Sept. 24, 1935. A. LINDBERG 2,015,485

FIREPLACE

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Fig. 1.

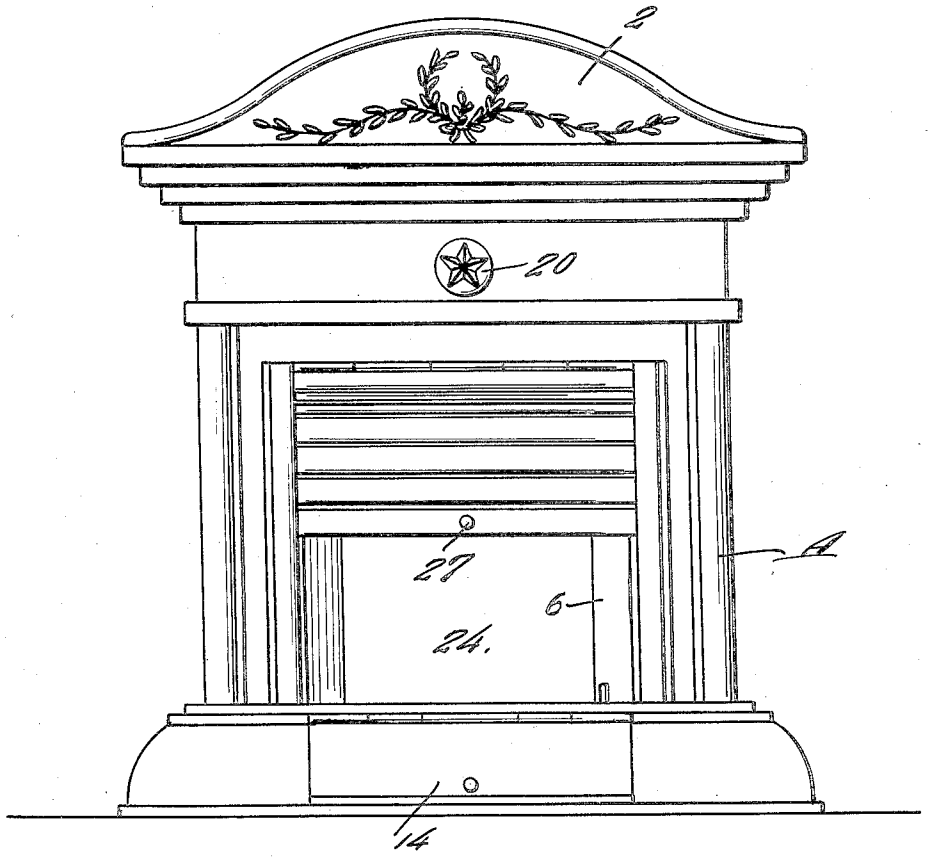
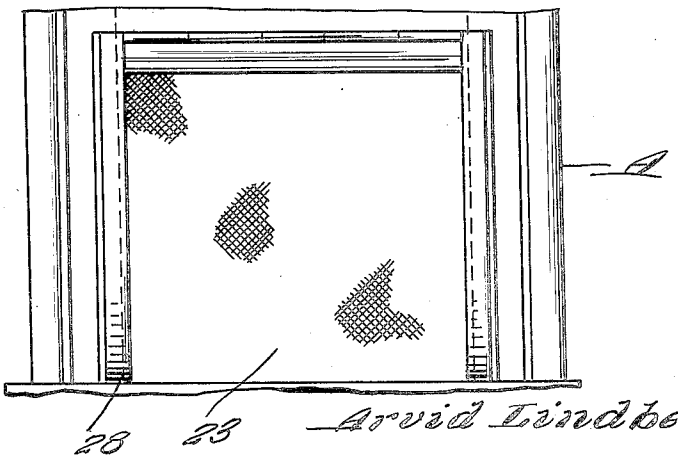


Fig. 2.



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Fig. 3.

