

No. 877,190.

PATENTED JAN. 21, 1908.

L. W. HAMMOND.
STOVE.

APPLICATION FILED DEC. 26, 1906.

2 SHEETS—SHEET 1.

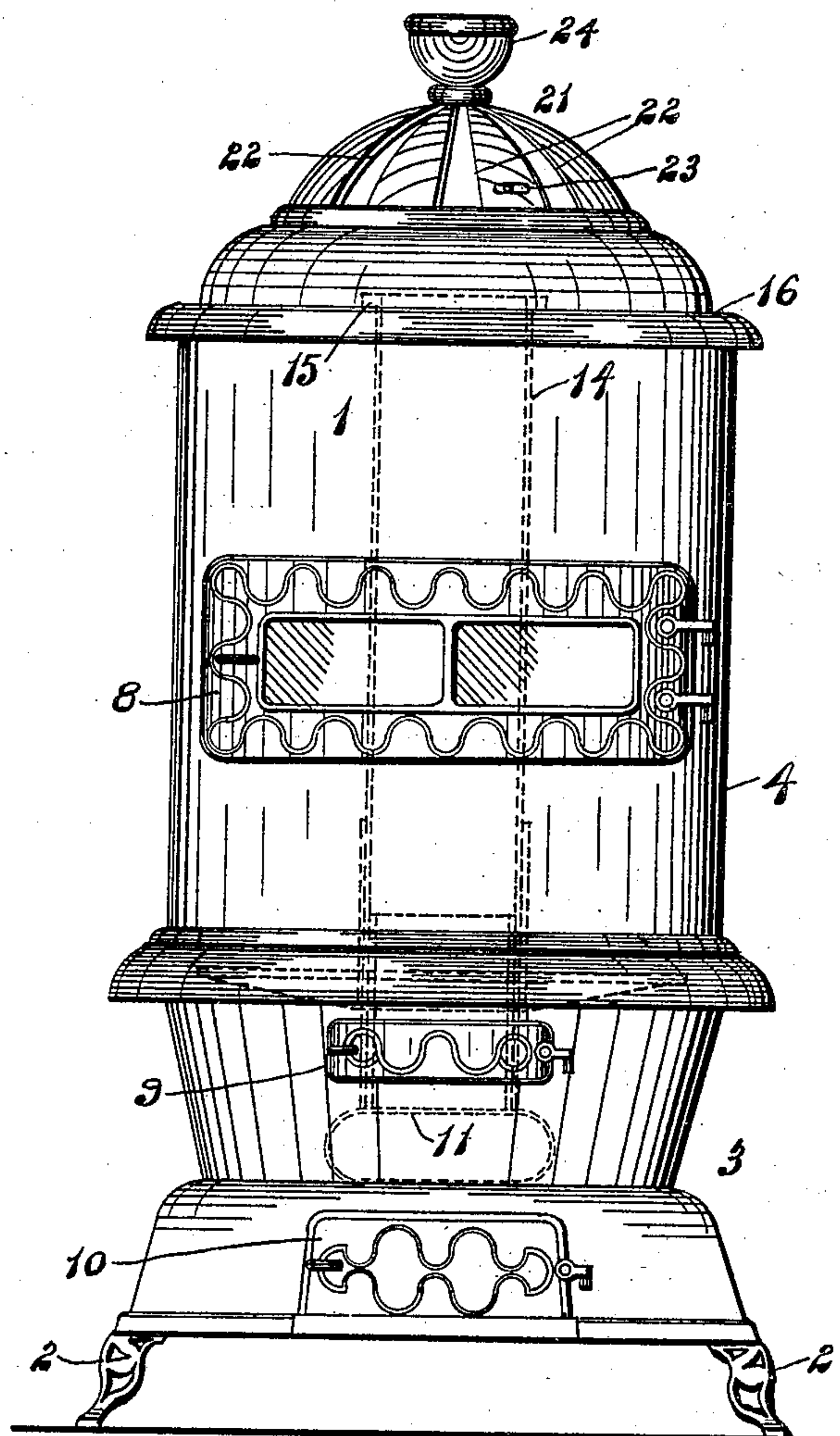


FIG. 1.

