H. M. NOLEN.

LAUNDRY APPLIANCE.

APPLICATION FILED JULY 7, 1916.

1,249,464.

Patented Dec. 11, 1917.

2 SHEETS—SHEET 1.

Fig. 1.

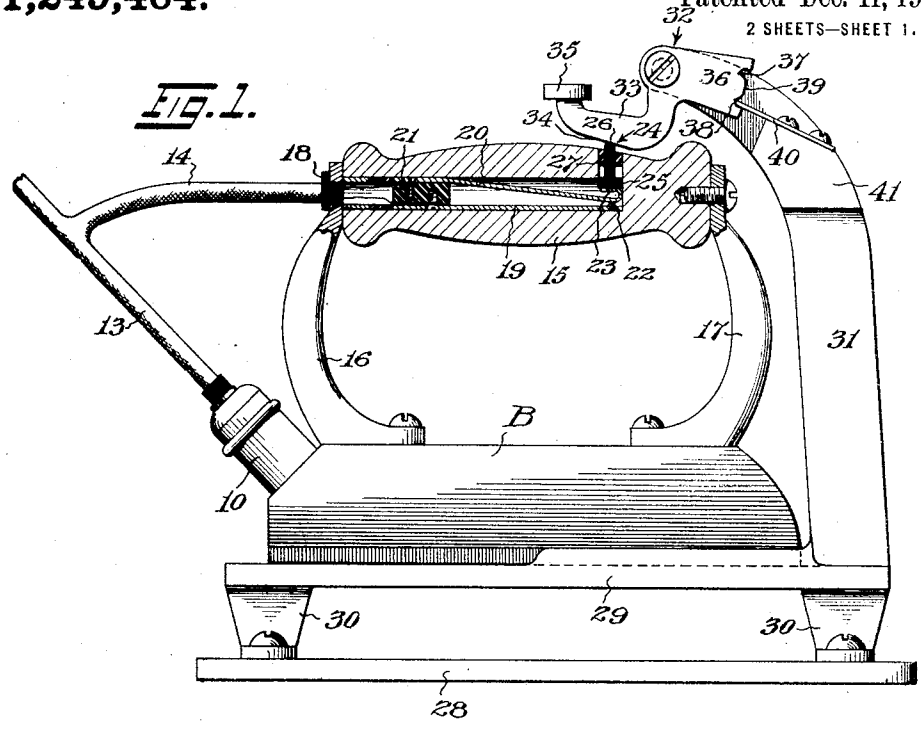
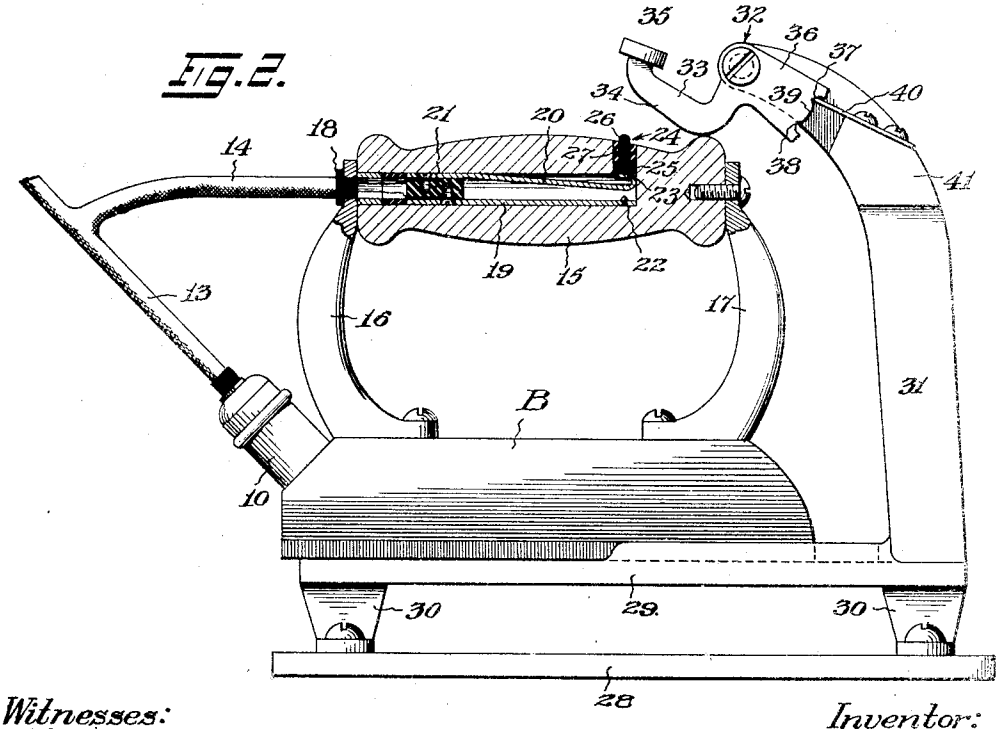


