

No. 751,353.

PATENTED FEB. 2, 1904.

F. K. SINGER.
ELECTRIC BLANKET.
APPLICATION FILED SEPT. 8, 1903.

NO MODEL.

Fig. 1.

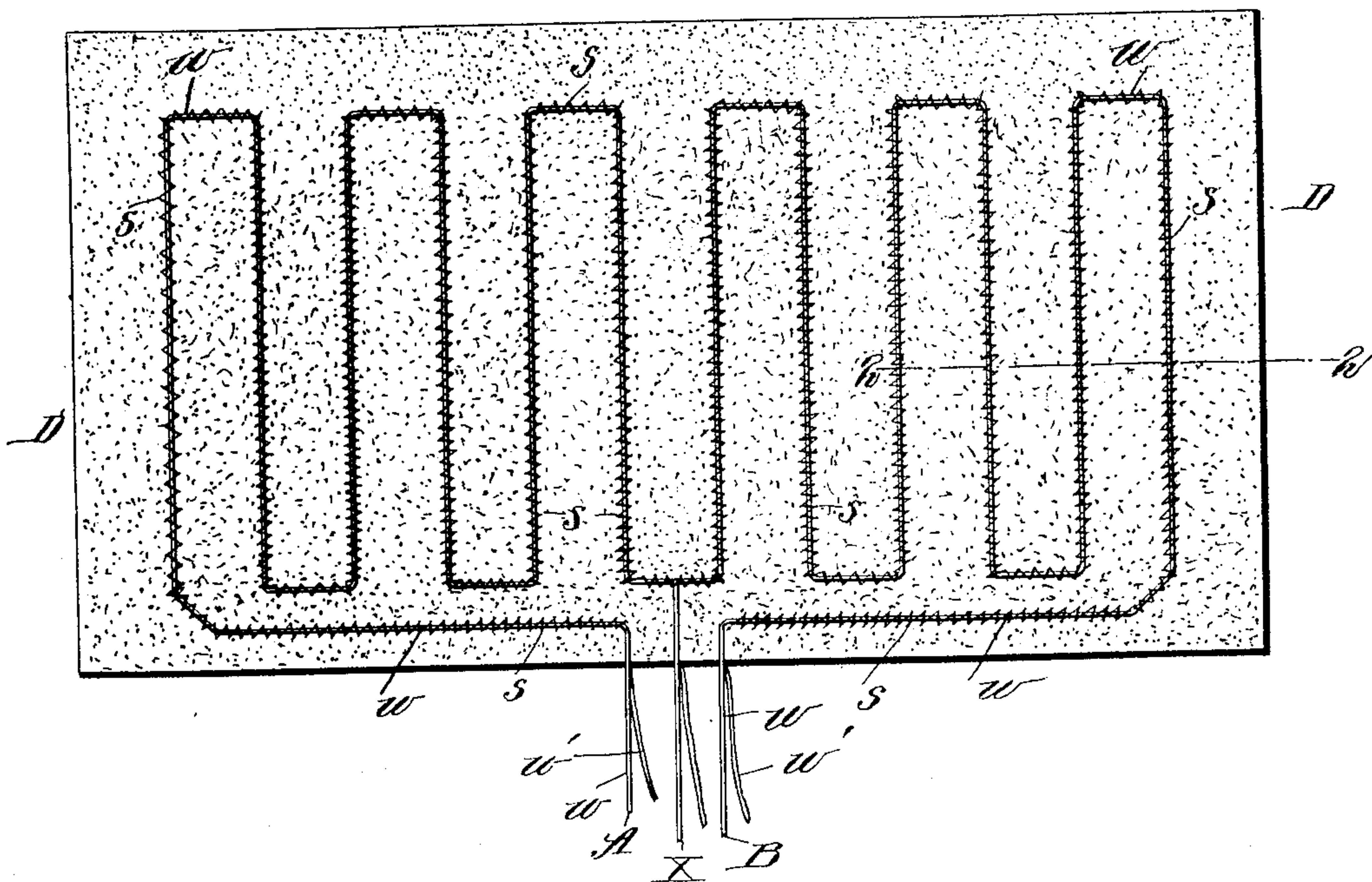


Fig. 2.

