L. OGAN.

DAMPER.

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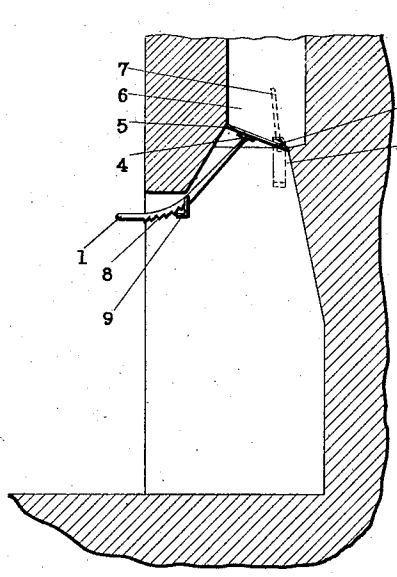
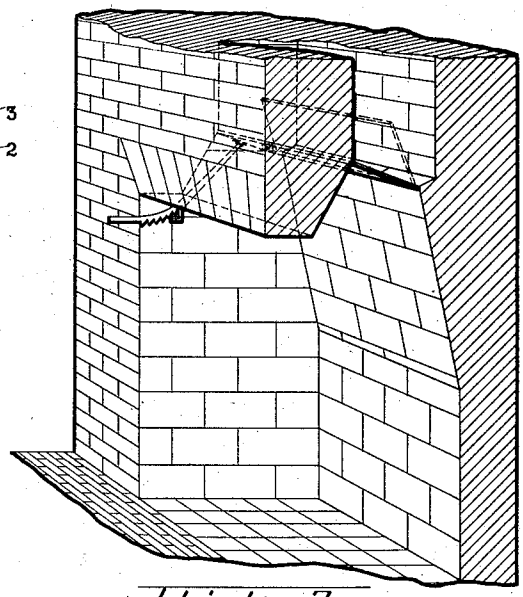
1,010,790. **Patented Dec. 5, 1911.**



Hip 1



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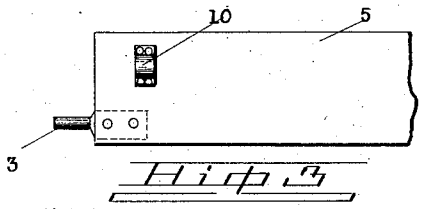

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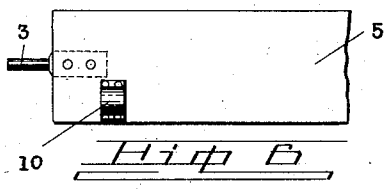

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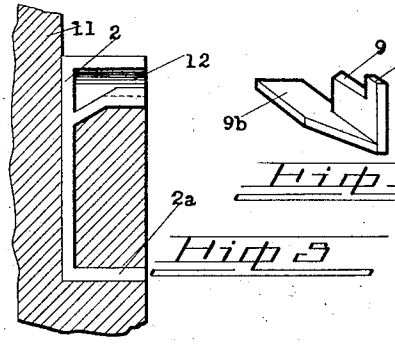
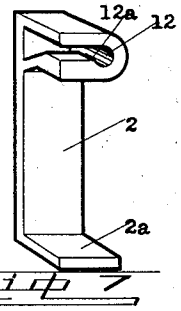


Hip 5

Hip 4



Hip 7

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DAMPER.

1,010,790. Specification of Letters Patent. Patented Dec. 5, 1911.

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To all whom it may concern:

Be it known that I, LEW OGAN, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Dampers, of which the following is a specification.

This invention relates to improvements in dampers and especially to a form which may be employed in fireplaces, and has for its object to provide a damper which is cheap in construction, easily operated, and which is effective in controlling the draft in the fireplace, and which at the same time prevents the heated air from escaping with the draft, thus rendering the fireplace more effective as a heater. I accomplish these objects by the mechanism illustrated in the accompanying drawing, in which—

Figure 1 is a transverse sectional view showing my damper in place. Fig. 2 is a perspective view showing the interior of a fireplace, with a damper embodying the principle of my invention, installed therein. Fig. 3 is a portion of a damper plate in detail. Fig. 4 is a perspective view of a lock or catch. Fig. 5 is a front view of a hanger or bearing iron, mounted in the fireplace wall. Fig. 6 shows a damper plate having a bearing secured at the center of its ends. Fig. 7 is a side view of a hanger iron in detail.

