

No. 826,554.

PATENTED JULY 24, 1906.

A. J. FARRELL.  
SAD IRON.

APPLICATION FILED DEC. 29, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

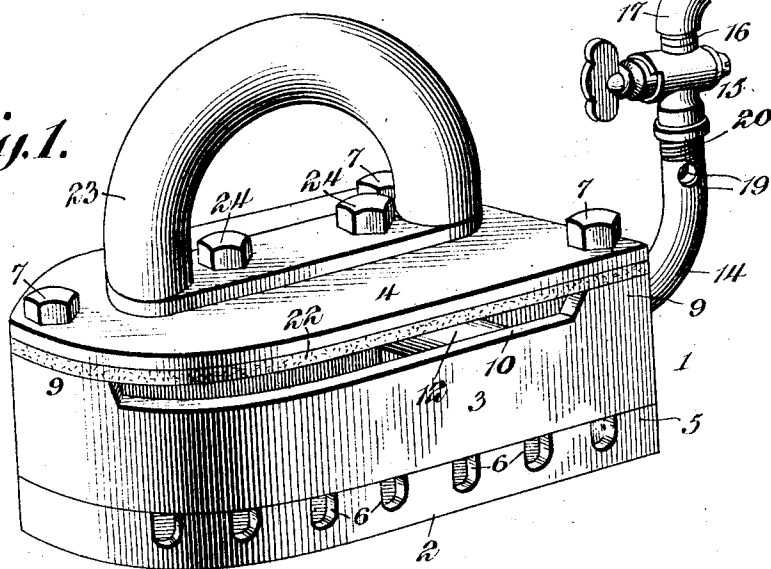


Fig. 2.

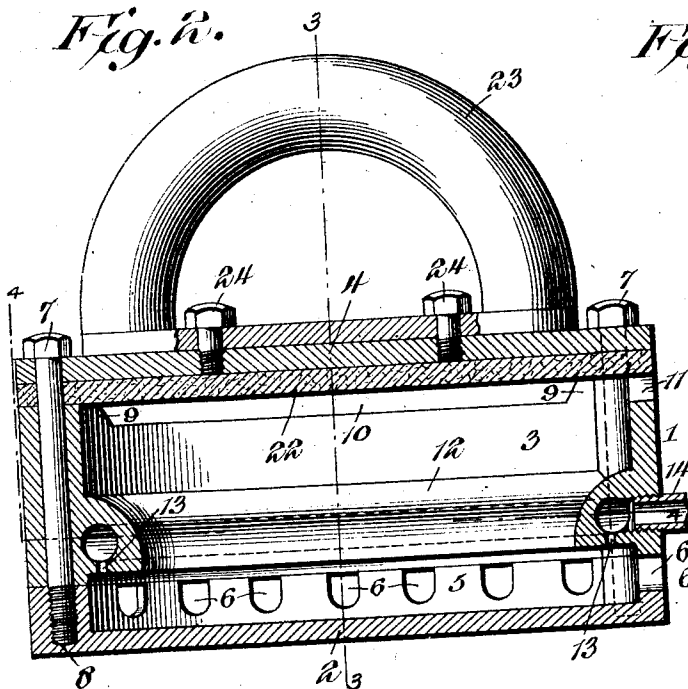
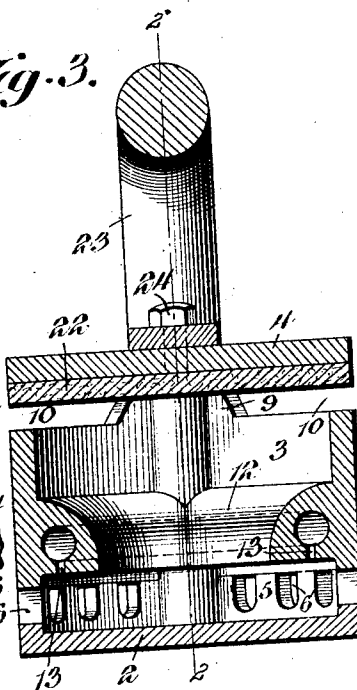


Fig. 3.