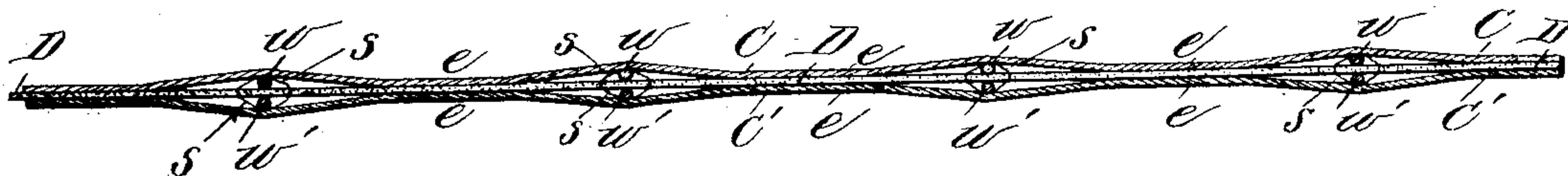


Fig. 3.

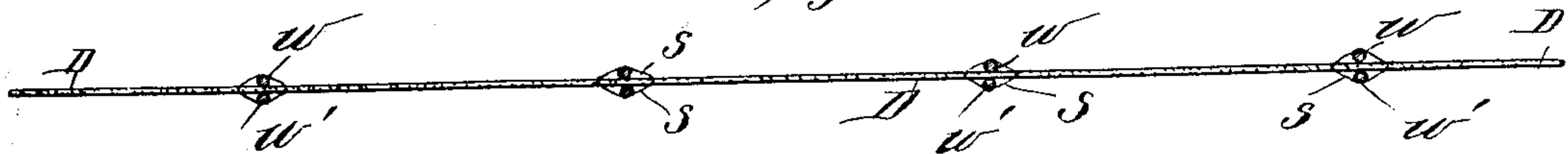
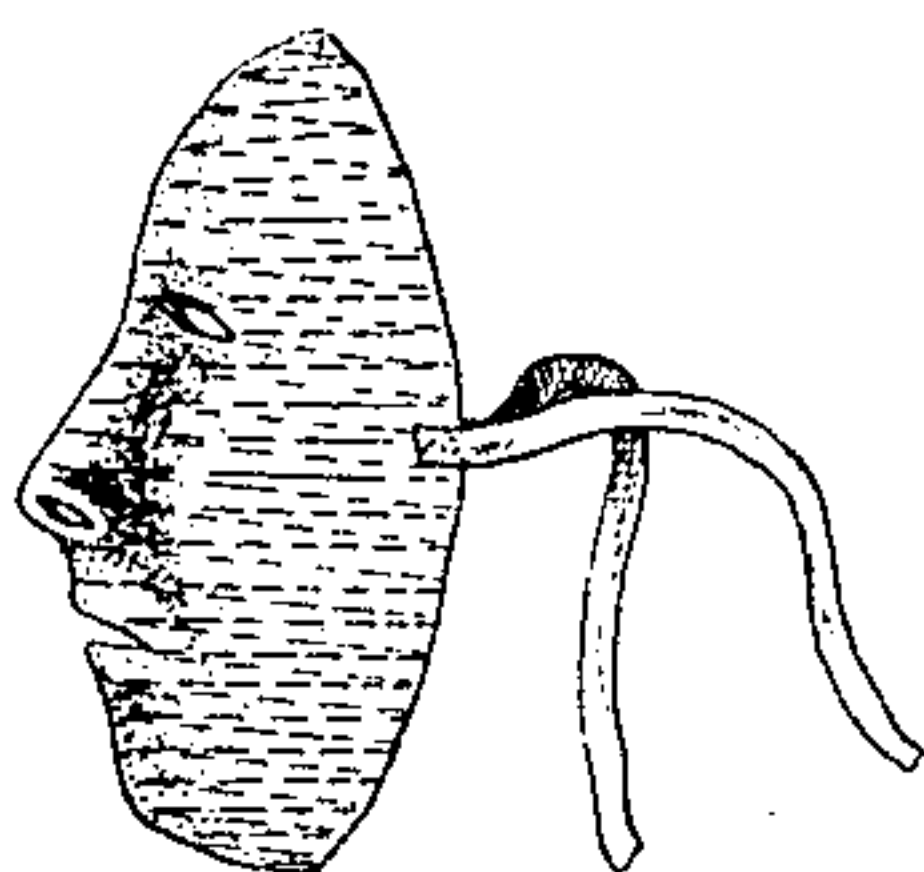


Fig. 4.



WITNESSES:

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FRANK K. SINGER, OF WHEELING, WEST VIRGINIA.

ELECTRIC BLANKET.

