(No Model.)

E. F. MacKUSICK.

GAS BURNING FIRE PLACE.

No. 334,877. Patented Jan. 26, 1886.

Fig. 1.

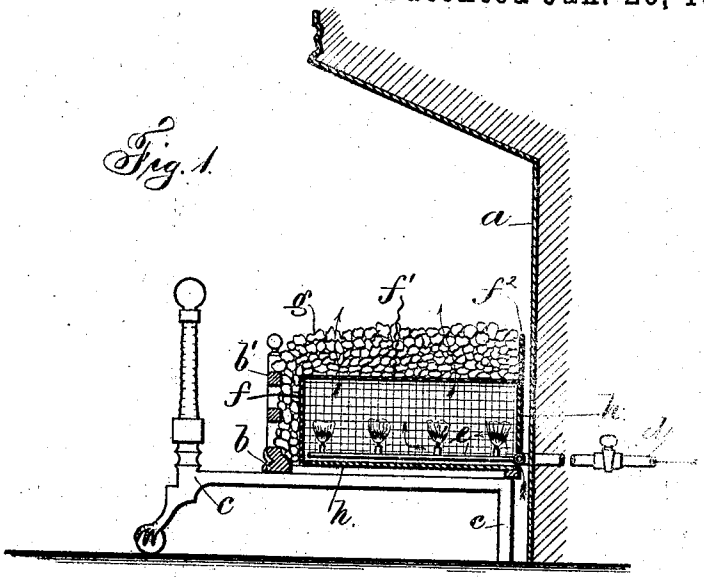
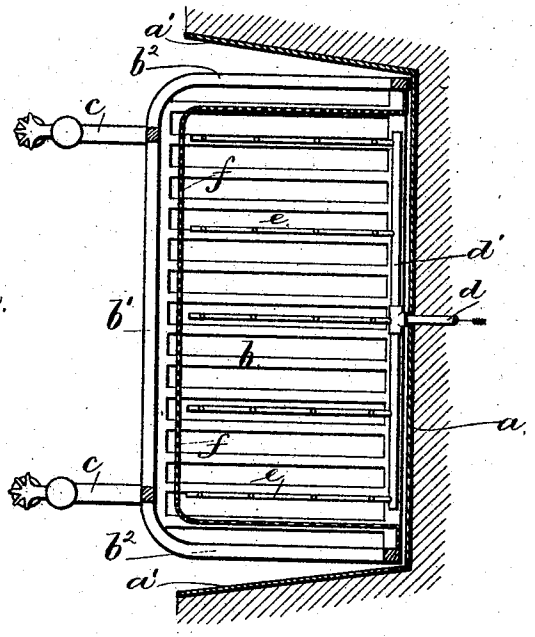


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

ELMER F. MACKUSICK, OF NEW YORK, N. Y., ASSIGNOR TO J. S. CONOVER & CO., OF SAME PLACE.

GAS-BURNING FIRE-PLACE.

SPECIFICATION forming part of Letters Patent No. 334,877, dated January 26, 1886.

Application filed December 19, 1884. Serial No. 150,719. (No model.)

To all whom it may concern:

Be it known that I, ELMER F. MACKUSICK, of the city, county, and State of New York, have invented a new and useful Improvement in Gas-Burning Fire-Places, and the following is declared to be a description of the same.

It is a well-known fact that grate-fires are objectionable on account of the dust and dirt they make and the labor necessary to attend to them. In some cases gas-burning fire-places and heaters have been employed as substitutes.

My invention relates to a gas-burning fire-place, and in the carrying out of my invention the object sought is to make the fire-place resemble as much as possible an ordinary grate-fire of hot coals, and to detain and warm a large body of air and pass it out into the room. I employ an ordinary grate, which may be supported upon andirons or suspended. A gas-pipe having branches and burners is placed above the bars of the grate, and I use a frame within the grate composed of open-work material, (preferably heavy wire-netting,) which frame has a front and sides supported upon the grate-bars, and corresponding generally with the contour of the grate, but smaller, and a top or flat portion above the burners, but not in contact with the gas-flames, and usually a raised back portion above the top. Upon this open-work support I place irregular pieces of different-colored glass in a loose mass, so that the grate will appear to be full, the pieces filling or fitting in the space between the open-work and the front and end bars of the grate. I use slabs of ruby or other colored glass for the purpose of reflecting a bright light upon the hearth and fire-place frame in imitation of hot coals. The light from the gas-flames within the grate will illumine the pieces of glass, presenting the appearance of hot coals, and the air passes up between the pieces of glass and becomes heated, and escapes into the room.

In the drawings, Figure 1 is a vertical section of my improved fire-place. Fig. 2 is a sectional plan of the same.

The fire-place is composed of the back and side plates, *a a'*, the horizontal grate *b*, and andirons *c*, and the front and end grate-bars, *b' b²*, which parts may be of any desired construction, and do not require further description. The gas-pipe *d* enters, preferably, through the back frame, *a*, and has a T-pipe, *d'*, running also over the grate, and smaller lateral pipes *e*, upon which pipes *e* are the gas-burners. These gas-pipes occupy a position directly above the grate-bars *b*. The open-work support *f* rests at its lower edge upon the grate-bars, and its front and end portions correspond generally to the contour of the grate. The top part, *f'*, is above and preferably out of direct contact with the gas-flames, and usually I provide a raised back portion at *f²*. This open-work frame is made by preference of heavy wire-netting, although other materials—such as bars—may be employed. This open-work serves as a support for the irregular pieces of colored glass *g*, which are placed upon it and between the front part thereof and the front and end bars, *b' b²*, of the grate. Upon the grate-bars, and at the back of the grate, I place slabs *g* of ruby or other colored class, for the purpose of reflecting a bright light in imitation of hot coals upon the hearth and fire-place frame. The pieces of glass *g* may be of any desired color. Different colors give the best effect; and this glass is placed loosely upon the open-work frame-support *f*, and when the gas is burning within the grate the air passes up through the frame *f* and between the pieces of glass into the room, and the light from the gas illuminates the pieces of glass, so that they present the appearance of a mass of hot coals. The air becomes heated as it passes between the pieces of glass, and prevents them becoming too hot.

Quartz or similar material may be used instead of the glass, if desired.

This grate is a desirable addition in rooms where steam-heat is used.

I do not claim a grate having a metallic open-work front, the spaces of which are filled with slabs of glass having roughened surfaces in imitation of coals. In this instance there are not separate lumps of glass, between which the air circulates.

I claim as my invention—

1. The combination, in a gas-burning fire-place, with a grate and a gas-supply pipe and burners, of an open-work support above and

in front of the gas-burners and within the grate, and separate irregular lumps of glass resting upon said support and filling the space between the support and the grate, substantially as specified.

2. The combination, in a gas-burning fireplace, with a grate and a gas-supply pipe and burners, of an open-work support above and in front of the gas-burners and within the grate, and separate irregular lumps of glass resting upon said support and filling the space between the support and the grate, and the slabs *b*, of ruby or other colored glass upon the grate-bars and below the flame, for the purposes and substantially as specified.

Signed by me this 12th day of December, A. D. 1884.

E. F. MACKUSICK.

Witnesses:
GEORGE T. PINCKNEY,
WILLIAM G. MOTT.