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Johns

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[45] **June 12, 1973**

[54] **ELECTRIC BLANKET HAVING AUXILIARY HEATING ELEMENT**

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[52] **U.S. Cl.** **219/212,** 219/529, 219/549

[51] **Int. Cl.** **H05b 1/00**

[58] **Field of Search** 219/211, 212, 527–529, 219/549; 128/379

[56] **References Cited**

UNITED STATES PATENTS

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[57] **ABSTRACT**

Presented is an electric blanket construction in which the conventional heating element adapted to transmit heat over the major area of the blanket is augmented by an auxiliary heating element which is superimposed over a portion of the conventional heating element to increase the transmission of heat from a selected portion of the blanket.

4 Claims, 2 Drawing Figures

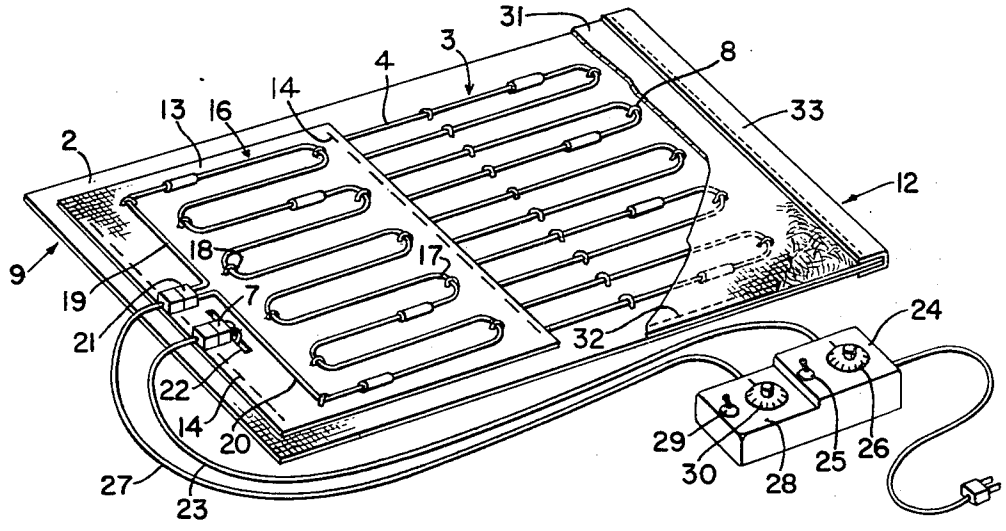
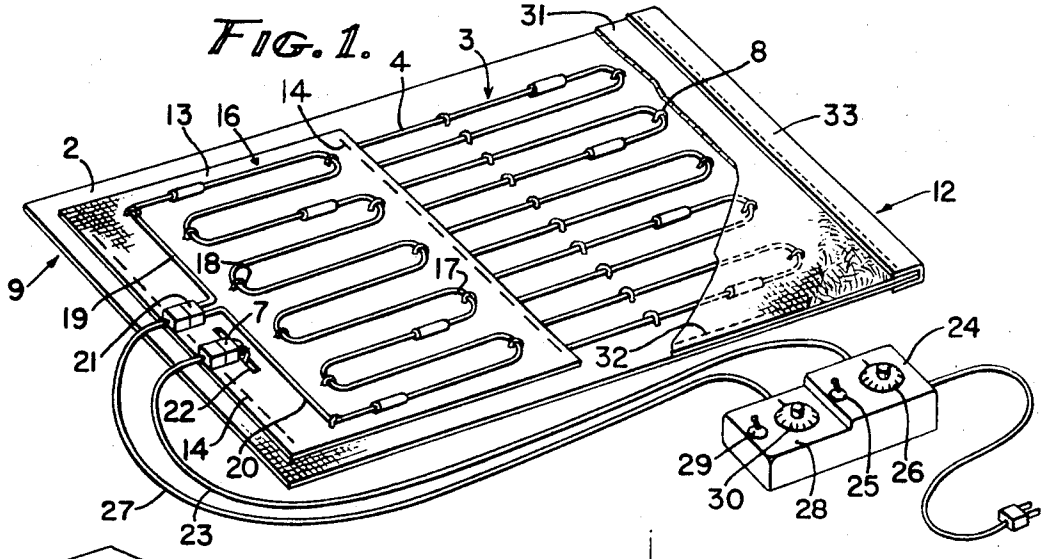


FIG. 1.