SPECIFICATION forming part of Letters Patent No. 751,353, dated February 2, 1904.

Application filed September 8, 1903. Serial No. 172,257. (No model.)

To all whom it may concern:

Be it known that I, FRANK K. SINGER, a citizen of the United States, residing at Wheeling, in the county of Ohio and State of West Virginia, have invented a new and useful Improvement in Electric Blankets, of which the following is a specification.

My invention relates to that class of blankets, towels, pads, &c., which have incorporated in their texture extended circuit-wires disposed in more or less tortuous paths and which are designed to receive a current of electricity to produce, by resistance of the wire, heating effects or to produce electro-inductive effects and to be applied to the body for therapeutic use in the cure or amelioration of disease.

My invention consists of a blanket or pad of this general character, so constructed as to be capable of great flexibility in adapting itself to the contours of the body or face and which I will now proceed to describe with reference to the drawings, in which—

Figure 1 is a face view of one of my improved blankets or pads with the outer covering removed. Fig. 2 is an enlarged longitudinal section taken on line 2 2 of Fig. 1. Fig. 3 is a similar view with both outer coverings removed, and Fig. 4 is a view of my invention constructed in the form of a face-mask.

In the drawings, D is a basic layer of felt upon which are laid in regular rows or lines conducting-wires w and w' . The wire w is laid on one side of the felt and the wire w' upon the opposite side. The wire w has two terminals A and B, representing opposite poles and forming connections for a current of one hundred and four volts, and to the middle of the layer or windings of the wire w is connected another terminal X, adapted to accommodate a current of fifty-two volts between it and either of the other terminals A and B. The rows or lines of the wire w on one side of the felt D are exactly opposite and in parallel coincidence with the rows or lines of the other wire w' on the opposite side of the layer or felt, and the terminals A X B of wire w are connected to the corresponding terminals of the other wire w' . The exactly opposite position of the lines of the wires w and

w' is shown in Figs. 2 and 3. Around the oppositely-placed rows or lines of wire w and w' are placed rows of stitching s , which inclose at the same time both of the rows or lines of wire and retain them in their exactly opposite position, firmly holding them against displacement on the felt. The object of this coincidence of the two rows or lines of wire is as follows: First, it makes a double circuit-wire and makes both sides of the blanket or pad alike. The circuit-wire being double, the cross-section of the wire may be made smaller, and therefore the wire more flexible and less likely to break. Again, as the wires w and w' are exactly opposite there are formed between the wires long bending or hinge points $e e e$ throughout the fabric that increase its flexibility and allow the blanket to adapt itself to a closer and easier folding about the body. Furthermore, one set of stitches s serves for both layers of wire. On the exterior of the blanket or pad, as thus described, there may be and preferably are placed exterior coverings C and C', of any flexible material, but preferably of some non-conducting and fireproof fabric. If the wires w and w' are insulated, however, both of these external coverings C and C' or either of them may be omitted. The outer coverings C and C' are to be secured to each other and to the intermediate base D by a marginal seam and also by rows of stitching between the wires, if desired.

By means of the blanket as thus constructed I am enabled to secure great flexibility and pliancy in the same, and the material may be readily adapted to such contours as a face-mask, as seen in Fig. 4, or to other sharply-curved surfaces for closely conforming to the body-curves.

I am aware that fabrics or coverings have been heretofore constructed with zigzag windings of wire incorporated in the same to receive an electric current, and I make no broad claim to this.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An electric blanket or similar covering, composed of an intermediate basic layer of flexible material and two layers of wire laid

- in independent lines, rows, or windings on opposite sides of the basic layer, with the lines, rows, or windings of the wire on one side in parallel coincidence with and exactly
5 opposite to the corresponding lines, rows, or windings on the other side, and a set of stitchings securing both such opposite layers of wires to the intermediate flexible base substantially as and for the purpose described.
- 10 2. An electric blanket or similar covering composed of an intermediate layer of flexible material and two layers of wire laid in independent lines, rows, or windings on opposite
sides of the basic layer, with the lines, rows, or windings of the wire on one side in parallel
coincidence with and exactly opposite to the
corresponding lines, rows, or windings on the
other side, a set of stitchings securing both
such opposite layers of wire to the intermedi-
ate flexible base and an outer covering for the
wires substantially as and for the purpose
described.

FRANK K. SINGER.

Witnesses:

WILLIAM N. BAUMANN,
CYRUS P. FLICK.