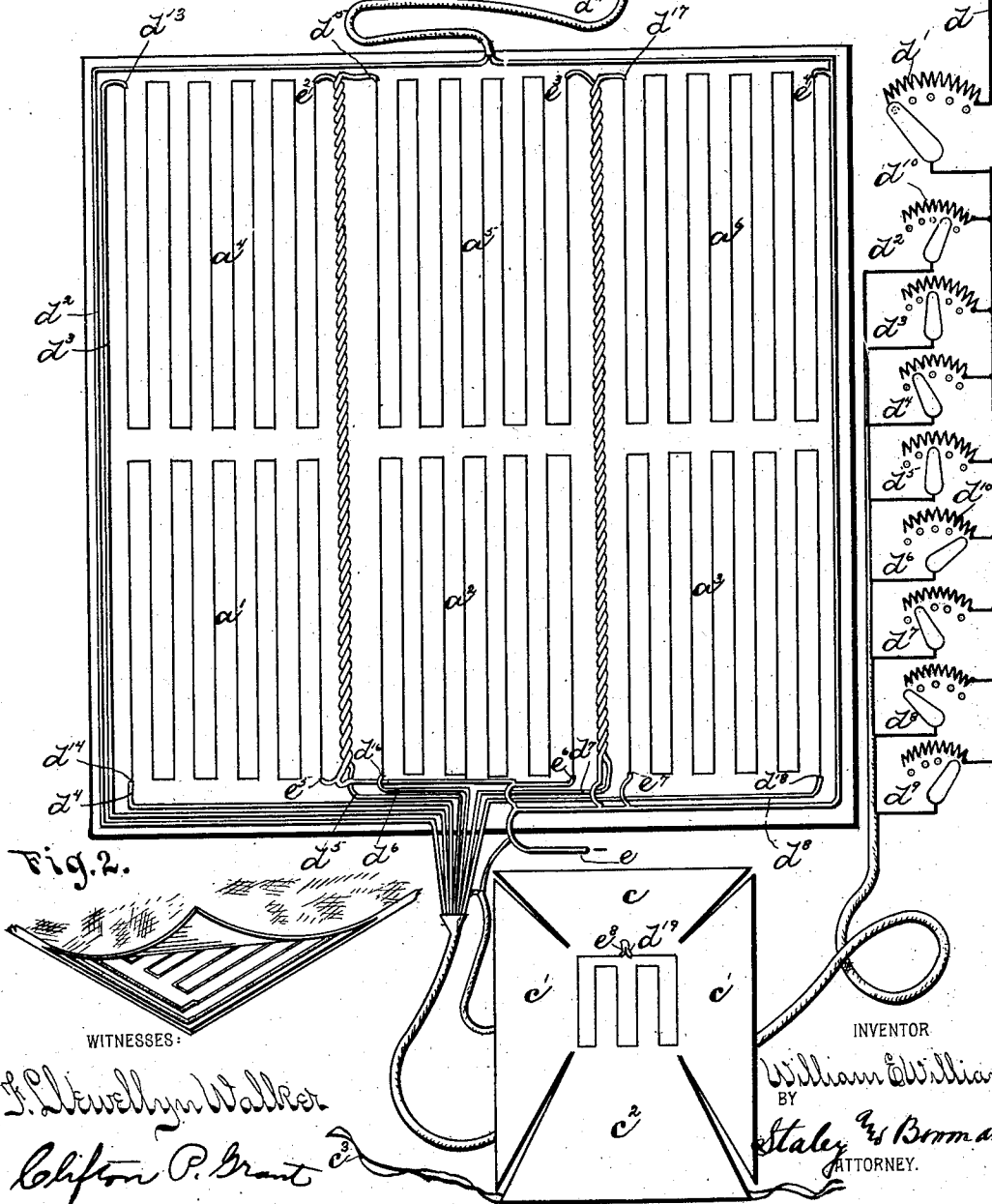
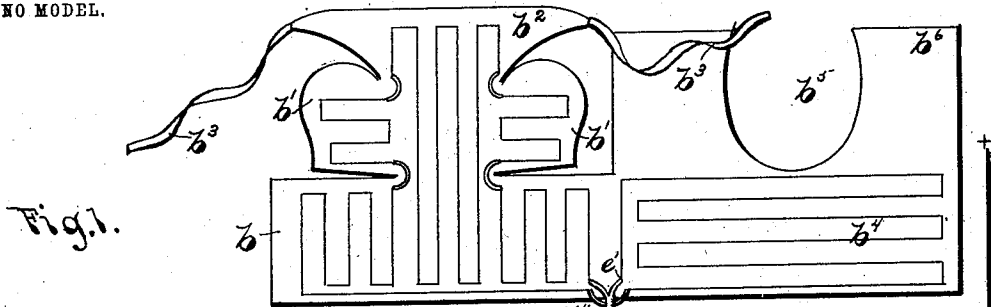


W. E. WILLIAMS.
ELECTRIC THERMAL THERAPEUTIC BLANKET.

APPLICATION FILED NOV. 3, 1902.

NO MODEL.



UNITED STATES PATENT OFFICE.

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TO A. PHILLIPS LUDLOW, OF SPRINGFIELD, OHIO.

ELECTRIC THERMAL THERAPEUTIC BLANKET.

SPECIFICATION forming part of Letters Patent No. 723,797, dated March 24, 1903.

Application filed November 3, 1902. Serial No. 129,834. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. WILLIAMS, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Electric Thermal Therapeutic Blankets, of which the following is a specification.

My invention relates to therapeutics, and more especially to that division of therapeutics in which healing is accomplished by exterior treatment.

