

F. W. TULLY.
FLAT IRON.
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Fig. 1.

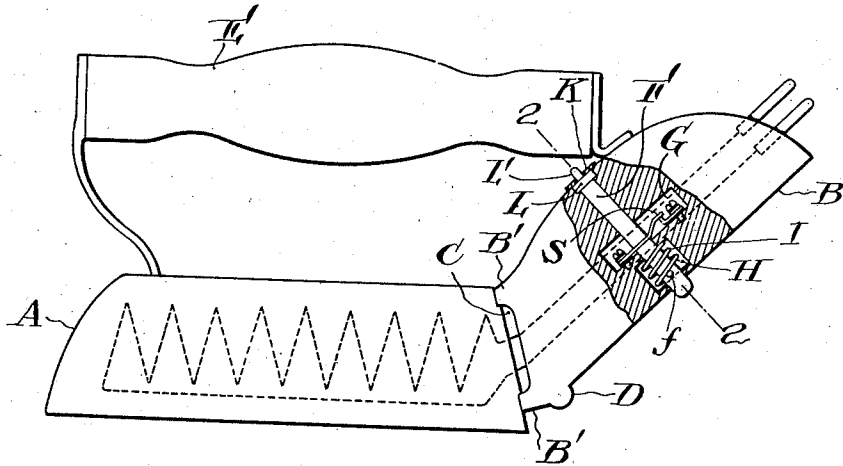
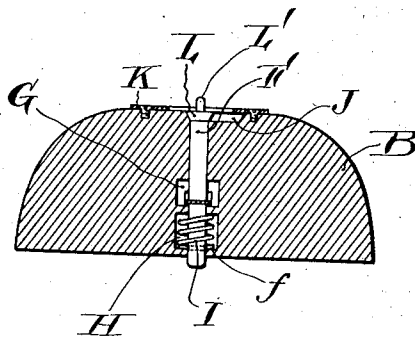


Fig. 2.



Inventor:
Francis W. Tully
by Robert Robert
Attorneys.

UNITED STATES PATENT OFFICE.

FRANCIS W. TULLY, OF BROOKLINE, MASSACHUSETTS.

FLAT-IRON.

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To all whom it may concern:

Be it known that I, FRANCIS W. TULLY, a citizen of the United States, and resident of Brookline, in the county of Norfolk and State of Massachusetts, have invented new and useful Improvements in Flat-Irons, of which the following is a specification.

This invention relates to flat irons and its object is to provide an iron which will eliminate the well recognized danger of fire or damage which commonly results when a hot iron is negligently permitted to remain upon the work or work-table; and to this end to provide an iron which when released by the hand of the operator will automatically assume a position in which the heated portion of the iron is tilted away from the work and retained wholly or substantially out of contact with the work or work-table.

A further object of the invention is to provide means whereby when the iron is of the gas or electric types now in common use, the source of heat will be automatically shut off when the iron is automatically brought to the above described position with its heated portion out of contact with the work or the work-table, thereby not only permitting the iron to cool instead of becoming excessively and dangerously hot, but also eliminating the waste of gas or electricity while the iron is not in use.

Referring to the drawings which illustrate an embodiment of my invention,—

Figure 1 is a side view of my improved iron partly broken away;

Fig. 2 is a section on the line 2—2 of Fig. 1.

My improved iron consists of the usual base A, having fast on its heel portion a counter-weight B sufficient to overcome the weight of the base and to tilt or lift said base and retain it in lifted position. The said counter-weight may be of any desired contour, and is preferably secured to the base A in such manner as substantially to prevent the passage of heat thereto from said base. Preferably the attachment is by lugs B', as shown, spaced apart and leaving an air gap C. This fastening eliminates the passage of heat from said base to said counter-weight or permits its passage in a negligible degree only. Heat insulating material may be used between the counter-weight and the base if desired.

Upon the bottom of said counter-weight near its point of connection with the base,

is a projecting rib D which insures the lifting and retention of the heel of the base out of contact with the work-table when the counter-weight lifts said base. The usual handle E is secured by suitable fastenings to said base and counter-weight.

It will, I believe, be clear that when the handle E is released by the operator the counter-weight B will drop, lifting the base from its working position shown in Fig. 1 and retaining it in lifted position wholly out of contact with the work or work-table, thus wholly eliminating the possibility of damage from the heated base.

