

**No. 670,669.**

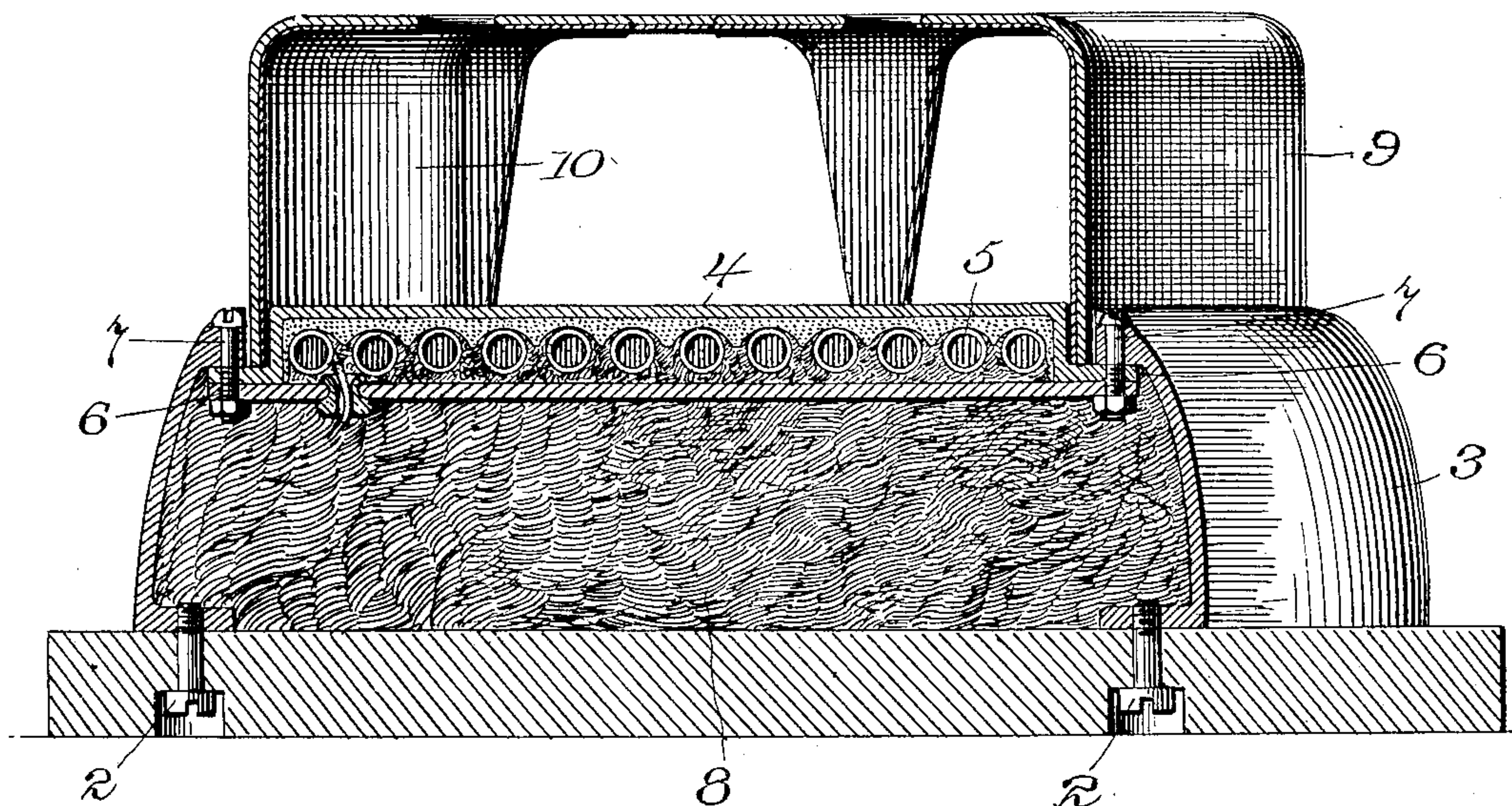
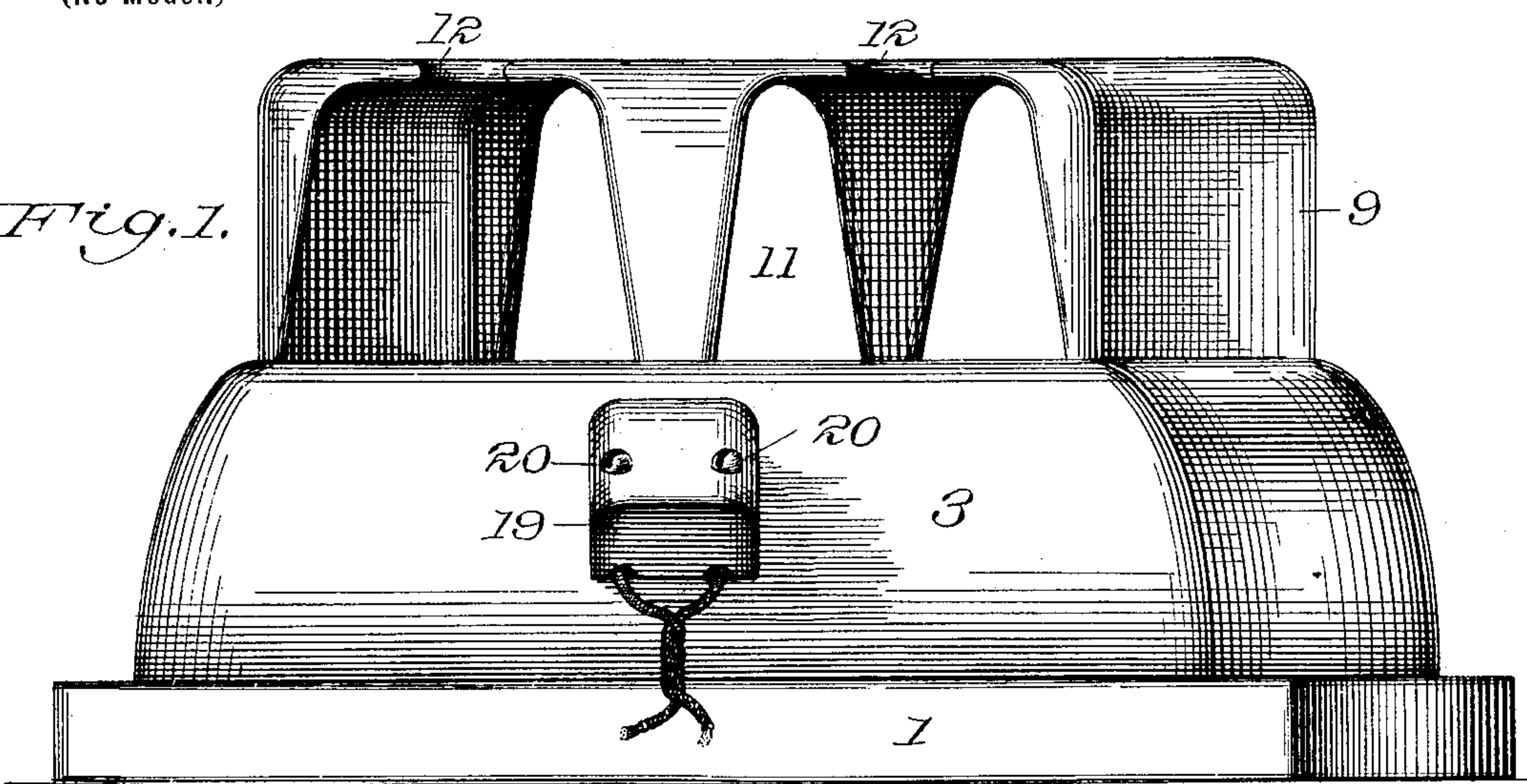
Patented Mar. 26, 1901.

