DE WITT C. HEYLMAN.

ELECTRIC FLAT IRON.

APPLICATION FILED MAR. 12, 1917.

1,284,104. Patented Nov. 5, 1918.

Fig. 1.

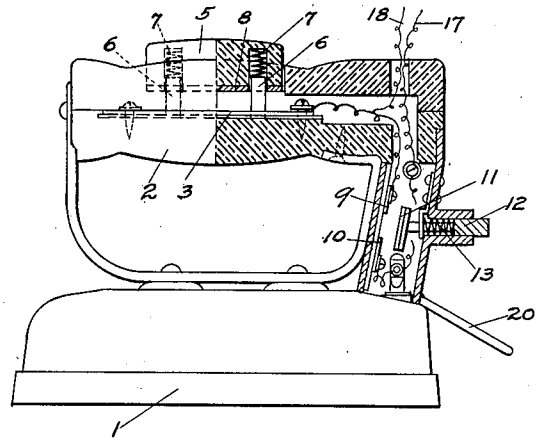


Fig. 2.

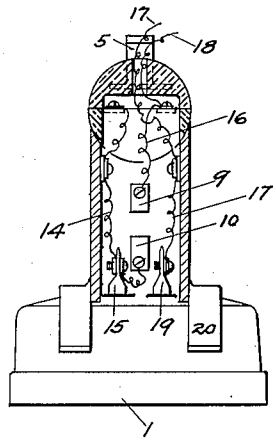


Fig. 3.

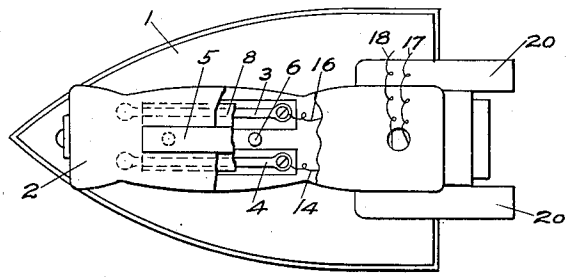


Fig. 5.

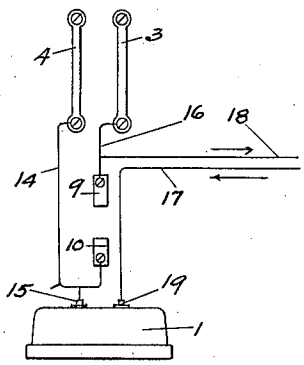
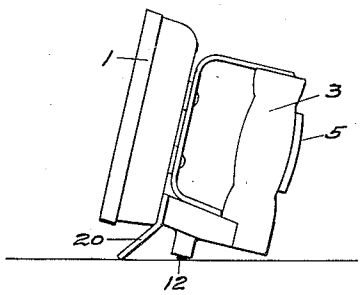


Fig. 4.



Witnesses:

J. Strong.

I. M. Griffin

Dewitt C. Heylman

Inventor.

By Fitzgerald

Atty.

UNITED STATES PATENT OFFICE.

DE WITT C. HEYLMAN, OF PORTLAND, OREGON.

ELECTRIC FLAT-IRON.

1,284,104. Specification of Letters Patent. Patented Nov. 5, 1918.

Application filed March 12, 1917. Serial No. 154,233.

To all whom it may concern:

Be it known that I, DE WITT C. HEYLMAN, a citizen of the United States, residing in the city of Portland, county of Multnomah, and State of Oregon, have invented certain new and useful Improvements in Electric Flat-Irons, of which the following is a specification.

My invention relates to electrically heated flat irons, although it is applicable to any electrically heated tool or instrument.

In order to explain my invention, I have shown it embodied in an electrically heated flat iron. The principal object of my invention is to provide in an electrically heated flat iron or other article, means whereby the current is automatically cut off when said flat iron is left sitting flatwise upon an ironing board, or other support, but with means for automatically connecting circuit contacts for current when said article is picked up for use, and also for automatically closing a circuit for said current when said flat iron, or other article, is set down upon a support in a particular manner.

I will now describe in detail the invention as embodied in a flat iron and as illustrated on the accompanying sheet of drawings in which,—

Figure 1 is a side elevation thereof, partly in section;

Fig. 2 is a rear end view thereof, partly in section;

Fig. 3 is a top plan view thereof with parts of the handle broken out to show interior arrangement;

Fig. 4 illustrates the iron as set down in a particular manner to make and maintain circuit contacts; and

Fig. 5 is a diagramatic view showing the electric circuit arrangement.