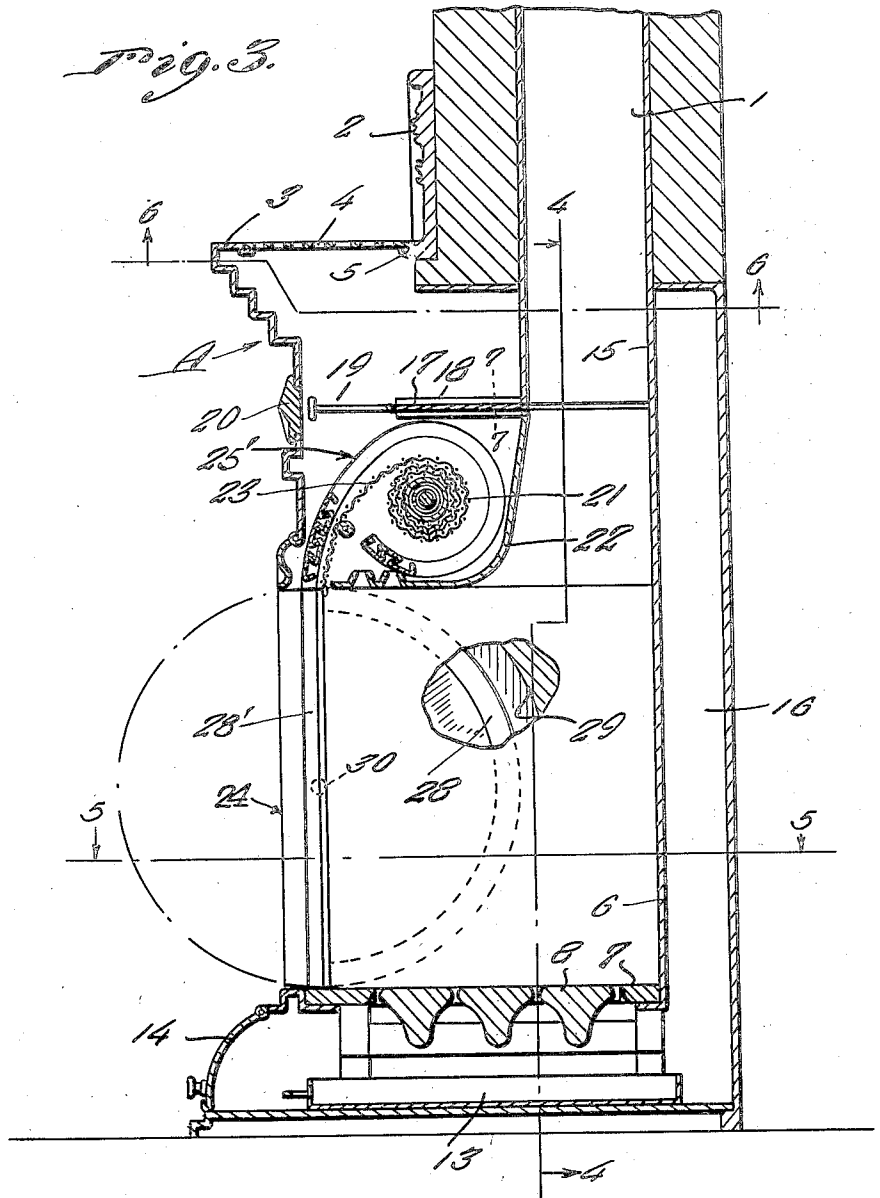
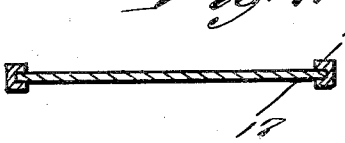


Fig. 7.



