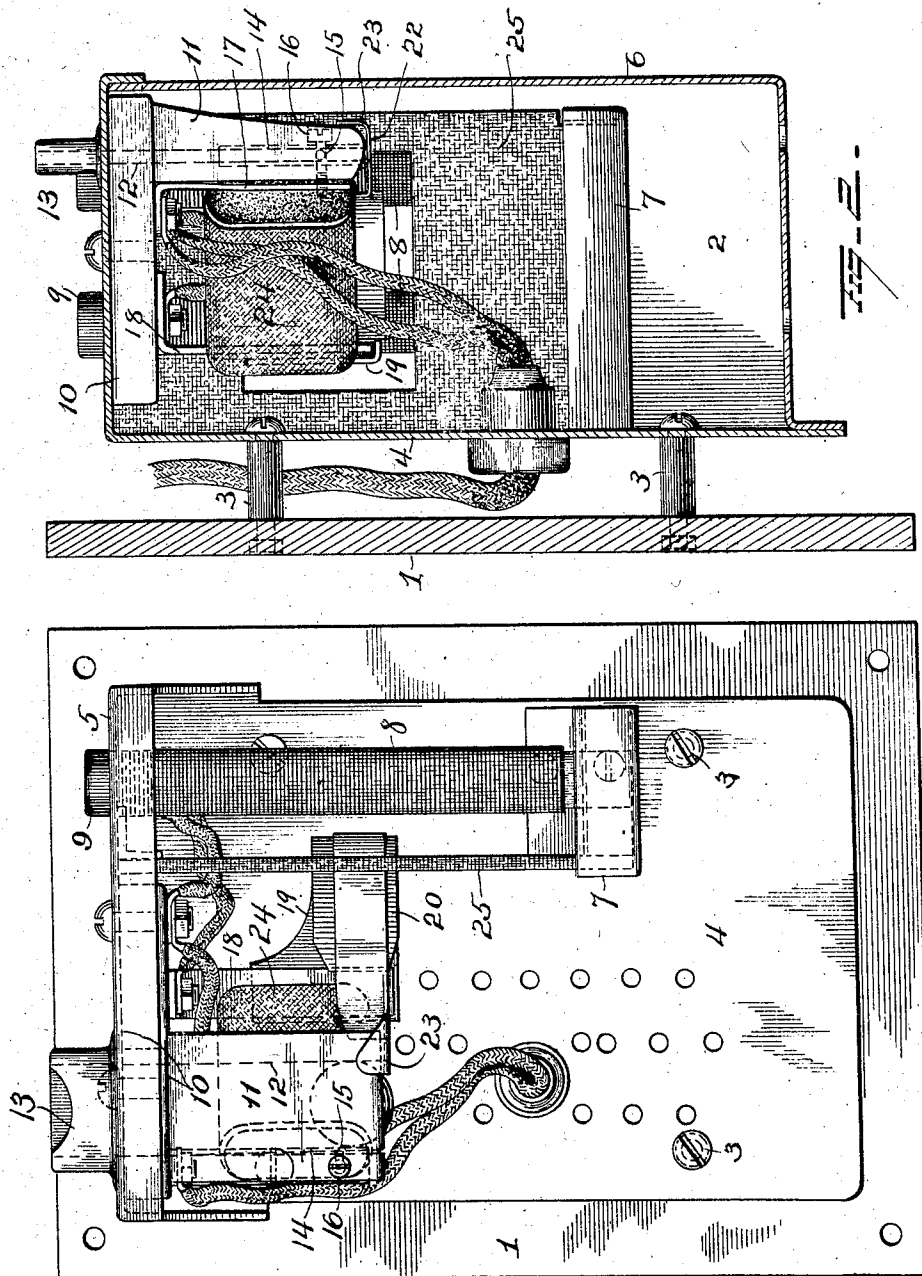


F. C. PERKINS & M. M. BUCK.
ELECTRIC HEATER.
APPLICATION FILED DEC. 1, 1910.

1,035,042.

Patented Aug. 6, 1912.