Similar characters indicate similar parts in each of the views.

In the drawing 1 is the handle of an operating lever, pivotally mounted in the bearing 4 of the cap 10, which is secured at the upper edge of the damper plate ordinarily, though when it is found desirable to mount the plate at the center, this pivotal connection is found to be most satisfactory at the lower edge, as shown in Fig. 6.

In the respective end walls of the fireplace is secured a bearing lug 2, at the point of the projecting ledge of the back wall. This bearing iron or lug consists of the usual strap iron, or it may be cast, and has the upper portion enlarged toward one side, so that it will extend approximately through the facing brick, the bottom portion 2^a, being bent at right angles to conform thereto.

Across the front face of the enlarged upper portion of the iron 2 is formed a deep slot or recess 12 leading well toward the rear edge. At the back of the projecting top portion a small recess extends from the bottom of recess 12, at right angles thereto, leaving the shoulder 12^a thereby forming a bearing for the journal 3 of the damper. At a short distance from the extremity of the bearing, the iron is cut away so as to leave a small bearing surface, thereby reducing the friction. The inner wall of the iron is made continuous over the recess and the end of the bearing journal rests against this part, which will not give way, as brick would do, after continued use.

The transverse portions of the bearing irons are made approximately equal to the thickness of a facing brick; and the length also, is made to conform to brick sizes so that they may be installed between brick joints, without the need of dividing a brick.

When installing a damper the irons are placed at the desired point in the fire brick wall, against the concrete or other material 11 to be faced. The bricks are then laid in place against the body of the iron and upon the bottom part 2^a. In this manner the bearing is made permanently secure, and it is concealed from view and is protected from soot and other substances.

The damper is placed in position by inserting one end of a journal lengthwise into its bearing, and the wide opening of the slot 12 permits the other journal to swing into place over the shoulder 12^a the journals having been cut of a length to snugly fit against the inner wall of their respective bearing irons.

Figs. 1 and 2 show the method of operating this damper. At the upper edge thereof and preferably at the left hand end, is provided a cap 10, in which the toothed bar 8 is engaged and which is free to swing in its support. At a suitable point near the front edge of the end wall is secured a catch or lock 9 on which is formed a long shank at the end of which is the stop 9^a. The purpose of this extended shank is to permit the latch bar, to engage therein when the end walls are formed diagonally with reference to the back wall, which would necessitate a considerable lateral movement.

It will be seen that by a simple back and forth movement of the latch bar, the damper may be rotated on its bearings and secured at any angle desired, across the throat 6 of the chimney, until it is entirely closed, or it may be placed against the back wall leav-

ing the passage unobstructed. The points 5 and 7 show the rear and front limits of movement.

In cases where the draft conditions might require a free circulation along both front and back walls of the chimney, the bearing irons may be secured at the center of the end walls of the passage and the bearings 3 placed at the median line of the damper, as shown in Fig. 6, where it will be operated in the same manner as above described.

Should the fireplace in which the damper is to be installed, be of unusual size, a bracket may be secured at the center of the back wall, so that two of the dampers may be placed end to end, which may be operated singly or both together, as desired.

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

In a fire-place, in combination with the walls thereof, a damper, a bearing iron having a forwardly projecting portion at its upper end which is provided with a laterally extending slot, at the base of which is formed a journal-bearing having a dust receptacle leading from its inner end, secured behind the facing brick, in each lateral wall, said slotted portion communicating with the exterior,—a journal secured at each end of the damper and adapted to be received by one of said slotted bearings, whereby the damper is removably mounted at the rear wall of the fire-place,—a catch secured in an end wall,—and a latch bar secured in the corresponding end of the damper for engaging thereon, whereby the damper is secured at any desired angle for throwing the heat forward and for controlling the draft.

In testimony whereof I affix my signature in presence of two witnesses.

LEW OGAN.

Witnesses:
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