

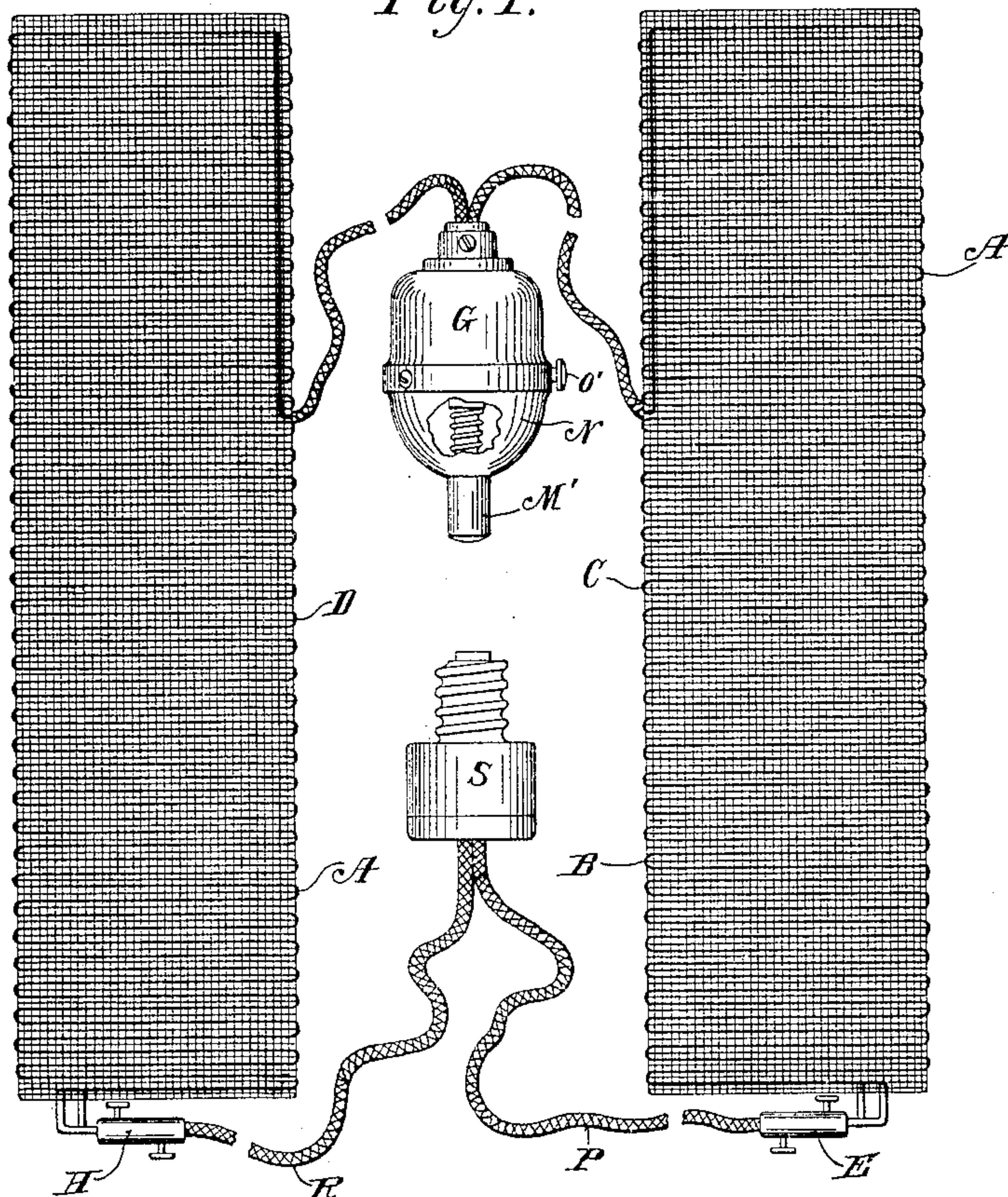
No. 748,309.

PATENTED DEC. 29, 1903.

