(No Model.)

E. J. SMITH.

DAMPER FOR OPEN FIREPLACES.

No. 547,567. Patented Oct. 8, 1895.

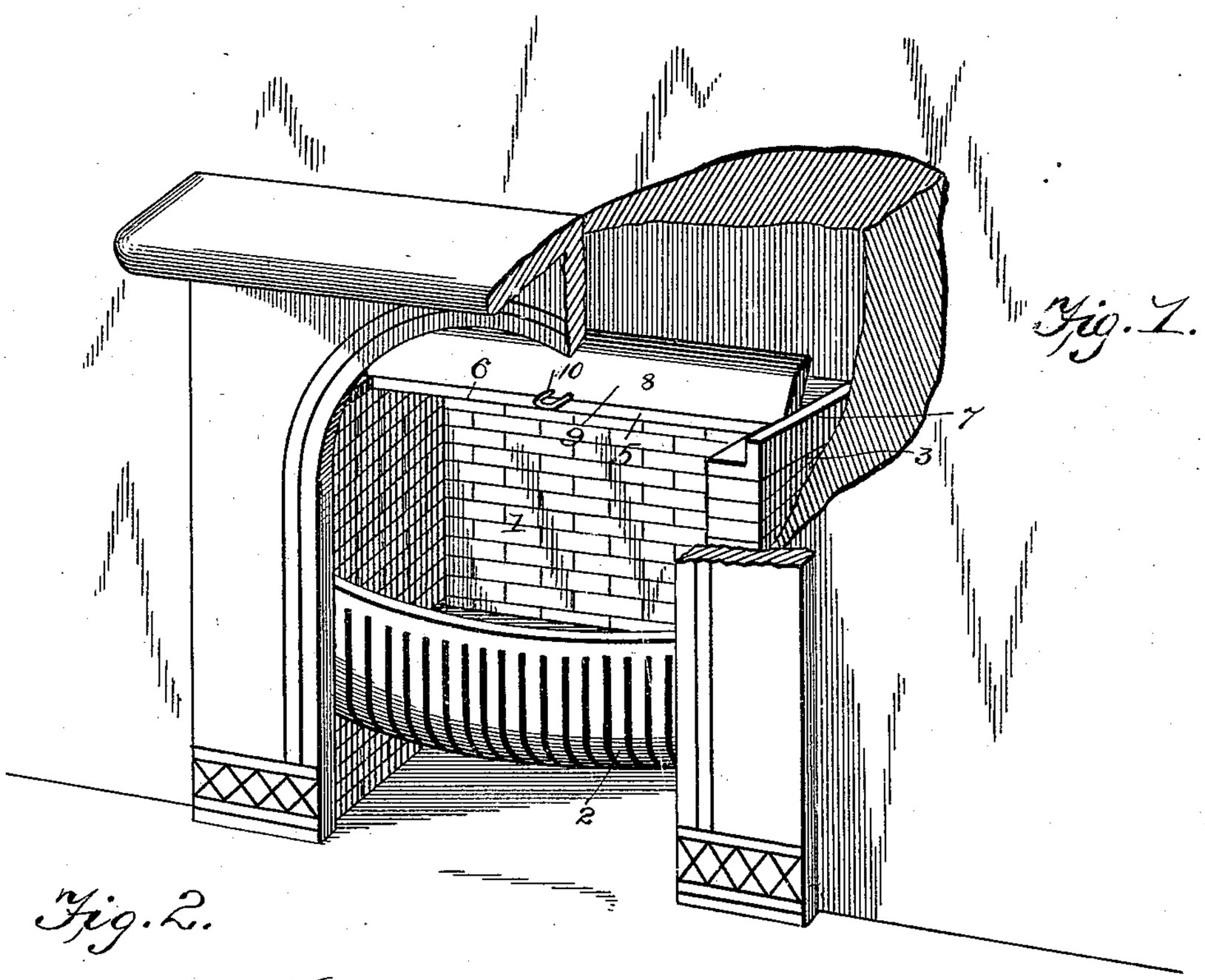


Fig. 1.

Fig. 2.

