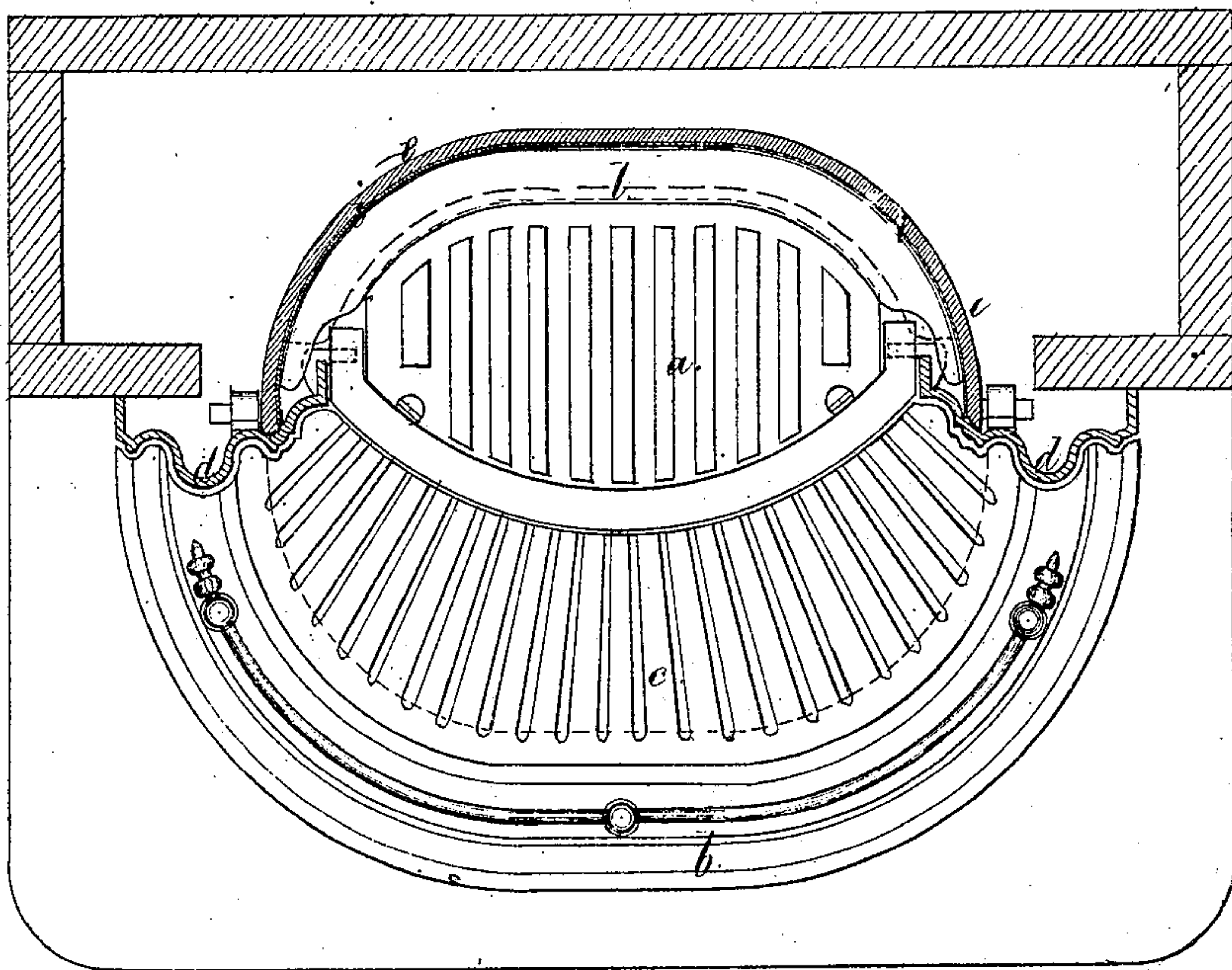


S. S. BENT.  
Fireplace Grate.

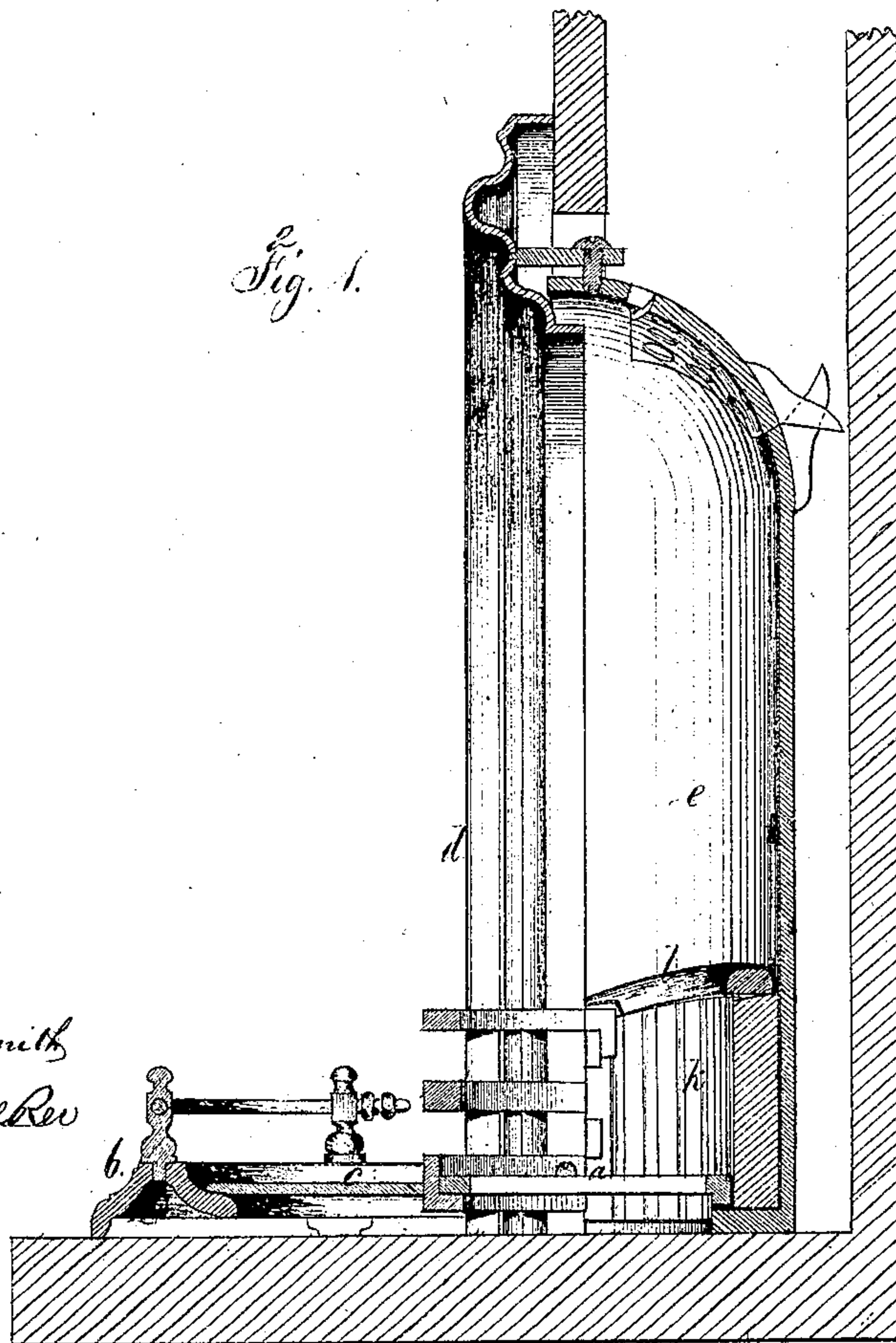
No. 105,296.

Patented July 12, 1870.

*Fig. 2.*



*Fig. 1.*



Witnesses,

*Chas. H. Smith*  
*Geo. A. Walber*

*Samuel S. Bent*

# United States Patent Office.

SAMUEL S. BENT, OF PORT CHESTER, NEW YORK.

*Letters Patent No. 105,296, dated July 12, 1870.*

## BACK FOR FIRE-PLACE GRATE.

The Schedule referred to in these Letters Patent and making part of the same.

### *To all whom it may concern:*

Be it known that I, SAMUEL S. BENT, of Port Chester, in the county of Westchester and State of New York, have invented and made an Improvement in Metal Backs for Grates; and the following is declared to be a correct description of the same.

Grates have been made with metal backs and set into chimneys, and also in portable grates, and said backs have had openings at the upper portion, for the escape of products of combustion.

In most dwellings, particularly in cities, the grate is seldom made use of, because of the building being heated by hot air or other means; hence, the grates become an ornament and are in place for use in extremely cold weather.

The metal backs for grates are usually painted, and, hence, whenever a fire is lighted the paint or varnish is burnt off, even by a small wood fire or gas heating apparatus introduced in the grate, and the back of the grate cannot be cleaned, and has to be repainted, so as to appear clean and sightly for other portions of the year. Besides this, the iron of the back does not reflect heat from the fire, but absorbs the same and becomes heated, and this heat is not beneficial, in consequence of the back usually being set in brick-work.

