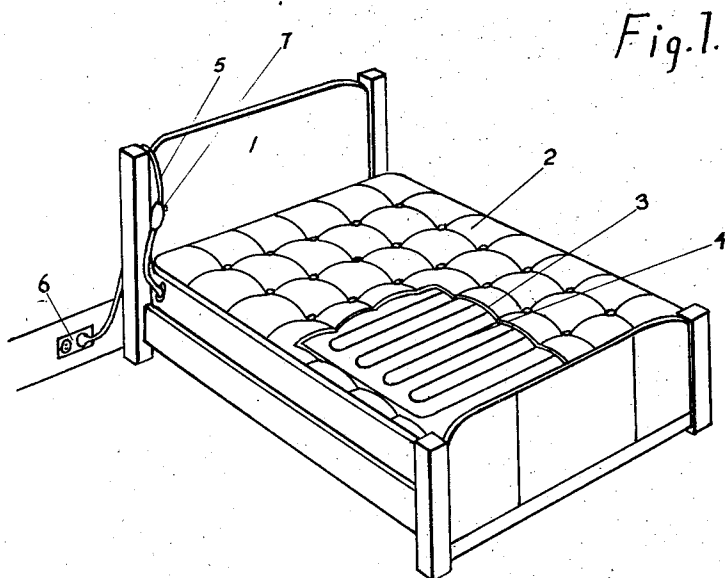
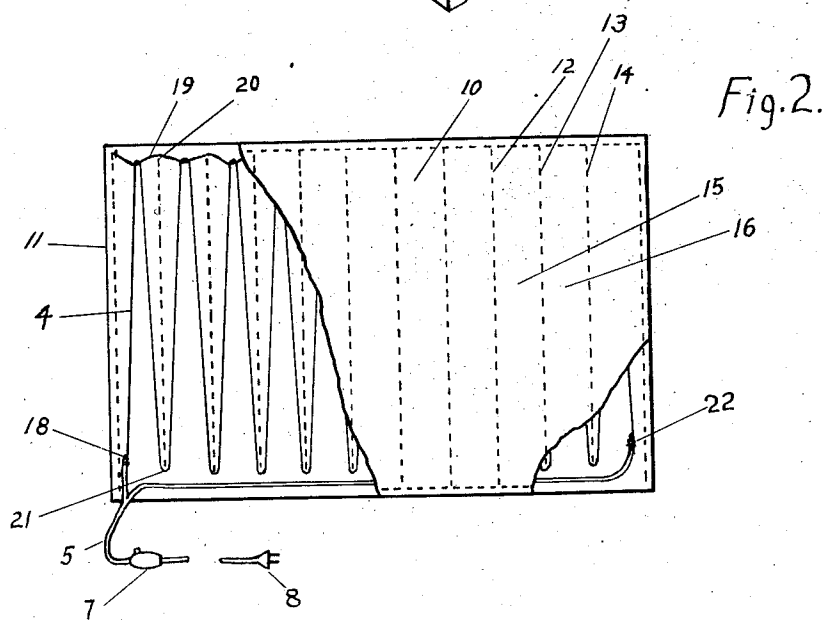


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G. W. CRISE
ELECTRIC BED WARMER
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ELECTRIC BED WARMER

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4 Claims. (Cl. 219-46)

The purpose of my invention is to provide a safe and convenient method of uniformly warming a bed.

Previous bed warmers have been characterized by their inability to distribute the heat uniformly throughout the bed clothing and the inconvenience of having to move the device whenever the bedding is changed or rearranged.

To eliminate these difficulties, I have provided a mattress warmer sufficiently thin and flexible to be comfortable to sleep upon, large enough to warm substantially all of a bed and having sufficient radiating area to prevent overheating under all conditions.

The details of my invention will be best understood by referring to the accompanying drawing in which—

Figure 1 is a bed with a mattress cut away to show my mattress warmer installed inside a mattress.

Figure 2 is a detailed view of my mattress warmer with part of the jacket removed to show the details of construction as it is built for installation on top of a conventional mattress.

Referring to Figure 1, 1 is a bed, 2 is a mattress installed in the conventional manner, 3 is the upper mattress covering, 4 is a flexible warming element made of soft copper wire, 5 is an electrical cord leading to a wall outlet 6, and 7 is a feed thru switch conveniently located at the head of bed 1, and so connected as to control the current flowing to mattress warming element 4.

