

(No Model.)

W. TURTON.

PORTABLE PARLOR HEATER AND HOT AIR FURNACE.

No. 354,817.

Fig. 1. Patented Dec. 21, 1886.

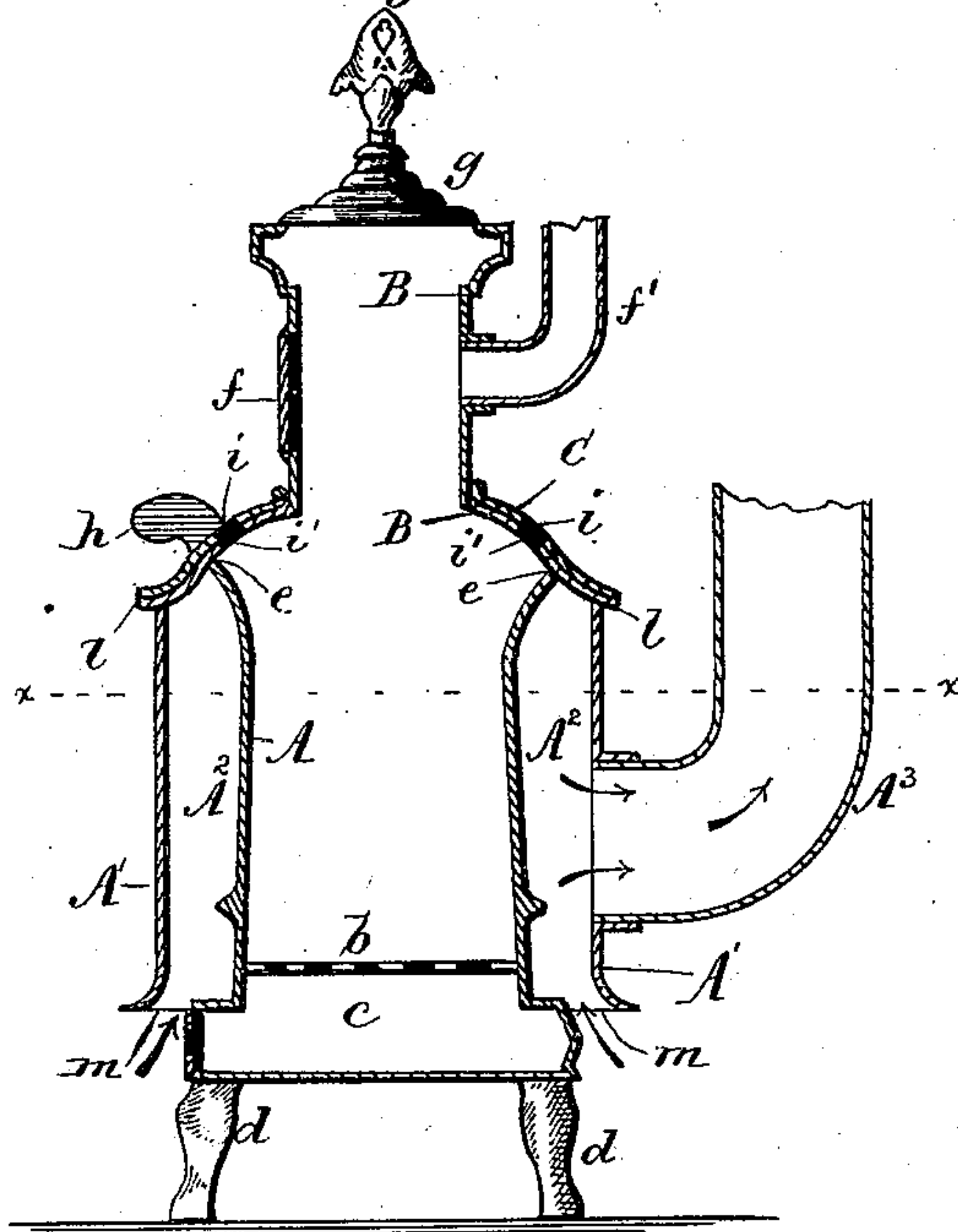
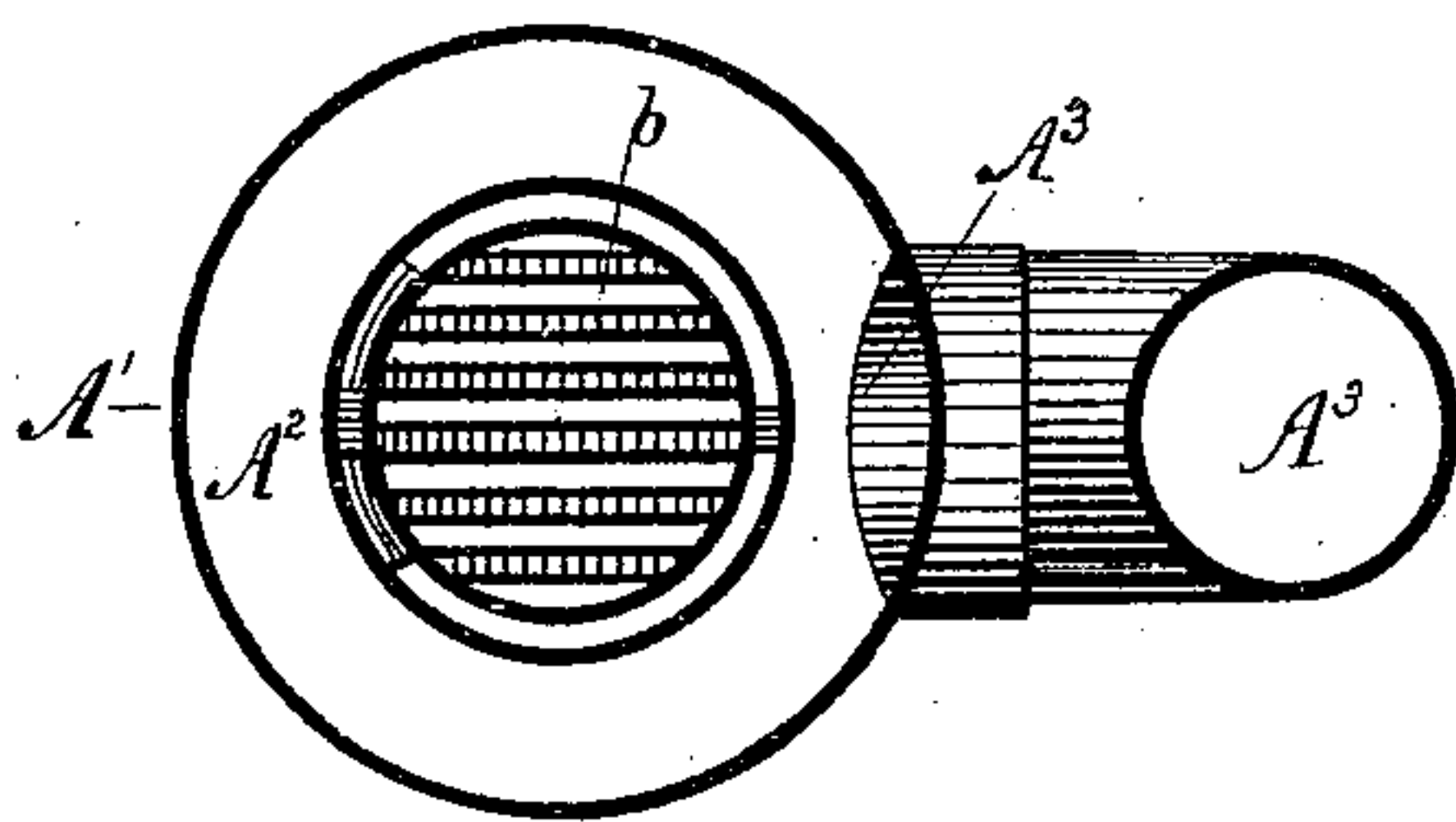


