

No. 725,007.

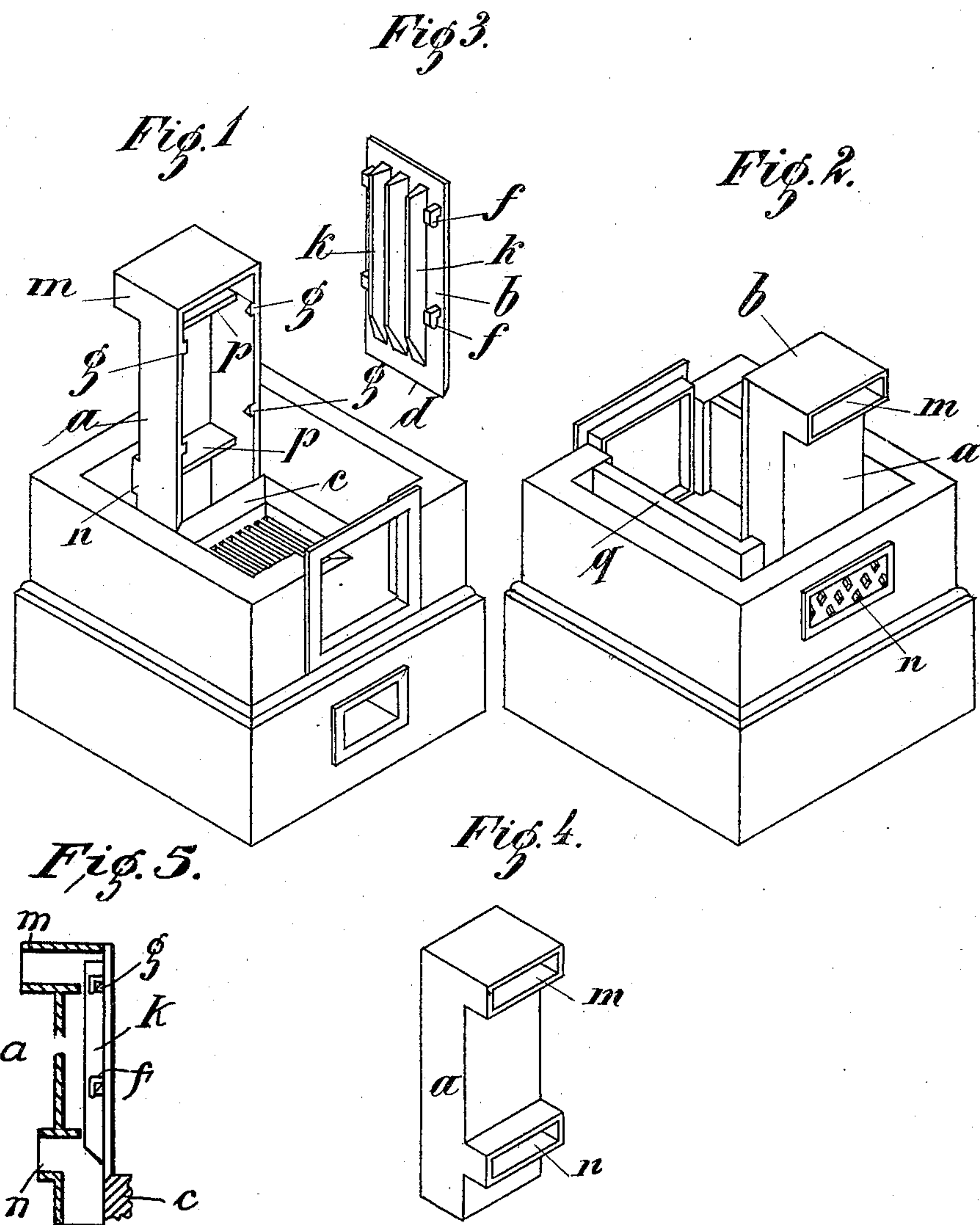
PATENTED APR. 7, 1903.

H. NIEMECZEK.

HOT AIR BOX FOR BRICK OR TILE STOVES AND CHIMNEYS.

APPLICATION FILED DEC. 26, 1901.

NO MODEL.



Witnesses

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UNITED STATES PATENT OFFICE.