2 SHEETS-SHEET 1.



WITNESSES
E. Nottingham
G. F. Downing

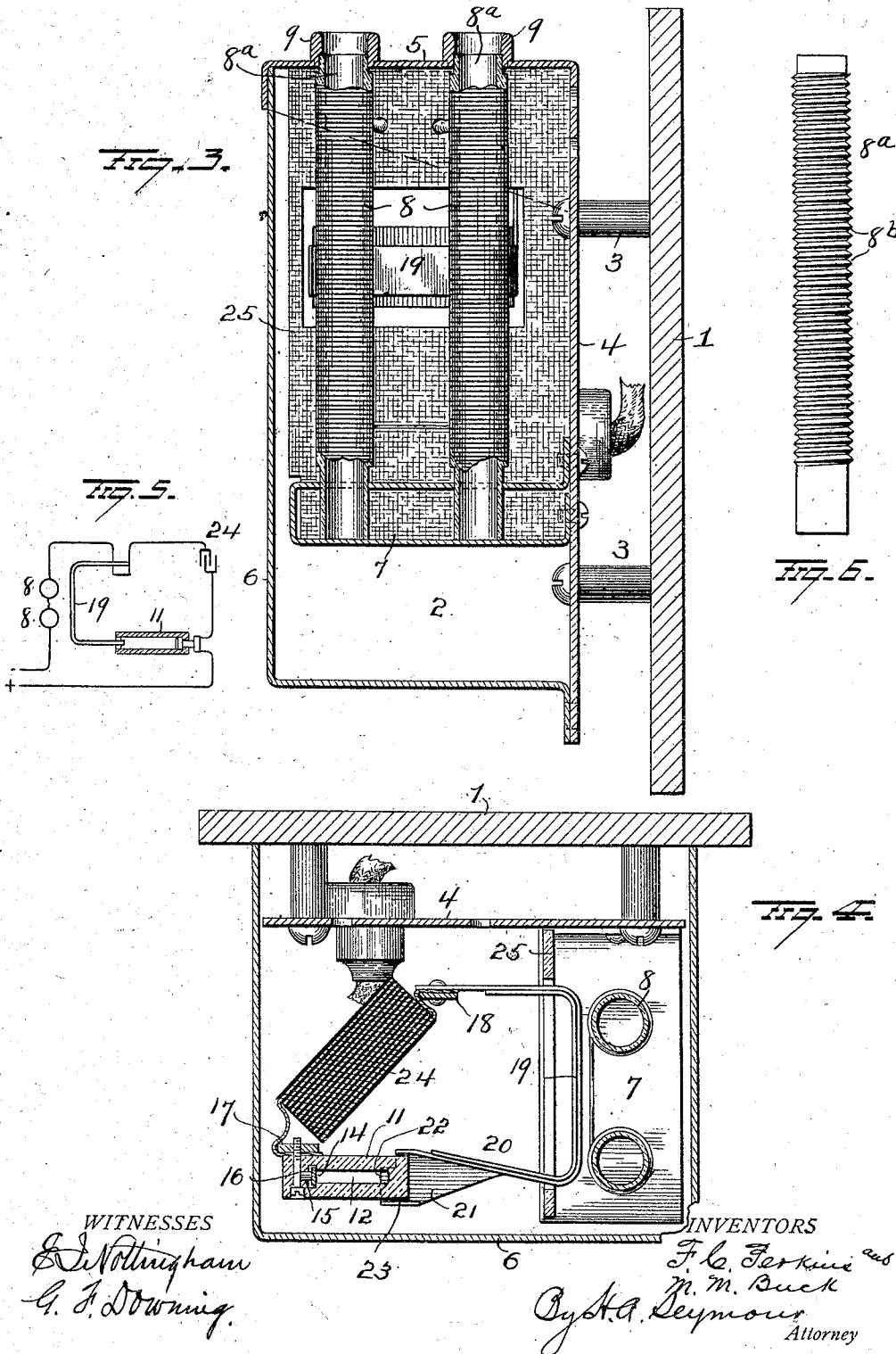
INVENTORS
F. C. Perkins and
M. M. Buck
By H. A. Deymour Attorney

F. C. PERKINS & M. M. BUCK.
ELECTRIC HEATER.
APPLICATION FILED DEC. 1, 1910.

1,035,042.