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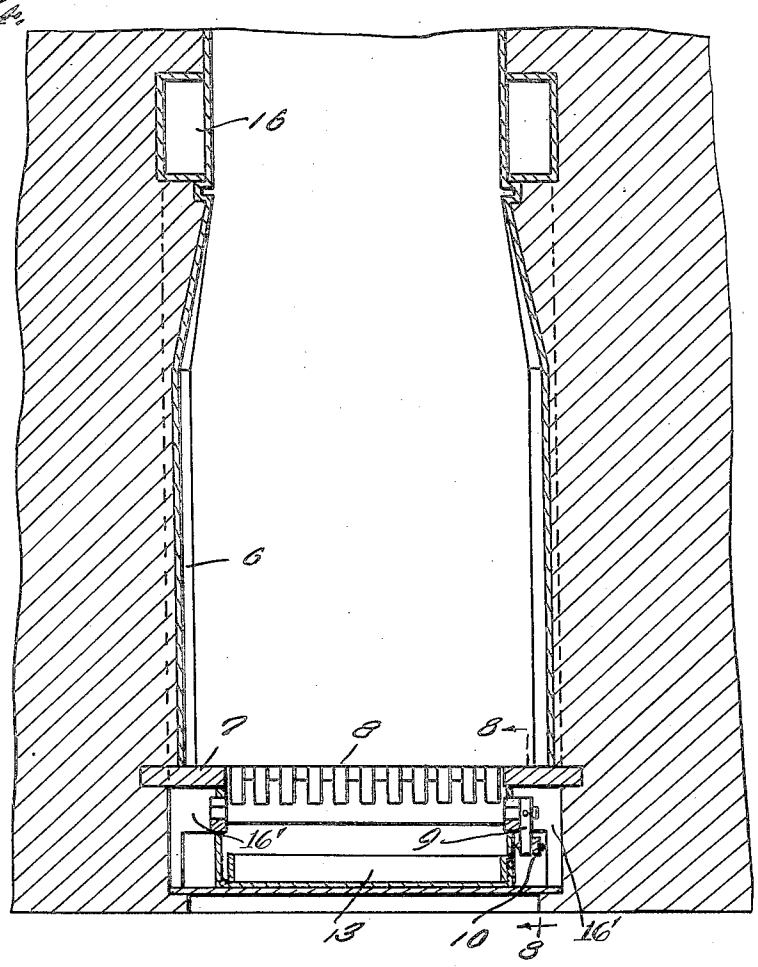
Attorney

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FIREPLACE

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Fig. 6.



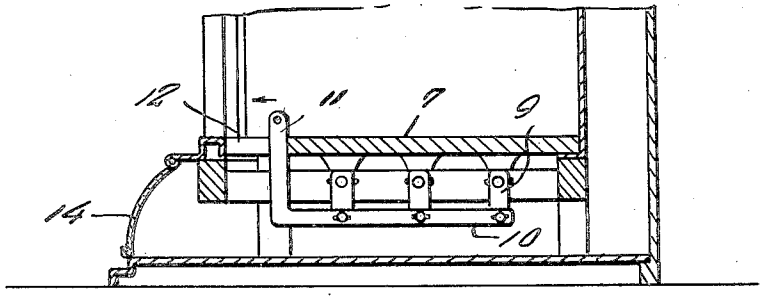


Fig. 8.

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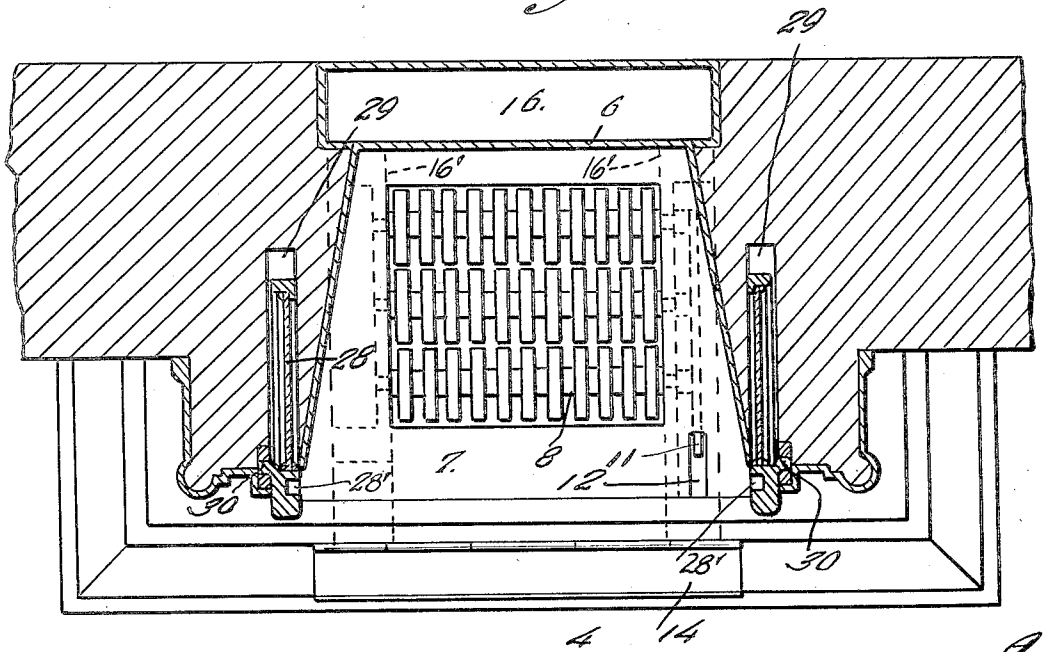
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Fig. 5.