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

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PORTABLE PARLOR-HEATER AND HOT-AIR FURNACE.

SPECIFICATION forming part of Letters Patent No. 354,817, dated December 21, 1886.

Application filed January 2, 1886. Serial No. 187,411. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM TURTON, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Portable Parlor-Heaters and Hot-Air Furnaces; and I do hereby 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.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of my improved portable parlor-heater and hot-air furnace, and Fig. 2 a horizontal section in the line $x x$ of Fig. 1.

My invention has for its object the production of a portable parlor-heater and hot-air furnace combined, which shall serve not only the purpose of a parlor-heating structure for heating the room in which it is situated, but which shall also serve the purpose of heating a room or rooms above, and which can be used as a fire-place heater as well as an outstanding heater, and this at a greatly reduced cost as compared with the cost of ordinary portable hot-air furnaces for heating rooms above.

In the drawings, A indicates a cylindrical fire-pot of a parlor-heating coal-stove, provided with a grate, b , at its bottom, and with an ash-pit, c , beneath the grate, and with supporting-legs d , as shown. At top, and tightly fitting down upon the upper edge, e , of the fire-pot, is the fire and gas combustion chamber B, as shown, the same being provided with a feed-door, f , smoke-pipe f' , and removable cover g , the coal being supplied to the fire-pot either through the door f or through the opening at top on removal of cover g .