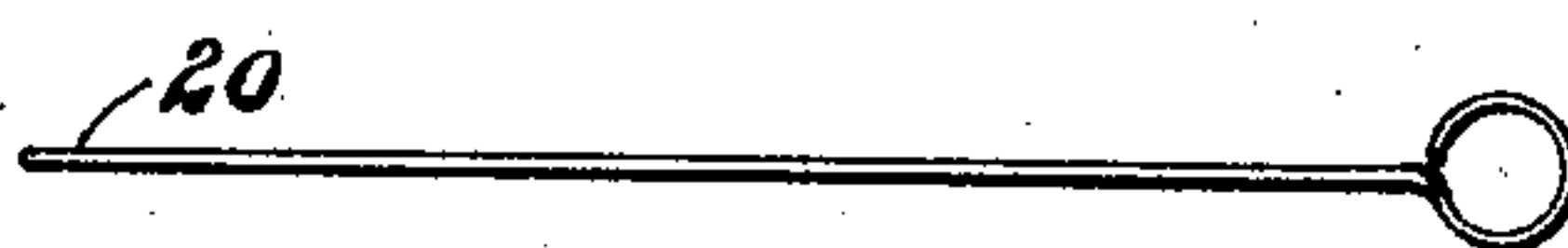


FIG. 2.

WITNESSES

Frederick Germann

Ethel B. Reed

INVENTOR

L. W. HAMMOND,

BY

Russell M. Everett
ATTORNEY.