In Figure 2, 10 is the upper jacket of my mattress warmer which is made of muslin and partly cut away to show the internal construction of my warming unit. 11 is the lower jacket of my mattress warmer, being similar to upper jacket 10. 12, 13, and 14 are uniformly spaced quilted seams of thread which join jackets 10 and 11, leaving a margin of approximately one inch unfastened at each of their ends. 12, 13, and 14 are representative of some 50 similar seams which join jackets 10 and 11 forming many fabric tubes all of which I designate collectively as tubes 15 and 16.

4 is a warming element consisting of double enameled No. 30 copper wire which is threaded into tubes 15 and 16 by means of a long bodkin.

For this operation the eye of the bodkin carrying the wire is inserted into the lower end of the tube nearest an edge which is designated as starting point 18 and the wire pushed to the opposite end of said tube, at this point a string 19 which has been made fast to the lower jacket

11 is passed between the warming element wire and the bodkin, on the side of the bodkin where the wire leads from the eye of the bodkin to the starting point 18. As the bodkin is withdrawn, string 19 holds the warming element wire 4 in place producing a hairpin loop in the first tube above described. By next inserting the bodkin in the second or adjacent tube, the second seam of group 12, 13, and 14 whose ends are designated as 20 and 21 and which acts as a support for string 19 at point 20, also supports warming element 4 at point 21.

It is obvious that by threading all of the tubes 15 and 16 consecutively, a warming element of the size and shape of jackets 10 and 11 is produced.

Referring further to Figure 2, 5 is a two conductor cord which is anchored and connected to warming element 4 at starting point 18 and to finishing point of warming element, at finishing point 22. 7 is a conventional feed thru switch which controls the current flowing from attachment plug 8 to the mattress warmer.

The completely assembled unit has hemmed edges which hold all wires in place making my mattress warmer a completely finished unit, the appearance of which is in keeping with conventional bed clothing.

It will be obvious that whether the mattress warmer of Figure 2 is placed upon a conventional mattress, or the mattress of Figure 1 be equipped with the warming element as constructed in Figure 2, the same general results be obtained.

It will also be evident that when all bedding has been placed on bed 1 and current is turned on by switch 7, a uniform warmth is generated over the entire surface of the mattress. Obviously the heat thus evolved radiates into both the mattress and the bedding with the result that in the few minutes required to prepare for bed, the bed becomes uniformly warmed, because of the large radiating area the terminal temperature of my standard 200 watt mattress warmer is less than 180 degrees Fahrenheit with a maximum of bed clothing, thus eliminating the fire hazard which exists with electric heating pads whose construction necessitates high temperature wire and thermostats whose operation is always questionable.

For applications requiring temperature regulation, an electrically heated thermostatic switch is connected in series with the warming element. As the bed warms up the bimetal in the thermostatic switch is also warmed until it breaks a contact reducing the current thru the warmer.

When both the bed and the bimetal switch have cooled, it again snaps back on full power.

Having described the construction of my mattress warmer and the novel results obtained when used in combination with a bed as described, I claim:

1. In an electric warming pad constructed with parallel pockets the method of installing a warming filament which consists of inserting hairpin loops of said filament into consecutive elongated pockets of said pad by means of a bodkin, anchoring the closed end of each hairpin loop and withdrawing the bodkin leaving a complete hairpin loop in each individual pocket.

2. In a warming pad the method of construction which consists of joining two thin sheets of fabric by parallel seams and threading the tubes thus produced consecutively and from adjacent ends each with a complete hairpin loop formed of fine wire.

3. A mattress warmer of thin section compris-

ing two only sheets of thin fabric joined by parallel seams forming tubes and a small flexible wire filament, said filament having in combination a sufficiently low resistance, and a sufficiently great length to limit the evolution of heat below that temperature destructive to flammable fabrics, said filament being formed into complete hairpin loops each of which occupies a single tube in said warmer.

4. A bed warmer comprising two thin sheets of fabric joined by parallel seams, forming parallel tubes, a warming filament formed into hairpin loops, each complete loop being threaded into a single and separate adjacent tube and a thermally operated time switch connected to said filament whereby the circuit of said filament is automatically broken independent of the influence of the temperature of the surrounding zone of said bed warmer.

GEORGE W. CRISE.