

(No Model.)

S. BUNN.
NAIL PLATE FURNACE.

No. 334,216.

Patented Jan. 12, 1886.

Fig. 1.

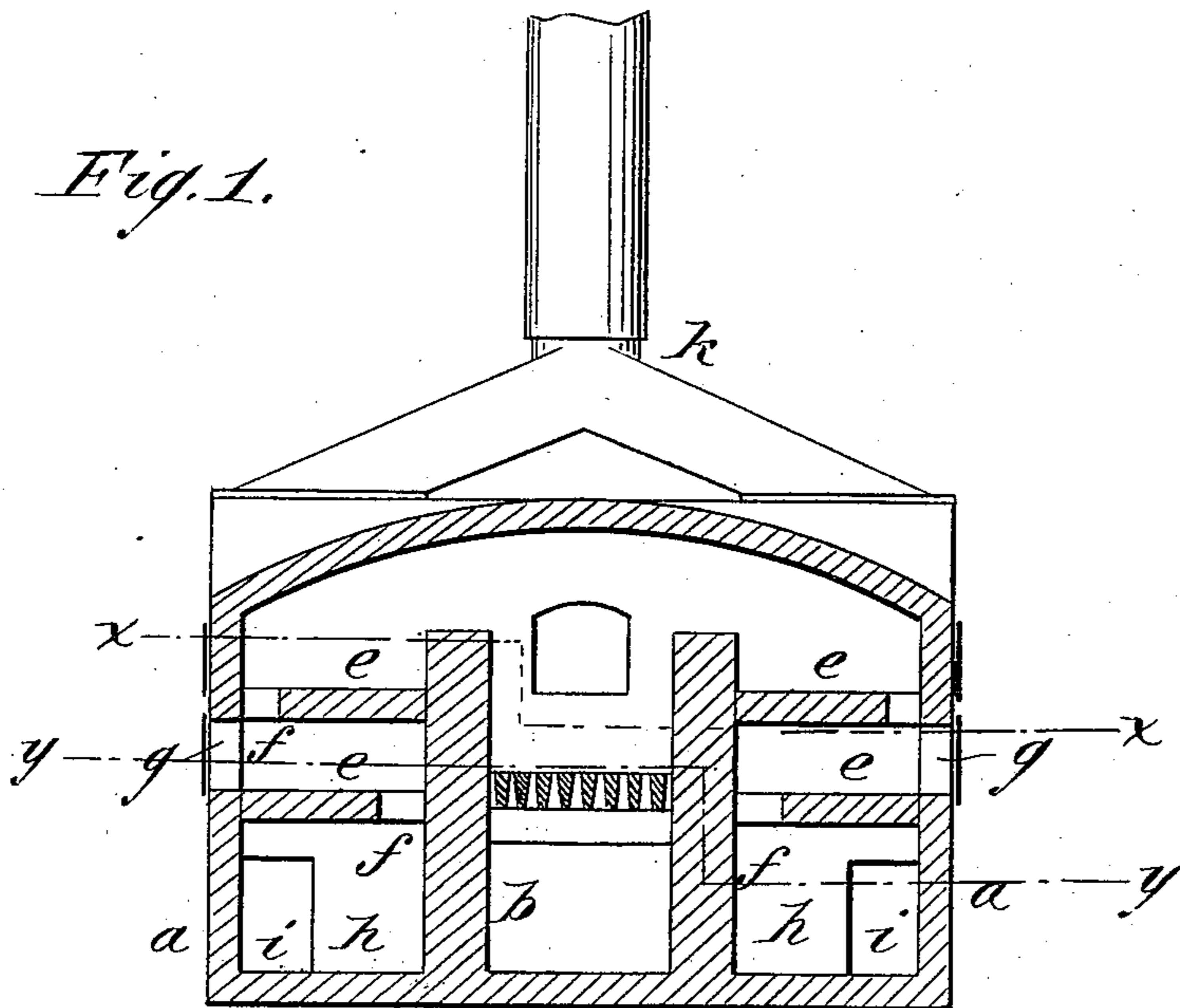


Fig. 2.

