

UNITED STATES PATENT OFFICE.

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STOVE-LINING.

SPECIFICATION forming part of Letters Patent No. 698,805, dated April 29, 1902.

Original application filed December 14, 1899, Serial No. 740,313. Divided and this application filed March 16, 1901. Serial No. 51,499. (No model.)

To all whom it may concern:

Be it known that I, EDWIN R. CAHOONE, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Stove-Linings, of which the following is a specification.

This invention relates to improvements in linings for fire-pots for stoves, and more especially to linings of a portable nature, and forms a division of my application for patent filed December 14, 1899, Serial No. 740,313.

The object of this invention is to provide a lining composed of a series of sections mounted side by side, whereby any individual part may be quickly and easily repaired.

A further object of this invention is to provide a series of portable bars forming a lining having air-heating chambers therein and exit-openings in the edges, which make communication between said chambers, a source of supply, and the fire-pot.

Many other objects and advantages will be hereinafter referred to and be particularly pointed out in the claims.

Referring to the drawings forming a part of this specification, Figure 1 is a perspective view of two portable sections of my improved lining. Fig. 2 is a side elevation of one section. Fig. 3 is a front view of the same, parts being broken away. Fig. 4 is a detail cross-section showing the arrangement of the sections when placed side by side. Fig. 5 is a vertical section showing the application of my invention and the means employed for heating water in connection therewith. Fig. 6 is a side view of a modified construction.

In the drawings, 1 indicates a portable bar or section of lining, which is composed of a rear flange or base 2; 3, a web connecting said flange with the front face portion 4, said face portion being grooved, as at 5, to prevent the coal from packing. Between the front 4 and the base 2 are formed, when two or more bars or sections are placed side by side, air-heating chambers 6, closed at the top by the head 7 and preferably open at the lower ends. The base 2 of each section extends on one side 8 quite a distance behind and overlaps the edge of the adjoining sections, both edges of the

sections being provided with a series of upwardly-inclined notches 9. By inclining the notches the fuel will not enter the chambers 6. The head 7 projects rearwardly from the base 2 and is connected to said base by a web 10, the web having a notch forming a seat to rest on the wall 11 of the stove, this position being further maintained by a web or lug 12, projecting rearwardly at a point approximately at the lower end of the base, forming an air-heating flue between the sections and the stove-wall. In the head 7 and on opposite sides thereof is a notch 13 and a lug 14, the lug on the adjacent section fitting the notch of its companion.

My invention is particularly well adapted for the application of a water-back, and one way of applying it in this connection is disclosed in Fig. 5.

15 represents the water-back, located so as to have all of its sides subjected to the heat as it ascends to the exit, enabling me to obtain heated water in a comparatively short time.

In the modification disclosed in Fig. 6 the web 3 and lug 12 are each dispensed with, and a chamber is formed between each section and its support.

The operation of my invention is as follows: The bars or sections are dropped in position on suitable supports in the fire-pot, the edges of the base 2 of each section overlapping the opposite edges of the adjacent sections, and the lug 14 fits its respective notch 13, as shown in Figs. 1 and 4. Hence it will be seen that the lugs 14 position the sections, while the overlapping edges of the bases form a wedging action, which securely locks the sections together. The notches 9 of each adjacent section coincide with each other, forming a means of egress and ingress for the flames. The heads 7 fit close to each other, while the remainder of the fronts do not touch, forming a vertical slot between each section for introducing the heated air to the fire-pot. The air enters the air-heating flue 8 at the bottom, becomes highly heated, and passes through the exit-openings formed by the notches 9 in the edges of the portable sections into the air-chambers 6 in said sections. As the air passes into the chambers 6 it becomes broken and is

made more susceptible to a mixing action with the products of combustion, and in this heated condition it enters the fire-pot.

My invention is extremely simple in construction.

It is thought the utility of my invention will be readily comprehended. Suppose a portion of the lining of the stove should require repairs. The particular bar or section would be removed, and a new one or more, as the case may be, could be quickly and readily substituted by any attendant having ordinary intelligence.

Having thus fully described my invention, what I claim is—

1. A fire-pot lining comprising a series of portable sections, each section having a lug on one side and a notch on its opposite side, and an outwardly-projecting flange on each side one of which is wider than the other, the lug of one section fitting the notch of the adjoining section, and the widest flange of one section overlapping the narrow flange of the adjoining section thereby locking and positioning the sections together when assembled.

2. A fire-pot lining comprising a series of portable sections, each section having a front portion and a base spaced from each other, said base having its edges notched, one side of said base extending beyond the line of the edge of the front portion and adapted to overlap the base of an adjoining section, the notches in the base registering to form air-exits, whereby air may be introduced to the fire-pot, means for spacing apart the front portions of the adjoining sections, and means for securing the sections together.

3. A fire-pot lining comprising a series of portable sections, each section having a front portion and a base, means connecting the front portion and base, the front portion, the base

and the means connecting the same form, with adjoining sections, when assembled air-chambers, and a head which is slightly wider than the front portion whereby a space is formed between two adjoining sections below the head to form exits for air to pass to the fire-pot, air-heating chambers communicating with said spaces, and means for holding the sections together.

4. A section for a fire-pot lining, comprising a front portion, a base, and a web connecting the front portion and base, said base being provided with notches along its side edges adapted to be brought into alignment with notches of adjacent sections of a fire-pot, said section also comprising means for spacing it from adjacent sections and from the fire-pot, whereby air may be heated and introduced into the combustion-chamber through the spaces formed between adjacent sections when assembled.

5. A fire-pot lining, comprising portable sections, having a front portion, a base having its edges notched, and a web connecting the front portion and base, air-heating chambers being formed between the sections when placed side by side, means for spacing the sections, to form exits from said chambers, and air-heating chambers also being formed between the fire-pot and portable sections, said air-heating chambers communicating through the notches in the base with the afore-said air-heating chambers formed between the adjoining sections.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

EDWIN R. CAHOONE.

Witnesses:

GEO. E. FRECH,
W. A. WILLIAMS.