

J. T. HAWKES.
ELECTRIC HEATER FOR SOLDERING IRONS.
APPLICATION FILED OCT. 6, 1915.

1,184,236.

Patented May 23, 1916.
2 SHEETS—SHEET 1.

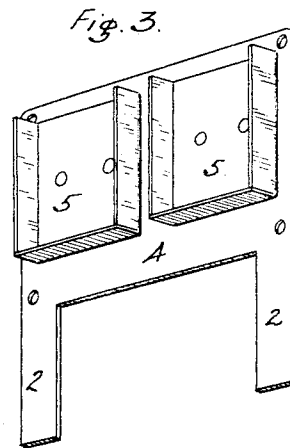
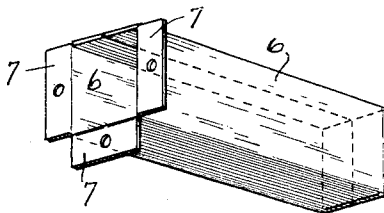
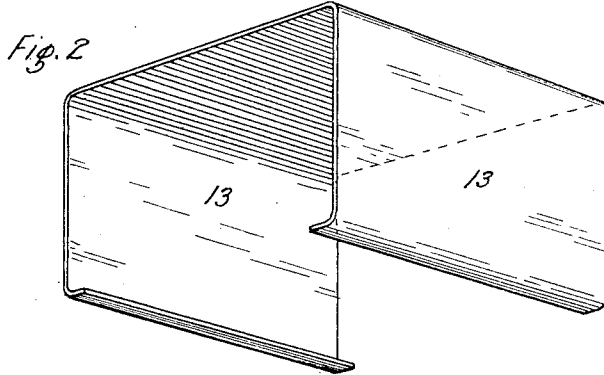
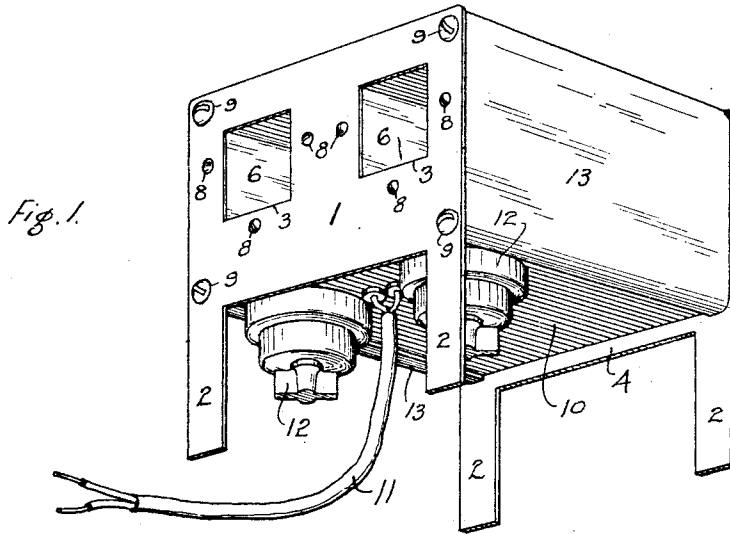


Fig. 4.

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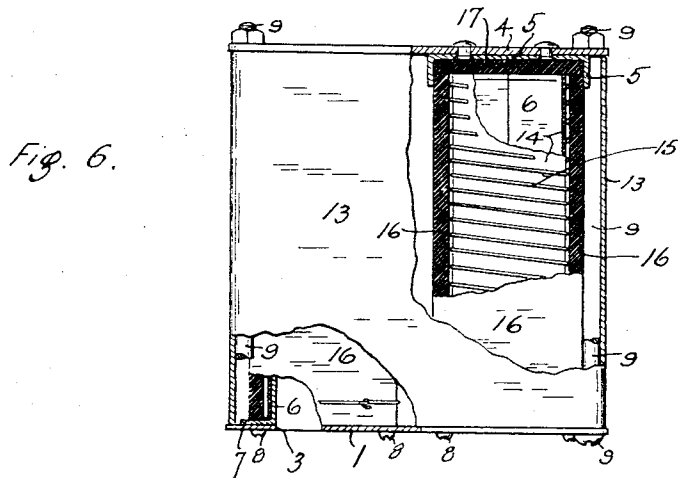
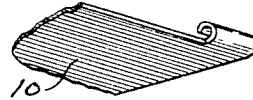
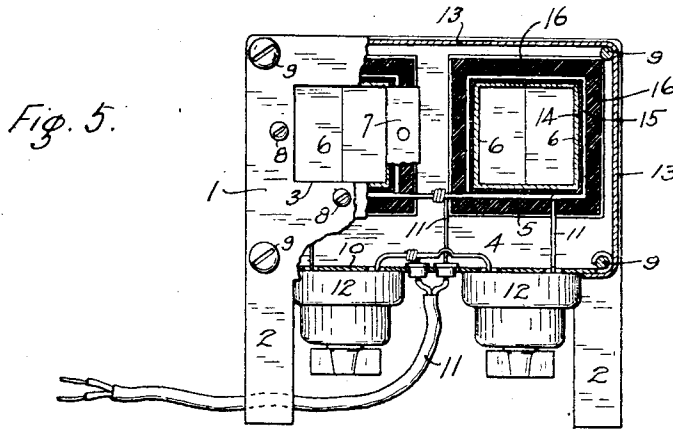
Attorney

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UNITED STATES PATENT OFFICE.