In the drawings, 1 designates the body of the flat iron, which may be of any desired type and provided with any suitable electric heating means therein. 2 is the handle, which handle is preferably made hollow to receive certain contacting members, and for the connection of the electric wires through which electric current is supplied to the heating means. Mounted in the handle are two contact pieces 3 and 4. Movably mounted in the handle is a connecting member 5, slidably mounted upon two guide pins 6—6, and normally held in a raised position by means of coiled springs 7—7, said connecting member being provided on its under face with a contact piece 8, adapted to connect the contact strips, or pieces, 3 and 4, when said connecting member 5, is pressed inwardly with the hand as the handle 2 is gripped thereby, in a manner which will be very clearly understood from the drawings.

Two other contact members 9 and 10, are mounted in the rear of said handle, as clearly shown in Figs. 1 and 2, which contact members are adapted to be connected by means of a connecting piece 11, mounted upon a plunger-like member 12, normally held in open position by means of a coiled spring 13. The contact strip 3, is connected by means of a wire 14, to one of the terminals 15, of the iron, and is also connected to the contact piece 10, as will be clear from Fig. 5 of the drawings. The contact strip 4, is connected to the contact piece 9, by a wire 16. Two wires 17 and 18 are connected respectively, to the other terminal 19, of the iron 1, and to the wire 16.

The iron 1, is provided with a support 20, for supporting the iron when temporarily set on end.

Thus it will be seen that when the iron is gripped by its handle 2, for use, and the connecting member 5, is compressed or pressed inwardly, so as to connect the contact strips 3 and 4, a circuit is completed through the parts 17, 19 and 15, 14, 3, 8, 4, 16 and 18, and that this circuit is maintained while the iron is in operation.

Should the iron be set down flat-wise and the hand removed therefrom, the member 5, is automatically raised by the springs 7—7, and the circuit is opened so that no danger can result by overheating, and the iron will at once commence to cool off. If, however, the iron is set on end on the supports 20—20, as shown in Fig. 4, the plunger 12, upon which the iron rests, moves the connecting piece 11, into engagement with the contact members 9 and 10, thus completing a circuit through the parts 17, 19 and 15, 10, 9, 16 and 18, thus making it possible to maintain the circuit when the iron is set down in this particular manner. It is obvious, of course, that when the iron is thus set down the heated portion thereof is held free of contact with any part of the table, and no damage can be done. If the iron is allowed to set flat-wise unintentionally, as is so frequently done, the circuit is automatically broken as soon as the hand is removed therefrom. There is, therefore, no chance for the iron

to become over-heated when left sitting flatwise upon an ironing board or other support, and if it is set down in the manner shown in Fig. 4, as before stated, there can be no danger of its causing a fire, by reason of contact with material which is capable of being ignited.

I am aware that changes can be made in my invention as here embodied and that it can be applied to other things than irons, without departing from the spirit thereof, and I do not, therefore, limit it to the embodiment here shown for purposes of illustration, except as I may be limited by the hereto appended claims.

I claim:

1. In an electric flat iron, circuit wires in said iron for connecting the same with a source of electric energy, a manually operable circuit closer interposed in said circuit wires, means for normally opening the same, a combination bracket and circuit closer also interposed in said circuit wires and adapted to be moved for closing said circuit by the weight of said iron, means for normally opening said combination bracket and circuit closer and a coöperating support projecting from said iron for supporting said iron free from contact with the surface above which it is supported.

2. In an electric flat iron including a heater and a cable adapted to be connected with a source of electric energy, the combination with wires connecting the respective wires of the cable with the terminals of the heater, and a manually operable circuit closer interposed in one of said connecting wires; of a bracket on the rear end of the iron body, a tubular guide carried by said bracket, a plug slidably mounted in said bracket and projected by yielding force, contact points with which the tip of the plug contacts when it is borne inward, and connections between said points and the wires leading to said circuit closer whereby the latter is shunted when the plug is borne inward.

Signed at Portland, Multnomah county, Oregon, this 5th day of March, 1917.

DE WITT C. HEYLMAN.

In presence of—
J. C. SIMMONS,
I. M. GRIFFIN.