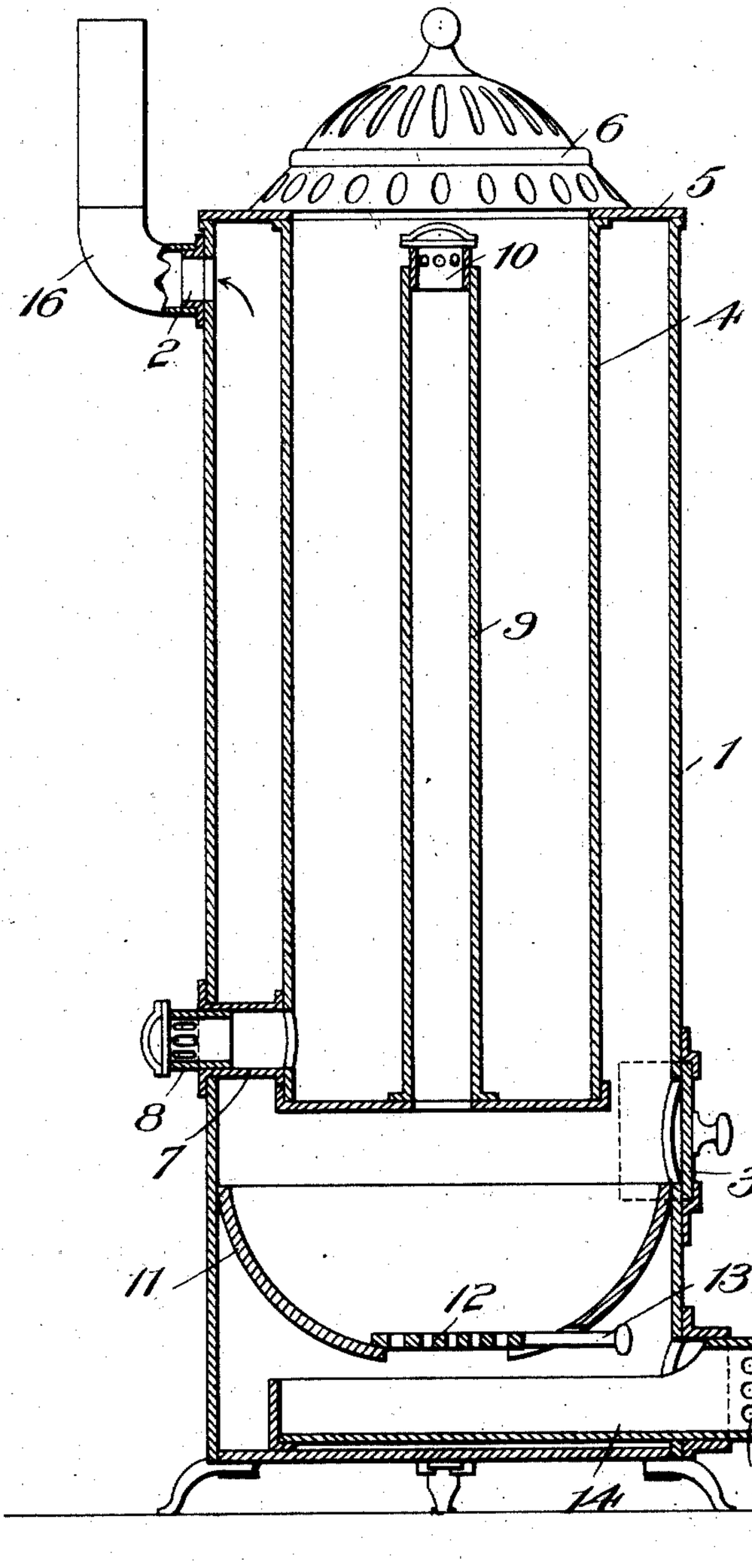
No. 864,864. PATENTED SEPT. 3, 1907.

I. B. SANDERS.

STOVE.

APPLICATION FILED NOV. 7, 1905.



Witnesses:
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UNITED STATES PATENT OFFICE.