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

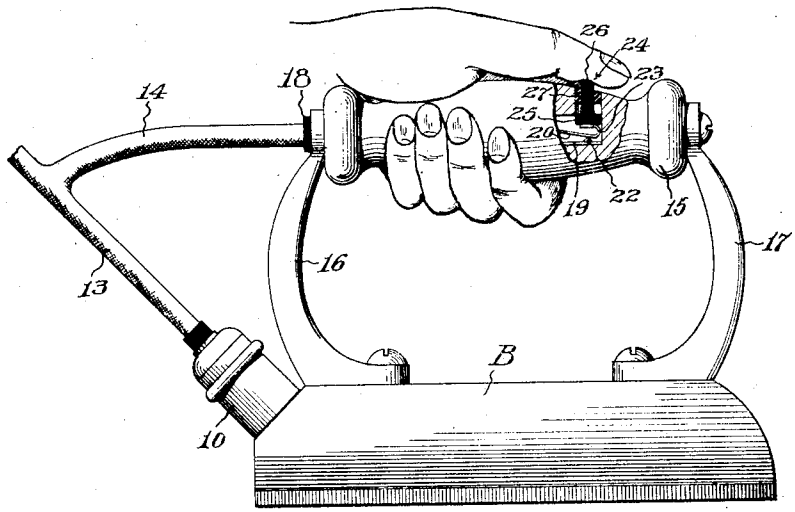


Fig. 4.

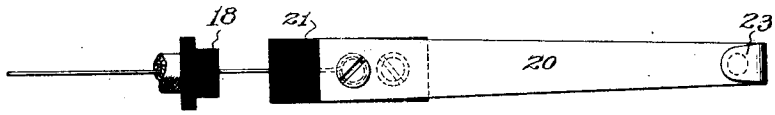
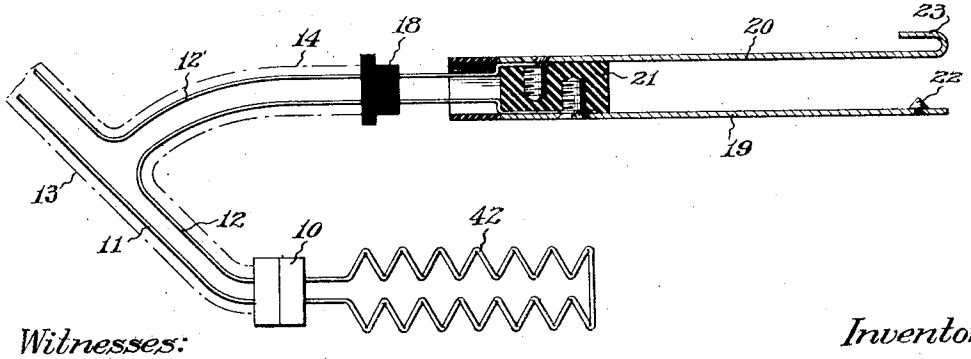


Fig. 5.



