C. L. DICKERMAN & W. NEWMAN.

GAS STOVE.

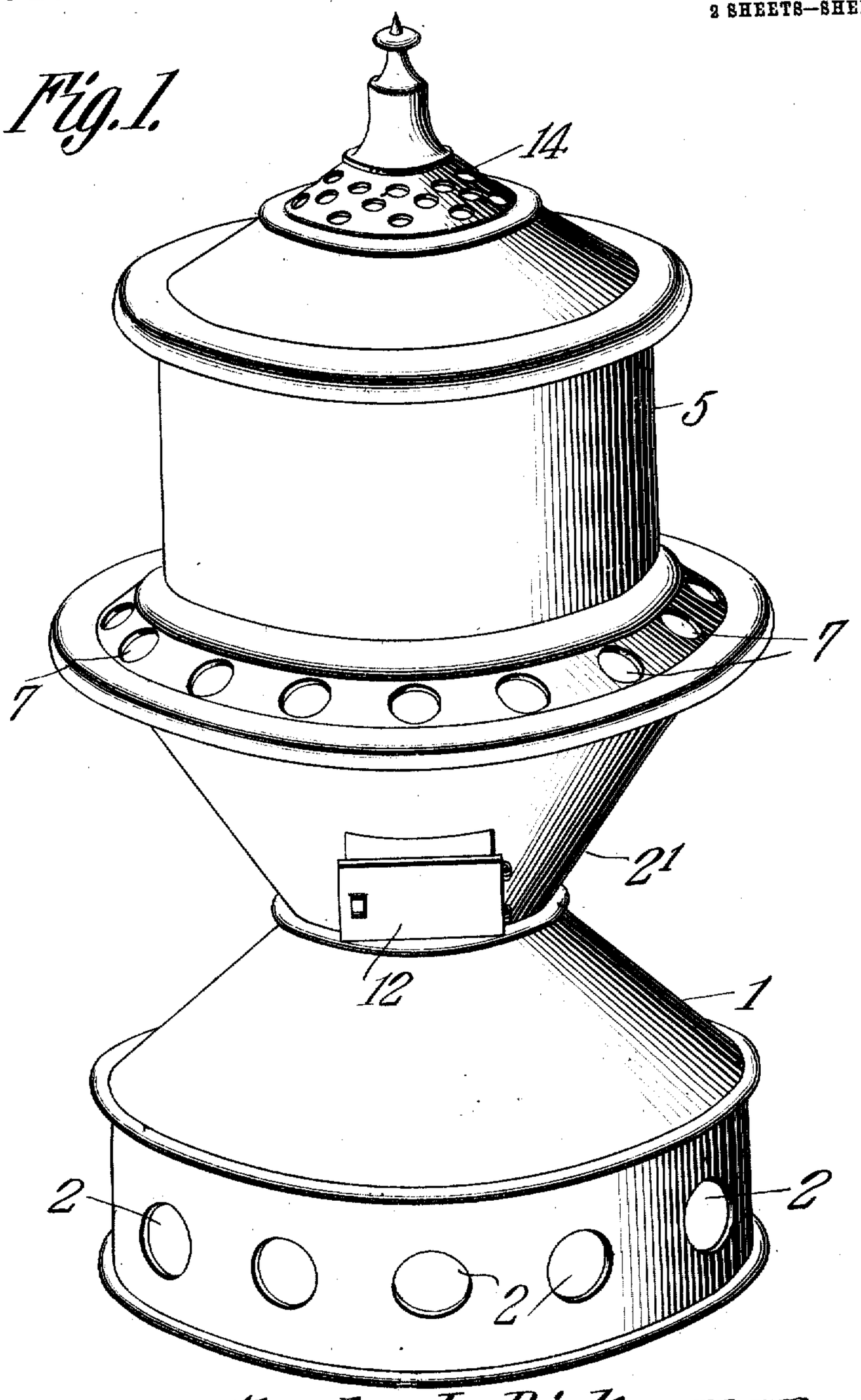
APPLICATION FILED JUNE 17, 1908.

Patented Jan. 5, 1909.

2 SHEETS—SHEET 1.

908,451.

Fig. 1.



