

No. 871,184.

PATENTED NOV. 19, 1907.

C. W. RICHARDS.

TREEING IRON.

APPLICATION FILED AUG. 18, 1906.

Fig. 1.

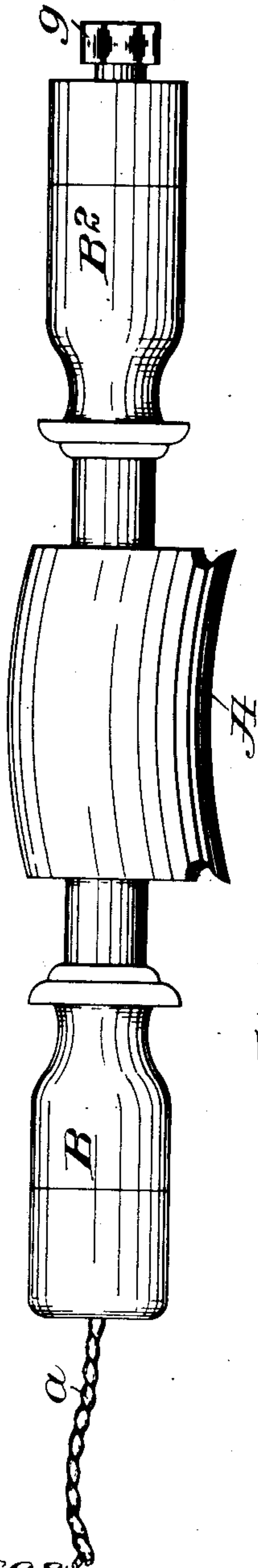


Fig. 3.

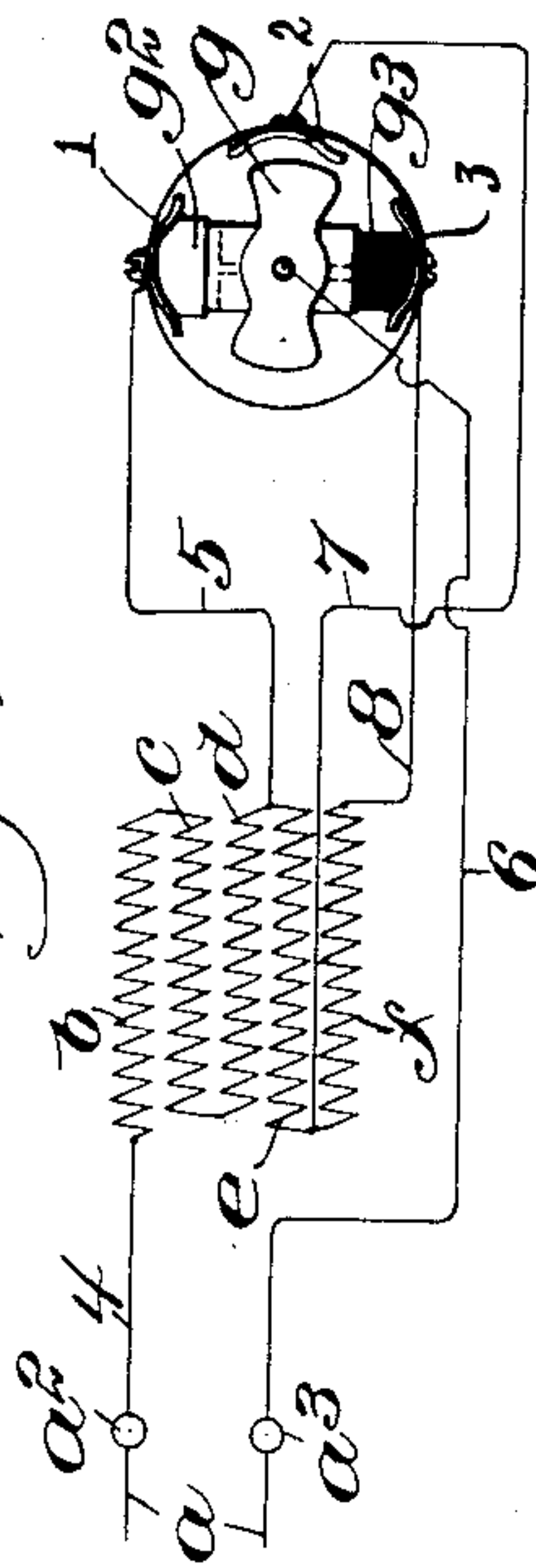
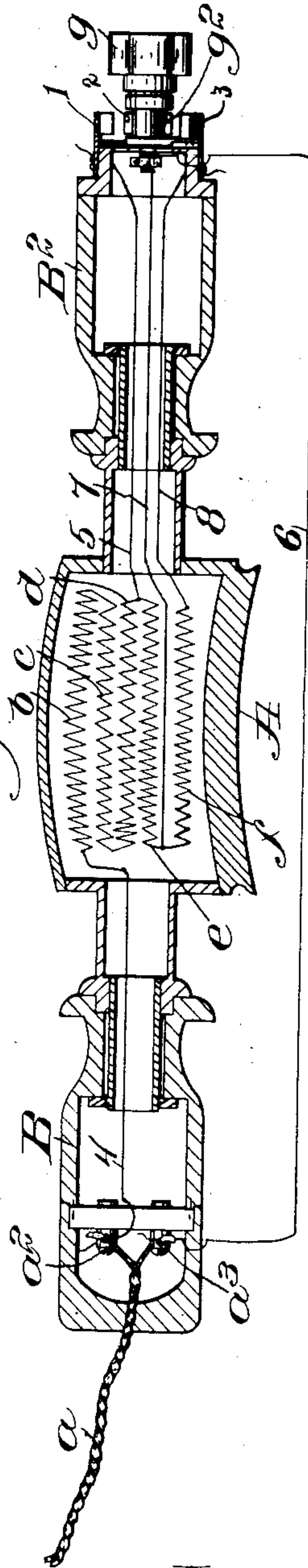