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UNITED STATES PATENT OFFICE.

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LAUNDRY APPLIANCE.

1,249,464. Specification of Letters Patent. Patented Dec. 11, 1917.

Application filed July 7, 1916. Serial No. 107,883.

To all whom it may concern:

Be it known that I, HELEN M. NOLEN, a citizen of the United States, residing in Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Laundry Appliances, of which the following is a specification.

This invention relates to laundry appliances in general, and more particularly to improvements in sad-irons and the heating thereof.

With the heated laundry devices, such as sad-irons now generally in use, the heat is established by passing a current through a resistant substance, preferably German silver, disposed in the sad-iron and removed from the surface thereof, the substance of the sad-iron itself being a good heat conducting material and thereby facilitating a very efficient heating of the ironing surface of such sad-iron. If the operator in the use of such sad-irons and after the current were turned on were called away for any reason and should forget to turn off the current and remove the iron from the material being laundried, the continually heated surface remaining at rest on such material would quickly singe, if not entirely destroy, such material, and not infrequently start a fire. The aforesaid danger is also present with sad-irons heated by gas or other heating means. When continually heated irons have been left unattended on more or less inflammable material in the manner above set forth for any appreciable length of time, fire is the only result. The number of fires started by just such circumstances as aforesaid has attracted considerable attention, and in view thereof it is one of the objects of the present invention to provide means whereby the liability to fire from such circumstances will be materially reduced, if not absolutely eliminated.

To this end, one of the main objects of the present invention is to provide a laundry appliance, such as a sad-iron, in which the current will be turned on and only remain turned on so long as the operator is using the appliance. In other words, the handle of the sad-iron will be provided with a button which will normally remain distended to break the circuit and will only remain depressed to make a circuit so long as the operator's hand or finger is properly engaging such button. Thus, as soon as the operator releases the sad-iron, for instance when called away from the work, the circuit will immediately be broken and the heat be gradually dissipated.

Still another object of the present invention is to provide a frame for supporting a sad-iron of the kind specified, on which frame the sad-iron may be placed when out of use and where the button of the sad-iron will remain distended for breaking a circuit and which frame is equipped with means for depressing the button thereby to make the circuit and permit the pre-heating of the iron while it is disposed on said frame, for future use.

These and other features, capabilities and advantages will appear from the sub-joined detail of one specific embodiment thereof illustrated in the accompanying drawing, in which

Figure 1 is an elevational view showing a sad-iron disposed on a frame, the said sad-iron being partly broken away to illustrate the button depressed by means on the frame whereby the sad-iron may be heated while disposed on such frame.

Fig. 2 is an elevational view similar to Fig. 1, but showing the button distended for breaking the circuit.

Fig. 3 is an elevational view of the sad-iron removed from the frame and partly broken away, illustrating the way in which the button is depressed by the operator.

Fig. 4 is a plan and Fig. 5 an elevation partly in section, illustrating the switch and wiring connection for making and breaking the circuit in the sad-iron.

In the embodiment illustrated, there is shown a sad-iron having a base B equipped with a resistance of German silver substance or the like (not shown) as is customary with electric sad-irons. The rear end of the base B is provided with a thimble-like support 10 through which extend the electric wires 11 and 12 (Fig. 5) to the resistance in the base B, the wires 11 and 12 extending through the conduit 13 which is connected

to the conduit 14 which leads to and is connected with the handle 15, which is supported at a distance removed from the base B by the extensions 16 and 17. Where the conduit 14 connects with the handle 15, there is provided an insulated collar 18 (Fig. 4) through which the wires 12 and 12′ extend, the conduit 14 containing the wires 12 and 12′ and leading them into the handle, it being understood that the wire 12′ is the continuation of the wire 12 and that the conduit 13 above the conduit 14 contains the wires 11 and 12′ instead of 11 and 12.

