

(No Model.)

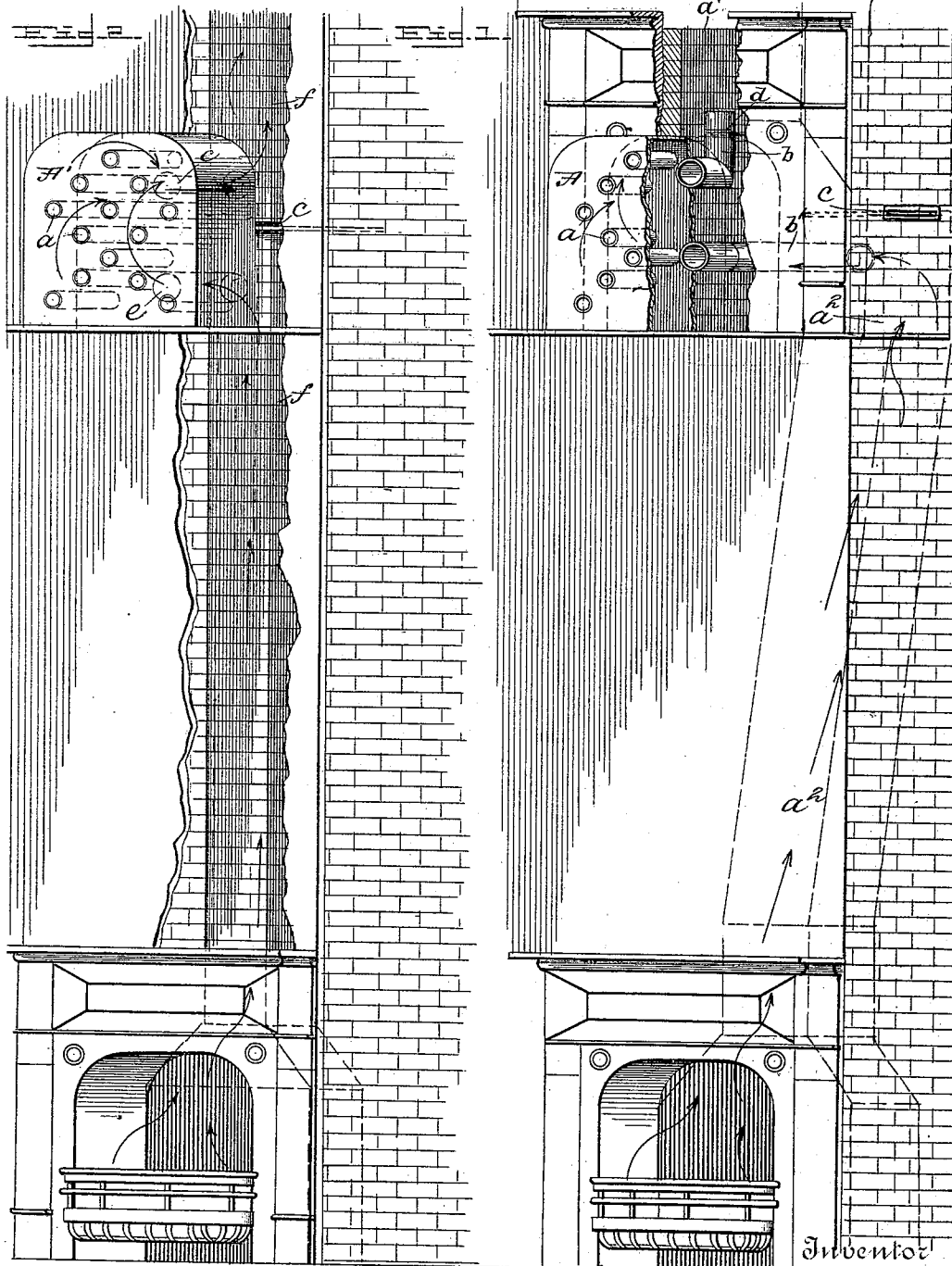
J. H. GRIFFITH.

2 Sheets—Sheet 1.

HEATING SYSTEM.

No. 469,209.

Patented Feb. 16, 1892.



Witnesses
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James J. J. J. J.