**W. S. HADAWAY. JR.**  
**ELECTRIC STOVE.**

(Application filed Feb. 1, 1899.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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Fig. 3.

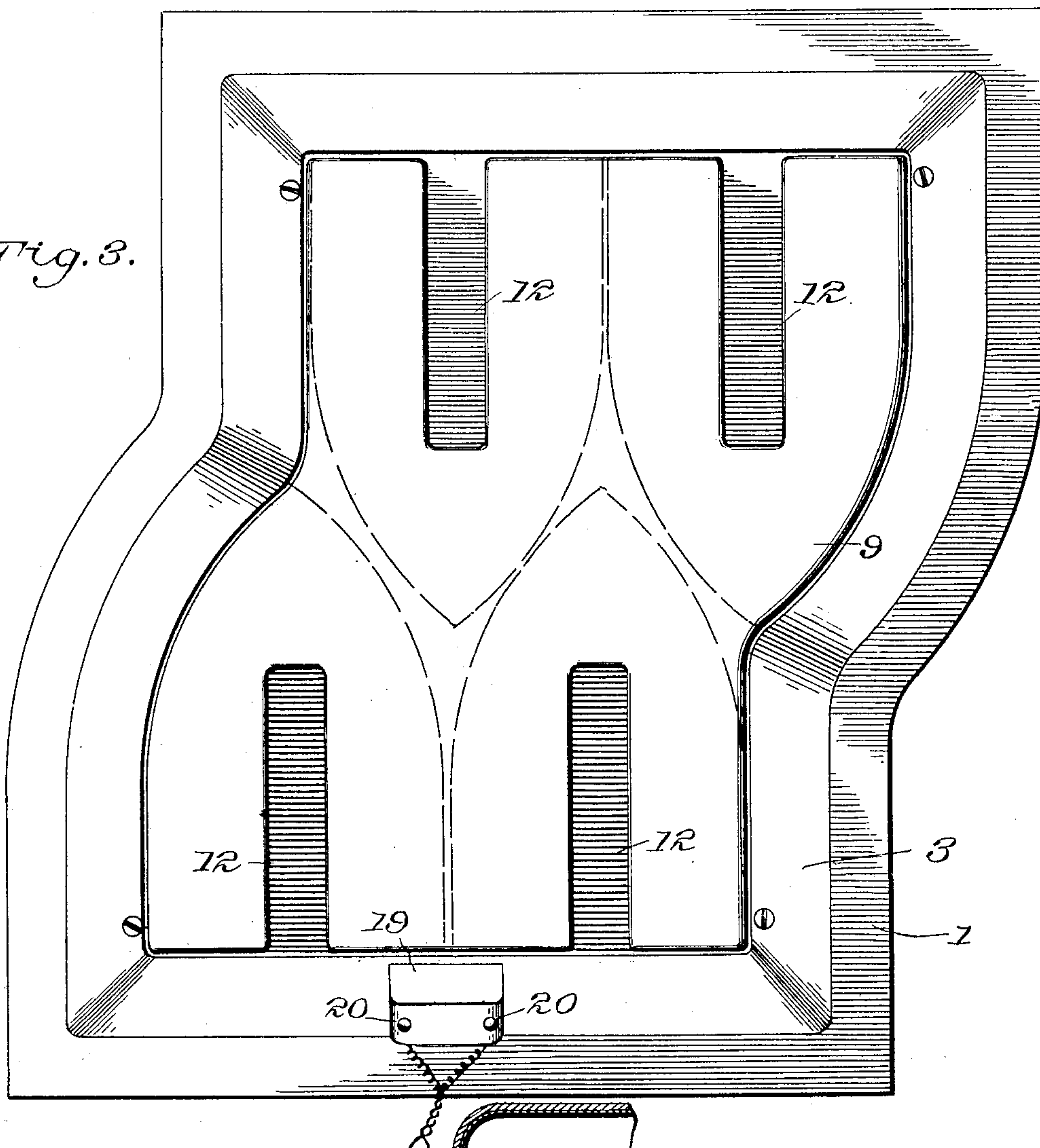
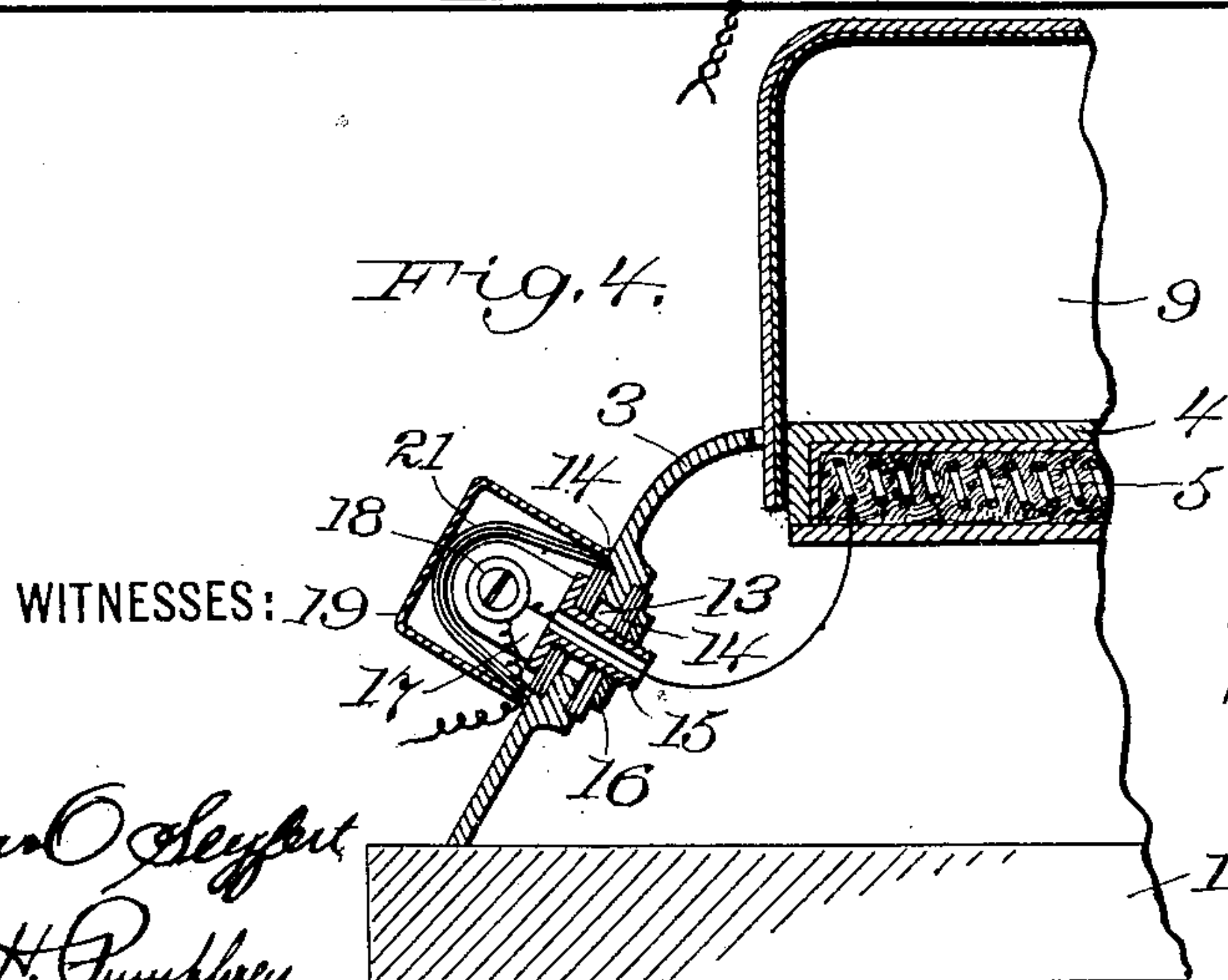