The handle 15 is preferably composed of an insulating material, such as wood or the like, and the interior thereof is provided with the fixed contact plate 19 and the flexible contact plate 20, which plates 19 and 20 are secured to and insulated from one another near their rear ends by the insulator 21. The wire 12 is suitably connected to the contact plate 19, and the wire 12′ suitably connected to the contact plate 20. The front end of the contact plate 19 terminates below the front end of the contact plate 20, and is preferably provided, as shown, with a contact head 22, the contact head 22 to be engaged by the lower surface of the front end of the contact plate 20. In the present instance, the front end of the contact plate 20 is bent back upon itself to form an upwardly extending engaging portion 23 for the insulating button 24, having its head 25 disposed on said portion 23 and strained thereby against the shell of the handle 15. The button 24 is preferably provided with a shank 26 extending upward through the opening 27 formed in the handle 15, the free end of the shank 26 forming the portion to be engaged by the operator's hand or finger, as shown in Fig. 3.

From the foregoing it will be seen that the contact plate 20 will normally maintain the button 24 in raised position with its shank 26 extending through the opening 27 and when so raised be out of engagement with the contact head 22 of the contact plate 19; that whenever the button 24 is depressed sufficiently the contact plate 20 will engage the contact head 22 of the contact plate 19 and thereby complete a circuit from the wire 12 to the wire 12′; and that in turn when the button is again released, the contact plate 20 will immediately draw away from the contact head 22 to break the circuit and again distend the shank 26 of the button 24 through the opening 27.

The present invention also contemplates the provision of a frame on which the sad-iron may be placed when not in use, which frame comprises essentially an insulated base 28 above which is disposed the supporting plate 29 for the reception of the sad-iron, the plate 29 being preferably spaced from the base 28 by the standards 30 formed on the plate 29, and which standards 30 are suitably secured to the base 28. At one end of the supporting plate 29, which may be designated the front end since the front end on the sad-iron will be disposed adjacent thereto when the sad-iron is resting thereon, there is formed an upwardly extending arm 31, the upper end of which is slightly curved in a rearward direction and is provided at its free end with a lever 32 pivotally connected thereto, such lever having a rearwardly extending arm 33 provided with a downwardly bulging portion 34 and a finger-engaging piece 35 at its extreme rear end. The lever 32 is also provided with a forwardly extending arm 36 at the free front end of which are provided two notches 37 and 38, one above the other, with a cam face 39 extending from one to the other. The notches 37 and 38 are formed to coöperate with the end of the spring-plate 40 suitably secured to the shoulder 41 formed on the arm 31. The coöperation of the notches 37 and 38 with the spring 40 serves to anchor the lever 32 either in raised position when the spring engages the notch 37 or in depressed position when the spring engages the notch 38. The coöperation of the sad-iron with the frame is substantially as follows: When the sad-iron is placed on the frame to be stored there out of use, the lever 32 will be anchored in raised position, as shown in Fig. 2, and then while the sad-iron is disposed on the frame the circuit will be broken and no heat passed through the same. On the other hand, when it is desired to pre-heat the sad-iron before using the same, and the sad-iron is disposed in the position illustrated in Fig. 1, it is only necessary to depress the lever 32 whereby the downwardly bulging portion 34 will engage the button 24 and move the contact plate 20 into engagement with the contact plate 19, thereby to establish a circuit from the wire 12 to the wire 12′ to initiate the heating of the sad-iron.

In Fig. 5 there is shown diagrammatically the heater 42, preferably composed of German silver wire, which is located in the base B.

It is obvious that various changes and modifications may be made in the details of construction without departing from the general spirit of the invention.