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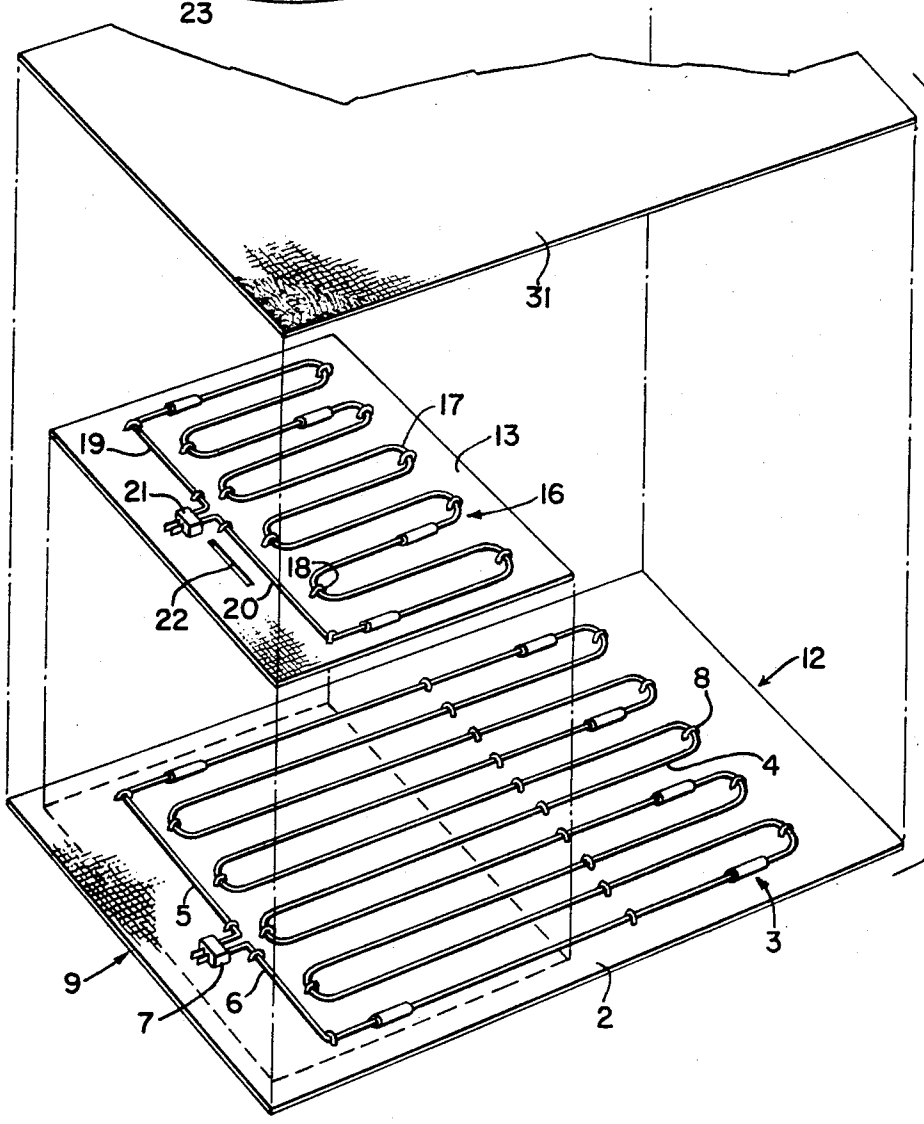

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FIG. 2.