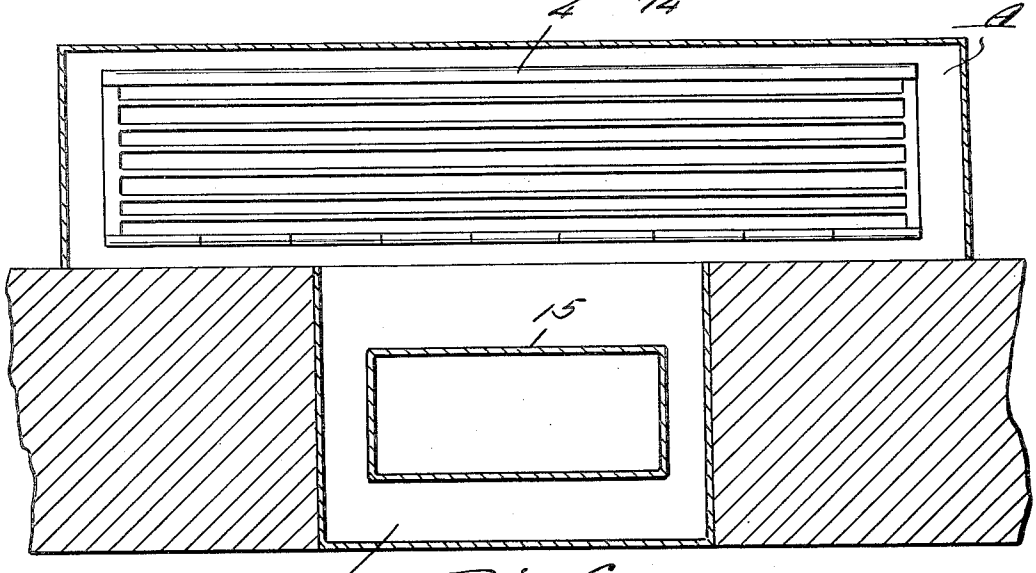


Fig. 6.

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Fig. 9.

