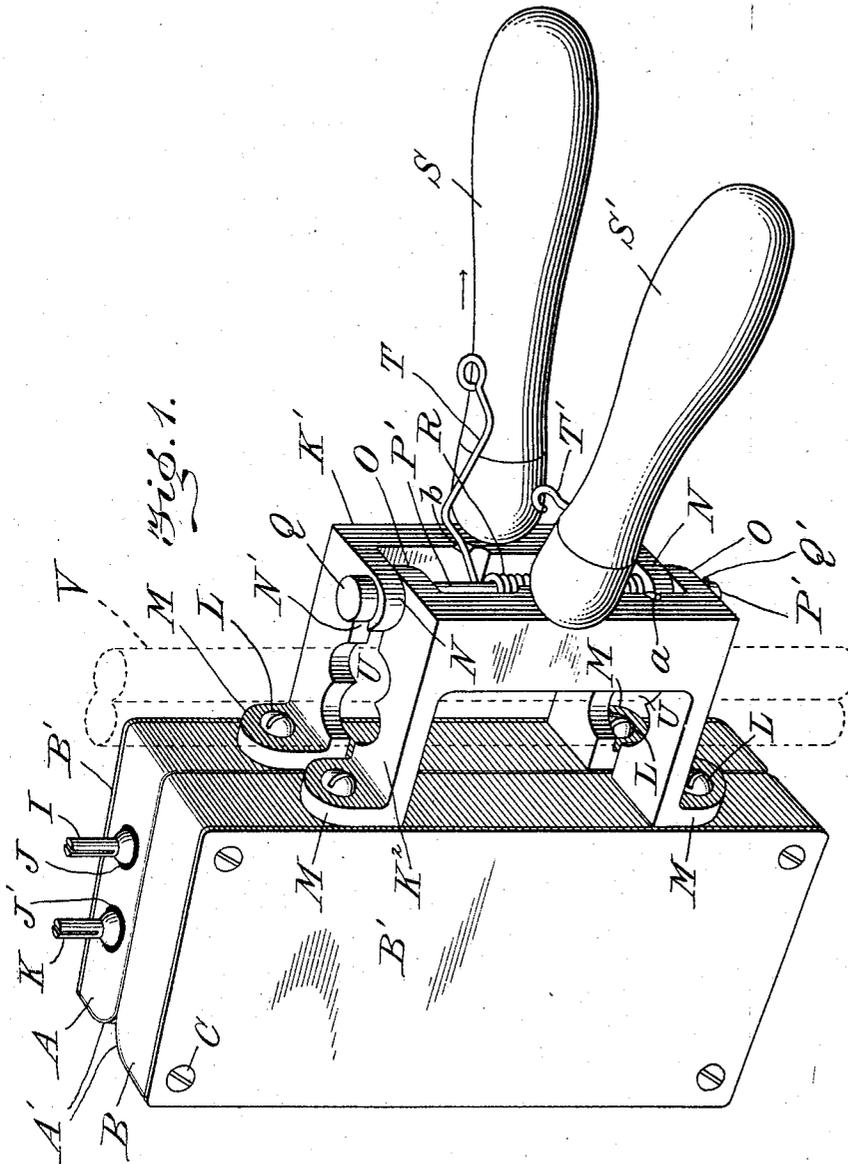


F. A. MILLS.
 PRESSING IRONS.
 APPLICATION FILED AUG. 18, 1908.

999,581.

Patented Aug. 1, 1911.