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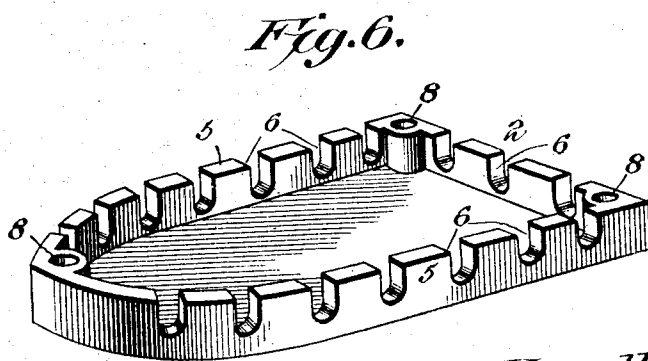
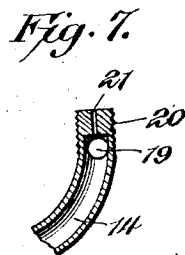
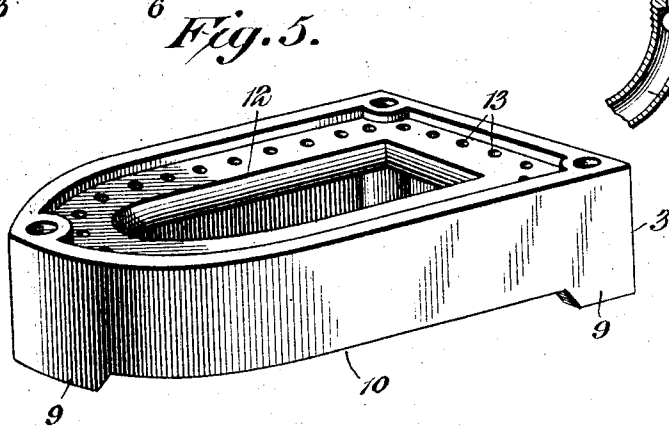
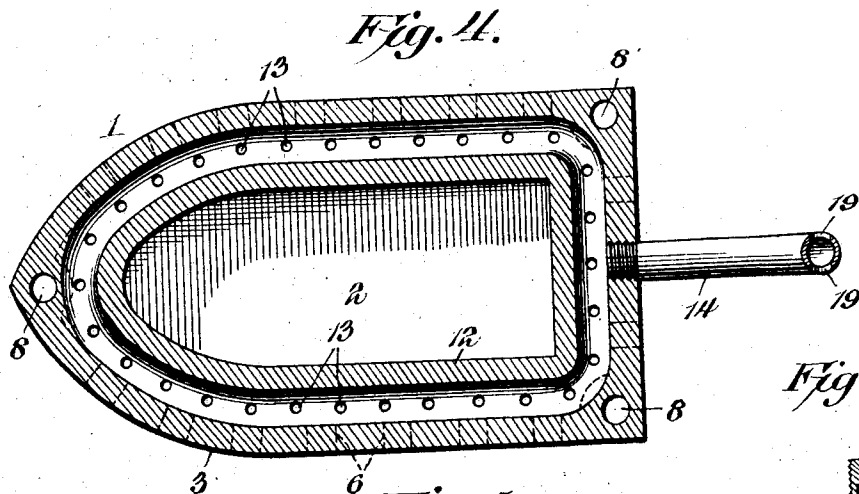
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# UNITED STATES PATENT OFFICE.

ARTHUR J. FARRELL, OF LITCHFIELD, ILLINOIS.

## SAD-IRON.

No. 826,554.

Specification of Letters Patent.

Application filed December 29, 1904. Serial No. 238,782.

Patented July 24, 1906.

*To all whom it may concern:*

Be it known that I, ARTHUR J. FARRELL, a citizen of the United States, residing at Litchfield, in the county of Montgomery and State of Illinois, have invented a new and useful Sad-Iron, of which the following is a specification.

The invention relates to improvements in sad-irons.

The object of the present invention is to improve the construction of sad-irons and to provide an exceedingly simple and inexpensive one of great strength and durability adapted to be readily connected with a gas-jet or other source of supply and capable of being effectively heated to the desired degree.

