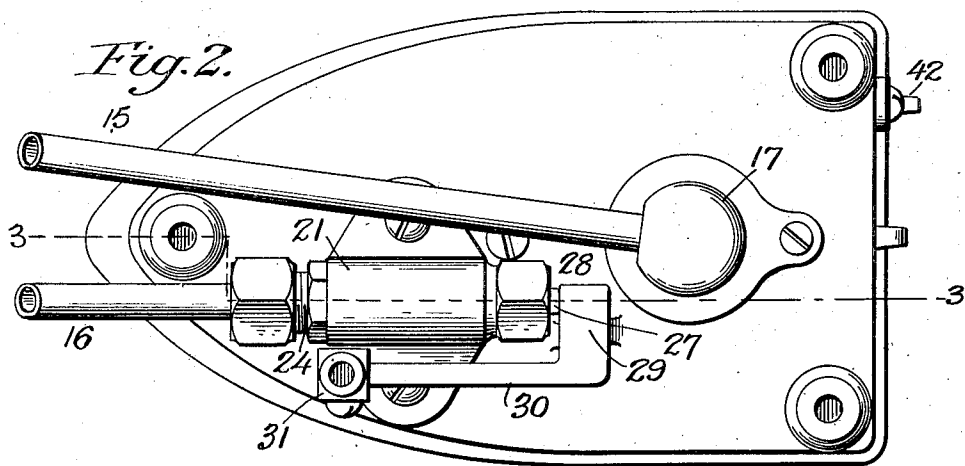
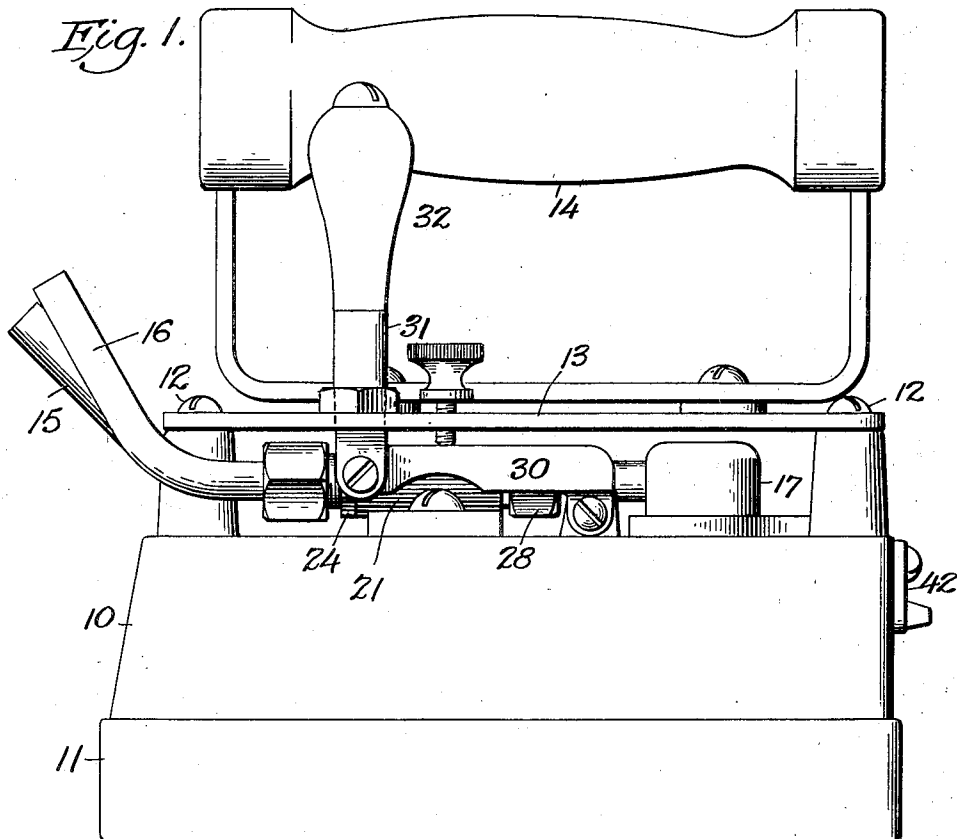


N. RUBENSTEIN.
SADIRON.
APPLICATION FILED MAR. 30, 1920.

1,385,646.

Patented July 26, 1921.

2 SHEETS—SHEET 1.



INVENTOR

Nathan Rubenstein.

