H. J. BARGIS & A. P. BELL.

ENAMELED FRAME FOR FIRE PLACES.

No. 181,395. Patented Aug. 22, 1876.

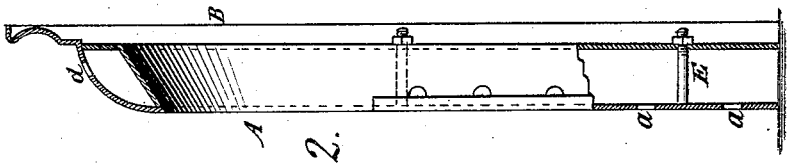

Fig. 2.

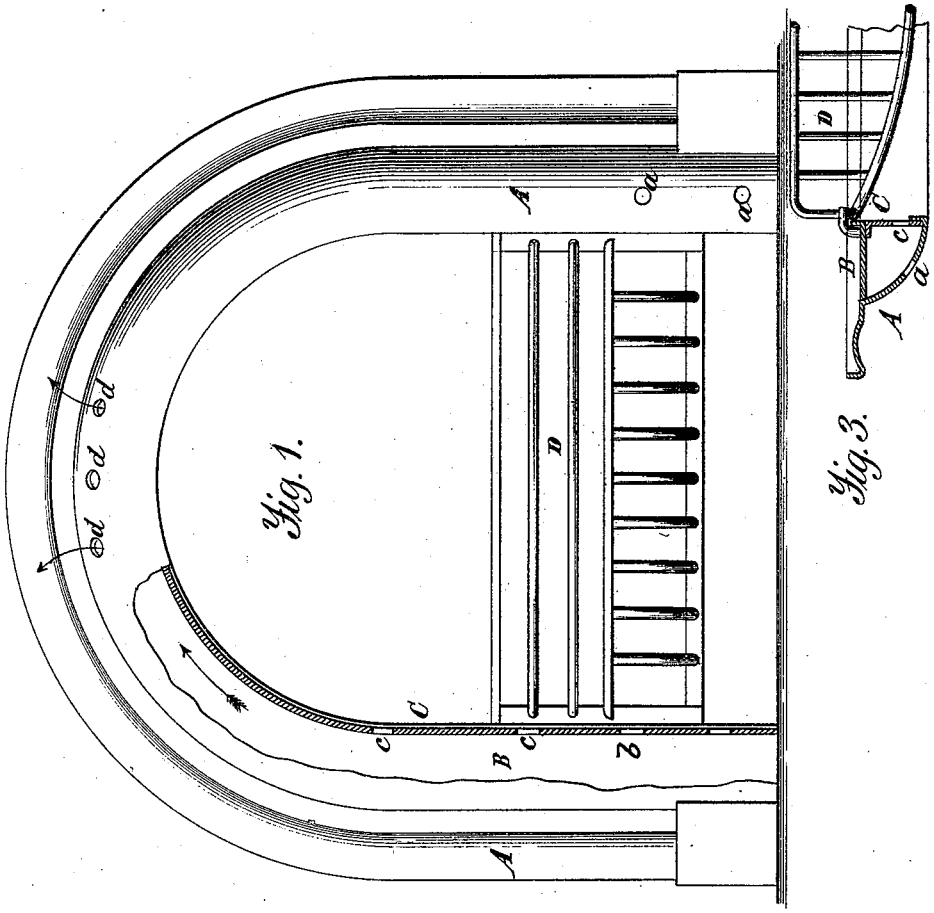

Fig. 1.

Fig. 3.

Witnesses.
A. Ruppert.
Jno. D. Patten.

H. J. Bargis &
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Attys

UNITED STATES PATENT OFFICE.

HOMER J. BARGIS AND AARON P. BELL, OF RICHMOND, INDIANA.

IMPROVEMENT IN ENAMELED FRAMES FOR FIRE-PLACES.

Specification forming part of Letters Patent No. **181,395**, dated August 22, 1876; application filed August 3, 1876.

To all whom it may concern:

Be it known that we, HOMER J. BARGIS and AARON P. BELL, of Richmond, in the county of Wayne and State of Indiana, have invented a new and useful Improvement in Grate-Frames for Fire-Places, of which the following is a specification:

Enameled frames for fire-grates are soon injured in appearance by having the enamel burned off by the heat of the fire. It is to prevent this that our invention is intended. To preserve the enamel the frame must be kept cool, and this we propose to accomplish by making an inside lining to which the heat will be applied directly instead of to the front of the frame, and to keep down the temperature of the latter we make provision for a free circulation of cool air between the enameled frame and the inside lining.

In the annexed drawings, making part of this specification, Figure 1 is an elevation of a grate-frame, represented as broken away to show the inner lining. Fig. 2 is a vertical and transverse section; and Fig. 3 is a horizontal section made near the bottom of the grate.

The same letters are employed in all the figures in the indication of identical parts.

A indicates the grate-frame, the form and finish of which may be varied according to taste. Instead of attaching this frame directly to the fire-place, we fasten it to an inner plate, B, the curvature of the parts being such as to leave between them an open-air space inclosed by the connecting-plate C. The grate D is hung to the inner plate. The bolts E connect the front frame and inner plate. To further keep down the temperature of the enameled frame perforations are made through the frame, as at *a*, or through the connecting-plate C below the top of the grate, as at *b*, or above, as at *c*. Other openings are formed in the top of the frame, as at *d*. The object of these openings is to introduce air, which, as it becomes rarefied, will rise and escape at the top openings, its place being supplied by fresh air constantly drawn in at the bottom.

We are aware that flues have been arranged in the fronts of fire-places, as well as behind them, the object being to collect the radiant heat and restore it to the room. We have no such plan or purpose, the object being merely to keep the frame cool, so as to preserve its enamel, and to avoid as much as possible the exposure of any of the plates to the heat. No appreciable effect will be produced on the temperature of the room by the use of our improvement, which is distinguished from the various calorific structures in this, that it is applicable only to enameled fronts, which are kept cool by the interposition between themselves and the grate of an inner plate, forming flues for the passage of air along the backs of the enameled plates.

What we claim as our invention, and desire to secure by Letters Patent, is—

A grate-frame for fire-places, constructed with an enameled frame or plate, A, and plates B and C, forming between the plates and in front of the fire-place an intermediate air-space, provided with openings near the top and bottom to induce currents of cool air along the back of the enameled front, and in front of the inner plate B, to which the grate D is attached to keep down the temperature of the enameled plate, substantially as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

HOMER J. BARGIS.
AARON P. BELL.

Witnesses:
L. C. JAMES,
H. C. FOX.