My invention is made with reference to reflecting the heat of the fire into the room, and keeping the back clean and free from the soiled and burnt appearance usual in grates that have been used.

My invention consists in a cast-iron grate-back, with an enameled surface next the fire, said enamel being the white or light-colored vitrified enamel like that which is used for the interior of pots and hollow-ware.

This vitrified enamel is adapted to withstanding the

heat usually coming in contact with the back above the fire-bricks, and the smooth surface can be easily cleaned from smoke or other substance soiling the same; and, furthermore, the vitrified back becomes a reflector, to throw out into the room heat from the fuel in the grate.

When the grate is not in use, this vitrified back is handsome in appearance, and makes a better finish to the grate, whether a summer piece is employed within the grate-frame or not.

In the drawing—

Figure 1 is a vertical section of a grate with my said back, and

Figure 2 is a sectional plan of the same.

The grate *a*, fender *b*, apron *c*, and frame *d* are of any usual or desired character.

The metal back *e* is concave or rounding, and is enameled upon the side next to the fire, as shown by the double line at *i*, said enameling being applied for the purposes aforesaid.

Removable fire-bricks, *k*, and a metal rim, *l*, above them, may be inserted whenever the grate is to be used with a coal-fire.

The metal back for grates, coated with vitrified enamel, is a new and useful article of manufacture.

I claim as my invention—

A metal back for grates, coated with vitrified enamel, for the purposes specified, the same forming a new article of manufacture.

Dated May 16, 1870.

SAMUEL S. BENT.

Witnesses:

GEO. D. WALKER,  
GEO. T. PINCKNEY.