

P. DELSING.
FIREPLACE DAMPER.
APPLICATION FILED MAY 20, 1912.

1,049,566.

Patented Jan. 7, 1913.

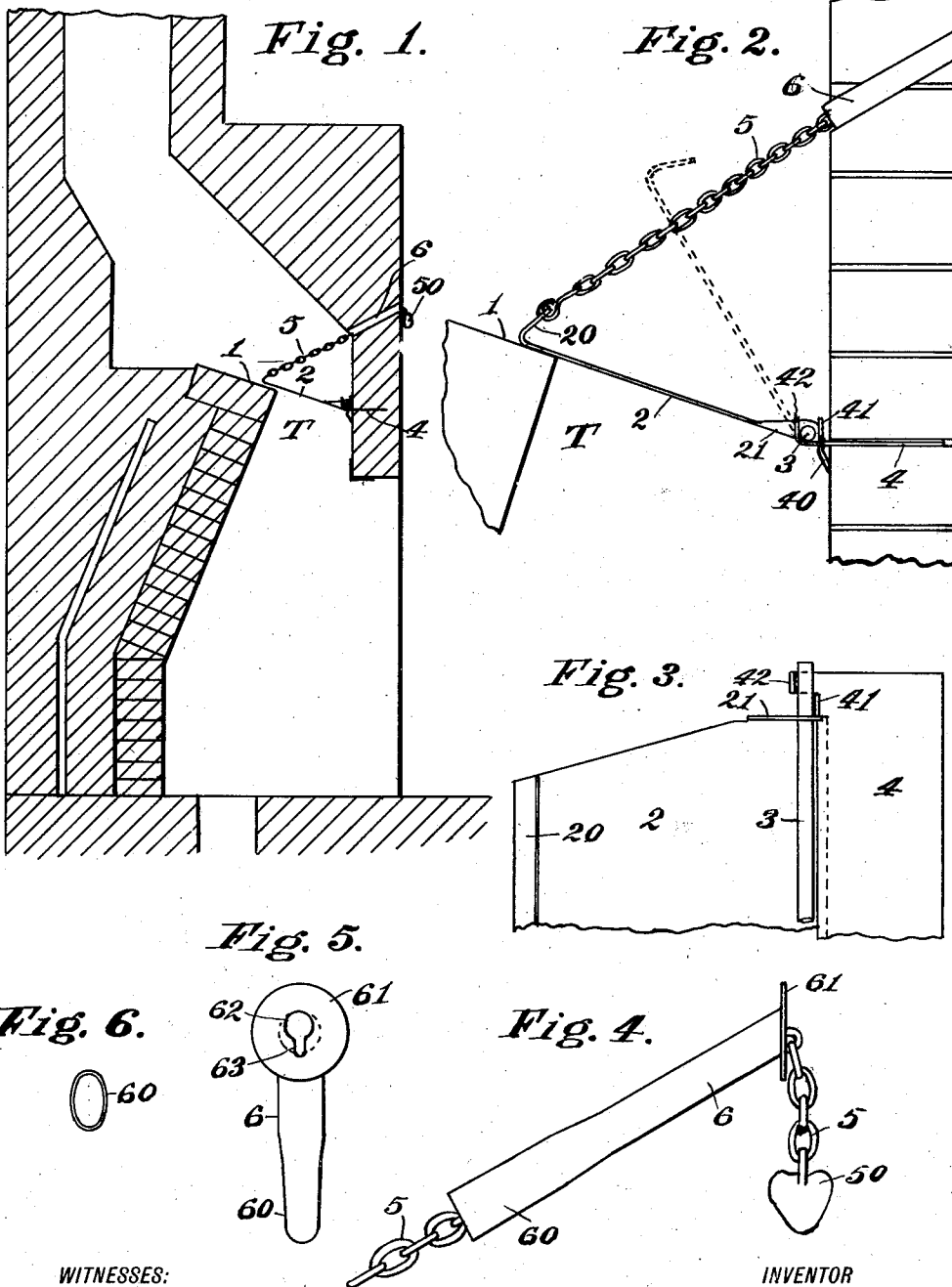


Fig. 6.

Fig. 5.

Fig. 4.

Fig. 3.

Fig. 2.

Fig. 1.

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FIREPLACE-DAMPER.

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Specification of Letters Patent.

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Application filed May 20, 1912. Serial No. 698,614.

To all whom it may concern:

Be it known that I, PAUL DELSING, a citizen of the United States, and resident of the city of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Fireplace-Dampers, of which the following is a specification.

My invention relates to fire place dampers, and consists of a new and useful form of damper adapted for placing in fire-places and chimneys to control the draft.

My invention comprises the novel parts and combinations of parts which will be hereinafter described and particularly pointed out in the claims.

The object of my invention is to improve and simplify such devices and, particularly, to provide a construction which may be more cheaply made and installed and which at the same time, will have points of advantage over other devices of the same character.

In the accompanying drawings I have shown my invention in the form which is now preferred by me.

Figure 1 is a sectional elevation of a fireplace having my damper installed therein, the section being taken from front to rear. Fig. 2 is an elevation, partly in section, showing on a larger scale, the construction of the damper and its pivot-supporting plate. Fig. 3 is a plan view of one end of the damper and its pivot supporting plate. Fig. 4 is a side view of the tube through which the damper controlling chain passes through the front wall. Fig. 5 shows the same as viewed from the front. Fig. 6 shows the inner end of the tube and how it is flattened in one direction.

In the drawings I have shown my invention installed in a fireplace of an approved construction. The construction or design of the fire-place itself is largely immaterial, except that I prefer that it have a ledge or upwardly facing surface, 1, against which the damper may close, said surface being located just above the throat T.

