No. 836,282. PATENTED NOV. 20, 1906.

L. W. SHELLHAMER.

ELECTRIC HEATING PAD.

APPLICATION FILED APR. 2, 1906.

Fig. 1

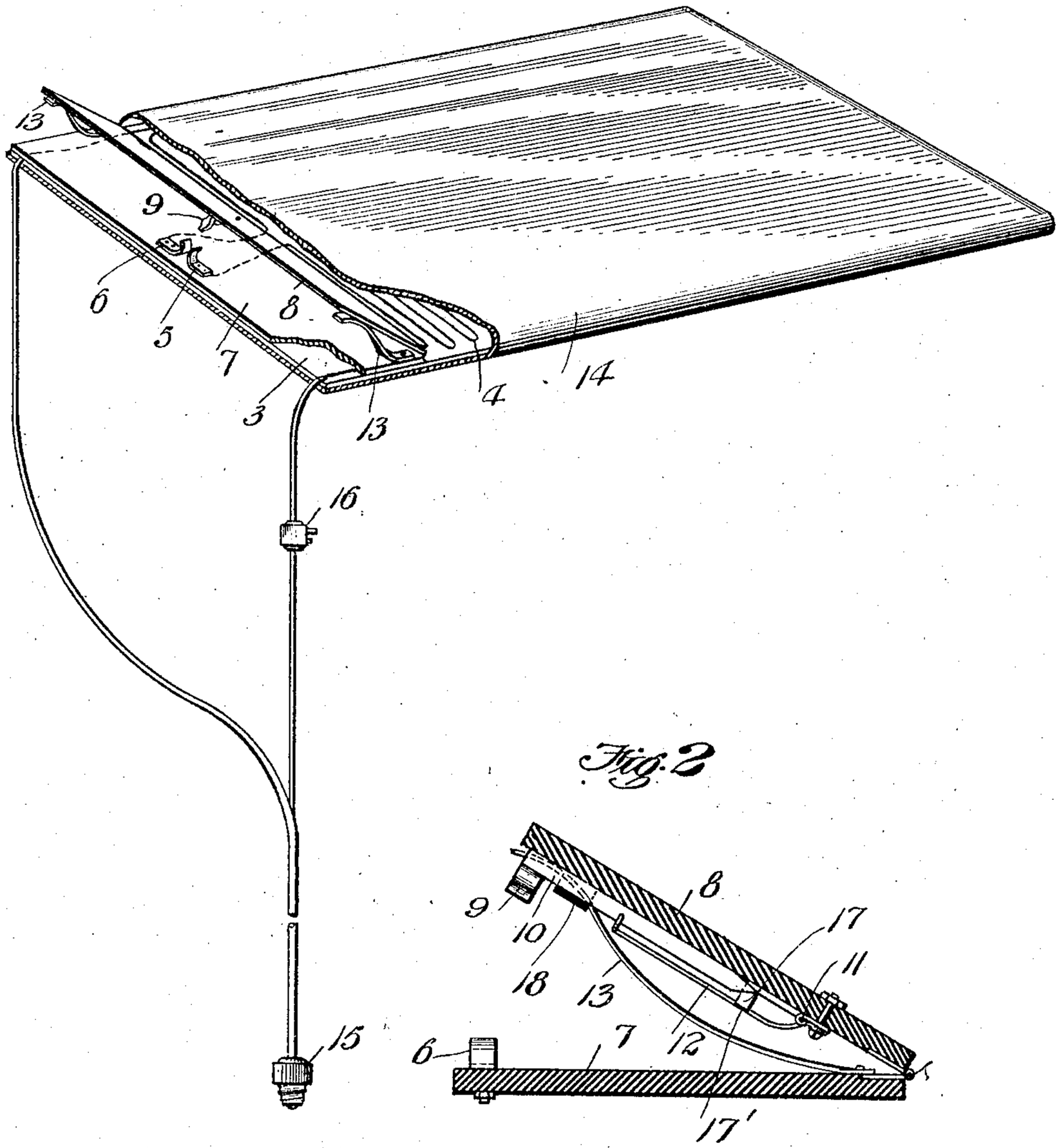


Fig. 2

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LUELLA W. SHELLHAMER, OF LOS ANGELES, CALIFORNIA.

ELECTRIC HEATING-PAD.

No. 836,282. Specification of Letters Patent. Patented Nov. 20, 1906.

Application filed April 2, 1906. Serial No. 309,456.

To all whom it may concern:

Be it known that I, LUELLA W. SHELLHAMER, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Electric Heating-Pads, of which the following is a specification.