BY

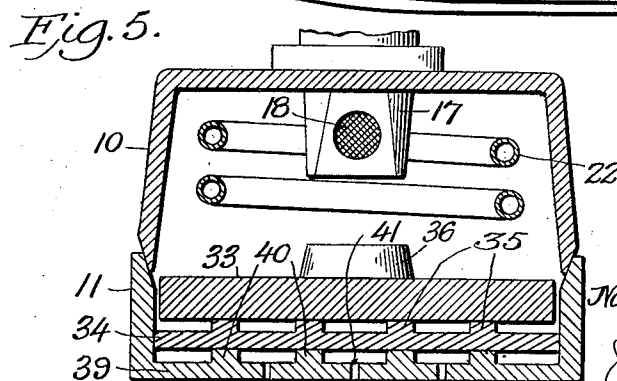
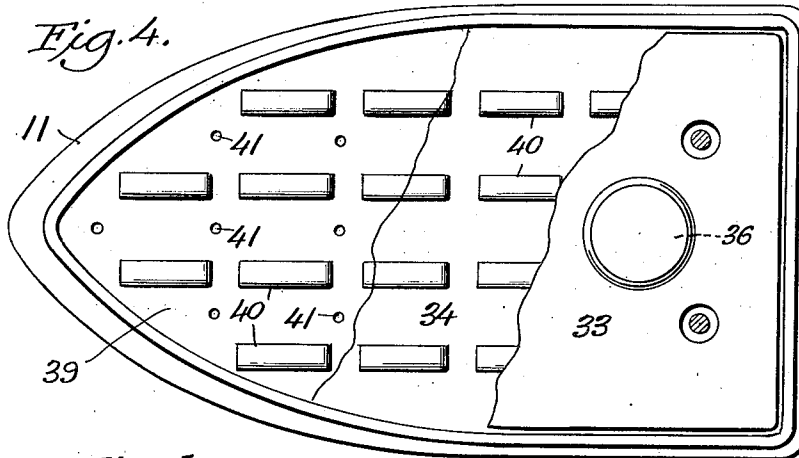
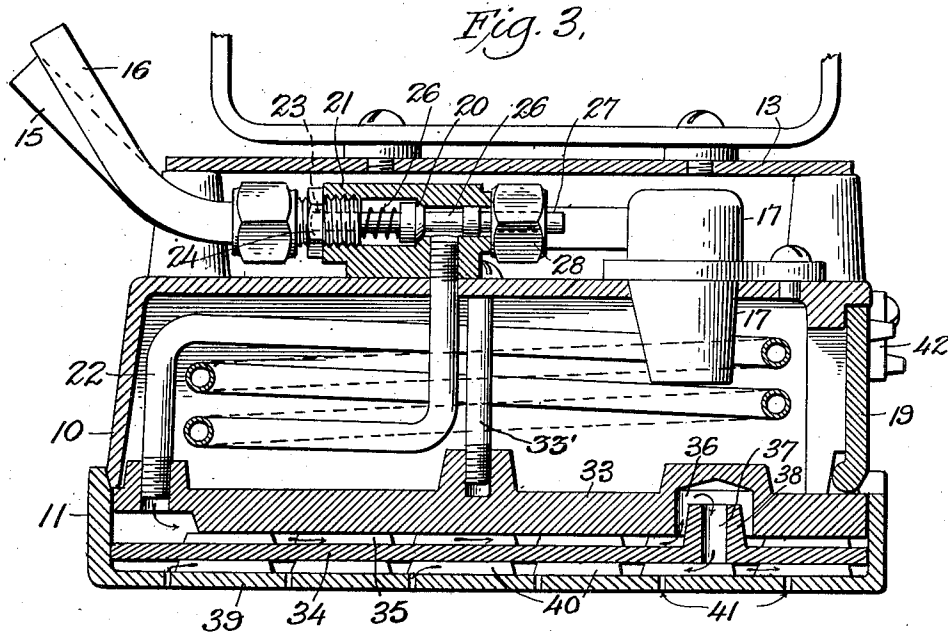
James F. Duhamel.
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2 SHEETS—SHEET 2.



INVENTOR
Nathan Rubenstein,
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UNITED STATES PATENT OFFICE.

NATHAN RUBENSTEIN, OF NEW YORK, N. Y.

SADIRON.

1,385,646.

Specification of Letters Patent.

Patented July 26, 1921.

Application filed March 30, 1920. Serial No. 369,910.

To all whom it may concern:

Be it known that I, NATHAN RUBENSTEIN, a citizen of the United States, and residing at New York, New York county and New York State, have invented certain new and useful Improvements in Sadirons, of which the following is a specification.

This invention relates to sad irons and more particularly to that class of irons which are heated from within and are provided with a water supply that is converted into steam to moisten the goods which are being pressed.

The object of the invention is to provide a sad iron with a gas supply pipe and an interior burner to heat the inside of the iron and a coil at the inner end of a water supply pipe into which water is admitted by a valve at the outside of the iron and before the water reaches the end of the coil, it is converted into steam that circulates around the bottom of the iron and finally out of perforations thereat and on the fabric being pressed.

These and other objects and details of the invention are more fully described in the following specification, set forth in the appended claims and illustrated in the accompanying drawings, wherein:

Figure 1 is a side elevation of the improved sad iron.

Fig. 2 is a plan view of the same with the handle and guard plate removed.

Fig. 3 is a sectional view through lines 3—3 of Fig. 2.

Fig. 4 is a plan view of the iron with the top removed.

Fig. 5 is a cross sectional view.

The body of the iron consists of two sections 10 and 11, held together by suitable screws 12, that also secure a guard plate 13, carrying a handle 14, to the top of the iron and protects the hand of the operator from any abnormal heat that may arise from the iron.