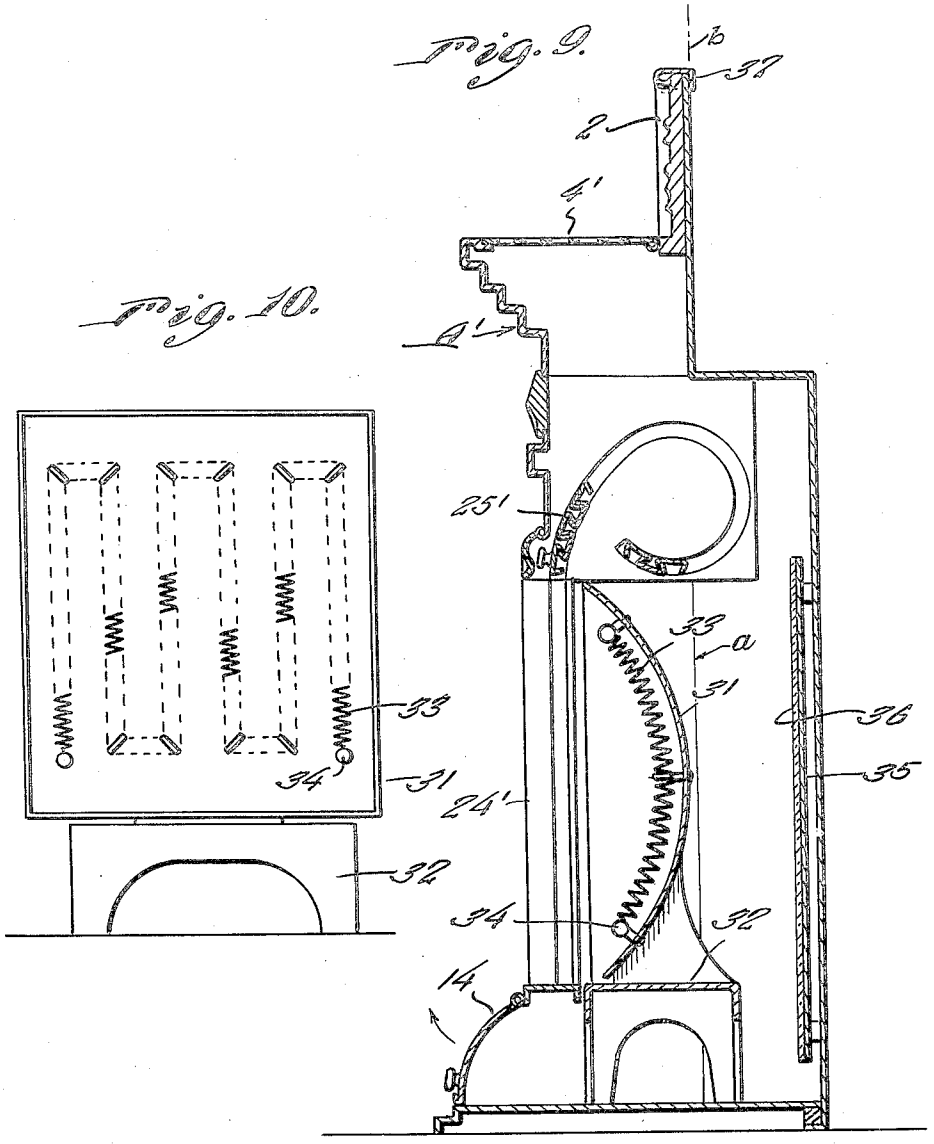


Fig. 10.

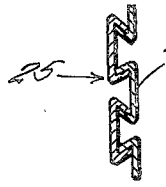


Fig. 11.

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Patented Sept. 24, 1935 2,015,485

UNITED STATES PATENT OFFICE

2,015,485

FIREPLACE

Arvid Lindberg, Lima, Ohio

Application June 28, 1933, Serial No. 678,080

1 Claim. (Cl. 219—34)

This invention relates to a fireplace which can be used with a chimney or with electric heating means, the general object of the invention being to provide means whereby air will circulate through the fireplace so that it will be heated and then be discharged at the top part of the fireplace and through a shelf arrangement, with a shield for closing or partly closing the fireplace when desired.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a front view of the invention, with the shield partly lowered.

Figure 2 is a fragmentary front view with the shield in raised position and the screen in lowered position.

Figure 3 is a vertical sectional view.

Figure 4 is a section on line 4—4 of Figure 3.

Figure 5 is a section on line 5—5 of Figure 3.

Figure 6 is a section on line 6—6 of Figure 3.

Figure 7 is a section on line 7—7 of Figure 3.

Figure 8 is a section on line 8—8 of Figure 4.

Figure 9 is a vertical sectional view showing the invention used with an electric heating element and without the chimney.

Figure 10 is a view of the heating element shown in Figure 9.

Figure 11 is a detail view of the shield.

As shown in these drawings, the front A of the device is made in the form of a mantel of ornamental design and preferably formed of sheet metal, with the rear part of the device placed in a regular fireplace provided with a chimney 1, as shown in Figures 3 to 8, or this rear part may be placed in an opening formed in a wall, when the device is constructed as shown in Figure 9. An ornamental molding 2 is placed against the wall above the opening to form a top for the device and the shelf 3 has an opening therein closed by a grating 4 which is hingedly connected to the molding, as shown at 5, so that it can be swung upwardly to uncover the opening, when desired.

When the device is used in a fireplace, as in Figures 3 to 8, a casing 6 is placed in the outer casing forming the exterior part of the device and said casing 6 has a bottom part 7 having an opening therein in which is placed the grate bars 8 provided with depending parts 9 which are connected to a lever 10 having an upwardly extending portion 11 passing through a slot 12 in the bottom part 7, this part 11 acting as a handle so that the portion 10 can be rocked back and forth to rock the grate bars. An ash pan 13 is located below the grate and this pan can be removed by opening an upwardly opening door 14 located at the lower part of the front of the device. The casing 6 has a reduced portion 15 which is connected with the flue 1 so that the fuel placed on the grate, when ignited, will be subjected to a draft, by opening, or partly opening the door 14 and the products of combustion will pass up the chimney. Of course, if desired, the door 14 can be provided with a damper.

