

(No Model.)

2 Sheets—Sheet 1.

W. P. ANDERSON.
OPEN FIREPLACE HEATER.

No. 566,732.

Patented Sept. 1, 1896.

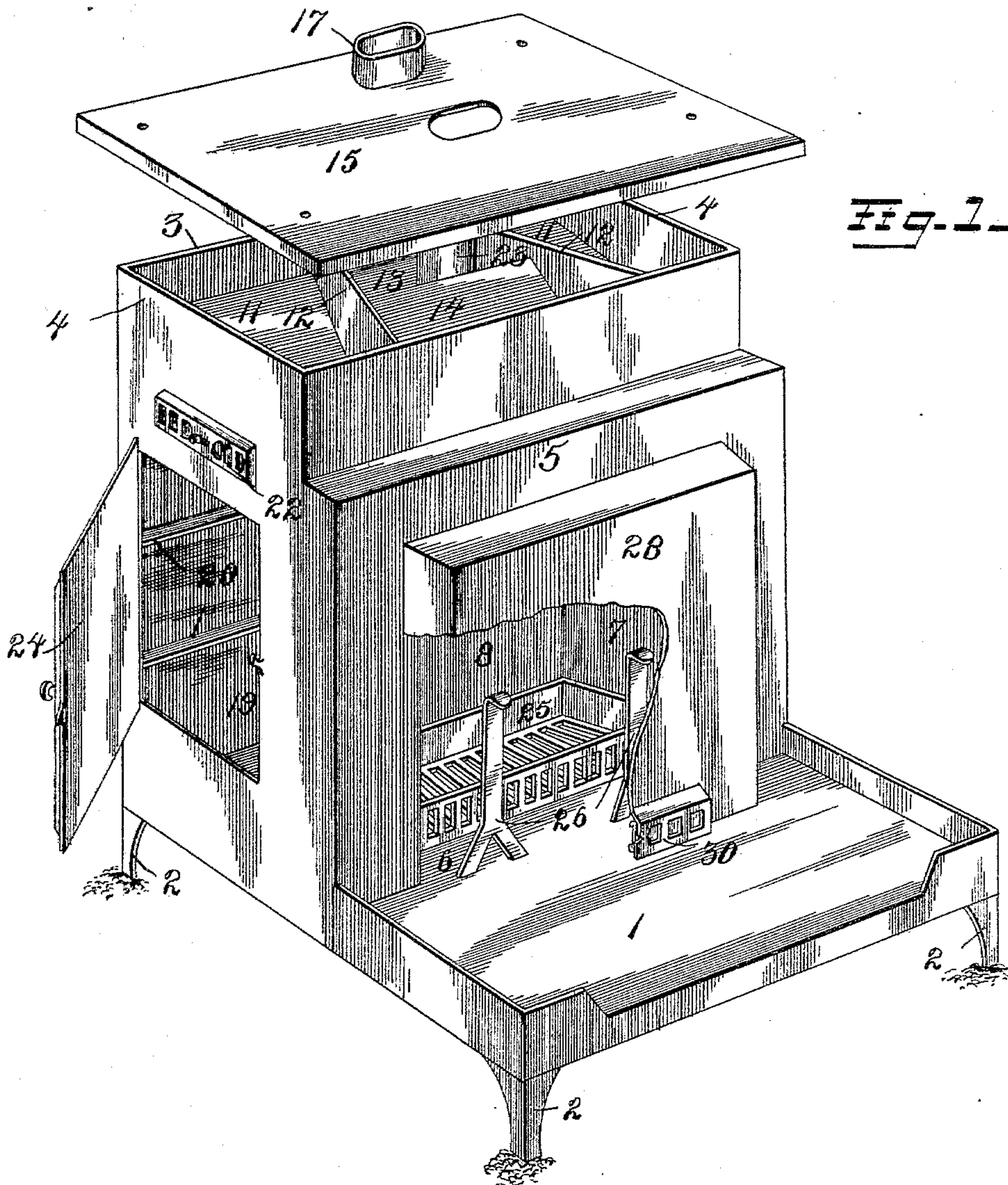
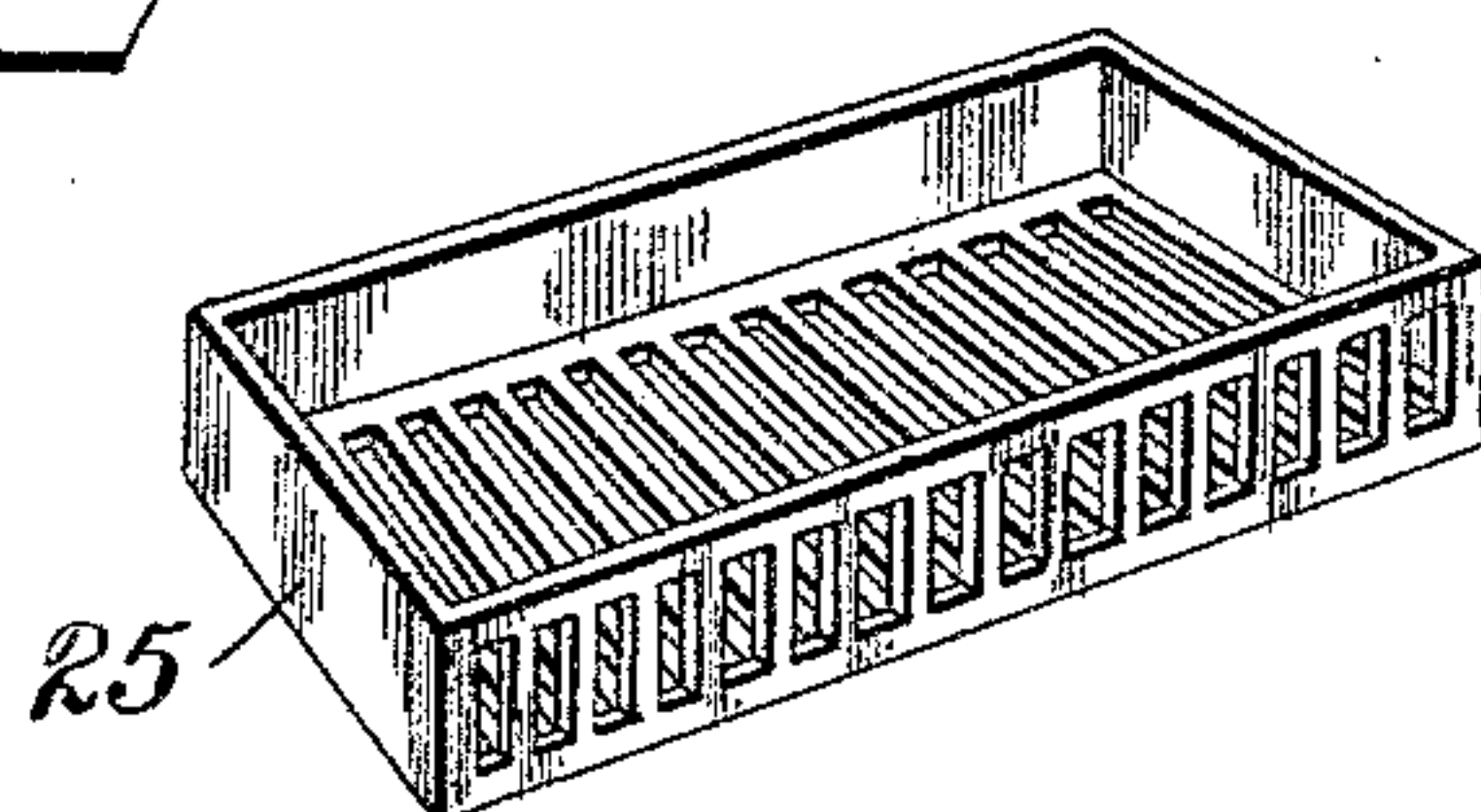


