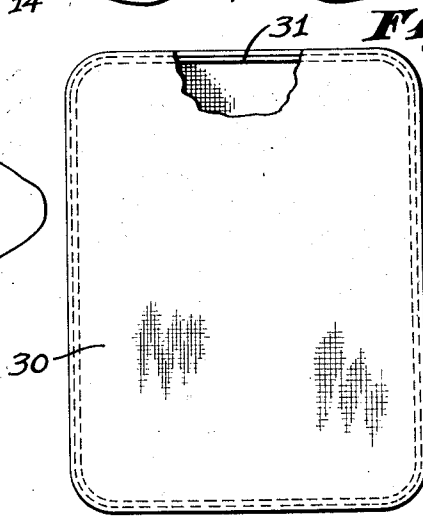


Fig. 5



Fig. 4



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HEATING PAD

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4 Claims. (Cl. 219-46)

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This invention relates to an improvement in heating pads, and more particularly to electric heating pads which by means of the improvement incorporated in this invention are capable of being positioned in close heat transfer relation to the portion of the patient being treated and when so positioned are adapted to retain that desired shape.

In this broadest aspect, therefore, this invention relates to an electric heating pad which is readily deformable to fit the contours of the patient but which possesses the inherent stiffness necessary to retain such deformed shape.

It is therefore one object of this invention to provide an electric heating pad which is flexible enough to be deformed to fit closely against the contours of the wearer and yet possesses the necessary stiffness to retain such shape under normal conditions of use.

It is another object of this invention to provide a face-heating mask having the above described properties.

It is a further object of this invention to render such electric pads or face heating masks conformable to the contours of the wearer and yet stiff enough to remain as positioned after being bent into the desired shape by means of a stiff-flexible peripheral member incorporated in such pads.

Further objects and advantages will be apparent from the annexed specification in which:

Figure 1 is a front elevation showing a face mask embodying this invention applied to the face of a patient;

Figure 2 is a plan view with parts broken away for clarity of illustration of the mask shown in Figure 1;

Figure 3 is a wiring diagram of the mask shown in Figure 1;

Figure 4 is a plan view, with a portion broken away of a heating pad embodying the present invention; and

Figure 5 is a front elevation showing the pad of Figure 4 applied to a patient.

Referring more particularly to Figures 1, 2 and 3, there is shown a face mask 10 embodying this invention and comprising a forehead portion 11 and cheek portion 12 and 13 as shown. The mask includes a coil of resistance wire 14, preferably of "nichrome," suitably insulated with an asbestos cover in the conventional manner, a rubberized bag 15 covering the wire 14, a quilted cotton liner 16 and a rayon cover 17. In accordance with this invention, there is also provided a stiffening member, shown here as comprising a rela-

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tively large-diameter wire 18 secured adjacent the outer periphery of the mask 10. The wires 14 and 18 are secured to the pad by cross-stitching 19 or 20 in the usual manner to the size cotton base 24. A resilient band 21 may be provided for holding the mask to the face of the patient as shown in Figure 1.

The mask is provided with an electric lead 22, a three way switch 23 and a plug 24 as shown in Figure 1 and, as shown in Figure 3, the wire 14 is electrically connected to the three leads contained in lead 22 in the conventional manner so as to permit low, medium and high adjustments of the heating element through the three way switch 23. Thermostats 25 and 26 are incorporated in the usual manner.

Referring more particularly to Figures 4 and 5, there is shown a heating pad 30 provided with a peripheral stiffening member 31 in accordance with this invention.

While, as illustrated, the stiffening members 18 and 31 are shown as comprising large diameter wires, it will be understood that the stiffening member may take other forms such as a flat band or the like, and it is only necessary that such stiffening member be flexible enough to be bent into shape to fit the contours of the wearer and yet stiff enough to retain that shape in normal use. It is recommended that wire of the flexibility of ordinary baling wire is entirely suitable for this purpose.

It has been discovered that by means of the peripheral stiffening member of this invention, pads or masks may be applied to the varying contours of the areas to be treated and will then retain their positions in excellent heat transfer relation to the body of the patient, remaining thus affixed in normal use without resort to tapes or the like. By way of example, it has been found that a pad incorporating this invention can be bent into shape around such irregular body portions as the knee and that it remains thus fixed despite normal movements of the wearer such as rolling over in sleep. Further, the pad will cling to the body, such as is shown in Figure 5, while the wearer performs such ordinary tasks as hair curling, etc.

While there has been described what is at present considered the preferred embodiment of the invention, it will be understood that various changes and alterations may be made therein without departing from the essence of the invention, and it is intended to cover herein all such changes and alterations as come within the true scope and spirit of the annexed claims.

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I claim:

1. A therapeutic electric heating pad comprising a continuous and deformable stiffening element extending about only the periphery of the pad whereby the pad and stiffening element may be adjusted to snugly fit a portion of a patient's anatomy and thereby be retained in such position.

2. A therapeutic electric heating pad comprising a continuous and deformable stiffening wire extending about only the periphery of the pad whereby the pad and stiffening wire may be adjusted to snugly fit a portion of a patient's anatomy and thereby be retained in such position.

3. A therapeutic electrical face heating mask having a forehead portion and depending cheek flap portions and including a flexible stiffening element adjacent the periphery only of each of said portions, said element being deformable to permit adjustment of said mask into close fit with the contours of the face of the patient and to thereafter retain said mask in such close fitting position.

4. A therapeutic electrical face heating mask

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having a forehead portion and depending cheek flap portions and including a flexible stiffening wire adjacent the periphery only of each of said portions, said wire being deformable to permit adjustment of said mask into close fit with the contours of the face of the patient and to thereafter retain said mask in such close fitting position.

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