

No. 685,848.

Patented Nov. 5, 1901.

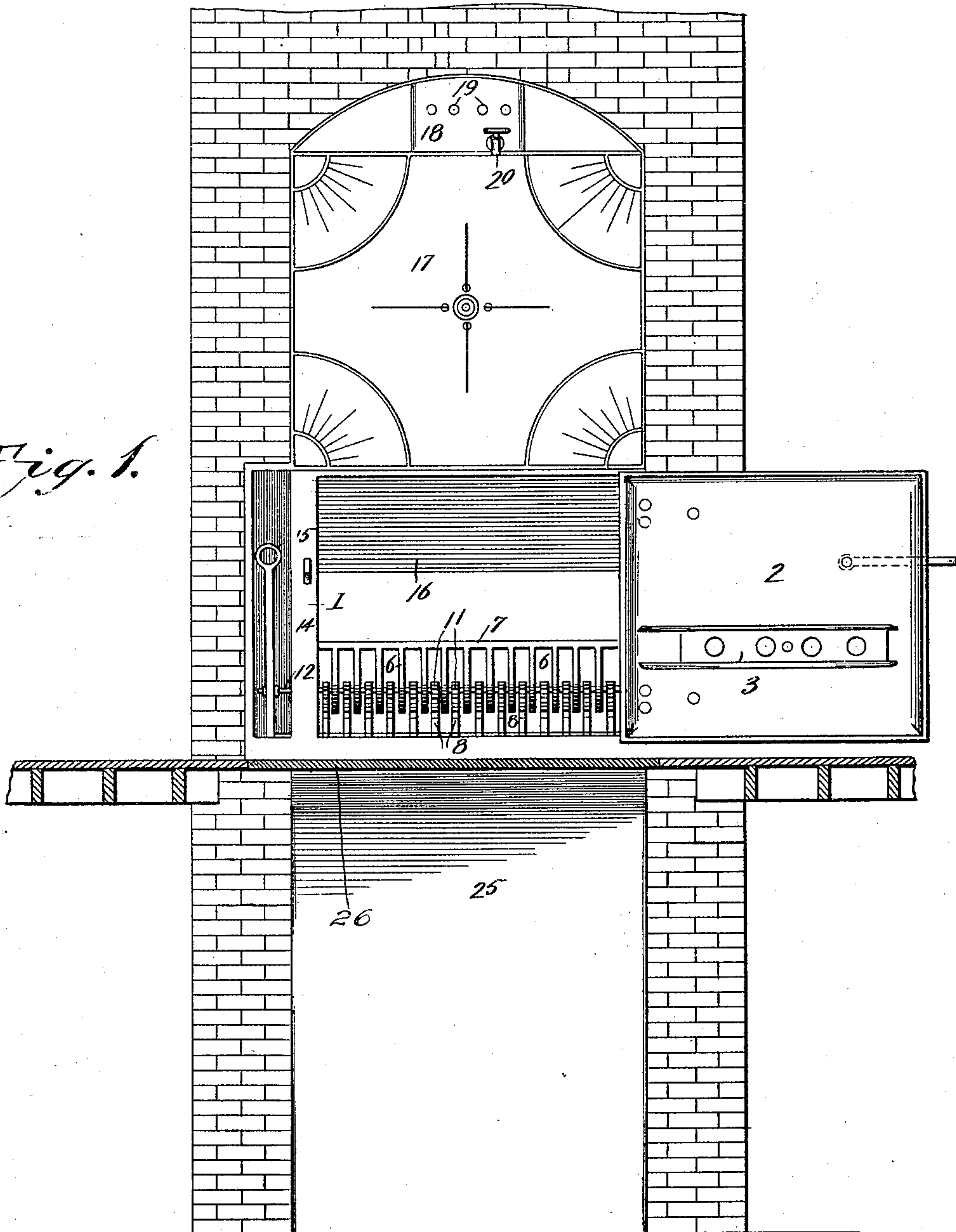
J. KASMEIER.
HEATER.

(Application filed Feb. 13, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



Witnesses

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2 Sheets—Sheet 2.

Fig. 2.