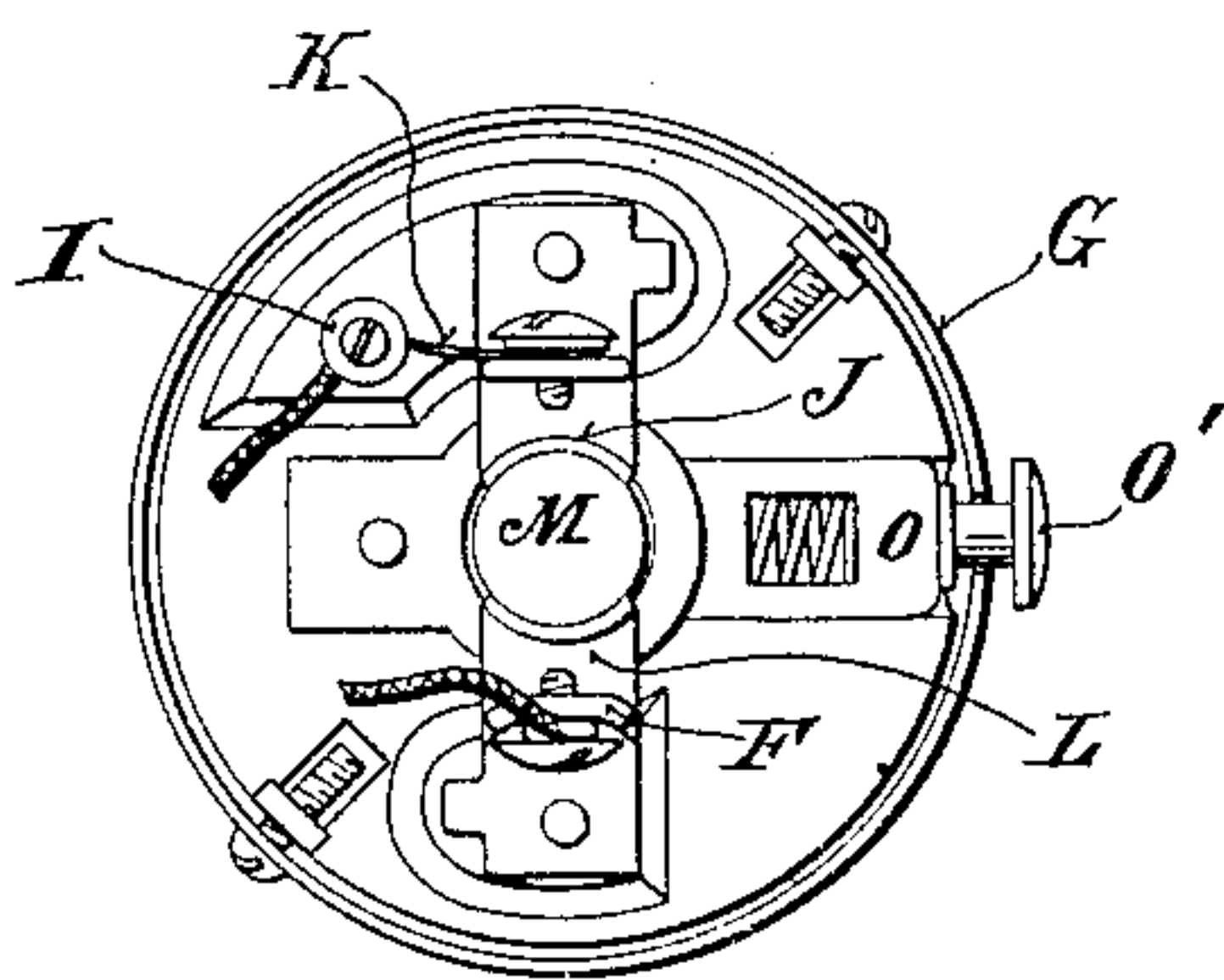
W. RICKARDS.  
ELECTRIC HEATING PAD.  
APPLICATION FILED JULY 2, 1902.

NO MODEL.

*Fig. 1.*



*Fig. 2.*



WITNESSES

*Chas. L. Hyde.*

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INVENTOR

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# UNITED STATES PATENT OFFICE.

WILLIAM RICKARDS, OF LOS ANGELES, CALIFORNIA.