In the drawings an electric iron is shown having the usual heat supplying means, which in this case pass through the counter-weight into the base. A bore extends through the counter-weight, in which is a push rod F which passes through the chambers G and H formed in said counter-weight and projects beyond the bottom thereof. In said chamber H is a compression spring I surrounding said rod F, one end of said spring engaging the wall of said chamber and the other end bearing against a pin f fast on said rod, said spring serving yieldingly to retain said rod in its normal projected position shown. In the said chamber G is a switch of any usual construction connected in the usual way with the heat supplying means and having one switch member as S fast on the rod F and adapted to be actuated by the movement of said rod.

A recess J is formed in the top of the counter-weight and cover by a slotted plate K secured in any suitable manner. In said recess J is a sliding stop L adapted in one position to engage the top of the rod F and lock said rod against upward movement. The said stop is provided with means such as a thumb-piece L' projecting through the slot in said plate K, by which said stop can be manipulated.

When it is desired to insure the automatic shut-off of the current when the iron is not in use, the stop L is slid by its thumb-piece L' to the right as viewed in Fig. 2, thus unlocking the rod F. When now the iron is released by the hand of the operator and the counter-weight drops lifting the base free of the work as above described, the rod F engages the work-table as the counter-weight comes to rest thereon and is thrust upward into the recess J. This upward movement of the rod lifts the switch member

S, breaking the circuit, which is not again made until the lifting of the counter-weight when the iron is again brought to working position; releases the rod and permits the spring I to force it back into normal position.

I claim:

1. A flat iron comprising a base and a handle, and means adapted upon release of said handle when in working position automatically to tilt said base away from the work and retain it in tilted position.

2. A flat iron comprising a base and a handle, and means adapted upon release of said handle when in working position automatically to lift and hold said base out of contact with the work.

3. A flat iron comprising a base and a handle, and a counter-weight having a projection on its bottom adapted upon release of said handle when in working position automatically to lift and hold said base out of contact with the work.

4. A flat iron comprising a base, a handle, and a counter-weight adapted automatically to lift and hold the base out of contact with the work, said counter-weight being connected to the base by means adapted to obstruct the conduction of heat from the base to the counter-weight.

5. A flat iron comprising a base, a handle, and a counter-weight having a projection on its bottom, a heat insulating connection between said base and said counter-weight comprising lugs spaced apart and forming an air gap, and said counter-weight adapted upon release of said handle when in working position automatically to lift and hold said base out of contact with the work.

6. A flat iron comprising a base, a handle, heat supplying means, means adapted upon release of said handle when in working position automatically to lift and hold said base out of contact with the work, and means automatically to control said heat supplying means when said base is moved into and out of working position.

7. A flat iron comprising a base, a handle, heat supplying means, means adapted upon release of said handle when in working position automatically to lift and hold said base out of contact with the work, means automatically to control said heat supplying means when said base is moved into and out of working position, and means to lock said controlling means in inoperative position.

8. A flat iron comprising a base, a handle, heat supplying means and means adapted upon release of said handle when in working position automatically to lift and hold said base out of contact with the work, and means comprising a switch and an actuating member therefor automatically to control said

heat supplying means when said base is moved into and out of working position.

9. A flat iron comprising a base, a handle, heat supplying means and means adapted upon release of said handle when in working position automatically to lift and hold said base out of contact with the work, means comprising a switch and an actuating member therefor automatically to control said heat supplying means when said base is moved into and out of working position, and means to lock said switch actuating member.

10. A flat iron comprising a base, a handle, a counter-weight fast on said base, heat supplying means in said base and counter-weight, said counter-weight adapted upon release of said handle when in working position automatically to lift and hold said base out of contact with the work, and means carried by said counter-weight automatically to control said heat supplying means when said base is moved into and out of working position comprising a switch and an actuating member therefor projecting beyond the bottom of said counter-weight.

11. A flat iron comprising a base, a handle, a counter-weight fast on said base, heat supplying means in said base and counter-weight, said counter-weight adapted upon release of said handle when in working position automatically to lift and hold said base out of contact with the work, and means carried by said counter-weight automatically to control said heat supplying means when said base is moved into and out of working position, comprising a spring actuated push rod projecting beyond the bottom of said counter-weight and a switch having a member controlled by said rod whereby said switch is opened and closed by movement of said rod.

12. A flat iron comprising a base, a handle, a counter-weight fast on said base, heat supplying means in said base and counter-weight, said counter-weight adapted upon release of said handle when in working position automatically to lift and hold said base out of contact with the work, and means carried by said counter-weight automatically to control said heat supplying means when said base is moved into and out of working position, comprising a switch and an actuated member therefor projecting beyond the bottom of said counter-weight, and means to lock said actuating member in inoperative position comprising a stop slidably mounted in said counter-weight and adapted to engage the top of said actuating member.

Signed by me at Boston, Massachusetts, this third day of April, 1917.

FRANCIS W. TULLY.