J. CARTON.

Hot Air Furnace and Stove.

No. 208,223. Patented Sept. 24, 1878.

Fig. 1.

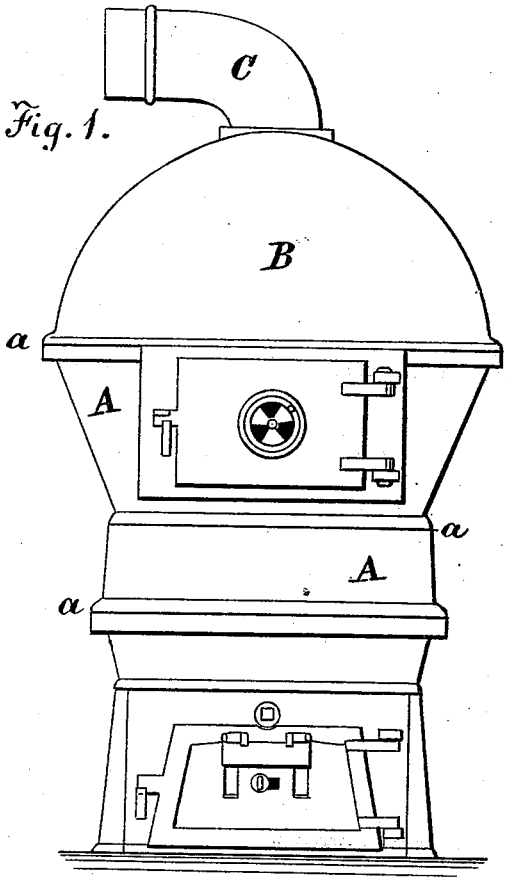


Fig. 2.

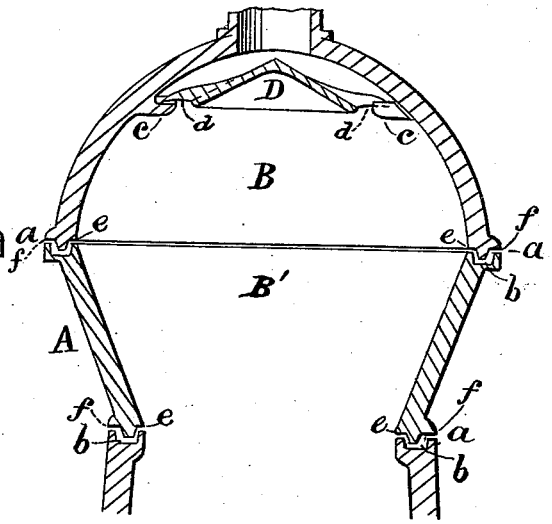
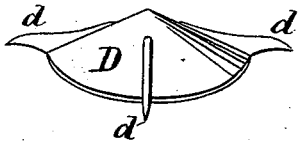


Fig. 3.



Witnesses:

G. B. Fowles

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UNITED STATES PATENT OFFICE.

JOHN CARTON, OF UTICA, NEW YORK.

IMPROVEMENT IN HOT-AIR FURNACES AND STOVES.

Specification forming part of Letters Patent No. **208,223**, dated September 24, 1878; application filed March 19, 1878.

To all whom it may concern:

Be it known that I, JOHN CARTON, of Utica, in the county of Oneida and State of New York, have invented certain new and useful Improvements in Hot-Air Furnaces and Stoves; and do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to hot-air furnaces and stoves used for drying purposes; and consists in certain improvements in the construction of the same, as hereinafter shown and described.

In the accompanying drawings, forming a part of the specification, Figure 1 is a front view of my improved construction. Fig. 2 illustrates the same in vertical section. Fig. 3 represents the deflector detached.

A designates the casing of the furnace or stove, the same being made in sections, with joints, (indicated by *a*.)

B is the dome, formed at the top, with the pipe C located at the center. Centrally within the dome B, and below its junction with the pipe C, is placed the removable conical plate D, which forms the deflector. This plate D is provided with arms *d*, made solid with the plate, and extending therefrom, as shown.

The dome B has the sockets *c* cast on the inside, and so constructed that the plate D may be readily placed in position in the dome, as shown in Fig. 2, by raising the plate D in the dome a little higher than the sockets, then turning it so that the outer ends of the arms *d* extend over the sockets, and letting the plate sink into the position shown, with the extremities of the arms *d* resting in the sockets, the deflector or plate D being also easily removed by simply lifting it from the sockets.

The several sections of the casing are formed at the joints *a*, so that the latter become tightly closed by the gravity of the parts. The upper rim of a section is constructed with a groove, *b*, extending all around, in which groove cement is placed. The lower rim of the joining upper section is made wedge-shaped, as shown, and is provided with a shoulder, *e*, on the inner side, and a flange, *f*, on the outer side, so that when the wedge-shaped rim sinks into the groove *b* the cement therein becomes packed firmly, and is prevented, by the shoulder *e* and flange *f*, from being forced out from the groove *b*. With this construction of sections of the casing the joints become very close and firm.

The sections of the furnace are formed at the joints *a* so as to have no projection from the inner surface. Thus the inner surface of the section B′ next to the dome B forms a continuation of the inner surface of the dome, (see Fig. 2,) with no inward projection at the joint. This is considered a desirable feature in the construction of this kind of furnaces.

My improvements herein described are well adapted to the purposes of hot-air furnaces and stoves constructed for drying purposes.

I am aware of the devices for deflecting-plates shown in the patents to A. F. Smith, No. 73,762, January 28, 1868, John McCoy, No. 106,708, August 23, 1870, and H. G. Dayton, No. 54,872, May 22, 1866, and claim none of such devices; but

I claim—

1. In combination with the dome B, having the sockets *c* cast on the inner surface thereof, the conical plate D, provided with arms *d*, substantially as and for the purposes described.

2. The conical plate D, having the arms *d* made solid therewith, in combination with the sockets *c*, formed on the inner side of the dome B, as herein specified.

In testimony that I claim the foregoing I affix my signature in presence of two witnesses.

JOHN CARTON.

Witnesses:

THOS. CARTON,

F. J. COOKE.