The part 10, constitutes the top of the iron and carries the nipples 15, and 16, to which are attached flexible tubes and the former nipple being connected with the burner, 17, that extends below the top wall and into the section 10, and has an outlet 18, covered with perforated sheet metal or wire mesh and opens toward the front of the iron so as to throw the flame toward that end, while the rear end of the iron has the door 19, around

which sufficient oxygen may pass for consumption by the flame.

This top section also carries a valve 20, that is the terminus of the nipple 16, and is inclosed in a casing 21, to which is connected the upper end of the coil 22. The valve stem consists of the part 23, that extends forward into the coupling 24, and is surrounded by the spring 26, that abuts the head of the plunger 27, passing through the packing nut 28, and which is engaged at its outer end by the lateral extension 29, of a lever 30. The outer end of the latter lever carries the vertical plunger 31, that passes upward through the plate 13, and has the knob 32, adjacent to the handle 14, and adapted to be operated by the hand that holds the said handle to depress same and throw the lever 30 to force the plunger 27 inward and unseat the valve 20, thus permitting the water to enter the coil 22, in quantities regulated by the plunger 31, and this amount is readily determined by the operator to furnish only a certain quantity of steam and which is easily observable by him.

Within the bottom section 11, are two plates 33 and 34, the former being much thicker than the latter to withstand the heat of the flame from the burner, and the plate 34 has ribs 35, on its upper side to provide space between the plates for the circulation of the steam. The coil 22, delivers the steam to the under side of the plate 33, and it passes up a pocket 36, in the said under side and downward through the opening 37, of a nipple 38, on the upper side of the plate 34, and the latter is supported above the bottom 39, by the ribs 40, thereon. After the steam thus circulates about the plates, it is free to pass out of the perforations 41, to moisten the goods being pressed.

The plate 33 is carried by the body section 10 and suspended by means of a central screw 33' and the end of pipe 22 and forms a bottom to said section when the parts are assembled although the plate is located in the lower section.

A gravity catch 42, holds the door 19, in its closed position and the ribs of the bottom and the plate 34, may run on regular lines and be broken at intervals to allow the steam to circulate laterally, while the perforations 41, may be arranged in lines or staggered to moisten the goods more thoroughly over a larger area.

Even if the water in the coil is not entirely vaporized when it reaches its outlet, it will be released on the upper face of plate 34, which will be sufficiently hot to convert it into steam, as suitable packing around the edges of the plate will prevent leakage to the bottom 39, and the water will eventually be evaporated. The operator will regulate his supply of water by the amount of steam arising from the goods as a large volume will indicate to him that he is too liberal with the valve 20, and any water of condensation that may lodge above the plate 34, will be quickly evaporated by the heat of the burner if the water is shut off for a short time and not allowed to pass into the outlet for steam.

It is obvious that the parts may be otherwise arranged or modified without departing from the essential features above described or from the scope of the appended claims.

What I claim as new is:—

1. In a sad iron, the combination of a hollow iron having perforations in its bottom wall, a dividing plate supported from the top of the iron and having a pocket, a second plate with a nipple adapted to enter the pocket of the first plate and trap water above the second plate, ribs adapted to form an open space on each side of the second plate, a steam generating coil within the upper part of the iron and connected with the space between the plates, a burner adjacent the coil, a valve admitting water to the steam coil, a handle for the iron, and a lever controlling the valve and adjacent to the handle.

2. In a sad iron, the combination of a hollow iron comprising a perforated bottom section and an upper section having a handle, a plate in the bottom section and having a steam passage, ribs adapted to provide spaces above and below said plate, a sec-

ond plate above the first, a water trap between the two plates, a water pipe entering the upper section as a coil and terminating below the second plate, a fuel burner in the upper section, a normally closed valve in the water pipe, and a lever adjacent the handle to open the valve.

3. In a sad iron, the combination of a hollow iron comprising a top section with inlets and a bottom section with outlets, a handle for the top section, a fuel supply pipe and a water supply pipe entering the top section, an open end coil at the terminus of the water pipe, a burner at the end of the fuel pipe, a plate in the lower section and above the end of the coil adapted to receive the steam generated in the coil on its lower side, a second plate spaced between the first plate and the bottom of the iron and a trap to confine the water of condensation above the second plate.

4. In a sad iron, the combination of a hollow iron, a handle, a fuel supply pipe and burner, a water supply pipe, and coil adjacent the burner, means for circulating the steam generated in the coil about the bottom of the iron, and out of outlets therein, a valve in the water supply pipe and closed by a spring, a lever adapted to act upon the stem of the valve and open same, a plunger adjacent the handle and adapted to operate the lever, plates in the bottom of the iron and having circulating spaces between them, and a trap comprising a nipple and a pocket to prevent the passage of water out of the outlets.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses, this 19th day of March, 1920.

NATHAN RUBENSTEIN.

Witnesses:

A. W. BAKER,

JAMES F. DUHAMEL.