Fig. 4.



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# UNITED STATES PATENT OFFICE.

WILLIAM S. HADAWAY, JR., OF NEW YORK, N. Y.

## ELECTRIC STOVE.

SPECIFICATION forming part of Letters Patent No. 670,669, dated March 26, 1901.

Application filed February 1, 1899. Serial No. 704,088. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM S. HADAWAY, Jr., a citizen of the United States, residing in the city, county, and State of New York, have  
5 invented a certain new and useful Improvement in Electric Stoves, of which the following is a specification.

It is one object of my present invention to provide a form of electric stove for flat-irons  
10 and the like wherein a simple form of base involving a minimum of heat-conducting material is made to serve also as an efficient heat-insulating means and wherein the heater proper is supported upon said base by means  
15 involving the smallest possible heat-conducting path.

Another object of my invention lies in the provision of means, in combination with an electric heater for flat-irons, of a heat-insulating hood adapted to inclose the flat-irons  
20 during the process of heating without offering any inconvenience to the free placing and removal of the irons by their user.

Another object of my invention is to produce a maximum of economy in the use of  
25 flat-irons with heaters of this kind by reducing to a minimum the radiation of heat from surfaces not in contact with the irons to be heated.

30 My invention also includes a form of electric terminal of maximum strength and convenience in use particularly adapted to use with heaters.

My invention is illustrated in the accompanying drawings, wherein—

35 Figure 1 is an end elevation of one form of electric stove built in accordance with my invention. Fig. 2 is a transverse vertical section of the same. Fig. 3 is a top view of the  
40 same, and Fig. 4 is a transverse longitudinal section showing the details of my improved terminal.

At 1 in the drawings is shown one form of base to which stoves of this character may be  
45 applied. This is preferably a slab of slate, and I prefer to attach the stove thereto by means of the screws 2, as shown in Fig. 2.

My stove-support is shown at 3 and is composed of a thin wall of cast-iron, preferably  
50 narrowing with an upward curve, as shown in Figs. 1 and 2, and conformed at its sides to the shape of the particular heat-generator

4 used in any given instance, as shown in Fig. 3.

The heat-generator proper may be constructed in many well-known ways, and I have  
55 shown in the drawings simply an iron casing 4, within which are used the well-known electric heating resistances 5. The particular construction of this element of my stove is not  
60 novel, save in regard to its shape, as seen in plan view in Fig. 3, and in regard to the provision for suspending the same from the combined support and heat-retainer 3.