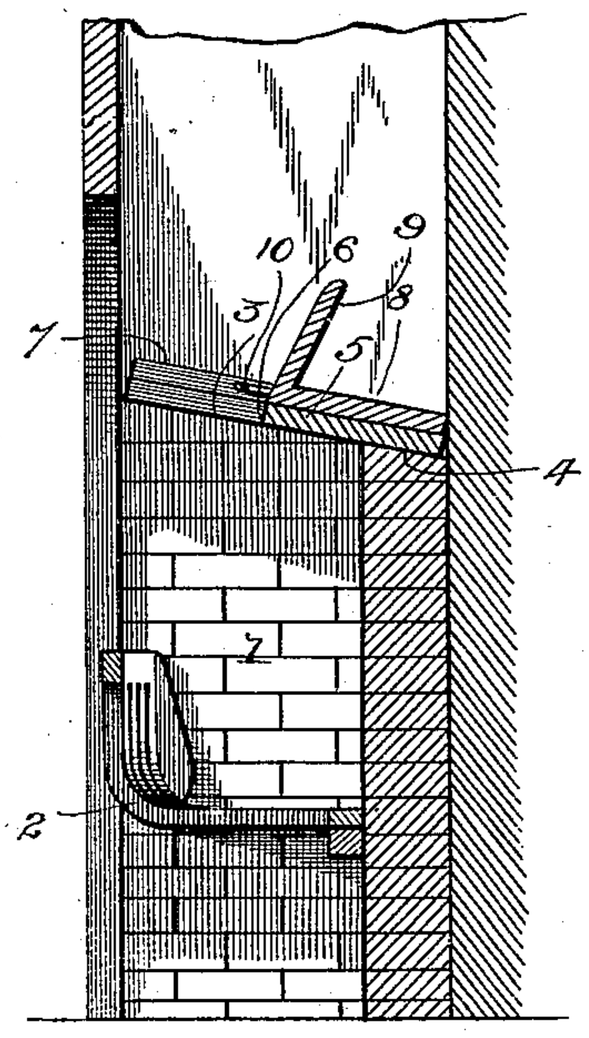


Fig. 3.

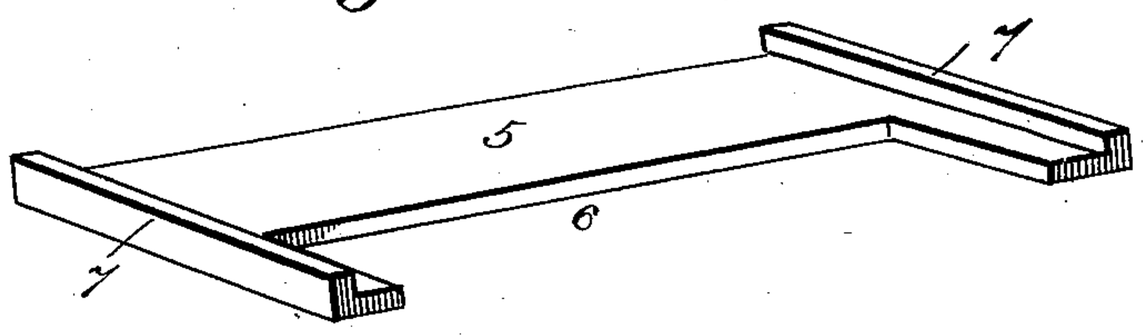
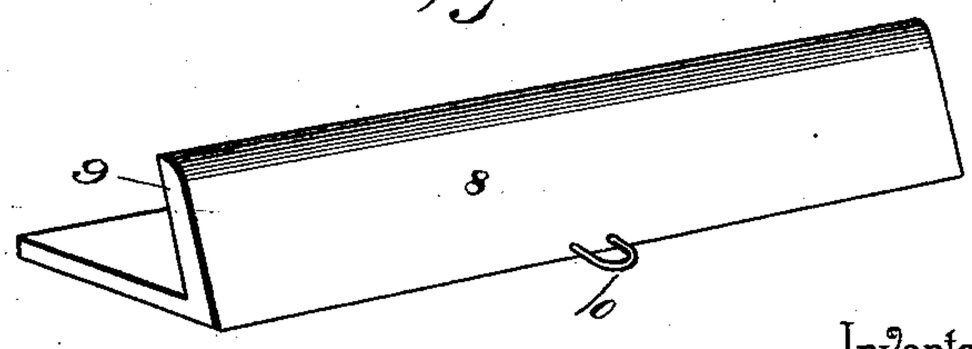


Fig. 4.