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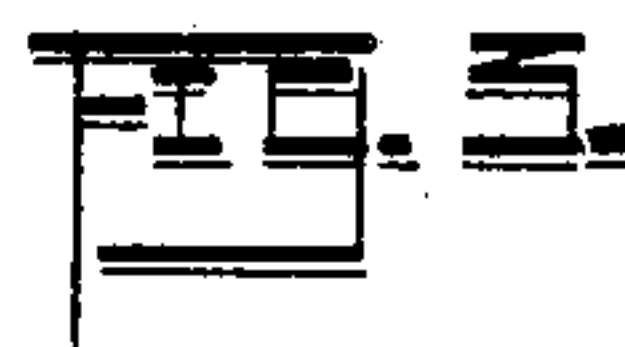
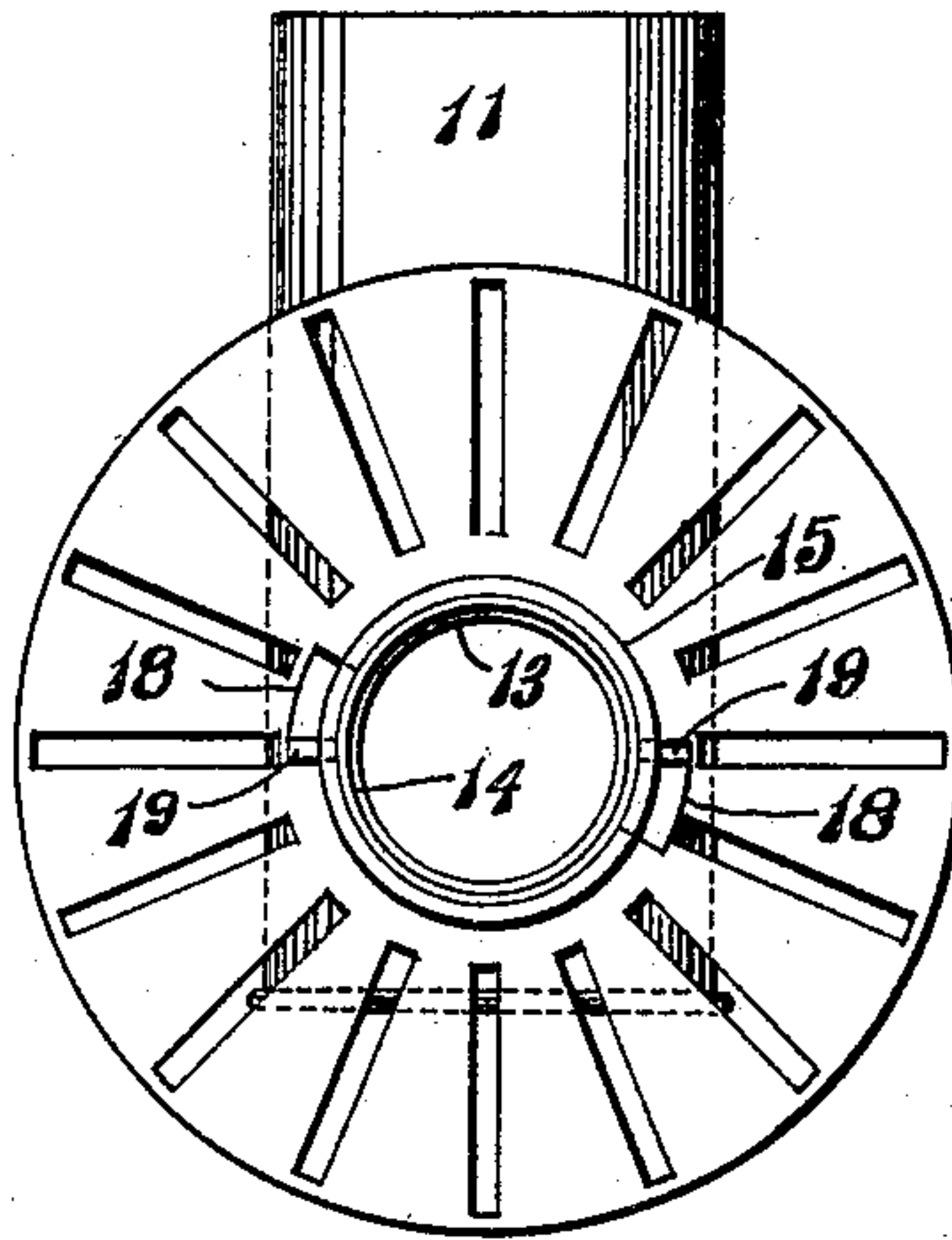
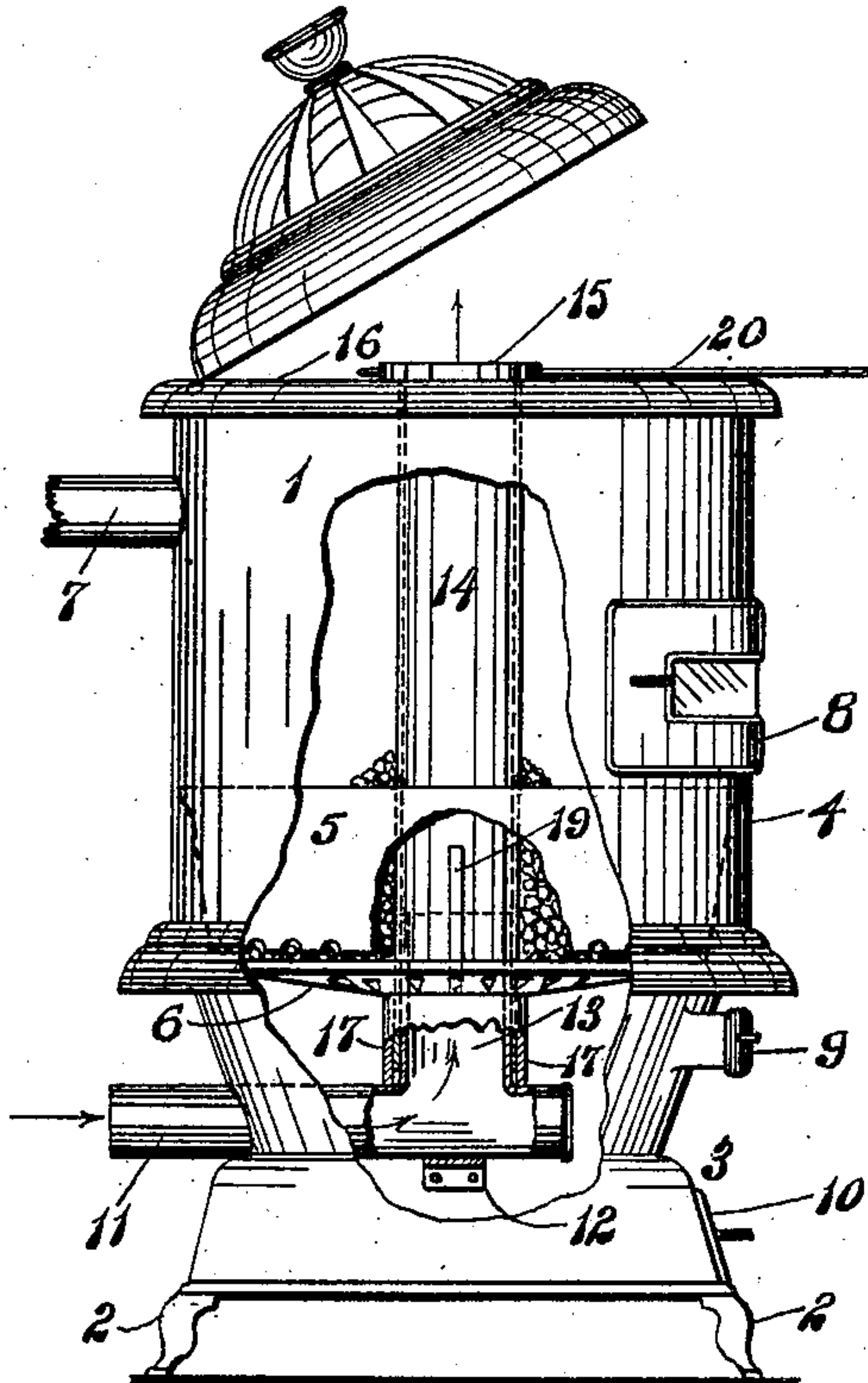
