(No Model.)

D. PEARSON.

HOT AIR FIRE PLACE.

No. 301,264. Patented July 1, 1884.

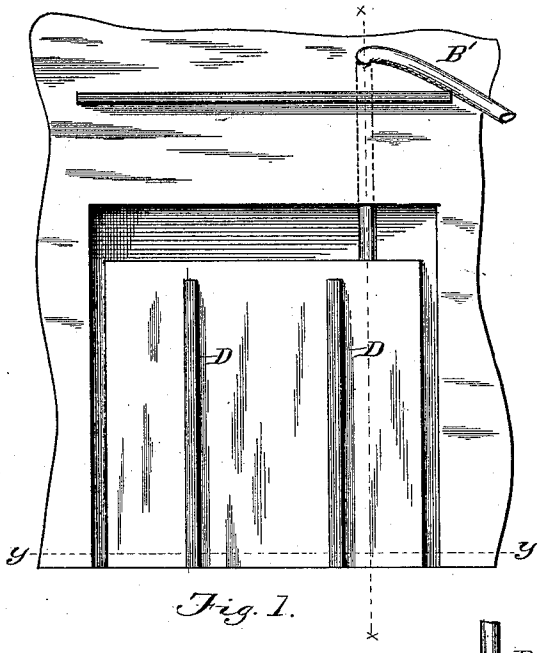


Fig. 1.

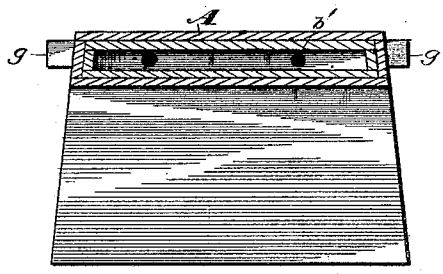


Fig. 3.

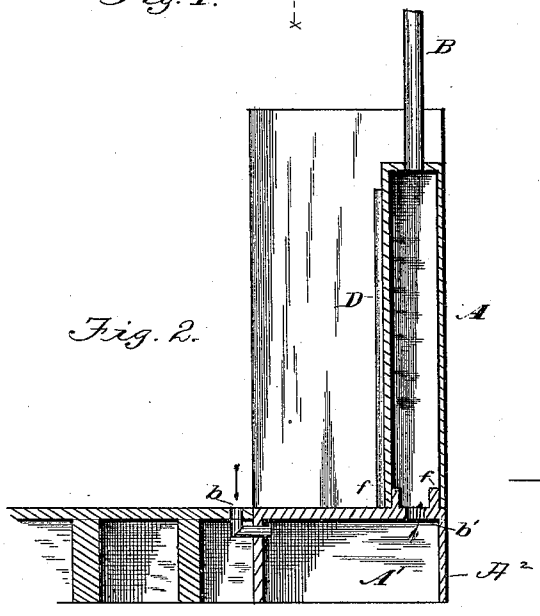


Fig. 2.

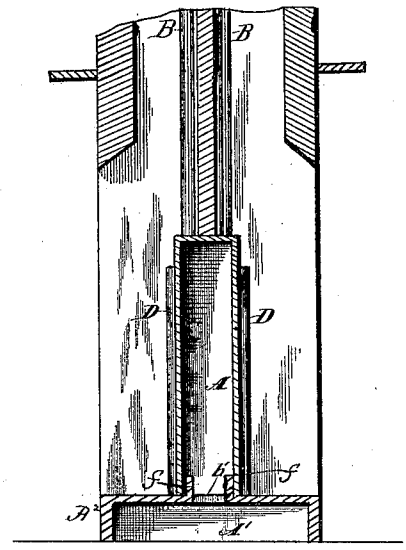


Fig. 4.

Witnesses:
Will S. Dewall
H. Betside

Inventor:
Doyel Pearson
per Edson Bros.
Attorneys.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

DOYEL PEARSON, OF MEMPHIS, TENNESSEE.

HOT-AIR FIRE-PLACE.

SPECIFICATION forming part of Letters Patent No. 301,264, dated July 1, 1884.

Application filed June 23, 1883. (No model.)

To all whom it may concern:

Be it known that I, DOYEL PEARSON, a citizen of the United States, residing at Memphis, in the county of Shelby and State of Tennessee, have invented certain new and useful Improvements in Hot-Air Fire-Places; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to fire-places; and the novelty consists in the construction, arrangement, and adaptation of parts, as will be more fully hereinafter set forth, and specifically pointed out in the claims.

The essential object of the invention is to conduct the cold air from near the floor of an apartment through flues and passages in juxtaposition to the fire in the fire-place, to heat such air, and to then conduct such heated air back into the same or another apartment.

To this end the invention consists in certain devices which have peculiar adaptations to each other, and also to the masonry of the building, as is fully illustrated in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a front elevation showing my invention as applied to the masonry, &c., of a building; Fig. 2, a vertical section; Fig. 3, a horizontal section on the line *y y* of Fig. 1, and Fig. 4 a modification showing a duplex form in vertical section.

The invention is designed to be used in connection with wood as a fuel, and is particularly adapted to the cheaper class of dwellings, such as country residences.

Referring to the drawings, A designates a hollow casting, which is designed to form the back of the fire place or places, and it is provided with an open bottom to allow air to enter, and passages above connected with pipes B, to conduct heated air away. Its open bottom is made to fit over vertical flanges *f*, formed upon a base-casting, A^2, which forms the base of the fire-place, beneath which is arranged the chamber A′. This flange *f* serves to prevent the independent lateral displacement of the parts A A^2, and both these parts are secured to the masonry by projections *g*, formed upon the part A, as shown, the said projections *g* having bearings in said masonry. With this construction it is not necessary to secure all the parts to the masonry, as, if the part A^2 is supported vertically, the projections *g* and flanges *f* will prevent its horizontal displacement. The flanges also serve to make a good joint at the junction of the two castings. The casting A^2 may be supported in any desirable and convenient manner in the masonry, the flanges *f* making it necessary only to provide for its vertical support. Through passages *b* the cold air from near the floor of the apartment is conducted into the chamber A′, which is directly under the fire-place, and, after having become partially heated in that chamber, it is conducted through passages *b′* into the vertical chamber of the part A, where it becomes further heated, and is carried off through the pipes B back into the same or another apartment by pipes B′, which are flexible, and may conduct the heated air to an invalid-chair, a bed, or the like. The face or faces of the part A are provided with vertical ribs to protect the material from burning.

I attach importance to the facts, first, that the material parts of the device are comprised of two castings peculiarly fitted and adapted to each other and to the masonry; second, that the cold air is taken from near the floor of an apartment, heated, and returned or conducted to another; and, third, that the device as a whole is simple, cheap, and efficient.

I am aware of Patents Nos. 193,514, of 1877, and 172,569, of 1876, and the constructions therein set forth are not sought to be covered in this application.

What I claim as new is—

1. In a fire-place, substantially as described, the base-casting A^2, having vertical flanges *f*, and the vertical casting A, having open bottom and projections *g*, the open bottom and flange preventing independent lateral displacement of the castings, and the projections having bearings in the masonry, and the said castings being formed to give passage to air

from the floor of an apartment under and behind the fire, as set forth.

2. The casting A, having open bottom, projections *g*, and pipes B, combined with the casting A^2, having flanges *f* and air-passages *b* and *b'*, and with flexible pipes B', all constructed and arranged to serve with the masonry and floor of a dwelling, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

DOYEL PEARSON.

Witnesses:
JAS. M. CARVER,
WM. H. HALE.