

W. MAGILL.
Fire-Place Stoves.

No. 152,854.

Patented July 7, 1874.

Fig. 1.

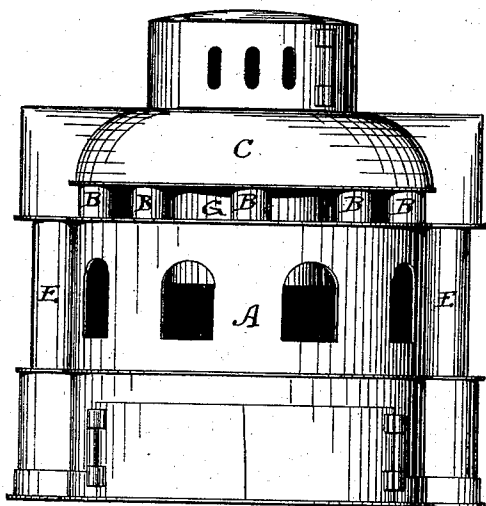


Fig. 2.

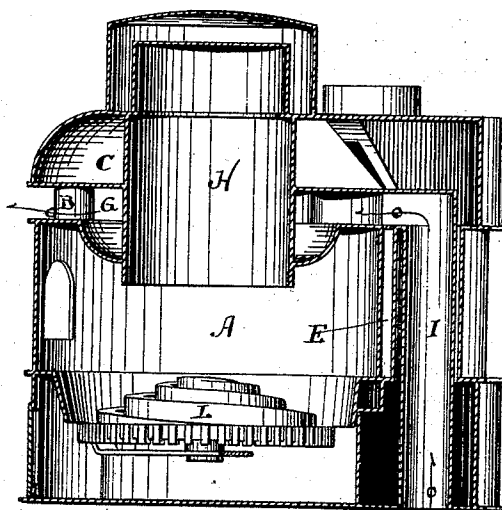
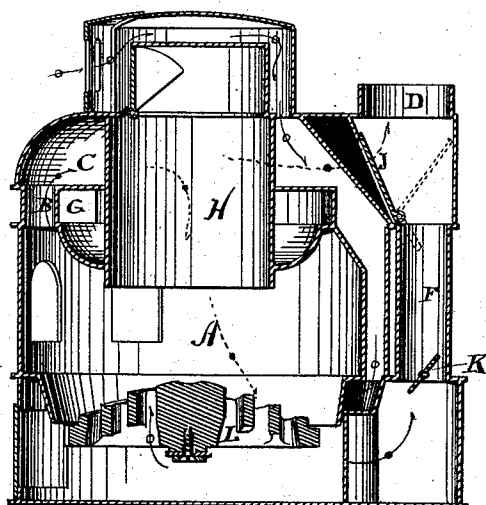


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM MAGILL, OF PORT DEPOSIT, MARYLAND.

IMPROVEMENT IN FIRE-PLACE STOVES.

Specification forming part of Letters Patent No. **152,854**, dated July 7, 1874; application filed May 12, 1874.

To all whom it may concern:

Be it known that I, WILLIAM MAGILL, of Port Deposit, in the county of Cecil and State of Maryland, have invented a new and useful Improvement in Stoves; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation, showing my improvement. Fig. 2 is a diagonal sectional elevation of the same. Fig. 3 is a sectional elevation on a medial line from front to rear.

This invention relates particularly to that class of stoves which are known as parlor or fire-place heaters, though it is applicable to any other class of stoves designed to warm the apartment in which the same may be placed. Its object is to afford an increased supply of hot air to warm the apartment in which the stove may be placed, and thus remedy a defect in ordinary fire-place heaters. My invention consists in constructing a stove with an open space or gallery immediately above the fire-pot or combustion-chamber, said gallery being open along its front to the apartment in which the stove is placed, and connected with the fresh-air duct at the bottom of the stove by pipes, which may be advantageously placed within the diving-flues, so that a continual current of fresh air may be established through said pipes and gallery, the same being warmed in its passage and discharged into the surrounding atmosphere.

That others may fully understand my invention, I will particularly describe it.

A is the fire-pot or combustion-chamber of my stove. The draft may be introduced at the bottom in the common way, or, as I prefer, at the top, in the manner shown in my patent granted to me January 28, 1873. The products of combustion ascend through short flues B B to the smoke-chamber C, whence they pass either directly into the escape-flue D or through the diving-flues E to the base of the stove, whence they escape into the back flue F and into the flue D. So far as this circulation of the hot products of combustion is concerned there is nothing peculiar in my invention; but I construct an open gallery or

space, G, immediately above the combustion-chamber, and between it and the smoke-chamber C surrounding the magazine H, if there is one, thus constituting an open hot-air chamber communicating with the atmosphere of the apartment in which the stove stands. This open space, however, would not of itself create the requisite circulation or flow of air through it, and it is necessary to provide for that purpose inlet-pipes leading from points of lower temperature than exists within the gallery G. For this purpose I place the inlet-pipes I within the diving-flues E. These pipes I communicate at their upper ends with the gallery G and their lower ends open below the base of the stove, and may communicate there with the cold-air duct, if one is used. The air passing through the pipes I becomes warmed by the hot products of combustion passing down through the diving-flue E before it enters the gallery G, and being heated still more within said gallery will escape into the surrounding air, and thus distribute in the apartment wherein the stove stands a portion of the heat which otherwise would be carried into the hot-air flue and carried to other parts of the building. A flat flap-valve, J, closes the direct draft-opening between the smoke-chamber C and flue D, and an additional check-valve, K, is placed in the upright flue F.

Having described my invention, what I claim as new is—

1. In combination, the combustion-chamber A, connecting-flues B, smoke flue or chamber C, and intervening hot-air space or gallery G, opening across the front of the stove and provided with cold-air inlets extending near to the bottom of the stove, or to such point as will permit ingress of cold air, substantially as and for the purpose set forth.

2. In combination with the hot-air space or gallery G, open across the front of the stove, the inlet-pipes I located within the diving-flues E, as set forth.

WILLIAM MAGILL.

Witnesses:

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THOS. ARMSTRONG.