ELECTRIC BLANKET HAVING AUXILIARY HEATING ELEMENT

BACKGROUND OF THE INVENTION

Since the first electric blanket was developed, many innovations have been made in this product. For instance, it is conventional today to buy electric blankets in which separate elements are provided in the blanket extending longitudinally thereof so that separate longitudinal halves of the blanket may be separately operated by independent controls. Advertisments for these blankets conventionally described them as being "dual" control type blankets, or "his" or "her" type blankets and the primary purpose served is to permit two people sharing one bed to also share one electric blanket, while permitting each party to have independent control of his portion of the blanket. It happens however that frequently a person's physiology is such that his lower extremities need a greater degree of warmth from an electric blanket than does his torso or upper extremity. However, so far as is known, innovation in electric blanket construction has not heretofore extended to the concept of providing an auxiliary heating element associated with the "feet" portion of an electric blanket so that the feet of a user can be separately or additionally warmed apart from the rest of the body. Accordingly, it is one of the objects of the present invention to provide an electric blanket equipped with such an auxiliary heating element disposed over the "feet" portion of the blanket and adapted for separate control.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be apparent from the following description and the drawings. It is to be understood, however, that the invention is not limited to the particular embodiment illustrated and described, since it may be embodied in various forms within the scope of the appended claims.

SUMMARY OF THE INVENTION

In terms of broad inclusion, the electric blanket of the invention includes a conventional blanket of twin or double bed size having a conventional heating element attached thereto, either of the single or dual control type conventionally used for double beds. Superimposed over the conventional heating element at one end of the blanket designated the "feet" end thereof, is an auxiliary heating element adapted to be energized through a separate control. The auxiliary heating element overlies the area of the blanket associated with the feet of the user, so that activation of the auxiliary heating element will affect an addition of heat to this area. It will thus be seen that the auxiliary heating element may be activated in conjunction with the conventional heating element, thereby adding to the normal heat provided by the conventional heating element the additional heat provided by the auxiliary heating element. On the other hand, the conventional heating element of the blanket may be deactivated and the auxiliary heating element may be activated by itself so as to provide heat only for the feet portion of the blanket. It should of course be understood that the auxiliary heating element may comprise two separate sections individually controlled by appropriate dual controls so that the feet of only one person receive heat from the auxiliary heating element.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view illustrating the arrangement of the heating elements in the blanket, portions of the upper layer of the blanket being broken away to disclose the underlying structure.

FIG. 2 is an exploded perspective view illustrating the separate components of the electric blanket pulled apart to better illustrate their cooperative relationships.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIG. 1, and in terms of greater detail, the electric blanket of the invention comprises an underlying layer 2 formed appropriately from any suitable woven material such as cotton or wool. Suitably attached to the underlying layer is a conventional heating element designated generally by the numeral 3, and comprising a multiplicity of longitudinally extending sections of an appropriate resistance member 4, the ends 5 and 6 of which terminate in a conventional prong plug 7 as shown. The resistance member 4 is conveniently tacked to the underlying layer 2 by appropriate means 8, which may conveniently comprise threaded loops interengaging the resistance member and layer 2 at intervals along their lengths.

One end of the underlying blanket portion or layer 2 may be designated as the "feet" end 9 while the opposite end thereof may be designated the "head" end 12. Superimposed over a portion of the "feet" end of the blanket layer 2 is an auxiliary layer 13 of woven material which is superimposed also over a portion of the resistance member forming the conventional heating element 3. The woven layer 13 is conveniently tacked to the underlying blanket portion 2 as indicated at 14. This prevents the auxiliary layer 13 from shifting in relation to the underlying blanket portion 2 or the associated portion of the conventional heating element 3.

Suitably tacked to the surface of the auxiliary layer 13 remote from the conventional heating element 3, is an auxiliary heating element designated generally by the numeral 16. The auxiliary heating element is preferably fabricated from interconnected and longitudinally extending sections of a resistance member 17 which follows a serpentine pattern over the underlying auxiliary layer 13. The resistance member is attached thereto at intervals by appropriate loops or tacks 18 as shown. Opposite ends 19 and 20 of the auxiliary heating element terminate in the prong plug 21 as illustrated.

