

F. R. WHITTLESEY.
ELECTRIC HEATING PAD, BLANKET, ROBE, AND THE LIKE.
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1,058,825.

Patented Apr. 15, 1913.

Fig. 1.

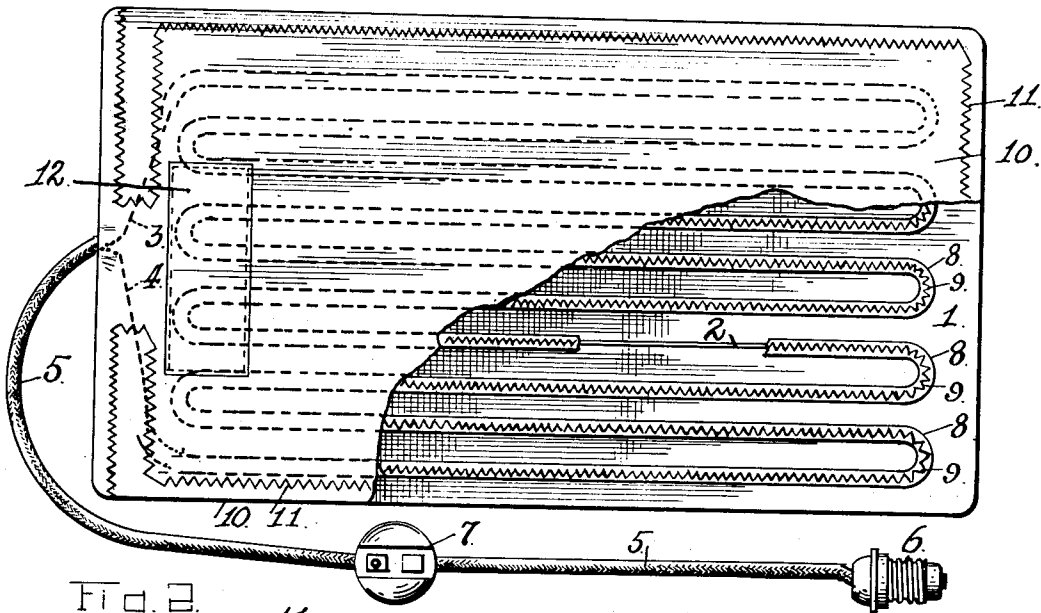


Fig. 2.

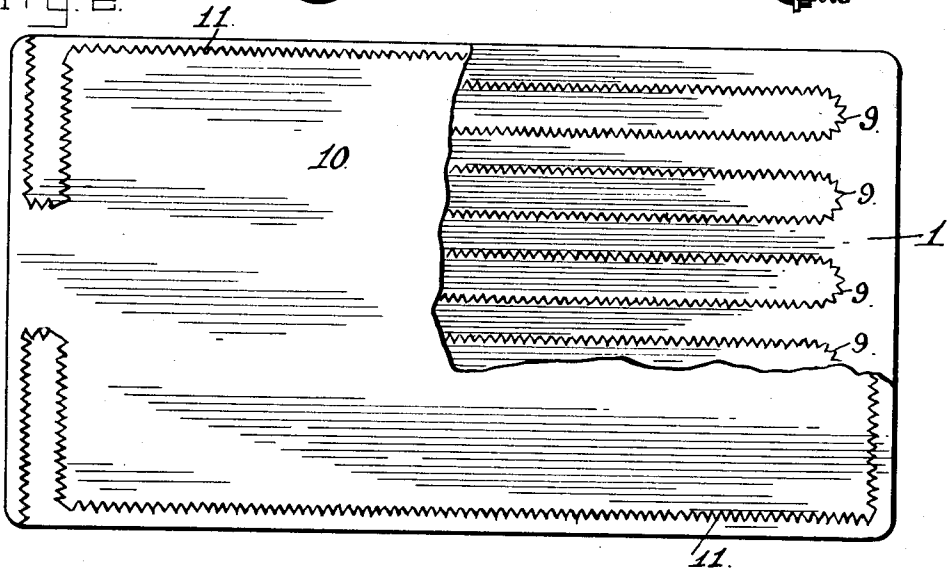
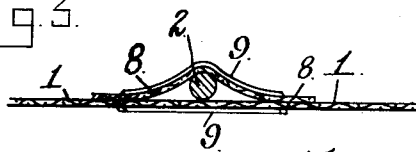


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

FRANK R. WHITTLESEY, OF OAKLAND, CALIFORNIA.

ELECTRIC HEATING PAD, BLANKET, ROBE, AND THE LIKE.

