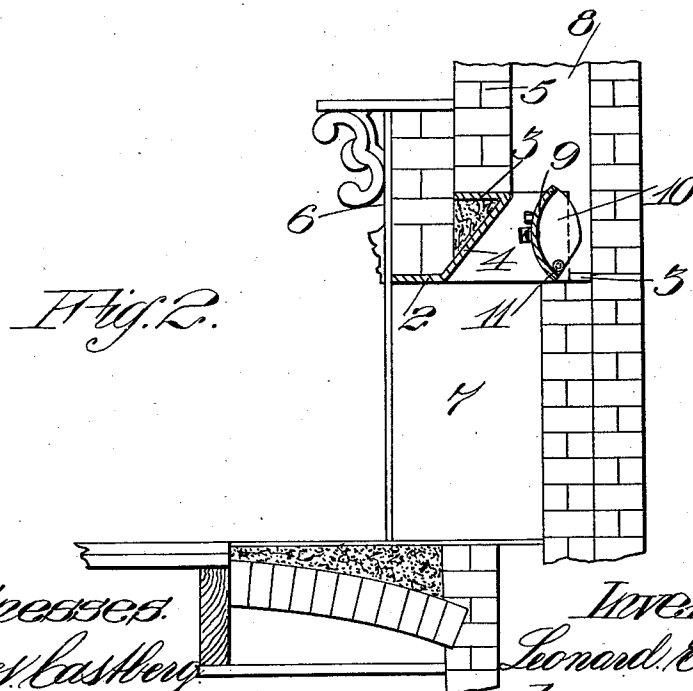
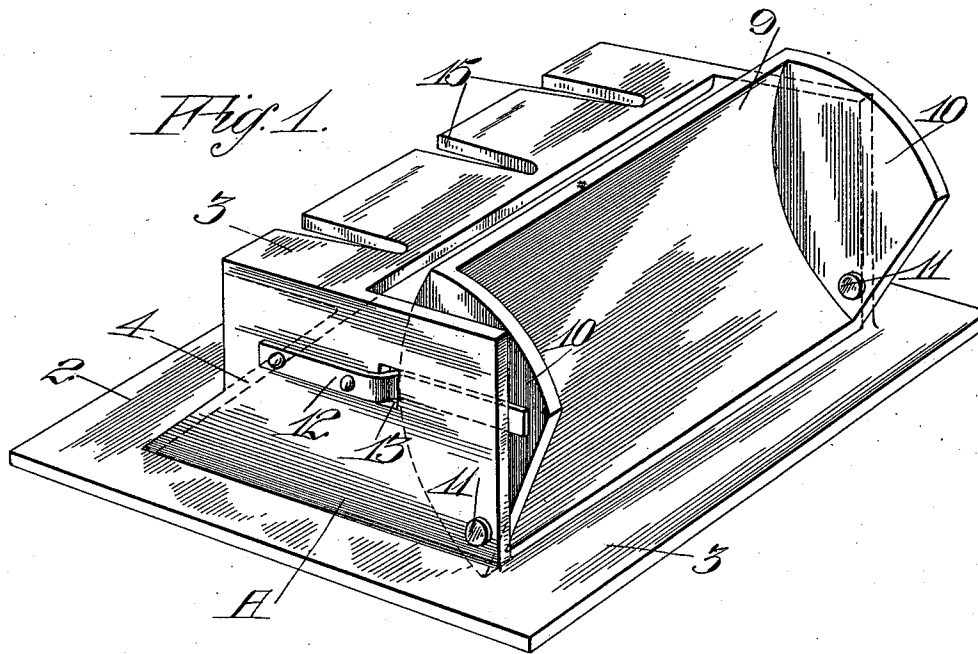


L. E. CLAWSON.
 ARCH AND REGULATOR ATTACHMENT FOR FIREPLACES.
 APPLICATION FILED JUNE 20, 1910.

1,008,952.

Patented Nov. 14, 1911.



Witnesses.
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UNITED STATES PATENT OFFICE.

LEONARD E. CLAWSON, OF SAN FRANCISCO, CALIFORNIA.

ARCH AND REGULATOR ATTACHMENT FOR FIREPLACES.

1,008,952.

Specification of Letters Patent.

Patented Nov. 14, 1911.

Application filed June 20, 1910. Serial No. 567,788.