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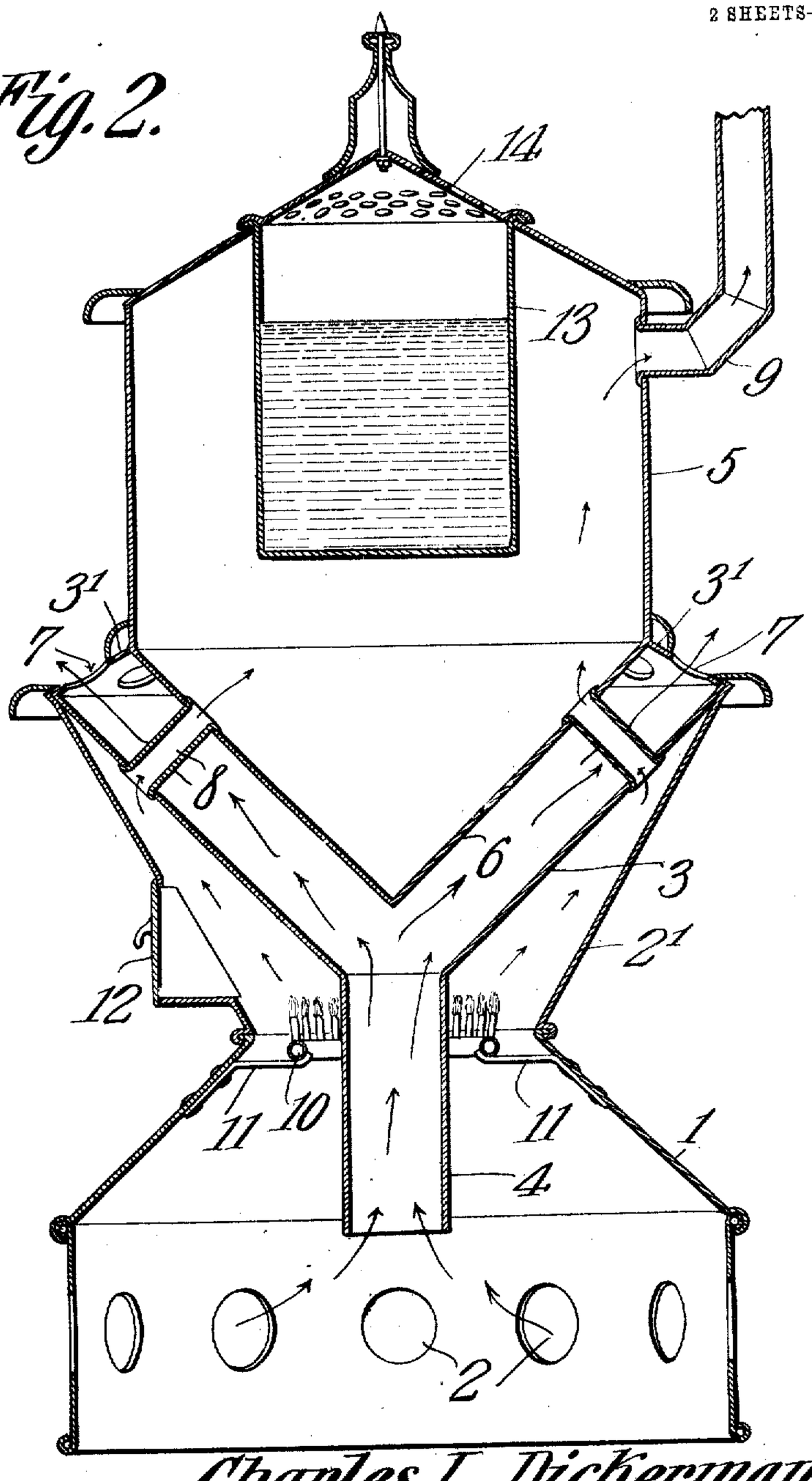
2 SHEETS—SHEET 2.

Fig. 2.



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UNITED STATES PATENT OFFICE.

CHARLES L. DICKERMAN AND WILSON NEWMAN, OF ARDMORE, OKLAHOMA.

GAS-STOVE.

No. 906,451. Specification of Letters Patent. Patented Jan. 5, 1909.

Application filed June 17, 1908. Serial No. 439,062.

To all whom it may concern:

Be it known that we, CHARLES L. DICKERMAN and WILSON NEWMAN, citizens of the United States, residing at Ardmore, in the county of Carter, State of Oklahoma, have invented a new and useful Gas-Stove, of which the following is a specification.

This invention relates to gas stoves, and has especial reference to that class of gas stoves which are constructed and arranged to radiate heat, and to distribute heated air into a room or apartment.

The object of this invention is to provide a gas stove with as large a radiating surface as possible and so constructed as to extract the greatest possible number of heat units from a cubic foot of gas.

A further object of the invention is to obtain a complete circulation of air and instantaneous heating and distribution of heated air, and to provide for the best suitable discharge of heated air into a room.