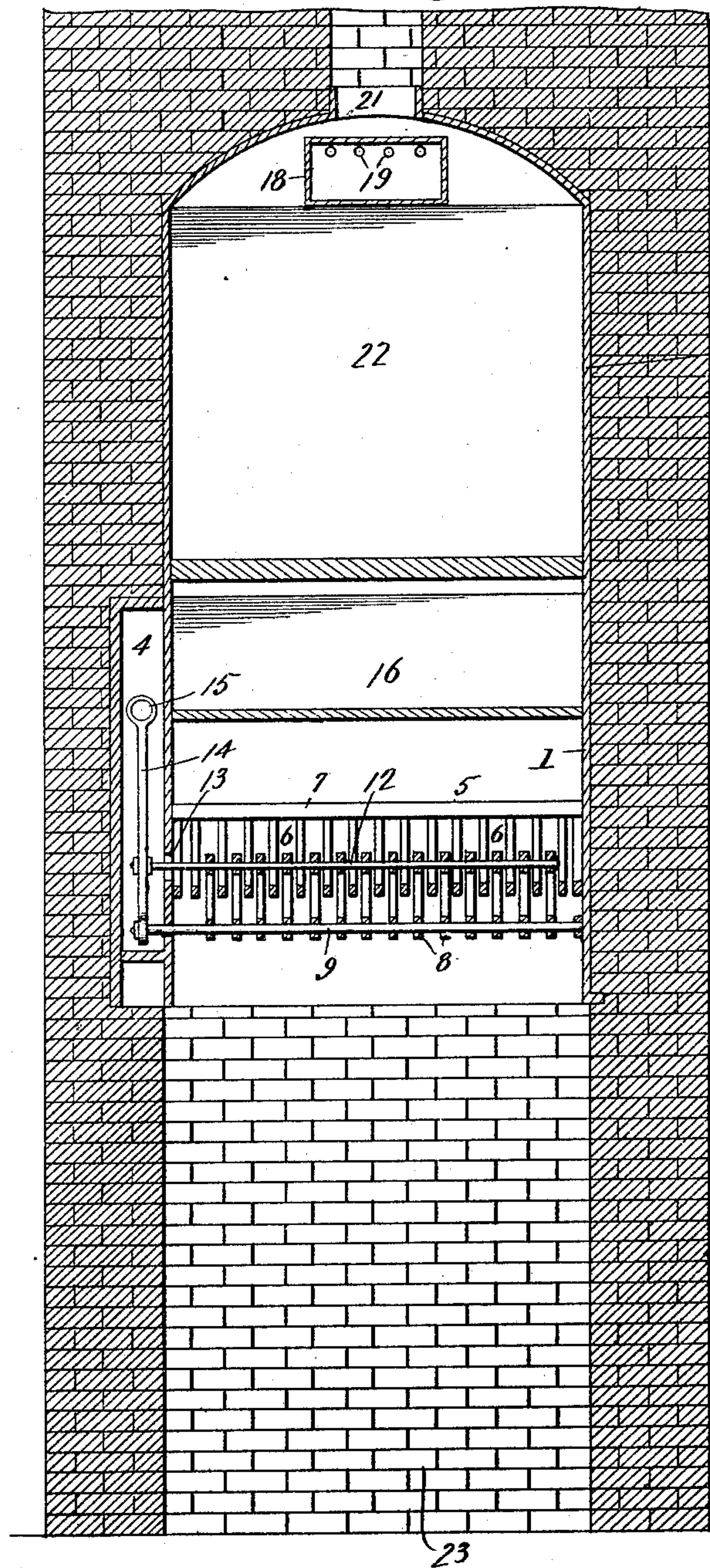
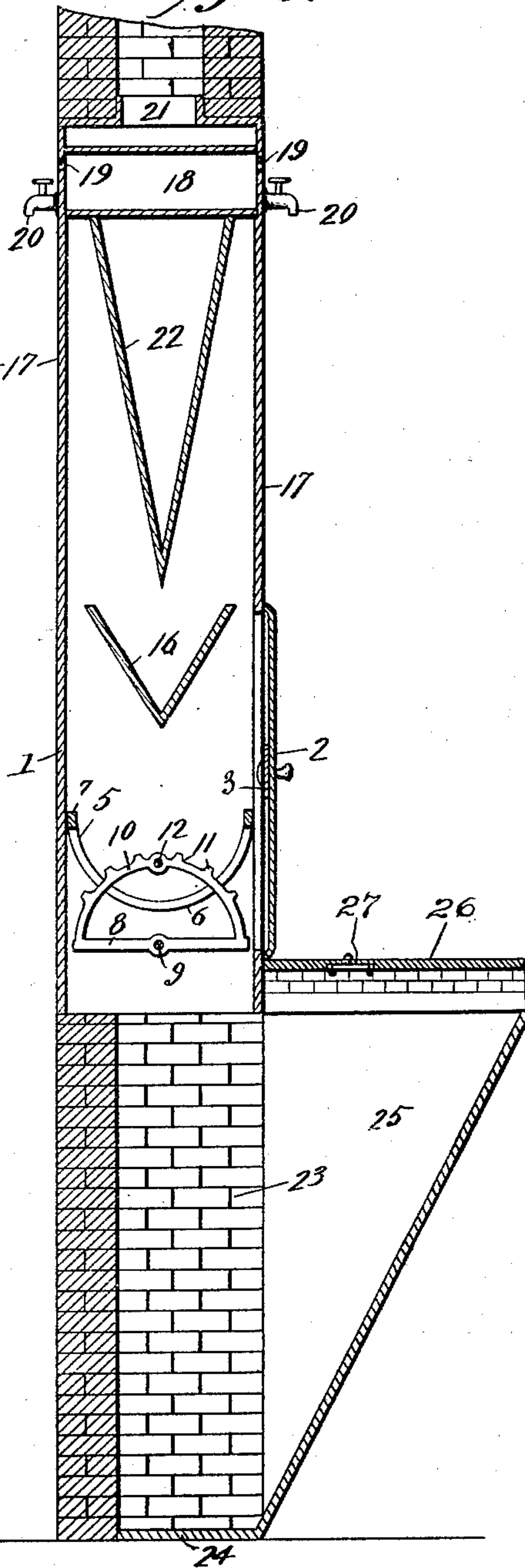