The damper plate 2 is cut of a size to close all or as much of the throat opening as may be desired when it is in its lowermost position, or that shown in full lines in Fig. 2. On its outer or front edge it is provided with pivot bearings, the same as shown being formed by turning up lugs 21 which are provided with holes for the reception

of a rod 3, which preferably extends throughout the length of the damper plate and projects beyond its ends. This rod may be secured to the plate at intermediate points if desired. The damper plate is pivoted upon a plate 4 which is embedded in the front wall of the fire-place throat. This plate is inserted between layers of brick forming the front wall of the throat, and has a flange 40 turned down on its inner edge and also bent backward or under sufficient so that its outer edge will engage the face of the wall and hold the plate projecting a certain small amount. This flange serves as a setting gage for the plate and insures that the pivot bearing carried thereby shall be held far enough out from the face of the wall to insure easy working of the damper plate 2. The pivot bearings of the plate 4 are formed by lugs 41 and 42 which are cut integral with the body of the plate and turned upward. The lug 42 extends outward from the face of the wall before being turned up, this distance being enough to separate the two lugs, the lug 41 forming the inner bearing for the pivot bar 3 and the lug 42 forming the outer bearing for the same, as well as the support beneath the rod 3. These lugs are duplicated at each end of the plate and at intermediate points if desired. The flange 40 serves to stiffen the plate before it is set and also insures that the pivot center be carried a short distance out from the wall and at the same time closes the space between the pivot bearing and the damper plate 2. The damper plate is provided upon its rear or swinging edge, with an upturned flange 20, which materially stiffens the plate and largely prevents warping under the alternate heating and cooling to which it is subjected. At the same time it provides a convenient means for attaching the damper controlling member.

A chain, or equivalent controlling member is attached centrally to the flange 20, or adjacent to its outer or swinging edge; and extends upward and forward through a passage or channel provided in the front wall of the fireplace, where it may be accessible for control of the damper. I preferably provide such channel by embedding a tube 6 in the wall at such an angle as will most nearly conform to the direction of the chain 5. This tube need be but a small one. I have found a half inch tube to be of sufficient size. The outer end of this tube, or the wall

at the place where this tube emerges, is provided with means for engaging and holding the chain in adjusted position, thereby holding the damper at any angle desired. Preferably this is done by securing a plate 61 to this end of the tube in such angular position that it will conform to the face of the wall when the tube is at the desired angle. This plate has a hole of a key-hole shape, consisting of a rounded portion 62 of a size to permit free passage of the chain, and a slot 63 connecting therewith and of a size to permit the passage of a link of the chain when presented in alinement therewith, but adapted to engage the next link and prevent its passage. This enables the chain to be adjusted and secured by any link. The chain 5 may be of any suitable type. It should be provided upon its outer end, with a member 50, of a size that it cannot be drawn into the tube.

The inner end of the tube 6 is preferably provided with means whereby, when embedded in the wall, it will be held securely against being drawn out. The plate 61 secured to its outer end prevents its being drawn inward. The inner portion, 60, of the tube is preferably flattened, which enlarges the dimensions in one direction while decreasing the dimensions in another way, as is clearly shown in Figs. 4 and 6. This will prevent the possibility of the tube being drawn outward.

With my improved form of construction for fire-place dampers, as above described, it is unnecessary to employ a special frame surrounding the throat. The only feature which it is necessary or desirable shall be built into the fireplace, is the pivot base plate 4, and this may be inserted after the fire-place is built, although requiring increased labor to do it at that time. The parts of my device are all replaceable if burned out or injured so that they need replacing. They are of constructions which employ a cheap class of material, easily worked into shape, and at the same time of durable design. There is nothing visible except the plate 61 and the end of the chain, which may be made of ornamental character. The pivot flanges 21 upon the damper plate 2, extend beyond the edges of the lugs 41 and 42 at all times and in all positions, thus preventing any overlapping engagement of their edges when the damper is raised, tending to prevent easy return of the

damper to its lower positions. I have found that other types of construction are subject to this objection, that when the damper is raised the edges of the damper and the lugs 41 and 42 are likely to engage and lock the damper in raised position, preventing its closing when desired. This trouble is avoided by the flanges 21.

What I claim as my invention is:

1. A fire-place damper comprising a plate adapted to be embedded in the front wall of the fire-place throat and having a downward and backward inclined flange upon its inner edge adapted to engage the surface of the throat wall to properly register the plate in position and to hold its pivot bearing members out from the wall, and pivot bearing members carried by said plate and forming a bearing opening freely upward, a damper plate having a pivot journal adapted to engage said bearings upon the embedded plate and to extend across the throat, a chain connected with the damper plate and extending upward and outward through the wall to the front of the fire-place, and means for engaging said chain to hold it in adjusted position.

2. A fire-place damper comprising a pivot-supporting plate adapted to be embedded in the front wall of the fire-place throat and having a downwardly and backwardly inclined flange upon its inner edge adapted to engage the inner face of the throat wall to space the pivot bearings away from the wall face, said plate having integral lugs arranged in pairs, the lugs of each pair being separated to receive a damper pivot between them, a damper plate having a pivot rod adapted to lie in said bearings and being of a width to extend across the throat, the outer or free edge of said plate having an upwardly extending flange, a chain secured centrally to said flange and extending upwardly and outwardly, a pipe embedded in and extending through the front wall of the fireplace in position to receive and pass said chain, and a chain engaging clamp or lock at the outer end of said pipe.

Signed at Seattle, Washington, this 11th day of May, 1912.

PAUL DELSING.

Witnesses:

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