IRA B. SANDERS, OF FORT WORTH, TEXAS.

STOVE.

No. 864,864. Specification of Letters Patent. Patented Sept. 3, 1907.

Application filed November 7, 1905. Serial No. 286,285.

To all whom it may concern:

Be it known that I, IRA B. SANDERS, a citizen of the United States, residing at Fort Worth, in the county of Tarrant and State of Texas, have invented a new and Improved Stove, of which the following is a specification.

This invention relates to stoves and more particularly to stoves provided with drums for increasing the amount of heat, and the object is to provide stoves with heating drums having means for increasing the circulation of the atmosphere therethrough and a plurality of radiating surfaces by which the amount of heat furnished by the fuel will be multiplied.

Other objects and advantages will be fully explained in the following description and the invention will be more particularly pointed out in the claims.

Reference is had to the accompanying drawings which form a part of this application and specification.

The view shown in the drawings is a vertical section of the stove body and drums and the fire bowl and ash pan.

The stove has a body portion 1, a pipe connection 2, and a door 3 of ordinary construction which may be a sliding door. A drum 4 is attached to the top 5 of the stove and hangs down within the stove. The drum 4 is open at the top and closed at the bottom except as hereinafter explained. The drum 4 may be provided with a cap 6 which is removable and the stove may be used with or without this cap as may be desired. The cap may be a casting and must have numerous perforations to permit the circulation of air through the drum 4. The air is let in at the lower part of drum 4 by means of a pipe connection 7 and damper or register 8. A central drum 9 is mounted in the drum 4 and the bottom of drum 4 is perforated so that heat may rise up in the drum 9. The drum 9 is provided with a damper or register 10 for opening or closing the top of the drum 9 as may be desired. A fire bowl 11 is attached to the inside of the stove body. A grate 12 is mounted at the lowest part of the fire bowl and provided with a handle 13 for agitating the grate. The stove is provided with an ash pan 14 which has perforations 15 near the outer end, thus adapting the ash pan for a register or damper. The stove body and the drums 4 and 9 are preferably made of sheet metal. The stove and drums or air-chambers 4 and 9 are also preferably cylindrical so that the adjacent surfaces will be concentric.

When a fire is made the register 15 is opened and the register 10 is closed. In this condition heat will circulate about the drum 4 and the smoke will escape up the pipe 16. Heat will also go up in the drum 9 but it will be reflected back downwards. When sufficient heat is obtained the register 15 may be closed and the register 10 opened or partly opened. In this condition the draft of air will not pass through the fuel or fire and thus save the fuel from undue combustion. The register 8 is generally open so that air will circulate within the drum 4 and about the drum 9 and rise upwards as it thus circulates. If too much heat is being produced the register 8 may be closed or partly closed. The amount of heated air may be entirely regulated by the register 8. The adjacent surfaces of the stove body 1 and the drum 4 radiate the heat back and forth and the adjacent surfaces of drum 4 and drum 9 radiate the heat back and forth, consequently the heat will be multiplied, as the heat and air circulate about and within the drums. The register 15 may be closed or partly closed as may be desired. The drum 4 occupies the central portion of the stove body and thus forces the flames from the fuel towards the cylindrical space just inside of the stove body and thus heat the outer walls or wall of the stove quicker than in stoves of ordinary construction.

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

1. A stove having an air chamber, a combustion chamber surrounding said air chamber, a drum in communication with said combustion chamber mounted in said air chamber, said drum and said chambers having the walls thereof concentric whereby each wall becomes a radiating surface, and independent means for regulating the drafts of each of said chambers and of said drum.

2. A stove having a fuel bowl, a combustion chamber in combination with said fuel bowl, an air chamber suspended in said combustion chamber and provided with means for regulating the draft of air therein, a heating drum in communication with said combustion chamber mounted in said air chamber, a draft register for said fuel bowl, and a draft-register for said heating drum.

In testimony whereof, I set my hand in the presence of two witnesses, this 19th day of October, 1905.

IRA B. SANDERS.

Witnesses:
A. L. JACKSON,
J. W. STITT.