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN KASMEIER, OF FLORENCE, ALABAMA.

HEATER.

SPECIFICATION forming part of Letters Patent No. 685,848, dated November 5, 1901.

Application filed February 13, 1901. Serial No. 47,161. (No model.)

To all whom it may concern:

Be it known that I, JOHN KASMEIER, a citizen of the United States, residing at Florence, in the county of Lauderdale and State of Alabama, have invented a new and useful Heater, of which the following is a specification.

This invention relates to a heater; and the object of the same is to provide a simple and effective device of this class adapted to be disposed in such position that two adjoining rooms or compartments may have opposite sides of the same exposed therein for heating purposes, and also to provide details of construction which will facilitate the direction of the heated currents against exposed surfaces, for conveniently making the grate, and for receiving the ashes from the grate, the several parts of the heater being inclosed in such manner as to produce a dust-proof structure and prevent the escape of ash-dust and the like into the rooms or compartments to which the device is exposed.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is an elevation of one side of the device shown surrounded by chimney or brickwork and showing the door open, the ash-pit, and the flooring in section. Fig. 2 is a longitudinal vertical section through the improved device as shown by Fig. 1. Fig. 3 is a transverse vertical section of the improved device.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates the body of the heater, which is completely open at the bottom and constructed of suitable metal, either in sheet or cast form. A door 2 is hinged to one side of the body, as shown, and in some instances a similar door may be applied to the other side, this change being obvious and not in the least modifying the principle of the invention. The door 2 is provided with suitable openings and a draft-slide 3, and at one end of the said body is a metal-walled compartment 4, which is open at the front for a purpose which will be hereinafter set forth. In the lower portion of the body, at a suitable elevation above the open bottom thereof, is a

basket-grate 5, comprising in this instance a plurality of longitudinally-alined semicircular grate-bars 6, with spaces between the same and connected to upper longitudinal supporting-bars 7. Extending longitudinally through the lower central portions of shaker-bars 8 and projecting through the end of the body adjacent to and into the compartment 4 is a fulcrum rod or bar 9. The lower portion of each shaker-bar is straight and normally located in a transverse horizontal plane, the upper member 10 of said bar being semicircular and provided with radial projections 11. The shaker-bars are interposed between the grate-bars 6, and through the upper central parts of the members 10 a tie-rod 12 extends for unitedly operating the said shaker-bars, the tie-rod and a portion of the members 10 being above the lower plane of the grate-bars. The one end of the tie-rod projects through the same end of the body 1 as and above the end of the fulcrum-rod and is adapted to work in a slot 13, having a suitable curvature for permitting the said tie-rod to be rocked. On the said projecting end of the fulcrum-rod the lower end of an upright rock-bar 14 is pivotally mounted, and to this rock-bar the end of the tie-rod is also secured, the upper end of the bar 14 being provided with an eye 15 for engagement by a poker or other device to impart an oscillating movement thereto, and thus rock the shaker-bars and relieve the coals in the grate-bars of ashes, clinkers, and the like. The projections 11 act to thoroughly agitate the coals and relieve the grate-bars of any adhering pieces. The shaker-bar 14 is inclosed by the compartment 4 and is thus out of the way, but always in a conveniently accessible position.