Joseph H. Griffith
By his Attorneys
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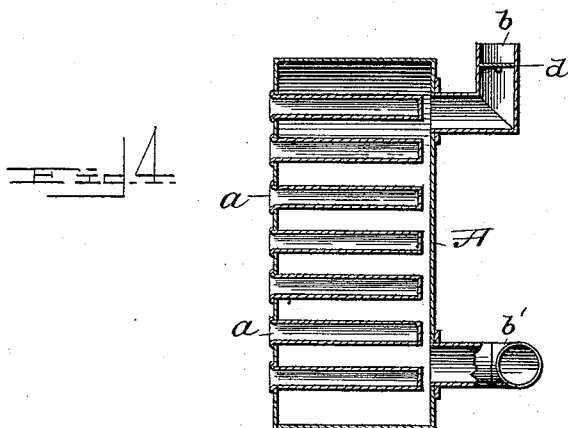
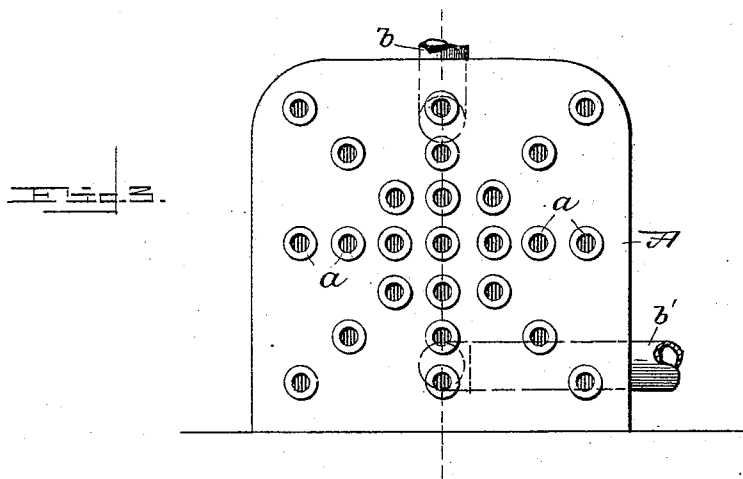
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2 Sheets—Sheet 2.

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HEATING SYSTEM.

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UNITED STATES PATENT OFFICE.

JOSEPH H. GRIFFITH, OF CANNONSBURG, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO JAMES T. ESPY, OF SAME PLACE.

HEATING SYSTEM.

SPECIFICATION forming part of Letters Patent No. 469,209, dated February 16, 1892.

Application filed May 28, 1891. Serial No. 394,411. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH H. GRIFFITH, a citizen of the United States of America, residing at Cannonsburg, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Heating Systems, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improved heating system for houses; and it consists in the novel combination and arrangement of parts, substantially as hereinafter more fully disclosed, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a broken sectional elevation of my improved heating system, and Fig. 2 is a similar view of a modification thereof. Fig. 3 is a front elevation of the radiator or heater. Fig. 4 is a sectional view of the radiator or heater.

In the embodiment of my invention I employ a radiator or heater A, preferably of the construction shown, having a series of heat-radiating tubes *a a*, with rear or inner ends closed, while their forward ends are open for the fuller radiation of the heat, and project through and are supported in and by the front plate. The radiator or heater A, standing just in front of the fire-place or grate, has pipe connections *b* at its back near the top, with the flue *a'* and an elbow-pipe connection *b'* near its bottom at the back, with the flue *a''* leading from the fire-place or combustion-chamber on the first floor and passing diagonally upward and at one side of the upper-floor fire-place. In the flue *a''* is arranged a slide or damper *c* at a point just above the pipe connection *b* therein, said slide or damper having its handle projecting out through the side of the chimney to provide for the grasping of the same to effect the alignment of its opening with the flue or the taking of the opening out of alignment therewith, according as it is desired to direct the escaping products of combustion or heat from said flue through the pipe connection *b'* into the radi-

ator or heater, or permit them to pass directly out through said flue. The pipe connection *b* has arranged therein a valve or damper *d* to regulate or more or less detain the escape of the products of combustion from the radiator, according to the amount of heat required.

In the modification, as disclosed in Fig. 2, the radiator or heater A', arranged opposite to the chimney without a fire-place, stands some distance therefrom out into the room, and has two straight pipe connections *e e* with the same flue *f*, leading from the fire-place or combustion-chamber on the first floor directly to the atmosphere. In this flue intermediately between the pipe connections *e e* is also arranged a damper *c*, in this case being actuated at the front of the chimney instead of at the side as in the form of my invention, as disclosed in Fig. 1.

Having fully described my invention, I claim—

1. The heating system comprising the radiator or heater on a floor having a series of heat-radiating tubes closed at their inner ends and open at their outer ends and having pipe connections with a flue leading from the lower floor and a damper or slide arranged in said flue at a point above the lower one of said pipe connections, substantially as set forth.

2. The heating system comprising the radiator or heater having a series of heat-radiating tubes closed at their inner ends and open at their outer or forward ends and extending through and just beyond its front plate, said radiator or heater having pipe connections with the upper-room flue, which leads from the flue of the fire-place below, and the damper or slide arranged at a point above the lower pipe connections, substantially as described.

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

JOSEPH H. GRIFFITH.

Witnesses:

JAMES T. ESPY,
DANIEL DAY.