Dec. 9, 1947. E. D. HYRE 2,432,159

ELECTRICALLY HEATED SHOULDER PAD

Filed April 30, 1945

Fig. 1.

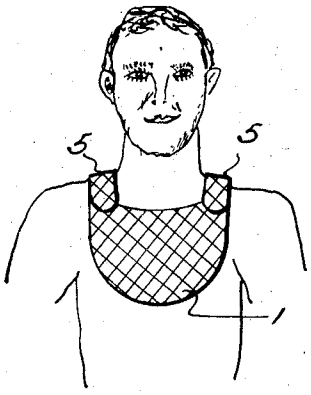


Fig. 2.

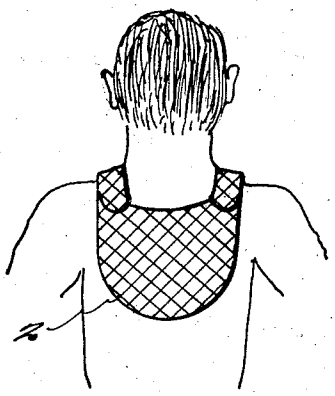


Fig. 3.

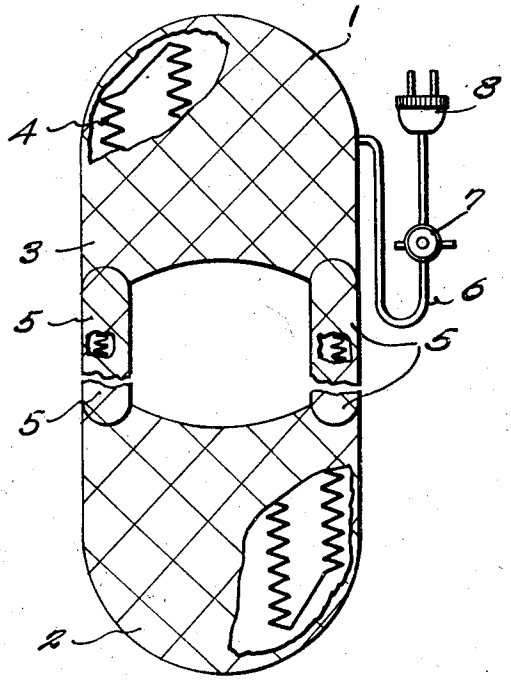
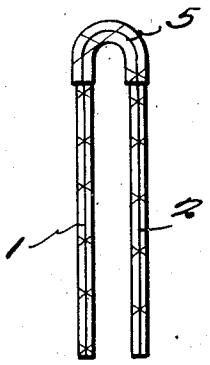


Fig. 4.



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ELECTRICALLY HEATED SHOULDER PAD

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1 Claim. (Cl. 219—46)

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This invention relates to electric heating pads for heat treatment to a region of the human body and it has particular reference to heating pads to be applied to the shoulder region. Heating pads for local application of heat for therapeutic purposes are, as a rule, made for universal use. They consist of a simple pad usually square which may be applied anywhere on the human body according to instructions or need. This is not entirely satisfactory under all conditions. An electrical heat treatment by means of a pad is a treatment primarily given to the skin and to the capillaries, nerves and small glands servicing the skin. This treatment should, in its turn, influence physiological or pathological conditions in related parts of the human body. To obtain such action on other parts and the therapeutic effect and relief obtained thereby, it is frequently necessary to apply heat to a circumscribed region.

The invention has for its main object to provide a multiple heating pad consisting of units which cover completely a region of the human body such as the shoulder region and which are so arranged that the units covering larger surfaces are joined by further heated units forming straps holding the larger unit in their place. All of these units, when applied, and properly located on the human body to be treated or a continuous heating unit for applying heat to a continuous circumscribed region, such as chest, back, throat, neck and shoulder portions and the like.

The heaters of the single units of the entire multiple unit may be connected in series and may be provided with a single cut out and automatic control device.

The invention is illustrated by way of example in the accompanying drawings in which

Figures 1 and 2 are a front and a back view, respectively, of a multiple pad forming a unit when in position for use on a person.

Figure 3 is a plan view of a multiple pad unit for the shoulder regions, showing the arrangement of the single units.

Figure 4 is a side view of the multiple pad with the parts shown approximately in the position they occupy when in actual use.

The multiple pad, according to the example shown in the drawing, consists of a quilted pad unit 1 to be applied to the chest which is of such dimensions that it covers and applies heat to the upper region of the chest as seen in Figure 1, and of the further unit 2 to be applied to the back and of similar appropriate dimensions.

Both units are quilted pads consisting of a quilted fabric 3 as indicated in Figure 3 containing the coiled heating wire 4 arranged as usual within a protective sleeve, so as to avoid burning of the fabric. In spite of the coiled wire the pad remains flexible and pliable to a large degree. Between the pads 1 and 2 pads 5 of the same type having the form of straps are arranged, which hold the two pads 1 and 2 in their correct position while at the same time forming the heating units for the shoulders.

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It will thus be seen that heating along a continuous uninterrupted zone is obtained.

In the example shown the heating coils of pads 1 and 2 are simply connected in series by means of the pad 5 and the two free ends of the coils connected in series are connected with the cord 6, which contains the conventional regulating thermostatic and thermal switches 7 permitting 3 or more different temperatures to be applied, and cutting out the current when the prescribed temperature limit has been reached. The cord also is provided with the plug 8 or other connector for establishing connection with a source of current. The person using the multiple pad may, by means of the thermostatic switch, adjust the temperature which the pad will reach in the well known manner.

The application of heat to a closed circumscribed region has great therapeutic advantages. As heat causes a stimulation of the blood circulation, and also acts on the nerve ends in the skin the effect of the application of heat in a closed zone leading to a certain region, releases much greater effects in the affected parts than the mere local application on a part of the surface of the skin nearest to the said region. The relief obtained in cases of congested colds, of rheumatism or neuralgic pains and in other cases is therefore much greater than the effect obtainable by simple pads.

It is of course to be understood that the same general constructive principle above explained may be realized by means of other embodiments of the invention which do not constitute however a departure from the essence of the invention.

I claim:

A multiple electric heating pad arrangement for the therapeutic treatment of the shoulder region, comprising two separate, substantially flat cushion like heating pad units, provided with heating coils, for the chest and for the back respectively, arranged at a distance and joined solely by flat pliable strap like units, provided with heating coils and arranged near the edges of the aforesaid units for the chest and back at a distance approximately corresponding to the

distance between the shoulders, all units, forming a continuous heating surface with a central elongated opening, and with the heating coils of the units arranged in series and a common supply cord for supplying all the heating coils in common.

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