To all whom it may concern:

Be it known that I, LEONARD E. CLAWSON, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Arch and Regulator Attachments for Fireplaces, of which the following is a specification.

My invention relates to improvements in fire places.

It consists in a front and back piece or casting made integral with each other and forming independent and connected supports for the brick structure of the main portion of the chimney and for the ornamental finished front, thus forcing the mason and mantel-men to provide proper construction for draft, making a bond from the mantel to the chimney, and also mechanism to regulate the draft.

It also comprises the combination of parts and details of construction which will be more fully hereinafter described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a perspective view of my attachment. Fig. 2 is a sectional view showing the same.

My device consists of a casting A, having a length and width suitable to the size and style of chimney to which it is to be applied. This casting has the two horizontal shelf-like portions 2 and 3, and these are connected by an inclined plate 4 formed integral therewith. The main portion 5 of the front of the chimney is supported upon the shelf or table 3, and the ornamental portions 6 in conjunction with the mantel are supported upon the shelf or table 2.

The plate 4 forms a smooth, direct connection between the fire place 7 and the chimney flue 8, and makes it impossible for the chimney or mantel builder to so build the throat as to make any flat or angular surfaces for the smoke to strike, and which would flow out into the room. The construction provides a smooth surface, without any break or angle in it.

The back of the throat is formed by a curved, rounded surface 9, which is here shown as provided with ends 10, and these ends are pivoted, as shown at 11, so that this portion is turnable about the pivots, to open or close the throat and the connection between the fire place and the chimney to any desired degree. This curved surface

extends entirely across the back and may be fixed at any desired point for the regulation of the opening by turning it about its pivots.

In order to secure it in a simple manner, without too many mechanical devices, I have here shown spring arms 12, secured upon each of the ends of the structure A, and these springs, which may be fastened upon the outside, are curved to enter through slots or openings 13 in the ends A, and thence extend within these ends so that a sufficient pressure will be brought upon the ends of the regulator 9 to retain it at any point to which it may be adjusted. In this manner I can control the throat or opening between the fire place and the chimney to any desired extent. It may be opened wide to expose the whole size of the throat, or it may be closed to any desired proportion, or to form a complete shut-off, which may be desirable when the fire place is not in use.

The convexity of that portion of the device 9 being presented to the moving gases and products of combustion and in opposition to the inclined surface 4, will provide a smooth flow of these products and a means for insuring their direction into and up the chimney flue, and without any break or angle in the passage through which they flow, thus avoiding the eddies which would normally cause the smoke and products of combustion to be checked and often returned into the room. It also provides a means to adjust the proportion of the flue to the fireplace opening. The rule for the size of the flue with relation to the face opening of the fireplace is one-tenth of the area of said opening for ordinary lengths of flue or chimney, but when the flue is of great length so that the draft is too strong, this device may be adjusted to produce any other desired proportionate area, as seven, eight, or nine per cent., and a substantial saving may be made of the heat which would otherwise be lost.

I have shown the shelf or surface 3 with transverse slots or channels 15 which serve for the attachment and adjustment of reinforcing bars, which may be necessary when this portion is of unusual length and possible weakness. When such a bar or bars are used they may lie upon the surface and be secured by bolts passing through the bars and the slots with suitable heads, washers, or plates below; and the bars being ad-

justed to or from the edge as desired, the nuts may be tightened to hold the bars in place.

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

1. In arch and regulator attachment for fire-places, said attachment consisting of a member formed with upper and lower shelves, parallel ends and an inclined plate connecting said shelves, said lower shelf having greater width and length than the upper shelf, and said ends extending back of the rear edge of the upper shelf; and a regulator contained in the space back of the upper shelf and between said ends, said regulator having a convexed front and having its lower portion pivotally mounted between the lower portions of said ends.

2. In arch and regulator attachment for fire-places, said attachment consisting of a member formed with upper and lower

shelves, parallel ends and an inclined plate connecting said shelves, said lower shelf having greater width and length than the upper shelf and said ends extending back of the rear edge of the upper shelf; and a regulator contained in the space back of the upper shelf and between said ends, said regulator having a convexed front and having its lower portion pivotally mounted between the lower portions of said ends, and a spring plate located between the end of said member and the corresponding end of the regulator for holding said regulator in its adjusted position.

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

LEONARD E. CLAWSON.

Witnesses:

G. H. STRONG,

CHARLES A. PENFIELD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."