C indicates a register-plate which surrounds and rests upon the base portion of the upper section or gas-combustion-chamber B, as shown, and provided with a projection, as h , for moving the register-plate to the right or left, so as either to cause air-holes i through said plate, to register with like openings, i' , through the base of the chamber B, as shown, and thus communicate with the interior of the fire-pot A, and so supply air as well as afford

brilliant illumination, or cut off such communication, at will.

The construction of my improved heater thus far described constitutes a parlor-heating coal-stove, adapted to heat only the room in which it may be used; and my purpose is now to so avail myself of the main features of such construction as to enable me to convert such a heater into a portable hot-air furnace and retain its character as a parlor-heater, as hereinbefore indicated.

As shown in the figures, the fire-pot A is surrounded by a cylindrical hot-air jacket, A' , the upper end of which abuts gas-tight against the base of the fire-chamber B, near its lower edge, l , and thence projects downwardly, so as to form a surrounding hot-air space, A^2 , between said jacket and the fire-pot, into the mouth m of which, at a point below the grate b , the air from without enters said space or chamber.

As indicated in Fig. 1, the hot-air chamber A^2 , at the rear of the heater, is made to communicate with a hot-air pipe, A^3 , low enough down to allow the air to escape into said pipe from said chamber at a point opposite the most highly-heated portion of the fire-pot. Thus made, the structure described in its entirety becomes a portable parlor-heater and hot-air furnace combined, which, as a heater for the room in which it is situated, and, as a supplier of hot air for rooms above, may either be set directly into the fire-place of a chimney, the products of combustion passing up into the chimney from the pipe f' , while the hot air may be conducted through the pipe A^3 up the chimney and discharge into a room above, or the structure may be outstanding from the fire-place, and discharge its products of combustion and hot air as before. By leading the hot air out from the chamber A^2 low down, as shown, my said structure is thus adapted for being utilized as a fire-place heater, while the mouth of the hot-air pipe A^3 , being directly opposite the hottest portion of the fire-pot, is made available for heating air to be conducted to a room above.

By the construction shown, the fire-pot only being inclosed, and the hot air being taken only from around the fire-pot and below the

fire or fuel door, the gases from the fire-pot A cannot leak into the hot-air chamber and so mingle with and vitiate the hot air which is conducted to the room above.

5 The mouth *m* of the hot-air chamber being all around the base of the fire-pot and just below the mouth of the hot-air pipe A³, the entering fresh air finds its way into said pipe before its vitality can be destroyed by the
10 great heat at the base of the fire-pot, while at the same time such heat is made available for utilization in a room or rooms above, and by making the hot-air chamber only around the fire-pot, as shown, and in connection with the
15 base-heating coal-stove, as described, cheapens the cost of making a portable combined parlor-heater and furnace nearly or quite one-half, and while the furnace feature of the heater is maintained it will also be seen that the air
20 above the mouth of the pipe A³ becomes crowded into the hot-air space above the mouth of said pipe, and so becomes greatly heated in order to impart heat to the room in which the heater is situated, and thus I do
25 not destroy the utility of the structure as an outstanding stove, while it also performs the purposes of a portable parlor-heater and hot-air furnace.

30 My improved structure for heating the room in which it is situated and supplying hot air for a room or rooms above differs from a furnace having a hot-air chamber completely inclosing its upper and lower sections so as to interfere with the heating of the room in

which it is situated. It also differs from ordinary structures adapted for being set in fire-places, and which have the upper section as well as the lower section at the back inclosed by a hot-air jacket. The feature of novelty in my structure lies in providing a
35 combined parlor and apartment heater which has only its fire-pot section surrounded by a pendent jacket, into which cold air enters and is heated by the wall of the fire-pot, and from
40 which a hot-air pipe takes the heated air and conducts it to a room or rooms above, while the upper section of the structure serves as a direct radiator of heat into the room in which
45 the structure is situated.

What I claim as my invention is—

50 An improved portable hot-air furnace, as a new article of manufacture, which comprises in its construction a gas-combustion chamber, B, at its top, a register-plate, C, with air and illumination holes *i* surrounding the base por-
55 tion of said chamber, a fire-pot, A, communicating with said holes *i*, and a hot-air chamber, A², which surrounds the fire-pot below the heating and gas-combustion chamber, and a hot-air-conducting pipe, A³, the entrance or
60 mouth of which is opposite the fire-pot, substantially as and for the purpose described.

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

WILLIAM TURTON.

Witnesses:

WILLIAM J. BARKER,
EDWIN MCGOUGH.