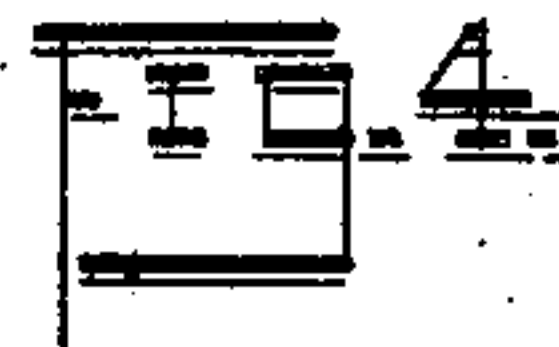
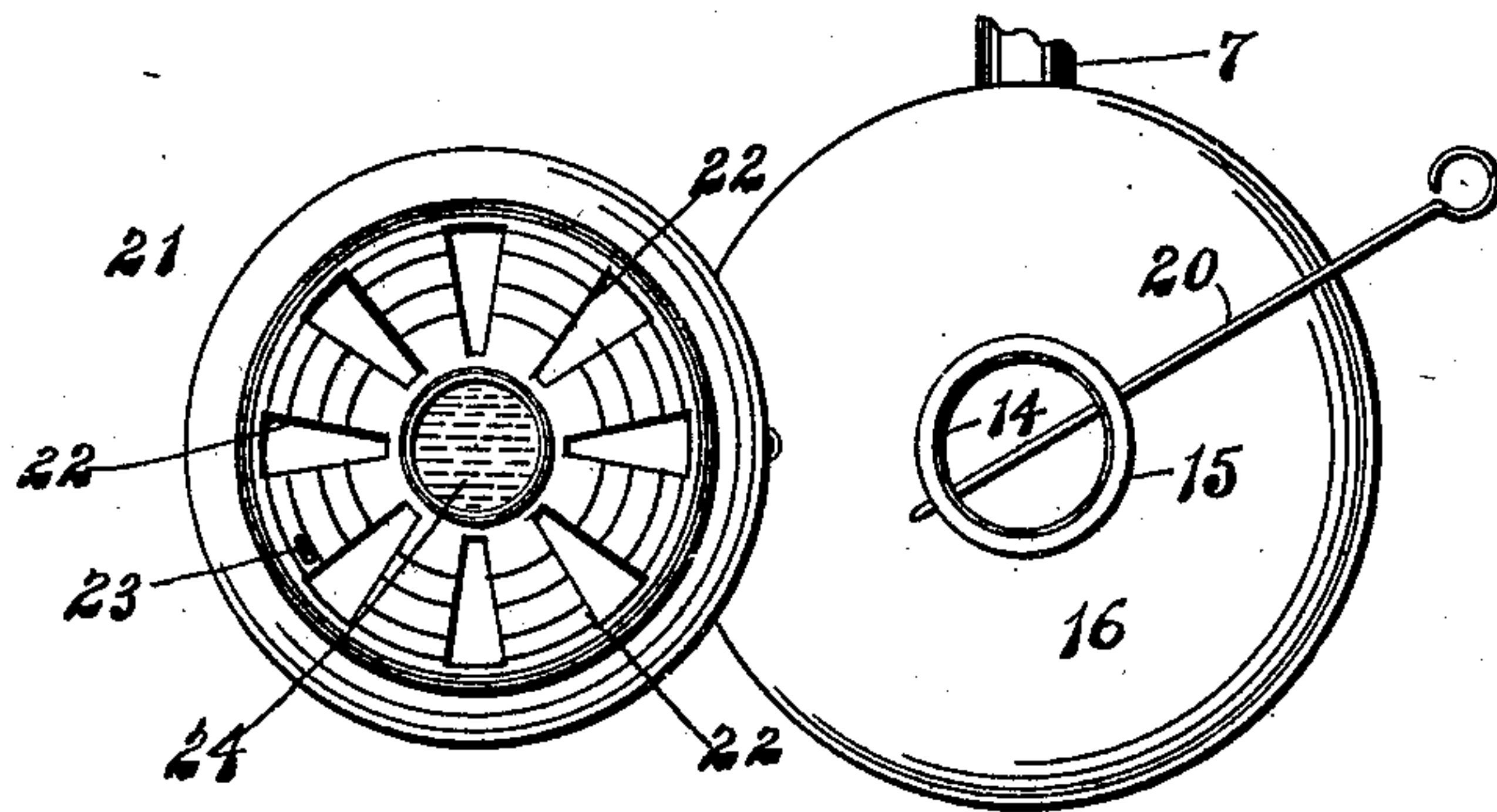
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WITNESSES