## ELECTRIC HEATING-PAD.

SPECIFICATION forming part of Letters Patent No. 748,309, dated December 29, 1903.

Application filed July 2, 1902. Serial No. 114,110. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM RICKARDS, 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 to a heating-pad of convenient form for use in warming the body.

The object thereof is to produce a heating-pad which can readily be attached to or detached from an incandescent-lamp socket and by means of which any portion of the body may be warmed. I accomplish this object by the device described herein and illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of my heating-pad and its connection. Fig. 2 is a plan of the regulator with part of the casing removed.

My heater is preferably formed of two pads or pieces of textile fabric A and B, through each of which and as a part thereof is woven a continuous fine insulated copper or other wire C and D. The wire C is electrically connected at one end with the contact-maker E, which is securely attached to one end of pad A. The other end of this wire is electrically connected with the binding-post F of the regulator G. One end of wire D is electrically connected with the contact-maker H, which is securely attached to one end of pad B, and the other end is electrically connected with the binding-post I of the regulator G. Post I is electrically connected with contact J by fuse-wire K. Binding-post F is also provided with a contact L. Contacts J and L are insulated from each other and are electrically connected by means of the spring-operated metallic plunger-rod M, the outer end M' of which is covered with an insulating material, preferably of hard rubber. When the plunger-rod is pressed inward against the resiliency of spring N, the inner end passes between the contacts, touching each, and is caught and held by the spring-operated bar O, the outer end O' of which is covered with an insulating material, preferably of hard rubber. The wires C and D form resistance-coils and are of sufficient length

to produce the required degree of heat in the pads, being approximately two thousand feet in length, of No. 22 wire. These wires are reinforced between the pads and the regulator by a flexible support, or they may end at the edge of the pads and be electrically connected to stronger insulated flexible wires which lead into the regulator.

The contact-makers are connected by suitable binding-screws, one to the wire P and the other to the wire R, which are connected one to the positive and the other to the negative pole of the contact-plug S, which is adapted to make contact in the socket of the lamp-fixture (not shown) with the circuit-wires. These contact-makers are used for convenience in assembling the parts. Wires C and D, suitably reinforced, may run to the plug.

In weaving the pads I find that one or two threads of cotton between the insulated wire produces very satisfactory results and that the length should be greater than the width, with the wire woven transversely, as this form of construction produces a pad which is better adapted for use than it would be if the wire were woven longitudinally in the pads.

When using my heating-pads the contact-plug is inserted in the lamp-socket in the usual manner, and the current is turned on and the pads are placed in position on the body to impart the desired heat thereto. Usually one pad is under and one on top of the body. Should any part of the body be affected by such pain as will yield to heat, such as neuralgic pain and some kinds of rheumatic pain, I have found that to lie on one pad and double the other pad so as to have two thicknesses of pad directly over the part of the body thus specially affected will soon greatly relieve the pain and in some cases cure it. The regulator is retained or near the hand of the person using the pads, and when the resistance in the coils produces a heat that is higher than desirable the contact-plunger is released from the contacts, thereby breaking the circuit, and when the coils cool so that more heat is desired the plunger is pressed against the contacts and the circuit restored. By means of this regulator perfect control over the temperature of

the heating-pads is retained at all times. The fuse-wire prevents the temperature from rising too high in the coils, as it will fuse before the coils arrive at a heat that would burn  
5 off their insulation, thus avoiding danger in case that the pad should be carelessly left connected up with a circuit running there-through.

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

The combination with a plurality of heating-pads of textile fabric through each of which is woven a continuous wire, and a con-  
15 tact-plug in electrical connection with the two wires, of a switch electrically connected

with the two pads and adapted to be controlled by the patient, said switch having contacts therein, a push-button for connecting the contacts, and a catch for locking the  
20 button automatically whereby the flow of the current through the pads is under the control of the patient and is continued until cut off by the act of disengaging the catch from the  
25 button.

In witness that I claim the foregoing I have hereunto subscribed my name this 25th day of June, 1902.

WM. RICKARDS.

Witnesses:

G. E. HARPHAM,  
HENRY T. HAZARD.