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES W. RICHARDS, OF NEEDHAM, MASSACHUSETTS, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE PLANT COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MAINE.

TREEING-IRON.

No. 871,184.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed August 16, 1906. Serial No. 330,764.

To all whom it may concern:

Be it known that I, CHARLES W. RICHARDS, a citizen of the United States, residing in Needham, county of Norfolk, and State of Massachusetts, have invented an Improvement in Treeing-Irons, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

The present invention relates to a treeing iron for treeing boots and shoes, and is embodied in an electrically heated iron, the purpose of the invention being not only to save current, but also to provide the iron with convenient means for regulating the heat.

The iron embodying the invention is provided with a series of resistance coils having several selective circuits whereby part or all of the coils may be included in the circuit in order to regulate the heat, instead of employing a rheostat, and the iron itself is provided with a switch located at the end of one handle, where it is conveniently accessible to the operator.

Figure 1 is a side elevation of a treeing iron embodying the invention; Fig. 2 is a longitudinal section embodying the same, shown partly in diagram; and Fig. 3 is a detail showing a form of switch which can conveniently be employed in connection with the iron; the circuits also being shown in diagram.

Referring to Fig. 1, the iron is of the usual form having the treeing or burnishing surface A, which forms part of the outer surface of a hollow metallic box adapted to be electrically heated from within, and also having the operating handles B and B² at opposite ends.

In the construction shown, the leads in the cord a from the source of current are connected to binding posts a² and a³ inside the handle B, while the iron proper contains a series of resistance coils connected in series, five being herein shown, and indicated by the reference letters b, c, d, e and f.

The flow of current through the resistance coils is regulated by means of a switch located at the end of the handle B² and having a turn button g, together with a contact g² which is arranged to be moved to any of four positions, viz., into contact with the contact

pieces 1, 2 and 3 consecutively, or out of contact with any of these pieces. The switch is further provided with a member g³ of insulating material which serves to maintain the switch in any position to which it is moved, through the engagement of said member g³ with one of the contact pieces.

In the construction shown, the iron is arranged to take current through three of the resistance coils when the switch is first turned on, viz., when the contact piece g² is in engagement with the contact member 1, as shown in Fig. 3 of the drawings. In this case, the circuit flows through conductor 4 to resistance coils b, c and d, which, as indicated, are connected in series, and thence through conductor 5 to the contact piece 1, switch member g² and return conductor 6 which passes back to the binding post a³. For convenience, the conductors are shown in diagram, the return conductor 6 being indicated outside of the iron. In the actual construction, however, all the conductors would be contained in the hollow handles.

To increase the heating capacity, the switch is turned until the member g² comes in contact with the contact piece 2, the conductor 5 thus being cut out, and a conductor 7 leading from the resistance coil e being brought into the circuit through the switch member g² and conductor 6. The conductor 8 connected with the resistance coil f serves to complete the circuit through all the resistance coils when the switch member g² is in contact with the contact member 3. Another quarter turn of the switch carries the contact member g² out of contact with any of the conductors, thereby turning off the current entirely.

While the arrangement of circuits herein shown is practicable and economical, it is obvious that any form of switch to control the several circuits may be employed without departing from the invention. It will be seen, however, that the heat may be very conveniently regulated by means of the switch connected with one of the handles of the treeing iron itself, in fact much more conveniently than would be the case were the manipulation dependent upon a rheostat located somewhere in the circuit leading to the instrument.

I claim:

1. An electrically heated treeing iron,

comprising a hollow iron portion and handles at opposite ends thereof, a series of resistance coils arranged in said hollow portion, leading-in contacts secured to one of the
5 handles of said iron, a switch mounted upon the opposite handle of said iron, a plurality of circuits between said leading-in contacts and said switch, including respectively the series of resistance coils, and means for op-
10 erating said switch to control the circuits through said resistance coils, whereby the heat of the iron may be readily regulated.

2. An electrically heated treeing iron, comprising a hollow iron portion and handles
15 at opposite ends thereof, combined with a series of resistance coils arranged in said hollow portion and connected in series, leading-in contacts secured to one of said handles, a series of stationary switch con-
20 tacts and a movable switch contact secured

to the other of said handles, circuit connections between said leading-in contacts and one terminal of the series of resistance coils and the movable switch contact, and circuit connections between the interme- 25
diate connections and the other terminal of the resistance coils and the stationary switch contacts, and means for moving said movable switch contact successively into engagement with said stationary switch 30
contacts, whereby the heat of the iron may be readily regulated.

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

CHARLES W. RICHARDS.

Witnesses:

H. J. LIVERMORE,
JAS. J. MALONEY.