A further object of the invention is to provide a sad-iron of this character having an improved burner constituting a section of the body of the iron and provided with a continuous series of jet-apertures entirely surrounding the intermediate portion of the bottom.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended, it being understood that various changes in the form, proportion, size, and minor details of construction within the scope of the claim may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of the sad-iron constructed in accordance with this invention. Fig. 2 is a vertical longitudinal sectional view of the same on the line 2 2 of Fig. 3. Fig. 3 is a transverse sectional view on the line 3 3 of Fig. 2. Fig. 4 is a horizontal sectional view on the line 4 4 of Fig. 2. Fig. 5 is a detail perspective view of the intermediate burner-section of the body, showing the same inverted for illustrating the arrangement of the jet-openings. Fig. 6 is a detail perspective view of the bottom section of the body. Fig. 7 is a detail sectional view taken longitudinally of the pipe-section, illustrating the construction of the mixing-chamber and the gas-reducing inlet thereto.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a sad-iron body composed of

a bottom section 2, an intermediate burner-section 3, and a top or plate 4. The bottom of the body is provided with an upwardly-extending marginal flange 5, supporting the intermediate burner-section of the body, and provided at the back and sides of the body with recesses 6, forming openings and adapted to admit air to the interior of the sad-iron for supporting combustion. The intermediate burner-section 3, which is mounted upon the bottom section, is composed of side walls and a rear wall, the side walls being converged at the front portion to conform to the configuration of the sad-iron, as clearly shown in Figs. 4 and 5 of the drawings.

The burner-section constitutes the intermediate portion of the sad-iron body, and it is secured to the bottom section by means of vertical screws 7, piercing the top or plate 4 and the intermediate section and engaging threaded sockets 8 of the bottom section. The bottom section, as clearly shown in Fig. 6, is provided at the sockets with enlargements or bosses. The screws are located at the front of the sad-iron and at opposite sides of the back thereof and are provided at their upper ends with polygonal heads adapted to be engaged by a wrench or other tool. The lower edges of the intermediate burner-section fit snugly against the upper edges of the marginal flanges or walls of the bottom section, and an interior chamber or space is thus formed within the sad-iron body. The intermediate burner-section is provided at the front and at opposite sides of the back with vertical extensions or bosses 9, arranged to support the top or plate 4 and spacing the same from those portions of the upper edges of the intermediate section or burner lying between the extensions or lugs. This provides openings 10 and 11, located, respectively, at the sides and back of the body of the sad-iron.

The intermediate section is provided on its interior with a hollow horizontal rib 12, extending around the sides and back of the sad-iron and conforming to the contour thereof and having an interior passage or chamber extending entirely around the sad-iron. The top and side faces of the hollow rib are curved and merged into each other and present a rounded exterior. The lower face of the rib is flat and is pierced at intervals to provide jet-openings 13, whereby the hollow rib is adapted to operate as a burner. The burner, which is cast integral with the walls of the in-

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intermediate section, extends entirely around the sad-iron and is adapted to direct a series of flames against the bottom of the iron, whereby the latter is effectively heated and is adapted to be maintained continuously at the desired temperature.

The rear wall of the intermediate section is adapted to receive a pipe 14, which is threaded into the said intermediate section and which communicates with the interior of the hollow rib or burner. The pipe-section, which is provided with a suitable cock or cut-off 15 for controlling the flow of gas, has a tapered extension 16, adapted to receive a flexible tube 17 for connecting it with an ordinary gas-fixture. The pipe 14, which is adapted to form a mixing-chamber, is provided with openings 19 for the admission of air. The mixing-chamber by being constructed of a portion of a pipe or tube is exceedingly simple and inexpensive; but any other form of mixing-chamber may be readily employed, as will be readily understood. At the upper or outer side of the mixing-chamber the tube is provided with a solid portion 20, having a small bore or perforation 21, adapted to reduce the flow of gas. The gas passing through the mixing-chamber draws in a sufficient quantity of air to form a combustible mixture. The combustion is also supported by the air entering the top and bottom openings of the body of the sad-iron. Currents of air entering the sad-iron at the

top opening are interposed between the heated bottom and top or plate; but in order to prevent the latter from becoming hot a sheet 22 of asbestos or other suitable non-heat-conducting material is fitted against the lower face of the top or plate and is interposed between the same and the intermediate section, being clamped between the top or plate and the extensions or bosses 9.

A suitable handle 23 is secured to the top or plate by means of screws 24 or other suitable fastening devices.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A sad-iron having a body embodying a bottom section provided with a marginal flange having openings, an intermediate section supported by the flange and provided at its top with spaced projecting supporting portions, said intermediate section having a hollow rib, said rib being rounded at the top and side and having a flat bottom pierced at intervals to form jet-openings, and a cover mounted on the spaced supporting portions of the intermediate section.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ARTHUR J. FARRELL.

Witnesses:

L. M. KINSTLO,  
JOHN T. MACRELEWSKI.