The object of my invention is to provide an improved form of blanket having specially-designed portions to envelop the head and feet.

A further object is to provide improved means for heating in which the blanket is divided into sections and heat supplied to any one or all of the sections, whereby the whole body of the patient may be sweated or only certain portions, as may be desired.

My invention consists in the constructions and combinations hereinafter described, and set forth in the claims.

In the accompanying drawings, Figure 1 is a diagrammatic view of the blanket having electrical connections for heating in accordance with my invention, and Fig. 2 is a detail in perspective showing the wires between the sheets of the blanket.

Like parts are represented by similar letters of reference in the several views.

In the drawings, *a* represents the main body of the blanket, which is divided into sections *a'*, *a''*, *a'''*, *a''''*, *a'''''*, and *a''''''*, each of said sections having a continuous wire, as shown. The positive and negative connections for each will be hereinafter described. That portion of the blanket to envelop the head I preferably form in a separate piece *b*, the parts *b'* of which are first brought up over the sides and the part *b''* over the top of the head of the patient and held in place by tying tapes *b'''* under the chin. The part *b''''* is then brought over about the neck and across the chest, the opening *b'''''* for the head permitting the parts *b''''''* to pass over and about the shoulders. The head portion is shown in the drawings at some distance from the main body of the blanket; but in practice it is brought down over the

upper edge of the main portion, so as not to leave any portion of the body exposed. The head portion is wired, as shown, and the connections for same will be hereinafter described. The foot portion *c* of the blanket I preferably form as shown. The feet of the patient being in place, the side portions *c'* are first drawn over and then the part *c''* brought over and tied by tapes *c'''*. This portion is also shown in the drawings separate from the main body; but in practice it is brought over the edge of the main body, so as not to leave any portion of the body of the patient exposed.

Having described the particular features of the blanket as to form, I now come to a description of the heating of the several sections by electrical connections so controlled as to regulate the temperature of all the sections uniformly as well as each section separately and independently of the others.

In the drawings I have shown a positive or main feed-wire *d*, controlled by a rheostat *d'*, and leading from said feed-wire *d* I provide a wire for each of the several sections of the blanket, said wires being marked *d''*, *d'''*, *d''''*, *d'''''*, *d''''''*, *d''''''''*, and *d'''''''''*, respectively, and each of said wires is provided with a rheostat *d''''''''* to control the temperature in the section with which it is connected. Said wires *d''* to *d''''''*, inclusive, are insulated and preferably brought together in a single casing to the edge of the blanket, where they are separated and carried within the blanket, as follows: the wire *d''* to the head portion, connecting with the wires of said portion at *d''''''* and *d''''''''*; the wire *d'''* to the section *a''*, connecting with the wires of said section at *d''''''*; the wire *d''''* to the section *a'*, connecting with the wire of said section at *d''''''*; the wire *d'''''* to the section *a''''*, connecting with the wire of said section at *d''''''*; the wire *d''''''* to the section *a'''''*, connecting with the wire of said section at *d''''''*; the wire *d''''''''* to the section *a''''''*, connecting with the wire of said section at *d''''''*; the wire *d'''''''''* to the section *a''''''''*, connecting with the wire of said section at *d''''''*; and the wire *d''''''''''* to the foot portion, connecting with the wire of said portion at *d''''''*. Thus it will be seen that I have connected the wires of each section or portion with the positive or feed wire. The return or negative wire *e* is

connected at e^1 , e^2 , e^3 , e^4 , e^5 , e^6 , e^7 , e^8 , and e^9 with the wires of the respective sections, as shown.

For the feed and return wires up to the point of connection with the wires of the several sections I preferably use wire insulated in the usual manner, secured in place by tape sewed to the blanket, and I preferably use a German-silver wire for the several sections, which is preferably covered with asbestos or other non-combustible material attached to the blanket in any suitable manner, preferably by tape sewed to the blanket.

The blanket may be formed of single sheets, with the wires secured thereon by tapes, as described; but I preferably use double sheets, with the wires secured to one and the other covering them, as particularly shown in Fig. 2.

It will be seen that by reason of the peculiar form of my blanket all parts of the body may be easily enveloped therein, and, further, by dividing it up into sections with separate electrical connections for each section all or any portion of the body may be treated as desired, such control being given to the electrical apparatus that all the sections may be heated uniformly, or the heat may be confined to any one or more of the sections to treat the particular part of the body desired.

Having thus described my invention, I claim—

1. An electric therapeutic blanket consisting of a main body portion divided into sections and a head portion formed with side pieces and a top piece adapted to be folded over

and envelop the head of the patient, electric heating devices in each of said sections and in said head portion, means to control the current in all of said devices uniformly, and means to control the current in each of said devices separately, substantially as specified.

2. An electric therapeutic blanket consisting of a main body portion divided into sections, and a foot portion formed with end and side pieces adapted to be folded over and envelop the feet of the patient, electric heating devices in each of said sections and in said foot portion, means to control the current in all of said devices uniformly, and means to control the current in each of said devices separately, substantially as specified.

3. An electric therapeutic blanket consisting of a main body portion divided into sections, a head portion and a foot portion, said head and foot portions being formed with side and end pieces adapted to be folded over and envelop the head and feet of the patient, electric heating devices in each of said sections and in said head and foot portions, means to control the current in all of said devices uniformly, and means to control the current in each of said devices separately, substantially as specified.

In testimony whereof I have hereunto set my hand this 24th day of October, A. D. 1902.

WILLIAM E. WILLIAMS.

Witnesses:

PERCY NORTON,
CHAS. I. WELCH.