No. 724,873. PATENTED APR. 7, 1903.

O. JAHELKA.

HEATER.

APPLICATION FILED JAN. 31, 1903.

NO MODEL.

FIG. 2.

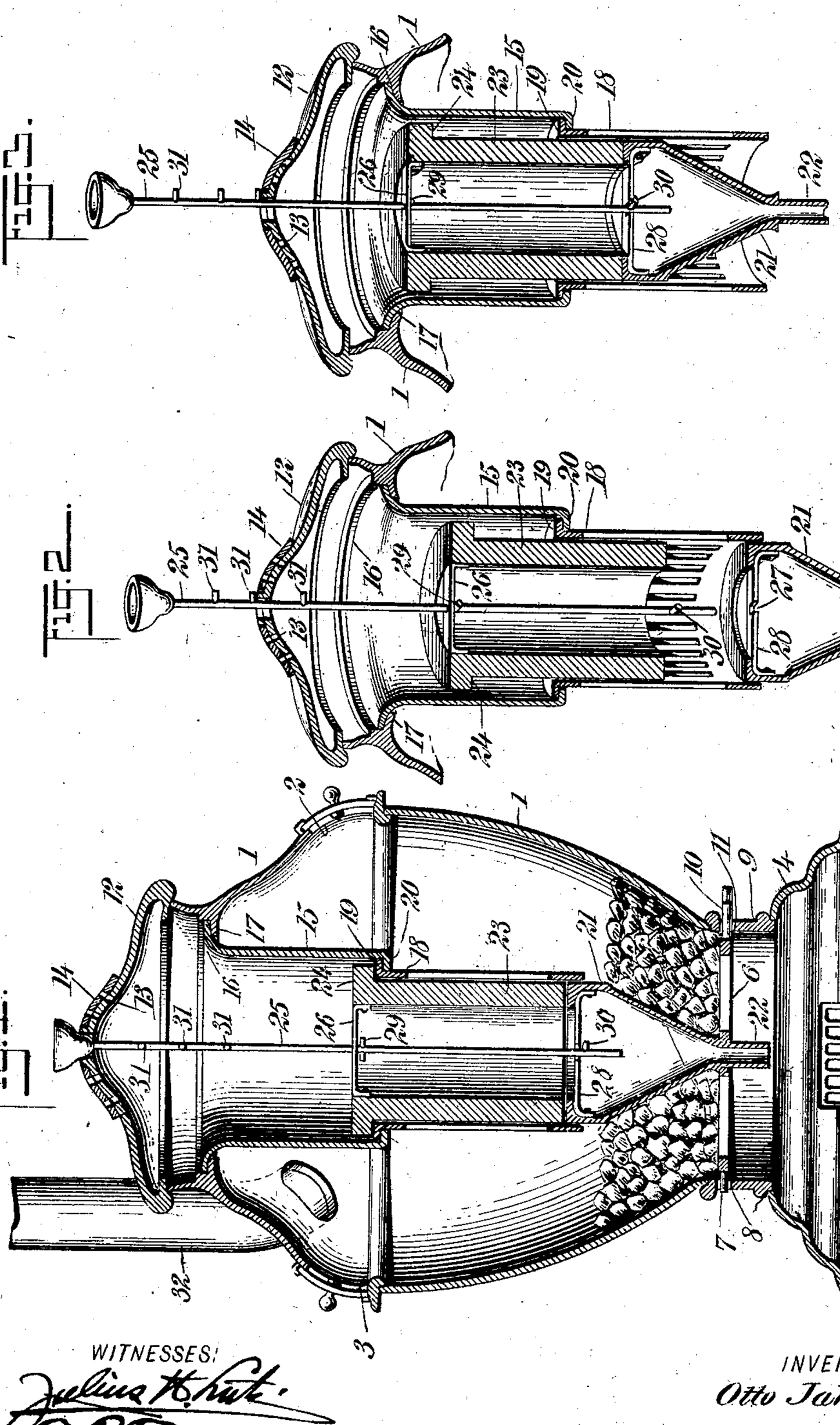

FIG. 1.

WITNESSES:

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HEATER.

SPECIFICATION forming part of Letters Patent No. 724,873, dated April 7, 1903.

Application filed January 31, 1903. Serial No. 141,278. (No model.)

To all whom it may concern:

Be it known that I, OTTO JAHELKA, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Heater, of which the following is a full, clear, and exact description.

This invention relates to improvements in heaters or stoves, particularly heaters in which coal is used as fuel; and the object is to provide a heater of simple construction and so arranged as to give out a high and practically constant degree of heat with a comparatively small amount of fuel consumption, and, further, to provide means whereby the obnoxious gases generally rising from a fresh supply of coal are prevented from entering the room in which the heater is placed.

I will describe a heater embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional elevation of a heater embodying my invention, and Figs. 2 and 3 are sectional views showing the interior cylinders or parts in different positions.

Referring to the drawings, 1 designates the body of the stove, which may be of any desired shape, and, as here shown, it has door-closed openings 2 3 at its opposite sides, through which coal may be passed. The body 1 is supported on a base 4, which forms the ash-pit, and at one or more places in the wall of this ash-pit a door 5 is placed, the said door being provided with openings designed to be regulated by a suitable damper.

Arranged between the body and the base is a grate 6, which is designed (in shaking down the coal) to be moved or rocked on a horizontal plane or around its axis. Upon removing the interior parts, to be hereinafter described, the grate may be tilted to dump the clinkers and other material into the ash-pit. As here shown, at one side the grate has a lug 7, which passes through a slot 8 in the base-ring 9, and at the opposite side a rod 10 extends outward through a slot 11 in said base-ring, and this rod is provided with an angular end to be engaged by a suitable shaking or turning instrument. The body 1 is provided with a removable cover 12, having perforations 13 for the outlet of heated air, and these perforations 13 are regulated or closed by a perforated damper-plate 14, mounted to rotate on the upper side of the cover.