2 SHEETS—SHEET 1.



WITNESSES

W. C. Abbott
E. F. Liddington

INVENTOR

Frederick A. Mills

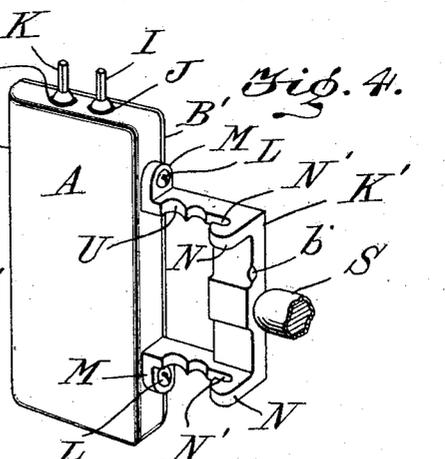
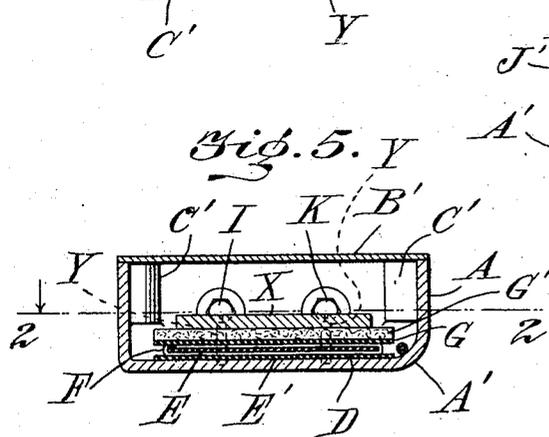
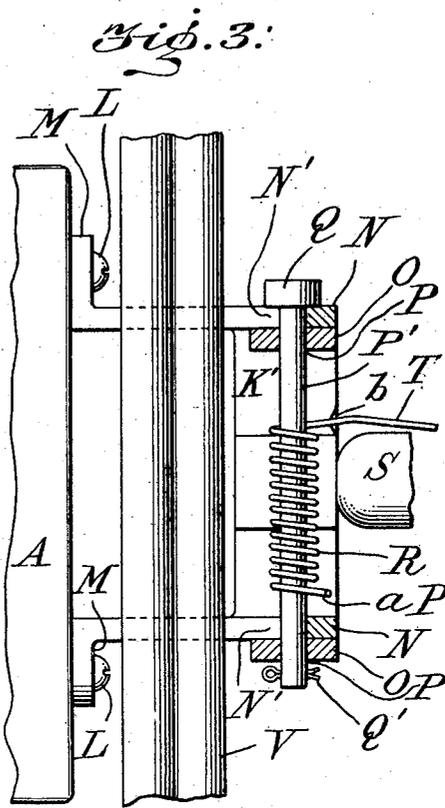
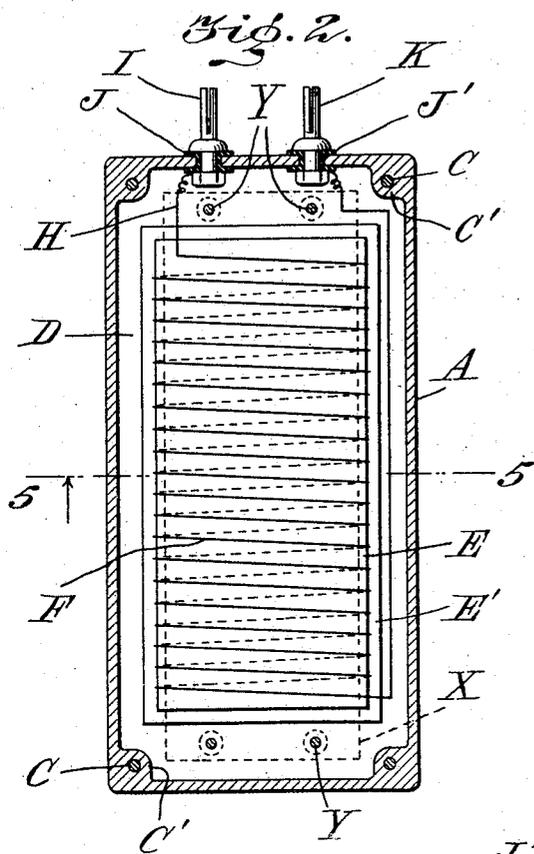
BY Macdonald & Macdonald

ATTORNEYS

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2 SHEETS—SHEET 2.



WITNESSES
P. C. Abbott
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UNITED STATES PATENT OFFICE.

FREDERICK A. MILLS, OF NEW YORK, N. Y.

PRESSING-IRONS.

999,581.

Specification of Letters Patent.

Patented Aug. 1, 1911.

Application filed August 18, 1908. Serial No. 449,017.

To all whom it may concern:

Be it known that I, FREDERICK A. MILLS, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented certain new and useful Improvements in Pressing-Irons.

This invention relates to improvements in pressing irons designed for pressing and creasing garments, such for example as trousers.