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ELECTRIC HEATER FOR SOLDERING-IRONS.

1,184,236.

Specification of Letters Patent.

Patented May 23, 1916.

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To all whom it may concern:

Be it known that I, JAMES T. HAWKES, a citizen of the United States, residing at Tacoma, in the county of Pierce, State of Washington, have invented certain new and useful Improvements in Electric Heaters for Soldering-Irons, of which the following is a specification.

This invention relates to devices for heating by electric current and especially to devices for heating soldering irons.

It has for its object to provide a heated oven in which a soldering iron may be placed for heating and may be removed when desired.

Further objects are to provide improved structure whereby the cost of construction may be kept low without interfering with the efficiency of the heating arrangements.

I attain these and other objects by the devices and arrangements illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved heater, taken from below; Fig. 2 is a similar view of the sheet iron casing thereof; Fig. 3 is a similar view of the rear plate; Fig. 4 is a similar view of one of the ovens, removed; Fig. 5 is a front elevation, partly in section, of the heater; Fig. 6 is a top plan, partly in section, thereof; and Fig. 7 is a perspective view of a portion of the bottom plate.

Similar numerals of reference refer to similar parts throughout the several views.

The front plate 1 of this device is cut substantially as shown in the drawings, having two legs 2 extending downward and having two openings 3 which pass through it and which form the entrances to the two heating chambers. The rear plate 4 is also provided with two legs 2, corresponding with those on the front plate 1, but instead of openings as in the front plate, it is provided with two three-sided sockets 5, riveted to its inner surface at points corresponding with the said openings 3, said sockets being suitably dimensioned as hereinafter set forth. Two heating chambers 6 are removably secured to the inner side of the front plate 1, each consisting of a sheet of metal, cut and bent substantially as shown, having flanges 7 bent outward from its sides at its front end, by means of which it is secured to the front plate by small screw bolts 8, and each closed at its rear end by extensions of the sides bent to meet at the center. Four

bolts 9 pass across the device, from front to rear, through holes suitably positioned near the corners of the front and rear plates. The bottom plate 10 is provided with marginal portions curled to pass around the two lower of said bolts 9 whereby it is supported in place. The plate 10 extends entirely under the device between the front and rear plates, and carries the electric supply wires 11 (leading to a source of electric supply not shown) and the controlling switches 12. A cover plate 13 is bent to form the top and two sides of the device, turning around the two upper of said bolts 9 and having its ends bent to engage under the two lower of said bolts 9.

Each heating compartment is suitably insulated by means of a layer of mica 14, and then is wrapped with the proper size and length of resistance wire 15. Outside of this, I secure pieces of asbestos board 16, by suitable means. The ends of the wires 15 pass through the boards 16 and are suitably connected to the supply wires 11 through the control switches 12. A piece of asbestos board 17 is also placed across the rear end of each heating chamber, within the sockets 5, as shown. The sockets 5 are made large enough to embrace the asbestos boards 16 and 17.

Thus it will be seen that the device is constructed of the simplest materials which are quickly and cheaply made and assembled and which forms a practically indestructible heater. In practice it is usual to use two soldering irons at a time and in that case both chambers are heated at first and then one is allowed to cool while the other is kept hot to heat the iron not being used, thus reducing the cost of operating the heater. If desired the heater may be made with only one heating chamber, or with more than two such chambers, but in general I find that two gives the best satisfaction.

Having described my invention, what I claim is:—

In an electric heater for soldering irons, the combination with a metallic front plate having a hole therethrough; a metallic heating chamber secured to said plate and surrounding said hole therein, access being had to said chamber through said hole; electric insulation around the walls of said heating chamber; electric heating wires around said electric insulation; heat and electric insulation around said heating wires; a

metallic rear plate; a socket secured to said rear plate and adapted to receive the end of said heating chamber; heat insulation within said socket and between the rear end of the heating chamber and the rear plate; bolts joining the corners of said front and rear plates; a metallic cover passing around three sides of the heater and en-

gaging the two lower of said bolts; a bottom cover plate secured to said lower bolts; and an electric control switch mounted below said bottom plate and electrically connected between said electric heating wire and the source of electric energy. 10

JAMES T. HAWKES.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."