(No Model.) 2 Sheets—Sheet 1.

H. KOEPP

SAD IRON.

No. 455,848. Patented July 14, 1891.

Fig. 1.

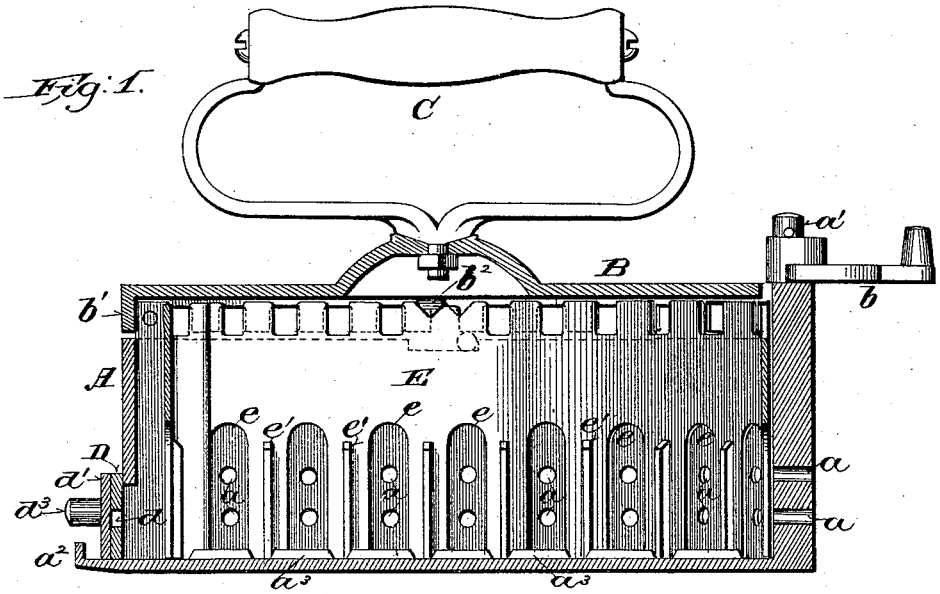


Fig. 2.

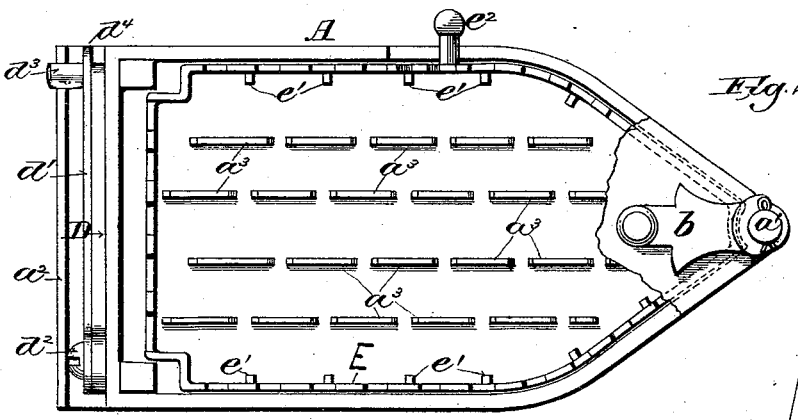


Fig. 3.

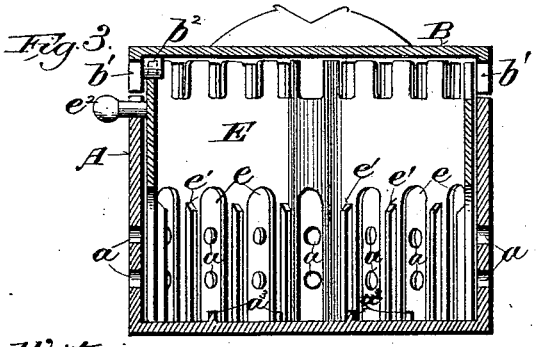
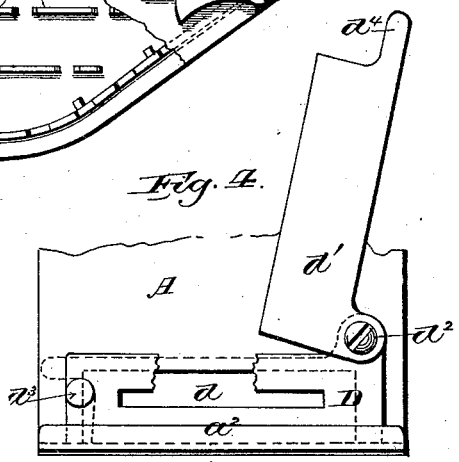


Fig. 4.



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Attorneys

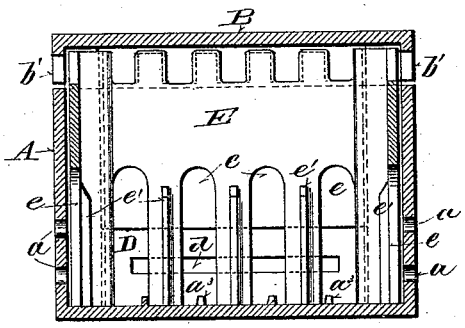
(No Model.) 2 Sheets—Sheet 2.

H. KOEPP.

SAD IRON.

No. 455,848. Patented July 14, 1891.

Fig. 5.



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UNITED STATES PATENT OFFICE.