Arranged in the upper portion of the body is a cylinder 15. At its upper end this cylinder 15 has an outwardly-extended annular flange 16 for engaging with an annular flange 17, formed in the upper portion of the body. By this arrangement the cylinder 15 may be readily removed from the heater or placed therein. A grated cylinder 18 is supported from the cylinder 15 and is adapted to slide vertically with relation thereto. As here shown, the upper end of the grated cylinder 18 is provided with an annular flange 19 for engaging with an interior annular flange 20 at the lower end of the cylinder 15. Below the grated cylinder 18 is a funnel-shaped air-receiver 21. This air-receiver has a tubular extension 22 at its lower end passing through a central opening in the grate 6 and communicating with the ash-chamber.

Movably arranged in the grated cylinder 18 is a regulating-cylinder 23, consisting of fire-clay or other suitable refractory material. At its upper end this regulating-cylinder has an exterior annular flange 24 for engaging the flange 19 on the upper end of the cylinder 18, as clearly shown in Fig. 1, and thus the said regulator-cylinder is suspended.

A lifting and regulating rod 25 passes through an opening in the cover 12 of the heater and also through an opening in the damper 14. This rod extends loosely through an opening in a bar 26, connected to the upper end of the cylinder 23, and the lower part of this rod 25 is designed to pass loosely through a notch 27, formed in a cross-bar 28, connected to the upper end of the air-receiver 21. This rod is provided below the bar 26 with a transverse pin 29, designed to engage against the under side of said bar 26, so that the regulating-cylinder 23 may be raised and held in the position indicated in Fig. 2 or may be wholly removed from the heater. When moving the said cylinder 23 alone, a pin 30 on the lower end of the rod will be turned in such direction as to pass through the notch 27. When it is desired to lift the air-receiver

21 with the cylinder 23 for removing said parts from the heater, the said pin evidently must be moved underneath said bar 28. The parts may be held in elevated position by engaging any one of a series of pins 31 on the rod 25 with the top of the damper 14, the said damper and stove top or cover being provided with a slot through which the pins may pass.

In the operation when a fire is first started or fresh fuel is placed in the heater the regulating-cylinder 23 should be lowered to the position indicated in Fig. 1, so that when in this position the gases rising from the fuel will pass off through the smoke-pipe 32, and at this time air received through the opening or openings leading into the ash-pit will pass up through the air-receiver 21, and thence into the cylinder, where it will become thoroughly heated and pass out through the openings 13 and 14 in a pure condition. After the obnoxious gases shall have been burned away the regulating-cylinder 23 may be raised to any desired degree, permitting the hot air generated in the body of the heater to pass through the grated cylinder and mingle with the air received from the ash-pit. Obviously the air heated in the main body and that heated in the cylinders will be of somewhat different temperatures, but when mingled as above described a regular or even temperature will be maintained.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A heater, comprising a body portion, a cylinder suspended from the upper portion of the body, a grated cylinder supported from the first-named cylinder, and an air-receiver communicating with the cylinders and with the lower portion of the heater, substantially as specified.

2. A heater, comprising a body portion, a cylinder supported from the upper portion of the body, a grated cylinder supported from the first-named cylinder, a regulating-cylinder in said grated cylinder, and an air-receiver communicating with the cylinders and with the lower portion of the heater, substantially as specified.

3. A heater, comprising a body portion, a cylinder suspended from the upper portion of the body, a grated cylinder supported from the first-named cylinder, a vertically-movable regulating-cylinder in the grated cylinder, a grate in the heater, and an ash-receiver communicating with the cylinders and having its open lower portion extended through said grate, substantially as specified.

4. A heater, comprising a body portion, a cover thereon having outlets for air, means for regulating said outlets, a cylinder removably suspended in the upper portion of the body, a grated cylinder removably suspended from the first-named cylinder, a vertically-movable regulating-cylinder in the grated cylinder, means for raising said regulating-cylinder, and an air-receiver providing communication between the cylinders and the ash-pit of the heater, substantially as specified.

5. A heater, comprising a body portion, a cover therefor having openings, means for regulating said openings, a cylinder removably suspended from the upper portion of said body, a grated cylinder removably suspended from the first-named cylinder, a regulating-cylinder vertically movable in the grated cylinder, a funnel-shaped air-receiver communicating at its upper end with the cylinders and movable vertically with relation thereto, a grate in the lower portion of the body, and a tubular projection from the lower end of said air-receiver passing through said grate, substantially as specified.

6. A heater, comprising a body portion, a cover therefor having openings, means for regulating said openings, a cylinder removably suspended from the upper portion of said body, a grated cylinder removably suspended from the first-named cylinder, a regulating-cylinder vertically movable in the grated cylinder, a funnel-shaped air-receiver communicating at its upper end with the cylinders and movable vertically with relation thereto, a grate in the lower portion of the body, a tubular projection from the lower end of said air-receiver passing through said grate, and a rod for simultaneously lifting the regulating-cylinder and ash-receiver, substantially as specified.

7. In a heater, the combination with the body portion, of an air-receiving cylinder in the body and consisting of a plurality of independently-movable parts, one of said parts being grated, and means for regulating the grate-openings, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

OTTO JAHELKA.

Witnesses:
CHARLES KRIKANA,
JOSEPH FRANZ.