1,058,825.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK R. WHITTLESEY, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Electric Heating Pads, Blankets, Robes, and the Like, of which the following is a specification.

My invention relates to that class of electric heating-pads, blankets, robes, and the like in which the current-carrying wire is secured to a foundation sheet in a tortuous, zig-zag, or other extensive course, the terminals of the wire projecting for attachment to a source of electricity. In devices of this kind the wire employed is sometimes an insulated one, being covered with asbestos, for example; and sometimes it is a naked one, the necessary insulation to afford protection to the wearer and to prevent short circuiting between the several courses of the wire being afforded by a fold or portion of the foundation material covering the wire or by another sheet or piece of the same or similar material laid over said wire, the two sheets or folds or portions being stitched together.

The expense of the former construction due to the cost of the insulated wire, and the danger due to imperfect, broken or worn out insulation, are some of the reasons which favor the latter construction; though the details by which this latter arrangement is carried out are themselves open to many objections, chief among which stand out prominently, first, the want of economy in manufacture principally on account of unnecessary labor involved in the separate stitching of the wire to the foundation and the stitching of the covering fold to said foundation; and, second, the want of more perfect individual insulation of the several courses of the wire, than such stitching and cover fold can afford.

The object of my invention is to provide an article of manufacture of this class in which the cost of production is reduced to a minimum, while its efficiency with respect to the insulation of the wire and to the distribution and dissemination of the heat is increased to a maximum. These objects I attain by the novel construction of the device which I shall now fully describe by reference to the accompanying drawings in stitch.

Figure 1 is a plan view of my pad from

its obverse side, a portion of the outer cover being broken away to show the foundation sheet with its stitched tape wire insulation, and a portion of the tape being broken away to show the wire. Fig. 2 is a plan view of my pad from its reverse side, a portion of the outer cover being broken away to show the back of the foundation sheet, with its stitches. Fig. 3 is a detail cross section, enlarged, of a portion of the foundation sheet, the wire, the insulating tape and the cross stitch.

The particular article, embodying my invention, which I have herein selected for illustration, is a pad, though it is to be understood that said invention may find embodiment equally in other articles such as blankets, robes, towels, and the like.

1 is the foundation sheet of the pad. This may be of any usual or suitable material, such as a fabric of any kind. Burlap is good in this connection.

2 is the current-carrying wire. This is, in practice, a high resistance wire, for the sake of the usual advantages flowing from its use.

3 and 4, in Fig. 1, are the terminals of the wire 2, for proper connection with a source of electrical energy in the usual manner, as, for example, by the cord 5 having the plug 6 and the controlling switch 7.

The wire 2 is laid upon and extended over the surface of the foundation sheet 1 in some form of zig-zag or tortuous extensive course, here shown as a to and fro course. The wire 2, throughout its whole course and length upon the foundation sheet 1, is covered by a relatively narrow insulating strip 8, in practice a strip of fabric, best in the form of a tape. This tape 8 is secured to the foundation sheet 1 and thereby not only insulates the wire but also holds the wire to the foundation. Its effect as a cover is what may be termed an individual insulation, that is, it directly covers and protects each course of the wire, and being relatively narrow, it affords a slender pocket well suited to the small wire.

Though the securing of the wire-covering tape to the foundation sheet is thus advantageous without regard to the means of securing it, my invention further contemplates and includes the special securing means here shown from which a decided economy in the cost of manufacture results. The three parts, namely, the foundation sheet 1, the wire 2 and the tape 4 are all

secured and held together by the single zig-zag stitching 9 passing through the sheet and tape on each side of the wire, and traversing its path above the tape and below the sheet. This is a factory machine stitch and easy to make. Thus a single stitching operation is sufficient to secure the wire to the foundation and inclose it in its insulating pocket. The foundation sheet is inclosed in a suitable outer cover 10 in which it is secured by the border stitches 11. The pad is light in weight, in that it is not of a double thickness. Its perfect diffusion of heat, renders it fitted for a minimum amount of current, and it is, therefore, safer in use. In Fig. 1, 12 indicates the name and direction tag sewed to the pad.

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

In electric heating pads and the like, the

combination of a foundation sheet, a current carrying wire positioned on the foundation sheet and arranged in a tortuous course, a covering of insulating material for the wire comprising a relatively narrow flat strip of tape overlying the wire and following the course thereof, a single means for securing the wire, tape and foundation sheet together consisting of cross stitches traversing the path of the wire arranged above the tape and below the foundation strip and secured to the edges of the tape, and a covering sheet substantially co-extensive with the foundation sheet.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK R. WHITTLESEY.

Witnesses:

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