Patented Aug. 6, 1912.

2 SHEETS-SHEET 2.



WITNESSES
E. Nottingham
G. J. Downing.

INVENTORS
F. C. Perkins and
M. M. Buck
By H. A. Seymour
Attorney

UNITED STATES PATENT OFFICE.

FRANK C. PERKINS, OF BUFFALO, AND MARY MYRTLE BUCK, OF FRANKLINVILLE,
NEW YORK; SAID PERKINS ASSIGNOR TO SAID BUCK.

ELECTRIC HEATER.

1,035,042.

Specification of Letters Patent.

Patented Aug. 6, 1912.

Application filed December 1, 1910. Serial No. 595,089.

To all whom it may concern:

Be it known that we, FRANK C. PERKINS and MARY MYRTLE BUCK, of Buffalo and Franklinville, in the counties of Erie and Cattaraugus, respectively, and State of New York, have invented certain new and useful Improvements in Electric Heaters; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in electric heaters and more particularly to such as are controlled by the operation of a coin, for heating curling irons and the like—one object of the invention being to provide simple and efficient means operable by a coin to close an electric circuit for a predetermined length of time through heating coils.

A further object is to so construct a coin-controlled heater of the character specified that it shall comprise few parts and so that no part thereof will be liable to burn out or transmit heat to the exterior of the device.

With these objects in view the invention consists in certain novel features of construction and combinations of parts as hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a face view with the front of the casing removed. Fig. 2 is a vertical sectional view showing the mechanism in side elevation. Fig. 3 is a sectional view partly in elevation showing the opposite side of the mechanism. Fig. 4 is a horizontal sectional view; Fig. 5 is a diagrammatical view, and Fig. 6 is a detail view of one of the core tubes.

1 represents a supporting plate, to which a casing 2 is secured and which is spaced therefrom by means of posts 3. The casing 2 comprises a back member 4 having perforations for ventilating purposes; an integral top member 5 and a removable member 6 which constitutes the front, sides and bottom of the casing.

A bracket 7 is secured to the back member 4 and supports the lower ends of heating coils 8, the tubular cores 8^a of which project through holes in the upper member of said bracket and rest upon the lower member thereof, while the upper ends of said tubu-

lar cores enter thimbles 9 in the top member 5 of the casing. Each tubular core tube 8^a is preferably made of lavite and formed exteriorly with a spiral groove 8^b in which the heating wire is wound. With such construction the turns of the heating coil will be effectually insulated from each other, and a core tube is provided which is simple and cheap and which is efficient for the purpose it is intended to perform. A plurality (preferably two) heating coils will be employed so that the user can heat two curling irons simultaneously.

To the under face of the top member 5 of the casing, a block 10 of porcelain or other non-conducting material is secured and provided with a depending member 11 having an elongated opening 12 there-through of a size approximately to permit the passage of a coin, such as a nickel,—said slot or opening communicating at its upper end with a coin inlet chute 13 on the top member 5 of the casing. A contact finger 14 is located in one side of the slot 12 in the depending member 11 and terminates at its lower end at the lower end of said depending member. This contact finger is electrically connected, through the medium of a pin or projection 15, with a screw 16 passing transversely through said depending member 11, near the lower end of the latter. The screw 16 also enters a metallic arm 17 secured to the block 10 and disposed parallel with one outer wall of the depending member 11. Another metallic arm 18, spaced from the depending member 11, is secured to the under face of the block 10 and depends therefrom. One end of a U-shaped thermostat 19 is secured to the depending arm 18 and the opposite member 20 of said thermostat is provided with an arm or projection 21 disposed under the lower end of the slotted depending member 11 and provided with a tooth or shoulder 22 which is normally disposed under the slot 12 at the side thereof opposite the contact finger 14. The arm 21 on the thermostat may also be provided with a lip 23 to limit the movement in one direction of said thermostat and insure a proper normal disposition of the tooth or shoulder 22 under one side of the slot 12. The intermediate or connecting portion of the U-shaped thermostat is disposed in comparatively close proximity to the

heating coils 8 so that it will be within the external heating zone of the latter. The heating coils, the thermostat and the contact finger 14 are included in series in a normally open electric circuit and this circuit will be closed by a coin in a manner presently explained.

