F. SCHWAB.

Damper for Baker's Oven.

No. 208,638. Patented Oct. 1, 1878.

FIG. 1.

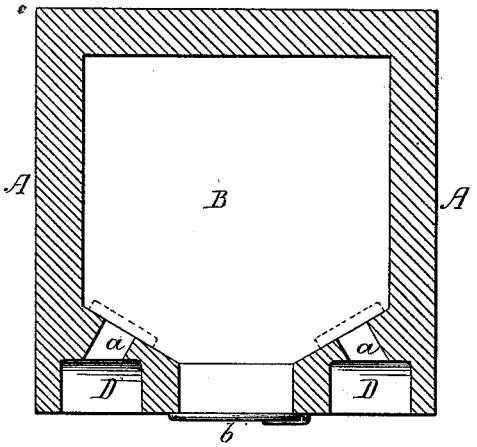


FIG. 2.

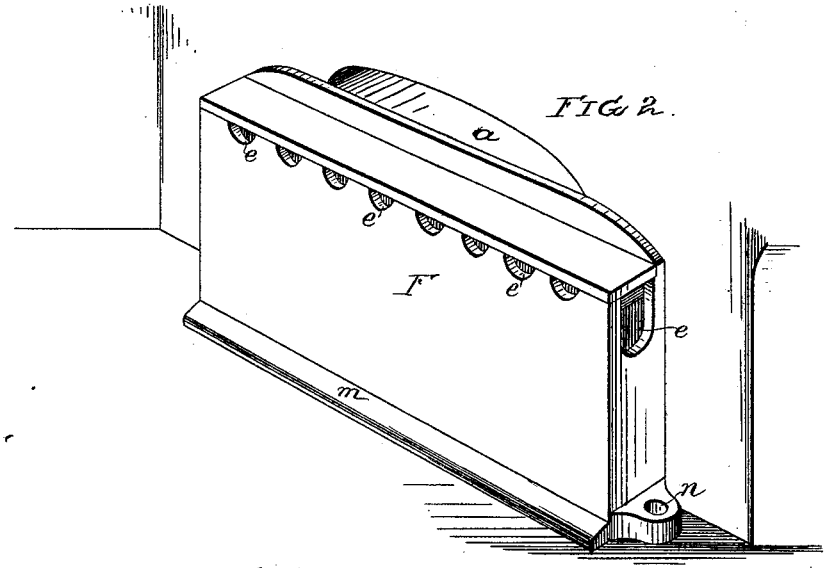


FIG. 3.

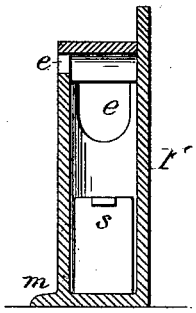
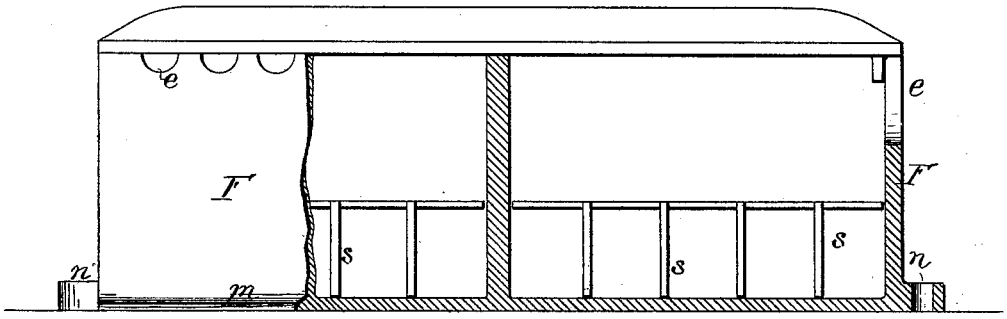


FIG. 4.



Witnesses,
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Inventor,
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by his Attorneys
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UNITED STATES PATENT OFFICE.

FREDERICK SCHWAB, OF POTTSTOWN, PENNSYLVANIA.

IMPROVEMENT IN DAMPERS FOR BAKERS' OVENS.

Specification forming part of Letters Patent No. **208,638**, dated October 1, 1878; application filed September 6, 1878.

To all whom it may concern:

Be it known that I, FREDERICK SCHWAB, of Pottstown, Montgomery county, Pennsylvania, have invented a new and useful Improvement in Dampers for Bakers' Ovens, of which the following is a specification:

My invention relates to an improvement in that class of dampers which are used in connection with bakers' ovens for checking the flow of the products of combustion from the fire-place to the baking-chamber; the object of my invention being to so construct the damper as to render the same self-supporting, to prevent it from being warped by the heat to which it is subjected, and to provide for the moistening of the volumes of heated air or products of combustion which pass over or around the damper. This object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a diagram representing a sectional plan of a baker's oven; Fig. 2, a perspective view, showing part of the interior of an oven with my improved damper in position; Fig. 3, a transverse section of the damper, and Fig. 4 a longitudinal section of the same.

A represents the body or casing of the oven; B, the baking-chamber; and D D, fire-places, arranged, in the present instance, at the front corners of the oven, these fire-places communicating with the baking-chamber B through arched passages *a*.

When the heat from the fire-places becomes too intense, or when, for other reasons, it is desired to check the flow of heated air or products of combustion through the passages *a*, dampers are introduced through the doorway *b* of the oven, and deposited in front of said passages, as shown by dotted lines in Fig. 1, so as to close, to a greater or less degree, the mouths of said passages.

Ordinarily these dampers consist of plain blocks or plates of metal, which are objectionable because they are liable to become warped by heat, and because they have no means of retaining them in a vertical position against the mouths of the passages *a*.

In order to overcome these objections, I make the damper in the form of a water-tight box, F, having at the top openings *e*, as shown, and provided at the base with a projecting flange, *m*. At each end of the base of the box is a lug, *n*, in which is an opening adapted for the reception of the bent end of a rod, by which the damper may be moved into position within the oven. Before or after being inserted into the oven, the box F is partly filled with water, which not only prevents the warping of the damper by the action of the heat from the fire-place, but is gradually converted into steam, which escapes through the openings *e*, and mingles with the hot air or gaseous products of combustion passing over the damper, the effect of this admixture being to moisten the said air or gas, and thus supplement the action of the damper in properly regulating the heat.

The flange *m* on the base of the damper insures the support of the said damper in a vertical position, so that it may be moved up close to the mouth of the passage *a*, and thus check the heat more thoroughly than when it merely leans up against the wall of the furnace in front of the passage. The damper, moreover, is not likely to be overturned by the current of air or gas passing through the passage *a* and into the oven.

When its use is not required, the damper may be merely pushed aside, and not removed, as usual, as it is proof against injury by the heat to which it is subjected.

In order to prevent the water in the box F from splashing through the openings *e*, as the said box is being adjusted to or removed from its place, I form in or adapt to the interior of the box transverse partitions or plates *s*, which prevent such an agitation of the liquid contents of the box as would cause the same to splash through the openings.

I claim as my invention—

1. The within-described damper for bakers' ovens, said damper consisting of a water-tight box, with an opening or openings at the top, through which water can be introduced and steam escape, as specified.

2. A damper consisting of a box or case, with a flange, *m*, at the base, as set forth.

3. The box F, having an opening or openings *e* at the top, and provided with an internal partition or partitions, *s*, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDK. SCHWAB.

Witnesses:
HARRY A. CRAWFORD,
HARRY SMITH.