In view of the fact that the auxiliary layer 13 is superimposed over the prong plug 7 forming a termination for the conventional heating element, it is expedient that the auxiliary layer 13 be provided with a slit 22 through which the prong plug 7 may extend for connection to a power cord 23. The power cord 23 connects the conventional heating element 3 of the blanket with an appropriate control box 24 having an ON-OFF switch 25, and a dial control 26 for setting the desired heat range for the main or conventional heating element 3. In like manner, the prong plug 21 forming the terminus of the resistance member 17 of the auxiliary heating element 16 is connected by a power cord 27 to a control box 28 having an ON-OFF switch 29 and a heat control dial 30.

Superimposed over both the primary heating element 3 and the auxiliary heating element 16 is a top layer 31

of the blanket, preferably formed from woven wool or cotten in the same manner as the underlying blanket portion **2.** The top layer **31** of the blanket is appropriately sewn as is usual with blankets along the peripheral edges as illustrated at **32.** Additionally, the "head" and "feet" ends of the blanket are provided with a binding or finishing member as shown.

It will thus be seen that once assembled and under appropriate control, the electric blanket of the invention may be operated in diverse ways. For instance, the primary heating element may be energized to provide heat of a very low degree, while the auxiliary heating element may be energized to provide a considerably higher degree of heat, thus augmenting the low degree of heat applied to the feet of the user. Alternatively, the primary heating element may be turned off completely, and only the auxiliary heating element energized to provide whatever degree of heat is desired over the "feet" end of the blanket.

It should be understood that even though the eletric blanket illustrated is not of the dual control type, i.e., equipped with heating elements split longitudinally so that one-half of the blanket may be heated independently of the other half, such division of the primary heating element of electric blankets is common and may of course be incorporated in the structure illustrated. In like manner, the auxiliary heating element may be divided in the same way so that two different people using the same blanket may independently control the heat associated with their feet.

Having thus described the invention, what is claimed to be novel and sought to be protected by letters patent is as follows:

1. In an electric blanket having top and bottom layers, the combination comprising:

a. a primary heating element encompassing substantially the entire area of said blanket so as to provide a uniform degree of heat over the entire area when said primary heating element is energized;

b. an auxiliary heating element superimposed over a selected portion of said primary heating element and superimposed over a substantially smaller selected area of said blanket so as to provide an increase in the degree of heat over said substantially smaller selected area when both the primary and auxiliary heating elements are energized and a selected degree of heat only to said smaller selected area when said primary heating element is deenergized and said auxiliary heating element is energized; and

c. control means operatively associated with said primary and auxiliary heating elements and selectively operable to independently energize each said heating element.

2. The combination according to claim **1,** in which said primary heating element is comprised of a resistance member oriented in sections extending longitudinally the full length of said blanket, and said auxiliary heating element is comprised of a resistance member having sections oriented parallel with corresponding sections less than the full length of the resistance member of said primary heating element.

3. The combination according to claim **1,** in which each said heating element is provided with an independent prong plug for attachment to a source of power through said control means.

4. The combination according to claim **1,** in which an auxiliary layer of woven material is superimposed over a portion of said primary heating element adjacent one end thereof, said auxiliary heating element is independently attached to said auxiliary layer of woven material, and said top layer of the blanket is superimposed over the entire assembly.

* * * * *

UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,739,142 Dated June 12, 1973

Inventor(s) John M. Johns

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

References Cited

UNITED STATES PATENTS

3,634,655	1/1972	Jordan.....219/212
3,668,367	6/1972	Williams.....219/212
3,072,776	1/1963	Quenneville.....219/212
2,889,439	6/1959	Musgrave.....219/345

Signed and sealed this 17th day of June 1975.

(SEAL)
Attest:

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Commissioner of Patents
and Trademarks

FORM PO-1050 (10-69)

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