HANNS NIEMECZEK, OF VIENNA, AUSTRIA-HUNGARY.

HOT-AIR BOX FOR BRICK OR TILE STOVES AND CHIMNEYS.

SPECIFICATION forming part of Letters Patent No. 725,007, dated April 7, 1903.

Application filed December 26, 1901. Serial No. 87,345. (No model.)

To all whom it may concern:

Be it known that I, HANNS NIEMECZEK, a citizen of the Empire of Austria-Hungary, residing at Vienna, Austria-Hungary, have invented certain new and useful Improvements in Hot-Air Boxes for Brick or Tile Stoves and Chimneys; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

It is customary to insert into brick or tile stoves and chimneys boxes of sheet or cast iron for the purpose of generating hot air. These boxes form the back of the fireplace, so that they are subjected to the direct action of the fire. For the purpose of obtaining a continuous draft of air through these boxes they are provided near their bottom with an air entrance or entrances and at their top part with an air exit or exits. In the stove or chimney itself suitable channels are formed, by which the entrances and exits in the boxes are brought in communication with the outer air. Experiments have shown that that side of such boxes which faces the fire and is therefore continually exposed to its action deteriorates much faster than the other walls of the boxes which are not exposed to the fire. When the front part of such a box has been destroyed by the fire, the entire box must be removed and replaced by a new one, which in every case necessitates the dismounting of the entire stove.

The object of my invention is to remedy this inconvenience by making that part of the hot-air box which is exposed to the fire exchangeable.

In the annexed drawings my invention is shown.

Figure 1 represents in perspective front view the lower part of a stove with my improved hot-air box. Fig. 2 is a corresponding rear view. Fig. 3 shows, also in perspective view, the removable front wall of a box according to my invention. Fig. 4 is a perspective view of an entire box. Fig. 5 is a detail sectional view.

In all figures similar letters of reference indicate corresponding parts.

The box *a* is, as usual, provided in its lower part with the air-entrance *n* and in its upper part with the air-exit *m*. The box is built into the stove in such manner that the air entrance and exit *n* and *m* communicate with the outside through the rear of the stove, while the wall opposite these openings forms the back of the fireplace. By preference the openings *m* and *n* are protected by a suitable screen.

According to my invention that wall *b* of the box which faces the fire is made separate therefrom. The loose wall or plate *b* is upon its inner face provided with inclined hooks *ff* for engaging with corresponding lugs *gg* in the box, or vice versa. The stationary bottom part of the front of the box has an inwardly and downwardly inclined upper edge *c*, and the lower edge *d* of the plate *b* is correspondingly chamfered off. Thus when the plate *b* is brought into place the combined action of the inclined hooks *ff* and lugs *gg* and of the inclined edges *c* and *d* upon each other will bring the plate *b* to close tightly upon the edges of the box by its own weight. In order to prevent warping, these plates *b* are provided with ribs *k*. The exchanging of these plates is easily effected in the following manner: The old plate is taken out by reaching through the fire-door and raising it high enough to disengage its hooks from the lugs in the box, whereupon it can be taken out in a slanting direction through the fire-door opening. The new plate is introduced in the same manner and dropped into place against the front side of the box.

It is advisable to place a horizontal web *p* in the box above the air-entrance *n* and a similar web *p* below the air-exit *m*; whereby the current of air passing through the box is directed against the heated front plate *b*.

In Fig. 2 the stove is shown in a somewhat more advanced state than in Fig. 1, the brick lining *q* having already been put in.

Having now fully described my invention, what I claim, and wish to protect by Letters Patent, is—

A hot-air box for insertion into a fire-chamber comprising fixed bottom, top, rear and sides, lugs projecting laterally inward from

the front edges of the sides, a short fixed lower
portion of the front provided with a top edge
inclined inwardly and downwardly to the
edges of the sides, and a removable front
5 plate having its lower edge inclined to fit upon
the inclined top of the lower stationary part
of the front, and hooks adapted to be fitted

over the described lugs, all substantially as,
and for the purposes set forth.

In testimony whereof I affix my signature. 10
HANNS NIEMECZEK.

In presence of—

ALVESTO S. HOGUE,
AUGUST FUGGER.