The casing 6 and its reduced upper portion form a passage 16 between its rear part and the rear part of the main casing and the lower end of this passage communicates with the passages 16'. These passages 16' are located, one on each side of the ash pit and extend to the opening covered by the door, as shown in Figure 3 and in dotted lines in Figure 5. Thus some of the air entering the door opening will pass through these passages 16' into the passage 16 and pass up the passage 16. This air will be heated by the burning fuel in the casing 6 and then this air will pass upwardly and around the top part of the casing 6 and then pass through the grating 4 and thus heat the room.

A damper 17 is slidably arranged in the guideways 18 in the upper part of the main casing and is utilized to control the passage of the products of combustion through the reduced portion 15. The handle 19 of this damper is accessible through an opening covered by an ornamental plug or closure 20 in the front of the main casing.

A spring roller 21 is rotatably supported in the upper part of the main casing and above the top 22 of the casing 6 and carries a screen 23 which may be pulled down across the front opening 24 of the front A to prevent sparks or the like from flying out into the room. This screen can be held in lowered position in any suitable manner, and by shoving it upwardly, the roller will be rotated by the spring so that the screen will be wound thereon.

A scroll groove 25' is formed in each internal wall of the main casing above the top 22 of the casing 6 for receiving the side edges of a shield 25 which is formed of a plurality of channeled members 26 reversely arranged and having their flanges converging from the bight parts, with the

flanges of each member engaging the flanges of adjacent members, as shown in Figure 11. A knob 27 is connected to the lower end of the shield so that it can be readily raised and lowered and this shield can be used for entirely closing the opening 24 or for partly closing it or by shoving the shield all the way up, the opening 24 will be fully exposed.

A pair of substantially semi-circular members 28 is located in recesses 29 located, one at each side of the opening, and each member is pivoted in the recess at the middle of its flat side, as shown at 30, so that it can be swung from a position within the recess to a position partly out of the recess or wholly out of the recess. The screen may be attached to these members and then by swinging the members outwardly, the screen will be caused to assume a substantially arcuate formation in front of the opening, with the members 28 forming the sides of the space formed by said arcuate screen. The front edges of these members 28 are formed with the guideways 28' for the shield.

When the device shown in Figures 9 and 10 is to be used, the casing A' can be placed in a recess in a wall and an arcuate member 31 supported on a base 32 is placed in the casing with its concaved face facing the opening 24'. The heating elements 33 are connected to the concaved face of the member 31 by the binding posts 34 and these elements can be connected to a source of electrical supply in any suitable manner. A backing plate 35 is supported from the rear of the casing in spaced relation and has its front face covered with a layer 36 of asbestos or the like. Thus in this case, the air is heated by electricity and by opening the lower door 14', the air will pass therethrough into the lower part of the casing and then flow upwardly through the grating 4' and, of course, some of the heat from the heating elements will be directed through the opening 24' by the member 31. The door 14' can be held in open or partly open position in any suitable manner. This device is also provided with the shield 25', though it is not necessary to use the screen with this device unless desirable for the purpose of keeping a child from touching the hot coils.

The front and rear parts of the main casing may be connected together by moulding 37, as shown in Figure 9, when the casing is formed of front and rear parts, the line of separation of the two parts being shown at *a* in Fig. 9 and the wall line is shown at *b* in said figure.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claim.

What is claimed is:—

A fireplace stove comprising a vertically arranged casing having a rear extension of less height than the casing, said extension to be positioned in a fireplace, said casing having a flat top provided with openings, said casing having a large opening in its front part the lower end of which is spaced from the bottom of the casing, and said casing having a smaller opening in its front part located below the large opening, a door for controlling the smaller opening and having its upper edge hinged to the front of the casing slightly above said lower opening, a closure member for the large opening, a hollow base member resting on the bottom of the casing and having openings in its side walls, said base member being spaced from the rear wall of the extension, a vertically arranged concavo-convex member supported by the base member and located in rear of the large opening with its concave side facing said large opening and its rear side slightly spaced from the extension, electric heating members supported on the concave side of said member and a sheet of heat non-conducting material supported by the rear wall of the extension in spaced relation therefrom and located in rear of the concavo-convex member and extending above and below the same.

ARVID LINDBERG.