Fig. 1.

Fig. 5.



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Witnesses

H. J. Berth.
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By his Attorneys.

Ca Snow & Co

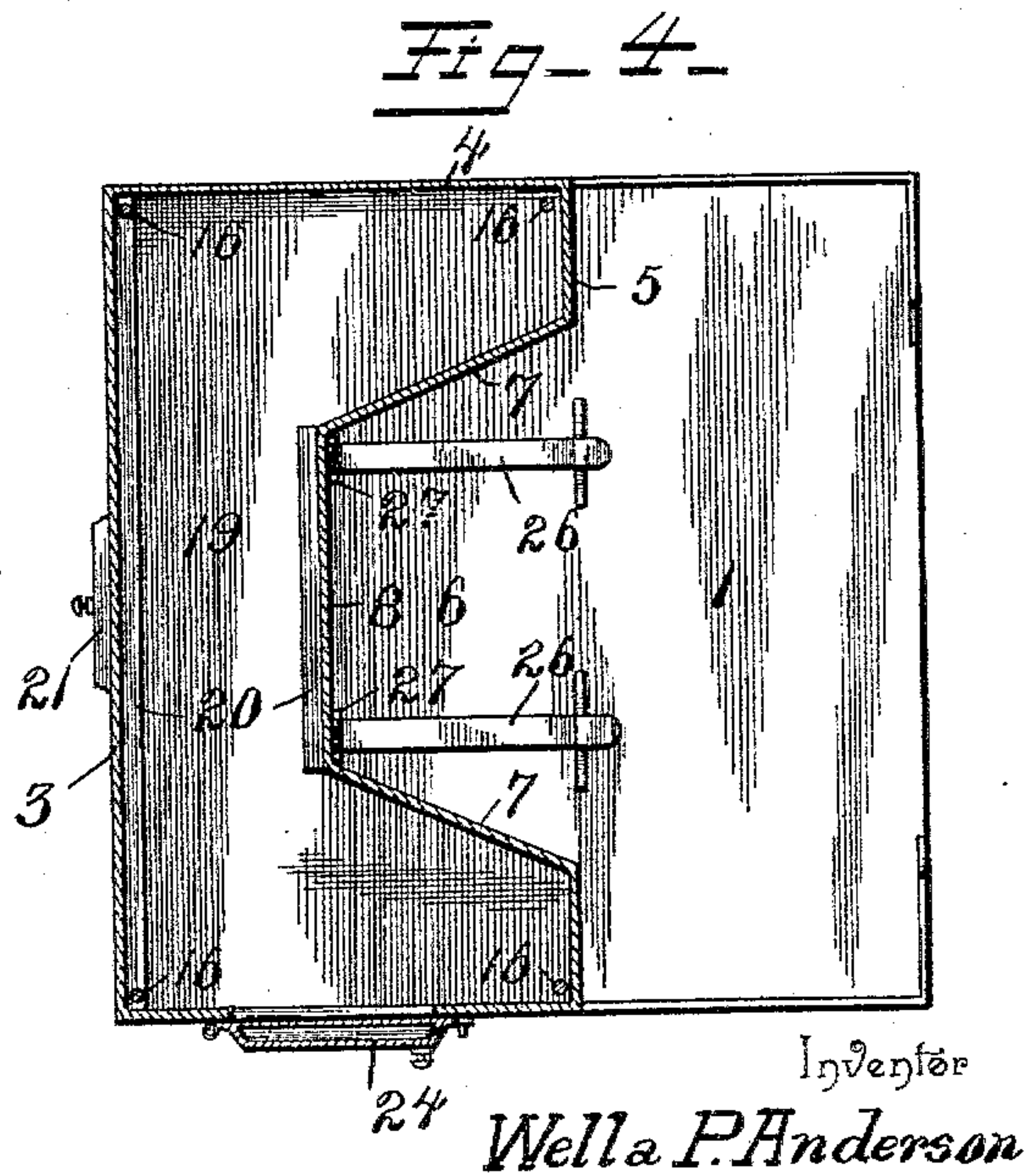
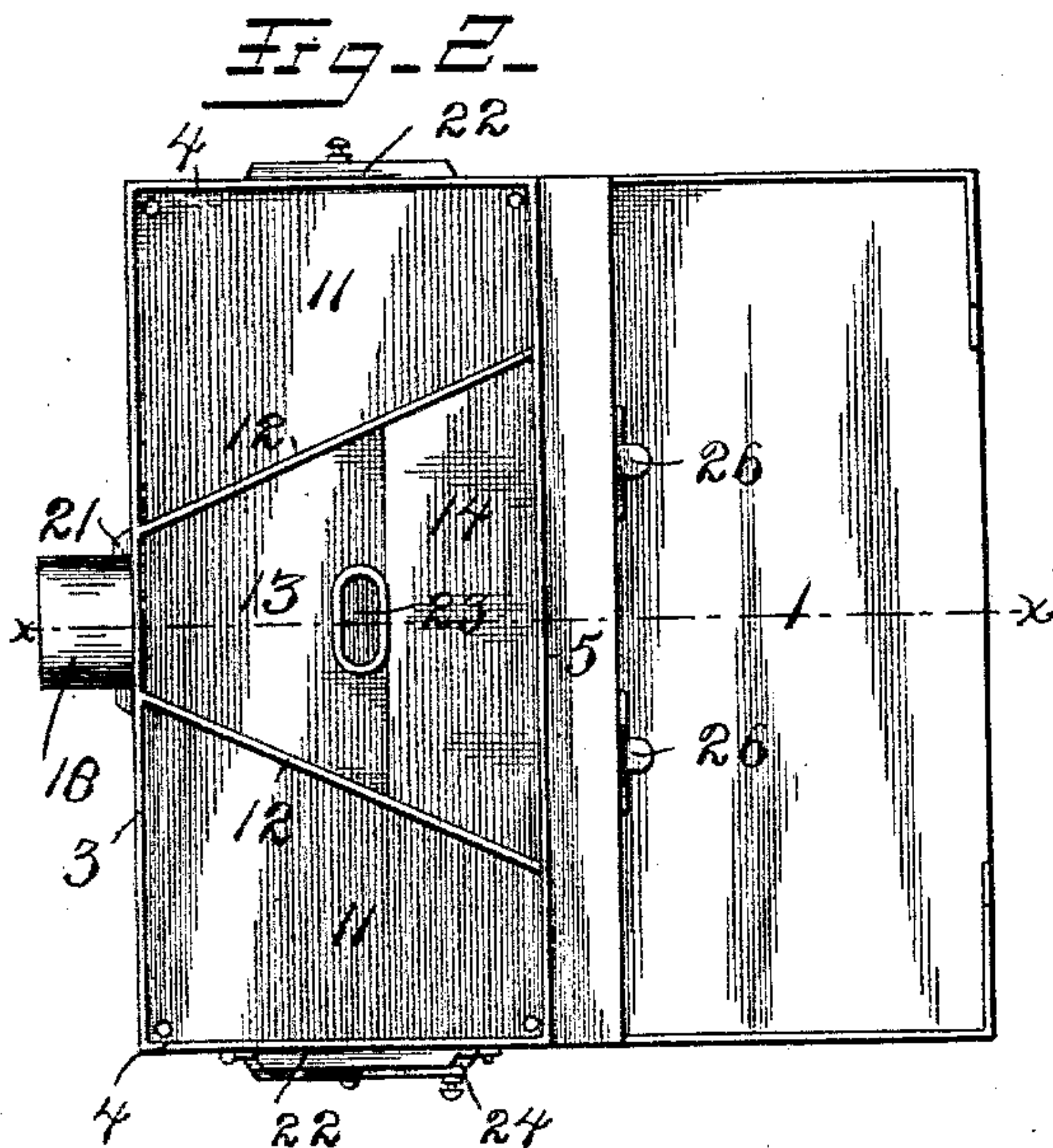
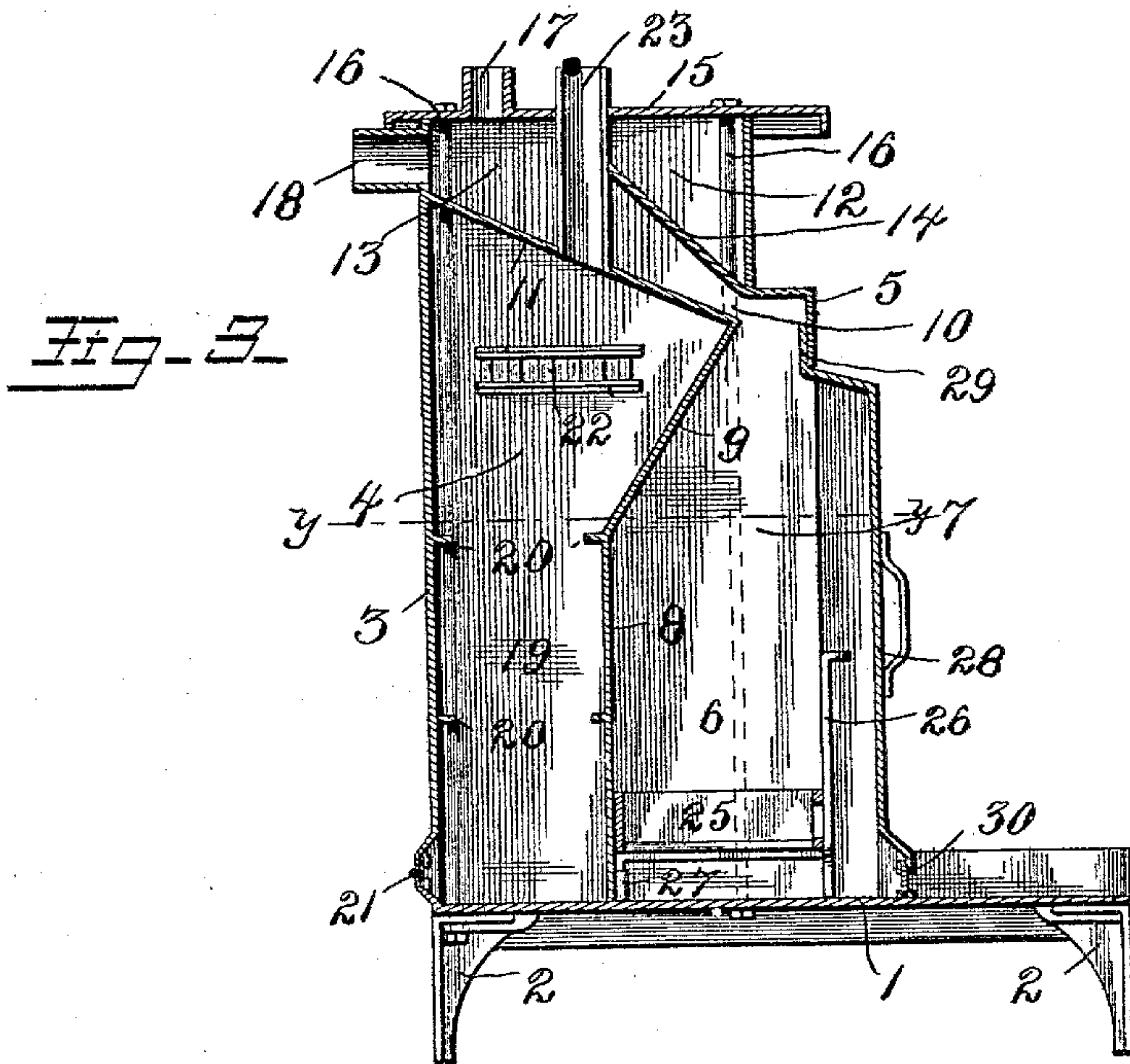
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Inventor

