J. G. ALLEN.

Heating Stove.

No. 48,144. Patented June 13, 1865.

Fig. 1

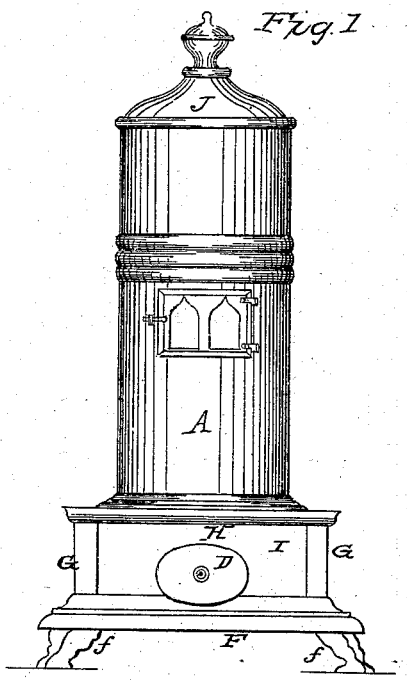


Fig. 2

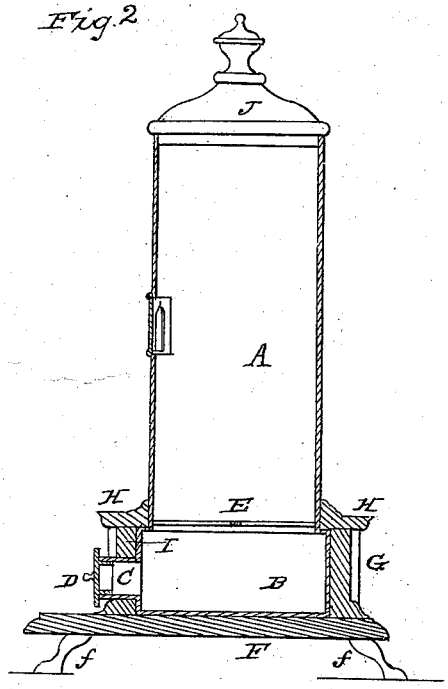


Fig. 3

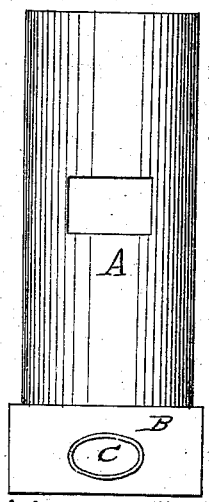
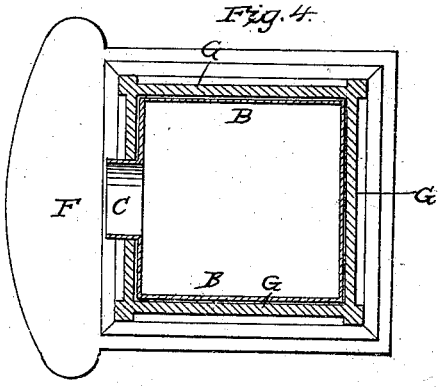


Fig. 4.



WITNESSES

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INVENTOR

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UNITED STATES PATENT OFFICE.

JOSHUA G. ALLEN, OF PHILADELPHIA, PENNSYLVANIA.

AIR-TIGHT STOVE.

Specification forming part of Letters Patent No. **48,144**, dated June 13, 1865.

To all whom it may concern:

Be it known that I, JOSHUA G. ALLEN, of the city of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Air-Tight Stoves; and I do hereby declare the following to be a full and correct description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation of the stove complete. Fig. 2 is a vertical central section of the same. Fig. 3 is a front elevation of the sheet-iron portion of the stove; and Fig. 4, a horizontal section through the ash-pan.

The nature of my invention consists in surrounding the sheet-iron base of an air-tight stove with a cast-iron case for the purpose of giving it greater solidity and firmness, and increasing its capability of ornament without detriment to its air-tight quality.

Air-tight stoves have heretofore been made either entirely of sheet-iron or with a body of that material and a base formed of cast-iron plates, which cannot be so united as to be perfectly air-tight. Stoves made in the last-mentioned method will permit the access of air to the fuel, and thus lose the economy resulting from the slow combustion which takes place in a stove made perfectly tight. The object of the cast-iron base in the stoves just alluded to was to attain greater stability by an increased weight, while securing, by the employment of the more tractable material, a larger susceptibility of ornamental design, neither of which qualities pertain in any great degree to sheet-iron when used alone for such a purpose. The larger mass of the cast-iron enables it, moreover, to retain and radiate the heat for a longer time than the sheet metal. The chief merit of the air-tight stove—its economy—was by this construction in a great measure sacrificed to the attainment of a property which should have been regarded as secondary and accidental.

The joints of sheet-iron can be made perfectly air-tight, and by making the base of the stove of that material and surrounding it with an outer casing of cast-iron the advantages of both materials can be united without any sacrifice of the valuable principle of air-tight construction. This is the aim and character of my invention.

In the drawings the same part is marked by the same letter of reference wherever it occurs.

A marks the body of the stove; B, the sheet-iron chamber forming its base; C, the draft-hole; D, its cap or cover; E, the grate; F G H I, the cast-iron case surrounding and inclosing the base B. J is the ornamental cast-iron top, which rests upon a tight sheet-iron top.

Having thus fully described my invention, I do not claim a cast-iron base to a sheet-iron stove, nor do I claim a stove with an air-tight sheet-iron base; but

What I do claim, and desire to secure by Letters Patent, is—

Inclosing the air-tight chamber forming the base of a sheet-iron stove in a case of cast-iron, substantially in the manner and for the purpose set forth.

The above specification of my said invention signed and witnessed, at Philadelphia, this 8th day of April, A. D. 1865.

J. G. ALLEN.

Witnesses:

CHAS. F. STANSBURY,

B. FRANK PALMER.