I claim:—

1. A sad-iron having a material-engaging base, a handle spaced from said base and secured thereto, an electric heater disposed in said base, an electric switch comprising a fixed contact plate and a flexible contact plate carried by said handle, the contact of

the plates with one another initiating and controlling the heat generation of the heater, the flexible contact plate being normally spaced from said fixed plate thereby to be maintained out of heat generating position and requiring the constant engagement thereof in order to be maintained in heat generating position, a button carried by said handle and in engagement with said flexible plate adapted to be depressed to bring said flexible plate into contact with said fixed plate to maintain the plates in heat generating position, a frame for supporting said sad-iron in idle position, a settable lever on said frame, and means for anchoring said settable lever in a plurality of positions, in one of which positions the lever will engage said button to maintain the same depressed so that the plates are held in contact with one another and in another of which positions the button will be free of said lever and thus permit the flexible plate to raise said button and maintain the same out of heat generating position.

2. A sad-iron having a material-engaging base, a handle spaced from said base and secured thereto, an electric heater disposed in said base, an electric switch comprising a fixed contact plate and a flexible contact plate carried by said handle, the contact of the plates with one another initiating and controlling the heat generation of the heater, the flexible contact plate being normally spaced from said fixed contact plate thereby to be maintained out of heat generating position and requiring the constant engagement thereof in order to be maintained in heat generating position, a button carried by said handle and in engagement with said flexible plate adapted to be depressed to bring said flexible plate into contact with said fixed plate to maintain the plates in heat generating position, a frame for supporting said sad-iron in idle position, a settable lever on said frame, a front arm on said lever having two notches and a cam face extending from one notch to the other, and a spring for coöperating with said notches to engage said lever in two different positions, in one of which positions the lever will engage said button to maintain the same depressed so that the plates are held in contact with one another and in the other of which positions the button will be free of said lever.

3. A sad-iron having a material-engaging base, a handle spaced from said base and secured thereto, an electric heater disposed in said base, an electric switch comprising a fixed contact and a flexible contact carried by the handle, the touching of the contacts with one another initiating and controlling the heat generation of the heater, the flexible contact being normally spaced from the fixed contact thereby to be maintained out of heat generating position and requiring the constant engagement thereof in order to be maintained in heat generating position, a frame for supporting said sad-iron in idle position, a settable lever on said frame, and means for holding said settable lever in a plurality of positions, in one of which said lever will engage the switch operating member of the sad-iron to generate heat within the iron and in the other position to be held out of engagement with the switch operating element of the sad-iron.

4. A sad-iron having a material-engaging base, a handle spaced from said base and secured thereto, an electric heater disposed in said base, an electric switch comprising a fixed contact plate and a flexible contact plate carried by said handle, the contact of the plates with one another initiating and controlling the heat generation of the heater, the flexible contact plate being normally spaced from said fixed contact plate thereby to be maintained out of heat generating position and requiring the constant engagement thereof in order to be maintained in generating position, a button carried by said handle and in engagement with said flexible plate adapted to be depressed to bring said flexible plate into contact with said fixed plate to maintain the plates in heat generating position whereby said button may be pushed and released for making and breaking the circuit through the heater without lessening any pressure on the handle.

5. In combination, an electric sad-iron provided with a switch closing member projecting from the side of the handle thereof; a frame for supporting said sad-iron; an upwardly extending arm on said frame; and a settable lever pivoted on said arm and adapted to be set in position to press upon said member, or in position to free said member.

6. In a sad-iron, the combination of a base; a handle secured thereto and provided with a longitudinal bore and a lateral opening communicating with the forward part of said bore; an insulating block in the rear of said bore; a pair of contact plates secured to separated parts of said block and disposed longitudinally of said bore; a button disposed in said opening and adapted to press said plates together; a heater in said base; conductors connected to said heater and said contact plates; and a stand for said sad-iron provided with a part adapted to press upon said member to close the switch.

7. In a sad-iron, the combination of a base; a handle secured thereto and provided with a longitudinal bore and a lateral open-

ing communicating with the forward part of said bore; an insulating block in the rear of said bore; a pair of contact plates secured to separated parts of said block and disposed longitudinally of said bore; a button disposed in said opening and adapted to press said plates together; a heater in said base; and conductors connected to said heater and said contact plates.

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