Wella P. Anderson

Witnesses

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By his Attorneys,

Cashow & Co.

UNITED STATES PATENT OFFICE.

WELLA PERCY ANDERSON, OF CARTHAGE, MISSOURI.

OPEN-FIREPLACE HEATER.

SPECIFICATION forming part of Letters Patent No. 566,732, dated September 1, 1896.

Application filed May 21, 1895. Serial No. 550,107. (No model.)

To all whom it may concern:

Be it known that I, WELLA PERCY ANDERSON, a citizen of the United States, residing at Carthage, in the county of Jasper and State of Missouri, have invented a new and useful Open-Fireplace Heater, of which the following is a specification.

The objects in view are to provide a fireplace-heater which can be used with or without a fire-box, thereby adapting the heater for burning coal or wood; to combine with the structure an oven which can be utilized for purposes of baking, warming, or in the capacity of a hot-air chamber for heating the air for warming the room in which the stove is located or a distant apartment, and to improve the general construction of this class of heaters, whereby economy in the consumption of fuel is attained, the structure simplified, and the device rendered more inexpensive than is possible with heaters as at present manufactured.

The improvement will be more particularly set forth hereinafter and claimed, and the many advantages resultant therefrom will be apparent as the nature of the invention is understood.

In the accompanying drawings, Figure 1 is a perspective view of the improved heater, the top being removed and slightly elevated, the oven-door open, and a portion of the blower broken away. Fig. 2 is a top plan view of the heater with the upper plate removed. Fig. 3 is a vertical cross-section on the line X X of Fig. 2. Fig. 4 is a horizontal section on the line Y Y of Fig. 3, the fire-box being removed. Fig. 5 is a detail view of the fire-box.

The base or hearth 1 is of plate metal, preferably stout sheet-steel, and is supported upon feet 2, and upon this base are mounted the component parts of the heater. The back 3, the similar sides 4, and the front 5 are formed of sheet metal and are secured together at their meeting edges in any desired manner, and in practice best Russia sheet-iron will be used in the formation thereof. The front 5 is open, and a fireplace 6 of usual construction is attached thereto and extends rearwardly in the usual manner, and comprises sides 7, a back 8, and a top 9, the latter terminating a short distance from the plane of the front 5, so as to provide a passage

10 for the escape of the smoke and gases when the heater is in operation. A plate 11 is located above the fireplace and inclines rearwardly and upwardly from its front edge and is secured at its ends to the sides 4 and at its rear edge to the back 3. Deflecting-plates 12 are disposed above the plate 11 and extend transversely between the front 5 and the back 3 and converge on symmetrical lines from the front to the back, and these plates inclose a contracted smoke-box 13, whereby eddying currents are obviated and the heater prevented from throwing gas and smoke into the room. A deflector 14 is located above the passage 10 and is attached at its front edge to the front 5 and inclines rearwardly and upwardly so as to direct the smoke and gases to the rear portion of the smoke-box 13, and this deflector 14 is comprised between the deflecting-plates 12.

