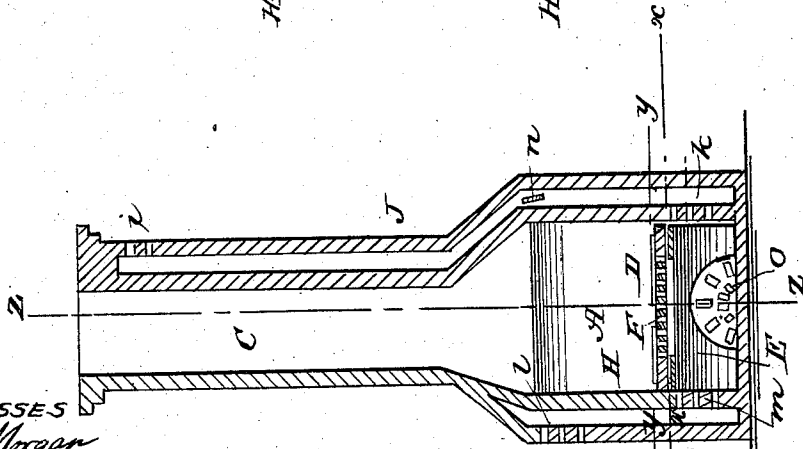
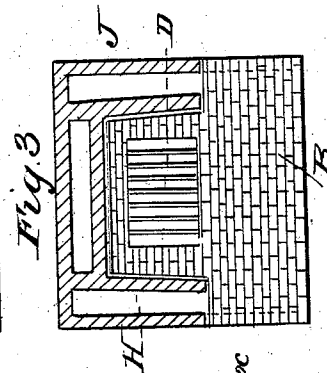
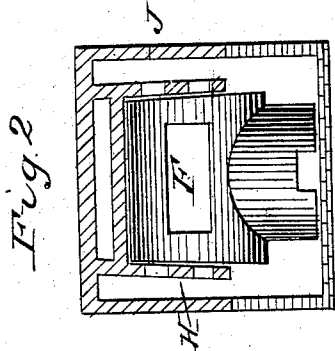
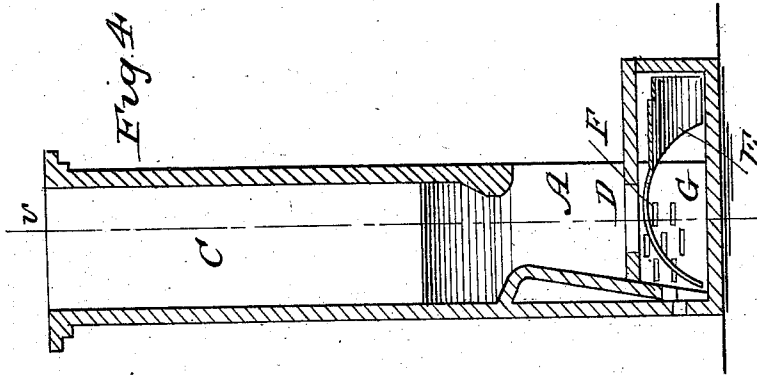


J. ERVIN, Sr.
Fire Place.

No. 83,701.

Patented Nov. 3, 1868.



WITNESSES
And Morgan
G & Co

INVENTOR
Jno Ervin Sr
per *Morgan*
Attorney

United States Patent Office.

JOHN ERVIN, SENR., OF PRINCETON, INDIANA.

Letters Patent No. 83,701, dated November 3, 1868.

IMPROVEMENT IN FIRE-PLACES.

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, JOHN ERVIN, Senr., of Princeton, in the county of Gibson, and State of Indiana, have invented a new and improved Fire-Place and Chimney; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvement in the fire-places and chimneys of dwellings and other buildings, whereby the fire is supplied with air from beneath the fire-grate or hearth; and the invention consists in forming air-flues and orifices in the jambs, as will be hereinafter more fully described.

Figure 1 is a sectional front elevation of a fire-place and chimney, constructed according to my invention, the section being through the line *v v* of fig. 4.

Figure 2 is a horizontal section, through the line *x x* of fig. 1.

Figure 3 is a horizontal section, through the line *y y* of fig. 1.

Figure 4 is a vertical section of fig. 1, through the line *z z*.

Similar letters of reference indicate corresponding parts.

A is the fire-place, which may be used for burning either wood or coal. If for the latter, a coal-grate would be adjusted thereto in the ordinary manner.

B represents the hearth.

C is the chimney.

D represents a grated aperture through the hearth, through which the air from the outside of the chimney passes to the fire.

E is a hollow arch beneath the hearth, having an aperture, F, in its top, so that ashes may fall from the fire or hearth through the air-grate D, and through the aperture F, into the pit G beneath the arch.

This fire-place and chimney (as seen in the drawing) are arranged to show the application of the same prin-

ciple for two purposes, one for a chimney built outside, and the other for one built inside, each having a flue arranged, as seen in the drawing, for admitting air into the fire-place from the external atmosphere.

H is a flue, built in the jamb of the fire-place, for admitting air when the chimney is built up outside of the building, and J is a flue, formed in the same manner in the jamb of the fire-place, extending with the chimney above the roof of the building, but closed at the top, with orifices *i* for admitting air.

The air descends in this flue, and enters the fire-place through the orifices *h* and F, and grated aperture D.

For the outside chimney, the air enters through the orifices *l*, and, passing downward through the orifices *m*, under the arch, is discharged into the fire-place through the aperture F and grate D.

In the flue J, there is a damper, as seen at *n*, for regulating the draught.

Through the back side of the chimney there are orifices for the admission of air, as seen at *o*, and the ashes from beneath the arch may, in outside chimneys, be removed by providing a suitable aperture therefor.

For inside chimneys, the ashes may be removed by raising the grate D. In either case, it would only be at long intervals that the removal would be necessary.

By this arrangement, all danger from fire on account of the ashes would be avoided.

By the introduction of cold air from the outside, a powerful draught is produced in the fire-place and up the chimney.

I claim as new, and desire to secure by Letters Patent—

The flues H and J, with the orifices *l*, *m*, *i*, *k*, and *o*, arranged substantially as and for the purposes described.

JOHN ERVIN, SENR.

Witnesses:

FRANCIS WADE,
ABRAHAM L. SMITH.