One of the objects of the invention is to provide a device which may be used to press and crease garments, such as trousers, while they are being worn.

Another object of my invention is to provide a device which can also be used as a smoothing or pressing iron in the usual way.

A further object is to provide a device of the character stated which may be used in connection with a guide or support such as shown in my application for Letters Patent Serial No. 450,325, filed August 26, 1908.

Various other objects which I have had in mind, such as simplicity of construction, convenience and economy in operation, will appear from the following description which sets forth a practical embodiment of the invention, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my creasing irons; Fig. 2 is a vertical section of one of the creasing irons on line 2—2 of Fig. 5 with parts of the heater element removed. Fig. 3 is a vertical section through the center of the bracket and bearing portion shown in Fig. 1; Fig. 4 is a perspective view of one of the creasing irons detached from its fellow member. Fig. 5 is a cross section of the same iron, taken on line 5—5 of Fig. 2.

It will be seen that this device is designed with special reference to the pressing of two sides of the fold of a garment, such as a pair of trousers, but it is so constructed that the two members composing it may be readily and quickly detached from each other and one of the members be used as a smoothing iron for pressing out wrinkles in other parts of the cloth where a crease is not desired.

A and B are twin pressing irons, oblong in shape, and constructed with an interior cavity. I prefer to form each member as a single hollow casting with the exception

of its outer plate B', which is made separate—being attached by the screws C to lugs C' formed as a part of the casting B—so as to provide easy access to the interior in the event of the electrical heating circuit becoming disarranged through any cause. The irons are slightly rounded at one edge, as at A', so that the impression made by the irons on the cloth will taper off gradually.

On the interior of the casing or iron A, and at the inner side thereof, designated at D, is provided an insulated electrical heating element, which may be of any desired construction, of which I have illustrated one form, in which E represents a thin strip of insulating material, such, for example, as mica, around which is coiled a thin electric resistance wire F of suitable metal, such as platinum or German silver. These are insulated from the metallic interior surface of the member A by another strip of insulating material E', and insulating material is also provided on the opposite side of the resistance coil, as at G, over which is placed a layer of asbestos G', which serves to retain the generated heat at the ironing surface D. The resistance coil takes its electric current from the wire H through the binding post I, and after the current has passed through the resistance coil, it passes out at the binding post K, all of which will be readily understood. Both of the binding posts are suitably insulated from the casing A as at J and J'. The asbestos lining and resistance coil and the adjacent insulating material may be secured in place to the inner face D of the iron in any convenient manner as by a backing plate X and screws Y. The binding posts I and K are adapted to receive the usual form of sockets connected to wires which will take the current from any convenient source of electrical energy, such as a lighting circuit.

To the heating plates A, B, are secured the bracket frames K', K², by means of the screws L and the ears M. The bracket frame K' is provided with lugs N, having slots N'. The bracket frame K² is provided with lugs O having eyes P, through which traverses a pin P', which is held in place at one end by the head Q and at the other end by the cotter pin Q'. The pin P' is of a size to snugly fit the slot N', and this pin P' acts as a bearing on which the irons

turn in opening and closing. Around the pin P' is coiled the spring R, which, at one end, rests against the bracket frame K², at a; the other end, when the irons are in working position, expends its force against the bracket frame K' at b, which is slightly cut away at that point, the effect of which force is not only to hold the slotted lugs N firmly to the pin P', but also to close the irons A, B, and they are normally held in that position, being opened by means of the handles S, S' acting against the force of the spring R. The spring R is provided with an extension T, and when it is desired to take the members apart, the extension T is pressed over toward the handle S' and is secured in the hook or catch T', when the force of the spring R is taken off the bracket frame K' at b. Thereupon, the member composed of the parts A, K' and S is held to its fellow member merely by the pin P' and the lugs N, O, and as the lugs N are provided with the open slots N', a slight pull by the operator on the handle S, in the direction shown by the arrow, disengages the member composed of the parts A, K' and S, from the member composed of the parts B', K² and S', and it may be then used as a separate pressing iron for the purposes already mentioned. At about the center of the bracket frames K', K² is the opening U, which may be of any desired form, only so that it conform to the shape of the standard, which in Fig. 1 is shown in dotted lines projecting upwardly therethrough, and shown in elevation at V in Fig. 3, but this is no part of my present invention and is shown as illustrating one manner in which the device may be used.