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LEANDER W. HAMMOND,

BY

Russell W. Everett,
ATTORNEY.

UNITED STATES PATENT OFFICE.

LEANDER W. HAMMOND, OF NORTH PLAINFIELD, NEW JERSEY, ASSIGNOR OF ONE-HALF TO
LOUIS MOLEDEZKY, OF PLAINFIELD, NEW JERSEY.

STOVE.

No. 877,190.

Specification of Letters Patent.

Patented Jan. 21, 1908.

Application filed December 26, 1906. Serial No. 349,500.

To all whom it may concern:

Be it known that I, LEANDER W. HAMMOND, a citizen of the United States, residing at North Plainfield, in the county of Somerset and State of New Jersey, have invented certain new and useful Improvements in Stoves, of which the following is a specification.

The objects of the invention are to utilize in a parlor stove the heat at the center portion of the fire, or point from which it usually has little chance to radiate; to provide for this purpose a central tube or flue and means for keeping the fire bright and clean against said tube; to provide improved means for supporting the grate, and for supplying cold air to said central tube; to enable the said grate to be shaken by means of the said central tube, and from its top; to thus secure great convenience and economy in the use of the stove; to provide a simple durable construction and to obtain other advantages and results as may be brought out in the following description.

Referring to the accompanying drawings in which like numerals of reference indicate corresponding parts in each of the several drawings, Figure 1 is a front elevation of a stove of my improved construction, and Fig. 2 is a view of a certain shaking poker adapted to be employed therewith; Fig. 3 is a side elevation of a stove variously broken away in parts to disclose the interior construction more fully; Fig. 4 is a plan of the stove with the ornamental top or cover swung away therefrom, and Fig. 5 is a detail plan of the grate in connection with the central air-flue or tube.

In said drawings, 1 indicates the outer body portion of my improved stove which may be of any approved construction of cast or sheet iron, having feet 2 and ash pit 3, and an upper cylindrical portion 4 to contain the fire-pot 5 and provide space for a combustion chamber above. A smoke pipe 7 leads from the rear of said upper cylindrical part 4, and at its front is a large door 8 for the insertion of fuel, other lower doors 9 and 10 being provided in the ash-pit.

At the back of the ash-pit 3 and about midway of its height so as to provide space beneath for the usual ash-pan, (not shown), an air supply duct or tube 11 enters horizontally, and is supported inside the stove by a transverse bar 12. The said tube 11, at a

point above the supporting bar 12, has a cylindrical upward extension 13 from its upper side, and this in turn receives telescopically the lower end of a tube or flue 14 which extends centrally and vertically up through the stove and out at its top. The upper end of said tube or flue 14 has an outer annular flange 15, which rests upon the closed top 16 of the upper cylindrical part 4 of the stove, so as to sustain the weight of the said tube or flue. Its lower end fits over the said extension 13, but loosely enough to permit independent turning without undue friction.

The grate 6 lies at the top of the ash-pit 3 above the air-pipe 11, and is free at its edges, being supported upon a collar or sleeve 17 outside the tube or flue 14, and resting at its lower edges upon the air supply duct 11. Said grate, it will be understood, is preferably loose with respect to said collar or sleeve 17, and also loose upon the central tube or flue 14, except so far as it has slots 18 in its central inner edges which receive fins 19 on the tube or flue 14. These fins 19 are fixed in longitudinal position upon the said flue 14, and project radially extending considerably above the grate 6, so as to reach upward through or nearly through the mass of coal piled upon said grate around the central flue. The slots 18 are considerably longer than the width of the longitudinal fins 19, so that there will be some lost motion before the grate is turned with the central flue.