In order to eliminate sparking at the electrical contacts between a coin and the contact devices with which it cooperates, a condenser 24 of any preferred construction is included in a shunt circuit between the contact finger 14 and one end of the thermostat.

When a coin is inserted into the coin chute 13, it will drop through the depending slotted member 11 but its escape from the latter will be prevented by engagement with the tooth or shoulder 22 on the arm 21 of the thermostat. When the coin becomes thus disposed, it will electrically connect the contact finger 14 at one side of the slot 12 with the arm 21 of the thermostat and thus a circuit will be closed through the thermostat and the heating coils. The heat from the coils 8 will cause the thermostat to operate in such manner as to move the member 20 and the arm 21 thereon outwardly and when said thermostat shall have been heated sufficiently to move the arm 21 far enough to cause the tooth or shoulder 22 to pass beyond the slot 12, the coin will be free to drop and thereby open the circuit. It will of course be understood that the thermostat will be so constructed and the tooth or shoulder 22 made of such length as to cause the circuit to be closed and coils to be heated for a predetermined length of time sufficient to keep the curling irons heated for a proper length of time.

In order to confine the external heat from the coils 8 as much as possible to the thermostat and prevent such heat from reaching other parts of the mechanism, we provide a slotted shield 25 of asbestos board or similar material.

Having fully described our invention what we claim as new and desire to secure by Letters-Patent, is,—

1. An electric heater comprising an electrical heating element, manually controlled circuit-closing means comprising relatively movable parts separated from each other and adapted to be connected by a movable connecting device, an electric circuit including said circuit-closing means and said heating element, a thermostat disposed within the heating zone of the heating means and provided with a movable part carrying one part of the circuit closing means, and adapted by its movements to release said movable connecting device to open the circuit after

the same has been closed a predetermined length of time.

2. In a machine of the character described, the combination with a heating coil and a normally open electric circuit including the same, of a contact finger constituting one member of a circuit closer in said electric circuit, a thermostat having a portion within the external heating zone of the heating coil, and a part carried by said thermostat and movable therewith, said last-mentioned part constituting another member of said circuit closer and permanently separated from said contact finger, said members of the circuit closer constructed to sustain a movable connector for a predetermined length of time.

3. In a machine of the character described, the combination with a heating coil and a normally open electric circuit including the same, of a contact finger constituting one member of a circuit closer in said electric circuit, a thermostat having its intermediate portion disposed within the external heating zone of the heating coil, rigid supporting means for one end of said thermostat and an arm projecting from one end of the thermostat and provided with a shoulder constituting another member of said circuit closer and permanently separated from the first-mentioned member thereof, said circuit closer member adapted to sustain a movable connector for a predetermined length of time.

4. In a machine of the character described, the combination with a heating coil, a normally open electric circuit including the same, and a contact finger constituting one member of a circuit closer in said electric circuit, of a thermostat having its intermediate portion within the external heating zone of the heating coil, means for rigidly supporting one end of said thermostat, a part on the free end of the thermostat constituting another member of said circuit closer and permanently separated from the first-mentioned member thereof, said circuit closer members adapted to temporarily sustain a movable connection, an electric circuit including said contact finger, thermostat and heating coil in series, and a condenser in shunt between said contact finger and one end of the thermostat.

In testimony whereof, we have signed this specification in the presence of two subscribing witnesses.

FRANK C. PERKINS.
MARY MYRTLE BUCK.

Witnesses:

NELLIE SMITH,
Mrs. P. C. RAUNER.