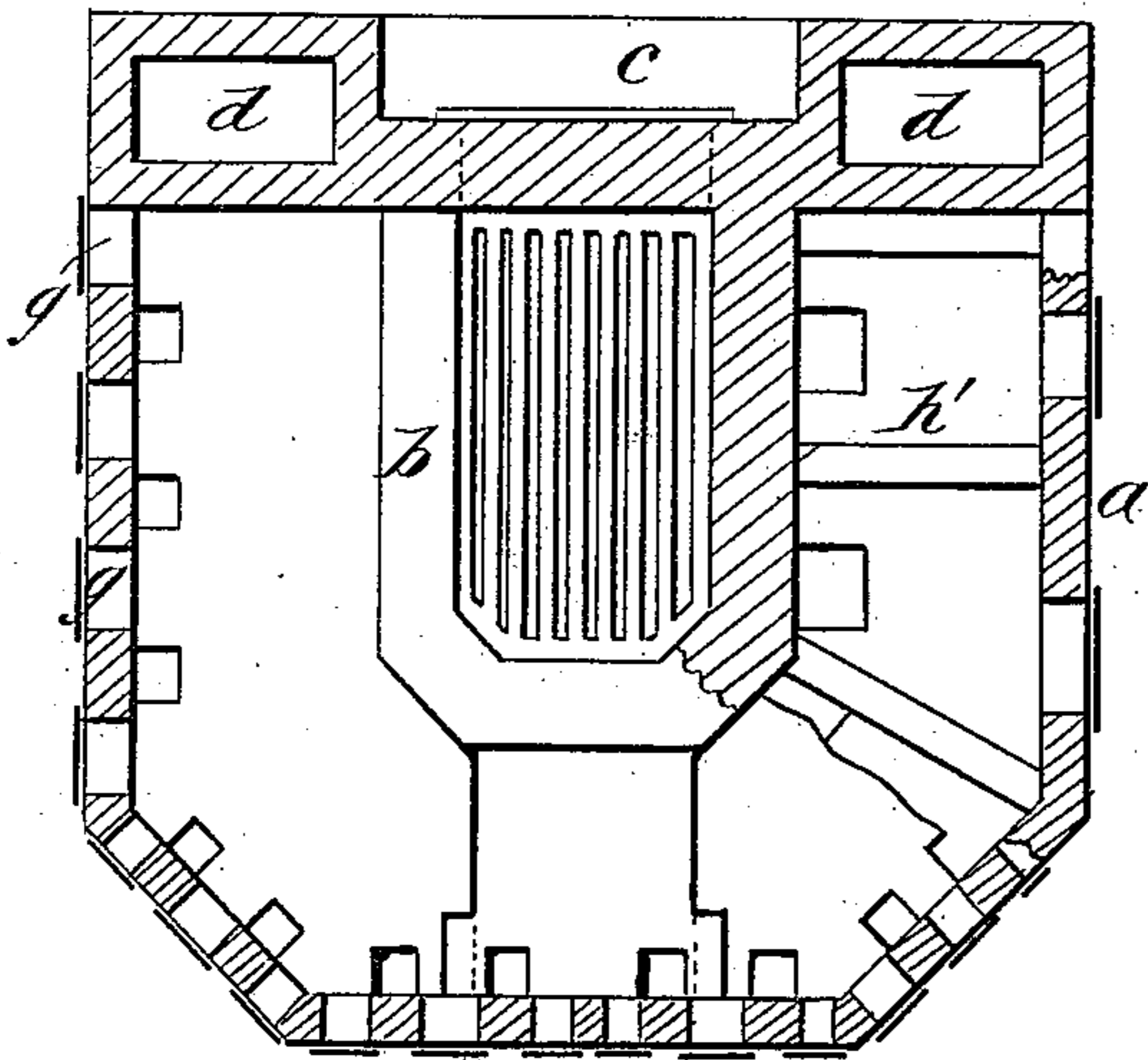
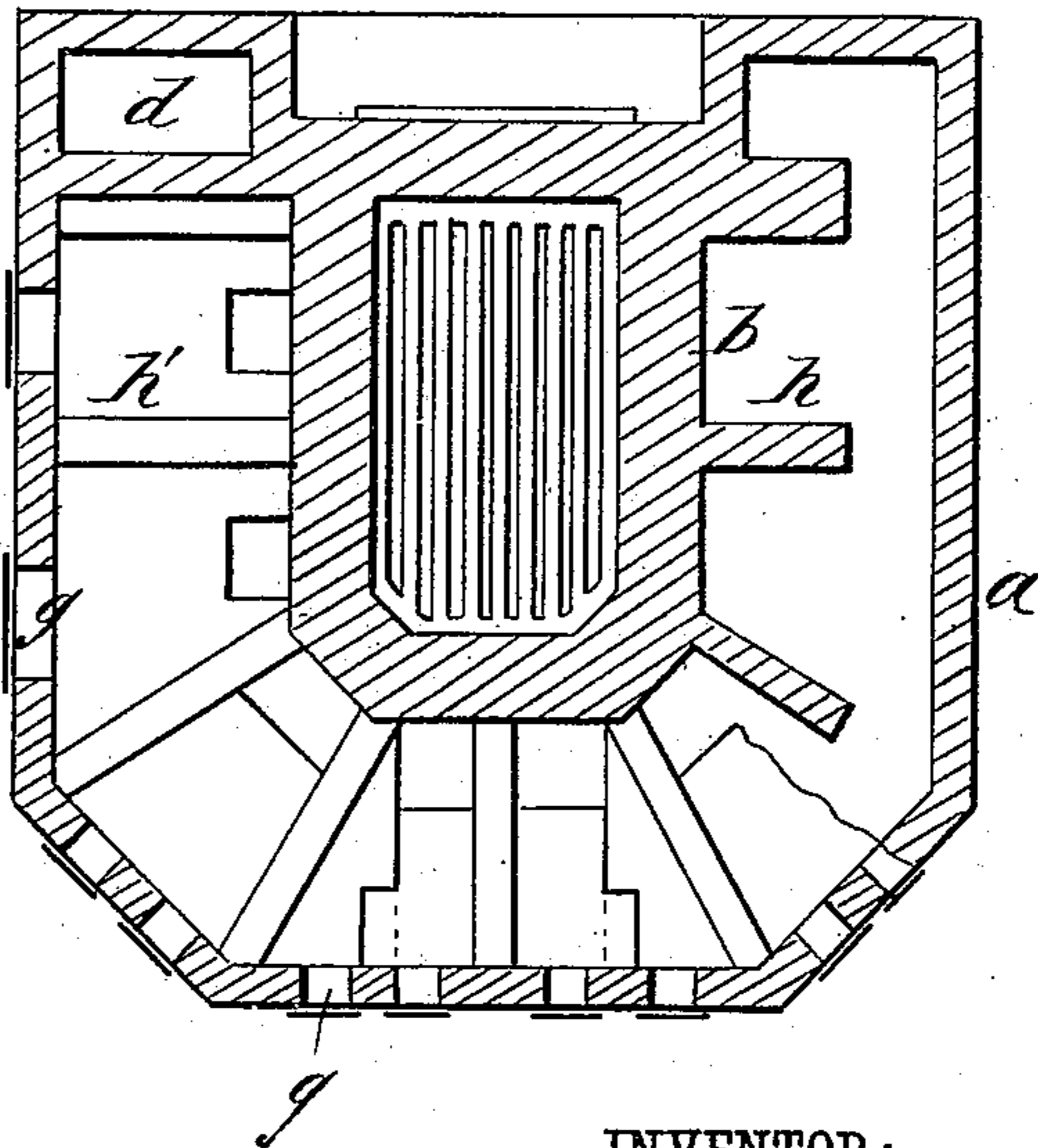