Within the body 1 above the plane of the grate is an inverted triangular deflector 16, which operates to throw the heated currents toward the opposite sides of the body and out into the room on one side and against the back at the opposite side, with obvious advantages in radiation. The top of the body 1 is also completely open, and thereon is superposed drum 17 of any suitable dimensions and having a completely-open lower end or terminating portion coextensive with the upper open end of the said body. Near the upper end of the drum is an interiorly-posi-

tioned transversely-extending water pan or reservoir 18, having end apertures 19 to permit steam to pass out into the rooms to which said drum is exposed, and below said apertures are opposite drain cocks or faucets 20 to relieve said pan of water therein when desired. The advantages of moisture exuding into a room or compartment in the manner set forth are well understood. The upper end of the drum above the pan or reservoir is formed with a contracted opening 21 for communication with a chimney-flue or smoke-pipe, as the case may be, and below the pan is an elongated inverted triangular or V-shaped deflector 22, which also operates to throw the heated currents rising through the drum against the opposite sides of the latter and insures more heat radiation from said sides than if the currents were permitted to rise directly to the top of the drum.

The heater as thus described is placed in position at a point where a dividing-wall between two rooms or compartments is to be erected and where a chimney-wall is to be constructed, and the said walls are then built around the heater in the manner shown. The chimney-walls are continued below the bottom of the heater and formed with a recess 23 in one side to provide a portion of the ash-pit, and in the bottom of said pit is a horizontal plate 24, forming a portion of an upwardly and outwardly inclined hopper 25 at the front of the pit. Over the top of said hopper a plate 26 is let into the hearth in front of the heater, the said plate being surrounded by suitable tiling, and in the rear portion of the plate is a slide for uncovering openings, as at 27, and thus provide means for permitting sweepings or other accumulations to be conveniently deposited in the pit and also at times to provide a convenient underdraft for the heater. The plate 26 is located in such nearness to the grate that at times the contents of the grate could be deposited in the pit, the said plate being removable for this purpose, and this arrangement will be particularly useful where ash-pans are used with the grate instead of leaving a clear opening below the same. It is preferred to use the ash-pit construction set forth, particularly in those buildings having cellars, in order to cause all dust from the grate to settle into said pit and be prevented from passing out into the room or rooms with which the heater communicates.

The improved device may be used either

as a closed or open heater, and any kind of fuel may be placed therein. The drum may be ornamented as desired, and changes within the principle and scope of the invention may be resorted to.

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

1. A heater adapted to be built into a wall and have heating communication with two different compartments, comprising a body with a grate in the lower portion thereof and a door for exposing said grate, an inverted triangular deflector above the grate, a drum superposed on the body and completely open into the upper portion of the latter and having an elongated inverted triangular deflector therein, and a water-pan inclosed within and extending transversely through the upper portion of the drum and having end apertures and opposite drain-cocks.

2. A heater adapted to be built into a wall having a lower portion with a recess therein and to provide heating communication with two adjacent compartments, comprising a body with a lower grate therein, a door for exposing said grate, the said body being completely open at the bottom below the grate and communicating with the lower recessed portion of the wall, a plate let into the hearth in front of the heater and having a rear slide for covering openings in the plate, and an outwardly and upwardly inclined hopper applied to the wall in front of said recess completely below the grate and extending forwardly and upwardly in advance of the grate to take in the said plate to form an ash-pit, the said plate forming a front cover for the latter.

3. A heater adapted to be built into a wall and have heating communication with two adjacent compartments or rooms, comprising a body with a basket-grate in the lower portion thereof and a door to expose said grate, the said body also having a metal-walled inclosure or compartment at one end, a plurality of shaker-bars between the grate-bars, and means located in said metal-walled inclosure or compartment for rocking or oscillating said shaker-bars.

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

JOHN KASMEIER.

Witnesses:

H. D. SMITH,
ALEX. LOCHER.