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UNITED STATES PATENT OFFICE.

ELIAS J. SMITH, OF GERMANO, OHIO.

DAMPER FOR OPEN FIREPLACES.

SPECIFICATION forming part of Letters Patent No. 547,567, dated October 8, 1895.

Application filed July 27, 1895. Serial No. 557,362. (No model.)

To all whom it may concern:

Be it known that I, ELIAS J. SMITH, a citizen of the United States, residing at Germano, in the county of Harrison and State of Ohio, have invented a new and useful Damper for Open Fireplaces, of which the following is a specification.

This invention relates to an improvement in dampers for grates and open fireplaces, and has for its object to provide a novel and efficient construction of sliding damper superposed above an open grate and provided with an inclined front constituting a deflector for reversing the downward currents of air passing down through the flue and directing the same upward, thus preventing said air-currents from ejecting or puffing smoke out of the fireplace into the room. This sliding damper also provides for adjusting the amount of draft, and its position may be regulated to suit the conditions of the weather, as will hereinafter appear.

In order to accomplish the objects above enumerated, the invention consists in certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and finally embodied in the claims.

In the accompanying drawings, Figure 1 is a sectional perspective view of an open grate, illustrating the application of the improved damper thereto. Fig. 2 is a vertical transverse section. Fig. 3 is a detail perspective view of the top plate of the fireplace. Fig. 4 is a similar view of the sliding damper.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

Referring to the accompanying drawings, 1 designates an open fireplace, having arranged therein a coal-grate 2 of any ordinary description. The side and rear walls of this fireplace may be built up of any desired material, such as brick or tiling, and are constructed in such manner as to leave rearwardly-declining ledges upon the side walls, as indicated at 3, and a corresponding ledge on the rear wall, as shown at 4. Upon the ledges thus formed is arranged a top plate 5, which snugly fills the space within the chimney or flue, so as to be retained in place upon said ledges, and said plate has its front portion or edge cut away, as indicated at 6, to form a draft and smoke aperture through which the products of combustion may pass upward. This top plate is further provided upon its side edges with vertically-projecting guiding-ribs 7, between which is arranged a transversely-movable damper 8. The damper 8 is substantially L-shaped in cross-section, comprising a substantially horizontal but slightly inclined base portion, which rests upon the upper face of the top plate, and an upwardly-projecting flange 9, which is preferably formed integrally with the base and is arranged at the front edge thereof, as shown. This front flange 9 is given a slightly-rearward inclination in order to allow the products of combustion to pass in front of the same when the damper is drawn forward, and said flange 9 also performs the function of a deflector and operates to reverse the downward air-currents and deflect the same in such manner as to cause said currents to pass upward again. Thus the air-currents are prevented from passing through the cut-away portion of the top plate and puffing the smoke from the fireplace into the adjoining room. 10 designates an eye by means of which the damper may be moved transversely with the aid of an ordinary poker.

The damper above described forms a novel and effective means for deflecting or reversing the air-currents passing downwardly through a chimney or flue and prevents such currents from entering the fireplace and ejecting the smoke therefrom into the adjoining room. The damper is also capable of being readily adjusted to suit the varying conditions of the weather and also performs the usual function of regulating the amount of draft for the proper combustion of the material in the grate.

It will be apparent that the form of the top plate, the size of the smoke passage therein and the size and shape of the transversely-movable damper, and other changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. The herein described damper superposed above a grate and capable of transverse movement, said damper comprising a substantially horizontal or slightly inclined base portion, and an upwardly projecting flange at the front end of said base portion constituting a deflector, for the purpose and substantially as specified.

2. The herein described damper for open fireplaces, the same comprising a substantially horizontal or slightly inclining base portion extending the length of the fireplace, and an upwardly projecting and rearwardly inclining flange at the front of said base portion constituting a deflector for the purpose specified, in combination with a top plate upon which said damper slides, said top plate being superposed above the fireplace and provided with a smoke and air passage adapted to be partially or wholly covered by the damper, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ELIAS J. SMITH.

Witnesses:
E. P. HELLER,
L. B. CROSKEY.