Fig. 3.



WITNESSES:

Dom Twitchell.

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UNITED STATES PATENT OFFICE.

SIMEON BUNN, OF BELLEVILLE, ILLINOIS.

NAIL-PLATE FURNACE.

SPECIFICATION forming part of Letters Patent No. 334,216, dated January 12, 1886.

Application filed November 24, 1884. Serial No. 148,735. (No model.)

To all whom it may concern:

Be it known that I, SIMEON BUNN, of Belleville, in the county of St. Clair and State of Illinois, have invented a new and Improved Nail-Plate Furnace, of which the following is a full, clear, and exact description.

The object of my invention is to obtain compactness in the construction of furnaces for heating nail-plates, and also a thorough utilization of the heat and consequent saving of fuel.

To these ends my invention consists in the double-decked furnace hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a transverse section of the furnace. Fig. 2 is a horizontal section on the line *x x*, Fig. 1. Fig. 3 is a horizontal section on the line *y y*, Fig. 1.

The outer walls, *a*, are constructed to surround the inner furnace-walls, *b*, except at the front wall, *c*, in which are the furnace-door and smoke-boxes *d d*. The space thus formed between the outer walls, *a*, and the furnace-walls *b* is divided horizontally by fire brick or tiling, so as to form the double decks or bottoms *e e*, and these are made with the apertures *f*, that are arranged alternately at opposite sides. In the outer wall, *a*, are apertures *g*, arranged in two rows to correspond with the decks *e*, and these apertures are provided with doors, as usual. The lower deck or bottom *e* rests upon the wing-walls *h*, and

the upper deck upon the wing-walls *h'*, these walls being placed alternately with the openings *f*; and in the lower walls, *h*, there are openings *i*, that allow escape of the products of combustion from one space to the other, and finally to the smoke-boxes *d* and stack *k*.

In the operation of the furnace the upper and lower spaces formed by the decks *e* are charged with the plates, and the products of combustion from the furnace, passing over the walls *b*, go first over the upper deck, thence down through the openings *f* and across the lower decks, and thence to the openings *i* and the chimney, so that the heat and flame are brought into intimate contact with the plates upon both decks.

It will be seen that this furnace is very compact, and that the products of combustion being carried by the long indirect passage the heat is utilized to the greatest possible extent.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A nail-plate furnace constructed with the outer walls surrounding a central furnace, and provided with the double decks or bottoms, substantially as described.

2. The combination and arrangement, substantially as described, in a nail-plate furnace, of the double bottoms or decks *e*, having openings *f*, the outer walls, *a*, provided with the openings *g*, and the central furnace formed by the walls *b*.

SIMEON BUNN.

Witnesses:

MARTIN MEDART,
F. BECHTOLD.