It will be seen that there are provided two bearings, at N, N, O, O, considerably removed from each other, which serve to keep the working faces of the irons A, B in close contact throughout the length thereof, thereby taking a firm and uniform grip on the fold of cloth. I have here shown only one of the two members equipped for electrical heating, as the heat of the one member will readily transmit itself to the other, but should it be desired, the other member as well may be heated by means of the electric heating circuit. I do not, however, wish to limit myself solely to an electrically heated iron, as my construction contains many useful features without reference to the manner in which it is heated.

The operation is as follows: The garment to be creased is first slightly moistened, by means of a spray, a damp cloth or in any other suitable manner. The pressing irons being heated, the operator holds the device by the handles S, S', which, being pressed toward each other against the force of the spring R opens the irons A, B at D, into which opening the fold of the trousers, or

other garment to be creased, is inserted; the pressure then being taken off the handles S, S', the spring R forces the irons toward each other and against the enfolded cloth, in which position it is permitted to remain for a few moments, until the desired crease has been made at that point, when the irons are again opened and the device moved along to another portion of the fold, where the irons are applied in the same manner, and this operation is repeated until the desired crease has been made throughout the length of the fold of the garment. The operator may be aided in these operations by the use of a relatively stationary guide or support such as embodied in my co-pending application Serial No. 450,325, and here partly shown at V in Fig. 1, such guide serving, among other things, to hold the pressing irons in a straight line along the length of the fold. Any objectionable wrinkles remaining in the garment may be smoothed out by the use of one of the irons as a sad-iron after it has been detached from its fellow member in the manner already described.

What I claim as my invention is:

1. A creasing and pressing device comprising in combination a pair of hollow box-like irons movably connected to each other and having opposing flat faces between which may be inserted a garment or fabric to be creased, means for pressing the irons together, manually operated means for moving the irons apart, and electric heating devices mounted on one of said irons.

2. A creasing and pressing device comprising in combination a pair of approximately rectangular box-shaped irons having opposing flat faces between which may be inserted a garment or fabric to be creased, a bracket-like holding frame on each iron, means movably connecting said frames to each other, means for yieldingly pressing the irons together, hand-operated means for forcing the irons apart, and electric heating devices mounted on one of said irons.

3. A creasing and pressing device comprising in combination a pair of box-like irons having opposing flat pressing faces between which may be inserted a garment or fabric to be pressed, holding frames centrally recessed extending longitudinally of said irons and secured thereto, means movably connecting said holding frames to each other, means for pressing the irons together, means comprising a handle on one of said holding frames for moving one iron away from the other iron, and electric heating devices mounted on one of said irons.

4. A creasing and pressing device comprising in combination a pair of box-like irons having opposing flat pressing faces between which may be inserted a garment or

fabric to be pressed, bracket frame holding
 members extending longitudinally of said
 irons and secured thereto, means pivotally
 connecting said members at points rela-
 5 tively remote from each other, a spring for
 pressing the irons together, a pair of han-
 dles, one on each holding member, for forc-
 ing the irons apart; and electric heating de-
 vices mounted on one of said irons.
 10 5. A combined creasing and smoothing de-
 vice, comprising in combination a pair of
 irons having opposing faces between which
 may be inserted the garment or fabric to be
 15 pressed, electric heating devices mounted on
 one of said irons, means connecting said
 irons with freedom for relative movement,
 means for pressing the irons together, and
 means for forcing the irons apart, the said
 connecting means being detachable whereby

the irons may be separated and one used 20
 alone as a sad-iron.

6. A combined creasing and smoothing de-
 vice, comprising in combination, a pair of
 irons having opposing faces between which
 may be inserted the garment or fabric to be 25
 pressed, electric heating devices mounted on
 one of said irons, means for pivotally con-
 necting said irons, a spring for pressing the
 irons together, and means comprising a han-
 dle on one of the irons for forcing the irons 30
 apart, the said pivotal connecting means be-
 ing detachable whereby the irons may be
 separated and one used alone as a sad-iron.

FREDERICK A. MILLS.

Witnesses:

GILBERT E. YOUMANS,
 MAXWELL SILVER.