The top or upper plate 15 extends over the space bounded by the back, front, and the two sides and is secured in place in any desired manner, preferably by four long rods 16, which extend from the four corners of the said top 15 downwardly and through the base or hearth and receive the binding-nuts at their lower ends in the ordinary manner. By this construction the parts 3, 4, and 5 are held between the top or upper plate 15 and the base 1 and are adapted to contract and expand without buckling or warping, as is common where these parts are firmly bolted together.

The smoke-pipe may be attached either to a collar 17, provided on the top 15, or to a collar 18, located on the back near its upper end, said collars opening into the smoke-box 13.

The space 19, formed between the back 3, sides 4, fireplace 6, plate 11, and the rear portion of the base 1, constitutes an oven and is provided at different levels with supporting-ledges 20 for grates, upon which are placed the bake-pans or other utensils in which the food to be cooked is placed. When it is not required to utilize this space 19 as an oven, cold air is admitted thereto through a register or damper 21, near the lower end of the back 3, for the purpose of being heated, and said air after being warmed finds its way into the room by opening either or both of the

side registers 22, provided near the upper ends of the sides 4. If it be required to heat an adjoining room or one above that in which the heater is located, a pipe is provided and
5 connected with the pipe 23, extending from the oven or space 19. As shown, this pipe 23 communicates with the space 19 and extends through the plates 11 and 15. Obviously the pipe 23 may be disposed so as to
10 extend in any required direction to convey the heat to the required point of discharge. The space or oven 19 is accessible through an opening in a side of the heater which is closed by a door 24.

15 The fire-box 25 is cast and comprises a bottom and sides of grate-bars, between which the air passes to support combustion, and this fire-box is of a shape to conform to the fireplace and is removably supported upon
20 brackets or andirons 26. When coal is used as fuel, the fire-box is in position, and when wood is to be burned the fire-box is removed, said wood being supported upon the andirons or the hearth in the usual manner. To re-
25 tain the andirons in proper position and against accidental displacement, their rear vertical portions are inserted in keepers 27, provided on the back 8 of the fireplace. The blower 28 is of usual construction and is
30 flanged at its sides and top, and the latter has a vertical portion 29, which extends on the inner side of the front 5 to retain the blower in position. This blower has a damper 30 near its lower end, by means of which the
35 draft can be regulated, and when the blower is in proper position and the damper closed the fire can be sustained a great length of time and can be made to burn briskly when required by opening the damper 30.

40 It will be seen that the heater can be used both for warming and for cooking and is adapted for heating the apartment in which it is located or a distant room, and that it is simple in its organization and utilizes the
45 fuel to the best possible advantage. In constructing heaters embodying the essence of

the invention it is to be understood that changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or
50 sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new is—

1. An open-fireplace heater comprising a 55 hearth or base of sheet metal, a top extending parallel therewith, a front, back and sides arranged between the hearth and top and inclosing a space in the rear of the fireplace proper to form an oven, a plate dis- 60 posed over the said space and fireplace below the top, and inclining rearwardly and upwardly, plates disposed between the inclined plate and the fireplace top to form a smoke- 65 box and converging toward their rear ends, a damper for admitting cold air into the lower portion of the oven-space, and a pipe extending through the smoke-box formed by the converging plates and communicating with the oven-space, substantially as and for the 70 purpose set forth.

2. An open-fireplace heater having a hot-air space in the rear of the fireplace and between it and the back, a plate located be- 75 neath the top of the heater and above the said hot-air space and fireplace and having a passage between the front of the heater and its front edge, said plate inclining rearwardly and upwardly, vertically-disposed converging deflecting-plates arranged above the said 80 inclined plate and below the aforesaid heater-top to form a contracted smoke-box, and a deflector located between the deflecting-plates and above the said passage, substantially as described for the purpose set forth. 85

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WELLA PERCY ANDERSON.

Witnesses:

WOODFORD SHANNON,
G. E. GERKEY.