It will be understood that in the operation of my improved stove, the fire is built upon the grate 6 around the center flue 14 and consequently said center flue is intensely heated, so that in addition to the warmth radiated from the outside of the stove, a current of intensely hot air is discharged from said flue at the top of the stove. The said flue is provided at its projecting top portion, with a seat or socket to receive the end of a shaking poker 20, which when inserted, as shown in Figs. 3 and 4, can be powerfully utilized as a lever to rotate the said tube or flue 14. Such rotation by reason of the fins 19, loosens all the ashes next to the tube, and secures a clean coal surface. Further at every oscillation of the lever, the said fins at their lower parts, engage the ends of the slots 18 in the grate, and so rotate or shake the said grate with an appropriate jarring action. This combination of actions brings down the ashes very effectively, and secures a clean fire, with-

out it having been necessary for the operator to get down on his knees or bend his back, as is commonly necessary in shaking a stove from the bottom. It should be noted that
 5 one of the advantages of my construction is that the stove may be shaken from its top by a person standing upright.

Preferably an ornamental top or apex 21 for the stove is provided and pivotally hinged
 10 thereto in any ordinary manner well-known to the art. Said top is of open-work so as not to confine the heat, and if desired the openings 22 may be provided with a slide or damper 23 to close them. A water cup or recess
 15 24 may be mounted upon the top of this cover 21. It should also be noted that the fuel door of my stove is made large or wide enough to provide ample access at the sides of the central vertical flue.

20 Having thus described my invention, what I claim as new is;

1. In a stove, the combination with a grate, of an air-supply duct beneath said grate, a central flue extending from said duct up-
 25 ward beyond the grate, and means at the upper part of said flue for rotating the same.

2. In a stove, the combination with a grate, of an air-supply duct beneath said grate, a central flue extending from said duct upward
 30 beyond the grate and engaging the same to rotate it, and means at the upper part of said flue for turning the same.

3. The combination with a stove having a grate and a closed top 16, of a central flue extending from said grate through said top and
 35 being rotatable, and means at the end of said flue above said closed top for oscillating the same.

4. The combination with a stove having a
 40 grate and a closed top 16, of a central flue extending from said grate through said top and being rotatable, the end of said tube above the said closed top having opposite seats to receive a poker for shaking.

45 5. In a stove, the combination with a rotatable grate, of a bottom air-supply duct, a central flue extending through said grate, said grate and flue having one fins and the other notches receiving said fins but allowing

a measure of independent motion, and means 50 for rotating one of said parts so connected.

6. The combination with a stove, of a central vertical rotatable flue having outer fins upon its lower part, a grate around the lower
 55 part of said flue and being recessed to receive the said fins, means for independently supporting said grate and said flue and means for oscillating the flue.

7. In a stove, the combination of a bottom air-supply duct having an upward cylindrical
 60 extension, an annular grate having a sleeve depending around said cylindrical extension, a central flue seated at its lower end between said extension of the air-supply duct and sleeve of the grate, an upper bearing for said
 65 flue, and means for rotating the flue.

8. The combination with a stove, of a bottom air-supply duct having an upward cylindrical extension, a central vertical flue extending upward through the stove from said
 70 extension and rotatable with respect thereto, a collar or sleeve around the lower part of said tube and standing upon the air supply duct, an annular grate upon the top of said sleeve or collar and means for rotating said
 75 central vertical tube.

9. The combination with a stove, of a central vertical rotatable flue having longitudinal outer fins at its lower part, an annular grate surrounding the lower part of said tube
 80 or flue and having segmental notches or slots to receive said fins and allow lost motion with respect thereto, means for independently supporting said grate and said flue, and means for oscillating the flue from its top.
 85

10. In a stove, the combination of a central rotatable flue having longitudinal outer fins at its lower part, an annular grate surrounding the lower part of said flue and having
 90 segmental notches or slots to receive said fins and allow lost motion with respect thereto, and means at the upper part of said flue for oscillating the same.

LEANDER W. HAMMOND.

In the presence of—

FREDERICK GORMANN, Jr.,
 ETHEL B. REED.