My invention relates, primarily, to improvements in heating-pads for applying artificial heat generated by electricity to the human body; and it is the object of my improvement to produce a heating-pad which will quickly furnish the required degree of heat and which will have the current automatically cut off when the person using it gets off the same. I accomplish this object by the mechanism described herein and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view, with parts broken away for clearness of illustration, of my improved heating-pad. Fig. 2 is a section on the line 2 2 of Fig. 1 of one of the current-controlling means.

In the drawings, 3 is the base or body of the pad, preferably of flexible non-conductive material and preferably of non-combustible material, as well. On the upper surface of the body and secured thereto is a suitable amount of resistance-wire 4, preferably provided with insulation, which runs backward and forward longitudinally or transversely the body and continuously, except that at some point therein, preferably at the center and at the upper end thereof, it is broken, and the broken ends are secured one to a spring-contact 5 and the other end to a spring-contact 6, which contacts are secured to a non-flexible base 7, of insulating material, preferably fiber, which extends across the upper end of the body. To this insulated base is hinged a movable leaf 8, preferably of non-conducting material, which carries a stud 9, which when the leaf is pressed downwardly, as hereinafter explained, engages the contacts 5 and 6 and closes the break in the wire.

Stud 9 is secured upon the end of bar 10, which bar is secured to the leaf 8 and has a hinge at 11 therein. A light wire spring 12 is also secured to leaf 8, and the free end thereof engages bar 10. The free end of leaf 8 is normally held in its elevated position by springs 13, of which there is preferably one at each end. Surrounding the pad is a slip or cover 14. The terminals of wire 4 are secured to a plug 15, which is adapted to unite the same to a source of electrical energy. In the drawings I have shown this plug as adapted to be screwed into an electric-light socket. At any suitable point on the resistance-wire is a make-and-break switch 16, which is placed thereon, so as to be readily accessible to the person using the pad.

In using my device the pad will be placed upon a couch and the plug connected to a source of electrical energy. The person desiring to use the pad will then lie down upon it, thereby closing the movable leaf down upon the base 7 and causing stud 9 to engage contacts 5 and 6. He will then operate switch 16 so as to close the circuit if the same is not already closed. Whenever the heat reaches as high a degree as he wishes, he will break the circuit at switch 16 in the usual manner, and when the pad cools he will close the circuit again and continue to operate it as long as he desires. As soon as he has finished using the pad if he should forget to break the circuit at switch 16 when he gets off the pad springs 13 will cause the free end of leaf 8 to bring stud 9 out of engagement with contacts 5 and 6, thereby breaking the circuit, and thus preventing the pad from burning up or becoming injured, as has frequently happened with pads of this character not provided with my improvement. In order to make a quick break between stud 9 and contacts 5 and 6, I provide that the engagement therebetween shall be such that the bar 10 will turn on its hinge until it engages the turned-over end 17′ of the stop 17, which permits springs 13 to then withdraw stud 9 from said contacts. As soon as the stud is free to move spring 12 throws the bar up against the leaf, as shown in Fig. 2, thus making a quick break and avoiding injurious sparking.

The outer end of the bar 10 may be held against lateral movement by stops 18, of which there are two, one on each side of the bar.

By placing the resistance-wire upon the top of the body of the pad and not embedding the same in the body or weaving it into the body I provide a heating-pad in which heat may be more quickly applied than if the resistance-wire is embedded in the body of

the pad, and by having a switch that is operated by the weight of the person using the pad to close a break in the resistance-wire and by having springs which will automatically cause a break in the resistance-wire as soon as the weight of the person using the same is removed from the pad I have provided a pad that is absolutely safe against accidental burning in the hands of the careless or ignorant.

Having described my invention, what I claim is—

1. An electric heating-pad comprising a flexible body; insulated resistance-wire secured upon the surface of said body; means for attaching said resistance-wire to a source of electrical energy; and means for controlling the current through said resistance-wire.

2. An electric heating-pad comprising a flexible body; insulated resistance-wire secured upon the surface of said body and having a break in said resistance-wire; means operatable by the weight of the user of said pad to close said break; means to reëstablish said break when the user gets off the pad; means for attaching said resistance-wire to a source of electrical energy.

3. An electric heating-pad comprising a flexible body; insulated resistance-wire secured upon the surface of said body and having a break in said resistance-wire; means operatable by the weight of the user of the pad to close said break; means to reëstablish said break when the user removes from the pad; means for attaching said resistance-wire to a source of electrical energy; and means for controlling the circuit through said wire.

4. In an electric heating-pad a resistance-wire having a break therein; means operatable by the weight of the user to close said break; and means to reëstablish said break when the user removes from the pad.

In witness that I claim the foregoing I have hereunto subscribed my name this 24th day of March, 1906.

LUELLA W. SHELLHAMER.

Witnesses:
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HENRY I. HAZARD.