The shape of my heat-generating element  
65 as preferably employed in stoves for flat-irons is shown in Fig. 3, and, as shown in dotted lines, it is made to conform substantially to the outlines of a number of flat-irons of the well-known conventional form when  
70 the same are staggered and overlap end to end. The dotted lines represent the outlines of the acting surfaces of conventional flat-irons as intended to be placed on my stove. I have shown in Fig. 3 an arrangement of out-  
75 lines for the heating element made to conform to four flat-irons; but the same principle may be extended to a greater or to a less number of irons, if desired, without departing from  
80 my invention, so long as the sides of the heat-generating element conform to the side outlines of two conventional flat-irons when staggered, with their pointed ends overlapping  
85 side by side. The advantage of this arrangement lies in the economy of material in construction, together with the almost entire  
absence of heating-surface left uncovered at any time. Besides, the stove is thus made  
conveniently available to two operatives or  
90 sets of operatives, one set on either side of the stove, and each set having its own flat-irons placed in a row in proper position for the hand. By using six irons for a four-iron stove, for instance, one operative working at  
95 each end of the stove, substantially all of the heating-surface of the generating element may be kept in useful contact with irons in the process of heating while the two extra  
irons are in use. I prefer to combine this  
100 generating element with the heat-insulating base in the manner clearly shown in Fig. 2, wherein the heat-generator proper is seen to be provided with lugs 6. The screws or their  
equivalents 7 pass through the inwardly-pro-



jecting upper edge of the base-casting and then through the lugs in the generating element, as shown, and the latter is thus suspended in place, leaving a narrow air-space 5 between the casting 3 and the heat-generator 4 all the way around the latter. The casting 3 thus forms a chamber within which I pack mineral wool 8 or other good non-conducting material, which retards the passage of the 10 heat in any but the useful direction. The mode of suspension of the heat-generating element by the screws 7, as shown, restricts the opportunity for the escape of heat by conduction to very narrow paths and provides 15 for economy in this direction. The narrow air-space around the heat-generator 4, heretofore referred to, prevents direct conduction of heat save by means of the screws 7 around the edges.

20 In order to retain and utilize the heat given off from the working surface of the heat-generator as far as possible, I prefer to employ a hood made in accordance with the general plan shown in the drawings at 9. This hood 25 is made, preferably, of iron lined with enamel or other relative heat-insulator 10. The lower edge of the hood enters the air-space between the heat-generator 4 and the heat-retaining base 3, being preferably fastened to the former. 30 As shown in Fig. 1, the hood is opened at each end of the stove at 11, so that the iron can be slipped into the space beneath said hood from either side. The top of the hood is provided with slots, as 12, through 35 which the handles of the irons may be permitted to project, so that they may be easily grasped by the user.

In order to provide a simple and strong, as well as reliable, connection between the con- 40 ductors within the heat-generator 4 and those which bring the effective current to them, I have devised the form of terminal illustrated in detail in Fig. 4. As there shown, I provide an opening 13 through the base-casting 45 3, which hole is countersunk both within and without. The countersunk spaces are filled

with compressed mica plates, which exactly fit them and which I have found by experience to provide a support of remarkable strength, as well as complete insulation for 50 the current. These plates are shown at 14 in Fig. 4.

The spindle 15 and nut 16 serve to hold in place the terminal-stud 17 and to insure the compression of the mica plates and their firm 55 attachment to the side of the base 3. A suitable screw 18 is adapted to find support upon the terminal-stud 17, around which screw the inner and the outer wires or conductors may be wound and pressed together in a well- 60 known way. I prefer to inclose the whole terminal by means of a cover 19, secured by screws 20 or otherwise, as shown in Fig. 3, said cover being preferably insulated from the terminal itself by means of a few layers 65 of mica or other insulation 21.

Many modifications of the forms of device illustrated herein may be made by the exercise of mechanical skill without departing 70 from the spirit of my invention, and I do not wish to be understood as confining myself to the precise details herein shown and described.

What I claim is—

1. In an electric heater, a heat-generating 75 element having its working surface formed with sides conforming substantially to the outlines of a plurality of conventional flat-irons staggered and overlapping point to point. 80

2. In an electric heater, a hollow heat-confining support having an opening at the top, a heat-generator suspended therefrom so as to leave an air-space around the edge of said generator, a heat-insulator within said sup- 85 port, a hood surmounting said heat-generator and attached around the same within said air-space.

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Witnesses:

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