HEINRICH KOEPP, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO KATHARINA ROSA, OF SAME PLACE.

SAD-IRON.

SPECIFICATION forming part of Letters Patent No. 455,848, dated July 14, 1891.

Application filed September 24, 1889. Serial No. 324,935. (No model.)

To all whom it may concern:

Be it known that I, HEINRICH KOEPP, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Sad-Irons; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to chambered self-heating sad-irons.

Its main objects are to regulate and control the draft, to protect the walls of the iron, and to simplify its construction.

It consists, essentially, of a hollow sad-iron having draft-openings in the sides, a shell or lining adapted to be inserted inside thereof and capable of a limited endwise movement therein, so as to open and close the draft-openings, and of certain other peculiarities of construction and arrangement hereinafter described, and pointed out in the claims.

In the accompanying drawings like letters designate the same parts in the several figures.

Figure 1 is a vertical longitudinal section of my improved sad-iron. Fig. 2 is a plan view of the same, the greater part of the cover being removed. Fig. 3 is a vertical cross-section of the iron, looking toward the point. Fig. 4 is a rear elevation showing the combined damper and clean-out door, and Fig. 5 is a vertical cross-section looking toward the rear end of the iron.

A represents the body of the iron, having in the sides near the bottom draft-openings *a a* of suitable shape, size, and number.

B is a cover suitably hinged to the back of the iron, and *b* is a catch or latch pivoted on a post or stud *a'* at the apex of the iron, so as to be turned over the point of the cover B and hold it closed, as shown in Fig. 2.

To the cover is attached, in the usual or any suitable manner, the handle C. About the edge of the cover is formed a perforated or indented depending flange *b'*, the perforations or indentations of which are above the upper edges of the iron A when the cover is closed, as shown in Figs. 1 and 3.

In the back of the iron, close to the bottom, a clean-out opening is formed, and the bottom is made to project, forming a ledge a^2, with an upturned flange at its edge below said opening for catching cinders, ashes, &c., which may accidentally work out through said openings from the iron.

A door D, having a draft-aperture *d*, is pivoted at one end to the back of the iron, so as to be swung over and close the clean-out opening therein, and upon the same pin d^2 is pivoted outside of said door a damper *d'*, which may be turned independently thereof, so as to open or close the aperture *d* therein. The door D is provided with a thumb-piece d^3, by which it is manipulated, and the damper *d'* is formed with a projection d^4, with which said thumb-piece engages, so as to carry the damper with it when the door is opened, for the purpose of entirely uncovering the clean-out opening in the iron.

E is a lining or shell, cast or formed open at the top and bottom, with sides corresponding with and adapted to the inside of the iron A, but a little shorter than said iron, so as to be capable of a limited endwise movement therein. It is formed in the sides near the bottom with slits or apertures *e e*, corresponding with the draft-openings *a a* and registering therewith when the lining is moved forward, as shown in Figs. 1 and 2. It is also preferably formed in the upper edge with indentations or apertures, those in the sides corresponding with the indentations or perforations in the flange *b'* of cover B and registering therewith when the said lining is in its forward position, and those in the rear end alternating, as shown in Fig. 5, with the indentations in the flange *b'* across the rear end of the cover. The apertures or slits *e e* are also provided in the rear end of the shell E adjacent to the draft-aperture *d* in the clean-out door D.

To hold the fuel away from the sides of the lining E adjacent to the draft-openings and to insure a draft through the fuel, I provide the lining on the inside with projections or

ribs e' e', and also form ribs or projections a^3 a^3 on the upper or interior surface of the bottom of the iron itself. The ribs e' e' serve also to re-enforce and strengthen the casting forming the lining E, which is preferably made quite light.

I provide the lining E with a thumb-piece e^2, which projects through an aperture or recess in the side of the iron and furnishes means for moving said lining to open and close the draft-openings both at the bottom and top of the iron.

For the purpose of holding the lining E in either position for an open or a closed draft I provide the cover with a detent b^2, which engages one or the other of two notches in the upper edge of said lining, as shown in Fig. 1.

I claim—

1. The combination, with a hollow sad-iron having draft-openings in the sides and a movable cover having a depending flange with openings therein, of a shell capable of a limited endwise movement in said iron and having apertures arranged to register with the openings in the sides of the iron and in the cover, said shell having side and end walls corresponding with the sides and ends of the iron and serving as a lining therefor and as dampers for controlling the draft, substantially as and for the purposes set forth.

2. The combination of a hollow sad-iron having draft-openings in the sides near the bottom and a draft-opening and damper in the rear end, a cover hinged thereto having openings at or near the edge, and a shell capable of a limited endwise movement in said iron and having openings in the sides arranged to register with the draft-openings in the sides of the iron and cover, and openings in the rear end adjacent to the draft-openings in the back of the iron and cover, said shell having sides and ends otherwise closed and serving both as a damper for controlling the draft and as a shield or lining for the iron, substantially as and for the purposes set forth.

3. The combination, with a hollow sad-iron having draft-openings in the sides, of a shell or lining having sides adapted to the inside of said iron and capable of a limited movement therein, said shell or lining being formed with apertures corresponding and arranged to register with the openings in said iron and provided with projections on the inside adjacent to said apertures, substantially as and for the purposes set forth.

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

HEINRICH KOEPP.

Witnesses:
CHAS. L. GOSS,
AUGUST OSTER.