These objects are accomplished by a gas stove, constructed and arranged as hereinafter set forth and claimed.

Referring to the accompanying drawings:—Figure 1 is a view in elevation of a gas stove constructed in accordance with this invention. Fig. 2 is a vertical section thereof showing the interior construction of the stove.

The stove constructed in accordance with this invention consists of a suitable base 1, provided with openings 2, for the admission of cold air; a fire box 2′ having tapering or inclined sides; a conical radiator 3, mounted in the fire box 2′, and having a depending funnel 4, projecting down into the base 1, for the passage of cold air; and a heat radiating drum 5 mounted on the radiator 3, and having a conical heat radiating bottom 6, depending above the radiator 3, and forming therewith an inclined or tapering air chamber. The top of the radiator 3, which consists of an inclined annular strip 3′ connected to the drum 5 and facing upwards, is provided with openings 7 for the discharge of heated air. The fire box 2′ communicates with the hot air drum 5, by means of short tubes 8, mounted in the bottom 6 of the drum and in the radiator. The drum 5 is provided with an outlet pipe 9 for the discharge of fumes from the fire box. A circular burner 10 is mounted on brackets 11, on the base 1, and encircles the funnel 4, at its upper end. The fire box is provided with a door 12. In the top of the drum 5 is suspended a moisture vessel 13, concealed by a perforated cover 14.

The operation of the stove is as follows: Cold air enters the inlet openings 2, passes up the funnel 4, up the tapering chamber, between the bottom of drum 5, and the radiator 3 and out through the outlet openings 7. Air entering through the fire box is heated and passing up through the same, passes through the short tubes 8, into the drum 5. In the passage of the cold air up the tapering chamber between the heat radiating bottom 6 of the drum 5, and the radiator 3, it becomes instantly heated, and passing out through the openings 7, heated air is thereby discharged into the room or apartment. By having the openings 7 arranged as described, the heated air will be admitted to the room at points best suited to the comfort of persons seated or standing near the stove. It will be seen that with the heat radiating surfaces of the drum, the radiator, and the fire box, as large a heat radiating surface as possible is provided.

Having described the invention, we claim:

1. A gas stove consisting of a ventilating base, a cone shaped fire box with an open bottom surmounting the base, a cone shaped radiator mounted on the fire box and suspended therein, with an air inlet funnel depending in the base, a hot air drum surmounting the radiator, and having a cone-shaped bottom depending above the radiator, and forming therewith an air chamber having air outlet openings, and air passage tubes extending across said air chamber and connecting the fire box with the heating drum.

2. A gas stove consisting of a base chamber with air inlet openings, a fire box with tapering sides and open bottom surmounting said base chamber, a radiator with tapering sides mounted on and suspended in the fire box, and having an air inlet funnel suspended in the base chamber, and an annular inclined strip with air outlet openings facing upwards, at the top of the radiator, a hot air drum surmounting the radiator and having a cone shaped bottom depending above the same, and forming therewith an air chamber, and air passage tubes extending across said air chamber and connecting the hot air drum with the fire box.

3. A gas stove, consisting of a ventilating base, a fire box surmounting said base, a radiator suspended in the fire box, and having air outlets in its upper side, and an air inlet funnel in its bottom suspended in the fire box, and base, a hot air drum, surmounting the radiator and having a cone shaped bottom depending above the radiator, and forming therewith an air passage chamber, communicating with the air inlet funnel and the air outlets, and air passage tubes extending across said air chamber and connecting the hot air drum with the fire box.

4. A gas stove comprising a fire-box having air inlets, a drum having a conical bottom projecting into the fire-box, an inverted conical radiator interposed between the bottom of the drum and the walls of the fire-box, said radiator having an inlet for the reception of air to be heated, and means for conveying products of combustion from the space between the radiator and the walls of the fire-box to the interior of the drum said drum having an outlet, and being spaced from the radiator to form an air passage immediately over the fire-box.

5. A gas stove comprising a fire-box, a drum having a conical bottom extending thereinto, a conical radiator interposed between the bottom of the drum and the wall of the fire-box, said radiator having an inlet at the apex thereof and having its walls concentric with the bottom of the drum, means for conveying products of combustion from the space between the radiator and the walls of the fire-box to the interior of the drum, there being an annular series of outlets between the drum and the upper edge of the radiator, the drum being spaced from the radiator to form an air passage immediately over the fire-box.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

CHAS. L. DICKERMAN.
WILSON NEWMAN.

Witnesses:
CHARLEY BROWN,
G. W. DAY.